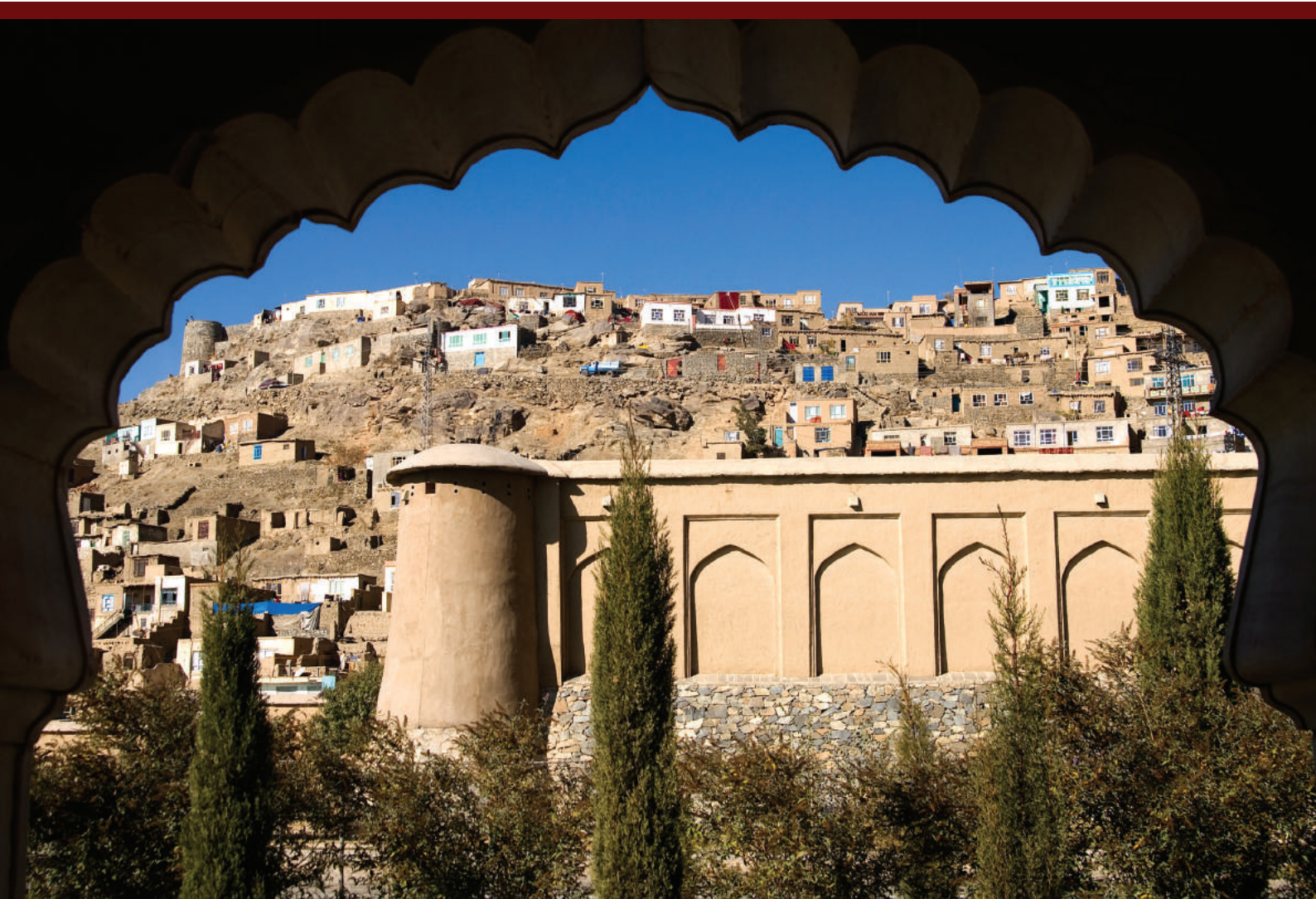




COLOMBO PLAN



AFGHANISTAN NATIONAL DRUG USE SURVEY 2015



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AFGHANISTAN FACT SHEET

Population Estimates

Population ¹	26,023,100–31,822,800
Urban Population	6,275,600–7,674,200
Rural Population	19,747,500–24,148,600
Adult Population (57.7% of Population) ²	15,015,329–18,361,756
Urban Adult Population	3,621,021–4,428,013
Rural Adult Population	11,394,308–13,933,742
Adult Male Population (51.2% of Adults) ²	7,687,848–9,401,219
Urban Male Population	1,853,963–2,267,143
Rural Male Population	5,833,885–7,134,076
Adult Female Population (48.8% of Adults) ²	7,327,480–8,960,537
Urban Female Population	1,767,058–2,160,871
Rural Female Population	5,560,422–6,799,666
Child Population (42.3% of Population) ³	11,007,771–13,461,044
Urban Child Population	2,654,579–3,246,187
Rural Child Population	8,353,193–10,214,858
Ethnic Groups ⁴	
Pashtun	42%
Tajik	27%
Hazara	9%
Uzbek	9%
Aimak	4%
Turkmen	3%
Baloch	2%
Others	4%
Languages ⁴	
Persian or Dari	50%
Pashto	35%
Turkic	11%
Minor languages	4%
Religions ⁴	
Sunni Muslim	80%
Shia Muslim	19%
Other	1%

¹ The two population estimates are derived from the Afghanistan Central Statistics Organization (lower estimate) and CIA World Factbook (upper estimate) for 2013–2014.

² CIA World Factbook estimate of child and adult population percentages.

³ Children are classified as individuals aged 0–14 years.

⁴ <https://www.cia.gov/library/publications/the-world-factbook/geos/af.html>.

AFGHANISTAN NATIONAL ESTIMATES OF DRUG POSITIVES¹

	Population	Adults	Men	Women	Children
ANY DRUG					
National	11.1%	12.8%	16.1%	9.5%	9.2%
Lower estimate ²	2,920,000	1,920,000	1,230,000	690,000	1,000,000
Upper estimate	3,570,000	2,350,000	1,500,000	850,000	1,220,000
Urban	5.3%	7.5%	10.6%	4.3%	2.3%
Lower estimate	320,000	260,000	190,000	70,000	60,000
Upper estimate	390,000	320,000	230,000	90,000	70,000
Rural	13.0%	14.5%	17.8%	11.2%	11.3%
Lower estimate	2,600,000	1,660,000	1,040,000	620,000	940,000
Upper estimate	3,180,000	2,030,000	1,270,000	760,000	1,150,000
OPIOIDS					
National	7.4%	8.5%	10.3%	6.7%	6.0%
Lower estimate	1,940,000	1,280,000	790,000	490,000	660,000
Upper estimate	2,370,000	1,560,000	960,000	600,000	810,000
Urban	2.6%	3.5%	4.6%	2.3%	1.3%
Lower estimate	150,000	120,000	80,000	40,000	30,000
Upper estimate	190,000	150,000	100,000	50,000	40,000
Rural	8.9%	10.1%	12.1%	8.1%	7.5%
Lower estimate	1,790,000	1,160,000	710,000	450,000	630,000
Upper estimate	2,180,000	1,410,000	860,000	550,000	770,000
CANNABIS					
National	3.4%	3.8%	6.1%	1.5%	2.9%
Lower estimate	910,000	590,000	470,000	110,000	320,000
Upper estimate	1,100,000	710,000	570,000	140,000	390,000
Urban	1.7%	2.4%	4.7%	0.1%	0.6%
Lower estimate	110,000	90,000	80,000	< 10,000	20,000
Upper estimate	120,000	100,000	100,000	< 10,000	20,000
Rural	3.9%	4.2%	6.6%	2.0%	3.6%
Lower estimate	800,000	500,000	390,000	110,000	300,000
Upper estimate	980,000	610,000	470,000	140,000	370,000
BENZODIAZEPINES					
National	0.8%	1.4%	1.4%	1.4%	0.1%
Lower estimate	230,000	220,000	120,000	100,000	10,000
Upper estimate	270,000	260,000	130,000	130,000	10,000
Urban	1.0%	1.7%	2.0%	1.4%	0.1%
Lower estimate	60,000	60,000	40,000	20,000	< 10,000
Upper estimate	70,000	70,000	40,000	30,000	< 10,000
Rural	0.8%	1.3%	1.3%	1.4%	0.1%
Lower estimate	170,000	160,000	80,000	80,000	< 10,000
Upper estimate	200,000	190,000	90,000	100,000	10,000

¹ The estimates are based on the rate of drug positives from the urban and rural surveys. Some individuals, especially the majority of children, are not users but are positive from adult drug use in the home.

² The two population estimates are derived from the Afghanistan Central Statistics Organization (lower estimate) and CIA World Factbook (upper estimate) for 2013–2014.

AFGHANISTAN NATIONAL ESTIMATES OF DRUG POSITIVES¹

	Population	Adults	Men	Women	Children
BARBITURATES					
National	0.2%	0.2%	0.3%	0.1%	0.3%
Lower estimate ²	50,000	20,000	20,000	< 10,000	30,000
Upper estimate	70,000	40,000	30,000	< 10,000	40,000
Urban	0.3%	0.4%	0.7%	0.2%	0.2%
Lower estimate	10,000	10,000	10,000	< 10,000	< 10,000
Upper estimate	20,000	20,000	20,000	< 10,000	< 10,000
Rural	0.2%	0.1%	0.2%	0.1%	0.3%
Lower estimate	40,000	10,000	10,000	< 10,000	30,000
Upper estimate	50,000	20,000	10,000	< 10,000	30,000
ALCOHOL					
National	0.1%	0.2%	0.1%	0.3%	0.1%
Lower estimate	30,000	30,000	< 10,000	30,000	< 10,000
Upper estimate	40,000	40,000	10,000	30,000	< 10,000
Urban	0.3%	0.4%	0.3%	0.5%	0.1%
Lower estimate	10,000	10,000	< 10,000	< 10,000	< 10,000
Upper estimate	20,000	20,000	< 10,000	10,000	< 10,000
Rural	0.1%	0.1%	0.0%	0.3%	< 0.1%
Lower estimate	20,000	20,000	< 10,000	20,000	< 10,000
Upper estimate	20,000	20,000	< 10,000	20,000	< 10,000
AMPHETAMINE-TYPE STIMULANTS					
National	0.3%	0.5%	0.9%	0.1%	0.1%
Lower estimate	80,000	70,000	60,000	< 10,000	10,000
Upper estimate	100,000	90,000	80,000	< 10,000	10,000
Urban	< 0.1%	< 0.1%	< 0.1%	0.0%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Rural	0.4%	0.6%	1.1%	0.1%	0.1%
Lower estimate	80,000	70,000	60,000	< 10,000	< 10,000
Upper estimate	100,000	90,000	80,000	< 10,000	10,000
OTHER DRUG CLASSES					
National	< 0.1%	0.1%	0.1%	< 0.1%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Urban	0.0%	0.0%	0.0%	0.0%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Rural	< 0.1%	0.1%	0.1%	0.1%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000

¹ The estimates are based on the rate of drug positives from the urban and rural surveys. Some individuals, especially the majority of children, are not users but are positive from adult drug use in the home.

² The two population estimates are derived from the Afghanistan Central Statistics Organization (lower estimate) and CIA World Factbook (upper estimate) for 2013–2014.

AFGHANISTAN NATIONAL ESTIMATES OF DRUG USE¹

	Population	Adults	Men	Women	Children
ANY DRUG					
National	7.3%	12.8%	16.1%	9.5%	0.8%
Lower estimate ²	2,010,000	1,920,000	1,230,000	690,000	90,000
Upper estimate	2,460,000	2,350,000	1,500,000	850,000	110,000
Urban	4.4%	7.5%	10.6%	4.3%	0.2%
Lower estimate	270,000	260,000	190,000	70,000	< 10,000
Upper estimate	330,000	320,000	230,000	90,000	< 10,000
Rural	8.2%	14.5%	17.8%	11.2%	1.0%
Lower estimate	1,740,000	1,660,000	1,040,000	620,000	80,000
Upper estimate	2,130,000	2,030,000	1,270,000	760,000	100,000
OPIOIDS					
National	4.9%	8.5%	10.3%	6.7%	0.6%
Lower estimate	1,340,000	1,280,000	790,000	490,000	60,000
Upper estimate	1,630,000	1,560,000	960,000	600,000	70,000
Urban	2.0%	3.5%	4.6%	2.3%	0.1%
Lower estimate	120,000	120,000	80,000	40,000	< 10,000
Upper estimate	150,000	150,000	100,000	50,000	< 10,000
Rural	5.7%	10.1%	12.1%	8.1%	0.7%
Lower estimate	1,220,000	1,160,000	710,000	450,000	60,000
Upper estimate	1,480,000	1,410,000	860,000	550,000	70,000
CANNABIS					
National	2.2%	3.8%	6.1%	1.5%	0.2%
Lower estimate	620,000	590,000	470,000	110,000	30,000
Upper estimate	740,000	710,000	570,000	140,000	30,000
Urban	1.4%	2.4%	4.7%	0.1%	< 0.1%
Lower estimate	90,000	90,000	80,000	< 10,000	< 10,000
Upper estimate	100,000	100,000	100,000	< 10,000	< 10,000
Rural	2.4%	4.2%	6.6%	2.0%	0.3%
Lower estimate	530,000	500,000	390,000	110,000	30,000
Upper estimate	640,000	610,000	470,000	140,000	30,000
BENZODIAZEPINES					
National	0.8%	1.4%	1.4%	1.4%	< 0.1%
Lower estimate	220,000	220,000	120,000	100,000	< 10,000
Upper estimate	260,000	260,000	130,000	130,000	< 10,000
Urban	1.0%	1.7%	2.0%	1.4%	< 0.1%
Lower estimate	60,000	60,000	40,000	20,000	< 10,000
Upper estimate	70,000	70,000	40,000	30,000	< 10,000
Rural	0.7%	1.3%	1.3%	1.4%	< 0.1%
Lower estimate	160,000	160,000	80,000	80,000	< 10,000
Upper estimate	190,000	190,000	90,000	100,000	< 10,000

¹ Adults, Men, and Women user estimates are the same as drug positives. Children estimates are 9% of drug positives based on the criteria outlined in the report.

² The two population estimates are derived from the Afghanistan Central Statistics Organization (lower estimate) and CIA World Factbook (upper estimate) for 2013–2014.

AFGHANISTAN NATIONAL ESTIMATES OF DRUG USE¹

	Population	Adults	Men	Women	Children
BARBITURATES					
National	0.1%	0.2%	0.3%	0.1%	< 0.1%
Lower estimate ²	20,000	20,000	20,000	< 10,000	< 10,000
Upper estimate	40,000	40,000	30,000	< 10,000	< 10,000
Urban	0.2%	0.4%	0.7%	0.2%	< 0.1%
Lower estimate	10,000	10,000	10,000	< 10,000	< 10,000
Upper estimate	20,000	20,000	20,000	< 10,000	< 10,000
Rural	0.1%	0.1%	0.2%	0.1%	< 0.1%
Lower estimate	10,000	10,000	10,000	< 10,000	< 10,000
Upper estimate	20,000	20,000	10,000	< 10,000	< 10,000
ALCOHOL					
National	0.1%	0.2%	0.1%	0.3%	< 0.1%
Lower estimate	30,000	30,000	< 10,000	30,000	< 10,000
Upper estimate	40,000	40,000	10,000	30,000	< 10,000
Urban	0.2%	0.4%	0.3%	0.5%	< 0.1%
Lower estimate	10,000	10,000	< 10,000	< 10,000	< 10,000
Upper estimate	20,000	20,000	< 10,000	10,000	< 10,000
Rural	0.1%	0.1%	0.0%	0.3%	< 0.1%
Lower estimate	20,000	20,000	< 10,000	20,000	< 10,000
Upper estimate	20,000	20,000	< 10,000	20,000	< 10,000
AMPHETAMINE-TYPE STIMULANTS					
National	0.3%	0.5%	0.9%	0.1%	< 0.1%
Lower estimate	70,000	70,000	60,000	< 10,000	< 10,000
Upper estimate	90,000	90,000	80,000	< 10,000	< 10,000
Urban	< 0.1%	< 0.1%	< 0.1%	0.0%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Rural	0.3%	0.6%	1.1%	0.1%	< 0.1%
Lower estimate	70,000	70,000	60,000	< 10,000	< 10,000
Upper estimate	90,000	90,000	80,000	< 10,000	< 10,000
OTHER DRUG CLASSES					
National	< 0.1%	< 0.1%	< 0.1%	< 0.1%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Urban	0.0%	0.0%	0.0%	0.0%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Rural	< 0.1%	0.1%	0.1%	0.1%	0.0%
Lower estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
Upper estimate	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000

¹ Adults, Men, and Women user estimates are the same as drug positives. Children estimates are 9% of drug positives based on the criteria outlined in the report.

² The two population estimates are derived from the Afghanistan Central Statistics Organization (lower estimate) and CIA World Factbook (upper estimate) for 2013–2014.

Glossary

Alcohol: A class of chemicals that includes methyl alcohol, isopropyl alcohol, and ethanol. All alcohols are used for a variety of purposes such as cleaning and sterilization. Ethanol is the only form of alcohol that is safe for consumption, and it is used in pharmaceutical formulations and found in alcoholic beverages. Ethanol is used legally in many countries and can be abused. In this study, the term alcohol refers to ethanol.

Amphetamine-Type Stimulants: The class of drugs comprising synthetic stimulants that include amphetamine, methamphetamine, methcathinone, and ecstasy-like substances such as methylenedioxymethamphetamine (MDMA) and its analogues. Used to treat sleep, weight, or attention-deficit disorders, this class is known to be abused.

Barbiturates: A pharmaceutical depressant such as phenobarbital used to produce sedation and anesthesia and known to be abused.

Benzodiazepines: A pharmaceutical anti-anxiety agent such as Valium used to produce relaxation that are known to be abused.

Charas: A name given to hashish, a form of cannabis that is made from the resins of the cannabis plant. The prior UNODC reports on Afghanistan drug use utilize the term hashish, not charas.

Codeine: A natural opioid product of the poppy plant that is also sold as a pharmaceutical to treat pain in combination with other medications such as Tylenol 3. It is also sold in cough syrup and known to be abused.

Demand Reduction: A policy to reducing the public desire and use of illicit drugs by promotion prevention, education and treatment programs.

Drug-Positive Rates: The percent of the population that tested positive for the presence of drugs in hair, urine, and/or saliva. A drug-positive result may not indicated the source or reason such drugs are present in the sample, only that it is present in a measurable and quantified amount.

Drug Test Panel: A laboratory test that includes a number of drug classes such as amphetamines, barbiturates, benzodiazepines, opioids, and others to screen for a wide variety of drug use.

Drug Treatment: Drug addiction treatment can include behavioral therapy (such as counseling, cognitive therapy, or psychotherapy), medications, or their combination. Treatment can occur in a variety of settings, in many different forms, and for different lengths of time.

Drug Use: The use of illicit or pharmaceutical drugs. Use simply means that the drugs are present in the individuals and does not indicate abuse or addiction.

Drug-Use Rates: The percent of the population that tested positive for the presence of drugs in hair, urine, and/or saliva because of active or intentional drug use. Drug use does not mean drug abuse; drug abuse requires clinical evaluation and determination.

Hashish: A name given to a form of cannabis that is made from the resins of the cannabis plant. Hashish is also referred to as charas in Afghanistan.

Heroin: A synthetic opioid made from the opium plant that is a preferred drug of abuse among opioid addicts because it produces a more rapid and intense effect.

Household: A dwelling where one or many families live together. This was used as the common denominator for the random selection process.

Methamphetamine: A pharmaceutical stimulant rarely used medically and most often made illegally, it is very commonly abused.

Opiates: An older term for opium products now replaced by “opioids.”

Opioids: The conventional term that includes any naturally occurring opium product such as morphine, semi-synthetics like oxycodone, or full synthetics like methadone.

Pharmaceutical Drugs: Drugs that are manufactured and distributed by ethical pharmaceutical companies and pharmacies. Examples found in the study are propoxyphene, diazepam, codeine, and barbiturates.

Poly-drug Use: Use or abuse of more than one drug by an individual.

Prevalence: Rate of use of a drug by individuals or households calculated by random sampling of a population.

Provincial Capital: An urban center and provincial seat of government.

Rural Area: Large and isolated areas of an open country with low population density

Self-Report: Individual responses to questions asked by trained interviewers from a set of standardized set of drug use and other questions.

Urban Center: The central part of a city or town with a high population density and core economic activity.

EXECUTIVE SUMMARY

AFGHANISTAN NATIONAL DRUG SURVEY 2015

BACKGROUND

The Afghanistan National Drug Use Survey (ANDUS) was conducted by the United States Department of State, Bureau of International Narcotics and Law Enforcement Affairs (INL), with oversight by the Institutional Review Board of the Islamic Republic of Afghanistan's Ministry of Public Health. ANDUS is unique from earlier drug-use surveys in Afghanistan as it is the first large-scale national survey to use objective laboratory hair, saliva, and urine drug testing. The goal of the survey was to produce an objective assessment of drug use in the country of Afghanistan that will guide its government, the United States Department of State, and international communities in developing strategies for illicit drug demand reduction. The results of the survey can also be used to design culturally specific drug-abuse prevention and treatment programs in Afghanistan.

The survey was conducted in two phases and covers 24 of Afghanistan's 34 provinces. The first phase surveyed 11 provincial capitals ("urban survey") and the second phase surveyed 52 rural villages in 15 provinces ("rural survey"). Together, the surveys profile the nature and extent of urban, rural, and national drug use in Afghanistan.

METHODOLOGY

Hair, urine, and saliva were collected from 10,549 Afghans who consented to participate in the survey. These individuals were sampled from 2,757 randomly selected households in 11 urban centers and 52 rural villages. The survey protocols were submitted for Institutional Review Board (IRB) oversight to the Afghanistan Ministry of Health and American Institutional Review Boards. Confidentiality was and is being maintained to protect the identities of all participants.

More than 30,000 hair, urine, and saliva samples were tested for 10 different classes of drugs by an accredited research laboratory in the U.S. The samples were first screened by drug class. If the sample tested positive for a particular class of drug, that sample was analyzed by the appropriate analytical method to confirm the results and to identify the specific drugs and concentrations in the positive sample.

SURVEY RESULTS

Table 1 presents the national, urban, and rural household and population drug-positive rates. Household rates are based on a positive test from one or more individuals living in the same household. Population rates are based on the percent of individuals testing positive. Total population rates are derived by weighting the percent positives of men, women, and children (those 0–14 years of age) to their respective percentages of the population and combining the weighted percentages. Adult rates, for those 15 years of age and older, combine the weighted rates for men and women. The term "rate" when used alone refers to the mean percentage testing positive.

Table 2 presents the national, urban, and rural drug-use rates. Drug-positive adults are assumed to be drug users, but the same assumption cannot be made for

Table 1. Survey Results—Drug Positive Rates

	Urban	Rural	National
Household	11.4%	38.5%	30.6%
Population	5.3%	13.0%	11.1%
Adults	7.5%	14.5%	12.8%
Men	10.6%	17.8%	16.1%
Women	4.3%	11.2%	9.5%
Children	2.3%	11.3%	9.2%

Table 2. Survey Results—Drug Use Rates

	Urban	Rural	National
Population	4.4%	8.2%	7.3%
Men	10.6%	17.8%	16.1%
Women	4.3%	11.2%	9.5%
Children	0.2%	1.0%	0.8%

Table 3. Survey Results—Drug Positive Rates by Drug Class

	Urban	Rural	National
Any Drug	5.3%	13.0%	11.1%
Opioids	2.6%	8.9%	7.4%
Cannabis	1.7%	3.9%	3.4%
Benzodiazepines	1.0%	0.8%	0.8%
Barbiturates	0.3%	0.2%	0.2%
Alcohol	0.3%	0.1%	0.1%
Amphetamine-Type Stimulants	< 0.1%	0.4%	0.3%
Other Drugs	0.0%	< 0.1%	< 0.1%

children. Most of the children were found to be positive from exposure to drugs smoked by adults in the home or were given the drug, possibly for medicinal or behavior-control purposes. An inclusion and exclusion criteria was established for various opioid compounds detected in the hair, urine, and saliva of children. These criteria indicated no more than 9% of opioid-positive children may be active drug users. Extended to other drugs, 9% of children who tested positive are assumed to be possible drug users.

The national, urban, and rural drug-positive rates by drug class are presented in Table 3. The types of drugs used by rural and urban adult drug users do not differ significantly. The rates for rural and urban Afghan adults differ, and in some cases, the differences are significant. Opioids and cannabis are the drugs used the most throughout Afghanistan.

KEY FINDINGS:

- Nearly one-third (31%) of all households tested positive for one or more drugs. The rural household rate is more than three times higher: 39% rural compared to 11% urban.
- More than ten percent (11%) of the population tested positive for one or more drugs, with the rural population rate almost three times greater: 13% rural versus 5% urban.
- Approximately 13% of adults tested positive for one or more drugs. The rate for rural adults is almost two times higher: 15% rural compared to 8% urban. About 16% of men and 10% of women tested positive. Drug use among rural men is almost two times higher: 18% for rural men compared to 11% for urban men. Drug use among rural women is almost three times higher: 11% of rural women compared to 4% of urban women.
- Approximately 9% of Afghan children tested positive for one or more drugs. The percentage of rural children who tested positive is almost six times higher: 11% rural compared to 2% urban.

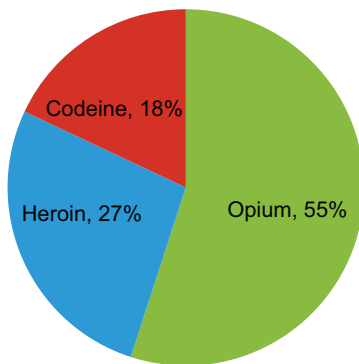
OPIOIDS

Opioids are the most prevalent class of drugs in Afghanistan. Opioid use is significantly higher in rural villages than in the urban centers (see maps). It is used in nearly one out of five Afghan households (19%). Opioids were detected in one quarter (25%) of all rural households and the rate is more than four times higher than among urban households (6%). Approximately 7% of the population tested positive for opioids with the rural rate approximately three times higher: 9% rural compared to 3% urban. Approximately 6% of children tested positive for opioids. The percentage of rural children who tested positive for opioids is approximately six times higher: 1.3% urban compared to 7.5% rural.

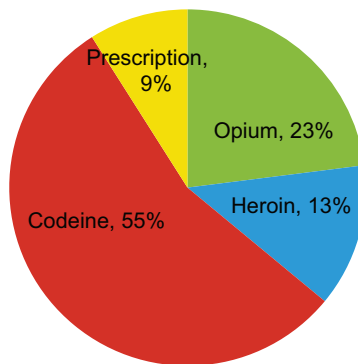
While drug tests alone cannot determine the origin of opioids or route of admin-

istration, the concentration and distribution of opioids in hair, saliva, and urine can be used to determine whether opium, heroin, and/or codeine was used. Differences in the types of opioids used by urban and rural adults and the types of opioids detected in children are indicated as shown in the Figure below.

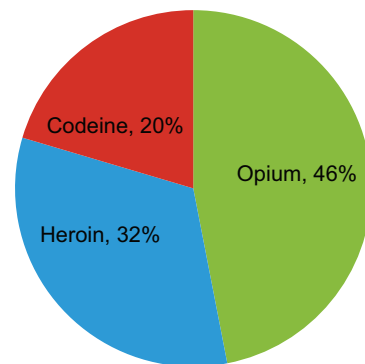
These data show that the types of opioids used by urban and rural male opioid users are generally similar, but most appear to be using opium, an opioid that predominantly contains morphine. A higher percentage of men than women use heroin, a drug manufactured from morphine. Urban women predominantly use an opioid that contains more codeine than morphine. Urban women use heroin, a drug manufactured from morphine. Urban women predominantly use an opioid that contains more codeine than morphine. Approximately the same percentages of rural men and women appear to be using an opioid predominantly containing codeine.



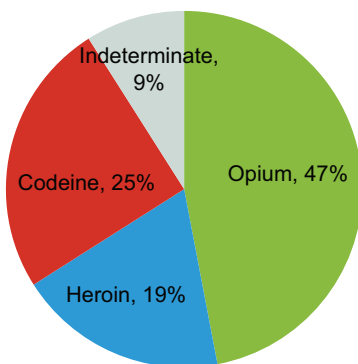
Urban Men



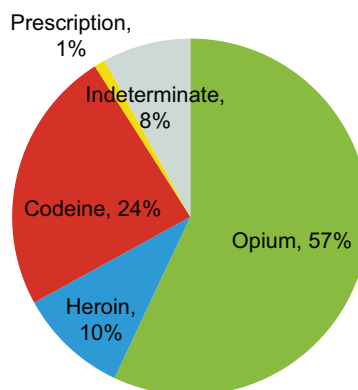
Urban Women



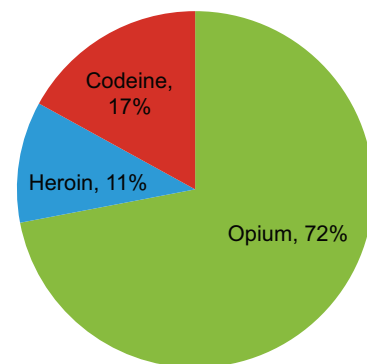
Urban Children



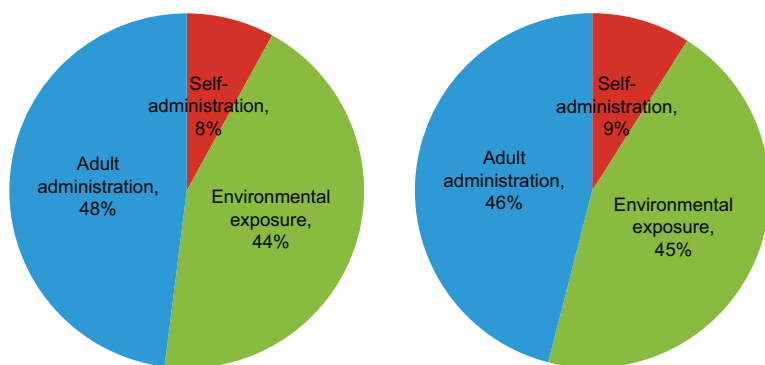
Rural Men



Rural Women

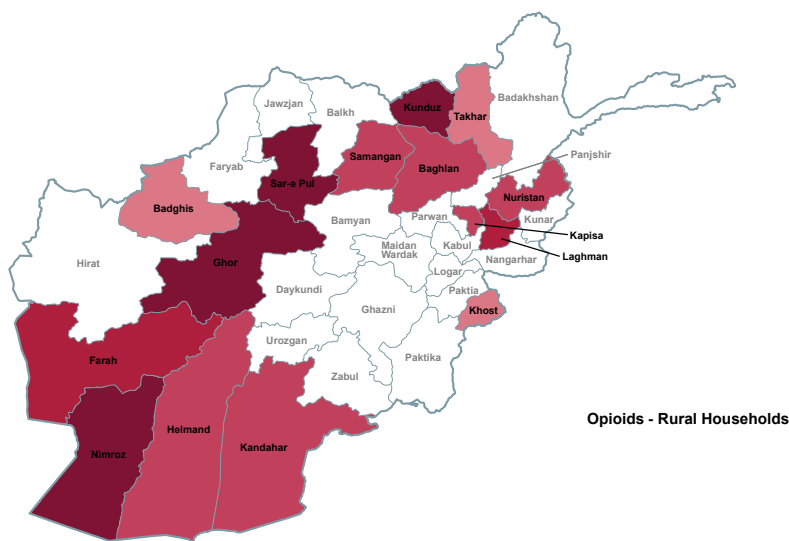
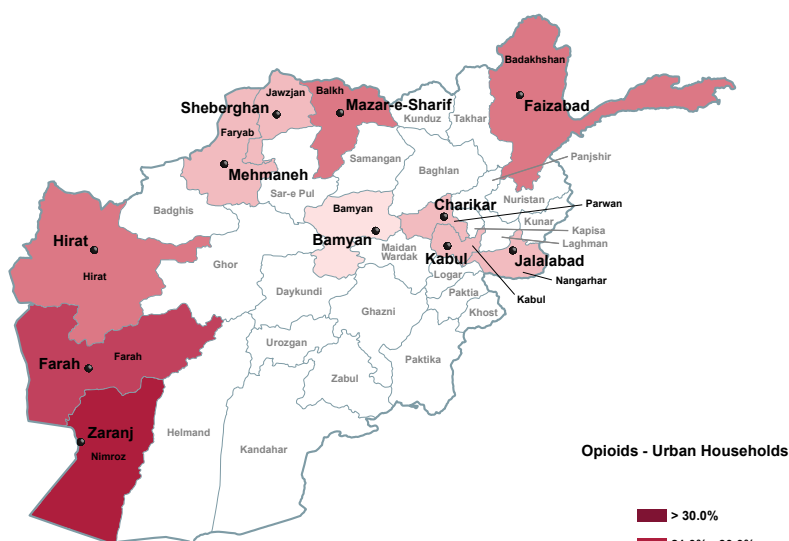


Rural Children



Urban Children

Rural Children



The children who tested positive did so either from use of exposure. A higher percentage of urban children than rural children tested positive for heroin. A similar percentage of urban and rural children tested positive for an opioid predominantly containing codeine.

The origin or form of the opioid that predominantly contains codeine is not known. Some possible sources could be pharmaceuticals containing codeine, byproducts of heroin manufacturing being sold as a low-grade form of opium, or other non-pharmaceutical-grade codeine medications. Further study and information would be needed to identify its origin.

The Figure (left) displays the percentage of children who tested positive from three sources: environmental exposure, adult administration, and self-administration (intentional use). The majority (> 90%) of urban and rural children tested positive from environmental exposure or from being given the drug by adults, most likely for analgesic and/or calming purposes. About 9% of children who tested positive met the criteria to be considered active users. In general, the classification used age and the concentration and distribution of opioids in hair, urine, or saliva. Children were identified as users if they were eight or older and tested positive with high levels of opioids in hair or any amount in urine or saliva. Children younger than eight years old who tested positive

for opioids at high levels in hair or any amount in their urine or saliva were presumed to be positive because they were administered the drug by adults. Children with low levels of opioids only in hair were presumed to be positive due to environmental exposure.

Whether children are users or are being exposed to the drug by adults, the rate and number of children testing positive for opioids is significant. The physiologically based pharmacokinetic (PBPK)

model suggests that morphine, an opioid compound, builds up in the brain and other organs, especially in younger children. Early childhood exposure to opioids could lead to significant future health problems including drug abuse.

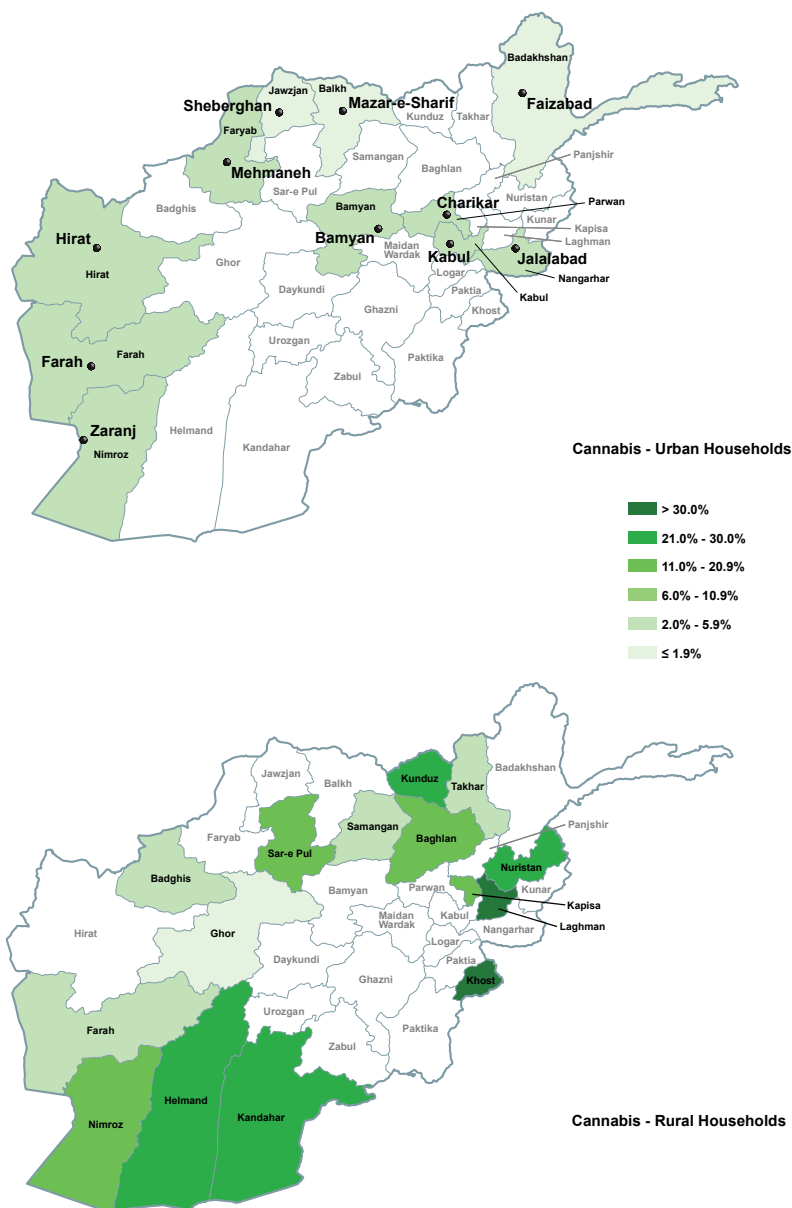
CANNABIS

Cannabis is the second-most prevalent drug in Afghanistan but at a rate lower than opioids. It was detected in 11% of households and 3% of the population (see maps, left).

Almost five times more rural than urban households tested positive for cannabis: 14% rural and 3% urban. The population rate is low at approximately 3%, but the rate is higher in rural Afghanistan: 4% rural and 2% urban.

Cannabis is used primarily by men. Cannabis use by women is low: it was detected in less than 1% of urban women and 2% of rural women.

Approximately 3% of children tested positive for cannabis. Six times more rural children tested positive for cannabis compared to urban children: rates were approximately 3.6% rural and 0.6% urban. The majority of these children most likely tested positive from environmental exposure.



BENZODIAZEPINES

Benzodiazepines are the third most detected drug type but at rates significantly lower than opioids or cannabis. The national household rate is approximately 5%, and the population rate is 1%. The rural household rate is higher than the urban rate, but the population rates for rural and urban are similar.

BARBITURATES

Barbiturate use is low. The national rate is approximately 1% of households and less than 1% of the population. The rural and urban rates are not significantly different.

ALCOHOL

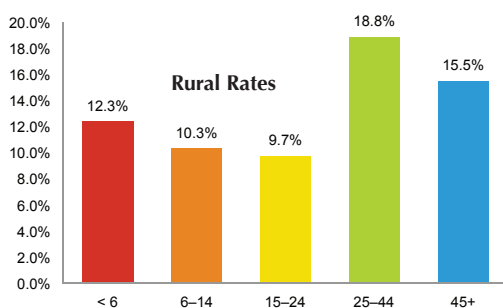
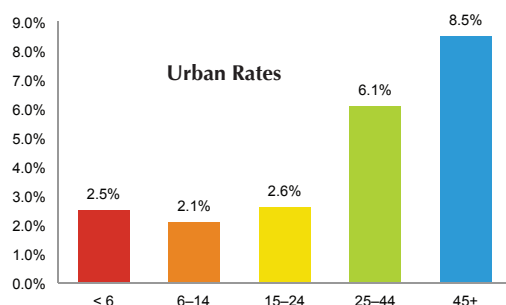
Alcohol use is very low in Afghanistan. It was detected in approximately 1% of households and less than 1% of the population. Though the rates are not significant, alcohol was detected more often among women than men.

AMPHETAMINE-TYPE STIMULANTS

Amphetamine-type stimulant (ATS) use is low and was detected in approximately 2% of households and less than 1% of the population. Although the rural rate is low, the ATS rural rate is higher at 2% while the urban rate is less than 1%. No urban children tested positive for ATS, but this drug class was detected in children in three rural villages.

AGE

The Figures below present the urban and rural use rates by the following age



groups: less than 6 years, 6-14 years, 15-24 years, 25-44 years, and 45 years and older.

The highest urban rate is among adults 45 and older, and among the rural population, the highest rate is among adults 25-44 years old. Afghans 15-24 years old have the lowest rate among both urban and rural adults.

Opioids are used mostly by urban and rural men and women 25 years and older. Cannabis is used the most by younger urban men who are 15-24 years old and rural men 25-44 years old. Benzodiazepines are used mostly by older urban men and women, those 45 years and older, and rural women who are 25-44 years old. ATS were detected more often among rural men who are 25-44 years old and among urban men 25 years and older.

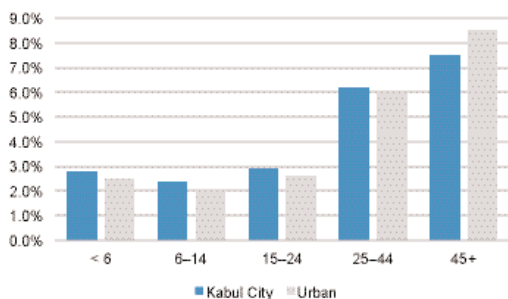
KABUL CITY

A total of 1,333 households from 16 police districts of Kabul City were sampled, and 3,225 people from those households were tested. The results for Kabul City are presented citywide and by quadrants of the city. The household and population rates by drug class for Kabul City are presented in Table 4. The urban and national rates are also presented for comparison. As shown by the table, the rates in Kabul are similar to the nationwide urban rates. This is due to Kabul City being the largest urban population center in Afghanistan where more than 50% of the country's total urban population lives.

Approximately 11% of households and 5% of Kabul's population tested positive for any drug use. Among men, approximately 10% tested positive for one or more drugs with a higher percentage testing positive for cannabis than opioids: 5% for cannabis compared to 4% for opioids. Among women, about 4% tested positive for one or more drugs, with opioids being detected the most often at approximately

Table 4. Survey Results—Kabul Drug Positive Rates

	Any Drug	Opioids	Cannabis	Benzodiazepines	Barbiturates	Alcohol	Amphetamines
Household	11.1%	5.0%	3.9%	2.4%	0.7%	0.8%	0.0%
Population	5.1%	2.3%	1.9%	1.0%	0.3%	0.2%	0.0%
Adults	6.9%	3.0%	2.5%	1.6%	0.3%	0.4%	0.0%
Men	9.9%	4.1%	4.9%	2.0%	0.4%	0.2%	0.0%
Women	3.7%	1.9%	0.1%	1.1%	0.2%	0.6%	0.0%
Children	2.6%	1.4%	0.9%	0.2%	0.2%	0.0%	0.0%



2%. Among children, approximately 3% tested positive for one or more drugs with opioids at approximately 1%.

Rates by age for Kabul are presented in the Figure above. Rates in Kabul are slightly higher than the rest of urban Afghanistan for all age groups except those 45 years and older. The percent positive among those 45 years and older is approximately 8% in Kabul compared to 9% for the entire urban population.

The rates by quadrant do not differ significantly within Kabul. The northeast quadrant of Kabul has a higher rate compared to the other three quadrants at approximately 13% of households, 6% of the population, and 8% of adults. The northwest quadrant rate is lower than the other three quadrants of Kabul at approximately 8% of households, 4% of the population, and 5% of adults.

SECOND- AND THIRD-HAND EXPOSURE TO OPIOIDS STUDY

A study was conducted between 2008 and 2011 to assess the potential consequences from women’s and children’s

exposure to second- and third-hand opioid smoke in the home. The term first-hand smoke refers to what is inhaled into the smoker’s own lungs. Second-hand smoke is a mixture of exhaled smoke and other substances leaving the smoldering end of the substance being smoked. Second-hand smoke enters the atmosphere and can be inhaled by others. Third-hand smoke is contamination on the surfaces of objects such as eating utensils, tables, bedding, and toys that remains after the second-hand smoke has cleared. Third-hand smoke can enter the body from absorption, through contact with the residue, or ingestion from hand-to-mouth transfer of the substance. Air in homes during active opioid smoking (second-hand smoke), as well as surface samples (third-hand smoke), and hair from residents of the home, were collected. The results are striking and show that children are being exposed to second- and third-hand opioid smoke, a significant public health risk.

The exposure risk was determined to be extremely high and resulted in remarkably high concentrations of opioids in infants and children. A PBPK model used the data collected from the study to simulate the possible outcome of prolonged exposure to morphine in children. The model suggests that the younger a child is during exposure, the more morphine concentrates in the brain and other vital organs.

The potential long-term health effects on children require additional study, but

measurable concentrations of morphine and possibly other opioid compounds in the brain and other tissues could be physiologically and developmentally devastating. A significant rate and number of children are also being exposed to adult cannabis use. The study shows the need for prevention programs to educate adults about the danger posed to children from smoking opioids and cannabis in the home. Treatment for children who have tested positive from exposure to adult opioid and cannabis use should be considered, especially for infants.

CONCLUSIONS

The Afghanistan National Drug Use Survey (ANDUS) is the largest laboratory-based drug-use survey in the world body of literature. The key findings and conclusions from the survey are important for improving the design and implementation of existing and future drug prevention and treatment programs in Afghanistan.

#1 Drug use is prevalent throughout Afghanistan with the highest rates of drug use occurring in rural villages.

Drug use occurs in approximately 31% of households with 11% of the population testing positive for one or more drugs. Rural drug use is significantly higher than in the urban centers. The rural household rate is almost four times higher (39% versus 11%) and the percentage of the population who tested positive is almost three times higher (13% versus 5%).

This is a startling and very important finding. It confirms previous interview-based surveys that found extensive drug use in Afghanistan, and now reports rates significantly higher than earlier estimates. This finding signals the need for immediate action to reduce drug use in Afghanistan, especially in the rural villages where the availability of prevention and treatment resources are currently limited.

This is a serious public health issue for children living in homes where drugs are used as well as a threat to the stability of

the basic family unit. Drug use also has long-term negative effects on the economic and social framework of Afghanistan. The consequences of drug use at the family level are clear and documented by the recent 2014 UNODC report "Impact of Drug Use on Users and their Families in Afghanistan".¹ This study states that 63.6% of drug users they interviewed reported a "...deterioration of family relationships, including fights, divorce or violence..." Focus groups conducted in this study also reported that "drug use caused family violence, affected children negatively and was one of the main reason for the collapse of family relationships among drug users."

Modern treatment programs focus on drug use not as an individual behavioral disorder but as a disease of the family. Members of the drug user's family should be involved and educated about the dangers of drug use and the treatment of the family member. Drug use is a learned behavior, often originally learned from family members and peers then passed on from one generation to the next. This may be especially significant in Afghanistan, where multi-generations and multi-families live in the same household.

Drug use is an acquired behavior that may first be seen, learned, or experienced at home. ANDUS suggests that children living in one-third of all Afghan households are seeing, learning, or experiencing adult drug use occurring in the home. This is in line with the UNODC report where it was noted that 45% of children report first using heroin at home, with 41% reporting they first obtained it from their parents. As such, home-based outreach programs and dissemination of drug prevention information in mosques, schools, and community centers need to be priorities in Afghanistan to protect children and prevent the spread of drug use from one generation to the next.

¹ http://www.unodc.org/documents/data-and-analysis/Studies/Impacts_Study_2014_web.pdf

The U.S. Drug Enforcement Administration (DEA) Educational Foundation organized a traveling anti-opium street theater in 2011–2012, and more than 120,000 Afghan children and adults visited the culturally appropriate performances.² This was a significant and successful step forward in community education on the dangers of opium use and needs to continue and expand throughout Afghanistan.

#2 Approximately 2.9 to 3.6 million Afghans could test positive for one or more drugs and 1.0 to 1.2 million of them are children. Of this total, approximately 1.9 to 2.4 million adults and 90,000 to 110,000 children could be drug users.

Approximately 13% of adults tested positive for one or more drugs and are assumed to be drug users. Among children, 9% tested positive for one or more drugs. Unlike adults, 91% of the children who were positive are innocent victims of adult drug use in the home.

The 13% rate of drug use among Afghan adults is twice the adult global average rate of drug use reported by the UNODC.³ The 2.9 to 3.6 million estimate of the number of Afghans who could be drug-positive is significant but not surprising because as much as 50% of the national GDP is related to opium poppy cultivation and the production of opium and heroin, with many Afghans employed in various positions/roles in the opium trade. In 2014, opium poppy cultivation rose to historically high levels, up 7% over 2013; production of opium and heroin rose 17%. In light of these statistics and Afghanistan's high non-opium-related unemployment and low literacy rates, drug use is likely to increase unless a long-term education, prevention, and treatment public service campaign is developed. This must start in the home, as noted above, be part of the curriculum in

² <http://www.deaeducationalfoundation.org/wp-content/uploads/2010/06/Informant-Winter-2013-Vol-7-No2.pdf>

³ <http://www.unodc.org/wdr2014/>

every school in Afghanistan, and be supported by continual community education events and media campaigns. The message of a “Drug-Free Afghanistan” must be consistent and flow through every aspect of life in Afghanistan: in homes, schools, workplaces, and in the community.

It is also important to note that drug use does not just affect the user: it affects everyone drug users come in contact with in their daily lives. It has been suggested that each drug user affects between five and 10 people around him or her: family members, friends, neighbors, co-workers, and members of the community. A conservative projection of those affected by individual drug users in Afghanistan could be almost 50% of the nation's population, and many of those so impacted are children.

Children as young as one year old tested positive for drugs. These children were not intentionally using drugs and could only have tested positive from environmental exposure or administration of the drug by an adult. Regardless of the route of administration, the two drugs most often detected are opioids and cannabis, drugs which are extremely dangerous to young children, especially infants. This is a significant threat to the health and well-being of Afghan children.

The UNODC impact survey noted that almost 50% of Afghan children self-reported they were introduced to drugs by parents. The drug-testing profile of opioid use by children parallels that of their parents. Examination of the opioid results suggest that approximately 91% of the children who tested positive are not active drug users, but innocent second- or third-hand victims of adult smoking or were given the drug by an adult.

Regardless of the route of administration, opioids in children threaten their health. Pharmacokinetic modeling suggests that the younger the child at the

time of exposure, the more likely morphine will build up in the brain for a number of physiological reasons. This pattern is duplicated in other tissues such as lung, kidney, liver, and skin, as well as in the saliva and blood compartments. The long-term effects are unknown and require further study, and it is probable that these children may require specialized drug education programs to prevent them from becoming drug users later in life. Only through a consistent long-term public awareness campaign can this threat to the health and well-being of Afghan children be curtailed.

#3 Considering there may be more than 2,000,000 drug users in Afghanistan, existing education, prevention, and treatment programs, especially in the rural areas, are insufficient to meet the needs of existing and new drug users.

Sixty-eight centers provide residential or inpatient treatment services, and 34 provide outpatient services in Afghanistan. These centers have the capacity to treat approximately 27,280 drug users per year on an inpatient basis. All of these centers are located in urban centers, and only five village-based programs currently exist. These programs only provide outpatient services and for defined periods of time.⁴

It is concerning that the UNODC 2009 survey reports that Afghans feel the problem of drug use is worsening and that many are unaware of available treatment programs. “Only ten percent of drug users surveyed had received a form of drug treatment, although 90% of them felt that they were in need of it.”⁴ Using ANDUS projections, this results in potentially more than 2,000,000 Afghans with limited access to drug treatment; another generation of drug users will, based on

current rates and projections, need this treatment in the future. It is important that the capabilities and capacities of existing treatment centers be increased and that new treatment centers be built to treat drug users in Afghanistan.

The ANDUS data suggest that drug use is widespread in Afghanistan and will continue and possibly increase without a long-term national strategy of prevention, education, and treatment. Presently, drug use significantly affects the socioeconomic stability of Afghanistan and limits its future. Children are most at risk of exposure to drug use, especially opioids, with possibly more than 1,000,000 Afghan children already exposed to opioids and other drugs.

With this new information in hand, it is clear that there is not enough capacity to treat those who want or are in need of drug treatment in either urban or rural settings. Expansion and improved availability and capabilities of drug treatment and prevention programs will encourage drug users not to smoke in homes, to seek treatment, and will ultimately protect the most innocent victims of drug abuse in Afghanistan: children.

In light of the poppy cultivation and processing industry being so intertwined with Afghanistan society, drug use will not decline without a major effort to support education, prevention, and treatment. Increased funding will be necessary to expand these programs and to expand capacity to treat drug users and drug-affected children.

The United States has a long history of studying the effects of drug treatment and recently reported:

According to several conservative estimates, every dollar invested in addiction treatment programs yields a return of between \$4 and \$7 in reduced drug-related crime, criminal justice costs, and theft. When savings related to healthcare are in-

⁴ <http://www.unodc.org/documents/data-and-analysis/Studies/Afghan-Drug-Survey-2009-Executive-Summary-web.pdf>

cluded, total savings can exceed costs by a ratio of 12 to 1. Major savings to the individual and to society also stem from fewer interpersonal conflicts; greater workplace productivity; and fewer drug-related accidents, including overdoses and deaths.⁵

Clearly, the investment in drug education, prevention, and treatment has long-term positive effects on society. However, these effects may take a generation or more to be seen in Afghanistan. The United States Department of State, the Colombo Plan, DEA Educational

Foundation, other international donors, and the United Nations have all provided culturally appropriate education, prevention, and treatment programs in Afghanistan. These programs must continue for the long-term and be funded for expansion into rural areas where the need is greatest. Drug use is a treatable chronic illness and can be controlled with appropriate treatment and follow-up programs. Funding for treatment, aftercare, and frequent testing is a long-term investment in Afghanistan that will have very positive social and economic outcomes.

⁵ <http://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/frequently-asked-questions/drug-addiction-treatment-worth-its-cost>

THE ISLAMIC REPUBLIC OF AFGHANISTAN



1.0 INTRODUCTION

Drug abuse is a significant problem in Afghanistan. Traditional opioid use, limited access to pain medication, lack of public awareness on the harm drug use has on the user and those they live with, and the widespread availability of opioids contribute to drug abuse in Afghanistan. It is important to understand and address these and other contributing factors in order to reduce the supply and demand for drug use in this country.

The U.S. Department of State, through the Bureau of International Narcotics and Law Enforcement Affairs (INL) recognizes the critical role of demand reduction as part of a comprehensive strategy to reduce both supply and demand of illicit drugs in Afghanistan. As the largest supporter of demand reduction programs in Afghanistan, INL works closely with the Ministry of Counter Narcotics and the Ministry of Public Health to implement a comprehensive program of drug abuse education, prevention, and treatment programs.

There are 101 drug-treatment programs in Afghanistan with 68 centers providing residential or inpatient services and 34 providing outpatient services. There are also a limited number of privately run treatment programs operating in some provinces. As part of INL's comprehensive strategy, the U.S. supported 78 of the 101 treatment programs in 2012, making it the largest contributor to drug treatment services in the country. Figure 1.1 shows the types and locations of INL-funded treatment and mosque-based programs in Afghanistan. A complete list of all substance-abuse treatment services in Afghanistan can be found in the Appendix.

In addition to supporting drug treatment centers, INL's demand reduction strategy in Afghanistan also includes protocol development, such as the development of special-services for drug-addicted children. Another program includes training and technical assistance to the treatment

and prevention providers and mentoring of Afghan female addiction counselors. Education and prevention programs are also critical. These include programs such as those in Kabul schools, outreach centers for drug addicts in mosques, the Mobile Exhibit, and the Theater Drug Awareness Program.

Another important part of INL's comprehensive strategy is to carry out scientific research and surveys to improve the understanding of the nature and extent of drug use in Afghanistan. The Afghanistan National Drug Use Survey (ANDUS) is one of several studies conducted as part of INL's demand reduction program. This report presents the ANDUS findings and summarizes the key findings of the other related drug-use studies INL has conducted in Afghanistan. The other studies include

- Two case studies conducted in 2011 and 2012 to evaluate the extent of drug use in the two rural villages of Ana Gilday and Kohnar Kalder located in Balkh Province: "Prevalence of Drug Use in the Afghanistan Village of Ana Gilday" and "Prevalence of Drug Use in the Afghanistan Village of Kohnar Kaldar". This study was the precursor to the Afghanistan National Rural Drug Use Survey that began in October of 2012.
- A three-year study conducted between 2008 and 2011 to investigate second- and third-hand exposure to children and women living in homes where heroin and opium are actively smoked: "Afghanistan Children's Exposure to Second- and Third-Hand Opium Smoke and its Potential Long-Term Consequences."

The goal of ANDUS, as well as the other studies, is to provide an objective assessment of drug use in the country of Afghanistan that can help its government, the U.S. Department of State and the international community develop strategies for illicit drug demand reduction. It is expected that the results can be used to design culturally specific drug abuse education, prevention, and treatment programs that promote the long-term political, social, and economic stability of Afghanistan.

ANDUS was carried out in two phases. The first part examined drug use among urban Afghans and the second part among rural Afghans. ANDUS is different from the drug-use survey conducted by the United Nations Office on Drugs and Crime (UNODC) in several important ways: it is the first study of its kind to use laboratory-based hair, saliva, and urine drug testing in a large-scale population survey. While only the urban survey incorporated a self-report survey, drug testing was used for both the urban and rural studies. In total, drug testing was carried out in 11 urban centers and 54 rural villages from 24 provinces of Afghanistan. An expanded study of Kabul City, the largest population center of Afghanistan, was also conducted as part of the urban survey.

The ANDUS report includes drug-testing information that was previously presented in the urban survey report and new information produced from the rural survey. In addition to drug-testing information from the urban or rural studies, nationwide drug use was estimated and is presented on the basis of the total population of the country as well as nationally among Afghan men, women and children. A national picture of drug use by age and by substance is also presented. Information on urban and/or rural drug use for 24 provinces, including the expanded study of Kabul, is presented depending on whether drug testing was carried out in its urban center or in the rural part of that province.

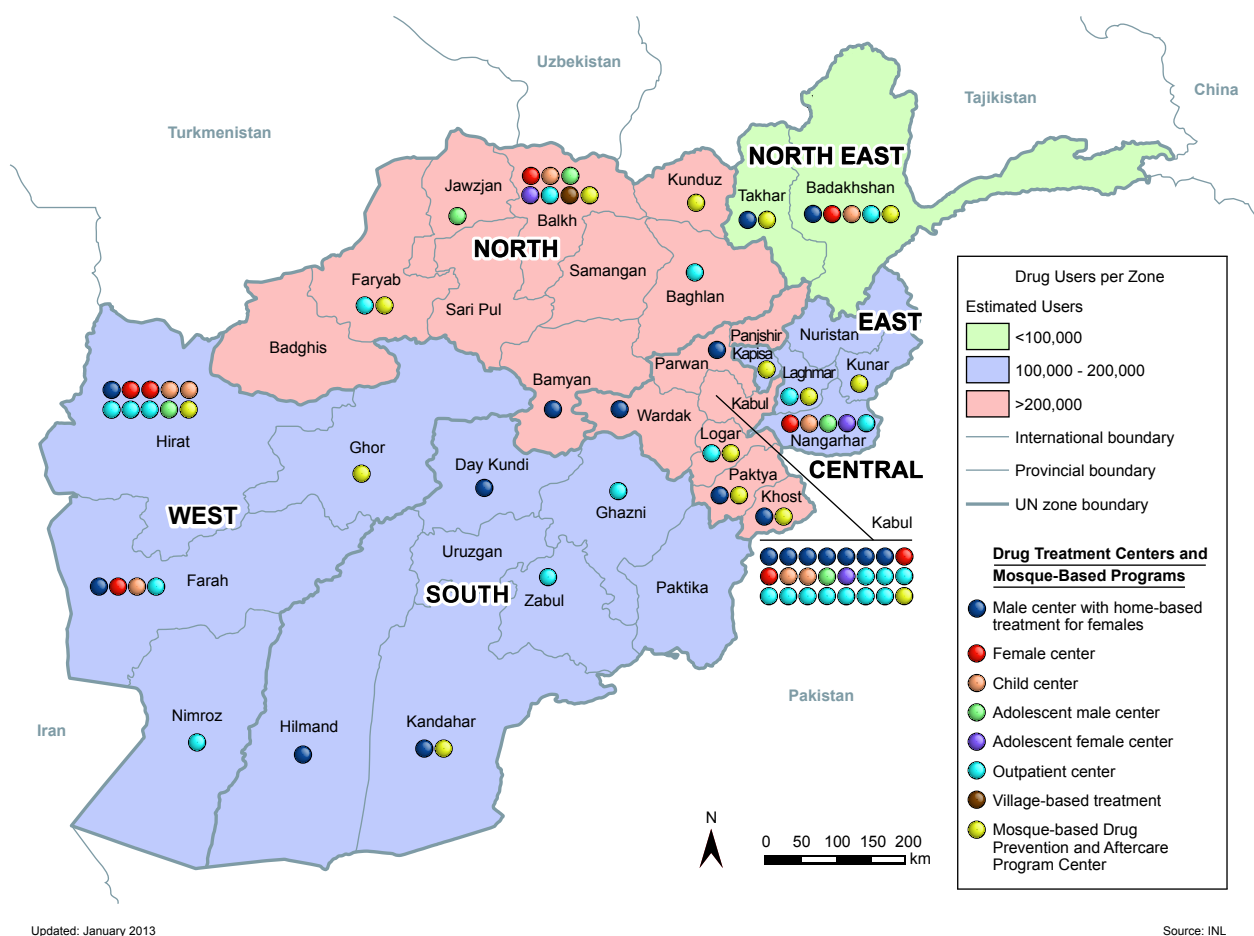


Figure 1.1. The types and locations of INL-funded treatment and mosque-based programs in Afghanistan.

2.0 THE PEOPLE OF AFGHANISTAN

The Islamic Republic of Afghanistan is located in southern Asia, north and west of Pakistan, and east of Iran. It is home to about 26–32 million people.

Approximately one-third of the country's adult population is unemployed, and those who do have jobs primarily work in agriculture (78.6%), with the rest mainly employed in the service (15.7%) and industrial sectors (5.7%). Only 24% of the population lives in urban areas, but this number is growing.

Life expectancy at birth in Afghanistan is low, just under 50 years. Only 2.4% of the population is 65 years of age or older.

The educational system has been all but destroyed by decades of war, but there are ongoing efforts to rebuild it. The average Afghan completes 9–10 years of school, with males getting four more years than females (11 vs. 7 years). As a result, the rate of adult literacy (defined as those of age 15 and over who can read and write) is quite low, about 28%. Males have a higher literacy rate (about 43%) than females (around 13%).

As a nation, Afghanistan is ethnically diverse. It is estimated that 42% of the

Afghan population is Pashtun. Pashtuns are ethnic Afghans of Persian or Eastern Iranian origin and speak the Pashto language. Most Pashtuns are Sunni Muslims, but there is a small Shi'a minority. Pashtuns make up the majority of both the Taliban and the current Afghan government (Figures 2.1–2.3).

Tajik are Persian-speaking people who are also known as Farsi (meaning "Persian"). They speak Dari or an eastern dialect of Persian. Most Tajik follow Sunni Islam, although small Twelver and Ismaili Shi'a minorities exist as well. Areas with large number of Shi'as include Hirat, Bamyan, and Badakhshan provinces. About 27% of the population of Afghanistan is Tajik. Most Tajik live in the northern and western parts of Afghanistan. Tajiks are considered settlers rather than nomadic, and they do not organize by tribes but by the region, province, city, town, or village from which they come. For example, Tajiks from Badakhshan would refer themselves as Badkshi, from Kabul as Kabuli, from Hirat as Hirati, and so forth.

Hazara are also Persian-speaking people of mixed Turko-Mongol and Iranian origin who mainly live in central Afghanistan (e.g., Bamyan). They are the third largest ethnic group in Afghanistan,

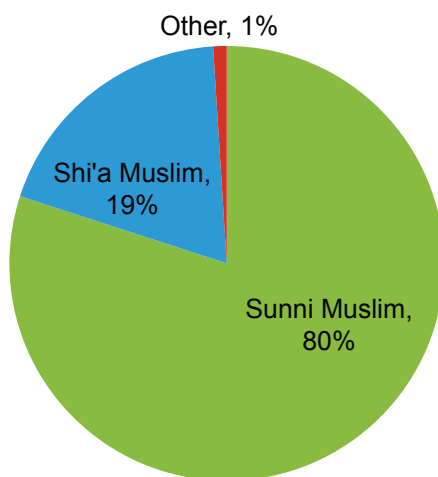


Figure 2.1. The religious make up of Afghanistan.

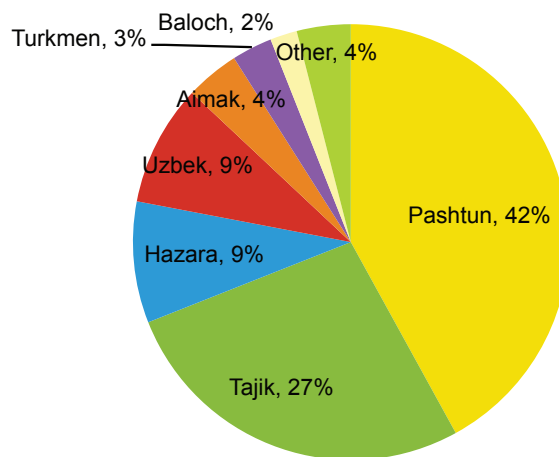


Figure 2.2. The ethnic make up of Afghanistan.

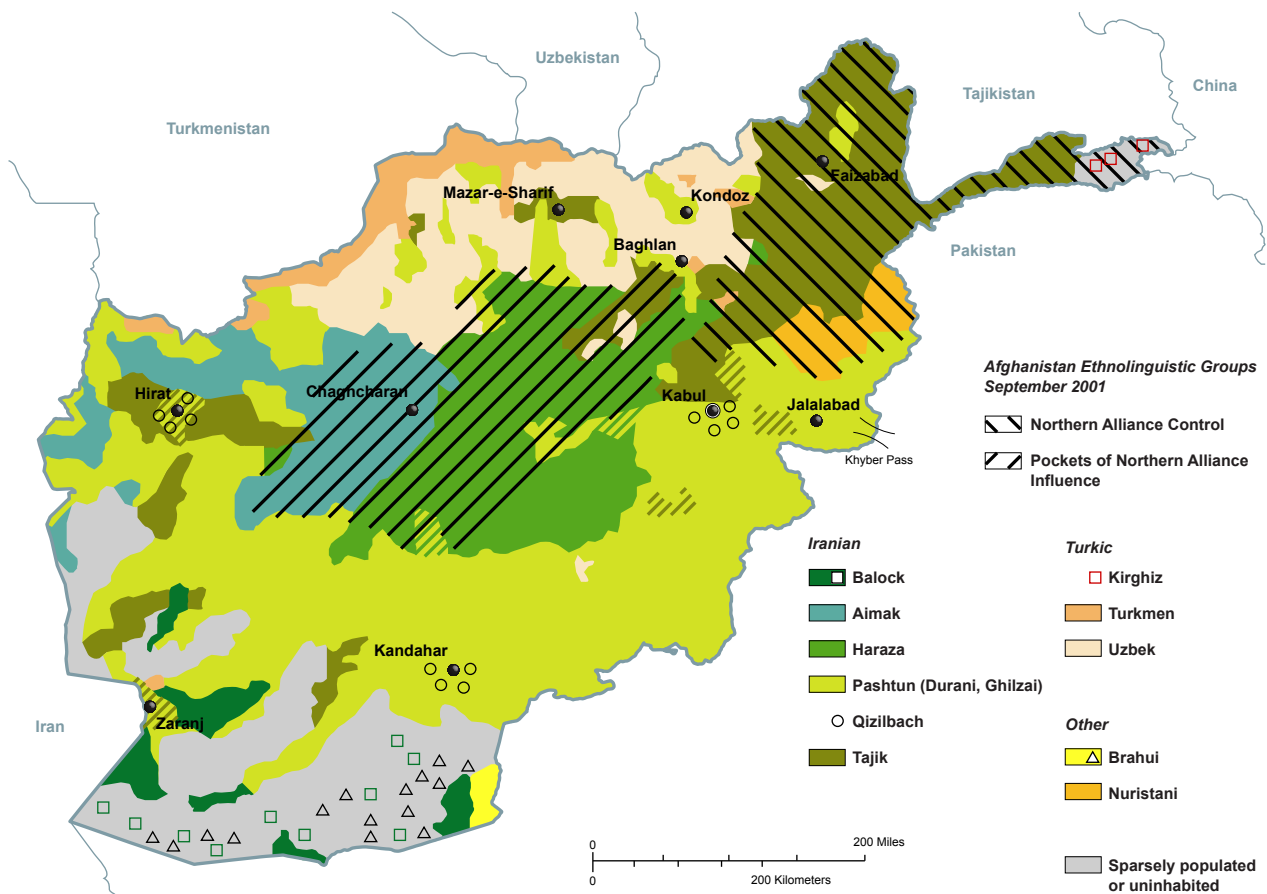


Figure 2.3. Languages spoken in Afghanistan.

making up approximately 9% of the total population. Hazara are overwhelmingly Shi'a Muslims, mostly of Twelver sect, some Ismaili, and a small number of Hazaras are Sunni. Many Hazara have pursued higher education, enlisted in the Army, and achieved top government positions in Afghanistan. About 25% of the National Assembly of Afghanistan, the country's parliament, is Hazara.

Uzbeks are a major Turkic ethnic group in Central Asia with Iranian and Mongol origins who are closely related to the people of modern Turkey. Uzbeks are of

a predominantly Sunni Muslim background and speak a Turkic language. They occupy the greatest share of Afghanistan's arable land in the north. Approximately 9% of the population of Afghanistan is Uzbek. Uzbeks in Afghanistan are wealthier than most of the other ethnic groups. The Uzbeks' wealth reportedly comes from the production of carpets by their women, cotton, and the production of Karkul, a type of lamb pelt. Many Uzbeks have also reached high-level posts in the government.

3.0 EARLIER DRUG-USE STUDIES

The 2005 UNODC Drug Use Survey revealed the possible nature and extent of drug use in the country of Afghanistan. The survey covered 32 provincial capitals, 30 district centers, and 152 villages in Afghanistan, and 1,489 key informants and 1,393 drug users were interviewed.

For this survey, the cities and villages to be surveyed were chosen at random, and the number of subjects to be interviewed was calculated according to the estimated population of the location. The interviews were conducted by about 150 people, and key informants were those people who were most familiar with the local drug-using population. Key informants were asked 72 questions about their perception of drug use in their community. Drug users were asked the same 72 questions, along with 74 questions about their own drug use history.

The 2005 survey estimated between 710,000 and 1,090,000 drug users in Afghanistan. The mean was estimated at 920,000 or approximately 3.8% of the total population. The UNODC estimated that 7% of the adult population, or approximately 860,000, of Afghanistan adults (aged 15 years and older) and 0.7% of the child population, or about 60,000 children (under the age of 15), were drug users.

Use was reported for five groups of drugs: opioids, hashish, pharmaceuticals, alcohol, and other drugs. Of these, opioids, in the forms of opium and heroin, was the most widely used drug class. The estimates for the number of opioid users were 145,000 on the low end and 206,000 on the high end, with an estimated mean of 152,000 users. Approximately 86% (132,000) of all the opioid users were adult males, 11% (16,000) were adult females, and 3% (4,000) were children.

Concerns over reports of escalating drug use in Afghanistan brought about an update to the 2005 survey information. A new survey was conducted in 2009 by the UNODC in partnership with the Ministries of Counter Narcotics and Public Health and financial support from the United Kingdom. The survey was done in 32 provincial capitals, 354 district centers, and other districts in each province. It included interviews of 2,614 drug users and 2,614 key informants.

Key findings from the UNODC “Drug Use in Afghanistan: 2009 Survey, Executive Summary” (the full report does not appear to be available to the public) include the increase of illicit drug use throughout the country, a massive increase in the use of opium, heroin, and other opioids, and that opium use is widespread. Among men aged 16 and older, cannabis, opium, and heroin were the most commonly used drugs; these were also the drug types most frequently used by young women aged 16–25 and adolescents of both sexes. Women over the age of 25 most often used tranquilizers and opioids (painkillers). For children aged 10 and younger, opium, tranquilizers, and cannabis were the most commonly used drugs, but the survey reports that most of the opioids use is attributable to the use of opium by adults to placate their children.

In 2010, the Department of State funded a first of its kind study that combined a drug-use survey with a comprehensive drug testing of men, women and children. Because of the expansive scope of the study and the war-time condition in Afghanistan, the study focused on understanding drug use among the urban population of the country. Samples were collected from 2170 households and 5230 people in 11 urban centers. Hair, urine, and saliva samples were tested for 10 panels of drugs. Six drug classes were detected and included opioids, cannabis, benzodiazepines, barbiturates, amphetamines, and alcohol. The study found

opioid and cannabis use prevalent among urban Afghans. Drug use was found in 11.4% of households and among 5.3% of the population. Among adult men and women (those 15 years of age and older), 7.5% used one or more drugs, and 2.3% of children (those 14 years of age or younger) also tested positive for one or more drugs. Children mostly tested positive for opioids. About 92% tested positive from either environmental exposure from adult drug use in the home (44%) and/or because they were given drugs by adults (48%). Only 8% of the children who tested positive in this study are believed to be potential drug users. Drug-testing results from the urban survey are incorporated and presented in this report.

During the urban study two villages were selected to determine whether and to what extent drug use in a rural community might be different from the urban centers. The drug testing conducted in Ana Gilday and Kohnar Kaldar, two villages in Balkh province, indicated significantly greater drug use than what was being observed in the urban centers. The study of these two villages demonstrated the need for a survey of drug use in the rural communities. This led to the national rural survey conducted between 2012 and 2015 and the preparation of a comprehensive national report that combined the results of the urban and rural surveys.



4.0 AFGHANISTAN NATIONAL DRUG USE SURVEY PROTOCOL

The Afghanistan National Drug Use Survey was conducted in two phases. The first phase surveyed urban drug use in Afghanistan and the second phase, drug use in the rural areas of the country. Eleven provincial capitals that could be safely surveyed were randomly selected to represent drug use among the urban population. Rural drug use estimates were derived from a random selection of 52 villages located in 15 provinces. The provincial capitals and villages were randomly selected; however, wartime security, weather, and geographic conditions were factored into the selection process.

Drug-positive rates for urban and rural areas of the country were estimated separately. The urban and rural drug-positive rates were weighted by their respective percentage of the Afghan population. These were merged to estimate the national drug-positive rates. Approximately 24% of the population lives in urban centers, and 76% of the population resides in small rural villages. These percentages were used to proportionally weight the urban and rural drug use rates to calculate the national drug use rates. Drug-use rates only include positives from active use and exclude positives from other sources such as environmental exposure. The exclusion criteria are described in Section 5.

4.1 URBAN CENTER AND HOUSEHOLD SELECTION PROTOCOL

Based on population information from the Afghanistan Central Statistics Organization, the population of the 11 capitals sampled during the urban survey represents 76% of the total urban population of Afghanistan. These cities also cover a

range of urban populations. The provincial capitals studied and the results from those urban centers produce a representative sample of urban drug use in the country.

Kabul was also examined in depth as it is not only the largest and most populated city in Afghanistan, it is also the country's most culturally and economically diverse city as well as its center of economic activity.

The urban survey used households for the basis of sampling, and the study protocols were submitted for Institutional Review Board (IRB) oversight in both the U.S. and Afghanistan. Police districts in the provincial capitals studied were enumerated, and districts were selected randomly for the survey.

The field team included doctors, nurses, and other healthcare workers. All team members were trained on the survey protocols and sample collection, coding and packaging techniques, and procedures.

The field team met with the neighborhood elder before beginning the survey and secured their approval. The survey began by first locating the police station in the selected district. The team stood in front of the police station, faced Mecca and identified the first household using a randomly generated number unique to that district. For example, if the random number was four, the team faced Mecca and picked the fourth household from the police station and began the survey with that household. Subsequent households were selected at an interval using the same random number. If no one was home or the survey was refused, the team proceeded to the next house using the same interval until the targeted number of households for the city was sampled. For confidentiality, the actual police districts and random numbers are not reported.

A female team member introduced herself to the female head of each household

and described the scope and purpose of the study. The household was surveyed only after informed consent was secured from each adult or the parent or guardian of any children that was sampled. The team proceeded to collect hair, saliva, and urine samples from the female head of household, the eldest male present, and youngest child between six months and 14 years of age. To increase the adult male sample size, the team returned to some households to sample men at a time when they were expected home.

4.2 RURAL VILLAGE AND HOUSEHOLD SELECTION PROTOCOL

The war and remote locations presented significant challenges in selecting the provinces and villages for the rural survey. Fifteen provinces that were accessible and met minimum security requirements were selected for the rural survey. Up to four districts in each of these provinces were also randomly selected and their security conditions were evaluated. The security conditions rated by the Ministry of Rural Rehabilitation & Development (MRRD), National Solidarity Program (NSP) were used to identify districts secure enough to survey. Out of 36 districts, four rated highly insecure and were rejected from the selection pool. Two districts from each of the 15 provinces were selected from the remaining candidates rated secure. A few districts rated partially insecure had to be selected because of the insufficient number of secure districts.

Five villages from each of the two selected districts in a province were randomly selected for possible inclusion in the study. The villages sampled were selected from the possible candidates and at least one alternate was identified in the event security conditions made it unsafe to survey one of the primary villages. In most provinces, four villages

were sampled. Several had only two or three villages sampled because of security and other limitations.

The rural survey used households for the basis of sampling, and the study protocols were submitted for Institutional Review Board (IRB) oversight in both the U.S. and Afghanistan.

For security reasons, samples were collected by local health care workers. Each survey and training were coordinated through District Administrators and village elders. Team members who conducted the field work for the urban survey trained the health care workers from each of the surveyed provinces on proper sampling protocols and techniques. Training was conducted at the urban center of each province surveyed. The field team directed and managed the village surveys and reviewed the work of the health care workers.

The sampling began by first locating the central mosque in a village. The team stood in front of the mosque and faced Mecca and identified the first household to sample using a randomly generated interval number unique to that village. Once a household was chosen, a team member met with the head of the household, briefly described the study, gained informed consent from the household in a culturally appropriate manner, and began collecting hair, saliva, and urine samples and household information such as age and gender of the residents.

The sampling continued using the same interval until at least 100 people had been sampled for that village. In each household surveyed, hair, urine, and saliva were collected from all residents who were present and consented. The samples were confidentially coded by household and by family when multiple families resided in the same household. Age and gender of all household members were recorded regardless of whether they were present or sampled.

It was common for men to be away at work in some households. To increase the sample size of adult males for each village, the survey team randomly visited local businesses in the village and secured consent to sample adult males at work or present at the place of business. Up to 10 men from businesses were sampled from each village. These men were included for estimating the total, adult, and adult male population rates but not for estimating the household rates.

4.3 LABORATORY TESTING

All urban and rural samples were properly packaged and express shipped to United States Drug Testing Laboratories, Inc. (USDTL). USDTL is a private research and reference laboratory located in Des Plaines, Illinois. The laboratory has been an analytical and contract research toxicology laboratory for over 20 years, specializing in the identification of drugs of abuse. USDTL is accredited by the College of American Pathologists (CAP) for Forensic Urine Testing, certified by the Drug Enforcement Administration (DEA) for controlled substance research, and maintains a number of state laboratory accreditations and certificates.

All samples sent to the laboratory were coded to maintain confidentiality and tested for drugs and alcohol according to established protocols and good laboratory practices. All urine and saliva specimens were kept in secure refrigerated storage. Hair samples were stored at room temperature.

All samples were first tested, or “screened,” by enzyme-linked immunosorbent assay (ELISA), enzyme-multiplied immunoassay technique (EMIT), or cloned-enzyme donor immunoassay (CEDIA), depending upon the drug class tested. The combined use of these screening techniques is capable of identifying the presence of amphetamines, cocaine, opioids,

oxycodone, phencyclidine (PCP), cannabinoids, barbiturates, benzodiazepines, alcohol, methadone, and propoxyphene in the samples.

Positive ELISA, EMIT, or CEDIA samples were confirmed by liquid chromatography/tandem mass spectrometry (LC-MS/MS) or gas chromatography/mass spectrometry (GC/MS) depending upon the specific drug and the confirmation requirements. The LC-MS/MS and GC/MS also identifies the specific drugs within the drug class that produced the confirmed positives and concentration of those drugs found in that sample. As an example, if opioids are confirmed to be present in a sample, the specific opioids in that sample are identified and quantified. These compounds include morphine, codeine, hydrocodone, oxycodone, hydromorphone, oxymorphone, and the heroin-specific metabolite 6-acetylmorphine (6-AM).

All positive urine alcohol tests were confirmed with gas chromatography/flame-ionization detection (GC/FID), and the samples were also tested for the biological markers ethyl glucuronide (EtG) and ethyl sulfate (EtS).

The screening and confirmation technologies and confirmation cutoffs to determine a positive are listed in the Appendix.

4.4 CALCULATION OF DRUG-POSITIVE RATES

The population and adult drug-positive rates are calculated by adjusting the number of positive samples to the demographics of the rural village, provincial capitals, and nation of Afghanistan. The adjustment is necessary to derive the population and adult rates because random sampling of men, women, and children in the rural villages or provincial capitals is unlikely to produce a sample size for each group that is proportional to their respective population percentage.

The household and population sample sizes for the urban centers, villages, and at the province level for the rural survey, as well as the respective adult and children sample sizes, are all very small and with small number of positives. Therefore, the margins of error for these rates, calculated using Wilson's estimate, vary significantly and are much larger than the rates at a national level. As such, only the mean is reported for all prevalence rates presented in the report.

The percent of drug positives was calculated for men, women, and children based on sample size. For example, in a sampling of 100 individuals in a rural village, if 25 of those tested were men and five men were positive, the drug-positive rate among men would be 20%. However, if men are 50% of the village population, the sample of 25 men is only 25% of the total sample size and not reflective of the proportion of men in the village. Calculation of total population and adult

rates require the men, women, and children sample sizes to be proportional to their demographics.

To calculate total population and adult drug-positive rates, the percent positives for men, women, and children are weighted by the proportion of men, women, and children expected to be in the population. For example, in the sample from province Takhar, 12.1%, 2.0%, and 7.3% of men, women, and children tested positive, respectively, and the proportion of men, women, and children in the population is 28%, 24%, and 48%, respectively. Thus, the total population adjusted drug-positive rate is calculated as $12.1\%(0.28) + 2.0\%(0.24) + 7.3\%(0.48) = 7.4\%$. A similar calculation is done to get the adult adjusted rate. These "adjusted rates" for the total population and/or adults are calculated for a rural village and provincial capital as well as at the national, urban, and rural levels.



5.0 AFGHANISTAN NATIONAL DRUG USE SURVEY RESULTS

Together, the urban and rural surveys tested more than 10,000 men, women, and children living in approximately 3,000 households. This report presents the results of both surveys and provides a national picture of drug use in Afghanistan.

Household-based sampling is the standard for population surveys. It is used because drug use by one member of a household can affect the well-being and the behavior of other household members. Additionally, drugs that are smoked, such as opioids and cannabis, expose others living in the same household to second- and third-hand smoke. A drug-positive individual in a household indicates that they are, or someone else living in the same household is, a drug user. For example, a drug-positive one-year-old child would not be an intentional drug user but tested positive because an adult user exposed or administered the drug to the child. Second- and third-hand smoke is an important public health concern, especially for children.

Population-based sampling reveals important differences in drug use among members of the same household. This is especially important in Afghanistan where, on average, 10 people live in the same household. Population-based sampling also reveals differences in gender and age patterns.

Distinguishing between an individual being drug-positive and being a drug user is important. Drug-positive adults are assumed to be drug users, but the majority of children who are drug-positive are not intentional drug users. Some of the older children could be active drug users, but very young drug-positive children—those less than eight years old—are more likely drug-positive from exposure to drugs smoked by adults in the home. Also, some children may test

positive for a drug because an adult administered the drug to them for behavioral or medicinal reasons. For these reasons, drug-positive children under eight years old with low concentrations of opioids or cannabis solely in hair are assumed not to be drug users but rather the innocent victims of second- and third-hand exposure to drugs. Regardless of route of administration, a child being drug-positive is a serious public health concern, and reporting the percentage of children who are drug-positive is of significant importance.

As the survey is based on laboratory testing, the word “rate”, when used alone, refers to drug-positive rates and not drug-use rates. Drug-use rates are clearly indicated as such in the text and graphics. Rates are presented on the basis of households and population and for the entire nation of Afghanistan, as well as for urban and rural Afghanistan. Rates and expanded information on the testing results are also presented later in this section, broken out by substances, adults, and age groups.

Household rates reflect the percentage of households where drug use by one or more of its residents is occurring, since even a single positive individual indicates that someone living in the household uses drugs. The total population rates, however, do not necessarily reflect the percentage of the population who intentionally use drugs. This is because the rate includes drug-positive children, the majority whom are not drug users. Drug-use rates for children were estimated from a detailed analysis of opioid data. Drug-use rates and the number of drug users were estimated separately and are presented along with the estimated rate and number of drug-positive individuals in the fact sheet included in the front of the report. The distinction and importance of reporting drug positives separately from drug users is discussed further in the report.

5.1 NATIONAL HOUSEHOLD RATES

Table 5.1 presents the national, urban, and rural household rates. The survey shows that at least one person in approximately 31% of Afghanistan households tested positive. Household rates are almost four times higher among rural households (39%) than among urban households (11%).

A drug-positive household indicates drug use and that one or more residents are using one or more drugs in that household. Even in households where only children test positive, and those children were not identified as drug users, a drug user living in the home exposed or administered the drug to the child. The drug user was simply not at home at the time samples were collected.

Table 5.1. Afghanistan Household Rates by Drug Class

Drug Class	Urban (%)	Rural (%)	National (%)
Opioids	5.6	24.5	19.0
Cannabis	3.2	14.1	11.0
Benzodiazepines	2.5	6.1	5.1
Barbiturates	0.6	1.4	1.1
Alcohol	0.7	0.9	0.8
Amphetamines	0.1	2.2	1.6
Any	11.4	38.5	30.6

There were 2,757 households tested during the urban and rural surveys: 2,170 in the urban survey and 587 in the rural survey. Based on the average number of people found living in urban and rural households and using the Afghanistan Central Statistics Organization (CSO) and CIA World Factbook population estimates, there are approximately 700,000–830,000 urban households and 1,710,000–2,030,000 rural households in Afghanistan.

Nationally, household rates are highest in the West region and in rural areas of Afghanistan. Opioids and cannabis are the drugs most frequently detected in both urban and rural households.

The household rates for some drugs are significantly higher in rural households. Opioid use is almost five times higher, cannabis use more than four times, and barbiturates and benzodiazepines more than two times higher. Use of amphetamine-type stimulants and alcohol are not significant in either urban or rural Afghanistan.



5.1.1 NATIONAL HOUSEHOLD RATES—URBAN

Table 5.2 presents the household urban rates by drug class for each provincial capital surveyed. The national urban household rate is approximately 11%.

Of the provincial capitals surveyed, the highest household rates were in Zaranj, Farah, and Hirat. All three of these provincial capitals are in the West region of the country. The provincial capitals with the lowest rates were in Bamyán and Sheberghan, both in the North region.

The most frequently detected drugs among urban households are opioids and cannabis, followed by benzodiazepines. Rates for other drugs are less than 1%.

To assess whether living outside of Afghanistan might be a factor in drug use, residents were asked whether any member of the household had lived outside of Afghanistan during the past five years. An individual lived outside of Afghanistan sometime in the past five years in approximately 17% of the urban households tested.

Table 5.2. Urban Household Rates by Province and Drug Class

	Opioids	Cannabinoids	Benzodiazepines	Barbiturates	Alcohol	Amphetamines	Any Drug
Northeast							
Faizabad	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%
East							
Jalalabad	2.1%	3.1%	3.1%	2.1%	0.0%	0.0%	10.3%
North							
Mazar-e-Sharif	7.2%	1.0%	2.1%	1.0%	0.0%	0.0%	10.3%
Bamyán	0.0%	3.0%	0.0%	0.0%	0.0%	0.0%	3.0%
Mehmaneh	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	7.6%
Sheberghan	2.0%	1.0%	2.0%	0.0%	0.0%	0.0%	5.1%
West							
Hirat	7.1%	4.0%	4.0%	1.0%	3.0%	0.0%	18.2%
Farah	15.0%	2.0%	5.0%	0.0%	0.0%	1.0%	20.0%
Zaranj	22.0%	2.0%	2.0%	0.0%	0.0%	2.0%	28.0%
Central							
Charikar	3.1%	3.1%	4.1%	0.0%	1.0%	0.0%	9.3%
Kabul	5.0%	3.9%	2.4%	0.7%	0.8%	0.0%	11.1%
Total	5.6%	3.2%	2.5%	0.6%	0.7%	0.1%	11.4%

The opioid rate is five times higher in rural households.

The findings are shown in Tables 5.3 and 5.4. The tables compare the rates of drug use between urban households with a resident who had lived outside of Afghanistan and those with a resident

who had not. Table 5.3 is for any drug use, and Table 5.4 is for opioids. No association is shown between living outside of Afghanistan and urban drug use.

Table 5.3. Urban Households Testing Positive for Any Substance and Reporting Anyone Living or Working Outside of Afghanistan (p value = 0.7928)

	Household Drug Test Negative (N = 1,923)		Household Drug Test Positive (N = 247)		Total (N = 2,170)	
	N	%	N	%	N	%
No one in household lived/worked outside Afghanistan in past 5 years	1,601	83.3	204	82.6	1,805	83.2
Someone in household lived/worked outside Afghanistan in past 5 years	322	16.7	43	17.4	365	16.8

Table 5.4. Urban Households Testing Positive for Opioids and Reporting Anyone Living or Working Outside of Afghanistan (p value = 0.3860)

	Household Drug Test Negative (N = 2,048)		Household Drug Test Positive (N = 122)		Total (N = 2,170)	
	N	%	N	%	N	%
No one in household lived/worked outside Afghanistan in past 5 years	1,707	83.3	98	80.3	1,805	83.2
Someone in household lived/worked outside Afghanistan in past 5 years	341	16.7	24	19.7	365	16.8



5.1.2 NATIONAL HOUSEHOLD RATES—RURAL

Table 5.5 presents rural household rates by drug class and province. The national rural household rate of 39% is significantly greater than the urban rate of 11%. This is nearly four times higher.

Of the provinces surveyed, Ghor in the West region, Laghman in the East, and Sar-e Pul and Kunduz in the North have the highest household rates. All of these provinces have household rates of approximately 50% or higher. Ghor's rate is the highest at approximately 86%, with a 100% household rate in two of the villages surveyed. The provinces with the lowest estimated rates are Badghis and Samangan in the North region. Although their rates are the lowest among rural households, they compare closely with several of the highest urban household rates.

The most common class of drug detected among rural households is opioids followed by cannabis. The rural household rates are significantly higher than urban rates for overall drug-positive as well as specifically for opioids and cannabis. While the rates for amphetamine-type stimulants are low, they are still higher among rural households.

The highest household cannabis rates are in the rural areas of Laghman in the East region, Khost in the Central region, and Kandahar in the South. Rates in these areas are significantly higher than the highest rates seen in the urban survey.

In order to determine if living outside Afghanistan contributed to drug use, data were collected and analysis was performed.

The tables compare the rates of drug use between rural households with a resi-

Table 5.5. Rural Household Rates by Province and Drug Class

	Opioids	Cannabinoids	Benzodiazepines	Barbiturates	Alcohol	Amphetamines	Other	Any Drug
Northeast								
Takhar	9.4%	5.7%	1.9%	3.8%	0.0%	1.9%	0.0%	20.8%
East								
Kapisa	16.3%	11.6%	4.7%	0.0%	0.0%	4.7%	0.0%	25.6%
Laghman	21.4%	46.4%	10.7%	0.0%	3.6%	0.0%	0.0%	60.7%
Nuristan	11.1%	25.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
North								
Badghis	6.3%	2.1%	0.0%	2.1%	0.0%	4.2%	0.0%	12.5%
Baghlan	16.7%	11.1%	5.6%	0.0%	0.0%	1.9%	0.0%	29.6%
Kunduz	34.5%	21.8%	3.6%	0.0%	1.8%	0.0%	1.8%	50.9%
Samangan	13.3%	4.4%	0.0%	0.0%	2.2%	0.0%	0.0%	17.8%
Sar-e Pul	34.1%	11.4%	11.4%	2.3%	0.0%	9.1%	0.0%	50.0%
West								
Farah	28.2%	5.1%	5.1%	2.6%	0.0%	0.0%	0.0%	35.9%
Ghor	85.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	85.7%
Nimroz	45.8%	16.7%	18.8%	0.0%	0.0%	6.3%	0.0%	47.9%
Central								
Khost	8.7%	30.4%	17.4%	4.3%	0.0%	0.0%	0.0%	47.8%
South								
Kandahar	11.1%	29.6%	7.4%	0.0%	7.4%	0.0%	0.0%	44.4%
Helmand	16.7%	22.2%	16.7%	11.1%	0.0%	0.0%	0.0%	44.4%
Total	24.5%	14.1%	6.1%	1.4%	0.9%	2.2%	0.2%	38.5%

dent who had lived outside of Afghanistan with those without such a resident. Table 5.6 is for any drug use, and Table 5.7 is for opioids. As with the

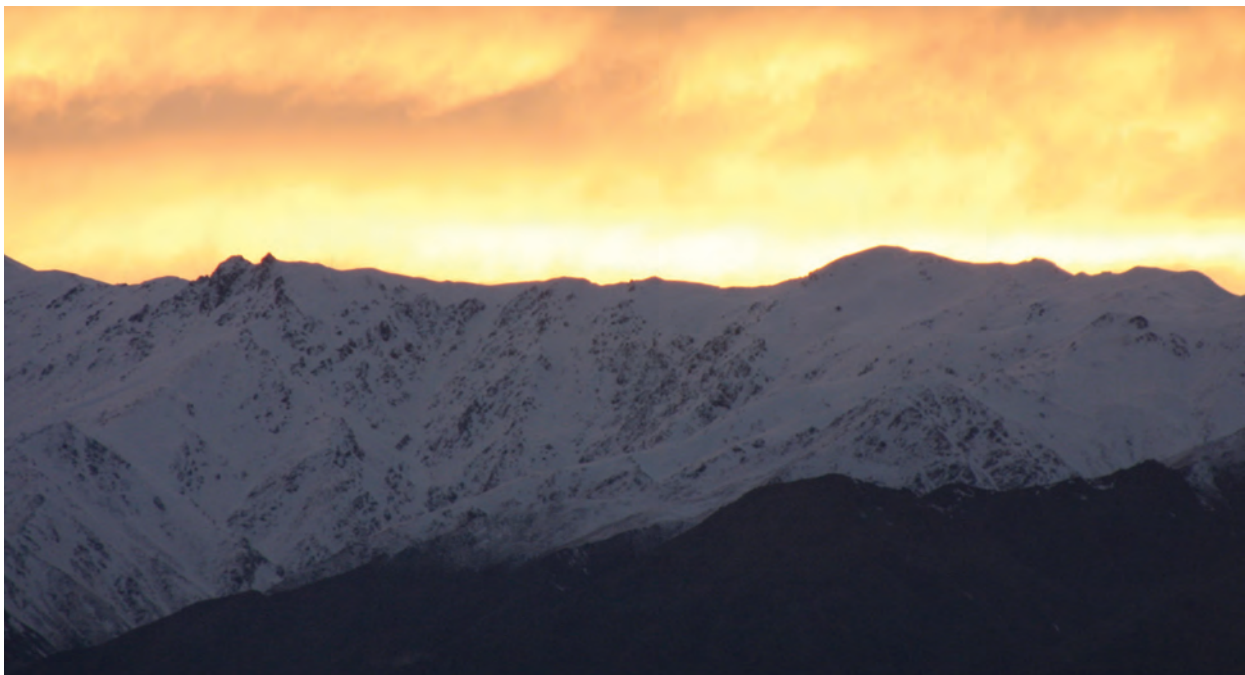
urban survey, no association between living or working outside of Afghanistan and drug use is shown.

Table 5.6. Rural Households Testing Positive for Any Substance and Reporting Anyone Living or Working Outside of Afghanistan (p value = 0.1989)

	Household Drug Test Negative ($N = 361$)		Household Drug Test Positive ($N = 226$)		Total ($N = 587$)	
	N	%	N	%	N	%
No one in household lived/worked outside Afghanistan in past 5 years	259	71.7	173	76.5	432	73.6
Someone in household lived/worked outside Afghanistan in past 5 years	102	28.3	53	23.5	155	26.4

Table 5.7. Rural Households Testing Positive for Opioids and Reporting Anyone Living or Working Outside of Afghanistan (p value = 0.8318)

	Household Drug Test Negative ($N = 443$)		Household Drug Test Positive ($N = 144$)		Total ($N = 587$)	
	N	%	N	%	N	%
No one in household lived/worked outside Afghanistan in past 5 years	327	73.8	105	72.9	432	73.6
Someone in household lived/worked outside Afghanistan in past 5 years	116	26.2	39	27.1	155	26.4



5.2 NATIONAL POPULATION RATES

The national population rate—the positive test rate across the country’s population—for Afghanistan is approximately 11%. The national drug-use rate is estimated to be approximately 7% of the total population. There were 10,549 urban and rural Afghan individuals drug-tested: 5,230 in 11 provincial capitals and 5,319 in 52 rural villages in 24 provinces. Urban and rural population rates were determined independently. The total national population rate was estimated by weighting the adjusted urban and rural rates in proportion to their percentage of the national population. In Afghanistan, 24% of the population lives in urban areas, whereas the majority, 76%, lives in rural areas. The estimated number of drug-positive individuals and drug users for each of the six drug classes and any positive tests are listed on the fact sheet “Afghanistan National Drug Positive and Use Estimates” found on pages 2–5. The estimated number of drug users assumes all adults who tested positive are drug users while only 9% of drug-positive children are assumed to be drug users. The 9% of children who are assumed to be drug users is based on a detailed review of the opioid data and is discussed later in the report. The total population estimates are weighted and adjusted to population.

Lower-bound estimates are based on the Afghanistan Central Statistics Organization (CSO) population estimates.

The CSO collects, compiles, analyzes, and publishes statistical information relating to the commercial, industrial, financial, social, economic, environmental, and general activities and condition of Afghanistan.

The upper-bound estimates are based on The United States Central Intelligence Agency (CIA) World Factbook.

The World Factbook (also known as the CIA World Factbook) is an annual CIA publication with almanac-style information about the countries of the world. The Factbook provides a two- to three-page summary of the demographics, geography, communications, government, economy, and military for each of 266 U.S.-recognized countries, dependencies, and other areas in the world.

The CSO estimates the 2013–2014 national population of Afghanistan at 26,023,100. On this basis, the approximate number of drug-positive individuals is 2,920,000 and the number of drug users is 2,010,000.

The CIA, as of July 2014, estimates Afghanistan’s population to be higher, at 31,822,800. This population estimate increases the number of drug-positive individuals to approximately 3,570,000 and the number of drug users to approximately 2,460,000.

Overall, the rates are higher in rural Afghanistan, with the rural rate more than twice the urban rate. Rural rates are significantly higher for opioids and cannabis.

Table 5.8 presents the national population rates for each drug class as well as for any positive test result.

Opioids are the class of drugs detected most often, at approximately 7% of the total population. Approximately 5% of the total population is estimated to be

Table 5.8. Population Rates by Drug Class

Drug Class	Urban (%)	Rural (%)	National (%)
Opioids	2.6	8.9	7.4
Cannabis	1.7	3.9	3.4
Benzodiazepines	1.0	0.8	0.8
Barbiturates	0.3	0.2	0.2
Alcohol	0.3	0.1	0.1
Amphetamines	< 0.1	0.4	0.3
Any	5.3	13.0	11.1

opioid users. The rural rate for opioids is approximately three times greater than the urban rate.

Cannabis is the class of drug with the second-highest rate at approximately 3% of the total population. Approximately 2% of the total population is estimated to be cannabis users. The rural population cannabis rate is twice as high as it is in the provincial capitals.

The national population rates for other drugs are 1% or less and the national drug-use rates are all under 1%. There are only small differences between rural and urban rates for these drugs.

Table 5.9 presents the national population rates broken down by any drug positive for adults, men, women, and children.

Nationally, the adult rate is approximately 13%, with rates for men almost twice those of women (16.1% vs. 9.5%). Since drug-positive adults are most likely also drug users, the same percentages hold for the adult/male/female drug user populations. The national drug-positive rate among Afghan children (aged 6

months–14 years) is approximately 9%. The majority of the children who test positive do so as a result of adult drug use: less than 1% of drug-positive children are estimated to be drug users. An expanded discussion on children’s exposure to adult drug use is presented in the Substances section of this report discussing opioids.

The drug-positive rate for adults is two times higher for rural adults than it is for urban adults. The rate of drug positives among rural children is almost five times higher than in urban children. The opioid-positive rate among rural children is almost six times that of urban children, a significant public health issue.

Table 5.9. Population Rates by Age and Gender

	Urban (%)	Rural (%)	National (%)
Adults	7.5	14.5	12.8
Male	10.6	17.8	16.1
Female	4.3	11.2	9.5
Children	2.3	11.3	9.2

The opioid-positive rate of rural children is almost six times that of urban children.



5.2.1 NATIONAL POPULATION RATES—URBAN

Figure 5.1 presents the national urban population rates by drug class, and Table 5.10 lists the rates for each drug class in the 11 provincial capitals.

The national urban rate is approximately 5%. Approximately 4% are estimated to be drug users. The urban survey tested 5,230 people in 11 provincial capitals.

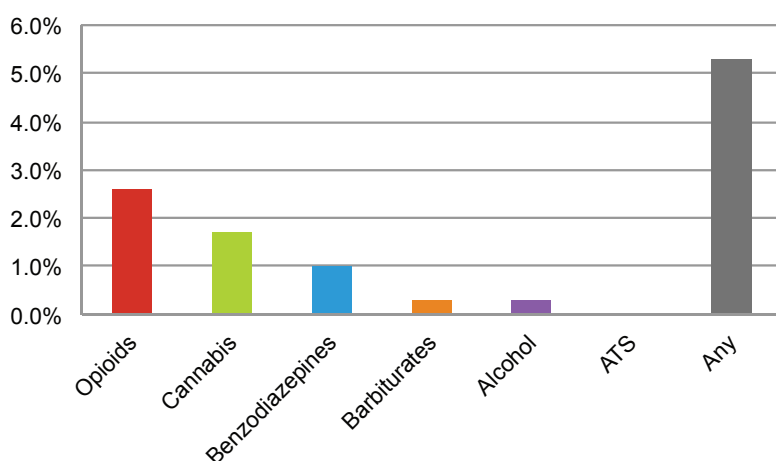


Figure 5.1. Urban population rates by drug class.

There were 1,370 men, 2,155 women, and 1,705 children tested. The rates for men, women, and children were adjusted proportionally to their respective national urban population percentages in order to calculate the total urban population and adult rates.

Estimated numbers of urban drug-positive individuals are presented on fact sheet “Afghanistan National Estimates of Drug Positives,” and drug users for each of the drug classes are listed on the fact sheet “Afghanistan National Estimates of Drug Users” on pages 2–5.

The CSO estimates the national urban population at 6,275,600. On the basis of the CSO population, the estimated number of drug-positive urban Afghans is approximately 320,000, and of those, the estimated number of drug users is approximately 270,000.

The CIA World Factbook estimates only the total popula-

Table 5.10. Urban Population Rates

	Opioids	Cannabis	Benzodiazepines	Barbiturates	Alcohol	Amphetamine-Type Stimulants	Any Drug
Northeast							
Faizabad	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%
East							
Jalalabad	1.0%	1.6%	1.1%	1.0%	0.0%	0.0%	4.7%
North							
Mazar-e-Sharif	2.9%	0.5%	0.8%	0.5%	0.0%	0.0%	4.3%
Bamyan	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	1.2%
Mehmaneh	1.7%	1.7%	1.7%	0.0%	0.0%	0.0%	4.3%
Sheberghan	1.5%	0.6%	0.9%	0.0%	0.0%	0.0%	2.9%
West							
Hirat	4.1%	1.7%	1.3%	0.4%	1.2%	0.0%	8.3%
Farah	8.6%	1.3%	2.8%	0.0%	0.0%	0.6%	11.4%
Zaranj	10.0%	1.0%	1.0%	0.0%	0.0%	1.0%	13.1%
Central							
Charikar	1.8%	2.7%	1.8%	0.0%	0.3%	0.0%	4.8%
Kabul	2.3%	1.9%	1.0%	0.3%	0.2%	0.0%	5.1%
Total	2.6%	1.7%	1.0%	0.3%	0.3%	< 0.1%	5.3%

tion and does not provide a separate estimate for the nation's urban population. Assuming the urban population is similar to CSO's percentage of the total population of approximately 24%, the upper-bound urban population of Afghanistan is approximately 7,674,200. Using Factbook data, the estimated number of drug-positive urban Afghans is higher, at approximately 390,000, and the number of estimated drug users is approximately 330,000.

Opioids and cannabis are the drugs with the highest drug-positive test rates among the urban population. The rate for opioids is approximately 3%, and approximately 2% of the urban population may be opioid users. The rate for cannabis is approximately 2%, and approximately 1% of the urban population may be users. The rates for all other drugs are 1% or less.

Among urban adults—those 15 years of age and older—the rate is approximately 8%, resulting in an estimated number of urban adult drug users of 260,000–

320,000. The estimated number of drug-positive adults and adult drug users are the same. Exclusion criteria used to determine the percentage of drug-positive children who are possible drug users are based on the opioid concentration in hair, saliva, and urine and the age of the child. The same criteria cannot be applied to adults because of the age factor. Drug-positive adults were therefore assumed to be drug users. The two provincial capitals with the highest adult rates are Zaranj and Farah. The three provincial capitals with the lowest adult rates are Bamyán, Faizabad, and Sheberghan.

The rate of drug-positive tests among urban children is approximately 2%, resulting in an estimate of 60,000–70,000 drug-positive urban children in Afghanistan. Less than 1%, or < 10,000, of urban children may be drug users. The majority of urban drug-positive children are drug-positive from exposure to adult drug use. More than half of the positives in children are for opioids, making opioids the most frequently detected drug among children.



5.2.2 NATIONAL POPULATION RATES—RURAL

Figure 5.2 presents the rural rates for each drug class, and Table 5.11 presents the rural rates in the 15 provinces surveyed.

The national rural rate is approximately 13%, more than two times the urban rate. Approximately 8% of the rural population is estimated to be drug users. The rural survey tested 5,319 people living in 52 villages in 15 provinces. There were 1,341 men, 1,573 women and 2,405 children tested.

Estimated numbers of rural drug-positive individuals are presented on the fact sheet “Afghanistan National Estimates of Drug Positives,” and drug users for each of the drug classes are listed on the fact

sheet “Afghanistan National Estimates of Drug Users” on pages 2–5.

The CSO estimates the Afghanistan national rural population at 19,747,500. On the basis of the CSO population, the estimated number of rural drug-positive Afghans is approximately 2,600,000 and

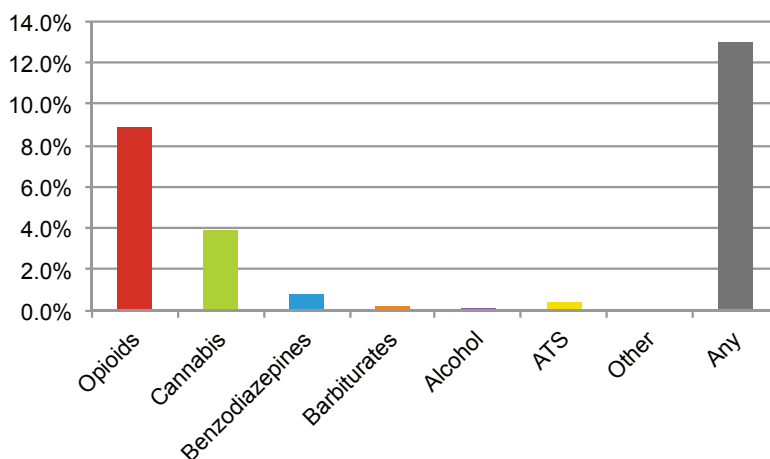


Figure 5.2. Rural population rates by drug class.

Table 5.11. Rural Population Rates

	Opioids	Cannabis	Benzodiazepines	Barbiturates	Alcohol	Amphetamine-Type Stimulants	Other	Any Drug
Northeast								
Takhar	4.6%	1.8%	0.3%	0.5%	0.0%	0.3%	0.3%	7.4%
East								
Kapisa	5.0%	2.6%	0.8%	0.3%	0.0%	1.0%	0.0%	7.3%
Laghman	3.2%	5.4%	0.8%	0.0%	0.3%	0.0%	0.0%	9.2%
Nuristan	1.4%	10.3%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%
North								
Badghis	1.5%	0.8%	0.0%	0.2%	0.0%	0.8%	0.0%	2.8%
Baghlan	5.9%	4.5%	0.7%	0.0%	0.0%	0.3%	0.0%	10.4%
Kunduz	10.5%	6.2%	0.7%	0.0%	0.2%	0.2%	0.2%	16.2%
Samangan	2.4%	0.6%	0.0%	0.0%	0.2%	0.0%	0.0%	2.9%
Sar-e Pul	6.9%	2.8%	1.5%	0.3%	0.0%	1.4%	0.0%	11.0%
West								
Farah	6.1%	1.6%	0.6%	0.3%	0.0%	0.0%	0.0%	8.4%
Ghor	49.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	49.1%
Nimroz	15.2%	2.9%	2.5%	0.0%	0.0%	1.2%	0.0%	16.4%
Central								
Khost	1.1%	7.7%	1.6%	0.3%	0.0%	0.0%	0.0%	9.6%
South								
Kandahar	5.8%	13.9%	0.7%	0.0%	0.8%	0.0%	0.0%	19.4%
Helmand	3.5%	7.6%	1.2%	1.9%	0.0%	0.0%	0.0%	11.4%
Total	8.9%	3.9%	0.8%	0.2%	0.1%	0.4%	< 0.1%	13.0%

the estimated number of rural drug users is approximately 1,740,000.

The CIA World Factbook does not provide an estimate of the rural population as a percentage of its estimated total Afghanistan population. Assuming the rural population-to-total population proportion is similar to CSO's estimate of approximately 76%, the CIA's World Factbook data produces an estimate of Afghanistan's rural population at approximately 24,148,600. Using this data increases the number of rural drug-positive Afghans to approximately 3,180,000 and the number of rural drug users to approximately 2,130,000. While these estimates produce different results in terms of the total estimated number of drug-positive individuals (2,600,000 CSO vs. 3,180,000 CIA) and drug users (1,740,000 CSO vs. 2,130,000 CIA) in rural Afghanistan, both indicate there is a substantial number of drug users and individuals impacted by second-hand exposure and serious policy and program efforts must be enacted to change this issue.

Summary sheets for each of the 52 villages surveyed are included in the Appendix. The villages are identified numerically and by province and district; village names are excluded for security reasons. Household, family, and individual sample counts and numbers of positives are listed by drug and by sample type (hair, saliva, and urine). Population estimates are also listed.

The highest rural rate is in Ghor province, where nearly 50% of the rural population tested positive. One of the four villages tested had the highest rate of any village tested. Only opioids were detected but approximately 90% of the village population tested positive. Among the village, approximately 60% of men, 95% of women, and 95% of the children tested positive for opi-

oids. The second highest rate was in Kandahar province, where approximately 20% of the total population tested positive for one or more drugs.

Among rural adults—individuals older than 15 years—the rate is approximately 15%, with an estimated number of adult drug users of 1,660,000–2,030,000. The province with the highest adult rate is Ghor, with a rate of more than 50% in two of the villages tested.

The two provinces with the lowest adult rates are Badghis and Samangan, both in the North region. There were two villages where no drug use was found: one in Sar-e Pul province and one in Takhar province. In a village in Kapisa province, only children tested positive.

The national rural rate among children, individuals younger than age 15, is approximately 11%. The percentage of children who might be drug users is far lower, at approximately 1%. The drug-positive rate is nearly five times higher than in the urban centers, and because of the larger population of rural children, the number of rural children who are drug positive is approximately 16 times higher than the number of drug-positive urban children: 60,000–70,000 urban children versus 940,000–1,150,000 rural children. This is likely the direct result of higher adult opioid and cannabis use in the rural villages.

The province with the highest rural rate among children is also in Ghor, where approximately 51% of children tested were drug-positive. This rate is nearly identical to the rate among adult men and women. In one village in Ghor, approximately 95% of the children tested positive. In another Ghor village, approximately 55% of the children tested positive. These are the highest rates among children in the 52 villages tested during the survey.

5.3 SUBSTANCES AT THE NATIONAL LEVEL

Although the protocol tested for a wide range of commonly-abused substances, five drug classes and alcohol were detected. The drug classes detected were opioids (morphine, codeine, hydrocodone, hydromorphone, 6-AM, oxycodone, propoxyphene, and methadone), cannabinoids, benzodiazepines, barbiturates, and amphetamine-type stimulants. Cocaine was also detected but only in two individuals. Other drug classes tested for but not detected were phencyclidine (PCP) and methylenedioxyamphetamine (MDMA), commonly referred to as “ecstasy.”

Opioid rates are presented by household and by population at the national, urban and rural levels. Summaries of key village-level findings are presented within each substance section. As stated earlier, village household and population data are presented in the applicable province section (by where a village is located) and summaries for the 52 villages are included in the Appendix.



5.3.1 OPIOIDS

Opioids are drugs that bind to the opioid receptors found principally in the central and peripheral nervous system. They work by decreasing the user’s perception and reaction to pain and, in the short term, increasing the user’s pain tolerance. Side effects include sedation, respiratory depression, constipation, and euphoria. Opioids also suppress coughs; codeine, an opioid, is prescribed worldwide for cough suppression. Long-term and/or excessive use of opioids can lead to dependence, and withdrawal syndrome may occur if use is discontinued abruptly.

The term opiate has historically been used to describe natural alkaloids found in the resin of the opium poppy (*Papaver somniferum*) along with, to some extent, semi-synthetic substances derived from opium, such as oxycodone. “Opiates” has been used synonymously with “opioids” in the past, but the latter is now the preferred term for all natural alkaloids and semi-synthetic and synthetic compounds that affect the opioid receptors.

Afghanistan is the world’s largest producer of opium, and production has been on the rise since 2001. More land in Afghanistan is used for growing opium poppy plants than for coca plant cultivation in Latin America. According to the UNODC World Drug Report, 2013, Afghanistan is responsible for 75% of global poppy cultivation. The farmers earn approximately one-quarter of the income generated in Afghanistan by opium, with the rest going to district officials, insurgents, warlords, and drug traffickers.

5.3.1.1 OPIOID RATES BY HOUSEHOLD

Figure 5.3 presents the urban household opioid rates for 11 provincial capitals and the rural household rates of the 15 provinces surveyed.

The national household opioid rate is approximately 19%. The urban household rate for opioids is approximately 6%. The rural rate is significantly higher at approximately 25%.

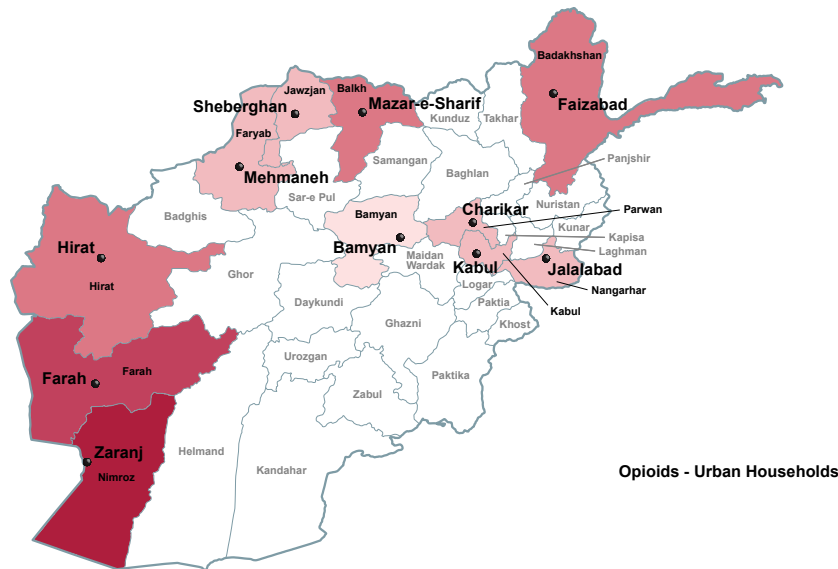
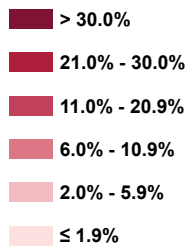
The two highest urban household rates for opioids are in Zaranj and Farah, both in the West. The lowest opioid rates were found in Bamyan and Sherberghan in the North.

The highest opioid rates are in the rural areas of Ghor, Nimroz, and Kunduz provinces. Ghor and Nimroz provinces are located in the West region, where the urban opioid rates are also the highest. Kunduz province is located in the North on the border with Tajikistan. There are nine villages where the household opioid rate is at or above 50%. In Ghor, 100% of the households in two villages had at least one person test positive for opioids, and in a third village, approximately 91% of households tested positive.

National 19.0%

Urban 5.6%

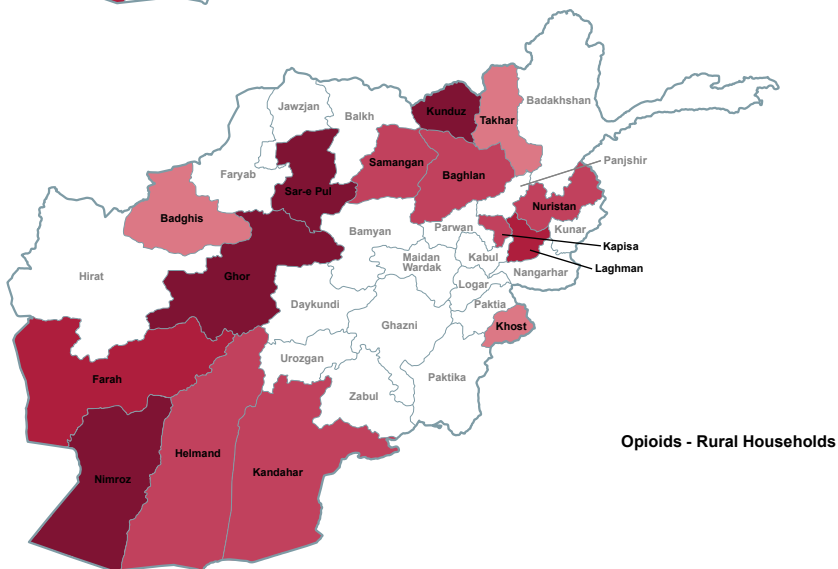
Faizabad	7.1%
Jalalabad	2.1%
Mazar-e-Sharif	7.2%
Bamyan	0.0%
Mehmaneh	3.0%
Sheberghan	2.0%
Hirat	7.1%
Farah	15.0%
Zaranj	22.0%
Charikar	3.1%
Kabul	5.0%



Opioids - Urban Households

Rural 24.5%

Takhar	9.4%
Kapisa	16.3%
Laghman	21.4%
Nuristan	11.1%
Badghis	6.3%
Baghlan	16.7%
Kunduz	34.5%
Samangan	13.3%
Sar-e Pul	34.1%
Farah	28.2%
Ghor	85.7%
Nimroz	45.8%
Khost	8.7%
Kandahar	11.1%
Helmand	16.7%



Opioids - Rural Households

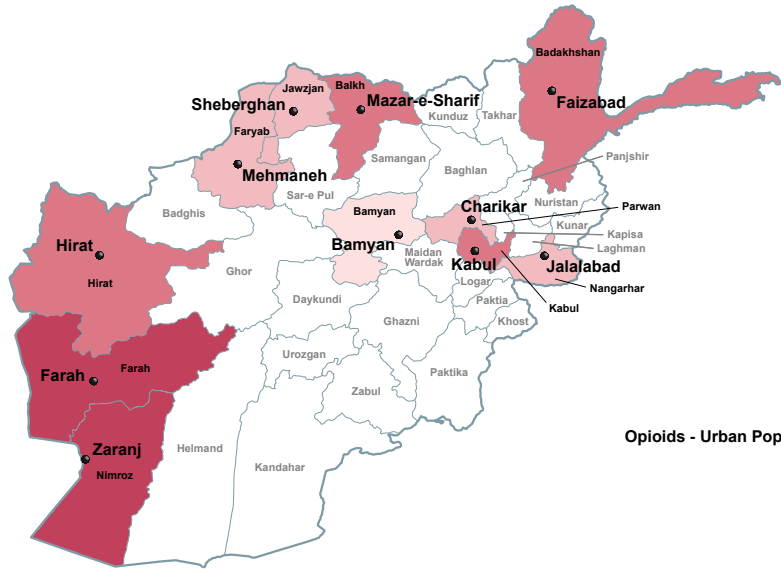
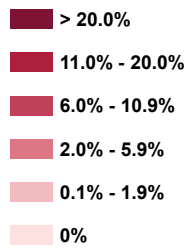
Figure 5.3. Household opioid rates.

5.3.1.2 OPIOID RATES BY POPULATION

Figure 5.4 presents the urban opioid population rates for the 11 provincial capitals and the rural opioid population rates for the 15 provinces surveyed. The national rate for opioids among the population of Afghanistan is approximately 7%. The

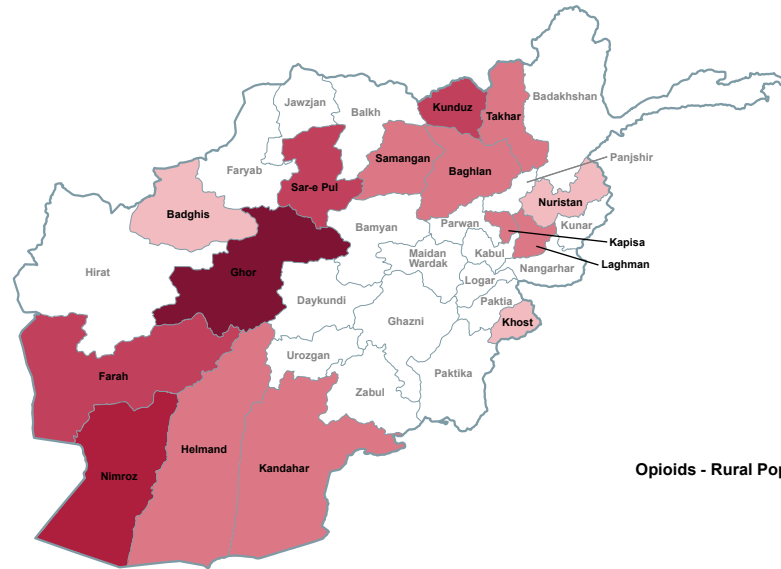
rural opioid rate is three times greater than the urban rate. Approximately 1,940,000–2,370,000 Afghans could test positive for opioids. Approximately 2%, or 120,000 to 150,000, urban Afghans and 6%, or 1,220,000 to 1,480,000, rural Afghans could be opioid users.

National	7.4%
Urban	2.6%
Faizabad	3.8%
Jalalabad	1.0%
Mazar-e-Sharif	2.9%
Bamyan	0.0%
Mehmaneh	1.7%
Sheberghan	1.5%
Hirat	4.1%
Farah	8.6%
Zaranj	10.0%
Charikar	1.8%
Kabul	2.3%



Opioids - Urban Population

Rural	8.9%
Takhar	4.6%
Kapisa	5.0%
Laghman	3.2%
Nuristan	1.4%
Badghis	1.5%
Baghlan	5.9%
Kunduz	10.5%
Samangan	2.4%
Sar-e Pul	6.9%
Farah	6.1%
Ghor	49.1%
Nimroz	15.2%
Khost	1.1%
Kandahar	5.8%
Helmand	3.5%



Opioids - Rural Population

Figure 5.4. Population opioid rates.

100% of the households in two Ghor villages tested positive for opioids.

Table 5.12 presents the national, urban, and rural opioid rates for adults, men, women, and children. Nationally, the opioid rate for adults is approximately 9% and for children, approximately 6%. Opioid use among rural men is approximately 2.5 times higher than urban men, and the rate among rural women is 3.5 times higher than among urban women. Nationally, the percentage of Afghan men

who use opioids is 1.5 times higher than among Afghan women. Opioid use by adults, men, and women are presented separately later in this section.

The capitals of Nimroz and Farah have the highest urban opioid rates and the provinces of Ghor and Nimroz have the highest rural rates; all four of these are in the West. Opioid use is lowest in the provincial capital of Bamyan in the North, where no opioid use was found; Jawzjan, also in the North; and in the provincial capital of Jalalabad in the East. The lowest rates of rural opioid use are in Khost (located in the Central part of Afghanistan), Nuristan (in the East), and Badghis (in the North).

Among the 52 villages surveyed, the population opioid rate was highest in Ghor province. The total population rate exceeded 35% in three villages and approximately 21% in the fourth village. The highest rate was in a village in Lal Wal Sarjagal District in which the rate was approximately 87%. In this village, 95% of the children tested positive for opioids as well as 94% of the women. Approximately 59% of men also tested positive. At the other end of the spectrum, no opioids were detected in 5 of the 52 villages surveyed.

Opioid rates among both the urban and rural population are the highest among adults 25–44 years

Table 5.12. Population Opioid Rates

	Total	Adults	Men	Women	Children
National	7.4%	8.5%	10.3%	6.7%	6.0%
Urban	2.6%	3.5%	4.6%	2.3%	1.3%
Faizabad	3.8%	4.0%	4.9%	3.1%	3.6%
Jalalabad	1.0%	1.8%	3.5%	0.0%	0.0%
Mazar-e-Sharif	2.9%	4.2%	5.3%	3.1%	1.1%
Bamyan	0.0%	0.0%	0.0%	0.0%	0.0%
Mehmaneh	1.7%	2.9%	5.7%	0.0%	0.0%
Sheberghan	1.5%	2.5%	4.0%	1.0%	0.0%
Hirat	4.1%	6.2%	7.2%	5.1%	1.2%
Farah	8.6%	10.6%	14.9%	6.0%	5.7%
Zaranj	10.0%	15.7%	17.2%	14.0%	2.2%
Charikar	1.8%	3.1%	3.0%	3.2%	0.0%
Kabul	2.3%	3.0%	4.1%	1.9%	1.4%
Rural	8.9%	10.1%	12.1%	8.1%	7.5%
Takhar	4.6%	4.9%	7.5%	2.0%	4.2%
Kapisa	5.0%	5.2%	6.3%	3.9%	4.7%
Laghman	3.2%	3.7%	6.1%	1.0%	2.7%
Nuristan	1.4%	2.0%	1.8%	2.2%	1.0%
Badghis	1.5%	2.2%	2.1%	2.3%	0.6%
Baghlan	5.9%	7.5%	14.4%	1.5%	4.0%
Kunduz	10.5%	13.1%	11.3%	15.0%	7.2%
Samangan	2.4%	3.4%	5.0%	1.7%	1.1%
Sar-e Pul	6.9%	8.9%	9.3%	8.5%	4.2%
Farah	6.1%	7.9%	10.8%	6.0%	3.5%
Ghor	49.1%	47.8%	47.5%	48.0%	50.5%
Nimroz	15.2%	19.3%	27.6%	12.2%	10.4%
Khost	1.1%	1.4%	2.8%	0.0%	0.7%
Kandahar	5.8%	6.4%	11.1%	1.5%	5.1%
Helmand	3.5%	5.8%	11.4%	0.0%	1.7%

of age and lowest among those 15–24. Rates evaluated by age are discussed later in the Special Populations, Age section.

The average concentrations of each opioid compound detected in the hair, saliva, and urine of men, women, and children who tested positive are presented in the Appendix. The complete sets of urban and rural opioid data are included in the Appendix as well.

Figures 5.5 and 5.6 present the types of opioids detected in men, women, and children. The types of opioid detected are displayed separately for the urban and rural populations. The type of opioids predominantly used by adult men and women and those found in children differ. There is also a difference between the types of opioids detected in urban and rural Afghans.

5.3.1.2.1 Opioid Use by Adults

Nationally, opioids are used by approximately 64% of adult drug users. Although the rates among male and female adult drug users are similar, a slightly higher percentage of female adult drug users use opioids (68%) than do male adult drug users (62%). Further discussion on adult drug users is presented in the Special Population, Adult section.

The origin and route of the administration of opioids cannot be determined definitively based on drug test results alone. However, the concentration and the distribution of opioids including 6-acetylmorphine, morphine, and codeine in a particular sample can be utilized to differentiate the use of opium, heroin, morphine and/or codeine.

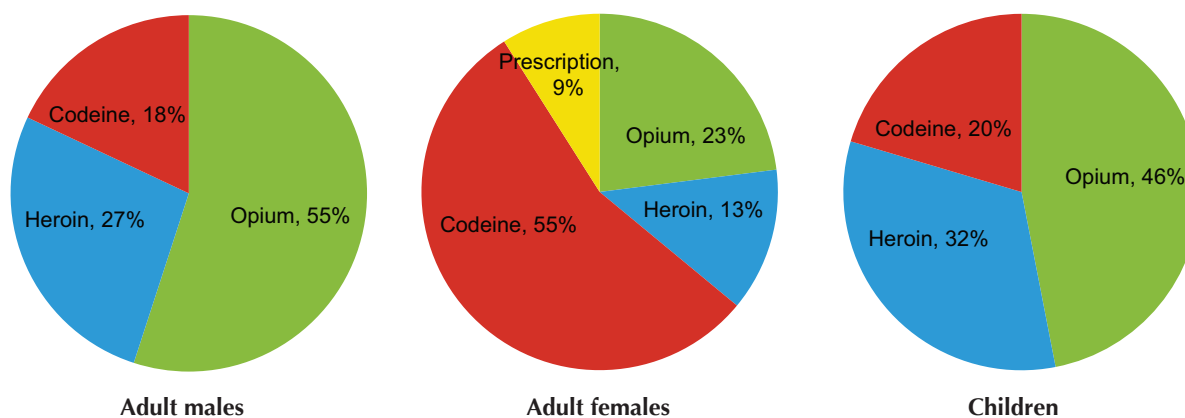


Figure 5.5. Opioid types detected in urban populations.

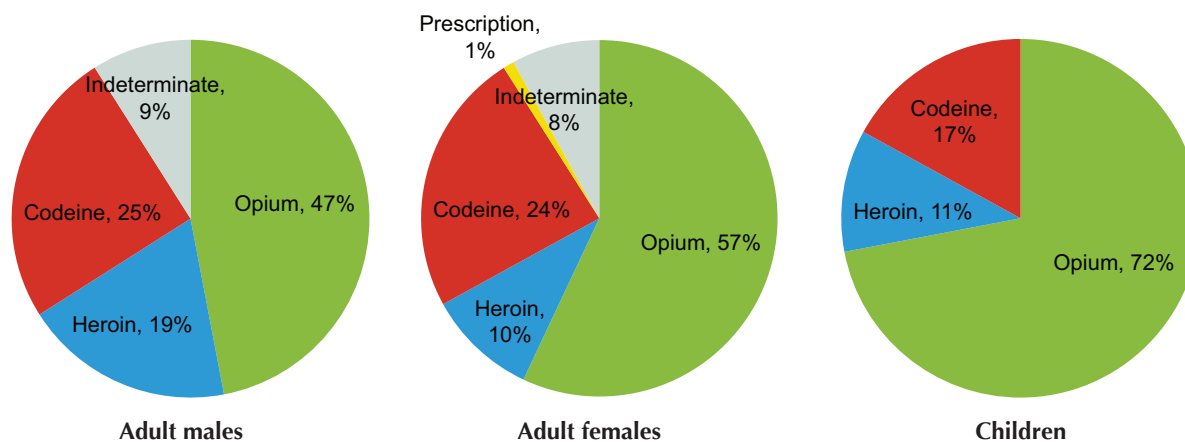


Figure 5.6. Opioid types detected in rural populations.

95% of the children and 94% of the women in a Ghor village tested positive for opioids.

Heroin is manufactured from opium, the latex sap of opium poppy (*Papaver somiferum*), which contains approximately 20 alkaloids including morphine and codeine. Morphine is extracted from the opium to produce heroin, which is also known as diacetylmorphine. Heroin also contains codeine, but at a lesser amount. An individual who has ingested heroin may have the unique metabolite of heroin, 6-acetylmorphine in hair, urine and oral fluid samples. Therefore, in this study, individuals who tested positive for 6-acetylmorphine in any sample were classified as “heroin users.” It is important to note, that those same individuals could have also ingested opium, morphine and/or codeine.

Morphine is the predominant opioid in opium; codeine also is present, but commonly at a much smaller amount. Thus, morphine and codeine are typically present in hair, urine and/or oral fluid samples after ingestion of opium. Due to the distribution of morphine and codeine in opium, the concentration of morphine is expected to be significantly higher than the codeine concentration in the sample. When 6-acetylmorphine is absent, it is presumed that the individuals consumed opium, not heroin. These individuals were classified as “opium users.” This classification does not exclude the individual’s use of morphine or codeine individually, but does suggest that the type of opioid they use is predominantly opium and possibly morphine and codeine. In addition, the concentration of hydromorphone, when present in the sample, was compared to the hydrocodone concentration. Hydromorphone is a minor metabolite of morphine and hydrocodone, and hydrocodone is a minor metabolite of codeine. Individuals who predominantly ingest opium should also have hydromorphone present in their samples.

Codeine (3-methylmorphine) is metabolized in the body to morphine. For this reason individuals who use codeine or a product that contains codeine are expected to test positive for codeine at a concentration higher than the morphine and negative for 6-acetylmorphine. The concentration of hydrocodone, a metabolite of codeine, when present, would also be higher than hydromorphone in these individuals’ samples. The presence of codeine at a concentration higher than morphine does not exclude the use of opium or morphine, but the higher concentration of codeine usually indicates codeine use. Individuals with this profile were classified as “codeine users.”

The abuse of pharmaceutical-based codeine in Afghanistan has not been reported in the medical literature or reports from the UNODC. A recent informal survey conducted on behalf of INL found pharmaceutical-grade and non-pharmaceutical grade codeine medications available in licensed, and unlicensed, pharmacies in Afghanistan. Where and to what extent medications that predominantly contain codeine may be available in urban and rural Afghanistan is not known.

Another possible non-medication source for codeine is a waste or byproduct of heroin manufacturing. Morphine, which is naturally occurring in opium, is extracted and the extracted morphine is then converted into heroin. The waste or byproduct left over after the morphine is extracted from the opium would still contain the codeine, the second most abundant alkaloid in opium. While some portion of morphine remains, the concentration of codeine in the byproduct should be at a concentration higher than morphine. It is possible that this byproduct could be dried and sold in Afghanistan as a less expensive low-grade form of opioid.

The low-grade opioid product left over from heroin manufacturing and/or pharmaceutical and non-pharmaceutical-grade codeine medications could be possible sources of the codeine in those individuals classified as codeine users. The laboratory tests cannot distinguish between these sources of codeine. Additional data, information regarding the various sources of codeine, and more extensive laboratory tests would be required to identify source(s) for the codeine being seen in the laboratory results.

The data also could not differentiate whether opium or an opioid predominantly containing codeine was being used by some of the rural adults who tested positive for opioids. Samples collected from the majority of these individuals had morphine and codeine in hair and urine at concentrations that were some of the highest values noted in the survey. Codeine concentrations were higher than morphine in hair, but the morphine concentrations were higher than codeine in urine. These individuals are classified as “indeterminate.”

During the urban survey, opioids were detected in saliva and/or urine from 87 of the 120 adults who tested positive for opioids. This indicates that 72.5% of those testing positive for opioids had used the drug within a few hours or days prior to being sampled.

In the rural survey, out of 471 individuals who tested positive for opioids, the drug was detected in saliva or urine in only 113 of those individuals or only 23.9%. While a higher percentage of the rural population was positive for opioids, a lower percentage had used opioids a few hours to days before they were tested. Opioids were also detected most frequently in hair, indicative of past use up to 90 days prior rather than the recent use window of only a few days indicated by positive saliva or urine drug-test results.

These findings indicate that rural drug

users may not use opioids as frequently as urban users, or may have a similarly different pattern of use. The monetary cost of opioids and lower average rural income may be a factor. Rural users may also use opioids primarily for analgesic rather than recreational purposes. More data is needed to determine the exact reasons for this difference, but the difference is worth noting and quite pronounced.

5.3.1.2.2 Opioid Use by Men

The highest urban rate for men is 17% in Zaranj. The highest rural rate for men is 48% in Ghor. No opioid use was found in Bamyān City. The lowest male rural rates were in Nuristan and Badghis, at approximately 2% in both provinces. In nine out of the 52 villages surveyed, no opioids were detected in men.

More than half of the urban men who tested positive for opioids were classified as opium users and more than one-fourth of these urban male opioid users also use heroin. Only about one-fifth of urban male opioid users were classified as codeine users. Prescription or pharmaceutical opioids do not appear to be used by urban men, as the related drug-positive results were not seen in their samples at any significant levels or in any significant numbers.

Opioid use among rural men is not significantly different than that of urban men. Opium is used by approximately half of the rural men who tested positive for opioids, a rate only a few percentage points lower than the usage rate of urban men. If all of the “indeterminate” classifications were opium, the percentages would be almost identical. The difference is principally in the use of heroin and codeine. Heroin use is lower: about 19% of rural adult male opioid users use heroin, compared to approximately 27% of urban adult male opioid users. However, the percentage of codeine users among rural men who were positive for opioids is higher, about 25% compared to approximately 18% urban.

Prescription or pharmaceutical opioid use is insignificant for both urban and rural men. Two rural men tested positive for methadone: one who also tested positive for opium and the other who also tested positive for heroin. This is similar to the urban finding in which only one man tested positive for methadone, and who also tested positive for several other drugs.

5.3.1.2.3 Opioid Use by Women

The highest urban rate for women was found in Zaranj, at approximately 14%. This is the same provincial capital with the highest rate for men. The highest rural rate for women was found in Ghor province at approximately 48%. This is the same rate as the highest rate among rural men, and also was found in the same province. No women tested positive in the provincial capitals Mehmaneh, Jalalabad, and Bamyan. No women tested positive for opioids in Khost and Helmand provinces, and no women tested positive for opioids in 22 of the 52 villages surveyed.

More than half of urban women opioid users tested positive for codeine. About 25% of urban women who use opioids are opium users; heroin is used the least. Among urban women, only prescription or pharmaceutical opioids were detected in about 9% of users, which almost equals the percentage of those using heroin.

There is a significant difference in opioid use between urban women and rural women. Opium is used by more than half of the rural female opioid users, which is more than twice the percentage of those using codeine. This is the reverse of the urban findings. The reason for this difference cannot be determined by the data. The percentage of urban and rural women who tested positive for opioids that use heroin is similar: about 13% for urban women and 10% for rural.

During the urban survey, women were

asked how drugs were being used in their household. Women reported they predominantly ingest opium products, principally by putting it into their mouths—for example, placing it under their tongue or swallowing it. Men predominantly smoke or ingest the opium and/or heroin they use, with most (approximately 62%) smoking the drug. No use of drug injection was reported.

The UNODC survey conducted in 2005 also found that much of the opium used by women is ingested. Specifically, the 2005 UNODC drug survey report states “...it was noted that patterns among women are of a less public nature than those of men. Most pharmaceutical and opium use by women occurs in the home, and women typically eat opium rather than smoking it, which makes their drug use less visible to other members of the community.”

Aside from the visibility, smoking opioids—specifically, opium—may be one of the most prevalent methods by which second-hand smoke impacts others, including children, in the household, whether unintentional or deliberate (e.g., analgesic). Therefore, determining which consumption method is used in future surveys is critical, including determining whether all opium in the home is consumed orally, in which case a positive child drug test would indicate deliberate ingestion rather than second-hand exposure, etc.

The laboratory data cannot indicate the relative percentages of opium-positive women smoking versus ingesting the opium they use. However, it does indicate that a greater percentage of rural female opioid users are using opium rather than an opioid product that contains mostly codeine, the reverse of results found in the urban survey. While codeine is not commonly smoked, opium can be ingested or smoked. Even though women in general prefer to ingest opium, it is probable that some of the

rural women who were positive for opioids also smoked the drug.

5.3.1.2.4 Opioid-Positive Children

Using the test result percentages and the CSO and CIA Factbook national data for Afghanistan, 660,000–810,000 children (aged 6 months–14 years) could test positive for opioids. Approximately 91% of those children, or approximately 600,000–740,000 children, are likely passive victims of adults using opioids in the home. About 9% of children who tested positive for opioids, or approximately 60,000 to 70,000 children, might be opioid users.

Figure 5.7 presents the types of opioids detected in children. In the urban centers, almost 50% of the children tested positive predominantly for opium, one-third primarily for heroin, and one-fifth primarily for codeine.

In rural villages, approximately 73% of drug-positive children tested positive for opium, 17% for codeine, and about 11% for heroin. This profile is substantially different than the profile for drug-positive urban children.

Figure 5.7 breaks down and presents the sources of opioids detected in children. The sources fall into three categories: environmental exposure, adult administration, and self-administration. The following criteria were used to categorize the opioid-positive children by source:

1. Children who tested positive for opioids only in hair at a concentration less than 300 pg/mg are presumed positive from second- and/or third-hand exposure to opioid smoke (environmental exposure).
2. Children 8 years of age and younger testing positive for opioids at 300 pg/mg or higher in hair or at any concentration in urine or oral fluid are presumed to have been given the opioids by an adult (adult administration).
3. Children older than 8 years of age who tested positive for opioids in hair at concentrations above 300 pg/mg or positive at any concentration in urine or oral fluid are presumed to be users (self-administration). This category represents approximately 9% of the urban and rural children who tested positive for opioids.

Approximately 44% of urban children who tested positive for opioids appear to be testing positive as a result of environmental exposure to opioid use by adults in the home. Separately, about 48% of opioid-positive urban children appear to be positive because adults administered the drug to them. Therefore, approximately 92% of the children who tested positive for opioids appear to be the passive victims of adult drug use or administration, while approximately 8% of urban children appear to be active opioid users.

The percentages for each source in rural children are almost identical to the percentages among urban children. Analysis of the rural children’s opioid data indicates

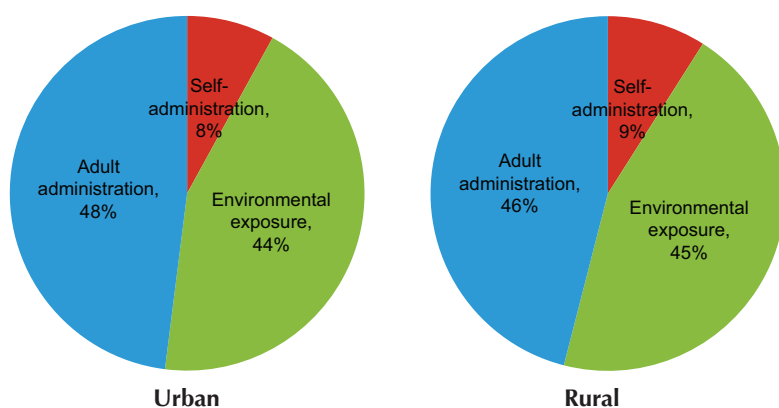


Figure 5.7. Opioid sources in children.

that approximately 91% of the rural children are also passive victims of adult drug use and/or administration. Approximately 45% of opioid-positive rural children tested positive for opioids from environmental exposure, while about 46% met the described criteria for having been administered opioids by adults. About 9% of rural children might be drug users.

Nationally, 91% of children who are drug-positive are assumed to be positive from environmental exposure and/or were administered the drug by an adult. The remaining 9% of drug-positive children are assumed to be drug users. The 9% is also applied to the percentage of drug-positive children for the other drugs to estimate their percentage and the number of drug users.

Nationally, 660,000 to 810,000 children could potentially test positive for opioids. Approximately 91% of those children, or approximately 600,000 to 740,000 children, are likely passive victims of adults using opioids in the home. About 9% of children who tested positive for opioids, or approximately 60,000 to 70,000 children, might be opioid users. Regardless of the reasons, childhood exposure to opioids could lead to significant developmental disorders as well as to drug abuse and addiction later in life.

Comparing the charts in Figure 5.5, the types of opioids and their percentages detected in children are more similar to those of urban men than those of urban women. Urban men predominantly smoke opioids, and the findings indicate men's drug use in the home could potentially be the largest second- or third-hand environmental source of opioids that were detected in urban children.

Comparing the charts in Figure 5.6, the relationship observed between the profiles of children and men in the urban population is not seen in the rural population. The profiles of rural children and women are also different. If the "indeterminate" percentage among men were included with opium, the rural male and female profiles would be similar. The

biggest difference between the opioid profiles of rural children and adults is the higher percentage of opium use/positives among children. Rural children may potentially be affected by both adult male and adult female use of opioids in the household, especially if a higher percentage of rural women (as compared to urban women) are smoking rather than ingesting opioids.

As discussed earlier, the data suggest adults are administering opioids to approximately 48% of the opioid-positive urban children and to 46% of opioid-positive rural children. Adults may be administering opioids to children for analgesic or for behavior-control purposes.

One method adults use to administer opioids to children is to blow opioid smoke in a child's face. When urban women were asked about this practice, they indicated it was not common in urban households. However, the same question was not asked during the rural survey.

There are a number of photos taken and published, including on the cover of the 2005 UNODC survey report, that depict the practice of blowing opium smoke in children's faces. While the question of how opioids are administered is less important than whether opioids are being given to children, it is possible this practice is more prevalent in rural villages. Access to medical care and availability of other analgesics are more limited in rural villages. It would not be surprising for opioids to be used more often in rural villages than in urban homes to manage pain and general discomfort. Blowing smoke into the face of a child may be the easiest way for adults to give opioids to young children and effect relief sooner.

Nationally, 91% of children who tested positive for opioids, approximately 600,000–740,000, are likely passive victims of adult drug use.

The above analysis for opioids was possible, in part, because several different metabolites of opioids can be identified and quantified by the laboratory analysis. This type of analysis is not possible for all drugs. The opioid analysis suggests that approximately 9% of opioid-positive children met the criteria described earlier to potentially be drug users. It is assumed that 9% of children who test positive for other drug classes are also possible drug users.

5.3.2 CANNABIS

The term “cannabis” applies to the genus of flowering plants of three main varieties: *Cannabis sativa*, *Cannabis indica*, and *Cannabis ruderalis*. Historically, these plants have been used for the production of fiber (hemp) as well as for seed and seed oils, but their psychoactive constituent, tetrahydrocannabinol (THC), has led to worldwide popularity and use of cannabis as a recreational drug.

The term “cannabinoids” refers to the phenolic compounds in cannabis, some of which are psychoactive and responsible for producing the “high” associated with cannabis use. The most psychoactive cannabinoid is THC. The potency of cannabis is commonly based on its concentration of THC. In drug testing, saliva or blood of individuals testing positive for cannabis use would contain THC, sometimes referred to as native or parent THC. Carboxy-THC, the main biological metabolite of THC, is formed in the body after cannabis is consumed and would be found primarily in urine and hair.

Afghanistan is one of the world’s largest producers of cannabis, having produced 1,400 metric tons of cannabis resin in 2012. The 2012 UNODC Cannabis Cultivation and Production Survey (2012 Cannabis Survey) reports production increased by 8% even though the estimated area under commercial cannabis

cultivation declined by 17%. More than half of Afghanistan’s commercial production of cannabis is concentrated in the southern area of Afghanistan. Cannabis prices declined in 2012, but this was after a spike in prices that occurred in 2011. Despite this, cannabis achieves a higher gross income than opium in Afghanistan.

The 2012 Cannabis Survey provides information on cannabis cultivation and trade in Afghanistan. Sixteen provinces were identified as “risk areas” for cannabis cultivation in 2012. Among the 16 cannabis-cultivating provinces, the capitals of seven provinces were included in the urban survey: Kabul, Nangarhar, Badakhshan, Balkh, Farah, Hirat, and Nimroz. Jawzan had been classified as a risk area in 2009, as had Faryab in 2010 and 2011. Both of these capitals were classified as “not in risk areas” in 2012. In the rural survey, seven provinces were classified as risk areas: Kunduz, Takhar, Baghlan, Helmand, Kandahar, Farah, and Nimroz. Badghis was classified a risk area from 2009 through 2011 but not in 2012.

There does not appear to be a relationship between cultivation and use, when considering individuals living in provinces and/or cities categorized as “risk areas”. Significant cannabis use was found in one-half (eight) of the “at-risk” provinces studied (for any year between 2009 and 2012), while low to no use was found in three of the provinces “not at risk”. However, low to no use of cannabis was found in five “at-risk” provinces, and high cannabis use was also found in five provinces that were not “at-risk”.

Cannabis use and cultivation may not be related for a variety of reasons. While significant cultivation or trade in cannabis would make cannabis more available, the lack of commercial cultivation does not preclude access to cannabis or its use. One of the 2012 survey findings states: “the survey did not

and could not capture small-scale 'kitchen garden' cultivation of cannabis, which is often for localized and/or personal use." As stated previously, cannabis use was high in five provinces that are not or were not at risk in the past. This shows that cannabis is still available in provinces where there is not significant cannabis cultivation or trade occurring.

Cannabis use was also low in five "at-risk" provinces, which might indicate that use is not necessarily related to commercial cultivation conducted for in-

come reasons. The 2012 Cannabis Survey shows that cultivation occurs in specific rural parts of each province, but that the villages tested may not be in or near those areas. Furthermore, the villages may not be near the urban centers where cannabis trade occurs.

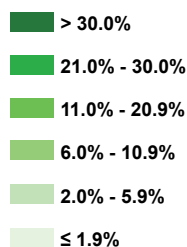
5.3.2.1 CANNABIS RATES BY HOUSEHOLD

Figure 5.8 presents the urban household cannabis rates for each of the 11 provincial capitals and the rural household cannabis rates for each of the 15 provinces.

National 11.0%

Urban 3.2%

Faizabad	0.0%
Jalalabad	3.1%
Mazar-e-Sharif	1.0%
Bamyan	3.0%
Mehmaneh	3.0%
Sheberghan	1.0%
Hirat	4.0%
Farah	2.0%
Zaranj	2.0%
Charikar	3.1%
Kabul	3.9%



Rural 14.1%

Takhar	5.7%
Kapisa	11.6%
Laghman	46.4%
Nuristan	25.9%
Badghis	2.1%
Baghlan	11.1%
Kunduz	21.8%
Samangan	4.4%
Sar-e Pul	11.4%
Farah	5.1%
Ghor	0.0%
Nimroz	16.7%
Khost	30.4%
Kandahar	29.6%
Helmand	22.2%

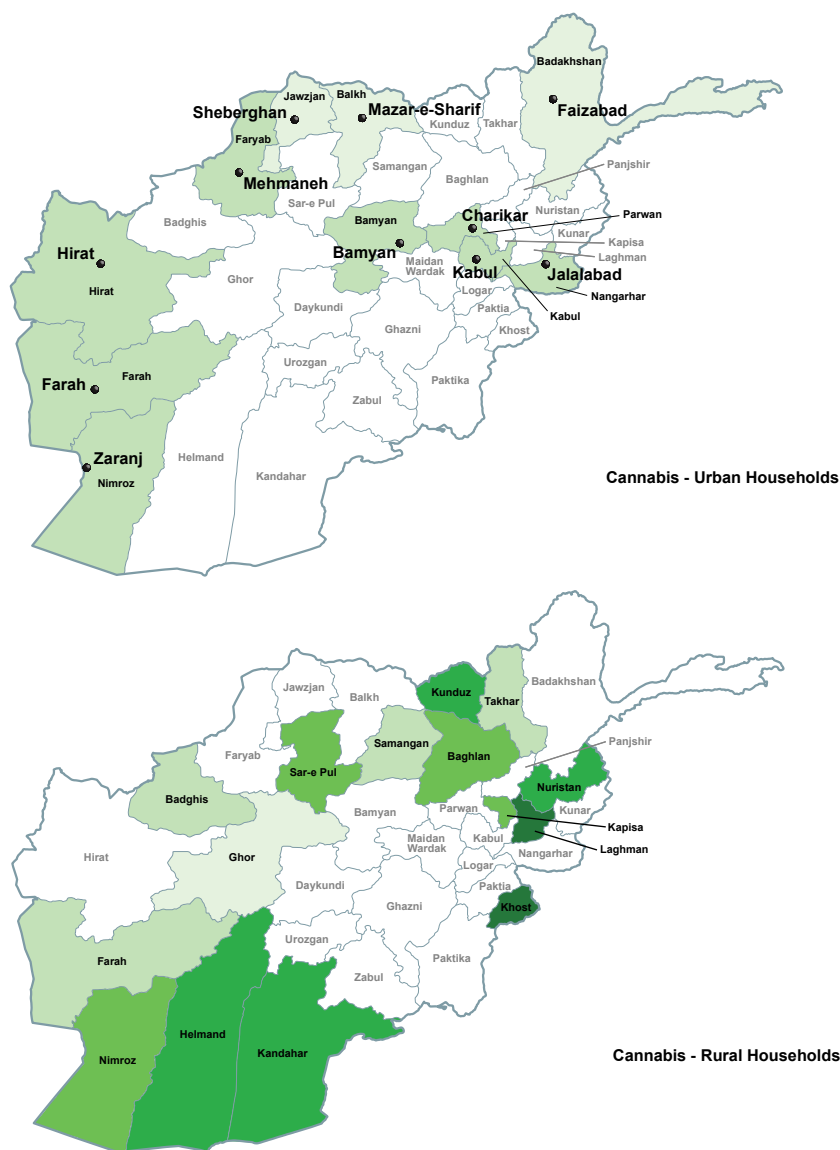


Figure 5.8. Household cannabis rates.

The rural household cannabis rate is four times higher than the urban rate.

Cannabis is the second most detected drug among Afghan households and was detected in approximately 11% of Afghan households. The cannabis rate is more than four times higher for rural households than urban households.

The highest urban cannabis rates were found in the provincial capital of Hirat in the West region and in Kabul City, while

the lowest rates were in Mazar-e-Sharif and Sherberghan in the North region and Faizabad in the Northeast. In Faizabad, cannabis was not detected in any of the households surveyed.

The highest rural cannabis rates were in Laghman in the East region, Khost in the Central region, and Kandahar in the South region. These provinces all had household

rates that were approximately 30% or higher. The provinces with the lowest rural rates were the Ghor and Badghis provinces.

In Laghman province, two of the four villages surveyed had cannabis household rates exceeding 60%. Household rates also equaled or exceeded 50% in four other Afghan villages. Although the UNODC reports that cannabis is the most commonly-used illicit drug in Afghanistan, no cannabis use was found in 22 out of the 52 villages surveyed.

5.3.2.2 CANNABIS RATES BY POPULATION

Table 5.13 presents the national, urban, and rural cannabis rates for adults, men, women, and children. The national population rate is approximately 3%. Approximately 2% of the total population may be cannabis users. The cannabis rate for the rural population is two times greater than the urban population rate.

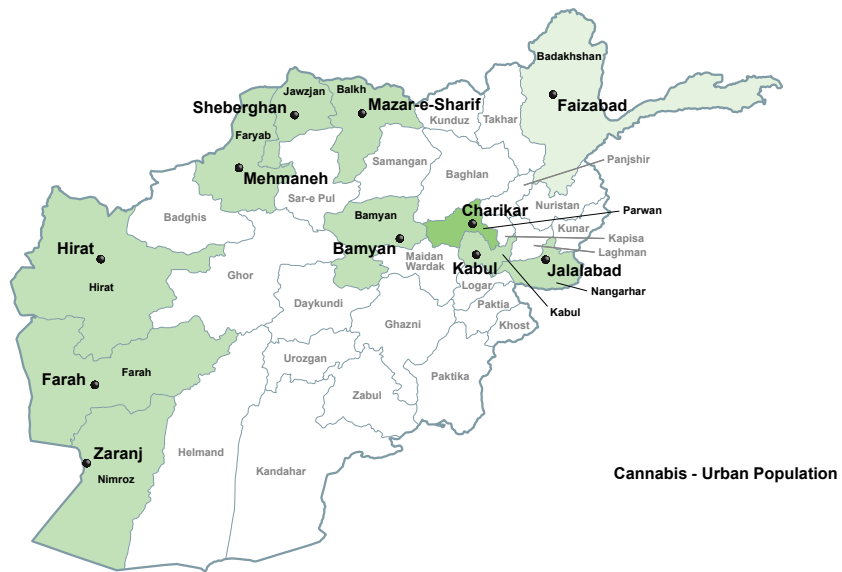
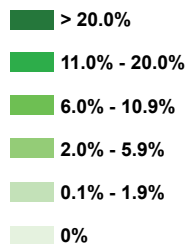
Table 5.13. Population Cannabis Rates

	Total	Adults	Men	Women	Children
National	3.4%	3.8%	6.1%	1.5%	2.9%
Urban	1.7%	2.4%	4.7%	0.1%	0.6%
Faizabad	0.0%	0.0%	0.0%	0.0%	0.0%
Jalalabad	1.6%	2.7%	5.3%	0.0%	0.0%
Mazar-e-Sharif	0.5%	0.9%	1.8%	0.0%	0.0%
Bamyan	1.2%	2.0%	4.0%	0.0%	0.0%
Mehmaneh	1.7%	2.9%	5.7%	0.0%	0.0%
Sheberghan	0.6%	1.0%	2.0%	0.0%	0.0%
Hirat	1.7%	2.9%	5.8%	0.0%	0.0%
Farah	1.3%	2.2%	4.3%	0.0%	0.0%
Zaranj	1.0%	1.8%	3.4%	0.0%	0.0%
Charikar	2.7%	4.6%	9.1%	0.0%	0.0%
Kabul	1.9%	2.5%	4.9%	0.1%	0.9%
Rural	3.9%	4.2%	6.6%	2.0%	3.6%
Takhar	1.8%	1.0%	1.9%	0.0%	2.6%
Kapisa	2.6%	3.9%	6.3%	1.0%	1.1%
Laghman	5.4%	7.4%	12.1%	2.0%	3.2%
Nuristan	10.3%	6.6%	8.9%	4.3%	13.6%
Badghis	0.8%	1.4%	3.2%	0.0%	0.0%
Baghlan	4.5%	4.5%	6.2%	3.0%	4.5%
Kunduz	6.2%	7.7%	13.0%	2.4%	4.2%
Samangan	0.6%	1.1%	2.0%	0.0%	0.0%
Sar-e Pul	2.8%	1.4%	2.8%	0.0%	4.8%
Farah	1.6%	2.1%	4.1%	0.9%	0.9%
Ghor	0.0%	0.0%	0.0%	0.0%	0.0%
Nimroz	2.9%	3.9%	7.6%	0.8%	1.6%
Khost	7.7%	8.8%	9.7%	7.9%	6.4%
Kandahar	13.9%	15.1%	19.4%	10.4%	12.7%
Helmand	7.6%	8.4%	11.4%	5.4%	6.9%

National 3.4%

Urban 1.7%

Faizabad	0.0%
Jalalabad	1.6%
Mazar-e-Sharif	0.5%
Bamyan	1.2%
Mehmaneh	1.7%
Sheberghan	0.6%
Hirat	1.7%
Farah	1.3%
Zaranj	1.0%
Charikar	2.7%
Kabul	1.9%



Rural 3.9%

Takhar	1.8%
Kapisa	2.6%
Laghman	5.4%
Nuristan	10.3%
Badghis	0.8%
Baghlan	4.5%
Kunduz	6.2%
Samangan	0.6%
Sar-e Pul	2.8%
Farah	1.6%
Ghor	0.0%
Nimroz	2.9%
Khost	7.7%
Kandahar	13.9%
Helmand	7.6%



Figure 5.9. Population cannabis rates.

Figure 5.9 presents the urban and rural cannabis population rates for the urban and rural provinces surveyed. Cannabis rates were the highest in the provincial urban capitals of Charikar, Kabul, Hirat, and Mehmaneh and in the rural areas of Kandahar and Nuristan provinces. The lowest rates were in the urban centers of Faizabad and Mazar-e-Sharif and in the rural villages in Ghor and Samangan provinces.

Among Afghan adults, approximately 4% use cannabis: about 6% of men and 2%

of women. The rural adult rate is almost twice the urban adult rate.

The highest village cannabis-positive rate was approximately 19%: approximately 24% among men, 16% among women and 19% among children. The village is located in the Arghandab District of Kandahar.

The rural survey found five provinces in which cannabis rates were higher than opioid rates. These provinces are Nuristan, Khost, Kandahar, Helmand, and Laghman. No cannabis use was found in

The rural population rate for cannabis is twice the urban rate.

Ghor, the province with the highest opioid rate. The cannabis rate in Samangan was also low, at less than 1% (approximately 2% for men). There was no cannabis detected in 17 of the 52 villages surveyed.

5.3.2.2.1 Cannabis Rates by Men

Cannabis use among rural and urban men is not significantly different. However the cannabis rate for rural men is approximately three times higher than the rate for rural women.

The highest urban rate for men was in Charikar at 9%. The highest rate for rural men was in Kandahar at approximately 19%. The highest rate among the 52 villages surveyed was in a village located in the Arghandab District of Kandahar, at approximately 24%. There was no cannabis detected in men in 20 of the 52 villages surveyed.

5.3.2.2.2 Cannabis Rates by Women

Cannabis use by urban and rural women is not significant. Only one woman tested positive for cannabis in the urban survey. The highest rate among rural women is approximately 10% and found in Kandahar province—the same province and village that had the highest cannabis rate among men.

The 2005 UNODC survey reported that among adult drug users, only 7% of women use cannabis. The urban survey only found 1% of female drug users positive for cannabis and the rural survey found that only 14% of female drug users positive for cannabis. The UNODC finding that cannabis is principally used by men is generally supported by the Afghanistan Rural Drug Study's findings.

5.3.2.2.3 Cannabis-Positive Children

Cannabis was detected in 2.9% of Afghan children. The percentage of rural chil-

dren testing positive for cannabis was six times higher than that of cannabis-positive urban children. The rural children findings are remarkable. Out of a total of 86 children who tested positive for cannabis, 24 children tested positive in saliva. Of the 24 children who tested positive in saliva, 17 of those 24 children were negative for cannabis in hair sampling. Although urine samples could not be collected from six of the 24 children, none of the children from whom urine samples were collected tested positive for cannabis.

Tetrahydrocannabinol (THC) is the active compound in cannabis. THC is the compound that is tested for in the laboratory to determine cannabis use or exposure via saliva sampling. Cannabis found in saliva is native-THC, which is THC that has not been metabolized by the body. Cannabis found in hair and urine is carboxy-THC, that is, THC that the body has metabolized. THC in the native form would be present in saliva from recent use. After being metabolized by the liver, the metabolite (carboxy-THC) would be excreted in urine and accumulated in hair. For native-THC to be present in saliva from second-hand exposure, significant amounts of second-hand smoke would need to be present in a child's environment, or a drug user would have to have blown cannabis smoke directly into the child's mouth or nose.

A positive saliva test and negative urine result is a possible outcome if samples are collected soon after use or exposure and before sufficient time had passed for the cannabis to be metabolized and excreted in their urine. Active use should result in carboxy-THC being excreted in the urine, and repeated use should result in hair from some percentage of active users testing positive for THC.

The cannabis rate for rural children is six times higher than for urban children, and half of those who tested positive are under six years of age.

The majority of the children who tested positive for cannabis are not active cannabis users. Significantly less than 1% may be using cannabis as drug users. This finding is supported by a number of factors. None of the 24 children who tested positive for native-THC in oral fluid tested positive for carboxy-THC in urine. In addition, 17 of the 24 children had no carboxy-THC in their hair, indicating there had been no significant active use during the past 90 days.

Finally, another relevant and important factor to support the theory that the majority of cannabis-positive children are not active cannabis users is the age of the children who tested positive. Half of the children who tested positive for THC in saliva were under the age of six years. The youngest child who tested positive for cannabis was one year old. This one-year-old child tested positive for THC in saliva. Another one-year-old child who tested positive for cannabis had the second-highest hair THC concentration of the 86 rural children who tested positive for cannabis. It is unreasonable to suggest that these one-year olds are active cannabis users even though they tested positive for the drug. The THC concentrations found in the hair and/or oral fluid from the majority of the older children were lower than what was found in these one-year-old children.

The criteria for active use and age suggest that less than 9% of the Afghan children who are cannabis drug-positive might be active cannabis users. The majority of the children were positive because of second- and third-hand exposure to cannabis smoke from adult drug use. Similar to opioids, no more

than 9% of cannabis-positive children are assumed to be possible drug users, while the remaining 91% are positive because of adult use in the home.

The cannabis findings are alarming regardless of whether these children tested positive from active use or due to exposure to adult drug use. Research shows that cannabis affects children's brains during developmental years and may lead to a variety of learning, behavioral and health problems in the future. Drug prevention and education must communicate the harm that can result from second- and third-hand exposure to cannabis from adult drug use in the home.

5.3.3 BENZODIAZEPINES

Benzodiazepines are a group of drugs that have sedative, sleep-inducing, and muscle-relaxing properties. They are one of the most widely used drug types in psychiatry. Benzodiazepines are used in treating anxiety, insomnia, agitation, seizures, muscle spasms, and alcohol withdrawal, and as a premedication for medical and dental procedures. There are a large number of drugs in this group. The more common ones are lorazepam (Ativan), clonazepam (Klonopin), alprazolam (Xanax), and diazepam (Valium). Benzodiazepines are ingested orally, usually in pill form.

5.3.3.1 BENZODIAZEPINE RATES BY HOUSEHOLD

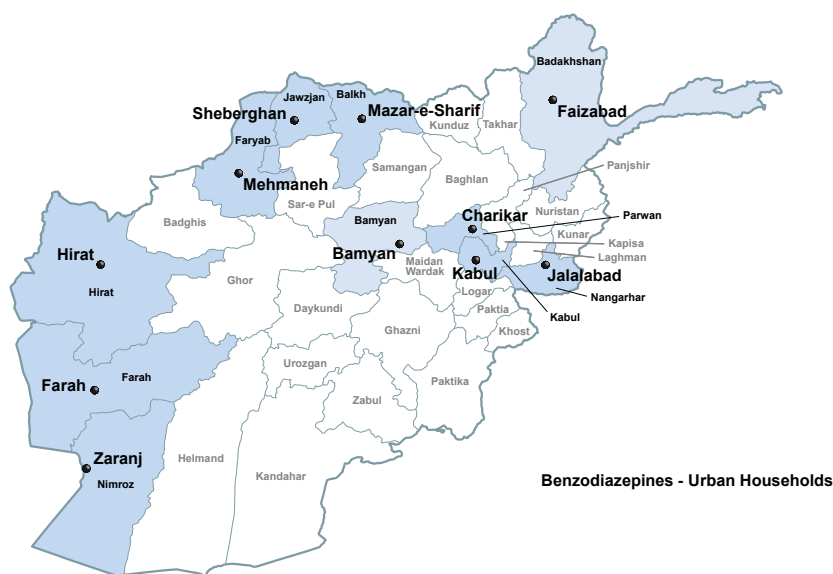
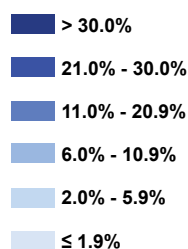
Benzodiazepines are the third most-detected drug among Afghanistan households, being detected in approximately 5% of households. The benzodiazepine rate for rural households is more than twice that of urban households.

Figure 5.10 presents the urban household rates for the 11 provincial capitals and the rural household rates in the 15 provinces surveyed. Benzodiazepines were detected in all but two provincial capitals (they were not detected in Bamyan or Faizabad). The highest urban household rates were found in Farah and Charikar. In the rural survey, five provinces had rates higher than 10% for household benzodiazepine drug-positive tests, including three higher than 15%. Benzodiazepines are the second most

detected drug in Nimroz, Khost, Sar-e-Pul, Farah, and Helmand. In Helmand, the benzodiazepine rate equaled that of opioids, and in Sar-e-Pul and Farah, the rate was the same as that of cannabis.

Benzodiazepines were not detected in 31 of 52 villages surveyed. Benzodiazepine rates exceeded 5% in 21 villages. The highest rate was in a village in Nimroz province. In Helmand, where the rate for benzodiazepines equaled that of opioids, benzodiazepines were detected in all of the villages surveyed in that

National	5.1%
Urban	2.5%
Faizabad	0.0%
Jalalabad	3.1%
Mazar-e-Sharif	2.1%
Bamyan	0.0%
Mehmaneh	3.0%
Sheberghan	2.0%
Hirat	4.0%
Farah	5.0%
Zaranj	2.0%
Charikar	4.1%
Kabul	2.4%



Rural	6.1%
Takhar	1.9%
Kapisa	4.7%
Laghman	10.7%
Nuristan	0.0%
Badghis	0.0%
Baghlan	5.6%
Kunduz	3.6%
Samangan	0.0%
Sar-e Pul	11.4%
Farah	5.1%
Ghor	0.0%
Nimroz	18.8%
Khost	17.4%
Kandahar	7.4%
Helmand	16.7%

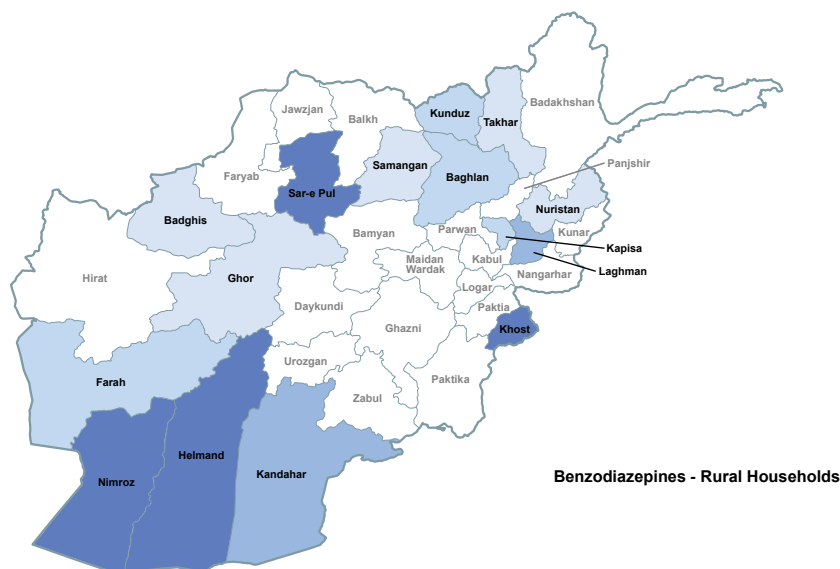


Figure 5.10. Household benzodiazepine rates.

province. In two villages, the benzodiazepine rate was the second highest rate of all of the drugs detected: one in Sar-e-Pul province and one in Khost province.

5.3.3.2 BENZODIAZEPINE RATES BY POPULATION

The national population benzodiazepine rate is approximately 1%. The urban and rural rates are both similar to the national rate.

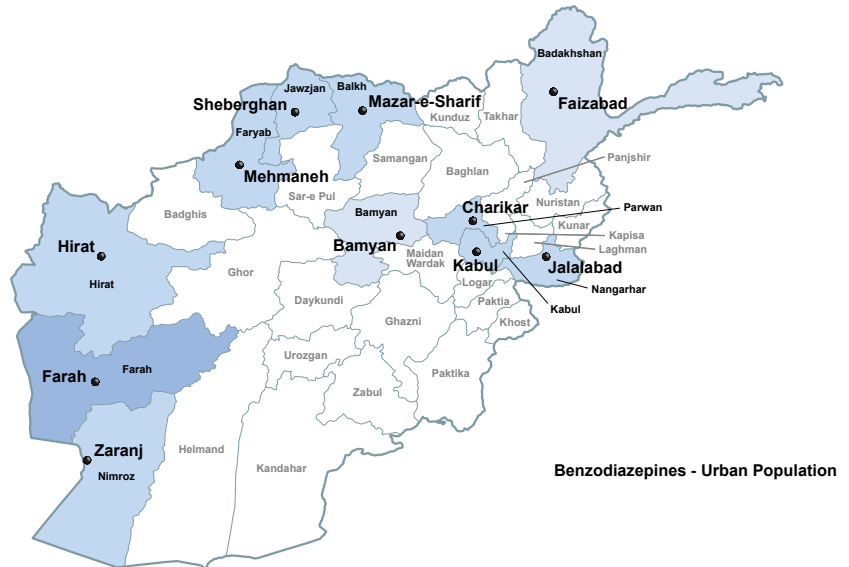
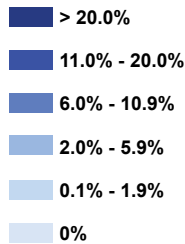
Figure 5.11 presents the benzodiazepine rates for each of the provincial capitals and rural provinces studied. The highest

urban population rates were found in Farah and Charikar. The highest rural population rates were found in the provinces of Nimroz and Khost. The benzodiazepine rate was the second highest rate of all of the drugs detected in Khost province.

Table 5.14 presents the national, urban, and rural benzodiazepine rates for adults, men, women, and children.

Among Afghanistan adults, benzodiazepines are the third most used drugs, but benzodiazepine use is approximately

National	0.8%
Urban	1.0%
Faizabad	0.0%
Jalalabad	1.1%
Mazar-e-Sharif	0.8%
Bamyan	0.0%
Mehmaneh	1.7%
Sheberghan	0.9%
Hirat	1.3%
Farah	2.8%
Zaranj	1.0%
Charikar	1.8%
Kabul	1.0%



Rural	0.8%
Takhar	0.3%
Kapisa	0.8%
Laghman	0.8%
Nuristan	0.0%
Badghis	0.0%
Baghlan	0.7%
Kunduz	0.7%
Samangan	0.0%
Sar-e Pul	1.5%
Farah	0.6%
Ghor	0.0%
Nimroz	2.5%
Khost	1.6%
Kandahar	0.7%
Helmand	1.2%



Figure 5.11. Population benzodiazepine rates.

one-third that of cannabis, the second most used drug. Nationally, the same percentages of men and women use benzodiazepines.

The urban and rural rates for benzodiazepine usage are similar, at approximately 1%. The rates for urban and rural children are similar and substantially less than 1%.

Farah had the highest rate among adults in the provincial capitals. In Farah, the benzodiazepine rate for men—almost 9%—was nearly nine times higher than the rate for women.

Among rural adults, benzodiazepines are also the third most used drug after cannabis, with the benzodiazepine rate approximately one-third that of cannabis. Benzodiazepine use among rural men and women was similar. The provinces with the highest rural adult rates were Nimroz, Sar-e Pul, and Helmand. Benzodiazepines are also the second-most-used drugs among adults in Nimroz, Sar-e Pul, and Khost. In one Nimroz village, the rate for men was approximately 15%, the highest rate found.

The only provincial capital where benzodiazepines were detected in children was in Kabul. In the rural survey, benzodiazepines were only detected in children in the provinces of Khost and Nimroz. They were also not detected among children in 49 out of the 52 villages surveyed.

5.3.4 BARBITURATES

Barbiturates belong to the class of drugs known as sedative-hypnotics, which are used to induce sleep and/or ease anxiety. Some of the commonly used drugs in this group are amobarbital, pentobarbital, phenobarbital, and secobarbital. The most common route of administration is ingestion in pill form.

Table 5.14. Population Benzodiazepine Rates

	Total	Adults	Men	Women	Children
National	0.8%	1.4%	1.4%	1.4%	0.1%
Urban	1.0%	1.7%	2.0%	1.4%	0.1%
Faizabad	0.0%	0.0%	0.0%	0.0%	0.0%
Jalalabad	1.1%	1.9%	1.8%	2.1%	0.0%
Mazar-e-Sharif	0.8%	1.4%	1.8%	1.0%	0.0%
Bamyan	0.0%	0.0%	0.0%	0.0%	0.0%
Mehmaneh	1.7%	3.0%	2.9%	3.1%	0.0%
Sheberghan	0.9%	1.5%	2.0%	1.0%	0.0%
Hirat	1.3%	2.2%	1.4%	3.0%	0.0%
Farah	2.8%	4.9%	8.5%	1.0%	0.0%
Zaranj	1.0%	1.8%	3.4%	0.0%	0.0%
Charikar	1.8%	3.1%	3.0%	3.2%	0.0%
Kabul	1.0%	1.6%	2.0%	1.1%	0.2%
Rural	0.8%	1.3%	1.3%	1.4%	0.1%
Takhar	0.3%	0.5%	0.9%	0.0%	0.0%
Kapisa	0.8%	1.5%	2.7%	0.0%	0.0%
Laghman	0.8%	1.4%	0.0%	3.0%	0.0%
Nuristan	0.0%	0.0%	0.0%	0.0%	0.0%
Badghis	0.0%	0.0%	0.0%	0.0%	0.0%
Baghlan	0.7%	1.4%	2.1%	0.7%	0.0%
Kunduz	0.7%	1.3%	1.7%	0.8%	0.0%
Samangan	0.0%	0.0%	0.0%	0.0%	0.0%
Sar-e Pul	1.5%	2.7%	3.7%	1.6%	0.0%
Farah	0.6%	1.1%	0.0%	1.7%	0.0%
Ghor	0.0%	0.0%	0.0%	0.0%	0.0%
Nimroz	2.5%	4.3%	4.8%	3.8%	0.5%
Khost	1.6%	1.7%	0.0%	3.4%	1.4%
Kandahar	0.7%	1.5%	0.0%	3.0%	0.0%
Helmand	1.2%	2.6%	0.0%	5.4%	0.0%

5.3.4.1 BARBITURATE RATES BY HOUSEHOLD

The household barbiturate rate is low among Afghan households at approximately 1%.

Figure 5.12 presents the urban household rates for the 11 provincial capitals and the rural household rates for the 15 provinces surveyed.

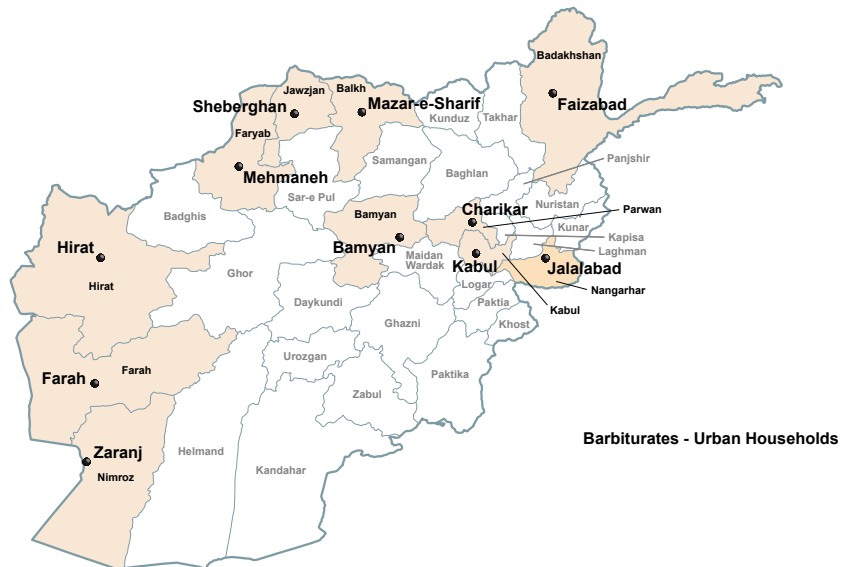
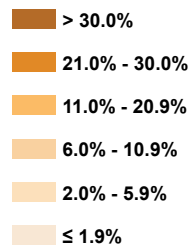
Barbiturates were detected in only the four provincial capitals of Jalalabad, Hirat, Mazar-e-Sharif, and Kabul. The highest urban household rate was found

in Jalalabad, where the household rate equaled that of opioids.

In the rural survey, no barbiturates were detected in the nine of the 15 provinces surveyed. The highest rate is in Helmand, where the household rate was approximately 11%.

Barbiturates were not detected in 45 of the 52 villages surveyed. Rates equaled or exceeded 2% in seven villages in the Farah, Khost, Takhar, Sar-e Pul, Badghis, and Helmand provinces.

National	1.1%
Urban	0.6%
Faizabad	0.0%
Jalalabad	2.1%
Mazar-e-Sharif	1.0%
Bamyan	0.0%
Mehmaneh	0.0%
Sheberghan	0.0%
Hirat	1.0%
Farah	0.0%
Zaranj	0.0%
Charikar	0.0%
Kabul	0.7%



Rural	1.4%
Takhar	3.8%
Kapisa	0.0%
Laghman	0.0%
Nuristan	0.0%
Badghis	2.1%
Baghlan	0.0%
Kunduz	0.0%
Samangan	0.0%
Sar-e Pul	2.3%
Farah	2.6%
Ghor	0.0%
Nimroz	0.0%
Khost	4.3%
Kandahar	0.0%
Helmand	11.1%



Figure 5.12. Household barbiturate rates.

5.3.4.2 BARBITURATE RATES BY POPULATION

Figure 5.13 presents the barbiturate population rates for each of the provincial capitals and rural provinces studied. The national population barbiturate drug-positive rate is less than 1%. The urban and rural rates are similar to the national rate. The highest urban population rate was found in Jalalabad, where it equaled that of opioids.

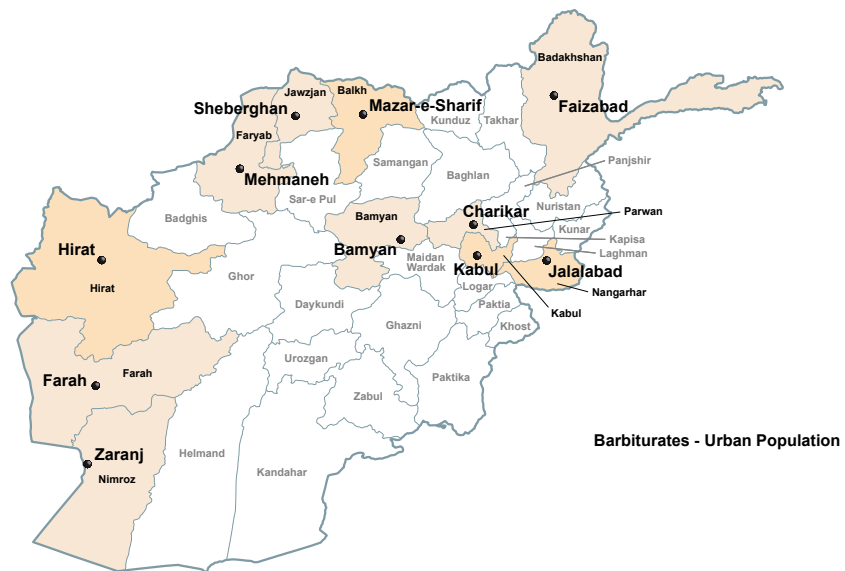
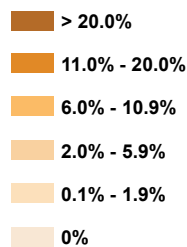
In the rural survey, barbiturates were detected in only seven of the 15 provinces.

The only province that exceeded 1% was Helmand; there, barbiturates were only detected in children. The six other provinces with detectable barbiturate rates all had population rates well under 1%.

Table 5.15 presents the national, urban, and rural barbiturate rates for adults, men, women, and children.

Barbiturates were detected among adults in four urban provincial capitals and in four provinces in the rural survey. All of the adult barbiturate rates were below

National	0.2%
Urban	0.3%
Faizabad	0.0%
Jalalabad	1.0%
Mazar-e-Sharif	0.5%
Bamyan	0.0%
Mehmaneh	0.0%
Sheberghan	0.0%
Hirat	0.4%
Farah	0.0%
Zaranj	0.0%
Charikar	0.0%
Kabul	0.3%



Rural	0.2%
Takhar	0.5%
Kapisa	0.3%
Laghman	0.0%
Nuristan	0.0%
Badghis	0.2%
Baghlan	0.0%
Kunduz	0.0%
Samangan	0.0%
Sar-e Pul	0.3%
Farah	0.3%
Ghor	0.0%
Nimroz	0.0%
Khost	0.3%
Kandahar	0.0%
Helmand	1.9%



Figure 5.13. Population barbiturate rates.

1%. Barbiturates were not detected in adults in 48 of the 52 villages surveyed.

Barbiturates were detected in children in two urban provincial capitals and in four provinces in the rural study. No barbiturates were detected in children in 47 of the 52 villages surveyed. The urban and rural children's rates are very small, at less than 1%, but the urban and rural children's rates are both higher than the equivalent rates for benzodiazepines.

Table 5.15. Population Barbiturate Rates

	Total	Adults	Men	Women	Children
National	0.2%	0.2%	0.3%	0.1%	0.3%
Urban	0.3%	0.4%	0.7%	0.2%	0.2%
Faizabad	0.0%	0.0%	0.0%	0.0%	0.0%
Jalalabad	1.0%	0.9%	1.8%	0.0%	1.1%
Mazar-e-Sharif	0.5%	0.9%	1.8%	0.0%	0.0%
Bamyan	0.0%	0.0%	0.0%	0.0%	0.0%
Mehmaneh	0.0%	0.0%	0.0%	0.0%	0.0%
Sheberghan	0.0%	0.0%	0.0%	0.0%	0.0%
Hirat	0.4%	0.7%	1.4%	0.0%	0.0%
Farah	0.0%	0.0%	0.0%	0.0%	0.0%
Zaranj	0.0%	0.0%	0.0%	0.0%	0.0%
Charikar	0.0%	0.0%	0.0%	0.0%	0.0%
Kabul	0.3%	0.3%	0.4%	0.2%	0.2%
Rural	0.2%	0.1%	0.2%	0.1%	0.3%
Takhar	0.5%	0.5%	0.9%	0.0%	0.5%
Kapisa	0.3%	0.5%	0.9%	0.0%	0.0%
Laghman	0.0%	0.0%	0.0%	0.0%	0.0%
Nuristan	0.0%	0.0%	0.0%	0.0%	0.0%
Badghis	0.2%	0.0%	0.0%	0.0%	0.6%
Baghlan	0.0%	0.0%	0.0%	0.0%	0.0%
Kunduz	0.0%	0.0%	0.0%	0.0%	0.0%
Samangan	0.0%	0.0%	0.0%	0.0%	0.0%
Sar-e Pul	0.3%	0.5%	0.9%	0.0%	0.0%
Farah	0.3%	0.5%	0.0%	0.9%	0.0%
Ghor	0.0%	0.0%	0.0%	0.0%	0.0%
Nimroz	0.0%	0.0%	0.0%	0.0%	0.0%
Khost	0.3%	0.0%	0.0%	0.0%	0.7%
Kandahar	0.0%	0.0%	0.0%	0.0%	0.0%
Helmand	1.9%	0.0%	0.0%	0.0%	3.4%



5.3.5 ALCOHOL

There are different forms of alcohol. One form, ethanol, is a component of alcoholic beverages and a substance of abuse. However, it is also commonly used in commercial cleaning products and liquid pharmaceutical formulations. Other alcohols such as methyl alcohol (methanol) and isopropyl alcohol (“rubbing alcohol”) are used in cleaning products, to remove water from fuel, and for sterilization.

Alcohol detected in this study is ethanol. Although alcoholic beverages are the

principal source of ethanol when it is detected in a sample, it is important to note that ethanol is used in medications such as cough syrups. Use of such medication in sufficient quantities could lead to the detection of ethanol in a sample; laboratory data cannot distinguish between such sources of ethanol.

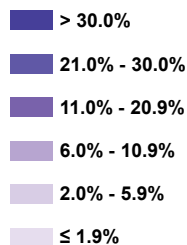
5.3.5.1 ALCOHOL RATES BY HOUSEHOLD

Alcohol use is not prevalent in Afghanistan, and has a household rate of approximately 1%. Urban and rural alcohol rates are similar. Figure 5.14 presents

National 0.8%

Urban 0.7%

Faizabad	0.0%
Jalalabad	0.0%
Mazar-e-Sharif	0.0%
Bamyan	0.0%
Mehmaneh	0.0%
Sheberghan	0.0%
Hirat	3.0%
Farah	0.0%
Zaranj	0.0%
Charikar	1.0%
Kabul	0.8%



Rural 0.9%

Takhar	0.0%
Kapisa	0.0%
Laghman	3.6%
Nuristan	0.0%
Badghis	0.0%
Baghlan	0.0%
Kunduz	1.8%
Samangan	2.2%
Sar-e Pul	0.0%
Farah	0.0%
Ghor	0.0%
Nimroz	0.0%
Khost	0.0%
Kandahar	7.4%
Helmand	0.0%



Figure 5.14. Household alcohol rates.

the urban household alcohol rates for the provincial capitals and the rural household rates for the provinces studied.

Alcohol was detected in only three provincial capitals. The highest urban household rate was found in Hirat, where the household rate was approximately 1%.

Alcohol was detected in rural households in four provinces; these rates were all greater than 1%. The highest rural rate was in Kandahar at approximately 7%. Alcohol was not detected in 48 of the 52 villages surveyed.

5.3.5.2 ALCOHOL RATES BY POPULATION

The national population rate is less than 1%. The urban and rural rates are similar to the national rate.

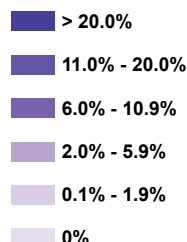
Figure 5.15 presents the alcohol rates for each of the provincial capitals and rural provinces studied. The highest urban population rate was found in Hirat at approximately 1%.

Alcohol was detected in four provinces, all at rates under 1%. No alcohol was detected in 48 of the 52 villages surveyed.

National 0.1%

Urban 0.3%

Faizabad	0.0%
Jalalabad	0.0%
Mazar-e-Sharif	0.0%
Bamyan	0.0%
Mehmaneh	0.0%
Sheberghan	0.0%
Hirat	1.2%
Farah	0.0%
Zaranj	0.0%
Charikar	0.3%
Kabul	0.2%



Rural 0.1%

Takhar	0.0%
Kapisa	0.0%
Laghman	0.3%
Nuristan	0.0%
Badghis	0.0%
Baghlan	0.0%
Kunduz	0.2%
Samangan	0.2%
Sar-e Pul	0.0%
Farah	0.0%
Ghor	0.0%
Nimroz	0.0%
Khost	0.0%
Kandahar	0.8%
Helmand	0.0%



Figure 5.15. Population alcohol rates.

The highest rate was in a village in Kandahar, at approximately 2%. In this village, one woman, or approximately 4% of the women tested, and one child, or 2% of the children tested, tested positive for alcohol; no alcohol was detected in the village's men.

Table 5.16 presents the national, urban, and rural alcohol rates of alcohol for adults, men, women, and children.

While the alcohol rates are low, alcohol was detected more frequently in women than in men. Nationally, among adult drug users, approximately 2% were positive for alcohol: about 5% of adult female users and 1% of adult male users. In the urban provincial capitals, about 13% of adult female drug users were positive for alcohol while only about 3% of adult male drug users were positive. Similar to the urban findings, alcohol was not detected among rural men. Approximately 2% of female drug users were positive for alcohol.

Table 5.16. Population Alcohol Rates

	Total	Adults	Men	Women	Children
National	0.1%	0.2%	0.1%	0.3%	0.1%
Urban	0.3%	0.4%	0.3%	0.5%	0.1%
Faizabad	0.0%	0.0%	0.0%	0.0%	0.0%
Jalalabad	0.0%	0.0%	0.0%	0.0%	0.0%
Mazar-e-Sharif	0.0%	0.0%	0.0%	0.0%	0.0%
Bamyan	0.0%	0.0%	0.0%	0.0%	0.0%
Mehmaneh	0.0%	0.0%	0.0%	0.0%	0.0%
Sheberghan	0.0%	0.0%	0.0%	0.0%	0.0%
Hirat	1.2%	1.2%	1.4%	1.0%	1.2%
Farah	0.0%	0.0%	0.0%	0.0%	0.0%
Zaranj	0.0%	0.0%	0.0%	0.0%	0.0%
Charikar	0.3%	0.5%	0.0%	1.1%	0.0%
Kabul	0.2%	0.4%	0.2%	0.6%	0.0%
Rural	0.1%	0.1%	0.0%	0.3%	< 0.1%
Takhar	0.0%	0.0%	0.0%	0.0%	0.0%
Kapisa	0.0%	0.0%	0.0%	0.0%	0.0%
Laghman	0.3%	0.5%	0.0%	1.0%	0.0%
Nuristan	0.0%	0.0%	0.0%	0.0%	0.0%
Badghis	0.0%	0.0%	0.0%	0.0%	0.0%
Baghlan	0.0%	0.0%	0.0%	0.0%	0.0%
Kunduz	0.2%	0.4%	0.0%	0.8%	0.0%
Samangan	0.2%	0.4%	0.0%	0.8%	0.0%
Sar-e Pul	0.0%	0.0%	0.0%	0.0%	0.0%
Farah	0.0%	0.0%	0.0%	0.0%	0.0%
Ghor	0.0%	0.0%	0.0%	0.0%	0.0%
Nimroz	0.0%	0.0%	0.0%	0.0%	0.0%
Khost	0.0%	0.0%	0.0%	0.0%	0.0%
Kandahar	0.8%	0.7%	0.0%	1.5%	0.8%
Helmand	0.0%	0.0%	0.0%	0.0%	0.0%

5.3.6 AMPHETAMINE-TYPE STIMULANTS

Amphetamines or amphetamine-type stimulants is the class of drug comprising synthetic stimulants that include amphetamine, methamphetamine, methcathinone, and ecstasy-like substances (e.g., MDMA and its analogues). Amphetamine and methamphetamine are rarely used medically and then only in extreme cases of obesity, narcolepsy, and attention deficit hyperactivity disorder. Abuse of amphetamine-type stimulants is spreading, and methamphetamine abuse is a significant health and crime problem.

5.3.6.1 AMPHETAMINE-TYPE STIMULANT RATES BY HOUSEHOLD

Amphetamine-type stimulant use is not prevalent in Afghanistan. The household rate is approximately 2%. Amphetamine-type stimulants were detected more frequently in rural villages than the provincial capitals: less than 1% in the urban centers and approximately 2% in rural Afghanistan.

Figure 5.16 presents the urban household rates for the provincial capitals and the rural household rates in the surveyed provinces. Amphetamine-type stimu-

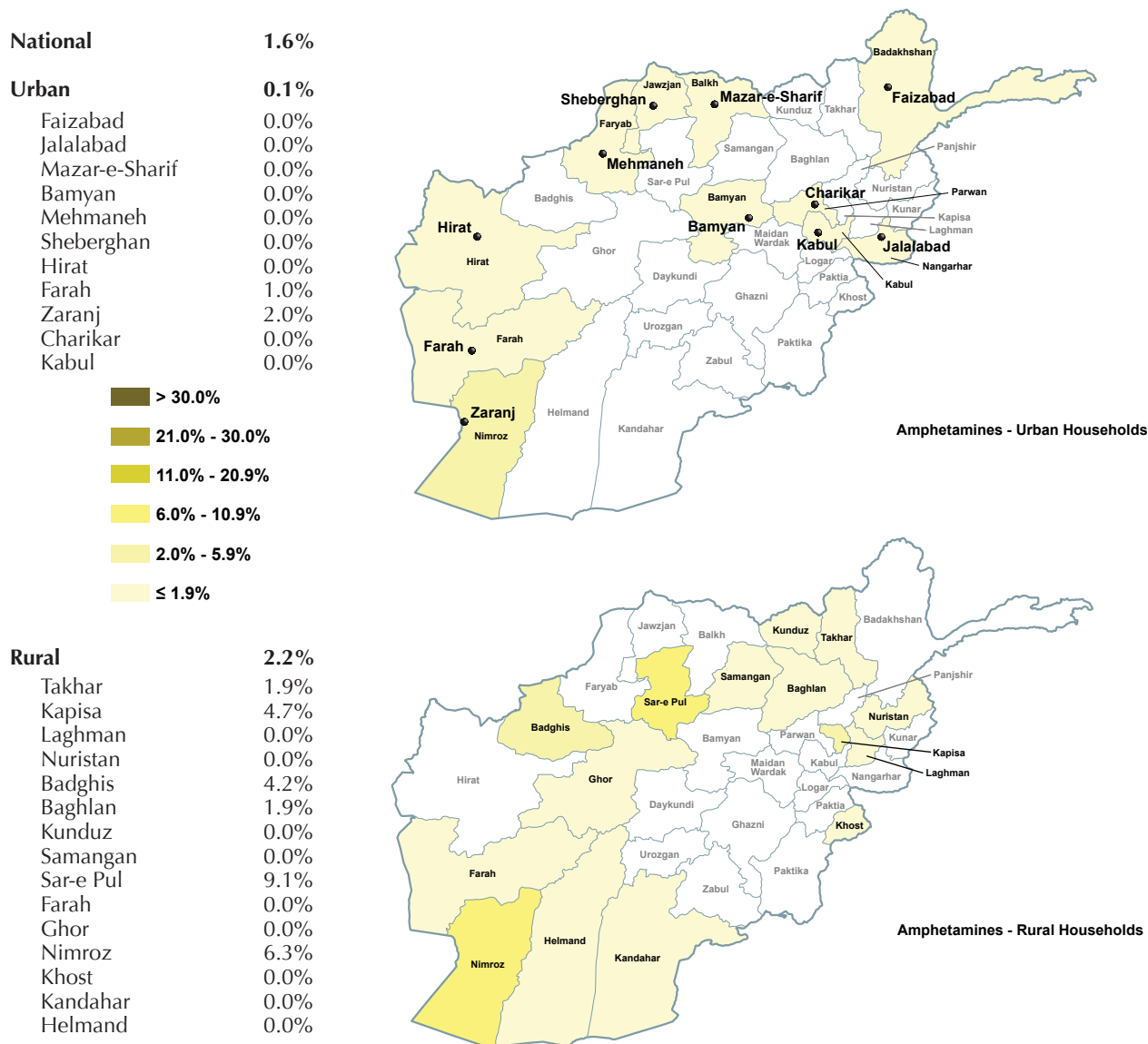


Figure 5.16. Household amphetamine-type stimulant rates.

lants were detected only in the provincial capitals of Farah (Farah City) and Nimroz (Zaranj); both provinces border Iran. The rates for both capitals were 2% or lower.

Amphetamine-type stimulants were detected in six of the rural provinces studied. The highest rural household rate was in Sar-e Pul province, at approximately 9%. Amphetamine-type stimulants were detected in nine of the 52 villages surveyed, at rates ranging from approximately 2% to approximately 9%.

5.3.6.2 AMPHETAMINE-TYPE STIMULANT RATES BY POPULATION

In the urban survey, methamphetamine was detected only in the West region, whereas most of the rural villages in which methamphetamine was detected were in the North region. The one exception is Nimroz. Both Nimroz and neighboring province capital Farah, in which methamphetamine was also detected, border Iran. According to the UNODC, there have been significant seizures of methamphetamine reported in Iran. Since 2005, the number of seizures has increased. The use of amphetamine-type stimulants, including methamphetamine, among the Iranian population also increased. In 2009, Iran reported an increase in the estimated use of amphetamine-type stimulants, as well as an increase in the number of people receiving treatment for amphetamine-type substances.



Figure 5.17 presents the urban population rates for the 11 urban provincial capitals and the rural population rates for the 15 surveyed provinces. In the urban survey, only one man tested positive in Zaranj and one man in Farah. In both cases, the amphetamine-type stimulant detected was methamphetamine. One individual also tested positive for amphetamine, which may have been metabolized from methamphetamine. The

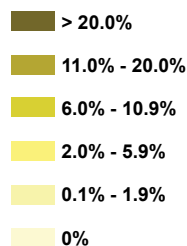
individual had both amphetamine and methamphetamine in his hair, saliva, and urine. The same person also tested positive for opioids, methadone, and benzodiazepines.

Rural amphetamine-type stimulant rates are low and similar to the urban rates, also less than 1%. A total of 20 people in the rural survey tested positive: 15 men, two women, and three children.

National 0.3%

Urban < 0.1%

Faizabad	0.0%
Jalalabad	0.0%
Mazar-e-Sharif	0.0%
Bamyan	0.0%
Mehmaneh	0.0%
Sheberghan	0.0%
Hirat	0.0%
Farah	0.6%
Zaranj	1.0%
Charikar	0.0%
Kabul	0.0%



Amphetamines - Urban Population

Rural 0.4%

Takhar	0.3%
Kapisa	1.0%
Laghman	0.0%
Nuristan	0.0%
Badghis	0.8%
Baghlan	0.3%
Kunduz	0.2%
Samangan	0.0%
Sar-e Pul	1.4%
Farah	0.0%
Ghor	0.0%
Nimroz	1.2%
Khost	0.0%
Kandahar	0.0%
Helmand	0.0%



Amphetamines - Rural Population

Figure 5.17. Population amphetamine-type stimulant rates.

Table 5.17 presents the national, urban, and rural amphetamine-type stimulant rates for adults, men, women, and children.

All 20 rural survey amphetamine-type stimulant drug-test positives were for

methamphetamine, but 13 of these individuals also tested positive for amphetamine. All 13 of the latter were men. The two remaining rural survey amphetamine-type stimulant drug-test positive men who did not test positive for amphetamine had methamphetamine at relatively

low concentrations in their hair. For the drug-positive women and children in the rural survey, the methamphetamine result was not paired with detected amphetamine. However, of the three children who tested positive for methamphetamine, one tested positive in saliva, indicating recent use or exposure. Saliva samples from the other two children could not be collected. The one woman who tested positive for amphetamine-type stimulants tested positive in her hair sample and at a relatively low concentration.

Although the national, urban, and rural rates for amphetamine-type stimulants are low, it is worth noting that in a village located in Kapisa, the total population rate was approximately 5%, and among adults, it was 9%: 13% among men and 5% among women.

	Total	Adults	Men	Women	Children
National	0.3%	0.5%	0.9%	0.1%	0.1%
Urban	< 0.1%	< 0.1%	< 0.1%	0.0%	0.0%
Faizabad	0.0%	0.0%	0.0%	0.0%	0.0%
Jalalabad	0.0%	0.0%	0.0%	0.0%	0.0%
Mazar-e-Sharif	0.0%	0.0%	0.0%	0.0%	0.0%
Bamyan	0.0%	0.0%	0.0%	0.0%	0.0%
Mehmaneh	0.0%	0.0%	0.0%	0.0%	0.0%
Sheberghan	0.0%	0.0%	0.0%	0.0%	0.0%
Hirat	0.0%	0.0%	0.0%	0.0%	0.0%
Farah	0.6%	1.1%	2.1%	0.0%	0.0%
Zaranj	1.0%	1.8%	3.4%	0.0%	0.0%
Charikar	0.0%	0.0%	0.0%	0.0%	0.0%
Kabul	0.0%	0.0%	0.0%	0.0%	0.0%
Rural	0.4%	0.6%	1.1%	0.1%	0.1%
Takhar	0.3%	0.5%	0.9%	0.0%	0.0%
Kapisa	1.0%	1.9%	2.7%	1.0%	0.0%
Laghman	0.0%	0.0%	0.0%	0.0%	0.0%
Nuristan	0.0%	0.0%	0.0%	0.0%	0.0%
Badghis	0.8%	0.9%	1.1%	0.8%	0.6%
Baghlan	0.3%	0.5%	1.0%	0.0%	0.0%
Kunduz	0.2%	0.4%	0.9%	0.0%	0.0%
Samangan	0.0%	0.0%	0.0%	0.0%	0.0%
Sar-e Pul	1.4%	1.9%	3.7%	0.0%	0.6%
Farah	0.0%	0.0%	0.0%	0.0%	0.0%
Ghor	0.0%	0.0%	0.0%	0.0%	0.0%
Nimroz	1.2%	1.8%	3.8%	0.0%	0.5%
Khost	0.0%	0.0%	0.0%	0.0%	0.0%
Kandahar	0.0%	0.0%	0.0%	0.0%	0.0%
Helmand	0.0%	0.0%	0.0%	0.0%	0.0%

5.3.7 PHARMACEUTICALS

Pharmaceuticals are defined as any chemical substances formulated or compounded as a single active ingredient or in combination with other pharmacologically active substances. In the United States, physicians typically prescribe pharmaceuticals. This class includes opioids such as morphine, codeine, propoxyphene, methadone, and oxycodone; benzodiazepines such as diazepam and temazepam; barbiturates such as phenobarbital and amobarbital; and amphetamine-type stimulants such as amphetamine and methamphetamine. Examining the extent to which this group of drugs is used in Afghanistan is important for demand reduction.

Although amphetamine-type stimulants, especially methamphetamine, are also manufactured illicitly, they are included as a pharmaceutical drug for this survey. Hydromorphone and hydrocodone, while manufactured and sold commercially as pharmaceutical opioids in the United States, are not included in this group of drugs. Hydromorphone is a metabolite of morphine and hydrocodone a metabolite of codeine, and

because they were detected in all test samples that were positive for them along with their parent compound, it is believed they are present as metabolites rather than as commercial pharmaceutical opioids.

Codeine is a pharmaceutical drug and is available in pharmacies but to what extent pharmaceutical grade codeine or other non-pharmaceutical medications containing codeine is available in Afghanistan is not known. Codeine may also be from a low-grade opioid product produced during the production of heroin. For this reason, rates for pharmaceuticals are presented with and without the inclusion of codeine.

5.3.7.1 PHARMACEUTICAL RATES— NATIONAL

Table 5.18 presents the national total population, adult, men, and women rates for pharmaceuticals.

When amphetamines, barbiturates, benzodiazepines and pharmaceutical opioids detected during the survey (e.g., methadone and propoxyphene) are grouped together, the national population rate is approximately 1%. The rate increases to approximately 3% when codeine is included. This rate is similar to the rate for cannabis.

Similarly, the rate for adults doubles if codeine is included as a pharmaceutical drug, and would make pharmaceuticals the second most used drug by adults. The rate for men is higher than that for women, with or without the inclusion of codeine. The rate for children is low, but it is substantially higher if codeine is included as a pharmaceutical drug.

Table 5.18. Population Pharmaceutical Rates

	Total	Adults	Men	Women	Children
Pharmaceuticals with Codeine					
Urban	2.4%	3.4%	3.6%	3.2%	1.0%
Rural	3.3%	4.7%	5.7%	3.6%	1.8%
National	3.1%	4.4%	5.2%	3.5%	1.6%
Pharmaceuticals without Codeine					
Urban	1.5%	2.3%	2.7%	1.8%	0.3%
Rural	1.4%	2.2%	2.7%	1.7%	0.5%
National	1.4%	2.2%	2.7%	1.7%	0.5%
Codeine Only					
Urban	0.9%	1.2%	0.9%	1.4%	0.6%
Rural	1.9%	2.5%	3.1%	2.0%	1.3%
National	1.7%	2.2%	2.5%	1.8%	1.1%

5.3.7.2 PHARMACEUTICAL RATES— URBAN AND RURAL

The rates for pharmaceuticals without codeine in urban and rural Afghanistan are nearly identical. The rural rate is about 1% higher for all groups when codeine is included.

The most significant finding from this analysis is the use of pharmaceuticals in urban Afghanistan. If the codeine being detected among opioid users is attributed to the use of pharmaceutical

codeine, then the pharmaceutical rates for urban adults and children are similar to their respective rates for opioids. The rate among urban women would also be higher than the rate for opioids.

The data indicate that the use of pharmaceuticals, whether codeine is or is not included, as a drug class is prevalent among Afghan adults. It suggests that pharmaceutical drug use should be included in drug-demand reduction programs, especially for Afghan women.



5.4 DRUG RATES BY SPECIAL POPULATIONS

The data were further broken down by population to try to establish which Afghans are most at risk for drug use.

Table 5.19. Adult Rates by Drug Class

Drug Class	National	Urban	Rural
Adults			
Opioids	8.5%	3.5%	10.1%
Cannabis	3.8%	2.4%	4.2%
Benzodiazepines	1.4%	1.7%	1.3%
Barbiturates	0.2%	0.4%	0.1%
Alcohol	0.2%	0.4%	0.1%
ATS	0.5%	< 0.1%	0.6%
Any	12.8%	7.5%	14.5%
Pharmaceuticals with codeine	4.4%	3.4%	4.7%
Pharmaceuticals without codeine	2.2%	2.3%	2.2%
Codeine	2.2%	1.2%	2.5%
Men			
Opioids	10.3%	4.6%	12.1%
Cannabis	6.1%	4.7%	6.6%
Benzodiazepines	1.4%	2.0%	1.3%
Barbiturates	0.3%	0.7%	0.2%
Alcohol	0.1%	0.3%	0.0%
ATS	0.9%	< 0.1%	1.1%
Any	16.1%	10.6%	17.8%
Pharmaceuticals with codeine	5.2%	3.6%	5.7%
Pharmaceuticals without codeine	2.7%	2.7%	2.7%
Codeine only	2.5%	0.9%	3.1%
Women			
Opioids	6.7%	2.3%	8.1%
Cannabis	1.5%	0.1%	2.0%
Benzodiazepines	1.4%	1.4%	1.4%
Barbiturates	0.1%	0.2%	0.1%
Alcohol	0.3%	0.5%	0.3%
ATS	0.1%	0.0%	0.1%
Any	9.5%	4.3%	11.2%
Pharmaceuticals with codeine	3.5%	3.2%	3.6%
Pharmaceuticals without codeine	1.7%	1.8%	1.7%
Codeine only	1.8%	1.4%	2.0%

5.4.1 SPECIAL POPULATIONS—ADULTS

Adult rates are presented by drug class in Table 5.19 and by province in Table 5.20. The national, urban, and rural rates for each type of drug used by adult male

Table 5.20. Rates by Adults

	Adults	Men	Women
National	12.8%	16.1%	9.5%
Urban			
Faizabad	4.0%	4.9%	3.1%
Jalalabad	7.3%	12.3%	2.1%
Mazar-e-Sharif	6.5%	8.8%	4.1%
Bamyan	2.0%	4.0%	0.0%
Mehmaneh	7.3%	11.4%	3.1%
Sheberghan	5.1%	8.0%	2.0%
Hirat	12.6%	15.9%	9.1%
Farah	15.5%	23.4%	7.0%
Zaranj	20.9%	27.6%	14.0%
Charikar	8.2%	9.1%	7.4%
Kabul	6.9%	9.9%	3.7%
Rural			
Takhar	7.4%	12.1%	2.0%
Kapisa	8.6%	11.7%	4.9%
Laghman	12.1%	17.4%	6.0%
Nuristan	8.6%	10.7%	6.5%
Badghis	3.7%	5.3%	2.3%
Baghlan	12.9%	21.6%	5.2%
Kunduz	19.9%	21.7%	18.1%
Samangan	4.3%	5.9%	2.5%
Sar-e Pul	12.1%	14.0%	10.1%
Farah	11.0%	14.9%	8.6%
Ghor	47.8%	47.5%	48.0%
Nimroz	21.5%	30.5%	13.7%
Khost	10.6%	11.1%	10.1%
Kandahar	20.1%	25.0%	14.9%
Helmand	11.7%	14.3%	8.9%

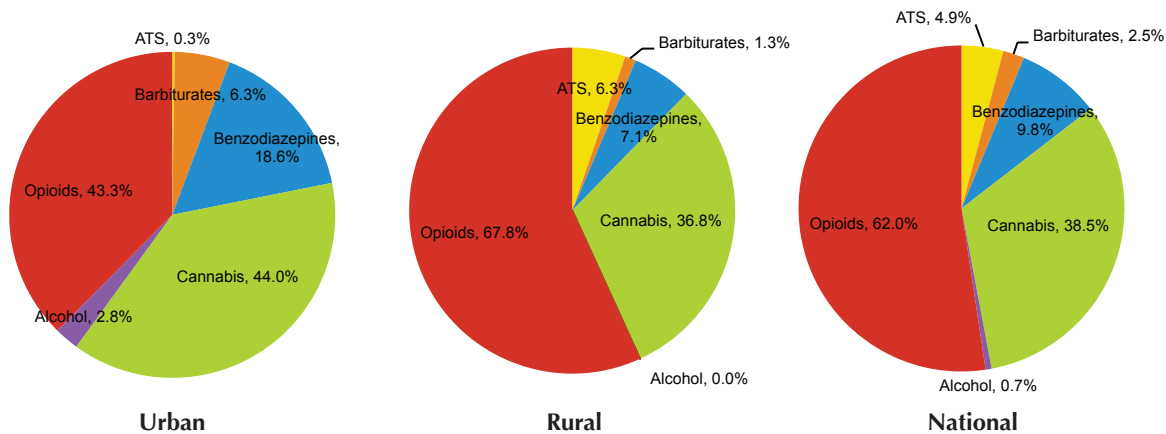


Figure 5.18. The drug classes used by adult male drug users.

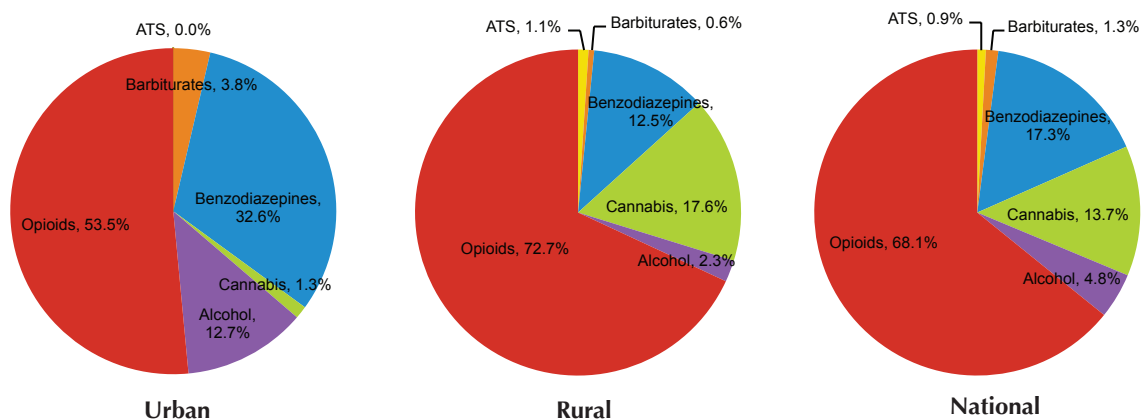


Figure 5.19. The drug classes used by adult female drug users.

drug users are presented in Figure 5.18, and those used by adult female drug users in Figure 5.19.

Examining adult drug use separately is important when presenting national rates. Inclusion of children in estimating national drug use is misleading because a significant percentage of children testing positive are not users. That is, in children, a positive drug test does not necessarily indicate drug use. As presented earlier, the majority of the children who tested positive for opioids may have been given the drug by an adult or may have tested positive as a result of environmental exposure.

The benefit of presenting the adult rate separately from the total population rate is shown when comparing the urban rates of adults and children. The rate

among urban adults is significantly higher than the overall population. In the urban provincial capitals, the children's rate is low, and as children comprise nearly half the population, they significantly lower the urban total population rate. In comparison, the rural children's rate is much higher and only a few percentage points below the rural adult rate. While some of the following information has been presented earlier, the key findings are worth repeating within this focused discussion of adult drug use.

Nationally, the total population rate is approximately 11%, whereas the adult rate is higher, at approximately 13%. These rates also represent drug-use rates for adults. Opioids and cannabis are the most commonly used drugs by Afghan adults.

The types of drugs used and rates of use vary by gender. In general, men are found to be far more likely to test positive for drug use than women. Opioid and cannabis use are more prevalent among men than women, while the rates for benzodiazepines are similar for both groups.

Opioids are the most frequently used drug by both men and women, but the rates and types of opioids used by each gender differ substantially. The opioid national rate for men is 50% higher than the rate for women, but the gender difference is greater between urban men and women. Opioid use by urban men is 100% greater than use by urban women.

Opioid usage by rural men and women is higher than that of their urban counterparts. Opioid use by rural men is approximately 70% higher than that of urban men. The difference between rural and urban is more pronounced in the female groups. Rural female opioid use is 3.5 times greater than that of urban females. Because there are more adults living in rural villages, these higher rates also mean that over six times more drug users live in rural villages than do in urban centers. These differences further reinforce the need to expand drug treatment throughout the rural areas of Afghanistan.

There are significant differences in the types of opioids used by urban and rural adults. Nationally, most men who use opioids use opium and/or heroin. Women use opium and heroin, but at rates lower than those of men. Opium is the predominant opioid used by urban men, while codeine is the predominant opioid used by urban women. The rural profile is different. The types of opioids rural men and women use are more similar: both predominantly use opium.

Nationally, adult cannabis comprises less than 50% of opioids. There is a substantial difference between urban and rural use of cannabis: in the urban provincial

capitals, cannabis use among adults is approximately 30% lower than the opioids rate; but in the rural villages, the difference is more pronounced, and cannabis use is nearly 60% lower than the use of opioids.

Urban male cannabis use and opioid use are similar, but cannabis use occurs at slightly higher rates. Rural male use of cannabis is 40% higher than that of urban males, but rural male cannabis use is significantly lower than rural male opioid use. Cannabis use is similar to opioid use in the urban provincial capitals, but cannabis use is significantly lower in the villages where the majority of Afghan men live. This finding dispels the belief that cannabis is the most-used drug among Afghan men.

Urban women generally do not use cannabis. In fact, only one woman tested positive for cannabis out of the 2,155 women tested in the urban survey. The rate of positives among rural women is significantly higher than the rate among urban women, but this rate is still low in comparison to the men's rate. These findings support 2010 UNODC's finding that men, rather than women, are the principal users of cannabis in Afghanistan.

Nationally, benzodiazepine rates are the same for men and women, and there is not a significant difference between urban and rural adults. Benzodiazepine use is more common among urban men than it is among urban women, and its use by both rural men and women is similar.

Alcohol is not used by a significant percentage of the adult population. The rates among men and women are similar but slightly higher among women. Alcohol use, while low, appears to be more prevalent in urban Afghanistan.

Nationally, adult amphetamine use exists, but use is low. Amphetamines were detected in only two men in the urban survey. Both men used methampheta-

mine, and one man also used amphetamine. A much higher number of adults, as well as several children, tested positive for methamphetamine in the rural villages. While use of amphetamines is not substantial in either the urban or rural areas of the country, amphetamine use is higher in some rural villages.

5.4.2 SPECIAL POPULATIONS—AGE

Figures 5.20 and 5.21 present urban and rural drug-positive rates for six age groups. These age groups are < 6 years, 6–14 years, 15–24 years, 25–44 years, and 45+ years.

The rates are only presented for urban and rural populations because the urban

and rural data cannot be merged to produce national rates by age groups. This is because no source (such as the CSO or CIA World Factbook) for urban demographic information could be found that provides each group’s estimated percentage of the national urban population. Household demographics, age and household resident information, which could have been used to estimate those percentages, were not collected during the urban survey. The population percentage for each age group is necessary to weight the urban and rural data in order to produce national rates by age group.

Because the urban sample rates could not be adjusted, the urban rates are presented on the basis of each age group’s number of individuals tested. The age profile of each age group is meaningful when viewed relative to the other age groups.

5.4.2.1 DRUG RATES BY AGE—URBAN

Figure 5.20 presents the urban rates for each of the six age groups. The data indicate there are differences in the type of drug used and the drug-positive rates when separated by age group.

The highest rate of drug use among the urban population appears to be among the older population, those 45 years old and older, followed by those 25–44 years of age. The lowest rates are among the two children’s age groups, those under six years old (< 6) and those 6–14 years of age.

Regardless of the reason, the detection of drugs in approximately 2% of urban children—those under 15 years

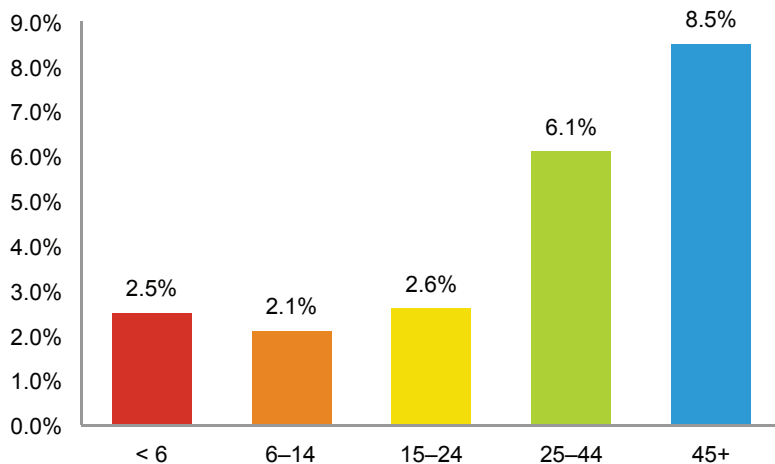


Figure 5.20. Urban rates by age group.

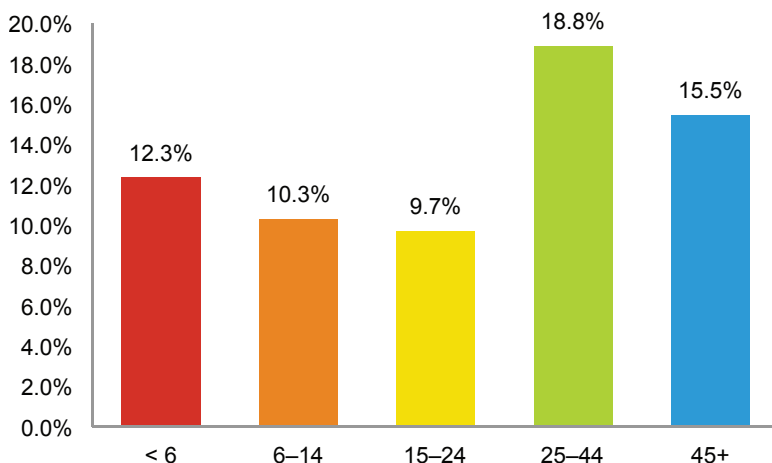


Figure 5.21. Rural rates by age group.

of age—and particularly among toddlers and infants is significant. Developmental and cognitive problems, drug dependence, and serious long-term health problems are all possible from drug exposure or use at such an early age.

The opioid rate is similar between those 25–44 years of age and those 45 years and older, both about 4%. The rate among those 15–24 years of age was low, at about 1%. This suggests that opioid use among young urban adults and adolescents is relatively low and that there is perhaps a generational shift away from opioid use. Drug education and prevention programs may be working for this age group, and may potentially reduce this group’s use of these drugs in later years. Early intervention for those who use opioids would improve outcomes and reduce recidivism. Age-specific and culturally appropriate treatment and treatment programs for those exposed to opioids at an earlier age may benefit this group of young urban adults and adolescents.

The highest cannabis rate is among young adults, those ages 15–24 years, but not substantially higher than the cannabis rates of the two older groups.

Barbiturate, benzodiazepine, and alcohol rates are highest among the oldest group, those 45 years of age and older. These rates among the 45 years and older group are twice as high as the corresponding rates for adults younger than 45 years old. Interestingly, more than one-third (36%) of those testing positive for benzodiazepine are 60 years and older. It is probably a common analgesic for the elderly.

5.4.2.2 DRUG RATES BY AGE—RURAL

Figure 5.21 presents the rural rates by drug class and for each of the six age groups. Differences in the type of drug and corresponding rates by age are indicated. Demographic age data was collected during the rural survey.

The highest rural drug-positive rate was among those 25–44 years of age, followed by those aged 45 years and older. The lowest rate was among young adults, those 15–24 years of age. This was the same finding as in the urban survey. Early intervention, as well as tailored drug treatment programs for the rural children exposed to opioids in their environment, may benefit this age group.

The rates for rural children younger than six years old and those 6–14 years of age are each 10% or more. This finding is remarkable. Regardless of the reason these children tested positive, the detection of drugs in 10% or more of the rural child population, and particularly among toddlers and infants, is of serious concern.

As stated for the urban findings, developmental and cognitive problems, drug dependence, and serious long-term health problems are all possible from drug exposure or use at such an early age.

Rural opioid rates are similar to those in the provincial capitals, with the highest rates detected among those 25–44 years old and among those older than 45 years of age. The rural rate is also slightly higher for those 25–44 years of age. The age group with the lowest opioid rate was for the group 6–14 years old, but the rate among those 15–24 years of age is only slightly higher. The rate among those 15–24 years old is lower than the rate of children younger than six years of age.

The highest rate for opioids was detected in the age group 25–44; opioids are the drug used at the highest rate by this age group of rural males. This result mirrors the urban findings. The rural rate for this age group is also significantly higher than that of any other rural age group. The lowest rate among rural males is in the age group 6–14 years old. The rate among rural male children younger than six years of age is also higher than those rural males 15–24 years of age.

Among rural females, the lowest rate for opioids is among young women aged 15–24 years, and the rates among the other age groups are similar, with the exception of rural females aged 45 years and older. The highest rate is among those rural females 45 years of age and older.

The highest cannabis rate is among adults 25–44 years of age. The rate for this group is nearly twice as high as the rate of other age groups, which are all similar.

Cannabis use is most prevalent among rural males 25–44 years old. Approximately 10% of males in this age group use cannabis. Their rate is double that of those 15–24 years of age, and is more than three times that of the other age groups. The highest rates among females are in the age group 6–14 years of age, and in children younger than six years old.

The highest benzodiazepine rate is among those 45 years of age and older. There are significant gender differences. Benzodiazepine rate among females 45 years and older is significantly higher

than that of any other female age group. Approximately 22% of adult females who tested positive for benzodiazepines were over the age of 60. Among males, the highest benzodiazepine rate was found among those 25–44 years of age. Unlike urban male rates, the highest rate for rural males is in the 25–44 years age group, and is twice the rate of those 45 years of age and older.

Amphetamine-type stimulants are primarily used by males, mostly by males 25–44 years old. No amphetamine use was found among those 45 years of age and older, of either gender. The rates for positive amphetamine-type stimulant drug tests in other age groups are insignificant. The rate for women is also insignificant; no urban women tested positive for the drug. No urban children tested positive. While a few rural children tested positive for the drug, the rate for the rural children is low and not significant. However, it is worth noting and of concern that a one-year-old child whose hair tested positive for methamphetamine also tested positive for diazepam, a benzodiazepine, and opioids (heroin and opium).



6.0 DRUG RATES BY PROVINCE

The Afghanistan National Drug Use Survey was carried out in two phases because of its size, scope, budget, and the logistical and security challenges entailed. The urban drug use survey was conducted first: it was started in 2011 and completed in 2012. The rural survey was started in late 2012 and completed in early 2014. In total, the urban centers of 11 provincial capitals or province centers as well as 52 villages from 24 provinces were surveyed. The data collected from the urban and rural surveys produce a national profile of drug use in Afghanistan.

The provinces are organized into the same six regions used by the UNODC in the Afghanistan Drug Use Survey 2005

report and the Afghanistan National Urban Drug Use Survey, 2012 report. These six regions are

Northeast Region

East Region

North Region

West Region

Central Region

South Region

Figure 6.1 shows the six regions and provinces surveyed.

The national, urban, and rural rates presented in Section 5 are based on a large sample size collected from 11 provincial capitals, including Kabul City, the largest and most populated urban city in Afghanistan, and 52 rural villages. The large sample size and number of posi-

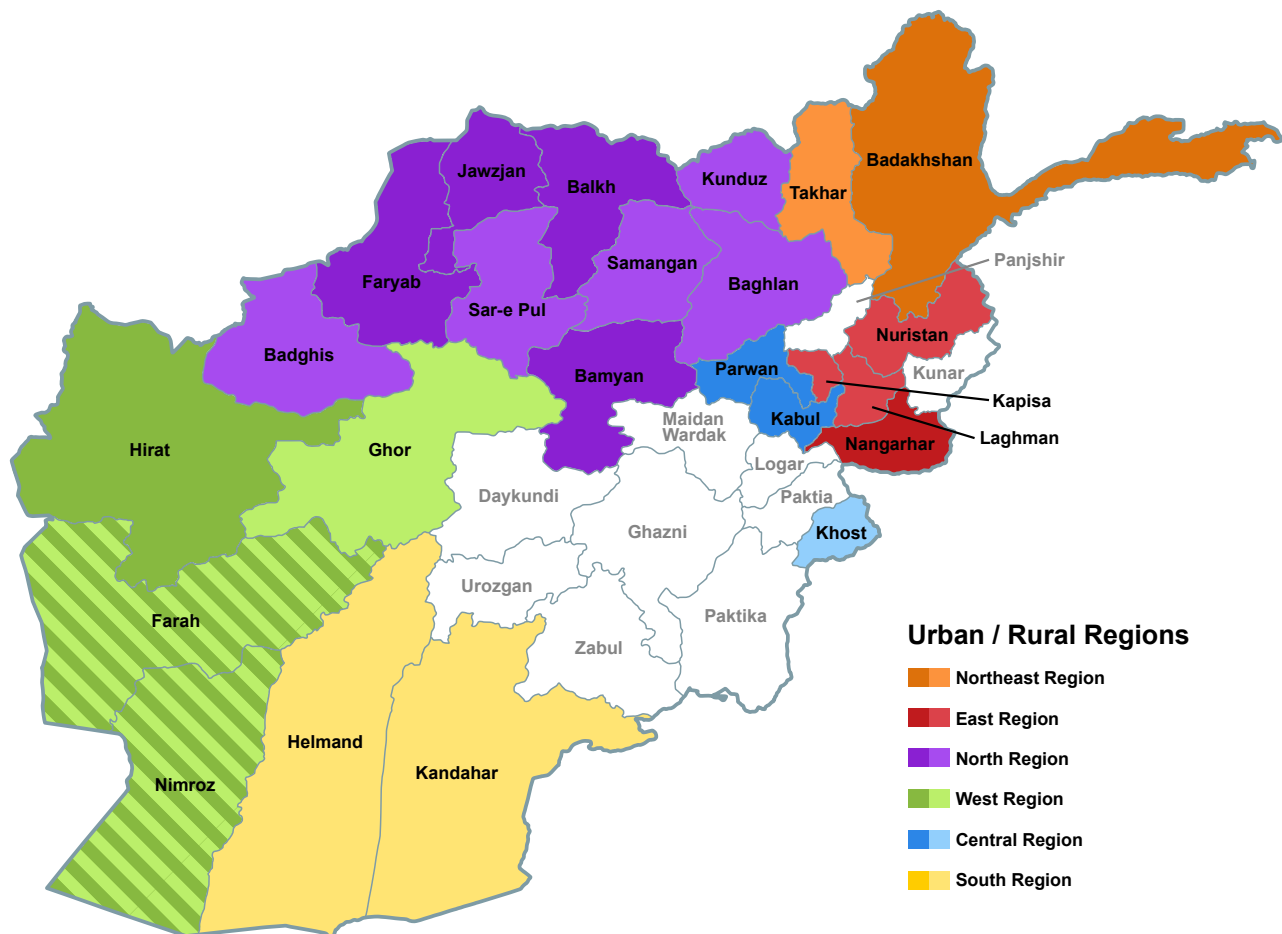


Figure 6.1. The regions and provinces surveyed.

tives reduce the margin of error associated with the estimated national, urban and rural rates. It is important to note that, with the exception of Kabul City, the surveys were not intended to produce drug-positive estimates for each of the urban centers, provinces, or villages. The rates are presented to provide a general picture of drug use. It is important to understand that the margins of error for the rates presented for individual urban and rural locations in this section vary widely and are larger than the margins of error found at the national level.

For confidentiality and security, the names and locations of the 52 villages are not identified; only the provinces and districts in which they are located are listed. In the urban survey, samples were collected from 2,170 households and 5,230 people. Of that total, 1,333 households and 3,225 people are from Kabul. The 11 capitals chosen for the urban survey are diverse in size and geography, covering five of the six regions of the country. The south region was the only region not covered during the urban survey, principally for reasons of security. The 11 provincial capitals and provinces selected for the urban survey were

Faizabad in Badakhshan Province
Jalalabad in Nangarhar Province
Mazar-e-Sharif in Balkh Province
Bamyan City in Bamyan Province
Mehmaneh in Faryab Province
Sheberghan in Jawzjan Province
Farah City in Farah Province
Hirat City in Hirat Province
Zaranj in Nimroz Province
Charikar in Parwan Province
Kabul City in Kabul Province

In the rural survey, samples were collected from 587 households and 5,319 people living in 52 villages. These vil-

lages were randomly selected from 15 provinces with reasonably safe security conditions. All six regions are covered by the rural survey. With the exception of two provinces, two districts were randomly selected from each province and two villages from each of these districts were then randomly selected for sampling. Alternate districts and villages were also selected in the event security conditions made the initial selections too unsafe to survey. The 52 villages surveyed are located in the following 15 provinces and 28 districts:

Qadis and Ab Kamari Districts in Badghis Province
Dushi and Khost we Firing Districts in Baghlan Province
Anar Dara and Farah (Markaz) Districts in Farah Province
Chagcharan and Lal Wa Sarjangal Districts in Ghor Province
Lashkar Gah District in Helmand Province
Arghandab District in Kandahar Province
Hesi Awal Kohistan and Mahmud Raqi Districts in Kapisa Province
Ismailkhail Mando Zayi and Tanai Districts in Khost Province
Qalai-i-Zaal and Kunduz (Markaz) Districts in Kunduz Province
Qarghayi and Alingar Districts in Laghman Province
Chakhansur and Kang Districts in Nimroz Province
Nurgram District in Nuristan Province
Feroz Nakhcheer and Daria-i-Soof Districts in Samangan Province
Sar-e Pul and Sangcharak Districts in Sar-e Pul Province
Warsaj and Rustaq Districts in Takhar Province

6.1 NORTHEAST REGION

The Northeast region includes the provinces of Badakhshan and Takhar.

Results for Faizabad, the provincial capital of Badakhshan, and for the rural part of Takhar are presented in this section.



Province	Total Population	Urban Population	Rural Population
Badakhshan	919,900	35,900	884,000
Takhar	950,100	124,400	825,700

CSO 2013–2014 population estimates.

6.1.1 BADAKHSHAN PROVINCE

6.1.1.1 GEOGRAPHY

Badakhshan is located in the northeastern area of Afghanistan and is bordered by Tajikistan to the north, China directly to the east, and the provinces of Nuristan to the south and Takhar and Panjshir to the west. About 90% of the province is mountainous or semi-mountainous, and the rest is flat or semi-flat.

The capital of Badakhshan is Faizabad. There are 28 districts and approximately 1851 villages in the province.

6.1.1.2 DEMOGRAPHICS

The population of the province is 919,900. The population of Faizabad is 66,000 with approximately 32,300 people living in the urban center. Approximately 884,000 or 96% of the residents reside in rural areas of the province.

The vast majority of the population is Tajik. Dari is spoken by 77% of the population and in 80% of the villages. Uzbeki is spoken by about 12% of the population.

The literacy rate in Badakhshan is approximately 31%: 38% for men and 22% for women. Approximately 46% of children are enrolled in school: 49% of boys and 43% of girls.

6.1.1.3 ECONOMY

Approximately 55% of households derive income from agriculture, and 32% do so from trade and services. About 47% of all households own or manage agricultural land or small garden plots. The field crops grown in the province include wheat, barley, maize, and rice, and some flax and melons. There is also considerable production of handicrafts such



as rugs, pottery, and jewelry. Almost half of households experience food shortages at some point in the year.

6.1.1.4 INFRASTRUCTURE

Approximately 68% of households have access to water in their community, but only 13% of households use safe drinking water. Sixteen percent of households have to travel more than one hour to obtain drinking water, and 12% travel three to six hours.

Roads in Badakhshan are not well-developed. Only about 25% of the roads in the province are travelable throughout the year, and 18% are travelable during some periods. There are no roads in more than half of the province.

6.1.1.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are a number of substance-abuse treatment centers in Badakhshan supported by INL, Colombo Plan, UNODC, Japan, and the Ministry of Public Health (MoPH). A list of all substance-abuse treatment services, service providers, and type of services provided at each of the centers in Badakhshan and other provinces in Afghanistan is included in the Appendix.

6.1.1.6 POPPY CULTIVATION

Badakhshan is the only poppy-cultivating province in the Northeast Region. While the total cultivation remained low in 2013, it increased by 23% over the prior year. In 2013, 2,798 hectares of poppies were eradicated. This represents 38% of all the poppies eradicated in 2013 in Afghanistan, and more hectares of poppies eradicated than in any other province in the country.

6.1.1.7 SURVEY RESULTS

6.1.1.7.1 Survey Results—Urban

Samples were collected from 242 people residing in 99 households in the urban center of Faizabad. Approximately 7% of households, 4% of the population, and 4% of adults tested positive; all positive drug tests were positive for opioids only.

Table 6.1 presents both the household and population rates by drug class for Faizabad. Figure 6.2 presents Faizabad household rates by drug class, and Figure 6.3 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to Faizabad. Figure 6.4 presents the Faizabad adult, men, women, and children rates. Figure 6.5 presents the types of drugs and their rates among adult male drug users and compares them against national urban males. Figure 6.6 presents and compares the types of drugs used by adult female drug users in Faizabad and nationally among urban adult female drug users.

Among adults, approximately 5% of men and 3% of women

tested positive. The 7% household and 4% population rates are both above the respective national urban rate. Opium is used by approximately two-thirds of male and female opioid users, and one-third use heroin.

Table 6.1. Faizabad Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	7.1%	3.8%
Opioids	7.1%	3.8%
Cannabis	0.0%	0.0%
Benzodiazepines	0.0%	0.0%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

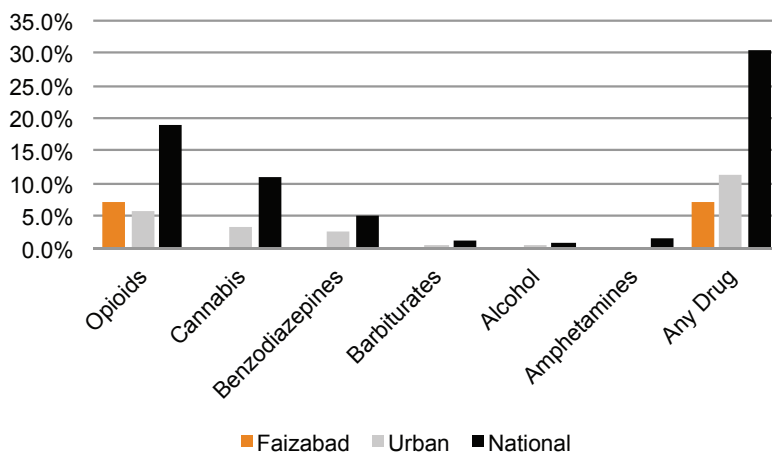


Figure 6.2. Faizabad household rates.

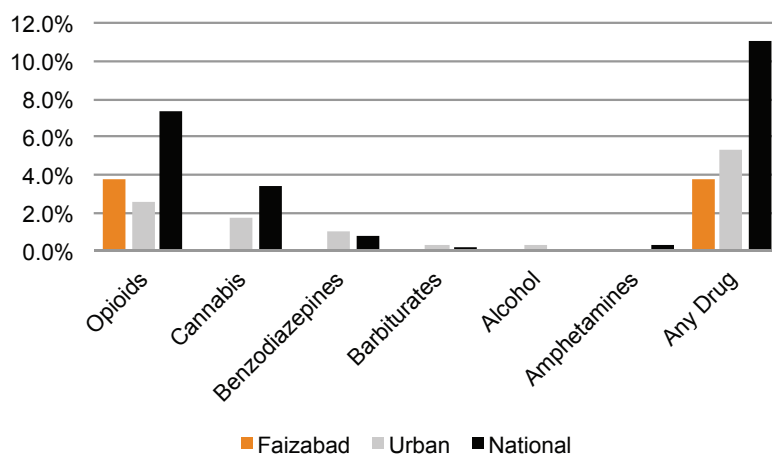


Figure 6.3. Faizabad population rates.

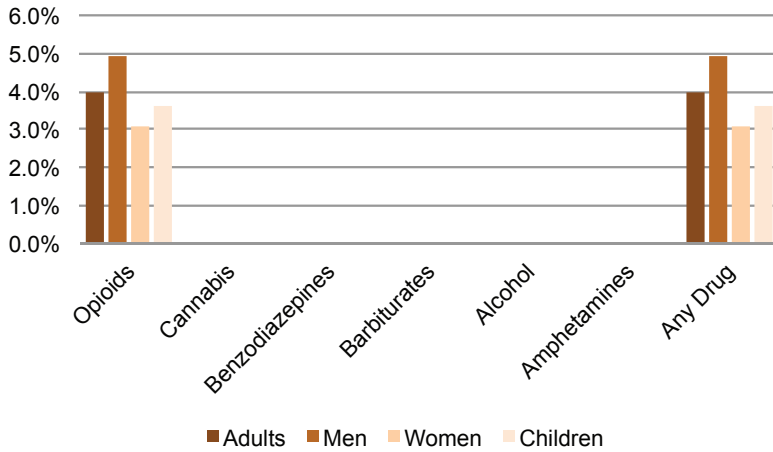


Figure 6.4. Faizabad adult and child rates.

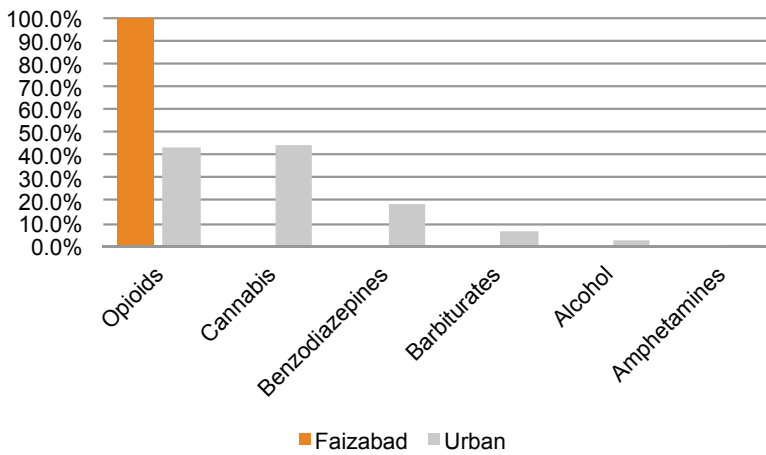


Figure 6.5. Types of drugs used by Faizabad men users.

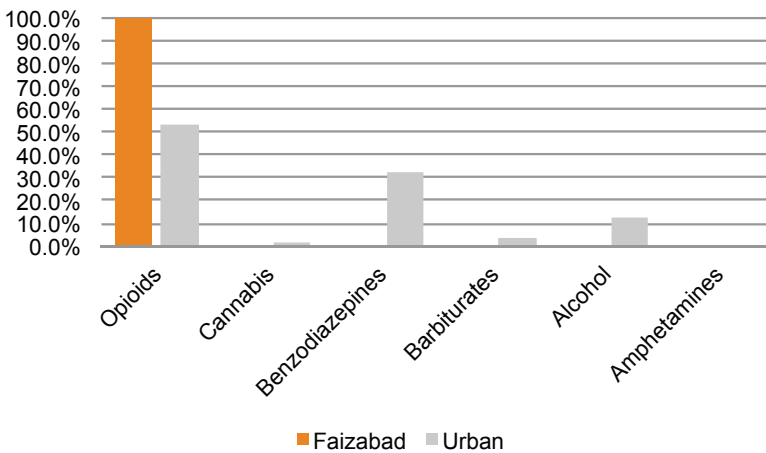


Figure 6.6. Types of drugs used by Faizabad women users.

Three children in Faizabad, or approximately 4% of the children, tested positive for opioids. Two of the children who were six years of age tested positive for heroin, and one seven-year-old child tested positive for opium. One of the children who tested positive for heroin and the seven-year-old who tested positive for opium both likely tested positive because of environmental exposure to second-hand smoke. The other six-year-old child positive for heroin tested positive via saliva sample for morphine, codeine, and 6-AM, a heroin metabolite.

This indicates recent exposure or use of the drug. The age of the child suggests that an adult in the household likely provided the heroin to the child. One woman from that child's same household tested positive for heroin.

The average concentrations of opioids found in the city of Faizabad are listed by hair, saliva, and urine for the groups of men, women, and children who tested positive for opioids in a table located in the Appendix.

All of the adults who tested positive were 25 years of age or older, with half 25–44 years old and the other half 45 years and older (Figure 6.7).

6.1.1.7.2 Survey Results—Rural

No villages were surveyed in Badakhshan province.

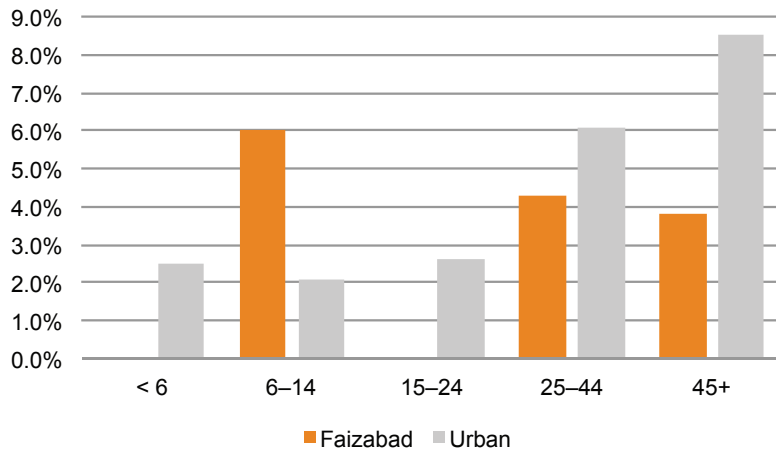


Figure 6.7. Faizabad rates by age group.



Sample collection team training.

6.1.2 TAKHAR PROVINCE

6.1.2.1 GEOGRAPHY

Takhar province is located in the northeastern part of Afghanistan. It is bordered by the country of Tajikistan to the north, Badkhsan province to the northeast, Kunduz province to the northwest, Baghlan province to the southwest, and Panjsher province to the south. Approximately 57% of the province is mountainous and 37% is flat.

Taluqan is the capital of Takhar province. The province has 17 districts and approximately 1,200 villages in the province.

6.1.2.2 DEMOGRAPHICS

Takhar ranks as the ninth most populated province in Afghanistan, with 3.6% of the Afghanistan population residing in this province. The population of Takhar is 950,100. The population of Taluqan is approximately 223,100 people, with 70,200 living in the urban center. Approximately 825,700 people, or 87% of the population, reside in the rural areas of the province.

The major ethnic groups are Uzbeks and Tajiks, followed by the Pashtuns and Hazaras. Uzbeki is spoken by 46% of the population and Dari by 44%. Pashtu is spoken by approximately 8% of the population.

The literacy rate is just 16%: 21% for men and 10% for women. Approximately 32% of children are enrolled in school: 36% of boys and 26% of girls.

6.1.2.3 ECONOMY

Agriculture is the major source of income for approximately 60% of households. The primary agricultural commodities are fruits, nuts, grapes, wheat, and other field crops. About 38%



of households derive some income from non-farm labor and 23% from trade and services. Livestock is the main source of income for approximately 18% of households, and approximately 12% derive some income from manufacturing. Three percent of households reported deriving some income from poppy cultivation.

6.1.2.4 INFRASTRUCTURE

Approximately 79% of households have access to water in their community, but only 29% have access to safe drinking water: 52% in urban areas and 27% in the rural districts. Fourteen percent of households must travel up to an hour to obtain water, and 7% must travel more than one hour.

About 5% of households in the province have electricity: 16% of urban households and 3% of rural households. 2% of urban electricity is public; the rest is from private sources.

6.1.2.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center in Takhar that treats adult males and provides outreach and home-based treatment services. INL and Colombo Plan support the center and the Sha-

hamat Health and Rehabilitation Organization (SHRO) provides the center’s services. A list of all substance-abuse treatment services and further detail on the center in Takhar, as well as for each of the centers in Afghanistan, is included in the Appendix.

6.1.2.6 POPPY CULTIVATION

Takhar has been poppy-free since at least 2007.

6.1.2.7 SURVEY RESULTS

No urban survey was conducted in Takhar. Two villages in Warsaj district and two villages in Rustaq district were surveyed.

6.1.2.7.1 Survey Results—Urban

The provincial capital of Takhar was not surveyed.

6.1.2.7.2 Survey Results—Rural

Samples were collected from 401 people and 53 rural households in four randomly selected villages: two in Warsaj District and two in Rustaq District.

Table 6.2 presents both the household and population rates by drug class for rural Takhar. Figure 6.8 presents household rates by drug class and Figure 6.9 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Takhar. Figure 6.10 presents the rural Takhar adult, men, women, and children rates. Figure 6.11 presents and compares the types of drugs and their rates among rural Takhar male adult drug users and national rural adult male drug users.

Figure 6.12 presents and compares the types of drugs used by female adult drug users in rural Takhar and nationally among rural adult female drug users.

Approximately 21% of households, 7% of the population, and 7% of adults

Drug Class	Household	Population
Any	20.8%	7.4%
Opioids	9.4%	4.6%
Cannabis	5.7%	1.8%
Benzodiazepines	1.9%	0.3%
Barbiturates	3.8%	0.5%
Alcohol	0.0%	0.0%
Amphetamines	1.9%	0.3%

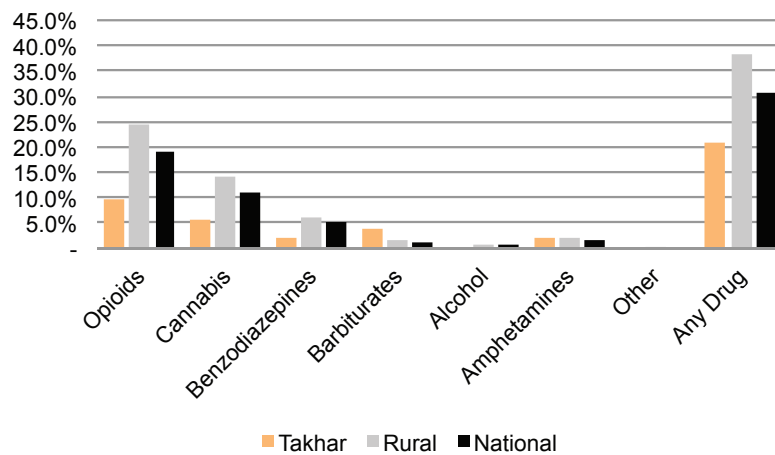


Figure 6.8. Rural Takhar household rates.

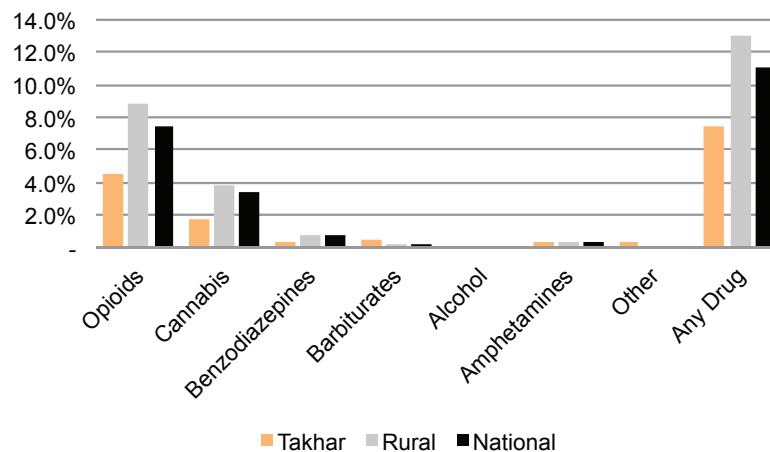


Figure 6.9. Rural Takhar population rates.

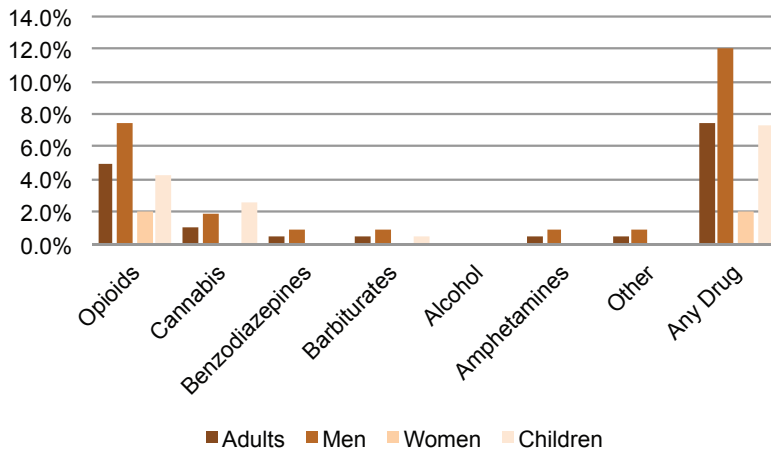


Figure 6.10. Rural Takhar adult and child rates.

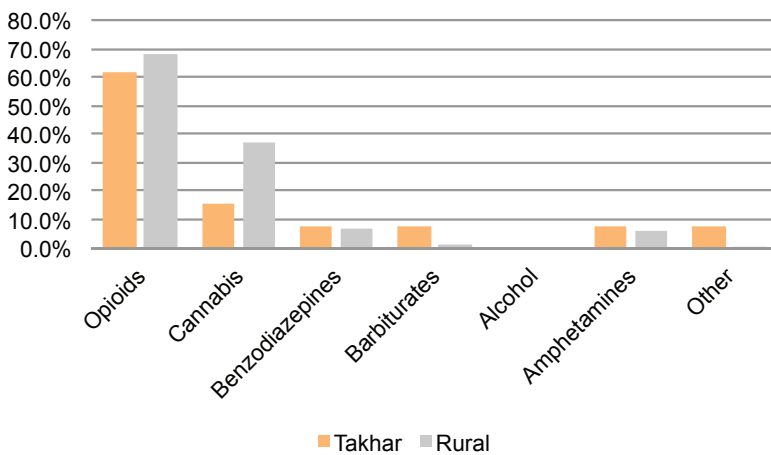


Figure 6.11. Types of drugs used by rural Takhar men users.

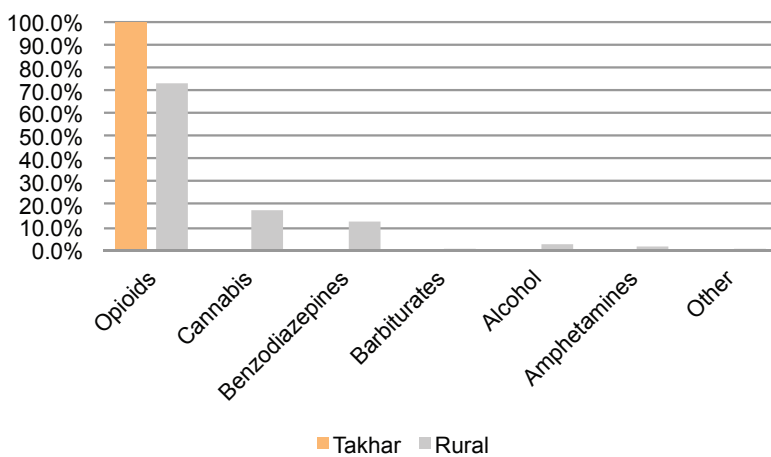


Figure 6.12. Types of drugs used by rural Takhar women users.

tested positive. These rates are all lower than their respective national rural rates. Approximately 7% of children tested positive for one or more drugs.

The rate for any drug-positive test for men was six times higher than that of women: approximately 12% versus 2%. The 2% rate for women was one of the two lowest among the 15 provinces surveyed.

Among adult drug users, 66% tested positive for opioids, 20% for benzodiazepines, 14% for cannabis, 7% for benzodiazepines, 7% for barbiturates, and 7% for amphetamines.

Opioids were detected in approximately 9% of households, 5% of the population, 5% of adults. Approximately 4% of children tested positive for opioids.

Eight children tested positive for opioids, three of these children were under the age of six, one was six years old, and the rest were older than six. All tested positive for codeine and morphine in hair with the highest concentrations found in those younger than six. One two-year-old child also tested positive for heroin. None of the children tested positive in saliva or urine.

Among male drug users, approximately 62% tested positive for opioids. Of these, approximately 25% used heroin, 50% used opium, and 25% used codeine. Among female drug users, all tested positive for opium. The aver-

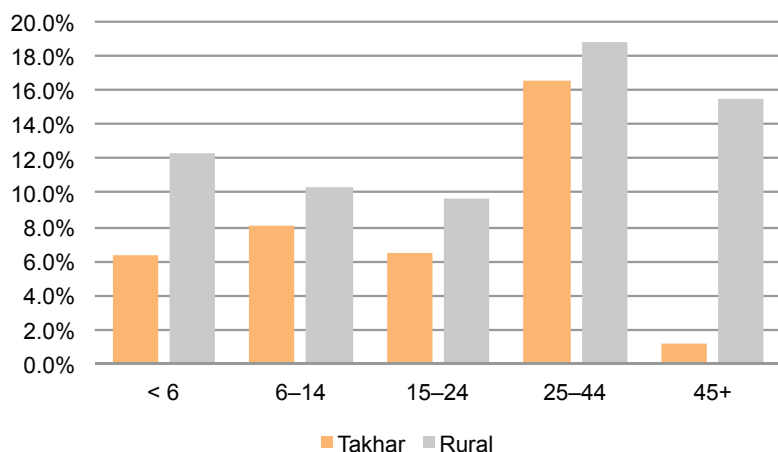


Figure 6.13. Rural Takhar rates by age group.

age hair, saliva, and urine opioid concentrations for rural Takhar are presented in the Appendix.

Cannabis was detected in approximately 6% of households, 2% of the population, and 1% of adults (2% of men and no women). Among adult male drug users, 15% tested positive for cannabis. The 2% men's rate was the second lowest rate of the 15 provinces surveyed. Only Ghor was lower, where no use of cannabis was detected in any of the villages tested. Takhar was also one of five provinces surveyed where no women tested positive for cannabis.

Five children in Takhar, or almost 3% of the children tested, tested positive for cannabis. Of those children, four tested positive at relatively low concentrations of carboxy-THC in hair. One nine-year-old female child tested positive for native-THC in her oral fluid.

Benzodiazepines were detected in 2% of households, less than 1% of the population, and less than 1% of adults (1% of men and no women). Benzodiazepines were not detected in children. Among adult male drug users, approximately 8% tested positive for benzodiazepines. Takhar is one of seven provinces in which amphetamine-type stimulants were detected: they were detected in approximately 2% of households but in less

than 1% of the population. Only men tested positive for amphetamine-type stimulants, at a rate of approximately 1%. Takhar is one of only two provinces in which cocaine was detected; it was detected in an adult male.

Drug use was detected in all adult age groups, but the highest rate was found among those aged 25-44 (Figure 6.13). The lowest rate was detected among those aged 45 years and older. The same pattern applied for adult male age groups. No drugs were detected among adult females ages 15-24 or among those 45 years of age and older. Takhar was one of five provinces surveyed where no drug use was detected among young female adults (15-24 years of age). Takhar was also one of only two provinces surveyed where no drug use was found among adult females in both the 15-24 and the 45 years and over age groups.

The rates among children younger than six and those 6-14 years old are similar, at 6% and 8%, respectively. The majority of these positives are believed to be from second-hand exposure to adult drug use in the home or from adults administering the drugs to these children.

Table 6.3 presents the approximate household, population, adult, adult male, adult female, and child rates for the four Takhar villages surveyed. These rates are on the basis of any drug-positive test result. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

Barbiturates were detected among 2% of the population of Village #26. This rate

is low but still one of the two highest among the 52 villages surveyed.

Cocaine was detected in an adult male from Village #27.

Village #28 is one of two villages in which no one tested positive for any drug; the other village is located in Sar-e Pul province.

In Village #29, the only drugs detected in men and women were opioids. Cannabis was detected in one child (or approximately 2% of children). The child is a nine-year old female and tested positive for native-THC in oral fluid but negative for carboxy-THC in hair. No urine sample was collected from this child.

Table 6.3. Takhar Village Drug Use Rates

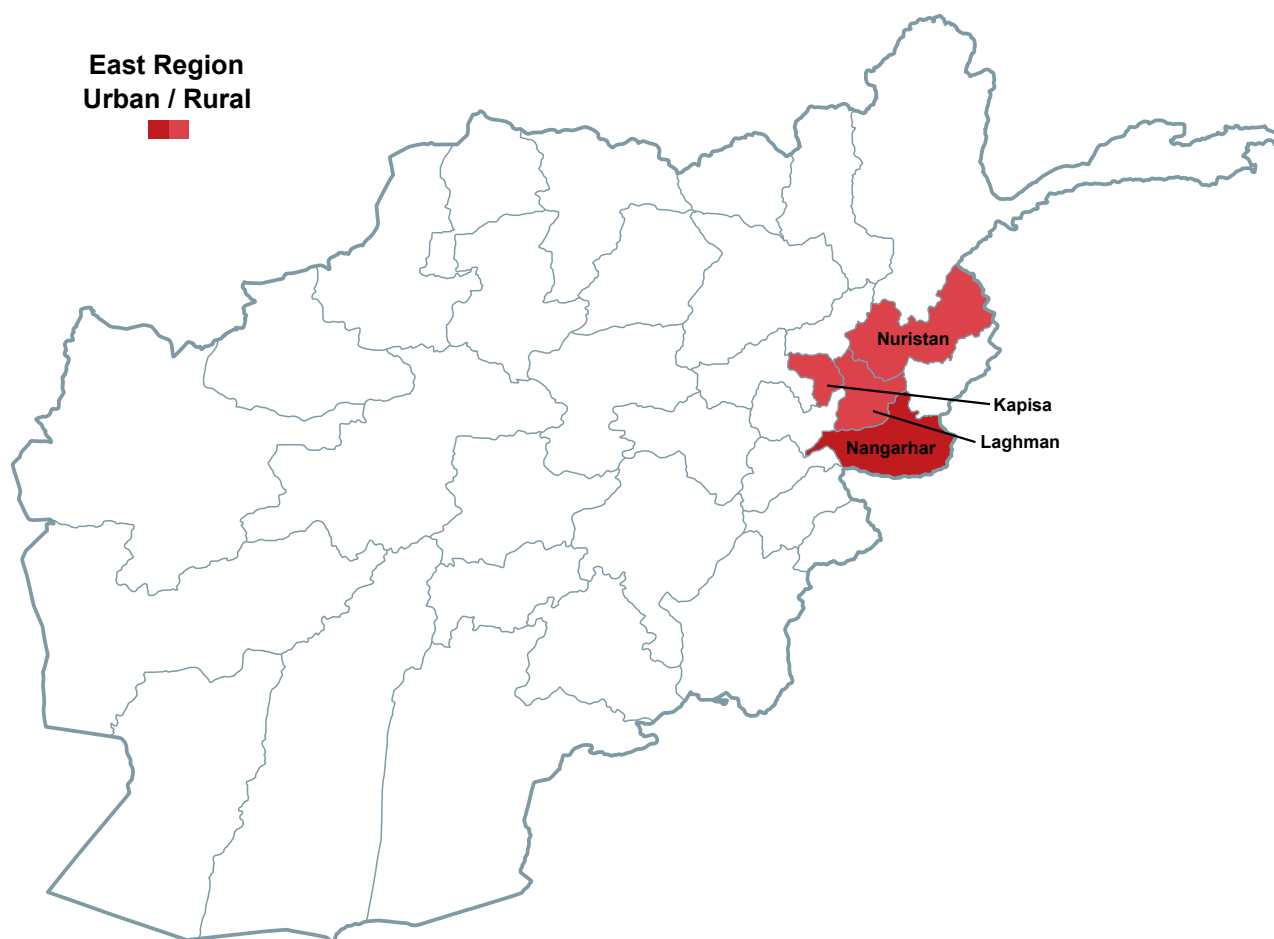
Village	District	Household	Population	Adults	Men	Women	Children
#26	Warsaj	33%	10%	9%	17%	0%	12%
#27	Warsaj	20%	15%	14%	23%	4%	15%
#28	Rustaq	0%	0%	0%	0%	0%	0%
#29	Rustaq	30%	5%	6%	7%	5%	4%



6.2 EAST REGION

Surveys conducted in the East region include the provinces of Kapisa, Laghman, Nangarhar, and Nuristan. Results for

Jalalabad, the provincial capital of Nangarhar, and for rural parts of Kapisa, Laghman, and Nuristan are presented in this section.



Province	Total Population	Urban Population	Rural Population
Kapisa	426,800	1,500	425,300
Laghman	431,200	4,900	426,300
Nangarhar	1,426,600	217,400	1,245,200
Nuristan	143,200		143,200

CSO 2013–2014 population estimates.

6.2.1 KAPISA PROVINCE

6.2.1.1 GEOGRAPHY

Kapisa province is in the east of Afghanistan and is bordered by the provinces of Panjsher to the north, Laghman to the east, Kabul to the south, and Parwan to the west. Kapisa is the smallest province in Afghanistan. Fifty-four percent of the province is mountainous or semi-mountainous, and 47% is flat or semi-flat.

The provincial capital is Mahmud Raqi. There are seven districts and approximately 615 villages in the province.

6.2.1.2 DEMOGRAPHICS

Kapisa province has an estimated population of 426,800. Its capital, Mahmud Raqi, has a population of 63,500, but only approximately 1,500 people live in the urban center. Approximately 425,300 people, or more than 99% of the population, reside in the rural areas of the province.

Tajiks are the major ethnic group in Kapisa. Other ethnic groups include Pashtuns and Pashai. About 30% of the population speak Dari, 27% speak Pashtu, and 17% speak Pashai.

The overall literacy rate is 30%: 53% for men and 23% for women. About 60% of children are enrolled in school: 75% of boys and 44% of girls.

6.2.1.3 ECONOMY

Kapisa is an agricultural province. About 62% of households derive income from agriculture; the most important field crops include wheat, maize, and barley. The most common crops grown in garden plots are fruit and nut trees. Non-farm labor provides some income for about 35% of households. Trades and



services provide some income for about 32% of households, while livestock provides one source of income for approximately 18%. Three handicrafts stand out in the province: carpets, which are produced in 21 villages; pottery in 10; and jewelry in 12.

6.2.1.4 INFRASTRUCTURE

Approximately 97% of households have access to water in their community, but only 15% have access to safe drinking water. About 3% of households must travel up to an hour to obtain water.

38% of households in Kapisa have access to electricity, and 10% of households in Kapisa obtain electricity from public sources.

6.2.1.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center in Kapisa, which also provides outreach, community-based, and after-care services and which serves as a shelter. The Ministry of Public Health (MoPH) supports and provides services for the shelter. The center treats adult males, adult females and children. There are currently no village-based services available.

A list of all substance-abuse treatment services and further detail on the center in Kapisa as well as for each of the centers in Afghanistan is included in the Appendix.

6.2.1.6 POPPY CULTIVATION

Kapisa was poppy-free in 2009 and 2010. Poppy cultivation began in 2011, and since then cultivation has increased. In 2013, cultivation increased by 101%, but only three hectares were eradicated.

6.2.1.7 SURVEY RESULTS

No urban survey was conducted in Kapisa. Two villages in Hesai Awal Kohistan district and two villages in rural Mahmud Raqi district were surveyed.

6.2.1.7.1 Survey Results—Urban

The provincial capital of Kapisa was not surveyed.

6.2.1.7.2 Survey Results—Rural

Samples were collected from 403 people and 43 rural households in four randomly-selected villages: two in Hesai Awal Kohistan district and two in the rural area of Mahmud Raqi district. Household and population rates for any drug positives by village are presented at the end of this section.

Table 6.4 presents both the household and population rates by drug class for rural Kapisa. Figure 6.14 presents the household rates by drug class, and Figure 6.15 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Kapisa. Figure 6.16 presents the rural Kapisa adult, male, female, and child rates. Figure 6.17 presents and compares the types of drugs and their rates among rural Kapisa male adult drug users and national rural

Figure 6.16 presents the rural Kapisa adult, male, female, and child rates. Figure 6.17 presents and compares the types of drugs and their rates among rural Kapisa male adult drug users and national rural

Drug Class	Household	Population
Any	25.6%	7.3%
Opioids	16.3%	5.0%
Cannabis	11.6%	2.6%
Benzodiazepines	4.7%	0.8%
Barbiturates	0.0%	0.3%
Alcohol	0.0%	0.0%
Amphetamines	4.7%	1.0%

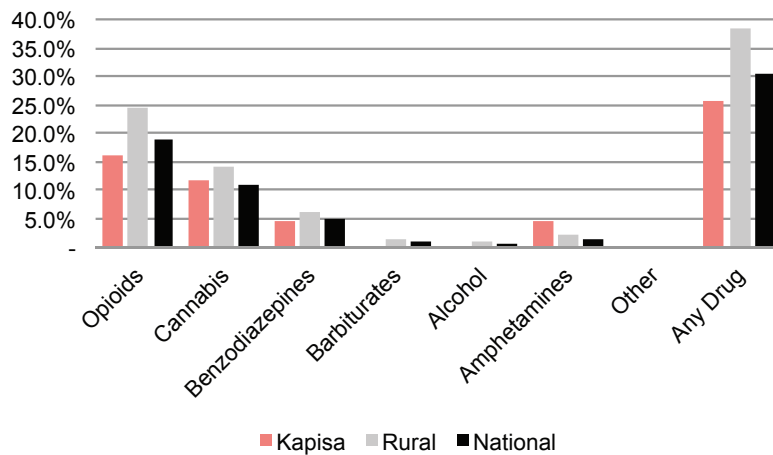


Figure 6.14. Rural Kapisa household rates.

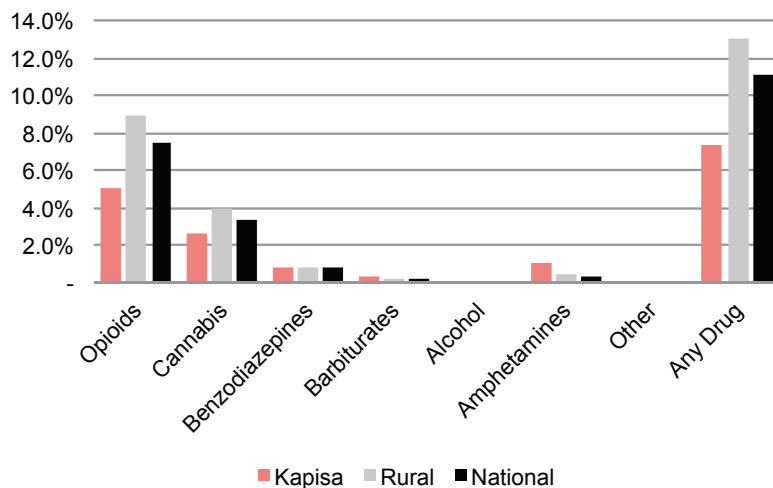


Figure 6.15. Rural Kapisa population rates.

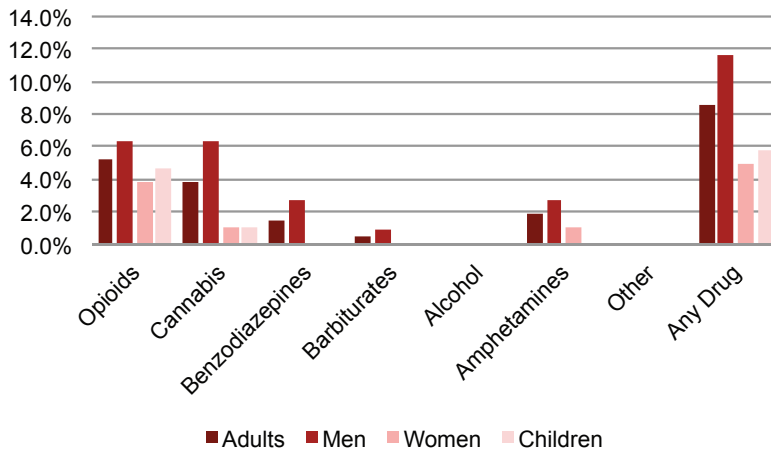


Figure 6.16. Rural Kapisa adult and child rates.

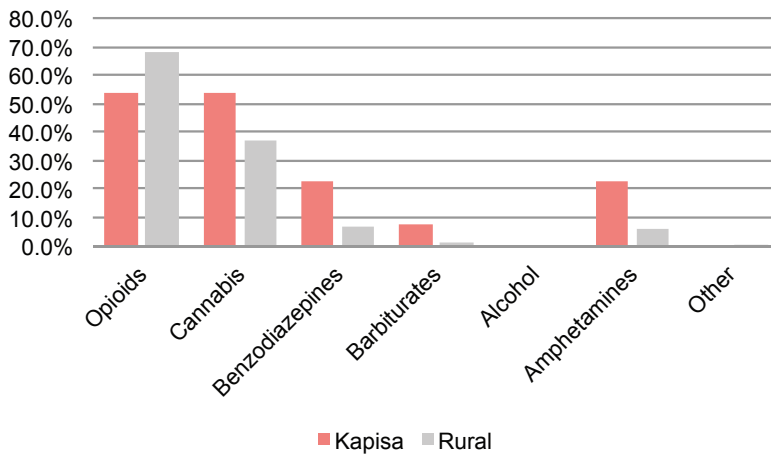


Figure 6.17. Types of drugs used by rural Kapisa men users.

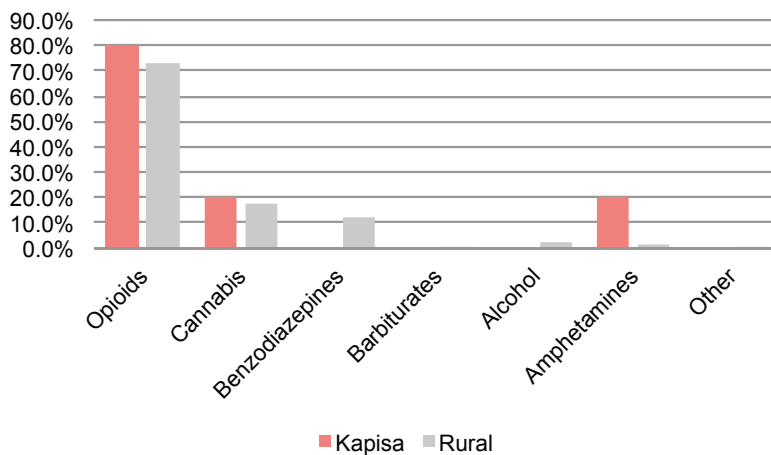


Figure 6.18. Types of drugs used by rural Kapisa women users.

male drug users. Figure 6.18 presents and compares the types of drugs used by female adult drug users in rural Kapisa and nationally among rural adult female drug users.

Approximately 26% of households, 7% of the population, and 9% of adults tested positive for any drug. These rates are lower than their respective national rural rates. Approximately 6% of children tested positive for one or more drugs.

The rate for men is just over two times greater than that of women: approximately 12% versus 5%. Both rates are lower than their respective national rural rates.

Among adult drug users, 61% use opioids, 45% use cannabis, 22% use amphetamine-type stimulants, 17% use benzodiazepines, and 6% use barbiturates.

Opioids were detected most frequently, in approximately 16% of households, 5% of the population, and 5% of adults. These rates are significantly lower than the national rural rate. Approximately 5% of children tested positive for opioids, which is slightly lower than the national rural rate for children.

Nine children tested positive for opioids, all in hair. Seven of the nine children were younger than six years old. Six of the nine children also tested positive for heroin. The highest level of 6-AM detected was found in the hair of a two-year-old child.

Among adult male drug users

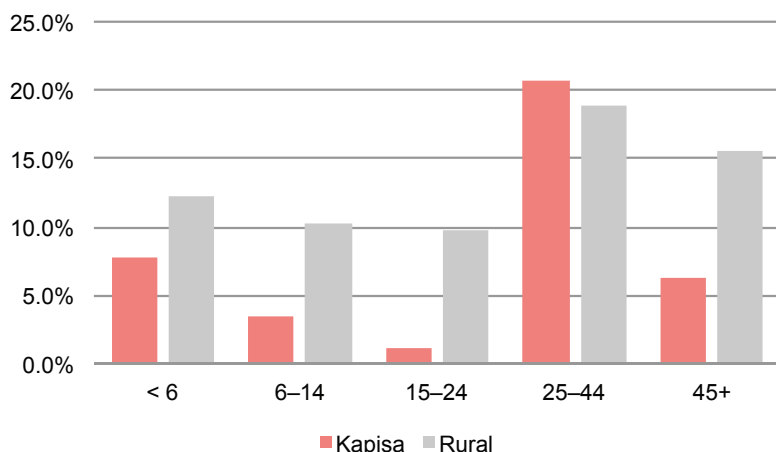


Figure 6.19. Rural Kapisa rates by age group.

in rural Kapisa, 54% use opioids. Heroin is used by approximately 71% of adult male drug users and opium by 29%. Among adult female drug users, approximately 75% use heroin and 25% use opium. No codeine use was detected among either adult men or adult women in Kapisa. The average hair, saliva, and urine opioid concentrations for rural Kapisa are presented in the Appendix.

Cannabis was detected in approximately 12% of households, 3% of the population, and 4% of adults (approximately 6% of adult men and one woman, or 1% of women). These cannabis use levels are substantially lower than their respective national rural rates. Among adult male drug users, 54% use cannabis.

Two children, a two-year-old male and a 12-year-old female, representing approximately 1% of the children, tested positive for cannabis. Both children tested positive in hair samples for carboxy-THC at relatively low concentrations.

Benzodiazepines were detected in approximately 5% of households, 1% of the population, and 2% of adults, all rates similar to their respective national rural rates. Approximately 3% of adult males tested positive, but no benzodiazepines were detected in women or children. Approximately 23% of adult male drug users use benzodiazepines.

Kapisa is one of seven provinces in which amphetamine-type stimulants were detected. They were detected in approximately 5% of households, 1% of the population and 2% of adults (approximately 3% of men and 1% of women).

All adult age groups use drugs, but the highest rate detected was among those 25–44 years of age (Figure 6.19), for both males and females.

These rates were significantly higher than rates for both the ages 15–24 group and the 45 years and older group. The lowest rate among adults was in the ages 15–24 group. The rate for this age group in Kapisa is one of the lowest among all the provinces surveyed. Kapisa is one of five provinces surveyed where no drug use was found among young female adults (15–24 years).

The rate among children younger than six was 8% (11% male and 5% female), the second-highest among all age groups. The rate among those children aged 6–14 years was lower, at 3%.

Table 6.5 presents the approximate household, population, adult, male, female, and child rates for the four Kapisa villages surveyed. These rates are on the basis of any drug-positive test result. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

Village #12 has one of highest adult (9%), adult male (13%), adult female (5%), and total population (5%) rates for amphetamine-type stimulants among the 52 villages surveyed. It is also one of three villages with the highest adult rate for barbiturates (2%) and the second-highest adult male rate for benzodiazepines (9%).

Village #13 is one of three villages in which no adults tested positive for any drug. The Village #13 10% household rate is one of the five lowest rates among the 52 villages tested. This was also the only village in which children tested positive but no adults tested positive. As many of these children were younger

than six, the positives may be the result of second-hand exposure or adult administration by drug-using adults who were not at home at the time samples were collected. These overall results may be the result of the small sample size and the absence of some household members during the time samples were collected.

Table 6.5. Kapisa Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#10	Hesai Awal Kohistan	33%	7%	9%	13%	4%	4%
#11	Hesai Awal Kohistan	15%	4%	7%	9%	3%	0%
#12	Mahmud Raqi	50%	17%	20%	26%	14%	13%
#13	Mahmud Raqi	10%	2%	0%	0%	0%	4%



Sample collection at a bazaar.

6.2.2 LAGHMAN PROVINCE

6.2.2.1 GEOGRAPHY

Laghman province is in the east of Afghanistan and is bordered by Nuristan to the northeast, Kunar to the east, Nangarhar to the southeast, Kabul to the southwest, Kapisa to the west, and Panjsher to the northwest. The province is about 50% mountainous or semi-mountainous and 50% flat or semi-flat.

Mehterlam is the provincial capital. There are six districts and approximately 620 villages in Laghman.

6.2.2.2 DEMOGRAPHICS

Laghman has an estimated population of 431,200. The population of Mehterlam is estimated at 128,000, with only 4,900 living in the urban center. Approximately 426,300 people, or 99% of the population, reside in rural areas of Laghman province.

The majority of the people are Pashtun, Tajik, or Gujjar. Fifty-eight percent of the population speak Pashto, one-third speak Pashai, and 9% speak Dari.

The literacy rate is 14%: 22% for men and 5% for women. About 48% of children are enrolled in school: 55% of boys and 39% of girls. A substantial number of children have to travel more than 10 kilometers to reach the nearest school.

6.2.2.3 ECONOMY

Income is derived from non-farm labor, trades and services, and agriculture. Wheat and rice are the most important crops grown in Laghman. Other industrial crops grown include cotton, sugar, sesame, tobacco, olives, and sharsham (rapeseed), the latter of which is used to produce oil similar to canola. Some households derive income from poppy cultivation.



6.2.2.4 INFRASTRUCTURE

Approximately 84% of households have access to water within their community, but only 34% have access to safe drinking water. About 16% must travel up to an hour to obtain safe drinking water.

Forty-one percent of the population has access to electricity. No electricity is available from public sources.

Roads are reasonably well developed, with 61% of roads travelable throughout the year and 11% travelable during some periods. There are no roads in about 28% of the province.

6.2.2.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center and one outpatient center in Laghman. Both provide outreach, community-based, and after-care services. The inpatient center, which is also a shelter, additionally provides home-based treatment services.

The Ministry of Public Health (MoPH) supports and provides services for the inpatient treatment center, which treats adult males. INL and Colombo Plan support the outpatient center, which treats

both adult males and adult females, and Social Services for Afghan Women Organization (SSAWO) provides its services. There are currently no treatment services for children available in Laghman, and no village-based services are available.

A list of all substance-abuse treatment services, as well as further detail on the two centers in Laghman and each of the centers in Afghanistan, is included in the Appendix.

6.2.2.6 POPPY CULTIVATION

Poppies are cultivated in Laghman. Cultivation increased 41% between 2012 and 2013.

6.2.2.7 SURVEY RESULTS

No urban survey was conducted in Laghman. Two villages in Qarghayi district and two in Alingar district were surveyed.

6.2.2.7.1 Survey Results—Urban

The urban center of Mehterlam was not surveyed.

6.2.2.7.2 Survey Results—Rural

Samples were collected from 417 people and 28 rural households in four randomly selected villages: two in Qarghayi district and two in Alingar district. Household and population rates for any drug positive by village are presented at the end of this section.

Table 6.6 presents household and population rates by drug class for rural Laghman. Figure 6.20 presents the household rates by drug class, and Figure 6.21 presents the pop-

ulation rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Laghman. Figure 6.22 presents the rural Laghman adult, adult male, adult female,

Drug Class	Household	Population
Any	60.7%	9.2%
Opioids	21.4%	3.2%
Cannabis	46.4%	5.4%
Benzodiazepines	10.7%	0.8%
Barbiturates	0.0%	0.0%
Alcohol	3.6%	0.3%
Amphetamines	0.0%	0.0%

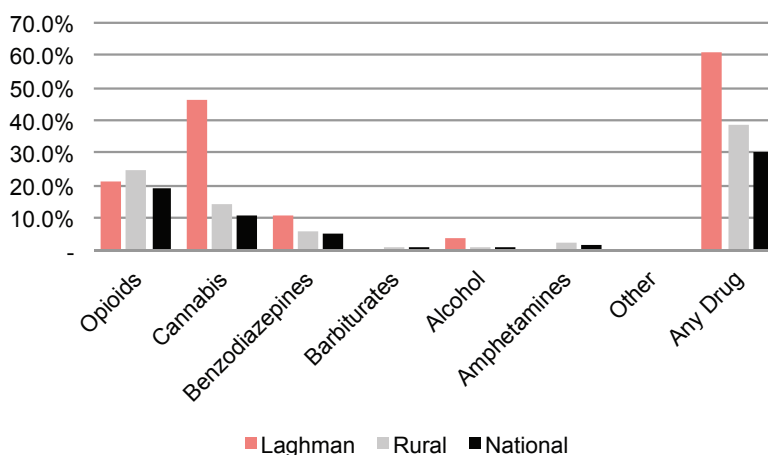


Figure 6.20. Rural Laghman household rates.

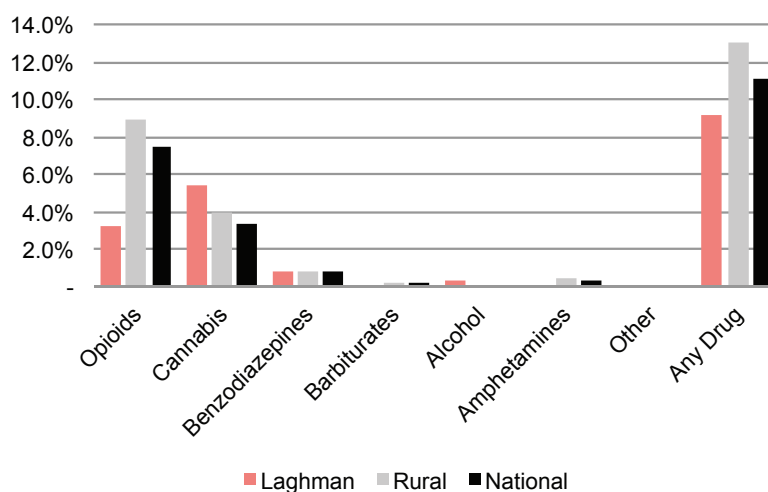


Figure 6.21. Rural Laghman population rates.

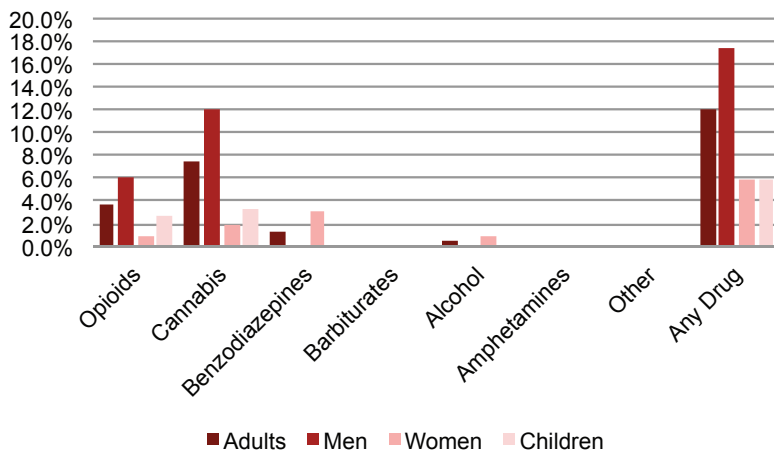


Figure 6.22. Rural Laghman adult and child rates.

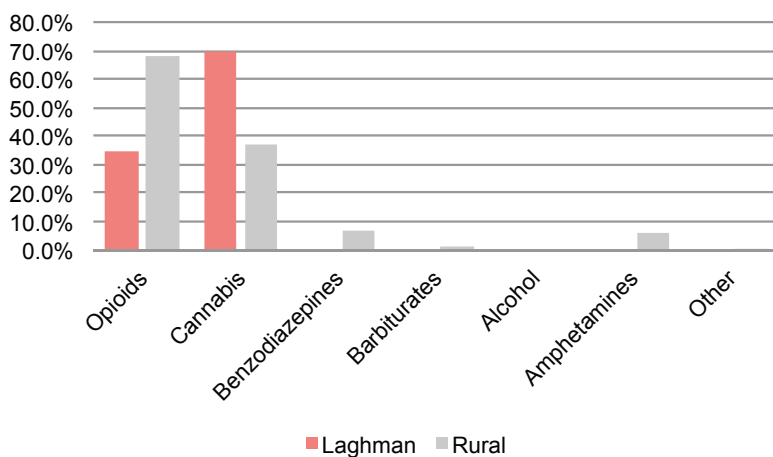


Figure 6.23. Types of drugs used by rural Laghman men users.

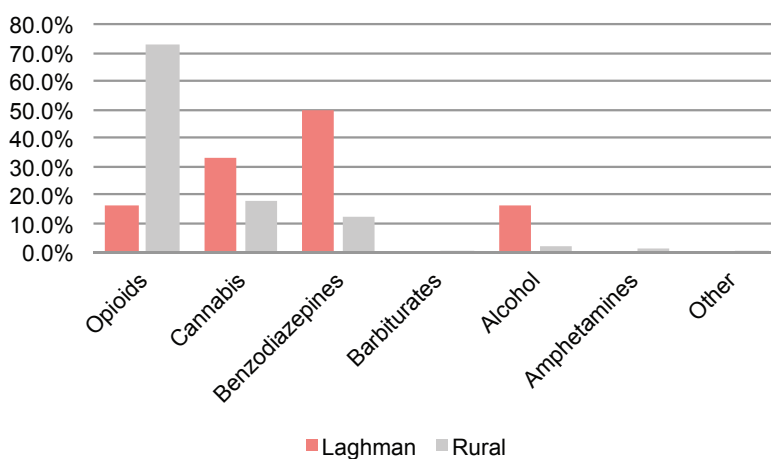


Figure 6.24. Types of drugs used by rural Laghman women users.

and child rates. Figure 6.23 presents and compares the types of drugs and their rates among rural Laghman adult male drug users and national rural adult male drug users. Figure 6.24 presents and compares the types of drugs used by female adult drug users in rural Laghman and nationally among rural adult female drug users.

Approximately 61% of households, 9% of the population and 12% of adults tested positive. The household rate is the second highest among the 15 provinces surveyed. The population and adult rates are lower than their respective national rural rates. Approximately 6% of children tested positive for one or more drugs.

The rate for adult males was almost three times higher than that of adult females, approximately 17% versus 6%. The adult male rate is similar to the corresponding national rural rate, while the adult female rate is substantially lower.

Among adult drug users, 61% tested positive for cannabis, 31% for opioids, 12% for benzodiazepines, and 3% for alcohol.

Opioids are the second-most-detected drug and were found in approximately 21% of households, 3% of the population, and 4% of adults. The household rate was slightly lower than the national rural household rate, but the population and adult rates were significantly lower than their

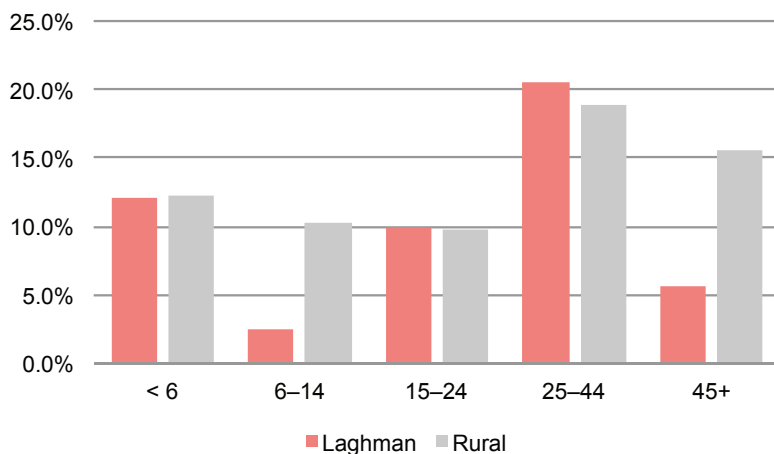


Figure 6.25. Rural Laghman rates by age group.

respective national rural rates. Approximately 3% of children tested positive for opioids, which was significantly lower than the national rural child rate.

Five children tested positive for opioids; all but one were six years old or younger.

Among adult male drug users, 35% tested positive for opioids. Of those using opioids, 100% tested predominantly for codeine use. Only one adult female (approximately 1%) tested positive for opioids (heroin). The average hair, saliva, and urine opioid concentrations for rural Laghman are presented in the Appendix.

Cannabis was the most-detected drug in Laghman, and was detected in approximately 46% of households, the highest rural household rate among the 52 villages surveyed. Cannabis was detected in approximately 5% of the population and 7% of adults (12% of men and 2% of women). These rates are all higher than their respective national rural cannabis rates. Among adult male drug users, 70% use cannabis, and approximately 33% of adult female drug users use cannabis.

Six of the children tested (approximately 3%) were positive for cannabis, all at relatively low concentrations of carboxy-THC in hair.

Benzodiazepines were detected in approximately 11% of households, 1% of the population and 1% of adults. The

household rate is higher than the national rural household rate. The population and adult rates are similar to their respective national rural rates. No adult males and no children tested positive for benzodiazepines. Approximately 3% of adult females tested positive, a rate higher than the corresponding national rural rate. Benzodiazepines are the most used drug by adult female drug users in Laghman: approximately 50% tested positive.

Amphetamine-type stimulants were not detected in Laghman.

Laghman was one of four provinces in which alcohol was detected during the rural survey. Alcohol was detected in only one person, a women at 1%. Approximately 17% of female drug users use alcohol.

All adult age groups tested positive for drugs, with the highest rate detected among those 25-44 years old (Figure 6.25). For adult females, the highest rate was among those 15-24 years old. The lowest rate among all adults in Laghman was among those aged 45 years and older.

The rate among children six and younger was 12%, which is similar to the corresponding national rural rate. This was fairly equal when split along genders: males six years and under were positive at 13%, and females six years and under tested at 11%. The rate among those 6-14 years old was lower: no males and approximately 5% of females.

Table 6.7 presents the approximate household, population, adult, adult male, adult female, and child rates for the four Laghman villages surveyed. These rates are on the basis of any drug positive. It must be noted that because of the small sample size, there is a large margin of error associated with the rates pre-

sented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix. Laghman has the second highest rural household rate among the 15 provinces surveyed. The household rates for all four villages are higher than the national rural household rates.

Village #3 has one of the higher household rates in the overall survey and was one of four villages where alcohol use was found. Village #4 was one of only five villages in which no drugs were detected among either women or children.

Table 6.7. Laghman Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#1	Qarghayi	44%	9%	16%	23%	7%	2%
#2	Qarghayi	63%	14%	12%	11%	12%	16%
#3	Alingar	83%	11%	15%	24%	4%	6%
#4	Alingar	60%	4%	7%	14%	0%	0%



Supplies in a rural medical clinic.

6.2.3 NANGARHAR PROVINCE

6.2.3.1 GEOGRAPHY

Nangarhar province is located in the east of Afghanistan and is bordered by the country of Pakistan to the south and east, the provinces of Logar and Kabul to the west, and the province of Kunar to the north. More than half of the province is mountainous or semi-mountainous, and two-fifths of the province is made up of flat land.

The capital of Nangarhar is Jalalabad. There are 21 districts and approximately 762 villages in Nangarhar.

6.2.3.2 DEMOGRAPHICS

The population of Nangarhar province is 1,462,600. The province's capital, Jalalabad (formerly called Adinapour), is the second largest city in eastern Afghanistan with an urban population of 212,900. Approximately 1,245,200 people, or 85% of the population, reside in rural areas of the province.

The major ethnic groups living in Nangarhar are Pashtuns (90%) and Pashai (7%). Other ethnic groups, including Tajiks and Fujjars, represent about 3% of the population. Pashtu is spoken in 92% of the villages, while the remaining 8% speak Pashai.

The overall literacy rate in Nangarhar province is 29%: 40% for men and 15% for women. Approximately 39% of children are enrolled in school: 51% of boys and 28% of girls.

6.2.3.3 ECONOMY

Agriculture is the major source of revenue for 48% of households: 55% of rural households and 12% of urban households. Crops grown in Nangarhar include wheat, maize, alfalfa, clover or other fodder, and rice.



More than half of urban households and about a quarter of rural households derive some portion of their income from trade and services. A quarter of households in urban areas and two-fifths of households in rural areas earn some income from non-farm labor. Livestock also accounts for some income in about 14% of rural households.

6.2.3.4 INFRASTRUCTURE

Approximately 93% of households have access to water within their community, but only 43% have access to safe drinking water (63% in urban areas and 41% in rural areas). About 7% of households must travel up to an hour to obtain safe drinking water.

Electricity is available in about 83% of urban households, but access is severely limited in rural areas, where only 9% of households have electricity. While the majority of urban households obtain electricity from public sources, only about 33% of those with electricity in rural areas obtain it from public sources. Roads are reasonably well-developed, with approximately 54% of roads travelable throughout the year and 34% travelable during some periods. About 12% of the province has no roads.

6.2.3.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are a number of substance-abuse treatment centers in Nangarhar supported by INL, Colombo Plan, UNODC, World Bank and Ministry of Public Health (MoPH). A list of all substance-abuse treatment services, service providers and type of services provided at each of the centers in Nangarhar and in other provinces in Afghanistan are included in the Appendix

6.2.3.6 POPPY CULTIVATION

Nangarhar was made poppy-free in 2008, but since then, poppy cultivation has resumed and increased. In 2013, 15,719 hectares of poppy were cultivated. This level is close to the pre-poppy-free level in 2007. The increase over the 2012 level is nearly 400%. Eradication decreased from 784 hectares in 2012 to only 157 hectares in 2013.

6.2.3.7 SURVEY RESULTS

A survey of Jalalabad, the urban provincial capital, was conducted. No rural survey was conducted in Nangarhar.

6.2.3.7.1 Survey Results—Urban

Samples were collected from 246 people residing in 97 households. Approximately 10% of households, 5% of the population, and 7% of adults tested positive for one or more drugs. Approximately 1% of children tested positive for drugs.

Table 6.8 presents both the household and population rates by drug class for Jalalabad. Figure 6.26 presents the household rates by drug

class, and Figure 6.27 presents the population rates by drug class. Both figures include the nationwide urban and national rates for comparison to Jalalabad. Figure 6.28 presents the Jalalabad adult, male, female, and child rates. Figure 6.29

Table 6.8. Jalalabad Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	10.3%	4.7%
Opioids	2.1%	1.0%
Cannabis	3.1%	1.6%
Benzodiazepines	3.1%	1.1%
Barbiturates	2.1%	1.0%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

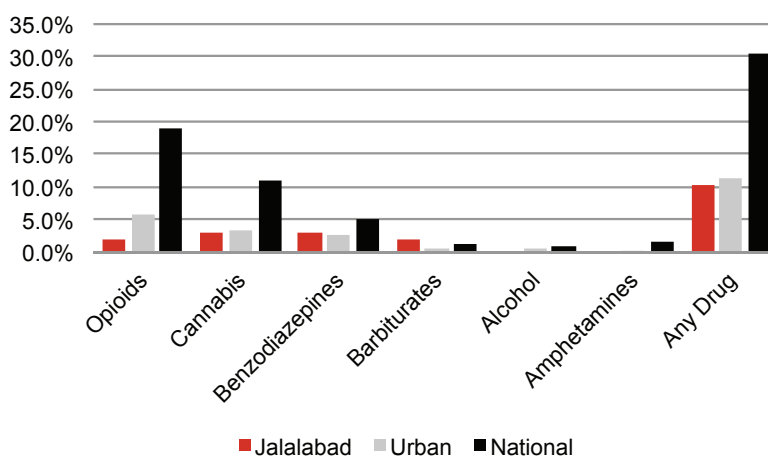


Figure 6.26. Jalalabad household rates.

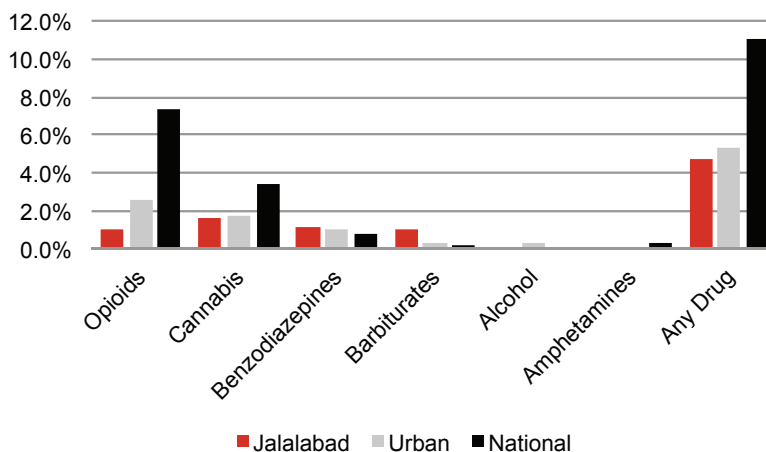


Figure 6.27. Jalalabad population rates.

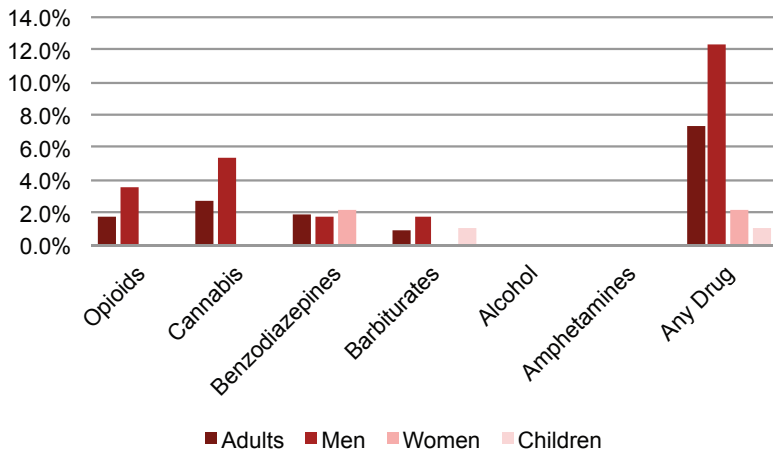


Figure 6.28. Jalalabad adult and child rates.

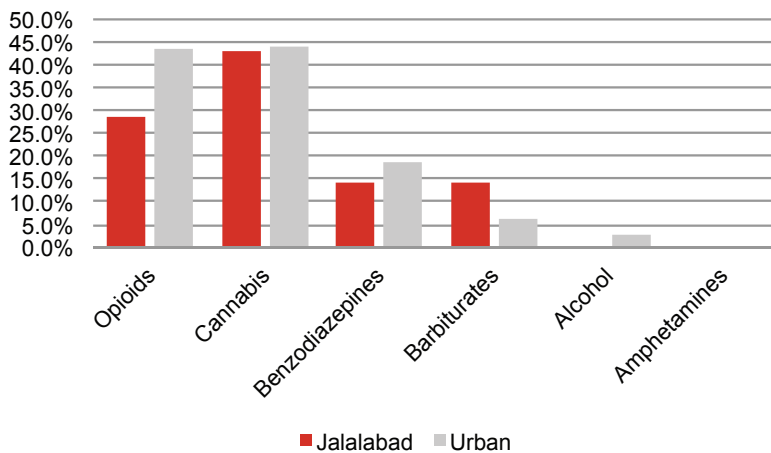


Figure 6.29. Types of drugs used by Jalalabad men users.

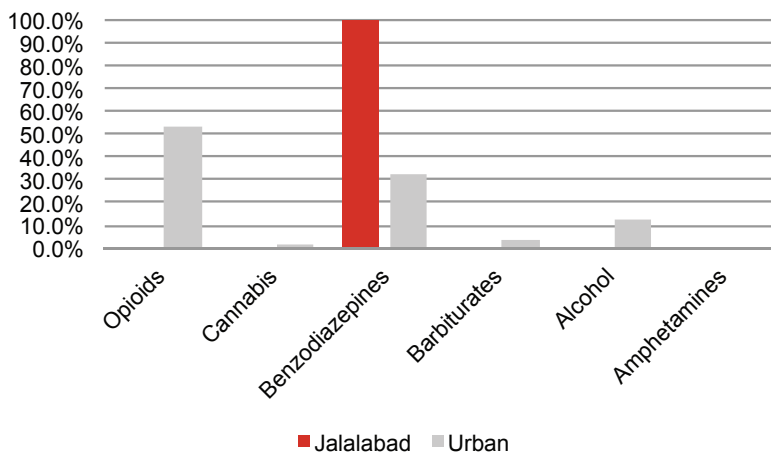


Figure 6.30. Types of drugs used by Jalalabad women users.

presents and compares the types of drugs and their rates among Jalalabad male adult drug users and national urban adult male drug users. Figure 6.30 presents and compares the types of drugs used by female adult drug users in Jalalabad and nationally among urban adult female drug users.

The drugs most often detected in Jalalabad households were benzodiazepines and cannabis at 3% each, followed by opioids and barbiturates at 2%. This was the only provincial capital in which the population rates for benzodiazepines and cannabis were higher than the population rate for opioids.

As seen in Figure 6.28, drug use was significantly higher in adult males (12%) than in adult females (2%). Among adult male drug users, cannabis use was more prevalent than opioid use (43% vs. 29%). 14% of adult male drug users tested positive for barbiturates, and 14% for benzodiazepines. Benzodiazepines were also the only drug type detected in female drug users in Jalalabad (Figure 6.30).

Opioids were detected in approximately 2% of households, 1% of the population, and 2% of adults. The household rate was the third-lowest among the provincial capitals surveyed, while the population and adult rates were both second-lowest. Only two adult males tested

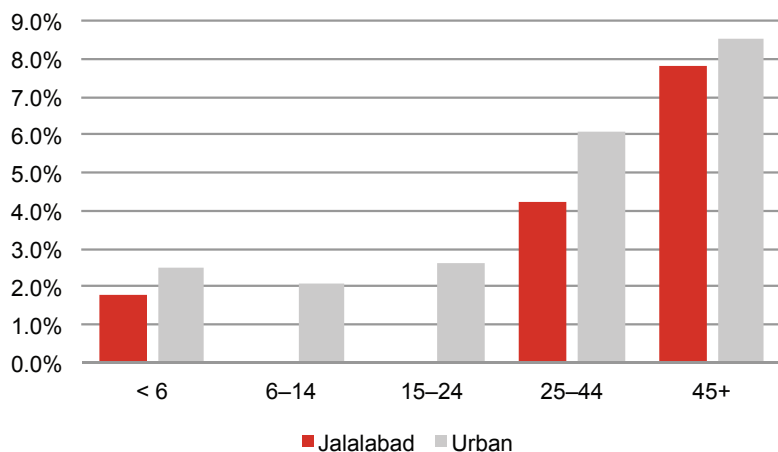


Figure 6.31. Jalalabad rates by age group.

positive for opioids: one for codeine and the other for opium. The average hair, saliva, and urine opioid concentrations for Jalalabad are presented in the Appendix.

Cannabis was detected in approximately 3% of households, 2% of the population, and 3% of adults. Only adult men tested positive for cannabis.

Benzodiazepines were detected in approximately 3% of the households, in 1% of the population, and in 2% of adults. Among adults, approximately 2% of men and women each tested positive. No ben-

zodiazepines were detected in children.

Barbiturates were detected in approximately 2% of households, 1% of the population and 1% of adults. Approximately 2% of adult males, 1% of children (all under age six), and no women tested positive for barbiturates.

With the exception of one child under the age of six years, all drug positives were detected in adults aged 25 years and older (Figure 6.31). No young adults aged 15–24 years old tested positive for any drug. Opioids were detected only among those 25–44 years old. Approximately 3% of males aged 45 and older tested positive for cannabis, versus 1% of males aged 25–44. Benzodiazepines were only detected in individuals aged 45 years and older: all of those who tested positive were older than 60.

6.2.3.7.2 Survey Results—Rural

No villages were surveyed in Nangarhar province.



Sample collection supplies.

6.2.4 NURISTAN PROVINCE

6.2.4.1 GEOGRAPHY

Nuristan province is in the east and bordered by Badakhshan province to the north, the country of Pakistan to the east, Kunar province to the southeast, Laghman province to the southwest, and Panjshir province to the northwest. Nuristan is mostly mountainous with flat lands comprising only 1% of the province.

Parun is the provincial capital, but it is more of a village than a city. There are eight districts and approximately 263 villages in Nuristan.

6.2.4.2 DEMOGRAPHICS

Nuristan is the most sparsely populated province with an estimated population of 143,200. The population of Parun is estimated at 13,400. There is no urban center in Parun or any other district in the province.

The major ethnic groups in Nuristan include Kata, Kunish, Pashai, Wama, and Paroni. Collectively, these five groups are called Nuristanis, and they comprise 99% of the population of Nuristan. Nuristani is spoken by 78% of the population and in 84% of the villages. The second most spoken language is Pashai, which is spoken by 15% of the population.

The literacy rate is 25%: 31% for men and 19% for women. On average, 47% of children are enrolled in school: 52% of boys and 43% of girls.

6.2.4.3 ECONOMY

Trade in Nuristan is related to agriculture. Eighty-eight percent of income in this province comes from agriculture and livestock. Agricultural products in-



clude maize, wheat, millet, and grain pulses. Other items produced in Nuristan include honey, handicrafts, and rugs.

6.2.4.4 INFRASTRUCTURE

Fifty-three percent of households in Nuristan have access to electricity, none of which is from a public source. About 61% of households have drinking water available in their community, but only 9% have access to safe drinking water.

6.2.4.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are currently no substance-abuse treatment centers in Nuristan.

6.2.4.6 POPPY CULTIVATION

The high elevation of the mountains in this province is not conducive for growing poppies. This province is, and is expected to remain, poppy-free.

6.2.4.7 SURVEY RESULTS

No urban survey was conducted in Nuristan. Two villages in Nurgram district were surveyed.

6.2.4.7.1 Survey Results—Urban

The provincial center of Nuristan was not surveyed.

6.2.2.7.2 Survey Results—Rural

Samples were collected from 205 people and 27 rural households in two randomly selected villages in Nurgram district. Household and population rates for any drug positive test result by village are presented at the end of this section.

Table 6.9 presents both the household and population rates by drug class for rural Nuristan. Figure 6.32 presents the household rates by drug class, and Figure 6.33 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Nuristan. Figure 6.34 presents the rural Nuristan adult, adult male, adult female, and child rates. Figure 6.35 presents and compares the types of drugs and their rates among rural Nuristan male adult drug users and national rural adult male drug users. Figure 6.36 presents and compares the types of drugs used by female adult drug users in rural Nuristan and nationally among rural adult female drug users.

Nuristan is one of three provinces in which only two villages were surveyed. Two other provinces had three villages surveyed, and the remaining 47 had four villages surveyed. The small sample size increases the margin of error.

Approximately 33% of households, 12% of the population, and 9% of adults tested positive in Nuristan. These rates are lower than their corresponding national rural rates. Approximately 15% of children tested positive for one or more drugs. Only opioids and cannabis were detected in Nuristan.

Approximately 33% of households, 12% of the population, and 9% of adults tested positive in Nuristan. These rates are lower than their corresponding national rural rates. Approximately 15% of children tested positive for one or more drugs. Only opioids and cannabis were detected in Nuristan.

The rate for any drug use among adult males was higher than that of adult females: approximately 11% versus 7%. Both the male and female rates were lower than their respective national rural rates.

Drug Class	Household	Population
Any	33.3%	11.8%
Opioids	11.1%	1.4%
Cannabis	25.9%	10.3%
Benzodiazepines	0.0%	0.0%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

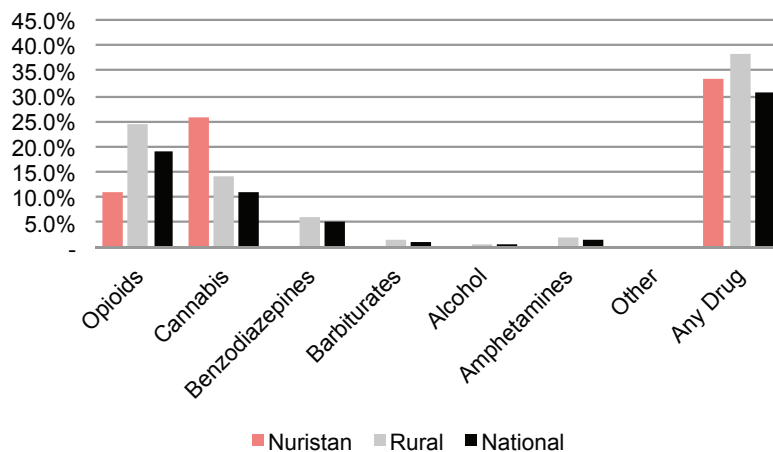


Figure 6.32. Rural Nuristan household rates.

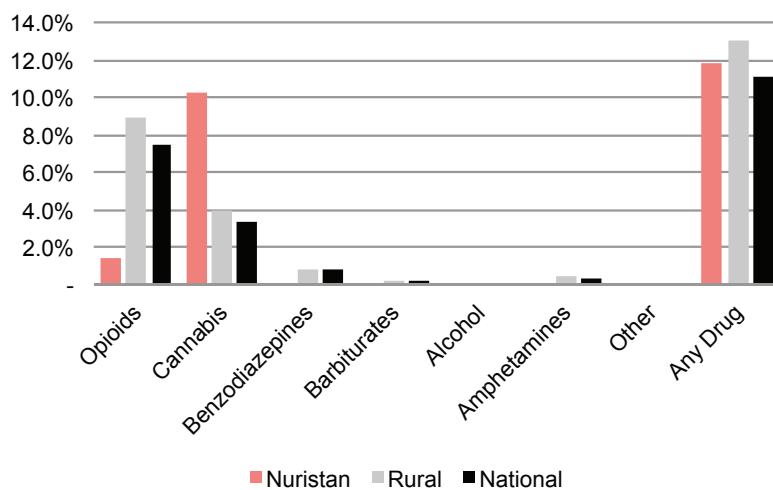


Figure 6.33. Rural Nuristan population rates.

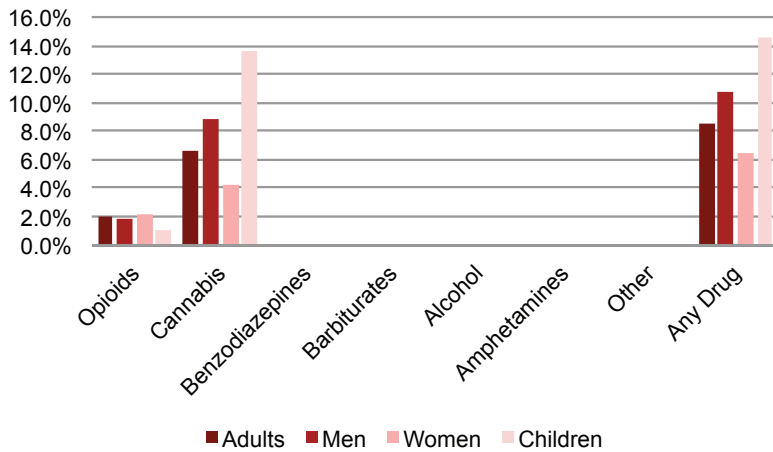


Figure 6.34. Rural Nuristan adult and child rates.

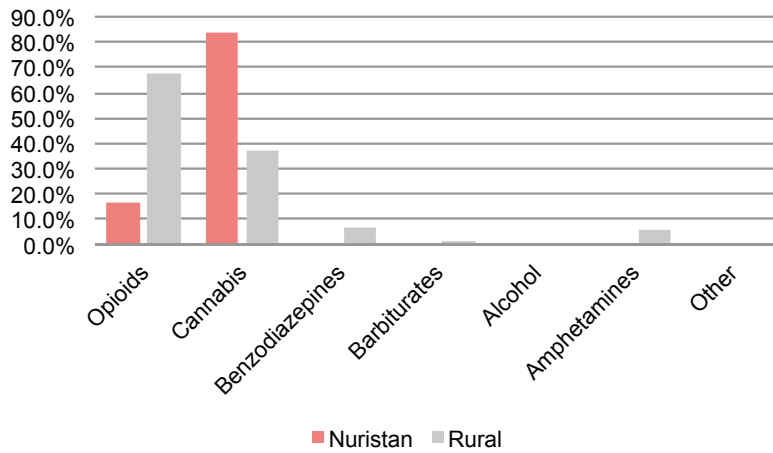


Figure 6.35. Types of drugs used by rural Nuristan men users.

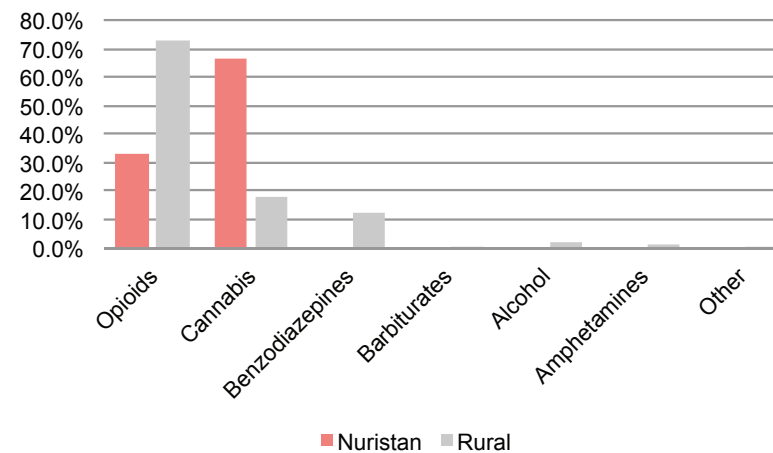


Figure 6.36. Types of drugs used by rural Nuristan women users.

Among adult drug users, 23% tested positive for opioids and 77% for cannabis.

Opioids were detected in approximately 11% of households, 1% of the population, and 2% of adults. One child, or approximately 1% of children, tested positive for opioids. The one child who tested positive for opioids was a seven-year-old male who tested positive for codeine in hair. The household, population, adult and child opioid rates are all significantly lower than their respective national rural rates, and, aside from the household rate, are among the lowest rates for opioids found in the rural survey.

Among adult male drug users, only one adult male tested positive for opioids (representing approximately 17% of adult male drug users): specifically, for heroin. Among adult female drug users, only one woman tested positive for opioids (representing approximately 33% of adult female drug users): again, specifically, for heroin. The average hair, saliva, and urine opioid concentrations for rural Nuristan are presented in the Appendix.

Cannabis was the most-detected drug in Nuristan. Cannabis was detected in approximately 26% of households, 10% of the population, and 7% of adults: 9% of men and 4% of women. These rates are all higher than their corresponding national rural cannabis rates. The 10% total

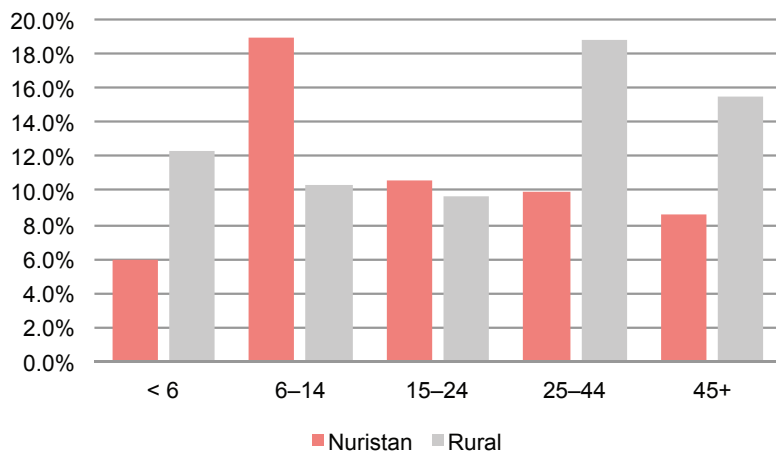


Figure 6.37. Rural Nuristan rates by age group.

population rate was one of the two highest among the 15 provinces surveyed. Approximately 83% of adult male drug users and 67% of adult female drug users tested positive for cannabis.

Fourteen, or approximately 14%, of the children tested were positive for cannabis. This was the highest child rate among the 15 provinces surveyed. All tested positive for cannabis at relatively low concentrations of carboxy-THC in hair.

No barbiturates, benzodiazepines, amphetamine-type stimulants, or alcohol were detected in Nuristan.

Drugs were detected in all adult age groups, with the highest rate among those aged 15–24 (Figure 6.37). Nuristan is only one of four provinces in which the 15-24 age group did not have the lowest rate among the three adult age groups. Among adult males, the highest rate was detected among those 45 years and older, and the lowest was among those 15–24 years old. The highest rate for adult females was among those 15–24 years old. The lowest adult rate was among those

45 years and older, and no females in this age group tested positive.

The rate among children younger than six years old was 6%, which is substantially lower than the corresponding national rural rate. There was no variation by gender among male and female children younger than six years old. The percentage of children who tested positive for any drug in the 6–14 year old age group was 19% and highest among

all child or adult age groups in Nuristan. Among male children aged 6–14 years, 21% tested positive, the highest rate for this age group among the 15 provinces surveyed.

Table 6.10 presents the approximate household, population, adult, adult male, adult female, and child rates for the two Nuristan villages surveyed. These rates are on the basis of any drug positive. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. This is especially true for Nuristan where only two villages were surveyed in the province. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

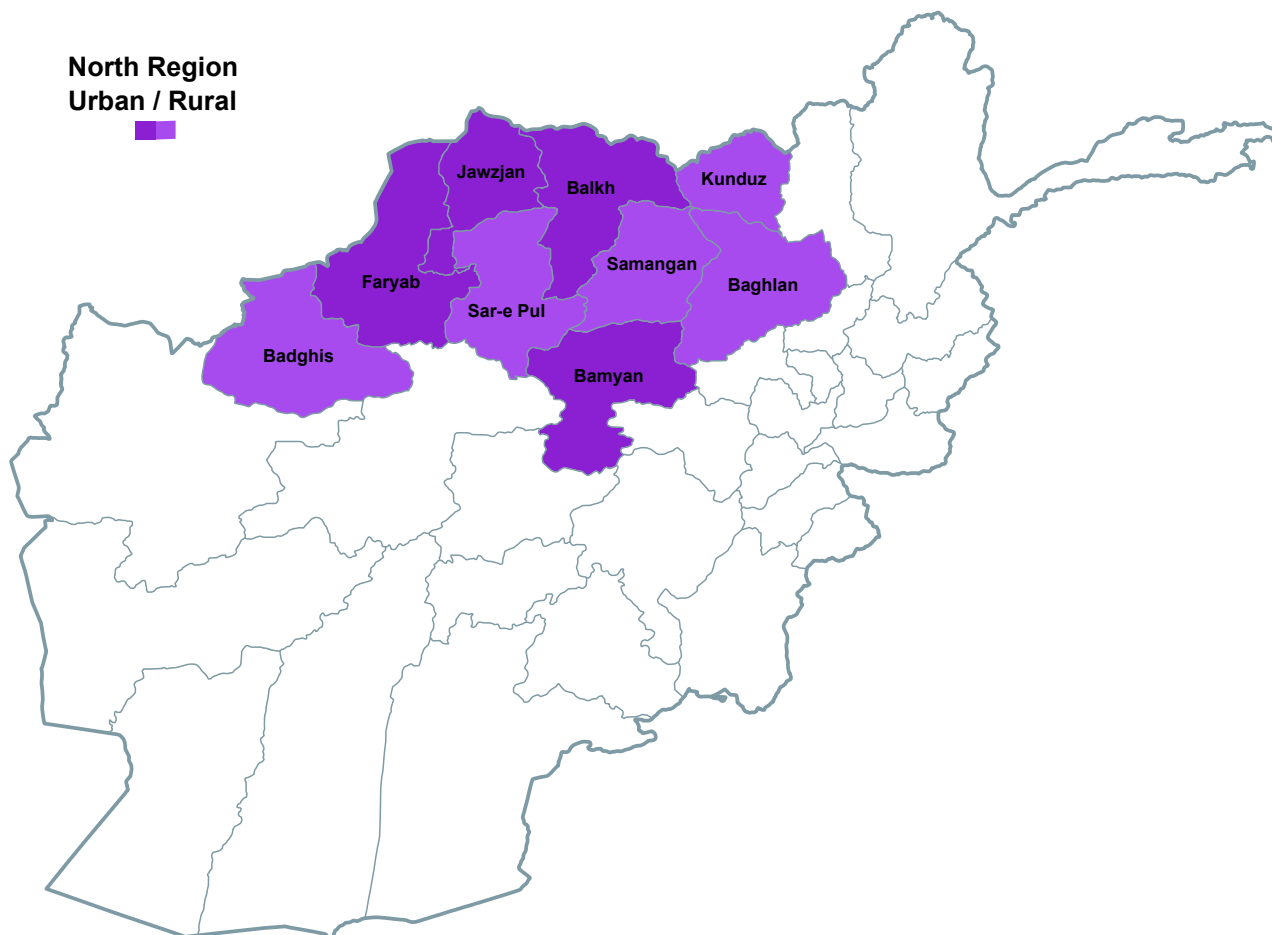
Village #8 had one of the highest child rates for cannabis (24%) among the 52 villages surveyed, as well as a population cannabis rate (17%) that was the second highest. The rates for Village #9 were all lower than their respective national rural rates.

Village	District	Household	Population	Adults	Men	Women	Children
#8	Nurgram	50%	18%	12%	19%	6%	24%
#9	Nurgram	20%	5%	5%	3%	7%	4%

6.3 NORTH REGION

Surveys conducted in the North region include the provinces of Badghis¹, Baghlan, Balkh, Bamyán, Faryab, Jawzjan, Kunduz, Samangan, and Sar-e Pul. Urban surveys were conducted in Mazar-e-Sharif, the provincial capital of Balkh; Bamyán City, the capital of Bamyán;

Mehmaneh, the capital of Faryab; and Sherberghan, the capital of Jawzjan. Rural surveys were conducted in Badghis, Baghlan, Kunduz, Samangan, and Sar-e Pul. The villages of Ana Gilday and Kohnar Kalder in Balkh province were sampled during the urban survey, and a summary of the study is presented in the section on Balkh.



Province	Total Population	Urban Population	Rural Population
Badghis	479,200	14,200	465,600
Baghlan	879,000	176,600	702,400
Balkh	1,271,300	463,300	808,000
Bamyán	432,700	12,400	420,300
Faryab	964,600	117,000	847,600
Jawzjan	521,400	111,200	410,200
Kunduz	972,200	243,600	728,600
Samangan	375,100	28,400	346,700
Sar-e Pul	541,000	41,800	499,200

CSO 2013–2014 population estimates.

¹ Badghis is included as part of West Region in current UNODC publications such as the “Afghanistan Opium Survey 2013”. Badghis is included in the North Region to remain consistent and for comparison with the UNODC “Afghanistan Drug Use Survey 2005” report.

6.3.1 BADGHIS PROVINCE

6.3.1.1 GEOGRAPHY

Badghis is located in the western part of the country. To the north, it is bordered by Faryab, Ghor, and Hirat provinces as well as by Turkmenistan. About 69% of the province is mountainous or semi-mountainous, and approximately 32% is flatlands. The capital of the province is Qala-i-Naw. There are seven districts and approximately 964 villages in Badghis.



6.3.1.2 DEMOGRAPHICS

Badghis has a population of approximately 479,800 people. The population of Qala-i-Naw is 65,300, with 51,100 of these individuals living in the urban center. Approximately 465,600 individuals, or 95% of the Badghis population, reside in rural areas of the province.

Information on the ethnic makeup of Badghis was not found. However, the majority of the population speaks Dari (56%) and Pashtu (40%). A few villages in Badghis speak Uzbeki, Turkmani, or Balochi.

The overall literacy rate is 11%: 14% of men and 7% of women are literate. Approximately 19% of children are enrolled in school. The individual percentages of boys and girls enrolled in school were not available.

6.3.1.3 ECONOMY

Agriculture is the main source of income for 59% of households, including 65% of rural households. Fifty-two percent of rural households own or run farmland or garden plots. The major industrial crops in Badghis are wheat, maize, melon, rapeseed, and flax. Fruit and nut trees (67%) and grapes (33%) are the most common vegetation grown in garden

plots. Opium was reported as a source of income in one percent of households. About 45% of households obtain some income from trade and services.

6.3.1.4 INFRASTRUCTURE

Sixty percent of households have direct access to a main source of drinking water in their community, but only 15% have direct access to safe drinking water. About 27% of households have to travel as much as an hour to access drinking water, while 5% of the population has to travel between an hour and six hours.

Information on the percentage of households with electricity was not found. However, Badghis does have two power stations: a diesel generator powers the capital city and surrounding villages, and a hydraulic waterpower network exists in Jawand district.

Approximately 33% of the roads in the province are travelable throughout the year, and 29% are travelable during some periods. There are no roads in about 37% of the province.

6.3.1.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are currently no substance-abuse treatment centers in Badghis.

6.3.1.6 POPPY CULTIVATION

Badghis has historically been a poppy-cultivating province with cultivation driven by the amount of rainfall. The largest amount cultivated was in 2009 when 5,411 hectares were cultivated. Cultivation decreased the following two years but increased in 2012 and 2013. In 2013, opium poppy cultivation increased 52% to 3,596 hectares, the second largest amount cultivated in the province.

6.3.1.7 SURVEY RESULTS

No urban survey was conducted in Badghis. Two villages in Qadis district and two villages in Ab Kamari district were surveyed.

6.3.1.7.1 Survey Results—Urban

The provincial capital of Badghis was not surveyed.

6.3.1.7.2 Survey Results—Rural

Samples were collected from 402 people and 48 rural households in four randomly selected villages: two in Qadis district and two in Ab Kamari district. Household and population rates for any drug-positive test result, evaluated by village, are presented at the end of this section.

Table 6.11 presents both the household and population rates by drug class for rural Badghis. Figure 6.38 presents the household rates by drug class, and Figure 6.39 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Badghis. Figure 6.40 presents the rural

Badghis adult, men, women, and children rates. Figure 6.41 presents and compares the types of drugs and their rates among rural Badghis male adult drug users and national rural males. Fig-

Table 6.11. Rural Badghis Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	12.5%	2.8%
Opioids	6.3%	1.5%
Cannabis	2.1%	0.8%
Benzodiazepines	0.0%	0.0%
Barbiturates	2.1%	0.2%
Alcohol	0.0%	0.0%
Amphetamines	4.2%	0.8%

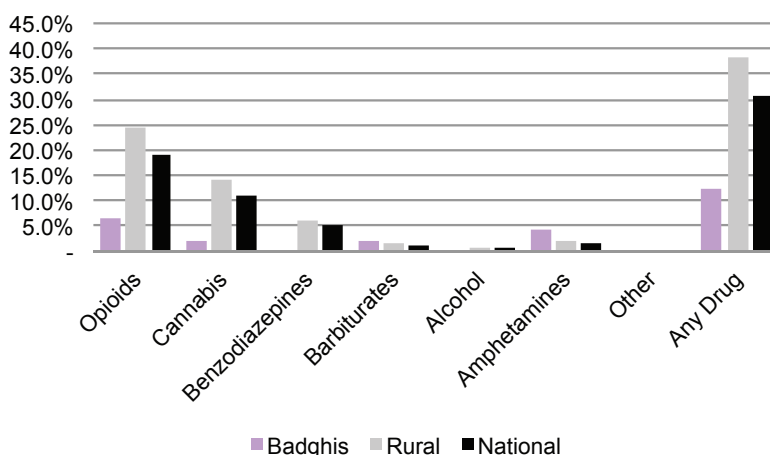


Figure 6.38. Rural Badghis household rates.

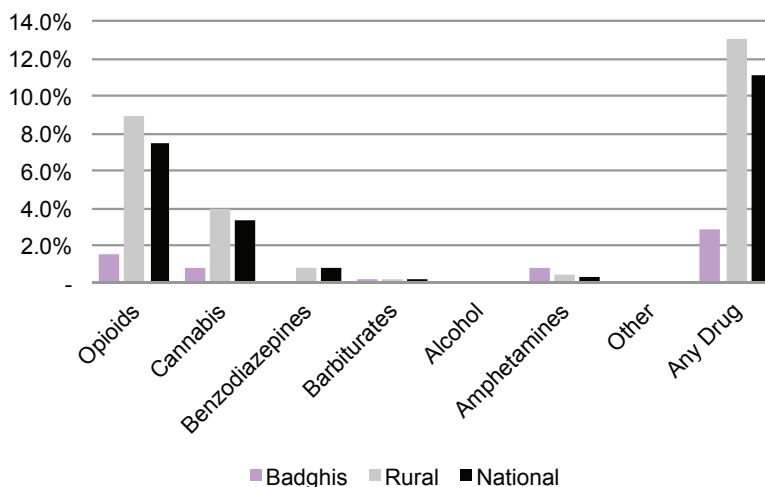


Figure 6.39. Rural Badghis population rates.

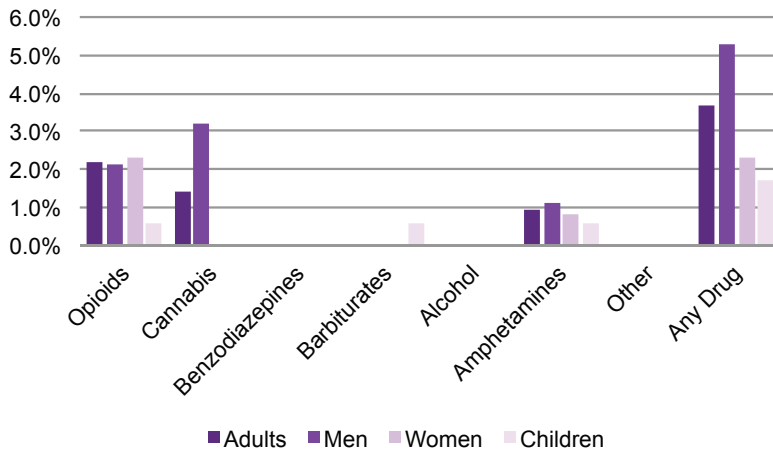


Figure 6.40. Rural Badghis adult and child rates.

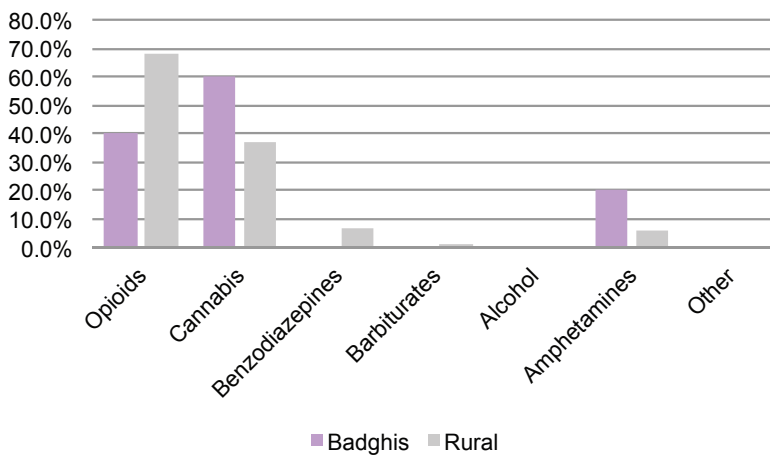


Figure 6.41. Types of drugs used by rural Badghis men users.

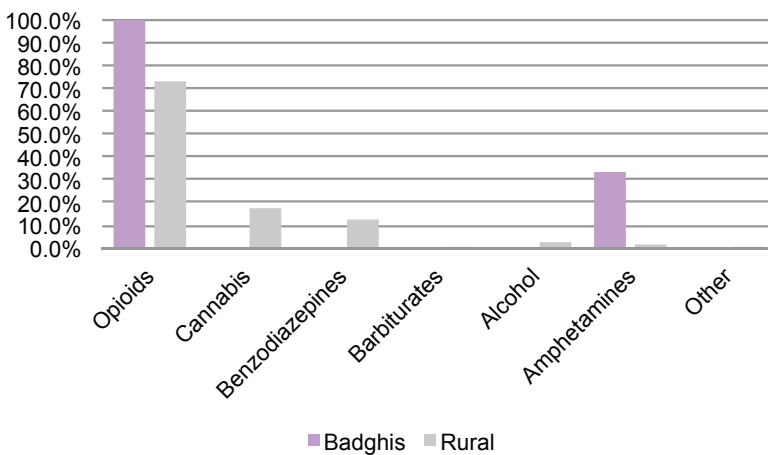


Figure 6.42. Types of drugs used by rural Badghis women users.

ure 6.42 presents and compares the types of drugs used by female adult drug users in rural Badghis and nationally among rural adult female drug users.

Approximately 13% of households, 2.8% of the population and 4% of adults tested positive in Badghis. Approximately 2% of children tested positive for one or more drugs. Badghis had the lowest rates for all of the reported categories of drugs among the 15 provinces surveyed.

The rate for men was a little over twice that of women, approximately 5% versus 2%. Badghis had the lowest men's rate and the second-lowest women's rate among the 15 provinces surveyed.

Among adult drug users, 61% use opioids, 39% cannabis, and 25% amphetamine-type stimulants.

Opioids were the most-detected drug in Badghis. They were detected in approximately 6% of households, 2% of the population, and 2% of adults. Only one child (representing approximately 1% of Badghis children) tested positive for opioids. The child is a one-year-old and had 6-AM detected in hair. Overall, the children's rates are the lowest for opioids among the 15 provinces surveyed.

Among male drug users, 40% use opioids and all use heroin. Of those using opioids, 100% tested positive, predominantly for codeine use. Among female drug users, 100% use opioids. Ap-

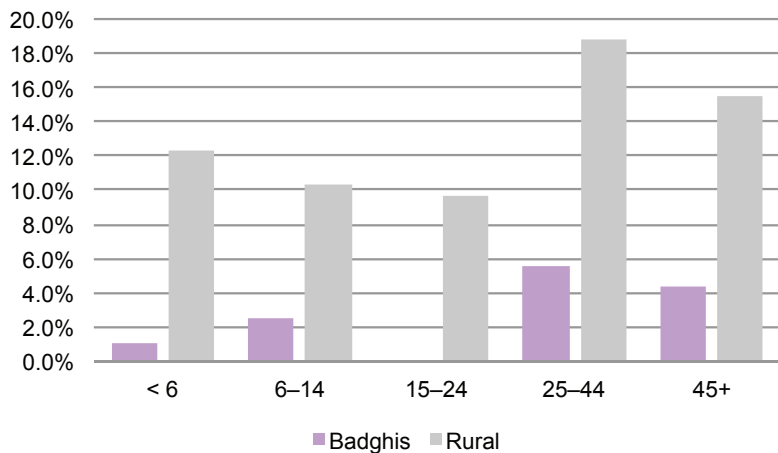


Figure 6.43. Rural Badghis rates by age group.

proximately one-third use heroin, but most (67%) predominantly use codeine. The average hair, saliva, and urine opioid concentrations for rural Badghis are presented in the Appendix.

Cannabis was the second-most-detected drug. It was detected in approximately 2% of households, 1% of the population, and 1% of adults. Cannabis was detected only among men: approximately 3% of the Badghis adult male population tested positive. The household and population THC (cannabis) rates for Badghis were among the lower rates found.

Barbiturates were detected in only one child (< 1%). The child is 14 and was positive for phenobarbital in hair.

Badghis is one of seven provinces where amphetamine-type stimulants were detected. The amphetamine-type stimulants were detected in approximately 4% of households, 1% of the population, 1% of adults, and 1% of children. Badghis is the only province in which amphetamine-type stimulants were detected in men, women and children, at approximately 1% each.

Benzodiazepines and alcohol were not detected in Badghis.

Only Badghis adults over the age of 24 years tested positive for drugs (Figure 6.43). Badghis is one of two provinces surveyed where no drug use was found

among young adults in the 15–24 year-old group. The highest rate among adults was in the 25–44 year-old age group at 6%; the rate for those 45 years and older was only slightly lower, at 4%. The 6% rate among the 25–44 year-old age group was the lowest among the 15 provinces surveyed.

No drugs were detected among males 6–24 years old and 45 years and older. Approximately 2% of male children under six years of age and 11% of those 25–44 years old tested positive.

The rates for both those groups were among the lowest among all 15 provinces surveyed. Among all females, no child under six years old or adult 15–44 years old tested positive.

Across all age groups, Badghis and one other province, Samangan, appear to have the lowest drug-positive rates among the provinces surveyed.

Table 6.12 presents the approximate household, population, adult, male, female, and child rates for the four Badghis villages surveyed. These rates are on the basis of any drug-positive test result. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

The village rates are among the lower rates found during the rural survey. Village #35 is one of nine villages where no women tested positive for any drug. However, Village #36 is one of only two villages in which an adult female tested positive for amphetamine-type stimulants, and Village #35 is one of only three villages in which one or more children tested positive for amphetamine-type

stimulants. In Village #35, approximately 2% of the children tested positive for amphetamine-type stimulants. This is

one of three villages in which children tested positive for the drug.

Table 6.12. Badghis Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#34	Qadis	8%	3%	6%	11%	2%	0%
#35	Qadis	18%	2%	2%	4%	0%	2%
#36	Ab Kamari	14%	4%	4%	4%	4%	4%
#37	Ab Kamari	10%	2%	4%	4%	4%	0%



6.3.2 BAGHLAN PROVINCE

6.3.2.1 GEOGRAPHY

Baghlan is in the north and bordered by Kunduz to the north, Takhar to the east, Parwan and Panjsher to the south, and Bamyán and Samangan to the west. More than half of the land is mountainous and semi-mountainous. One-third of the land is flat.

Pul-i-Khumri is the capital of Baghlan. The province comprises 15 districts and approximately 1,365 villages.



6.3.2.2 DEMOGRAPHICS

Baghlan has a total population of 879,000. The capital, Pul-i-Khumri, has a population of 207,600, with 103,500 individuals living in the urban center. Approximately 702,400 individuals, or 80% of the population, reside in rural areas of the province.

Tajiks and Pashtun, followed by Hazara and Uzbek, are the major ethnic groups in Baghlan. Dari is the most widely spoken language in Baghlan, spoken by 70% of the population and in 73% of the villages. Pashtu is the second most spoken language, spoken by 22% of the population in 258 villages (about 19%).

The overall literacy rate in Baghlan is 22%: 29% of men and 12% of women are literate. Approximately 29% of children are enrolled in school: 35% of boys and 22% of girls.

6.3.2.3 ECONOMY

Agriculture is an important source of income for 54% of rural households and 18% of urban households in Baghlan. Approximately 37% of households in rural areas and 2% of households in urban areas have their own agriculture land and garden plots. Livestock and poultry are another source of income for

74% of rural households and 18% of urban households. The primary field crops in Baghlan are wheat, barley, rice, maize, rapeseed, and flax. Produce grown in garden plots includes fruit and nut trees, vegetables and grapes, potatoes, beans, alfalfa, clover, and other fodder. Primary types of livestock owned include cattle, donkey, sheep, and goats.

More than half of households in the urban areas and one-fourth of households in the rural areas obtain income from trade and services. Non-farm labor provides some income for 17% of households. Approximately one-third of urban and rural households obtain income from non-farm labor. Only a limited number of villages and individuals produce handicrafts such as rugs and jewelry.

6.3.2.4 INFRASTRUCTURE

Three-quarters of households have access to water in their communities, mostly from rivers. However, only 19% of households in Baghlan have access to safe drinking water: 35% in the urban areas and 16% in the rural areas. About 20% travel up to one hour to access drinking water, and for 4%, access to water can require between one and six hours of travel.

Sixty-five percent of urban households have access to electricity, but only 4% of rural households have access. For those households with access to electricity, only half of it comes from public sources.

Roads are reasonably developed in Baghlan compared to other provinces. About 42% of Baghlan roads are travelable throughout the year and 32% are travelable during some periods. There are no roads in about 26% of the province.

6.3.2.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center and one outpatient treatment center in Baghlan. Both provide outreach and community services. One also provides aftercare and serves as a shelter. No home-based treatment services are provided. The Ministry of Public Health (MoPH) supports the inpatient center and also provides services. INL and Colombo Plan support the outpatient center, and Khatiz Organization for Rehabilitation (KOR) provides the services there. The inpatient center treats adult males, adult females, and children, while the outpatient center only provides treatment services to adult males and adult females. No village-based services are available in Baghlan.

A list of all substance-abuse treatment services and further detail on the two Baghlan centers and each of the centers in Afghanistan is included in the Appendix.

6.3.2.6 POPPY CULTIVATION

Baghlan was poppy-free in 2009 and 2010, but cultivation reemerged in 2011. Poppy cultivation has continued since then, but the area under cultivation remains relatively low compared to other provinces. In 2012, more hectares of poppy were

tion reemerged in 2011. Poppy cultivation has continued since then, but the area under cultivation remains relatively low compared to other provinces. In 2012, more hectares of poppy were

Table 6.13. Rural Baghlan Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	29.6%	10.4%
Opioids	16.7%	5.9%
Cannabis	11.1%	4.5%
Benzodiazepines	5.6%	0.7%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	1.9%	0.3%

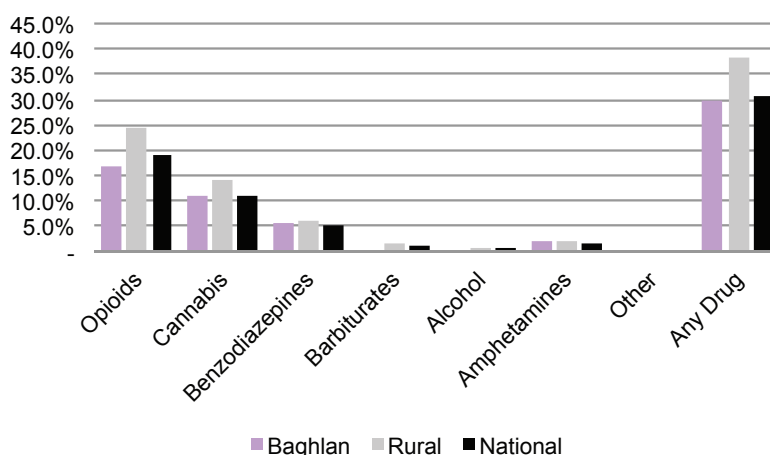


Figure 6.44. Rural Baghlan household rates.

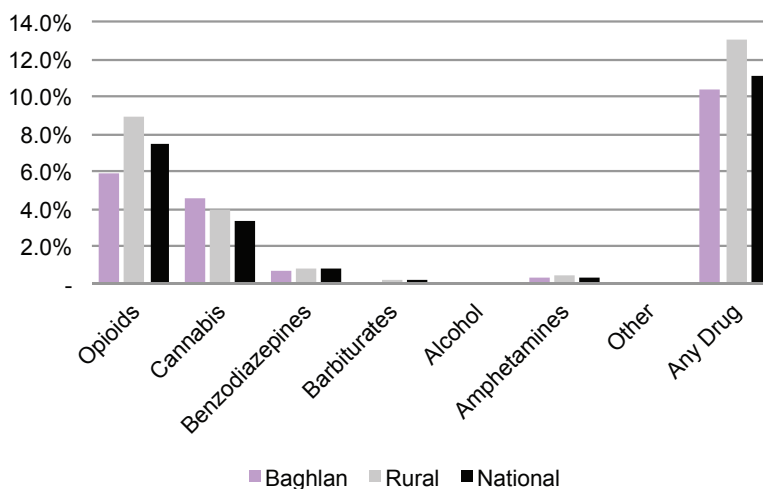


Figure 6.45. Rural Baghlan population rates.

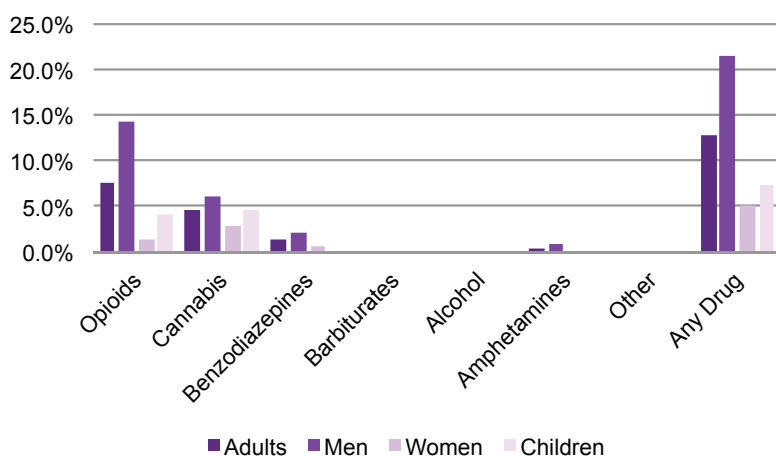


Figure 6.46. Rural Baghlan adult and child rates.

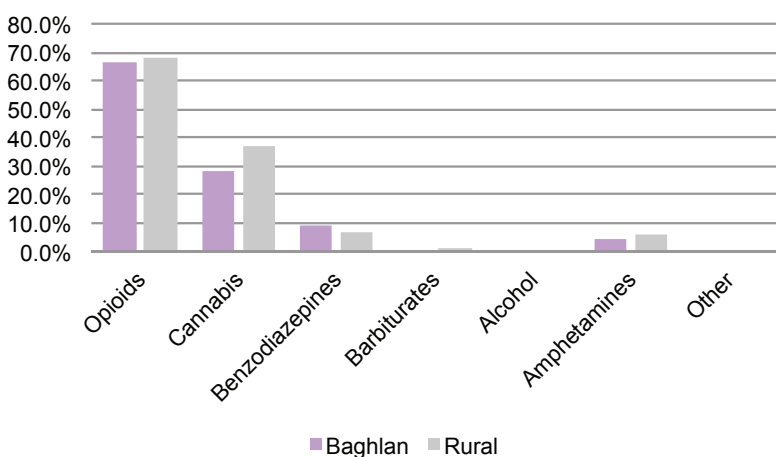


Figure 6.47. Types of drugs used by rural Baghlan men users.

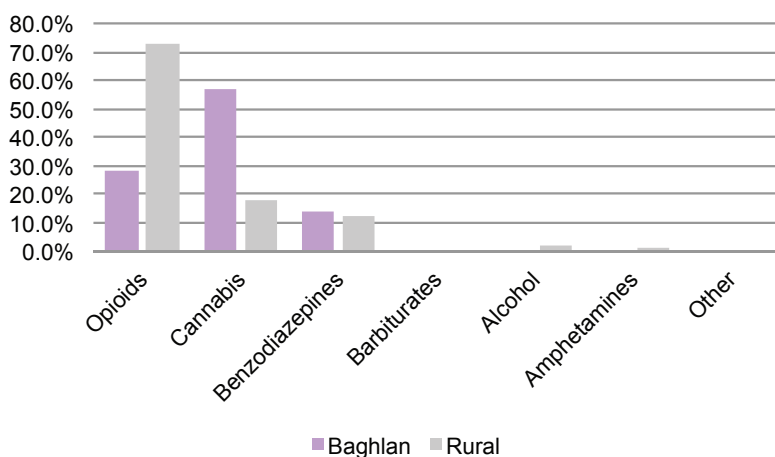


Figure 6.48. Types of drugs used by rural Baghlan women users.

eradicated than cultivated. Cultivation did decrease in 2013 by 20%, but eradication also decreased substantially over 2012.

6.3.2.7 SURVEY RESULTS

No urban survey was conducted in Baghlan. Two villages in Dushi district and two villages in Khost we Firing district were surveyed.

6.3.2.7.1 Survey Results—Urban

The provincial capital was not surveyed.

6.3.2.7.2 Survey Results—Rural

Samples were collected from 408 people and 54 rural households in four randomly selected villages: two in Dushi district and two in Khost we Firing district. Household and population rates for any drug-positive test result, evaluated by village, are presented at the end of this section.

Table 6.13 presents both the household and population rates, evaluated by drug class, for rural Baghlan. Figure 6.44 presents the household rates by drug class, and Figure 6.45 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Baghlan. Figure 6.46 presents the rural Baghlan adult, men, women, and children rates. Figure 6.47 presents and compares the types of drugs and their rates among rural Baghlan male adult drug users and national rural males. Figure 6.48

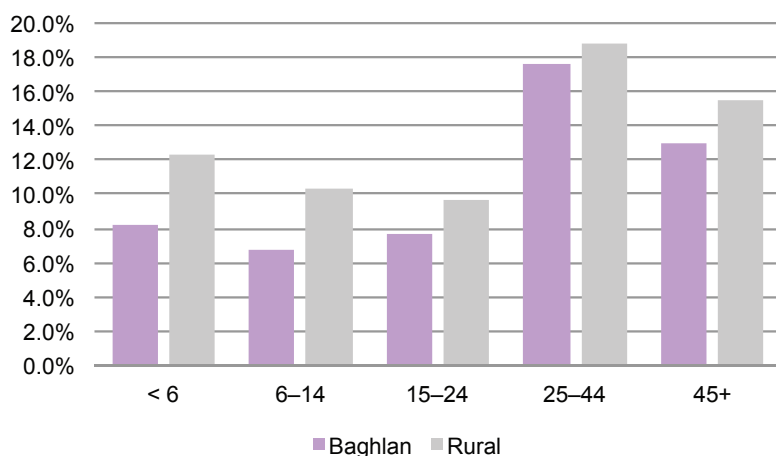


Figure 6.49. Rural Baghlan rates by age group.

presents and compares the types of drugs used by female adult drug users in rural Baghlan and nationally among rural adult female drug users.

Approximately 30% of households, 10% of the population, and 13% of adults tested positive for any drug. These rates are lower than the respective national rate. Approximately 7% of children tested positive for one or more drugs.

The rate for any drug use among men is a little over four times higher than that of women, approximately 22% versus 5%. The male rate is higher than the national rural rate, and the female rate is considerably lower.

Among adult drug users, 59% use opioids, 35% cannabis, 11% benzodiazepines, and 4% amphetamine-type stimulants.

Opioids were detected more than other drugs, and were detected in approximately 17% of households, 6% of the population, and 8% of adults. These rates are lower than the national rural rates. Approximately 4% of children tested positive for opioids, which is less than half the national rural rate for children.

Seven children tested positive for opioids. Five are under the age of six. All tested positive only in their hair samples, and four additionally tested positive for 6-AM, a metabolite of heroin. Codeine was the only opioid detected in the other

(non-6-AM-positive) four children.

Among adult male drug users, 67% tested positive for opioids. Heroin was used by approximately 14% of the men, opium by 21%, codeine by 50%, and for 14%, the type of opioids used could not be determined and are classified as “Indeterminate”. Among female drug users, 50% use codeine and 50% use opium. The average hair, saliva, and urine opioid concentrations

for rural Baghlan are presented in the Appendix.

Cannabis was detected in approximately 11% of households, 5% of the population, and 5% of adults. Although the household rate is lower than the national rural rate, the population rate is higher. Cannabis was detected in approximately 6% of the men, which is similar to the national rate, and in 3% of women, which is higher than the national rate. Only one of the women who tested positive for cannabis tested positive for native-THC in oral fluid. All others tested positive for small amounts of carboxy-THC in hair. Among adult male drug users, 29% use cannabis. Among adult female drug users, approximately 57% tested positive for cannabis.

Eight children, or 5%, tested positive for cannabis. Three of them tested positive for native-THC in oral fluid, but no carboxy-THC was detected in their urine. Only one of these three children, who was five years old, tested positive for carboxy-THC in hair. All three children were from the same household. The other two children in that household were older, 10 and 14 years of age. Use is not suggested by these results, but the presence of carboxy-TCH in hair and native-THC in oral fluid may indicate significant second- and third-hand exposure. No adult in the three-child household tested positive for

cannabis, but only women were sampled. The household's two adult males were not at home and could not be sampled.

The other five children who tested positive lived in a different village. THC (carboxy-THC) was detected, but only in their hair and at relatively low concentrations.

Benzodiazepines were detected in approximately 6% of households, 1% of the population, and 1% of adults. These rates are similar to their respective national rural rates. Approximately 2% of men and 1% of women tested positive for benzodiazepines, but no benzodiazepines were detected in children. Among adult drug users, approximately 10% of male drug users and 14% of female drug users use benzodiazepines.

Baghlan is one of seven provinces in which amphetamine-type stimulants were detected. They were detected in approximately 2% of households but in less than 1% of the population. Only men tested positive for amphetamine-type stimulants, at a rate of approximately 1%.

Barbiturates and alcohol were not detected in Baghlan.

Drug use was detected across all adult age groups, and use was highest among those 25–44 years of age (Figure 6.49). Adult male drug use was most prevalent in the 25–44 age group, while adult female drug use was highest among women ages 45 years and older. The rate for women 25–44 years old was one of the lower rates among those provinces where drug use was detected among women. The lowest

rate among adults was in those 15–24 years old, the same age group that has the lowest rates of use for all of the provinces surveyed except four (Takhar, Ghor, Laghman, and Nuristan).

The drug-positive rate among children younger than six years of age is 8%. The rate among male children under six years old is 9%; for female children under six years old, it is 8%. The rate among those 6–14 years old was slightly lower at 7% for both male and female children.

Table 6.14 presents the approximate household, population, adult, male, female, and child rates for the four Baghlan villages surveyed. These rates are for any drug-positive test result. Because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

In Village #18, adult male cannabis use was 20%, the fourth-highest rate of any village in the 15 provinces surveyed. Village #19 is one of 12 villages where no children tested positive for any drug, and Village #21 is one of nine villages where no women tested positive for any drug. Village #21 is one of only two villages surveyed where children tested positive for cannabis but no adults in the village did. Village #21 is also the village of the three children who tested positive for cannabis and also tested positive for native-THC in their oral fluid.

Table 6.14. Baghlan Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#18	Dushi	64%	18%	19%	25%	13%	18%
#19	Dushi	15%	4%	7%	13%	2%	0%
#20	Khost we Firing	23%	11%	16%	30%	4%	5%
#21	Khost we Firing	24%	9%	10%	21%	0%	8%

6.3.3 BALKH PROVINCE

6.3.3.1 GEOGRAPHY

Balkh is located in the north of Afghanistan and borders the countries of Uzbekistan to the north and Tajikistan to the northeast and the provinces of Samangan to the southeast, Sar-e Pul to the southwest, and Jawzjan to the west. Nearly half of the province is mountainous or semi-mountainous (49%), and the rest is flat.

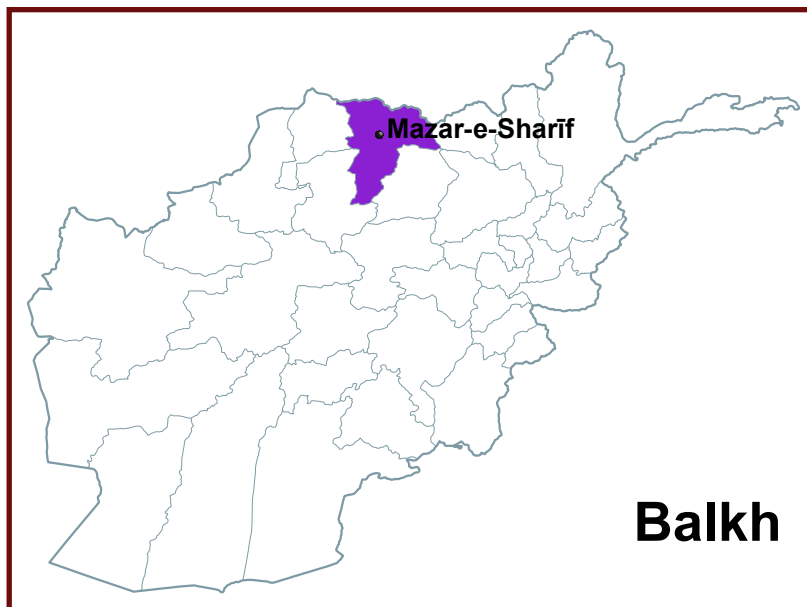
The capital is Mazar-e-Sharif, one of the largest commercial and financial centers of Afghanistan. There are 15 districts and approximately 1,140 villages in Balkh.

6.3.3.2 DEMOGRAPHICS

Balkh has a population of 1,271,300. Mazar-e-Sharif is the major population center of Balkh and the fourth largest city in Afghanistan with an urban population of 379,300. Approximately 808,000 individuals, or 66% of the population, live in rural areas of the province.

The major ethnic groups in Balkh province are Tajik and Pashtun, followed by Uzbek, Hazara, Turkman, Arab, and Baluch. Dari is spoken by about 50% of the population and in 58% of the villages. Pashtu is spoken by 27% of the population and in 266 villages (about 23%). Turkmani is spoken by 12% of the population and Uzbeki by 11% of the population.

The overall literacy rate is 44%: 54% of men and 32% of women. 58% of children are enrolled in school: 66% of boys and 48% of girls. There are many higher education facilities in Balkh, including universities and vocational and technology schools.



6.3.3.3 ECONOMY

Agriculture is the main source of income for 42% of Balkh households, including 61% of rural households and 7% of urban households. Seventy percent of rural households and 6% of rural households own or run farmland or garden plots, while 58% of urban households and 21% of rural households earn income from trade and services. Thirty-five percent of urban households and 25% of rural households earn money from non-farm-related labor. Livestock is also an income for 29% of rural households.

The major field crops in Balkh are cotton, sesame, tobacco, olives, and sharsham; 434, or 38%, of the villages produce sesame while 422 villages produce cotton, 148 produce tobacco, and 123 produce sugar extracts. Carpets, jewelry, and shawls are also produced but in fewer villages.

6.3.3.4 INFRASTRUCTURE

Eighty percent of households have access to water in their community, but only 31% have access to safe drinking water. Approximately 18% of households must travel as long as an hour, and 1% between one and six hours to obtain safe drinking water.

Forty-nine percent of households in the province have access to electricity, with 41% relying on public supplies. Electricity is available to approximately 95% of urban households and 26% of rural households. Only 14% of rural households obtain electricity from public sources.

Roads are reasonably well-developed in Balkh with 38% of roads travelable throughout the year and 34% travelable during some periods of the year. There are no roads in about 28% of the province.

6.3.3.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are a number of substances abuse treatment centers in Balkh supported by INL, Colombo Plan, and Ministry of Public Health (MoPH). A list of all substance-abuse treatment services, service providers, and types of services provided at each of the centers in Balkh and the rest of the provinces in Afghanistan is included in the Appendix.

6.3.3.6 POPPY CULTIVATION

Balkh was previously poppy-free but lost that designation in 2013. However, the amount of poppies cultivated is low compared to other poppy-growing provinces—about 410 hectares were cultivated in 2013. No eradication was reported in Balkh in 2013.

6.3.3.7 SURVEY RESULTS

Mazar-e-Sharif was surveyed as part of the urban survey. Although no rural villages in Balkh were selected for the rural survey, two in Kaldar district, Ana Gilday and Kohnar Kaldar, were studied during the urban survey. The reports for the two villages

are included in the appendix, and the results are summarized in this section.

6.3.3.7.1 Survey Results—Urban

Samples were collected from 242 people residing in 97 households. Approximate

Table 6.15. Mazar-e-Sharif Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	10.3%	4.3%
Opioids	7.2%	2.9%
Cannabis	1.0%	0.5%
Benzodiazepines	2.1%	0.8%
Barbiturates	1.0%	0.5%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

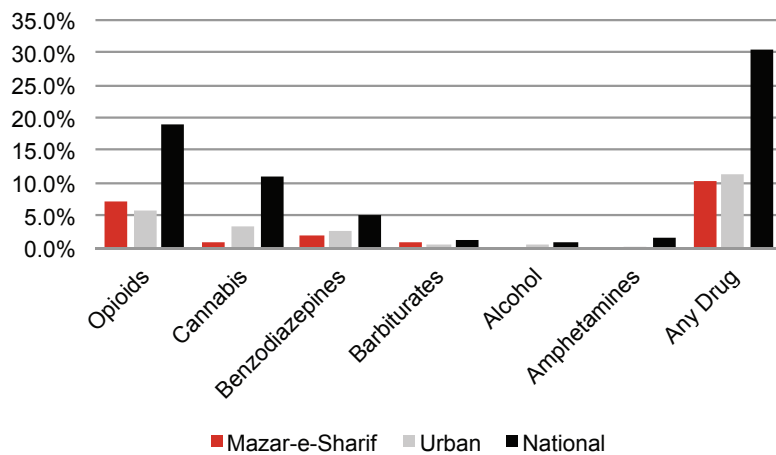


Figure 6.50. Mazar-e-Sharif household rates.

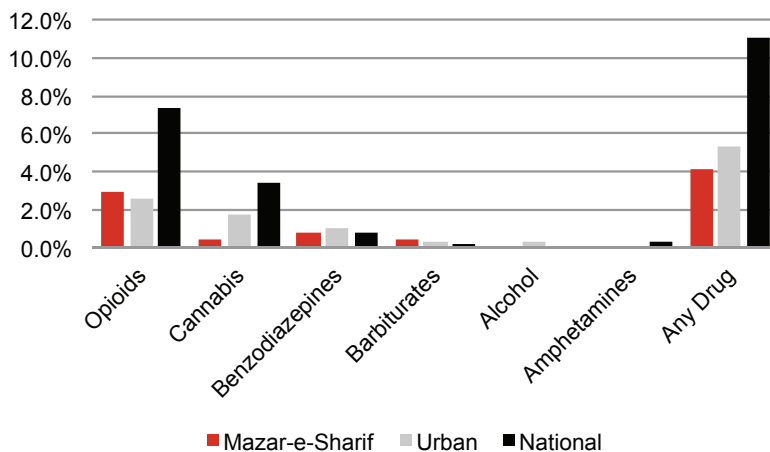


Figure 6.51. Mazar-e-Sharif population rates.

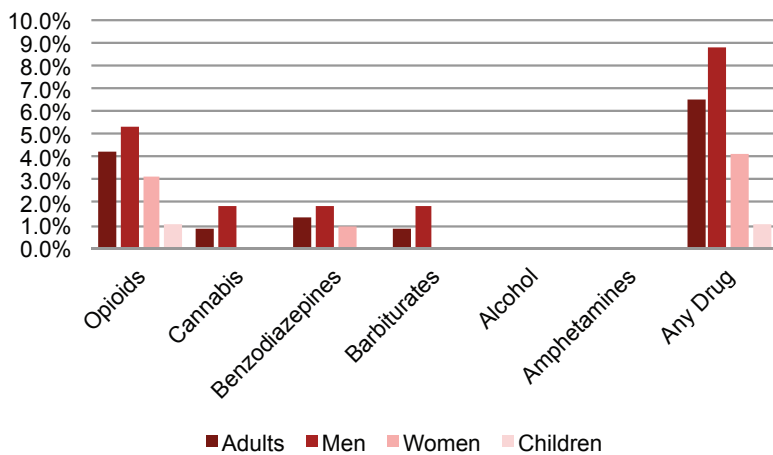


Figure 6.52. Mazar-e-Sharif adult and child rates.

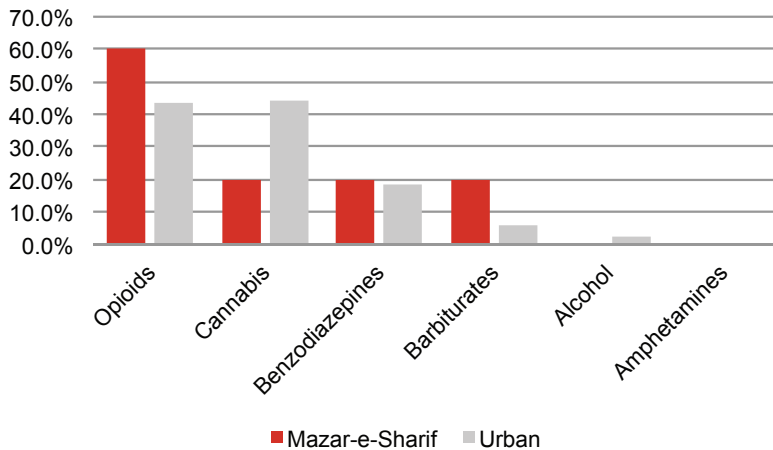


Figure 6.53. Types of drugs used by Mazar-e-Sharif men users.

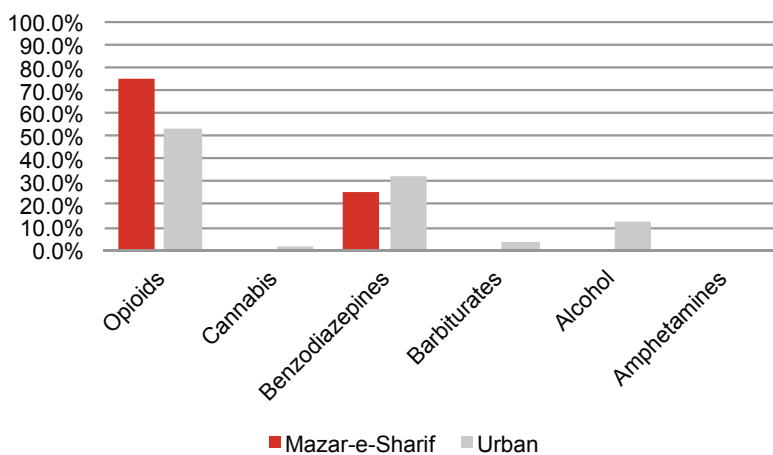


Figure 6.54. Types of drugs used by Mazar-e-Sharif women users.

mately 10% of households, 4% of the population, and 7% of adults tested positive. The rate for men was more than twice that of women: 9% versus 4%. Only one child (approximately 1% of children) tested positive for any drug (in this case, for opioids). This child was four years old and tested positive for 6-AM, a heroin metabolite, in hair.

Table 6.15 presents both the household and population rates by drug class for Mazar-e-Sharif. Figure 6.50 presents the household rates by drug class, and Figure 6.51 presents the population rates by drug class. Both figures include the nationwide urban and national rates for comparison to Mazar-e-Sharif. Figure 6.52 presents the Mazar-e-Sharif adult, male, female, and child rates. Figure 6.53 presents and compares the types of drugs and their rates among Mazar-e-Sharif male adult drug users and nationally among urban males. Figure 6.54 presents and compares the types of drugs used by female adult drug users in Mazar-e-Sharif and nationally among urban adult female drug users.

Among adult drug users, opioids are used by 65%, benzodiazepines by 22%, and both barbiturates and cannabis by 14%. Opioids are used by approximately 60% of male adult drug users and are the class of drugs most used by men. Cannabis, benzodiazepines, and barbiturates are each used by approxi-

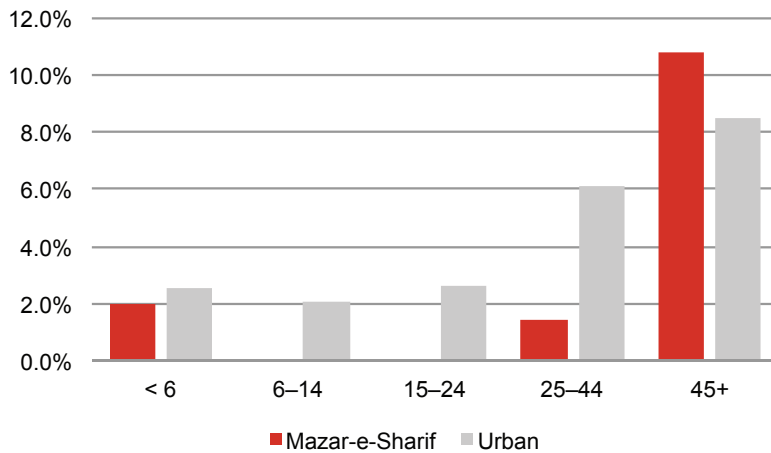


Figure 6.55. Mazar-e-Sharif rates by age group.

	Ana Gilday	Kohnar Kaldar
Households	55.0%	62.7%
Population	33.5%	36.1%
Adults	37.7%	38.7%
Males	41.3%	35.3%
Females	35.8%	40.3%
Adolescents	8.5%	18.7%
Males	3.9%	28.6%
Females	12.1%	12.8%
Children	33.3%	37.2%
Males	32.8%	35.6%
Females	34.2%	39.9%

mately 20% of male drug users. The only two drugs that appear to be used by women are opioids, by 75% of female adult drug users, and benzodiazepines, by 25% of female adult drug users.

Opioids are the most-detected drug in Mazar-e-Sharif. They were detected in approximately 7% of households, 3% of the population, and 4% of adults. Opioids were detected in approximately 5% of men and 3% of women. Opium was the only opioid detected in men. Among women, 67% of opioid drug users tested positive for codeine and 33% for opium. The average hair, saliva, and urine opioid concentrations for Mazar-e-Sharif are presented in the Appendix.

The second-most-detected drug class was benzodiazepines, at approximately 2% of households, 1% of the population, and 1% of adults. Cannabis rates were relatively low compared to other provincial capitals at approximately 1% of households, 1% of the population, and 1% of adults.

The highest percentage of opioid users was found among those aged 45 years and older (Figure 6.55). In this age group, approximately 3% tested positive for opioids. Among those 25-44 years of age, only 1% tested positive for opioids and only one person tested positive for cannabis. No one in the 15-24 year-old age group tested positive for any drug.

6.1.1.7.2 Survey Results—Case Study of Kaldar District Villages

A case study of two rural villages was conducted during the Balkh urban survey to assess whether drug use in rural villages differed significantly from urban drug use. The villages of Ana Gilday and Kohnar Kaldar in the Kaldar district of Balkh were chosen for the case study. These two villages were identified by Afghan officials as villages with high rates of opioid use and perhaps high usage rates of other drugs.

The study found that that rural drug use might be higher than urban drug use, supporting the need for a rural survey. The reports for Ana Gilday and Kohnar Kaldar are included in the Appendix, and the findings are summarized here.

Over one-third of the population in each village tested positive for opioids: 34% in Ana Gilday and 36% in Kohnar Kaldar (Table 6.16). In comparison, the population drug-positive rate for Mazar-e-Sharif, the provincial capital of Balkh

province, is substantially lower, at approximately 4% of the population for any drug and 3% for opioids.

The data from Ana Gilday and Kohnar Kaldar are not included in the rural survey results because the statistical design, sample collection, and testing protocol were markedly different. Unlike the rural survey, in which hair, saliva, and urine samples were collected, only hair and saliva from some of the individuals surveyed were collected for the case study. Hair was the principal sample collected; however, if an individual was unable or declined to provide a hair sample, the field team asked permission to collect a saliva sample from the individual instead. Only hair or saliva from those who were sampled was collected and tested. In addition, the relative percentages of men, women, and children living in the village were unknown, and, as a result, the test results could not be adjusted proportionally to the population.

In Ana Gilday, approximately 55% of households, 34% of the population and 38% of adults (aged 18 and older) tested positive: 41% of men and 36% of

women. Approximately 33% of children aged 12 years and younger also tested positive.

In Kohnar Kaldar, approximately 63% of households, 36% of the population, and 39% of adults (aged 18 and older) tested positive: 35% of men and 40% of women. Approximately 37% of children aged 12 years and younger tested positive.

Although not directly comparable, these household rates were generally among the highest of the villages studied during the rural survey, and the population, adult male, adult female, and child rates are in the top 10% of survey village rates. Opioids were the principal drug type detected. Benzodiazepines, barbiturates, oxycodone, and cannabis were also detected, but at much lower rates than opioids.

The case study found that drug use, especially use of opioids, in these two villages was occurring at significantly higher levels than what was being found in the urban centers of the country. The results supported the necessity of surveying rural villages, where the majority of the Afghan population lives.



Collecting a hair sample from a girl.

6.3.4 BAMYAN PROVINCE

6.3.4.1 GEOGRAPHY

The historic “Silk Road” trade route runs through the province of Bamyan, which is located in central Afghanistan. It is bordered by the provinces of Sar-e Pul and Samangan to the north, Baghlan and Parwan to the east, Wardak and Ghazni to the southeast, Daykundi to the south, and Ghor to the west. The terrain is nearly all mountainous.

The capital of Bamyan is Bamyan City. There are seven districts and approximately 1839 villages in Bamyan.

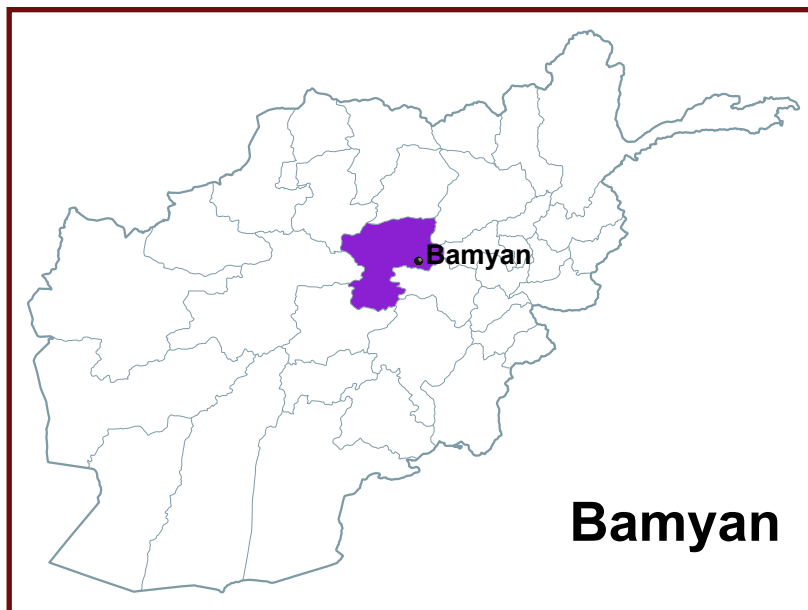
6.3.4.2 DEMOGRAPHICS

The total population of the province is 432,700. Bamyan City has an estimated population of 82,500 with only 12,400 living in the urban center. Bamyan City is more of a town than a city and has no infrastructure of electricity, gas, or water supplies. Approximately 420,300 people, or 80% of the population, live in the rural areas of the province.

Bamyan City is the cultural center of the Hazara people, the largest ethnic group in the province. Other ethnic groups include the Tajik, Tatar, and Pashtun. Dari is spoken by 96% of the population and in 98% of the villages. The second-most-spoken language is Pashtu.

The overall literacy rate in the province is 29%: 41% of men but only 12% of women. About 39% of children are enrolled in school: 46% of boys and 28% of girls.

There are a number of higher education facilities in Bamyan. The University of Bamyan, the only university in the region has a Faculty of Agriculture and a Faculty of Training and Education. Approxi-



mately 97% of the students are men and 3% are women.

6.3.4.3 ECONOMY

Agriculture is the major source of revenue for 86% of households in Bamyan province. 92% of rural households own or manage agricultural land or garden plots. The Bamyan province is known for its potatoes. About one-tenth of households in the province’s rural areas derive income from trade and services. The province is also trying to reestablish itself as a skiing destination for Afghans.

6.3.4.4 INFRASTRUCTURE

While 91% of households have access to water in their community, only 8% use safe drinking water. Approximately 9% of households must travel up to an hour to obtain safe drinking water.

Electricity is limited, even in Bamyan City. Only about 6% of households in the province have access to electricity and there are no public sources of electricity in the province.

Approximately 21% of roads are travelable throughout the year and 36% of roads are travelable during some periods. Approximately 21% of the province has no roads.

6.3.4.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are two inpatient treatment centers in Bamyan. Both provide outreach, after-care, and home-based services, and one also provides community-based services and serves as a shelter. The Ministry of Public Health (MoPH) supports and provides services for one of the centers. INL and Colombo Plan support the other center, and SHRO provides the center’s services. Both centers treat adult males, and one also treats adult females and children. No village-based services are provided in Bamyan.

A list of all substance-abuse treatment services and further detail on the two centers in Bamyan and each of the centers in Afghanistan is included in the Appendix.

6.3.4.6 POPPY CULTIVATION

Bamyan province has no verified poppy cultivation within its borders and continues to remain poppy-free.

6.3.4.7 SURVEY RESULTS

The urban center of Bamyan City was surveyed. No rural survey was conducted in Bamyan.

6.3.4.7.1 Survey Results—Urban

Samples were collected from 86 people residing in 33 households. There was one positive drug test in Bamyan City, and it was for cannabis. The single positive sample was collected from a male and accounts for approximately 3% of households, 1% of the population, and 2% of the adults (Table 6.17). Bamyan has the lowest rate among the provincial capitals surveyed (Figures 6.56 and 6.57).

6.3.4.7.2 Survey Results—Rural

No rural survey was conducted in Bamyan.

Table 6.17. Bamyan City Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	3.0%	1.2%
Opioids	0.0%	0.0%
Cannabis	3.0%	1.2%
Benzodiazepines	0.0%	0.0%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

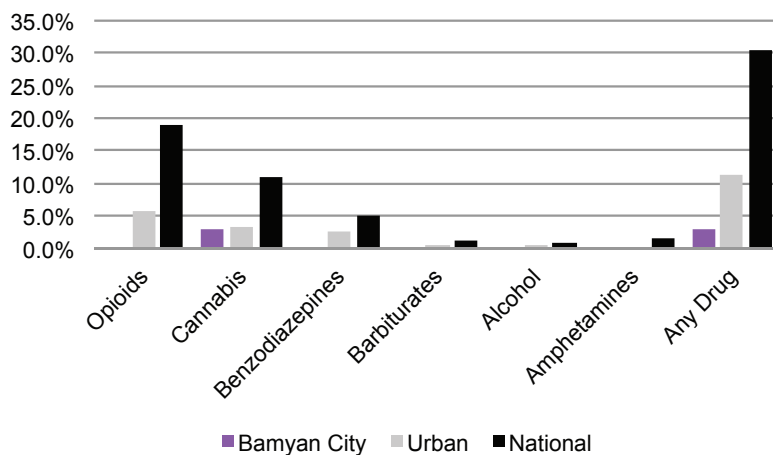


Figure 6.56. Bamyan City household rates.

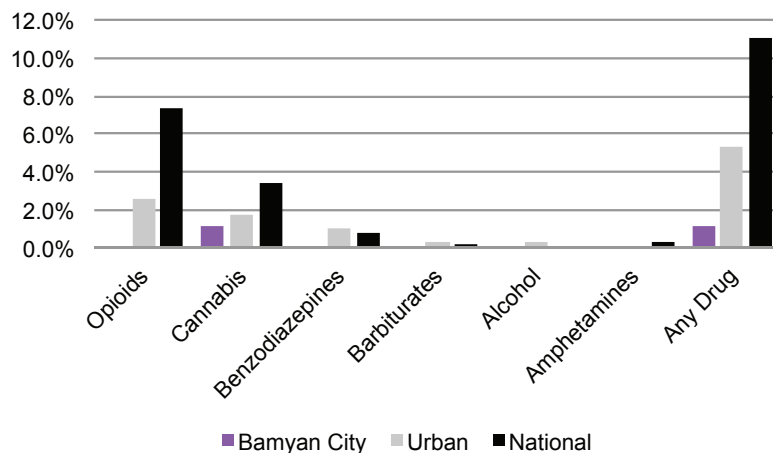


Figure 6.57. Bamyan City population rates.

6.3.5 FARYAB PROVINCE

6.3.5.1 GEOGRAPHY

Faryab is in the north of Afghanistan and is bordered by the country of Turkmenistan to the north and the Afghan provinces Jawzjan and Sar-e Pul to the east, Ghor to the south, and Badghis to the west. Faryab is a Persian word meaning “irrigated land”. About two-thirds of the province is mountainous or semi-mountainous, and most of the remaining third is flat land.

The capital of Faryab is Mehmaneh. There are 14 districts and more than 1,000 villages in Faryab.

6.3.5.2 DEMOGRAPHICS

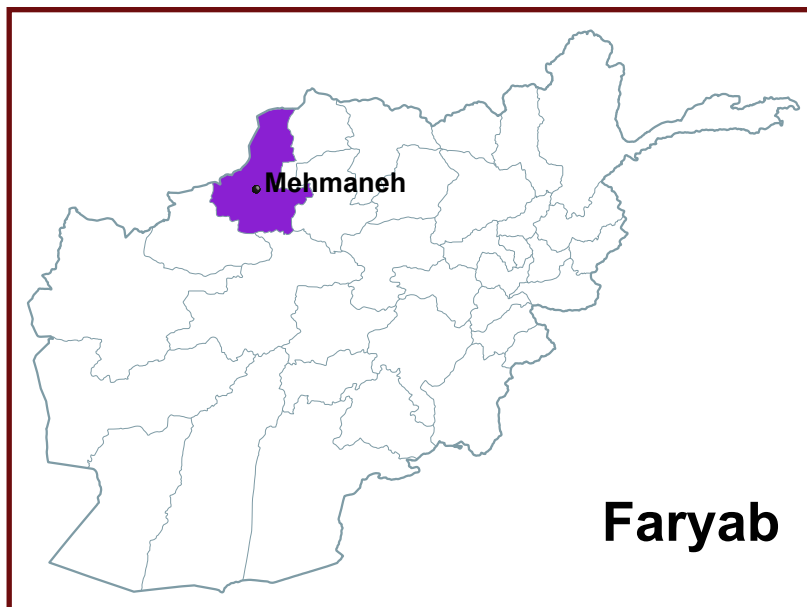
The population of Faryab is approximately 964,600. Mehmaneh has an urban population of 80,300. Approximately 117,000 people, or 89% of the population, reside in the rural areas of the province.

Uzbeks and Pashtuns are the major ethnic groups in Faryab, followed by Tajiks and Turkmen. Uzbeki is spoken by over half the population and in 49% of the villages. Dari is the second most spoken language, spoken by about 27% of the population. Approximately 17% speak Pashto.

The literacy rate in Faryab is 27%: 31% for men and 22% for women. About 32% of children are enrolled in school: 37% of boys and 26% of girls.

6.3.5.3 ECONOMY

Agriculture is the major source of income for 53% of Faryab households: 60% of rural households and 27% of urban households. Approximately 58% of rural households and 38% of urban households own or manage agricultural land or garden plots. Faryab agricultural



commodities are cotton, sesame, tobacco, and herbs.

Around two-thirds of households derive some income from trade and services. About a third of rural households and a quarter of urban households earn income from non-farming labor. Income from livestock is obtained by a quarter of rural households, and one-quarter of urban households earn income from manufacturing. Rugs, carpets, jewelry, and shawls are the major handicrafts produced in the province.

Recent redevelopment efforts have been applied to expanding the agricultural potential of Faryab province, and in particular, the reforestation of areas that had been denuded in the recent past. A significant oil reserve exists in Faryab province, and the Afghanistan government entered into an oil production agreement in 2011 with the China National Petroleum Corporation, the first international oil production agreement for the country in several decades.

6.3.5.4 INFRASTRUCTURE

About 65% of Faryab households have access to water within their communities, but only 23% use safe drinking water (50% of urban and 21% of rural

households). About 22% of households must travel up to an hour to obtain water, and 4% must travel between one and six hours for safe drinking water.

On average, 17% of households have access to electricity, with the majority obtaining their electricity from public sources. About 64% of urban households, but only 12% of rural households, have electrical power. Public electricity is available for only 9% of rural households.

Roads are reasonably well-developed in Faryab, with 43% of roads travelable by car throughout the year and about 35% of roads travelable during some periods. There are no roads in about 22% of the province.

6.3.5.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are three substance-abuse treatment centers in Faryab, which are collectively supported by INL, Colombo Plan, the Norwegian Church, and the Ministry of Public Health (MoPH). A list of all substance-abuse treatment services, service providers, and types of services provided at each of the centers in Faryab and other provinces in Afghanistan is included in the Appendix.

6.3.5.6 POPPY CULTIVATION

Faryab was poppy-free in 2009 and 2010, but some poppies have been cultivated since. The level of poppy cultivation is low, and no significant increase is expected.

6.3.5.7 SURVEY RESULTS

The urban center of Mehmaneh was surveyed. No rural survey was conducted in Faryab.

6.3.5.7.1 Survey Results—Urban

Samples were collected from 155 people residing in 66 households. Approximately 8% of households, 4% of the population and 7% of adults tested positive. The rate among men was more than

Table 6.18. Mehmaneh Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	7.6%	4.3%
Opioids	3.0%	1.7%
Cannabis	3.0%	1.7%
Benzodiazepines	3.0%	1.7%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

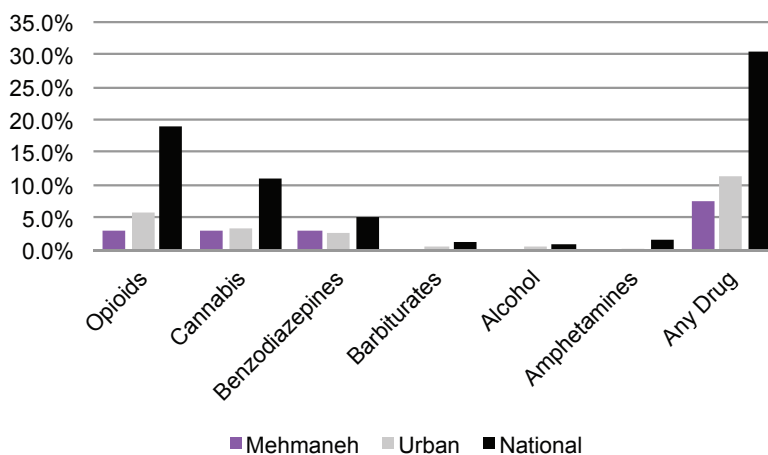


Figure 6.58. Mehmaneh household rates.

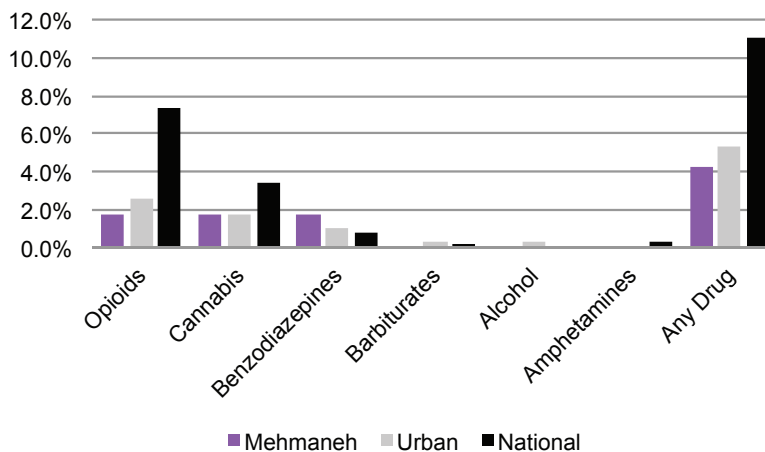


Figure 6.59. Mehmaneh population rates.

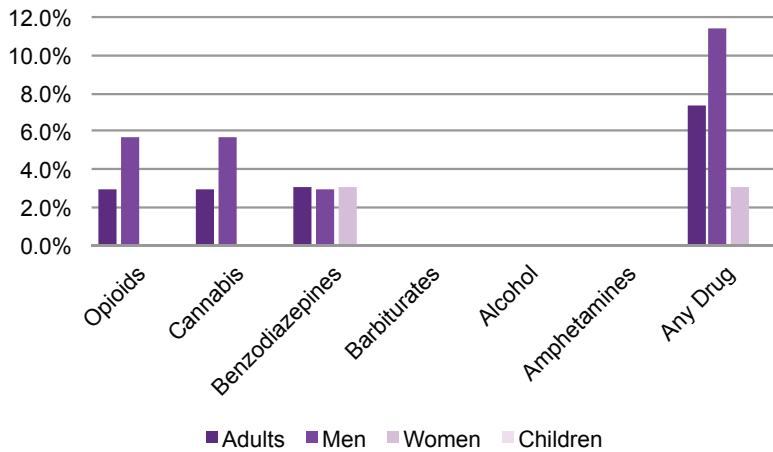


Figure 6.60. Mehmaneh adult and child rates.

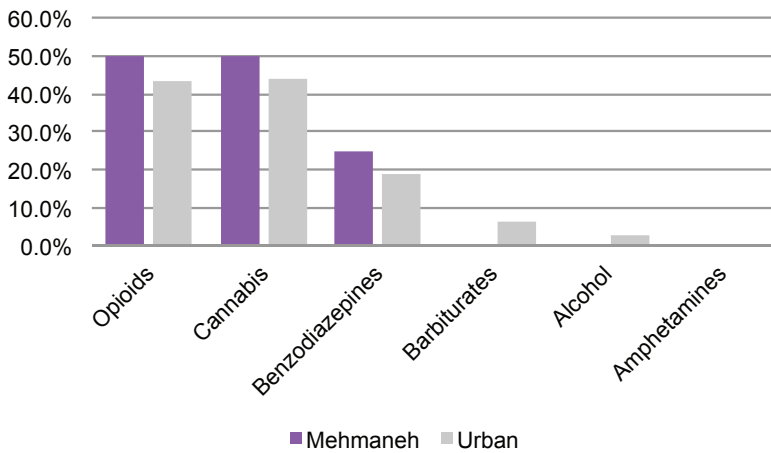


Figure 6.61. Types of drugs used by Mehmaneh men users.

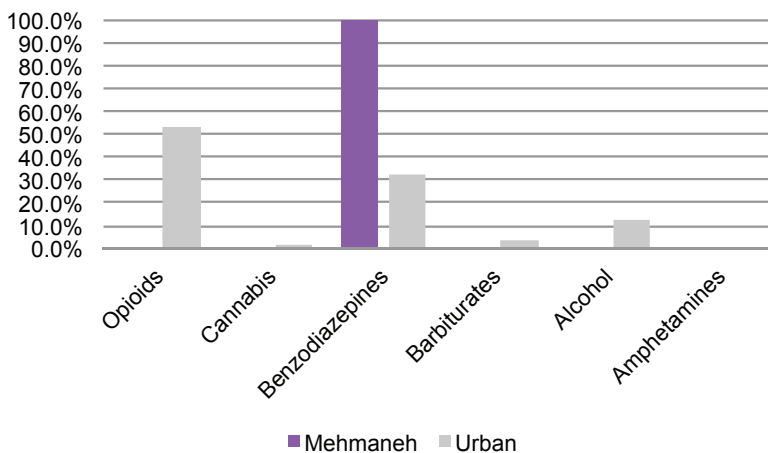


Figure 6.62. Types of drugs used by Mehmaneh women users.

three times that of women (11% of men and 3% of women). No drugs were detected in children.

Table 6.18 presents both the household and population rates by drug class for urban Mehmaneh. Figure 6.58 presents the household rates by drug class, and Figure 6.59 presents the population rates by drug class. Both figures include the nationwide urban and national rates for comparison to urban Mehmaneh. Figure 6.60 presents the urban Mehmaneh adult, male, female, and child rates. Figure 6.61 presents and compares the types of drugs and their rates among urban Mehmaneh male adult drug users and national urban male drug users. Figure 6.62 presents and compares the types of drugs used by female adult drug users in urban Mehmaneh and nationally among urban adult female drug users.

Approximately 3% of households, 2% of the population and 3% of adults tested positive for opioids. Opioids were detected among men only, at a rate of approximately 6%. The average hair, saliva, and urine opioid concentrations for men in urban Mehmaneh are presented in the Appendix.

Cannabis was also only detected in men. While benzodiazepines were detected in both men and women, the only drug class detected in women was benzodiazepines.

Opioids and cannabis were each used by 50% of male drug users in Mehmaneh. Benzodiazepines were used by 25% of

male drug users, while female drug users only tested positive for benzodiazepines.

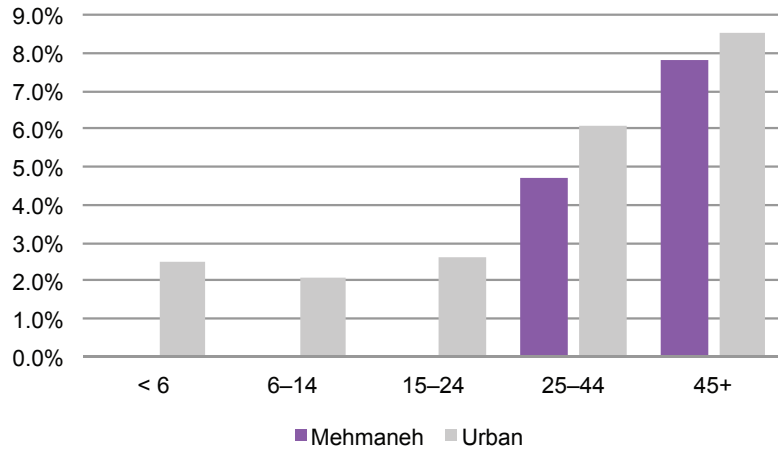


Figure 6.63. Mehmaneh rates by age group.

All of the adults who tested positive were adults aged 25 years and older. The highest rate of positive tests was among those aged 45 and older, at 8%, followed by those 25-44 years of age, at 5%. All of the individuals who tested positive for opioids were 45 years of age and older (Figure 6.63).

6.3.5.7.2 Survey Results—*Rural*

No villages were surveyed in Faryab province.



Saliva sample collection from an elderly man.

6.3.6 JAWZJAN PROVINCE

6.3.6.1 GEOGRAPHY

Jawzjan is in the north region of Afghanistan and is bordered by the country of Turkmenistan to the north and the provinces of Balkh to the east, Sar-e Pul to the south, and Faryab to the west. Thirty percent of the province is mountainous or semi-mountainous, and 70% is made up of flat land.

Sherberghan is the capital of Jawzjan. There are 11 districts in the province. An estimate of the number of villages in the province was not available, except that there are known to be hundreds of villages in the province.

6.3.6.2 DEMOGRAPHICS

The population of Jawzjan province is 521,400. The population of Sherberghan is 164,900 with 78,300 living in the urban center. Approximately 410,200, or 79% of the population, reside in rural areas of the province.

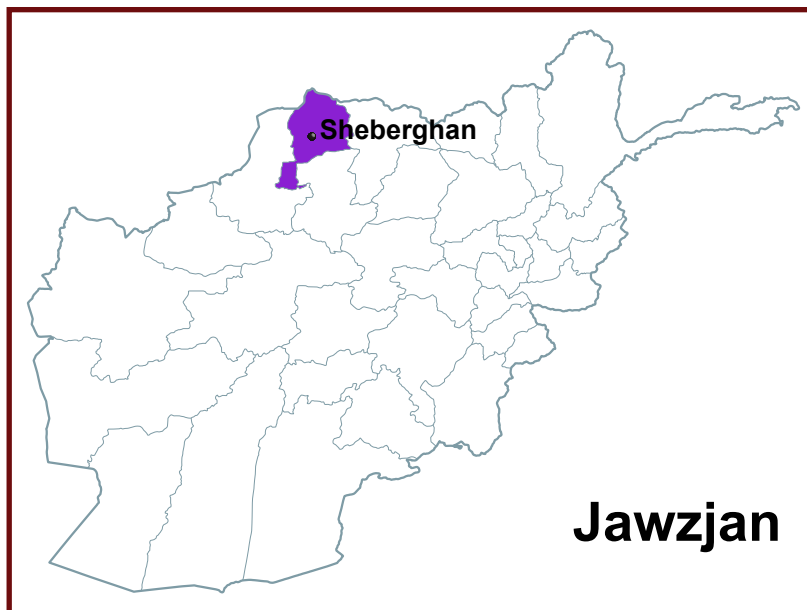
Uzbek and Turkmen are the major ethnic groups in the province, followed by Tajik, Pashtun, and Arab. Uzbek is spoken by 40% of the population, Turkmeni by 29%, Pashtu by 17%, and Dari by 12%.

6.3.6.3 ECONOMY

Agriculture is a major source of revenue in the rural areas of Jawzjan. Livestock and field crops such as wheat, barley, melon, watermelon, and maize are the major agricultural commodities. Most of the urban centers derive their income from trade, services, and non-farm labor.

6.3.6.4 INFRASTRUCTURE

Nearly three-quarters of households have direct access to water within their community. Sixty-four percent of households in urban areas have access to safe



drinking water, but only 6% do in rural areas. One in 10 households must travel up to an hour to obtain safe drinking water, and 4% must travel between one and six hours.

On average, 42% of households in Jawzjan have access to electricity, with the majority relying on public electricity. Access to electricity is much greater in the urban areas where 99% of households have access to electricity; however, just 25% do in rural areas.

The transport infrastructure in Jawzjan is reasonably well-developed, with 42% of roads travelable throughout the year and 32% travelable during some periods. There are no roads in approximately one-quarter of the province.

6.3.6.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are two inpatient treatment centers in Jawzjan. Both provide outreach and after-care services, and one also provides community-based services and serves as a shelter. The Ministry of Public Health (MoPH) supports and provides services for one of the centers. INL and Colombo Plan support the other center, and its services are provided by SHRO. Both centers treat adult males, and one

also treats adult females and children. No village-based services are provided in Jawzjan.

A list of all substance-abuse centers and details on the two centers in Jawzjan as well as other centers in Afghanistan is provided in the Appendix.

6.3.6.6 POPPY CULTIVATION

Jawzjan province was once a significant opium poppy-growing area. Since 2008, the province has been poppy-free, and it is expected to remain poppy-free in 2014.

6.3.6.7 SURVEY RESULTS

The urban center of Sheberghan was surveyed. No rural survey was conducted in Jawzjan.

6.3.6.7.1 Survey Results—Urban

Samples were collected from 235 people residing in 99 households. Approximately 5% of households, 3% of the population, and 5% of adults tested positive.

Table 6.19 presents both the household and population rates by drug class for urban Sheberghan. Figure 6.64 presents the household rates by drug class, and Figure 6.65 presents the population rates by drug class. Both figures include the nationwide urban and national rates for comparison to urban Sheberghan. Figure 6.66 presents the urban Sheberghan adult, male, female, and child rates. Figure 6.67 presents and compares the types of drugs and their rates among urban Sheberghan male adult drug users and national urban males. Figure 6.68 presents

and compares the types of drugs used by female adult drug users in urban Sheberghan and nationally among urban adult female drug users.

Overall drug use among men was four times greater than that of women, at ap-

Table 6.19. Sheberghan Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	5.1%	2.9%
Opioids	2.0%	1.5%
Cannabis	1.0%	0.6%
Benzodiazepines	2.0%	0.9%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

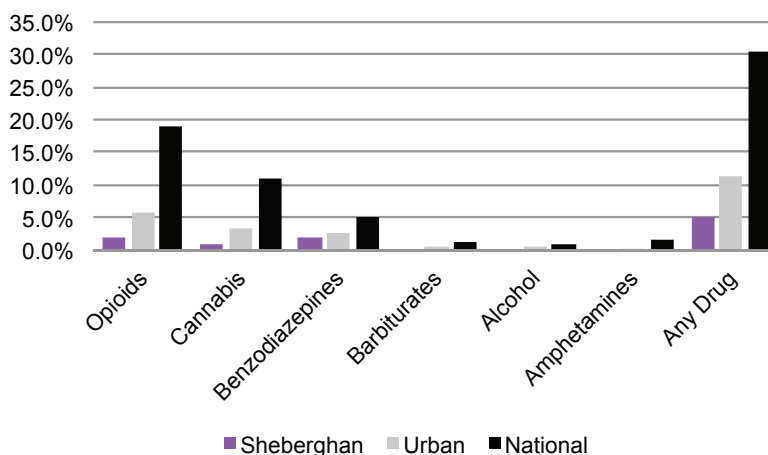


Figure 6.64. Sheberghan household rates.

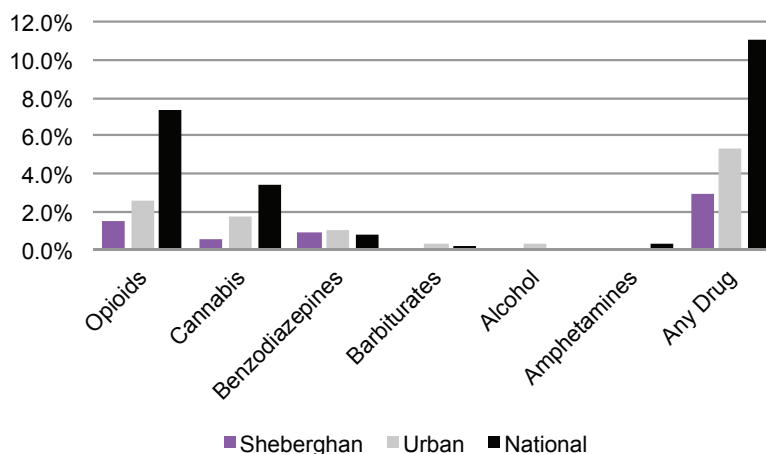


Figure 6.65. Sheberghan population rates.

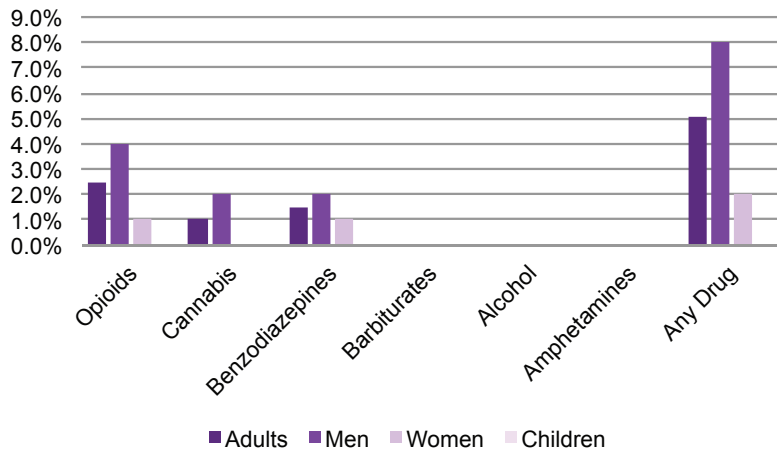


Figure 6.66. Sheberghan adult and child rates.

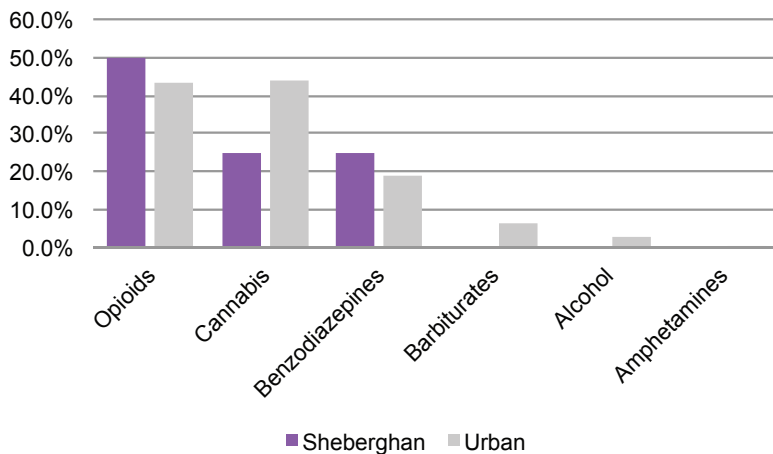


Figure 6.67. Types of drugs used by Sheberghan men users.

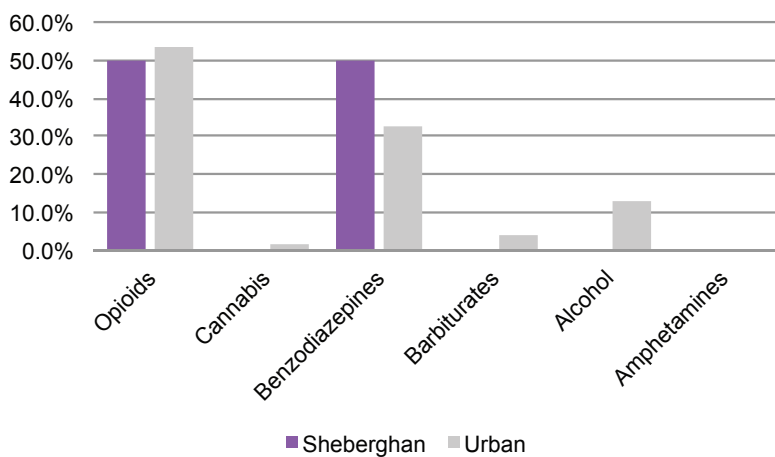


Figure 6.68. Types of drugs used by Sheberghan women users.

proximately 8% and 2%, respectively. No drugs were detected in any of the children tested.

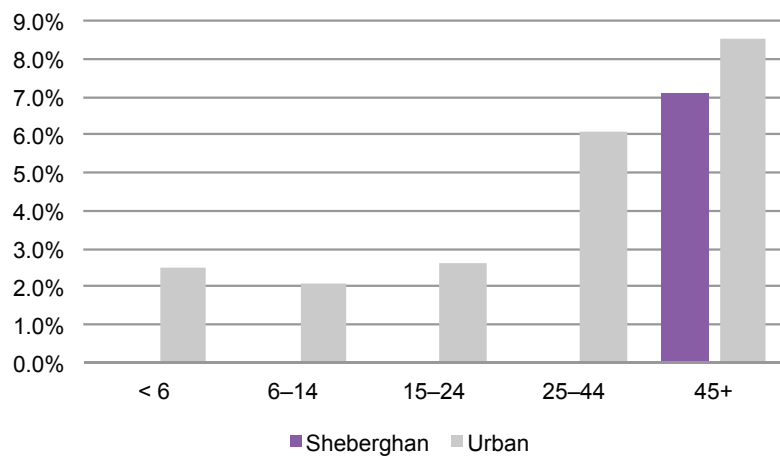
Among adult drug users, approximately 50% use opioids, 30% use benzodiazepines, and 20% use cannabis. Fifty percent of adult male drug users use opioids, and 50% use benzodiazepines and/or cannabis. Adult female drug users tested positive for either opioids or benzodiazepines at approximately equal rates.

Opioids were detected in approximately 2% of the households, 2% of the population, and 3% of adults. The household and population rates for opioids were the second-lowest among the 11 capitals studied.

Opium accounted for all of the opioid positives among both adult men and adult women. The average hair, saliva, and urine opioid concentrations for urban Sheberghan are presented in the Appendix.

Cannabis was detected in approximately 1% of households, 1% of the population and 1% of adults. Cannabis was detected only in men, at a rate of approximately 2%. These rates are among the lowest of the 11 provincial capitals surveyed.

All of the individuals who tested positive for any drug in Sheberghan were 45 years of age or older (Figure 6.69).



6.3.6.7.2 Survey Results—*Rural*

No villages were surveyed in Faryab province.

Figure 6.69. Sheberghan rates by age group.



Collecting a hair sample from a woman.

6.3.7 KUNDUZ PROVINCE

6.3.7.1 GEOGRAPHY

Kunduz is in the north of Afghanistan and is bordered by the country of Tajikistan to the north and by the provinces of Takhar to the north, Baghlan to the south, Samangan to the southwest, and Balkh to the west. The province is mostly flat or semi-flat (87%), while about 12% is mountainous or semi-mountainous.

Markaz is the capital of the province. There are seven districts and approximately 903 villages in Kunduz.

6.3.7.2 DEMOGRAPHICS

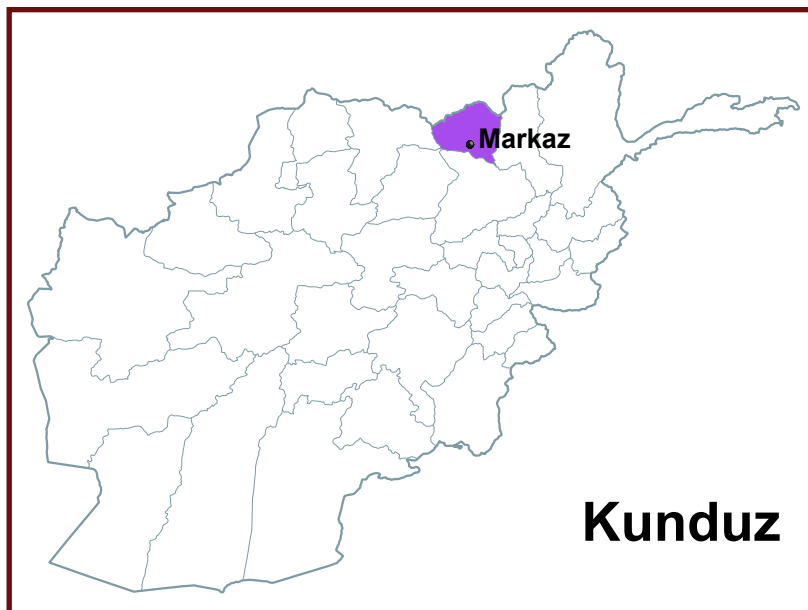
Kunduz has an estimated population of 972,200. Markaz, the capital, has a population of 311,600 people, with approximately 148,200 living in the urban center. Approximately 728,600 people, or 75% of the population, reside in rural areas of the province.

The major ethnic groups are Pashtun and Tajik. Other ethnicities include Uzbek, Hazara, and Turkmen. Dari and Uzbeki are spoken by 90% of the population and in 88% of villages. Turkmeni is spoken by 8% of the population.

The literacy rate is 33%: 40% for men and 24% for women. On average, 62% of children are enrolled in school: 69% of boys and 52% of girls.

6.3.7.3 ECONOMY

Kunduz is predominantly flat with fertile land. As a result, most people derive income from agriculture. 70% of rural households and 30% of urban households own or manage agricultural land or garden plots. The primary crops grown include wheat, rice, watermelon, melon, and maize. Approximately 58% of



households in urban areas and 19% of households in rural parts of the province earn income from trade and services. Livestock is also a source of income for 28% of rural and 21% of urban households.

6.3.7.4 INFRASTRUCTURE

Approximately 88% of households have access to water within their community, but only 25% have access to safe drinking water (15% in urban areas and 29% in rural areas). 32% of the population has access to electricity, 25% of which is from public sources. 64% of households have access to electricity in urban areas, but only 2% do in rural areas.

Roads are reasonably well developed in Kunduz, with 68% of the roads travelable throughout the year and 26% travelable during some periods. There are no roads in 4% of the province.

6.3.7.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center in Kunduz that also provides outreach, community, after-care, and home-based services, and which also serves as a shelter. The Ministry of Public Health (MoPH) supports and provides services

for this center, which treats adult males. No village-based services are available in Kunduz.

A list of all substance-abuse treatment services and further detail on the Kunduz center and on each of the centers in Afghanistan is included in the Appendix.

6.3.7.6 POPPY CULTIVATION

Kunduz has been poppy-free since 2007 and is expected to remain so in 2014 and beyond.

6.3.7.7 SURVEY RESULTS

No urban survey was conducted in Kunduz. Two villages in the rural area of Markaz district and two villages in Qala-i-Zaal district were surveyed.

6.3.7.7.1 Survey Results—Urban

The urban center of Markaz was not surveyed.

6.3.7.7.2 Survey Results—Rural

Samples were collected from 408 people and 55 rural households in four randomly-selected villages: two in the rural part of Kunduz district and two in Qala-i-Zaal district. Household and population rates for any drug positive test results by village are presented at the end of this section.

Table 6.20 presents both the household and population rates by drug class for rural Kunduz. Figure 6.70 presents the household rates by drug class, and Figure 6.71 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Kunduz. Figure 6.72 presents the rural

Kunduz adult, male, female, and child rates. Figure 6.73 presents and compares the types of drugs and their rates among rural Kunduz male adult drug

Drug Class	Household	Population
Any	50.9%	16.2%
Opioids	34.5%	10.5%
Cannabis	21.8%	6.2%
Benzodiazepines	3.6%	0.7%
Barbiturates	0.0%	0.0%
Alcohol	1.8%	0.2%
Amphetamines	0.0%	0.2%
Other	1.8%	0.2%

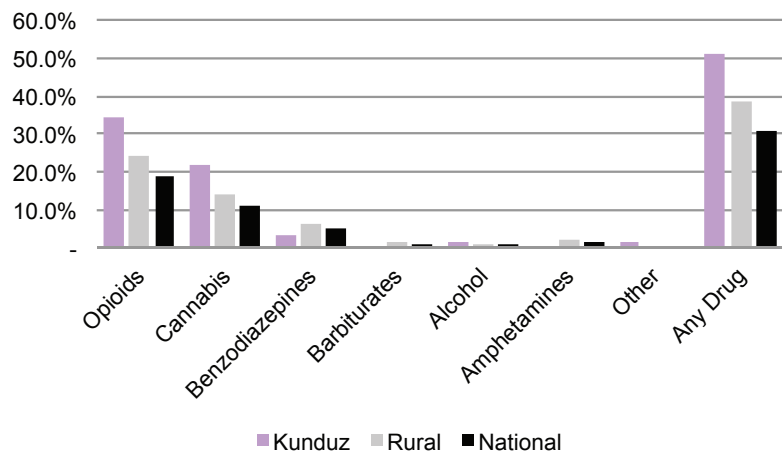


Figure 6.70. Rural Kunduz household positive rates.

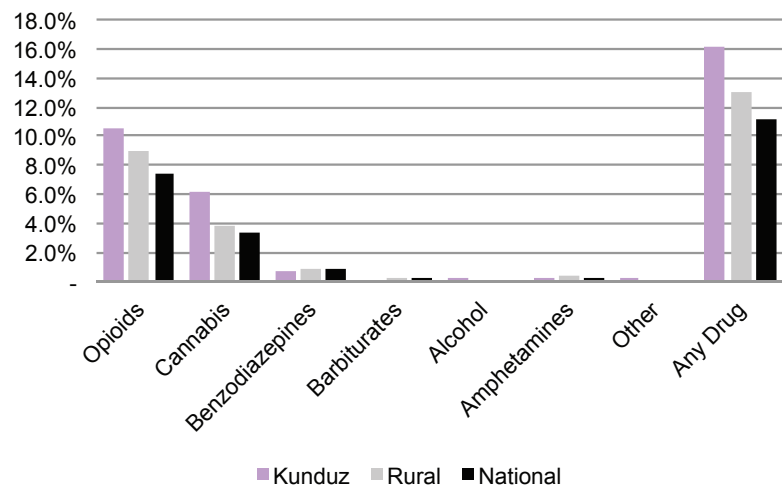


Figure 6.71. Rural Kunduz population positive rates.

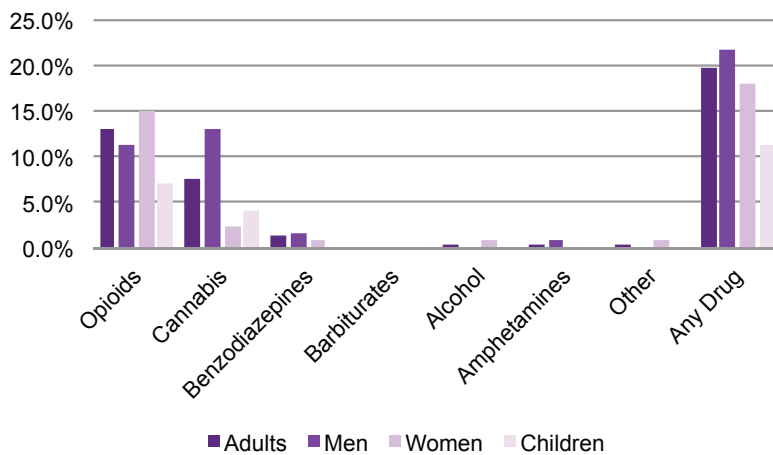


Figure 6.72. Rural Kunduz adult and child positive rates.

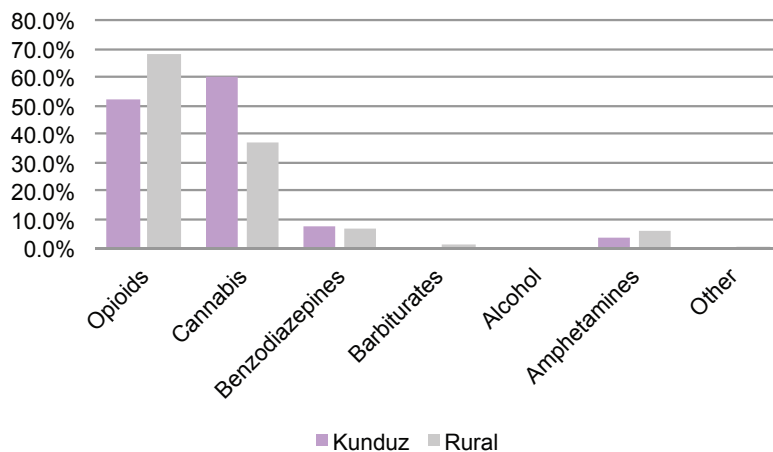


Figure 6.73. Types of drugs used by rural Kunduz men positive rates.

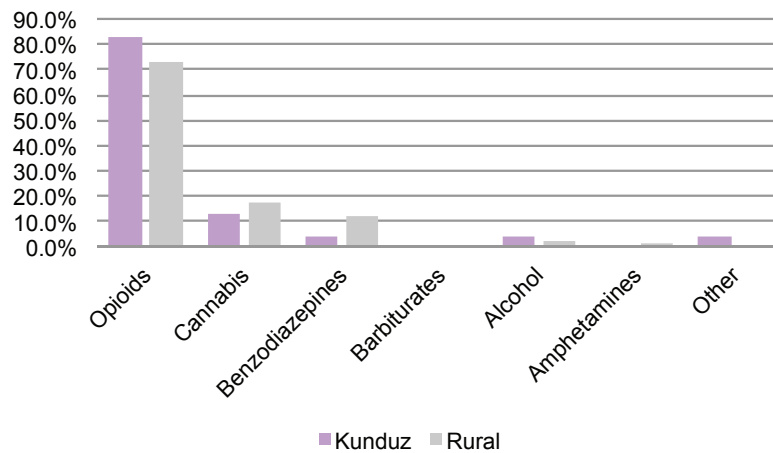


Figure 6.74. Types of drugs used by rural Kunduz women positive rates.

users and national rural adult male drug users. Figure 6.74 presents and compares the types of drugs used by female adult drug users in rural Kunduz and nationally among rural adult female drug users.

Approximately 51% of households, 16% of the population, and 20% of adults tested positive for any drug. These rates are higher than their respective national rural rates. Approximately 11% of children tested positive for one or more drugs.

The drug use rates for adult males and females were somewhat similar at 22% and 18%, respectively. This was driven in part by the adult female opioid use rate, which was higher than the adult male rate: opioids were detected in 15% of women and 11% of men. While the adult female rate was significantly higher than the corresponding national rural rate, the male rate was slightly lower than the national rural adult male rate.

Among adult drug users, approximately 66% use opioids, 39% use cannabis, 6% use benzodiazepines, 2% use amphetamines, 2% use alcohol, and 2% tested positive for other drugs (cocaine).

Opioids were detected in approximately 35% of households, 11% of the population, and 13% of adults (11% of men and 15% of women). These rates are higher than their respective national rural rates. One opioid detected was propoxyphene, a

synthetic opioid that was detected in a 28-year old woman. She was the only individual in which this synthetic opioid was found during the entire rural survey. While the adult male opioid rate was slightly lower than the national rural adult male rate, the adult female rate is almost double the national rural rate. The adult female rate was the second-highest among the 15 provinces surveyed. Approximately 7% of children tested positive for opioids, which is slightly lower than the national rural rate for children.

Among adult male drug users, 52% tested positive for opioids. Approximately 31% use heroin, 31% use opium, and 31% use codeine. For 8% of the men who tested positive for opioids, the type of opioids used could not be determined. Among adult female drug users, approximately 83% tested positive for opioids: 47% use opium, 11% use codeine, and 5% use pharmaceutical opioids (propoxyphene). For 37%, the type of opioid used by those individuals could not be determined from the laboratory results. The average hair, saliva, and urine opioid concentrations for rural Kunduz are presented in the Appendix.

Cannabis was detected in approximately 22% of households, 6% of the population, and 8% of adults. These rates are significantly higher than their respective national rural rates. Cannabis was detected in approximately 13% of adult men, which is significantly higher than the corresponding national rural rates. Three adult females, or approximately 2%, tested positive for cannabis, a level similar to the national rural rate. Seven children, or 4%, tested positive for cannabis. Among adult male drug users, 60% use cannabis, while approximately 13% of adult female drug users tested positive.

Four of the cannabis-positive children were only one year old. Their ages make it highly unlikely that they are active

drug users. All four tested positive for carboxy-THC in hair at low concentrations. No saliva was collected from three of them; the fourth tested negative for native-THC in saliva. A four-year-old and a five-year-old child both tested positive for native-THC, but neither one tested positive for carboxy-THC in hair or urine. Benzodiazepines were detected in approximately 4% of households, in 1% of the population, and 1% of adults. The household rate is lower, but the population and adult rates are similar to their corresponding national rural rates. Approximately 2% of adult males and 1% of adult females tested positive for benzodiazepines. The adult male rate is slightly higher and the adult female rate is slightly lower than their respective national rural rates. No benzodiazepines were detected in children. Among adult drug users, approximately 8% of males and 4% of females tested positive for benzodiazepines.

Kunduz is one of four rural provinces in which alcohol was detected. Alcohol was detected in 2% of households but in less than 1% of the population. Alcohol was only detected in only one woman or approximately 1% of those tested.

Kunduz is one of seven provinces in which rural amphetamine-type stimulants were detected. However, no amphetamine-type stimulants were detected in any of the households surveyed; one adult male tested at a local business tested positive. This man's positive result creates population and adult rates of less than 1%, and a 1% amphetamine-type positive result for adult males.

Barbiturates were not detected in Kunduz. Cocaine was detected in the saliva of an 18-year-old female, one of only two cocaine positives found during the entire rural survey.

Drugs were detected in all adult age groups, with the highest rate among those aged 45 years and older (Figure

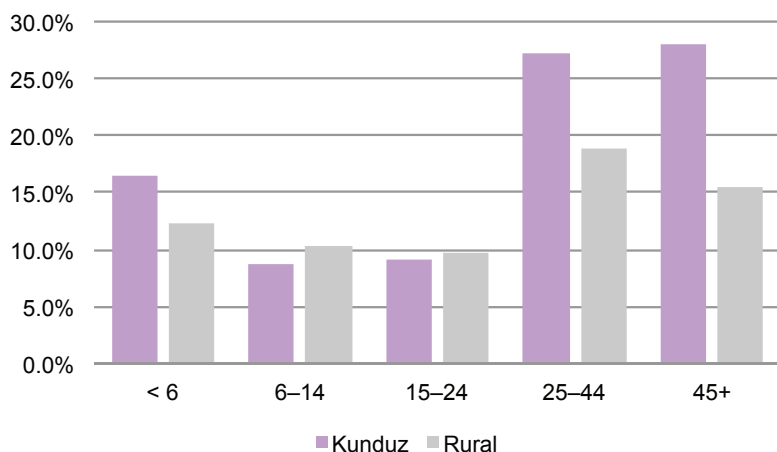


Figure 6.75. Rural Kunduz positive rates by age group.

6.75). The lowest rate among the adult age group was for those 15–24 years old. The adult rates for those 25–44 years old and those 45 years and older were the second-highest among the 15 provinces surveyed. The highest rate for adult males was among those 25–44 years old. Among adult females, the age groups of 25–44 years old and 45 years and older both had the second highest rates among all rural adult females.

The rate among those younger than six years of age was third highest among the

15 provinces surveyed, at 17%: 14% of males and 20% of females. The rate among those 6–14 years old was lower at 9%: 8% for males and 10% for females.

Table 6.21 presents the approximate household, population, adult, male, female and child rates for the four Kunduz villages surveyed. These rates are on the basis of any drug positive. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

In Village #30, adult male cannabis use was 22%, the second-highest adult male rate among the 15 provinces surveyed. Village #30 was also the village in which one adult female tested positive for cocaine. In Village #33, alcohol was detected in one adult female.

Table 6.21. Kunduz Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#30	Kunduz	36%	11%	16%	26%	6%	4%
#31	Kunduz	64%	15%	17%	24%	10%	12%
#32	Qala-i-Zaal	47%	22%	22%	19%	26%	22%
#33	Qala-i-Zaal	60%	18%	25%	19%	30%	10%

6.3.8 SAMANGAN PROVINCE

6.3.8.1 GEOGRAPHY

Samangan is located in the north of Afghanistan near the Hindu Kush mountains. It is bordered by the provinces of Kunduz and Baghlan to the east, Bamyan to the south, Sar-e Pul to the west, and Balkh to the north. While Samangan province is near a main trade road linking Mazar-e-Sharif with Pul-e-Khumri, Salang and Kabul, a large part of Samangan is geographically isolated and rural. The province is made up of large areas of fertile land irrigated with canal systems in need of improvement.

The capital of the province is Aybak, the site of ancient ruins. There are seven districts and approximately 674 villages in Samangan.

6.3.8.2 DEMOGRAPHICS

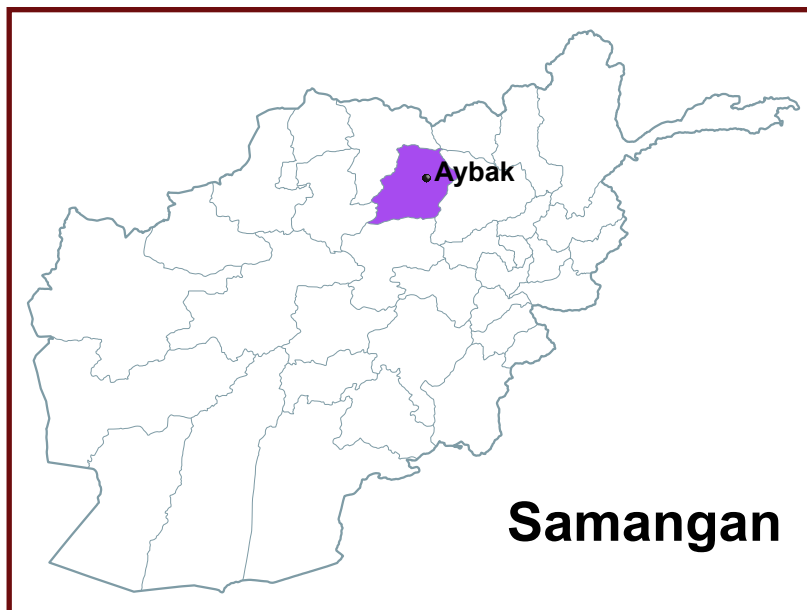
Samangan has a population of 375,100 people. Aybak has a population of 102,400 people, with only 28,400 living in the urban center. Approximately 346,700 people, or about 92% of the population, live in rural areas of the province.

Samangan includes Tajiks, Uzbeks, Pashuns, Hazara, Tartars, Turkmen, and a minority of Arabs. Specific ethnic background information is unavailable, but the majority of the population speaks Dari (73%) or Uzbeki (22%). Six other languages are also spoken.

The overall literacy rate is 19%: 28% for men but only 10% for women. Approximately 19% of children are enrolled in school.

6.3.8.3 ECONOMY

Agriculture and small-scale mining are



the main sources of income in the province. The bulk of agricultural activity in the province is in animal products, such as yogurt and butter. Agricultural crops include wheat, maize, corn, rice, and beans; wheat and maize represent more than 86% of the subsistence crops produced in the province. Samangan (Aybak) district is the major producer of most of these crops, with the exception of rice. Handicrafts, such as jewelry and carpets, are also household income sources, especially in Samangan, Dara-i-Suf-i-Payin, and Darai-Suf-e-Bala districts.

6.3.8.4 INFRASTRUCTURE

About 71% of households have access to drinking water in their community, but only 7% have access to safe drinking water, and just 4% in rural areas do. Many of those in rural areas must travel an hour or more to access safe drinking water.

Electricity is in short supply, accessible to only 5% of the population. The government supplies 80% of the electricity used.

Approximately 36% of Samangan roads are travelable throughout the year, and 43% are travelable during some periods.

There are no roads in about 28% of the province.

6.3.8.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center in Samangan. The center provides outreach, community-based, after-care, and home-based treatment services, and also serves as a shelter. The Ministry of Public Health (MoPH) supports the center and provides its services. This center treats adult males only; there are currently no treatment services available to adult females or to children in Samangan, and no village-based services are available.

A list of all substance-abuse treatment services, as well as further detail on the center in Samangan and on each of the centers in Afghanistan, is included in the Appendix.

6.3.8.6 POPPY CULTIVATION

Samangan has been poppy-free since 2007, and it is expected to remain so in 2014.

6.3.8.7 SURVEY RESULTS

No urban survey was conducted in Samangan. Two villages in Feroz Nakhcheer district and two villages in Dara-i-Soof district were surveyed.

6.3.8.7.1 Survey Results—Urban

No urban survey was conducted in Samangan.

6.3.8.7.2 Survey Results—Rural

Samples were collected from 406 people and 45 rural households in four randomly selected villages: two in the rural area of Feroz Nakhcheer district and two in Dara-i-

Soof district. Household and population rates for any drug positive by village are presented at the end of this section.

Drug Class	Household	Population
Any	17.8%	2.9%
Opioids	13.3%	2.4%
Cannabis	4.4%	0.6%
Benzodiazepines	0.0%	0.0%
Barbiturates	0.0%	0.0%
Alcohol	2.2%	0.2%
Amphetamines	0.0%	0.0%
Other	0.0%	0.0%

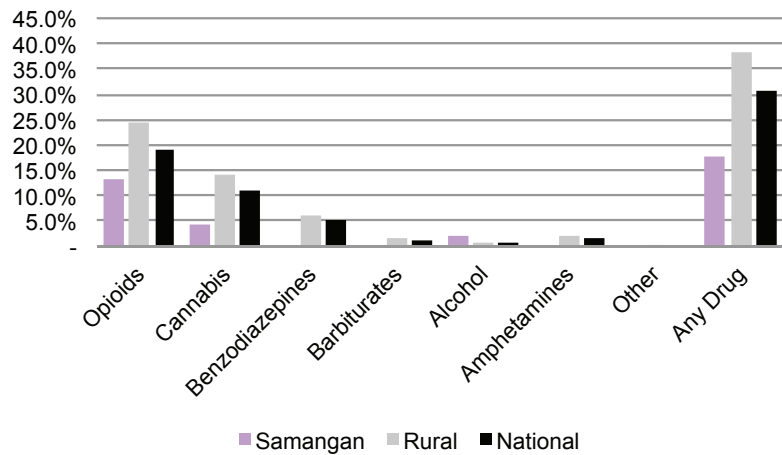


Figure 6.76. Rural Samangan household rates.

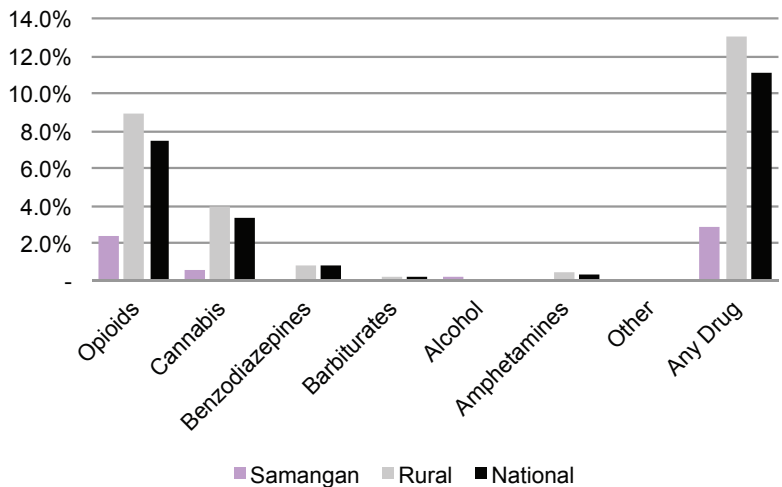


Figure 6.77. Rural Samangan population rates.

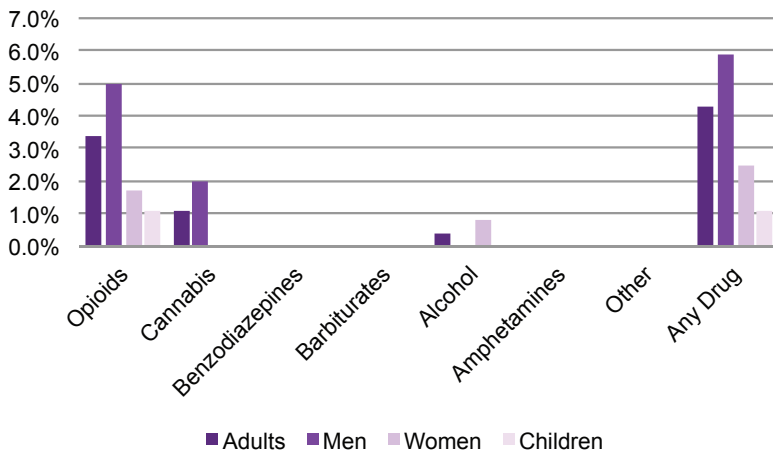


Figure 6.78. Rural Samangan adult and child rates.

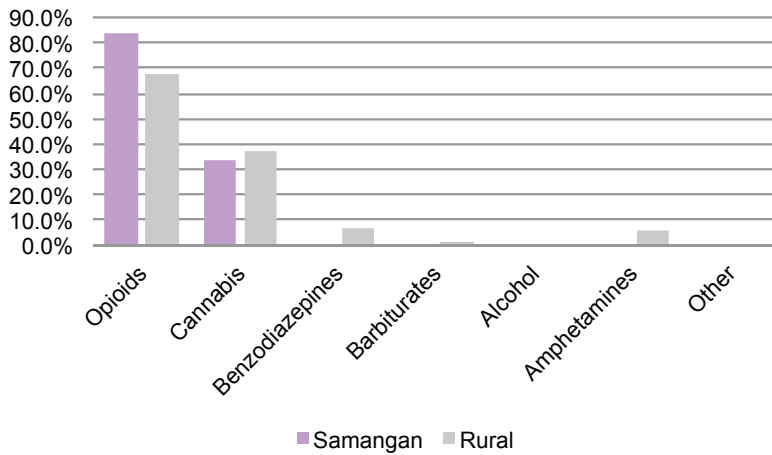


Figure 6.79. Types of drugs used by rural Samangan men users.

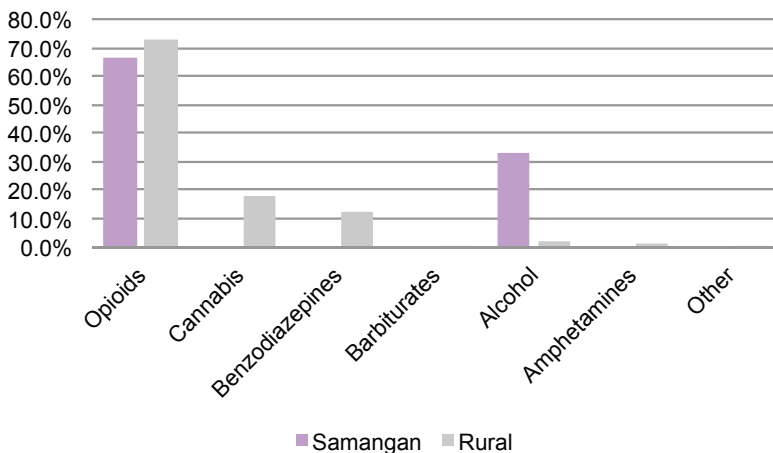


Figure 6.80. Types of drugs used by rural Samangan women users.

Table 6.22 presents both the household and population rates by drug class for rural Samangan. Figure 6.76 presents the household rates by drug class, and Figure 6.77 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Samangan. Figure 6.78 presents the rural Samangan adult, male, female, and child rates. Figure 6.79 presents and compares the types of drugs and their rates among rural Samangan male adult drug users and national rural male adult drug users. Figure 6.80 presents and compares the types of drugs used by female adult drug users in rural Samangan and nationally among rural adult female drug users.

Approximately 18% of households, 3% of the population, 4% of adults, and 1% of children tested positive for one or more drugs. These rates are all among the lowest of the 15 provinces surveyed.

The rates for any drug use among adult males and females are both lower than their respective national rural rates, but the adult male rate is twice that of adult females, at 6% and 3%, respectively.

Among adult drug users, 79% tested positive for opioids, 24% for cannabis, and 9% for alcohol.

Opioids were detected more than other drugs, in approximately 13% of households, 2% of the population, and 3%

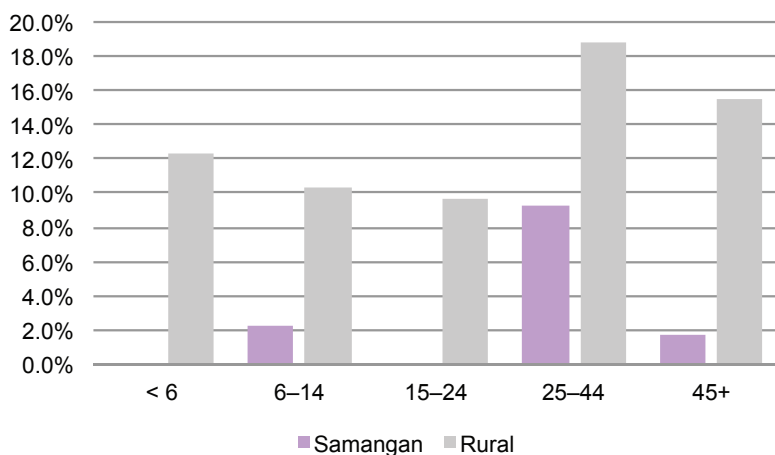


Figure 6.81. Rural Samangan rates by age group.

of adults (5% of men and 2% of women). These rates were all lower than their respective national rural rates, and the adult male and female rates were among the lowest rural rates of the 15 provinces surveyed. Opioids were the only drug detected in children. They were detected in two children, a rate of approximately 1%, which is lower than the corresponding national rural rate. The two children were aged seven and 10. Hair, saliva, and urine samples were collected and tested from both children, but both tested positive only in hair.

Among adult male drug users, 83% tested positive for opioids. 20% tested positive for opium, 60% for codeine, and none for heroin. The type of opioids used by 20% of the men could not be determined. Among adult female opioid users, 100% tested positive for codeine. The average hair, saliva, and urine opioid concentrations for rural Samangan are presented in the Appendix.

Cannabis was detected in approximately 4% of households, 1% of the population, and 1% of adults (2% of men and no women). These rates are among the lowest of any of the provinces, and the adult male rate was significantly lower than the national rural rate. Among adult male drug users, 33% tested positive for cannabis.

Samangan is one of four provinces in which alcohol was detected. Alcohol was detected in one woman, translating to rates of approximately 2% of households, less than 1% of the population, less than 1% of adults (no men and 1% of women).

Benzodiazepines, barbiturates, and amphetamine-type stimulants were not detected in Samangan.

In adults, drugs were detected only among those 25 and older (Figure 6.81). The

rates for each age group were among the lowest of the 15 provinces surveyed. Adult males and adult females ages 25–44 had the highest rates among adults at 13% and 6%, respectively.

The drug-positive rates for children were among the lowest in any of the provinces. No drugs were detected among children younger than 6, and only two children (approximately 2%) of those aged 6–14 tested positive.

Table 6.23 presents the approximate household, population, adult, male, female, and child rates for the four Samangan villages surveyed. These rates are on the basis of any drug-positive test result. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

In Villages #22 and #23, no adult females or children tested positive for any drug. This result was seen in only three other villages surveyed.

In Village #24, alcohol was detected in one adult female, for a rate of approximately 4%.

In Village #25, opioids were the only drug detected, but were detected in adult

males, adult females, and children. The only other villages where this was seen were the four villages of Ghor, which had

significantly higher rates for all three groups.

Table 6.23. Samangan Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#22	Feroz Nakhcheer	17%	2%	4%	7%	0%	0%
#23	Feroz Nakhcheer	20%	3%	5%	9%	0%	0%
#24	Dara-i-Soof	17%	3%	6%	4%	7%	0%
#25	Dara-i-Soof	18%	4%	4%	4%	4%	4%



Collecting a hair sample from a young girl.

6.3.9 SAR-E PUL PROVINCE

6.3.9.1 GEOGRAPHY

Sar-e Pul province is located in the north of Afghanistan and is bordered by the provinces of Jawzjan to the north, Balkh to the northeast, Samangan to the east, Bamyan and Ghor to the south, and Faryab to the west. Seventy-five percent of the province is mountainous or semi-mountainous—mostly in the south—and 14% is flat. The remaining land is semi-flat.

The capital of the province is Sar-e Pul. There are seven districts and approximately 833 villages in Sar-e Pul province.

6.3.9.2 DEMOGRAPHICS

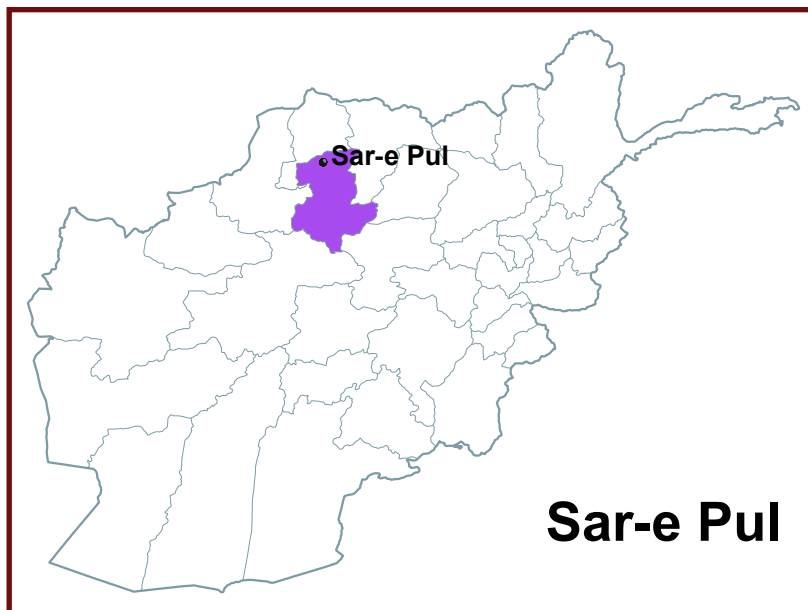
Sar-e Pul province has a population of 541,000 people. There are approximately 153,400 people living in the capital Sar-e Pul, but only 29,500 in the urban center. Approximately 499,200 people, or 92% of the province, live in rural areas.

The major ethnic groups in the province are Uzbek, Pashtun, Hazara, Arab, and Tajik, in order from greatest to smallest percentages. The major tribe in all districts is Uzbek. Dari is spoken by 56% of people, followed by Uzbeki, which is spoken by approximately 19% of Sar-e Pul residents.

The overall literacy rate is just 12%: 18% for men and 7% for women. Approximately 29% of children ages are enrolled in school: 30% of boys and 15% of girls.

6.3.9.3 ECONOMY

Agriculture is the main source of income for 75% of households. About 67% of rural households own or run farmland or garden plots. Approximately 13% of households earn some income from



trade and services, and 45% earn some income from non-farm labor. Opium is reported as a source of income for 1% of households. The major field crops in Sar-e Pul province are wheat, maize, alfalfa, barley, flax, cotton, and tobacco. The crops most commonly grown in garden plots are grapes (75%), fruit and nut trees (16%), and vegetables (3%). Handicrafts produced in Sar-e Pul include jewelry, shawls, carpets, karakul skin, and, to a limited degree, silk.

6.3.9.4 INFRASTRUCTURE

Sixty-nine percent of households have access to water in their community, but only 45% have access to safe drinking water (49% in rural areas). About 29% of households must travel up to an hour to obtain water; 1% must travel for between one and three hours.

Six percent of households have access to electricity, with half of those (3%) obtaining their electricity from public sources.

Roads are not well developed in Sar-e Pul province, with only 12% of roads travelable throughout the year and 67% travelable during some periods. There are no roads in about 21% of the province.

6.3.9.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are no substance-abuse treatment centers in Sar-e Pul.

6.3.9.6 POPPY CULTIVATION

Sar-e Pul has been poppy-free since 2008 and is expected to remain so in 2014.

6.3.9.7 SURVEY RESULTS

No urban survey was conducted in Sar-e Pul. Two villages in the rural area of Sar-e Pul district and two villages in Sangcharak district were surveyed.

6.3.9.7.1 Survey Results—Urban

No survey was conducted in the urban center of Sar-e Pul.

6.3.9.7.2 Survey Results—Rural

Samples were collected from 404 people and 44 rural households in four randomly selected villages: two in the rural area of Sar-e Pul district and two in Sangcharak district. Household and population rates for any drug-positive test result by village are presented at the end of this section.

Table 6.24 presents both the household and population rates by drug class for rural Sar-e Pul. Figure 6.82 presents the household rates by drug class, and Figure 6.83 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Sar-e Pul. Figure 6.84 presents the rural Sar-e Pul adult, male, female, and child rates. Figure 6.85 presents and compares the

types of drugs and their rates among rural Sar-e Pul male adult drug users and national rural adult male drug users. Figure 6.86 presents and compares the

Drug Class	Household	Population
Any	50.0%	11.0%
Opioids	34.1%	6.9%
Cannabis	11.4%	2.8%
Benzodiazepines	11.4%	1.5%
Barbiturates	2.3%	0.3%
Alcohol	0.0%	0.0%
Amphetamines	9.1%	1.4%
Other	0.0%	0.0%

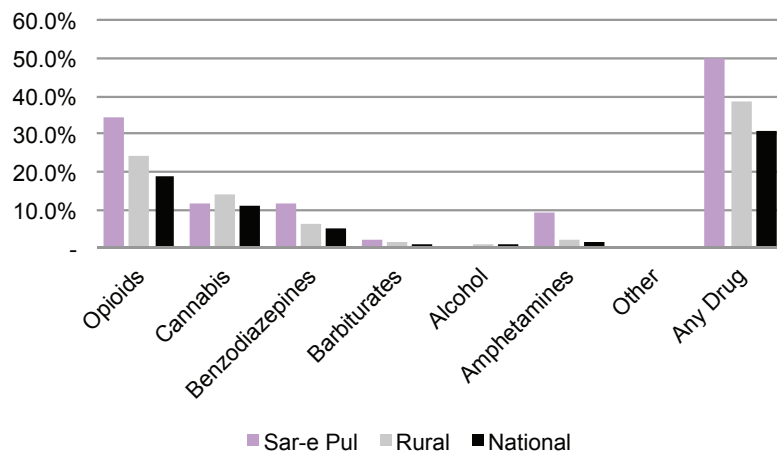


Figure 6.82. Rural Sar-e Pul household rates.

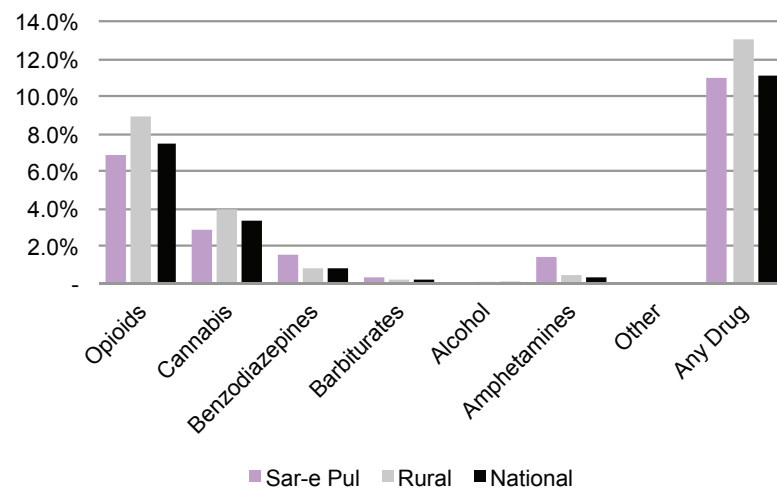


Figure 6.83. Rural Sar-e Pul population rates.

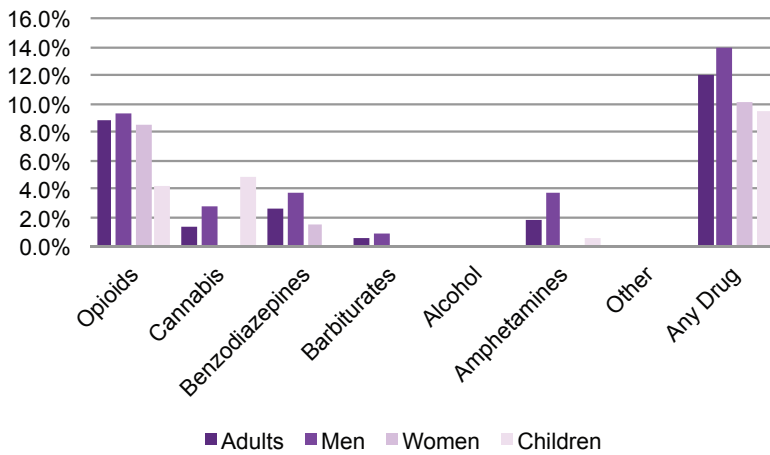


Figure 6.84. Rural Sar-e Pul adult and child rates.

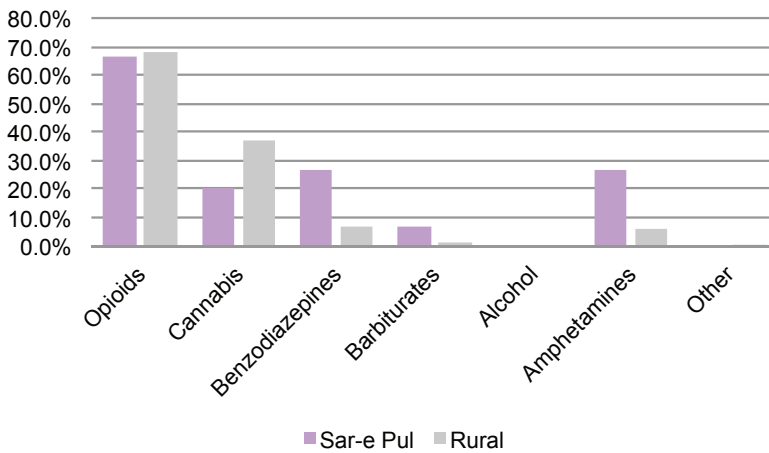


Figure 6.85. Types of drugs used by rural Sar-e Pul men users.

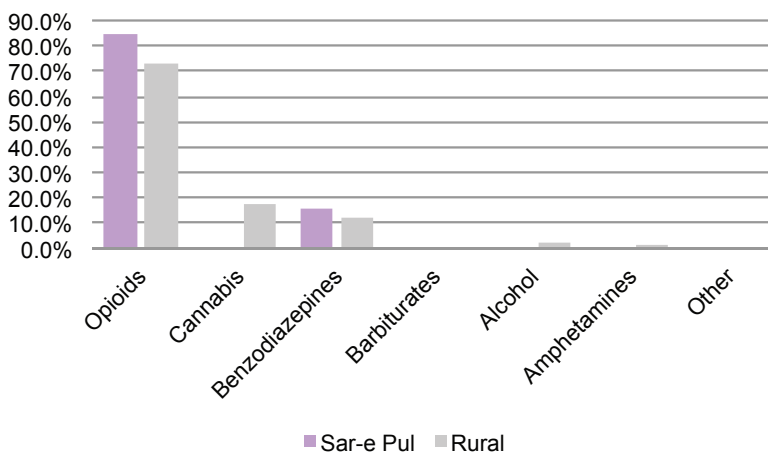


Figure 6.86. Types of drugs used by rural Sar-e Pul women users.

types of drugs used by female adult drug users in rural Sar-e Pul and nationally among rural adult female drug users.

Approximately 50% of households, 11% of the population, and 12% of adults tested positive for one or more drugs (14% of men and 10% of women). The household rate is higher than the national rural household rate, while the population and adult rates are lower than their respective national rural rates. The rates for adult males and females were lower than their respective national rural rates. Approximately 10% of children tested positive for one or more drug.

Among adult drug users, 74% tested positive for opioids, 12% for cannabis, 22% for benzodiazepines, 4% for barbiturates, and 16% for amphetamine-type stimulants.

Opioids were detected more than any other drug class: in 34% of households, 7% of the population, and 9% of adults (9% in both men and women). The household rate was higher than the national rural household rate, while the population and adult rates were lower. While the adult male rate was lower than the corresponding national rural rate, the adult female rate was slightly higher. Approximately 4% of children tested positive for opioids, a rate lower than the national child rural rate.

Among adult drug users, 74% tested positive for opioids. Among adult male drug users,

67% use opioids: of these, approximately 20% use heroin, 20% use opium, and 20% use codeine. For 40% of adult male opioid users, the type of opioids used could not be determined. Among adult female drug users, 85% tested positive for opioids. Of these, approximately 9% tested positive for heroin, 36% for opium, and 55% for codeine. The average hair, saliva, and urine opioid concentrations for rural Sar-e Pul are presented in the Appendix.

Cannabis was detected in approximately 11% of households, 3% of the population, and 1% of adults (3% of men and no women). These rates are lower than their respective national rural rates. The 3% adult male rate is lower than the national rural rate, as is the zero percent adult female rate. Eight children, or approximately 5% of children, tested positive for cannabis, a rate higher than the national rural rate. Among adult drug users, 20% of men tested positive for cannabis.

The results for cannabis among children are remarkable. All eight children who tested positive did so for native-THC in saliva. This suggests either use or significant environmental exposure. Half of the children were younger than six; the others were aged 6, 6, 7, and 10. All eight children were from the same village, and six of them were from the same household.

Based on the likely theory that these children, most specifically those younger than six, were administered cannabis by an adult or had second- or third-hand exposure to household adult cannabis use, a comparison between these children and the adults in their households was attempted. However, while no adult sampled in any of these children's households tested positive for cannabis, in each household, several of the men residing in the household were absent during sample collection.

The concentrations of THC in saliva were highest in one three-year-old and one six-year-old. The concentrations seen in these two children were very high and similar to those typically seen in adult male users.

As mentioned earlier, active use is unlikely for children, especially those under the age of six. At that age, the presence of native-THC in saliva is alarming. These findings suggest the children tested positive from environmental exposure to cannabis smoke at significant levels and/or they were exposed to cannabis smoke on such a frequent basis that THC would be present in their saliva. Those older than six years of age might be active users, but in all likelihood, all the children who tested positive are positive from environmental exposure.

Benzodiazepines were detected in approximately 11% of households, 2% of the population, and 3% of adults. These rates are all higher than their respective national rural rates. No benzodiazepines were detected in children.

Approximately 4% of adult males tested positive for benzodiazepines, which is higher than the adult male rate for cannabis and much higher than the corresponding national rural rate. Approximately 2% of adult females tested positive for benzodiazepines. Sar-e Pul is the only province in which benzodiazepines were detected in any population at a rate higher than cannabis. Both the adult and the adult male rates were the second-highest among the 15 provinces surveyed. Approximately 27% of adult male drug users and 15% of adult female drug users tested positive for benzodiazepines.

Barbiturates were detected in 2% of households, less than 1% of the population, and less than 1% of adults (one adult male or 1% of men and no women).

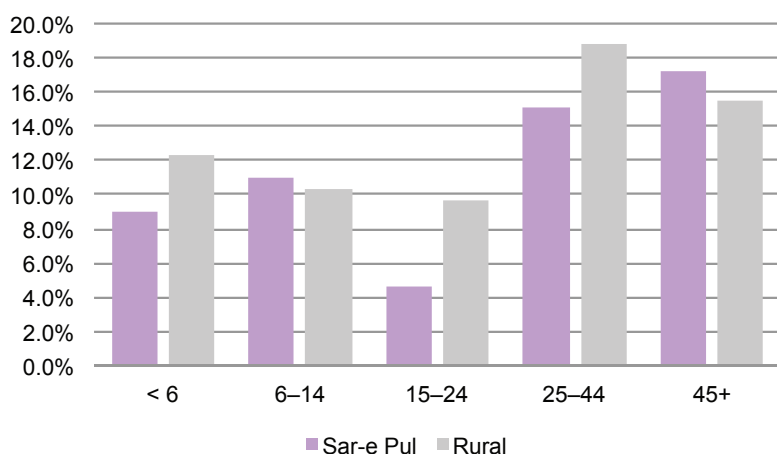


Figure 6.87. Rural Sar-e Pul rates by age group.

Amphetamine-type stimulants were detected in 9% of households, 1% of the population, 2% of adults (4% of men and no women), and 1% of children. The population, adult, and adult male rates for amphetamine-type stimulants in Sar-e Pul were all among the top two highest rates of the 15 provinces surveyed.

Sar-e Pul is one of only three provinces in which amphetamine-type stimulants were detected in children: methamphetamine was detected in the saliva of a 12-year-old male.

No alcohol was detected in Sar-e Pul.

Drug use was detected in all adult age groups, with the highest rate among those aged 45 and older (Figure 6.87). The highest adult female rate was likewise among those aged 45 and older. The lowest rate among the adult age groups was for those ages 15–24, similar to the national rural age group rate patterns.

The combined male and female child rates are slightly lower among those younger than 6 than those aged 6–14 years old. However, among female children, the rates for those younger than 6 are higher than those for the 6–14 age group: 15% versus 2%. Conversely, the drug-positive rate for male children aged 6–14 years was higher than for those younger than six years: 20% versus 4%.

Table 6.25 presents the approximate household, population, adult, adult male, adult female, and child rates for the four Sar-e Pul villages surveyed. These rates are on the basis of any drug-positive test result. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the

Appendix.

In Village #14, the population and adult rates for benzodiazepines were the second-highest among the 52 villages surveyed at 4% and 6%, respectively.

Village #15 was one of two villages in the study in which no one tested positive for any drug (the other village was in Takhar province).

Village #16 had the second-highest cannabis rate for children out of the 52 villages and was the only village among the four Sar-e Pul villages in which children tested positive for cannabis. A total of eight children tested positive for cannabis; hair and saliva samples were collected from all eight children, and urine from five. All eight children tested positive for native-THC in saliva, only one tested positive for carboxy-THC in hair, and none tested positive for carboxy-THC in urine. These results do not indicate that these children are active users. The adult and adult male rates for barbiturates in this village were the third-highest among the 52 villages surveyed.

Village #17 had the third-highest adult male rate for amphetamine-type stimulants. Two men, or approximately 8% of the men in the village, tested positive. This is also the village where a 12-year-old child tested positive for metham-

phetamine in saliva. This resulted in a 3% child positive rate for amphetamine-

type stimulants, which was the highest among the 52 villages surveyed.

Table 6.25. Sar-e Pul Village Rates

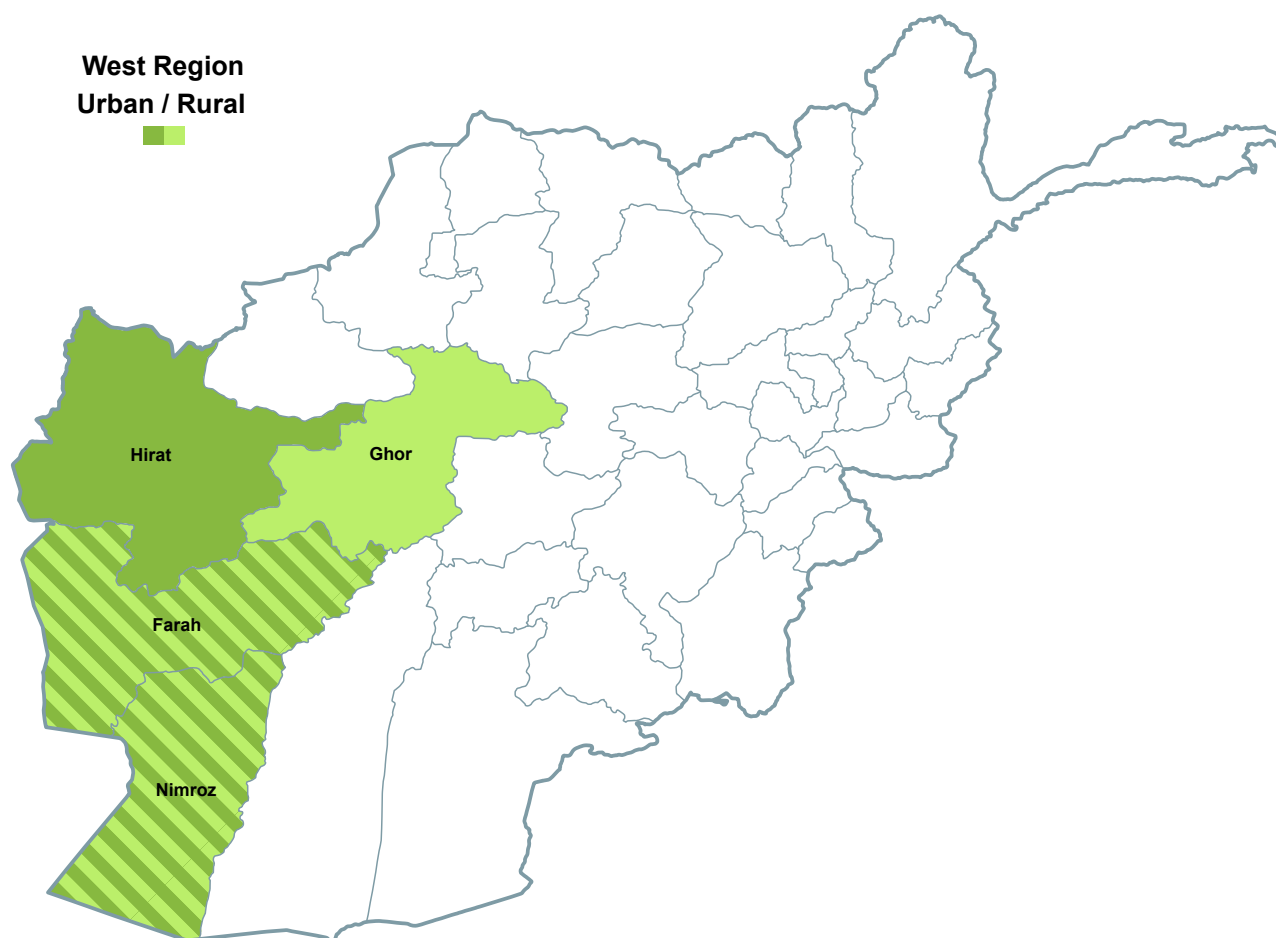
Village	District	Household	Population	Adults	Men	Women	Children
#14	Sar-e Pul	89%	12%	19%	19%	19%	3%
#15	Sar-e Pul	0%	0%	0%	0%	0%	0%
#16	Sangcharak	70%	13%	8%	13%	3%	21%
#17	Sangcharak	64%	18%	19%	20%	17%	18%



6.4 WEST REGION

Surveys conducted in the West region include the provinces of Farah, Hirat, Ghor, and Nimroz. Results for Farah City, the

provincial capital of Farah; Hirat City, the capital of Hirat; Zaranj, the capital of Nimroz; and for rural parts of Ghor and Nimroz are presented in this section.



Province	Total Population	Urban Population	Rural Population
Farah	490,600	35,800	454,800
Hirat	1,816,100	514,800	1,301,300
Ghor	668,000	6,700	661,300
Nimroz	159,300	25,400	133,900

CSO 2013–2014 population estimates.

6.4.1 FARAH PROVINCE

6.4.1.1 GEOGRAPHY

Farah province is located in the west bordered by the provinces of Hirat to the north, Ghor to the northeast, Helmand to the southeast, and Nimroz to the south, and the country of Iran to the west. It is the fourth largest province in Afghanistan. About 46% of the province is mountainous or semi-mountainous, and nearly half is flat land.

The capital of the province is Farah City. There are 11 districts and approximately 1,125 villages in Farah province.

6.4.1.2 DEMOGRAPHICS

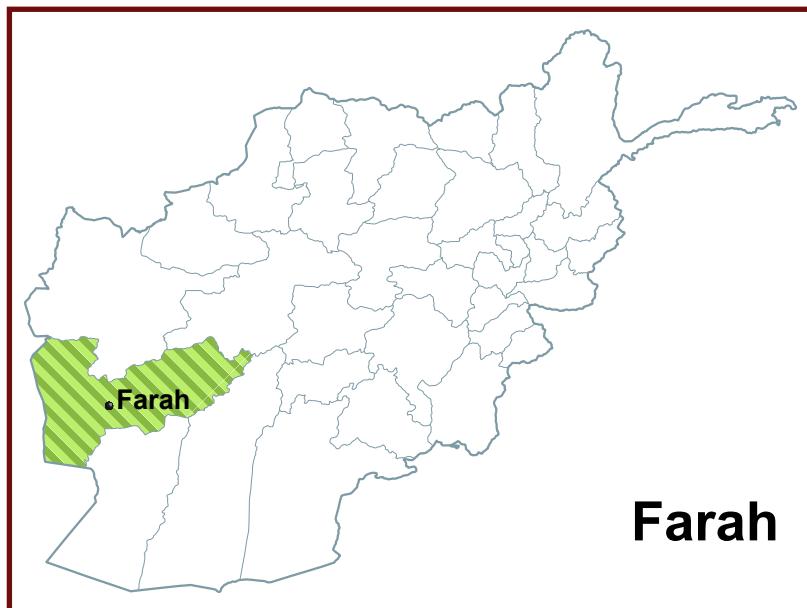
The estimated population of the province is 496,600. Approximately 110,400 live in the provincial capital, with only 35,800 residing in the urban center. About 454,800 people, or 93% of the population, reside in rural areas of the province. The estimated number of villages in Farah is 1,125.

Pashtuns make up 80% of the population and are the major ethnic group in the province. About 14% of the Farah province population are Baloch, and most of the remaining population is Tajik, Aimak, or Hazara. Dari is spoken by 50% of the population and in 544 villages, about 48%. Pashto is the second-most-spoken language, used by 48% of the population and in 566 villages (about 50%). Balochi is spoken in only a few villages.

The literacy rate in Farah is 21%: 27% for men and 14% for women. About 32% of children are enrolled in school: 37% of boys and 26% of girls.

6.4.1.3 ECONOMY

Approximately 50% of households de-



rive income from agriculture, growing wheat, rice, maize, and barley and raising livestock. Forty-nine percent of all households and 55% of rural households own or manage agricultural lands or garden plots. About 21% of all households derive some income from trade and services. A quarter of households in urban and rural areas earn income through non-farm labor.

6.4.1.4 INFRASTRUCTURE

Approximately 78% of households have access to water within their community, but only 37% have access to safe drinking water. About 19% of households travel up to an hour to obtain water, while 3% must travel between one and three hours.

Only 9% of households have access to electricity, with 1% relying on public sources.

Roads are reasonably developed, with 49% of Farah roads travelable throughout the year and 34% of roads travelable during certain periods. About 16% of the province has no roads.

6.4.1.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are a number of substance-abuse

treatment centers in Farah supported by INL, Colombo Plan, UNODC, and the Ministry of Public Health (MoPH). A list of all substance-abuse treatment services, service providers, and types of services provided at each of the centers in Farah and other provinces in Afghanistan is included in the Appendix.

6.4.1.6 POPPY CULTIVATION

Farah is a major poppy-growing province, and although cultivation has been irregular year-to-year, the amount of poppies cultivated makes Farah one of the top three poppy-cultivating provinces in Afghanistan. The figures from the 2013 assessment indicate a reduction in the amount of poppy cultivation, but these figures are misleading in that the main cultivating district of Farah was moved into the Nimroz province. Significant levels of poppy cultivation are expected to continue in Farah.

6.4.1.7 SURVEY RESULTS

Farah is one of two provinces where both the provincial capital and rural villages were surveyed. Farah City and three villages were surveyed: one in Anar Dara district and two villages in Farah district.

6.4.1.7.1 SURVEY RESULTS—URBAN

Samples were collected from 234 people residing in 100 households in the urban center of Farah City. Approximately 20% of households, 11% of the population, and 16% of adults tested positive. These rates are the second highest among the 11 provincial capitals surveyed.

Table 6.26 presents both the household and population

rates by drug class for Farah City. Figure 6.88 presents the household rates by drug class, and Figure 6.89 presents the population rates by drug class. Both figures include the nationwide urban and

Table 6.26. Farah City Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	20.0%	11.4%
Opioids	15.0%	8.6%
Cannabis	2.0%	1.3%
Benzodiazepines	5.0%	2.8%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	1.0%	0.6%

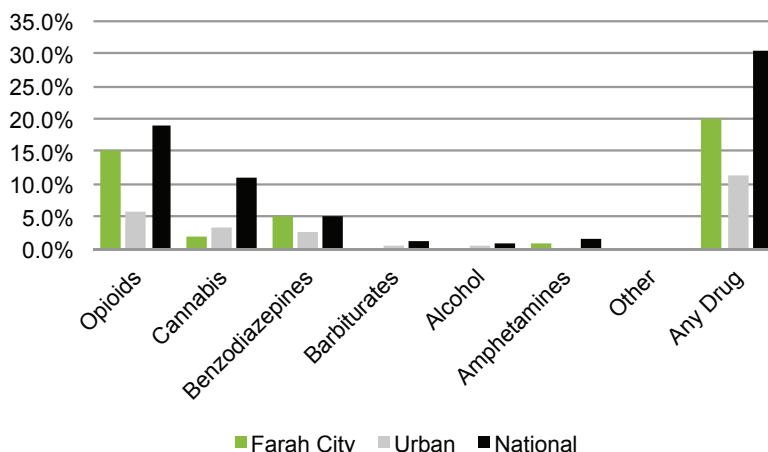


Figure 6.88. Farah City household rates.

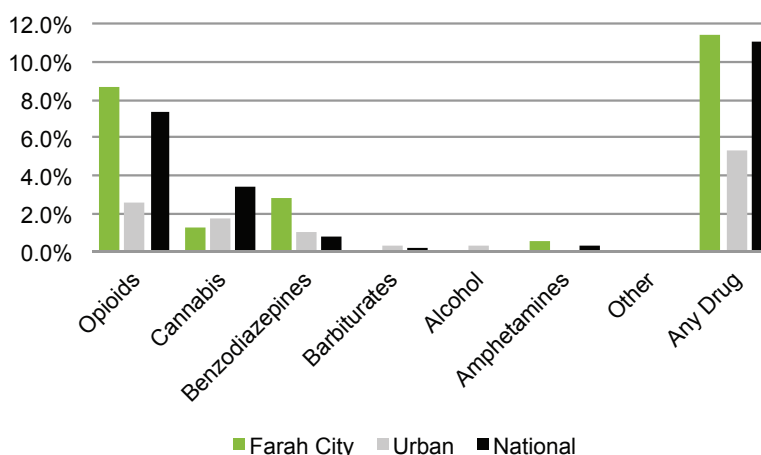


Figure 6.89. Farah City population rates.

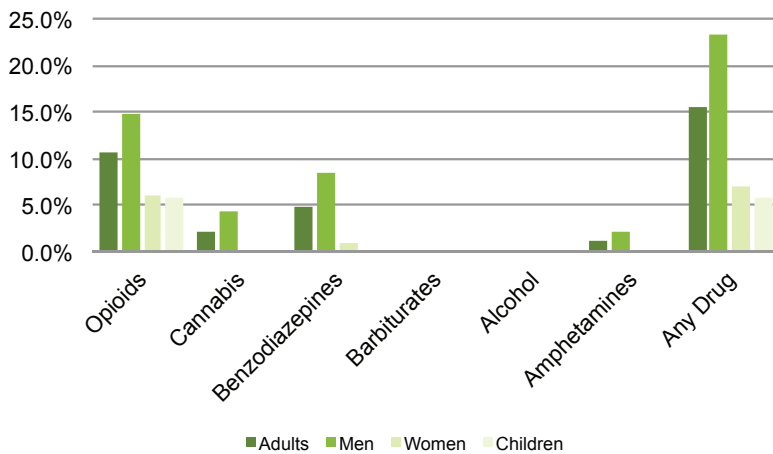


Figure 6.90. Farah City adult and child rates.

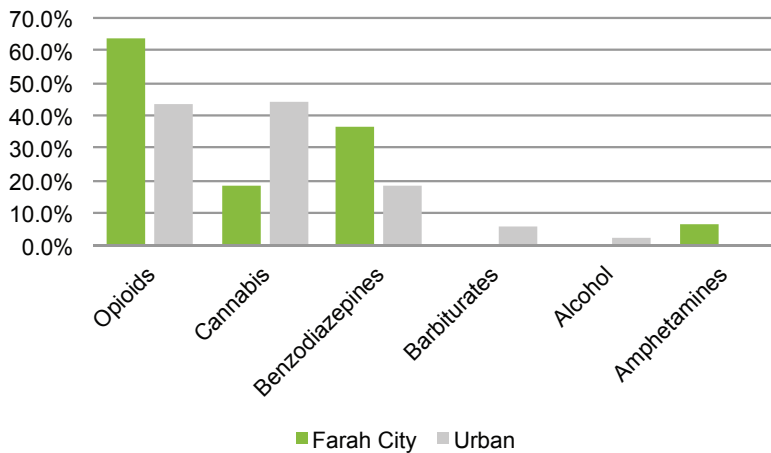


Figure 6.91. Types of drugs used by Farah City men users.

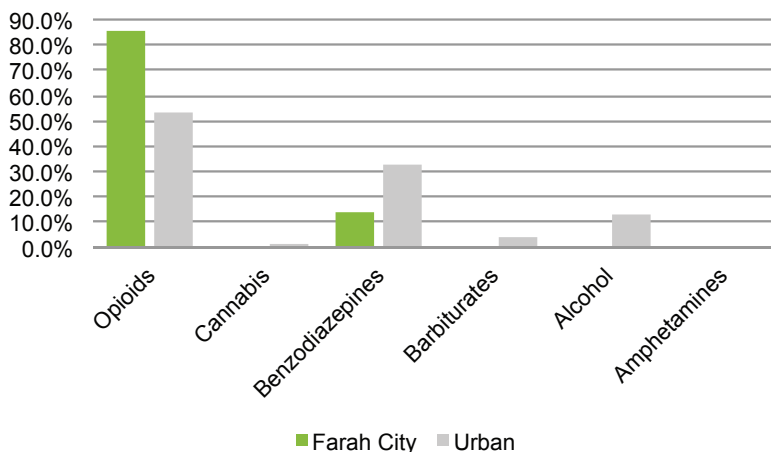


Figure 6.92. Types of drugs used by Farah City women users.

national rates for comparison to Farah City. Figure 6.90 presents the Farah City adult, men, women, and children rates. Figure 6.91 presents and compares the types of drugs and their rates among Farah City male adult drug users and national urban males. Figure 6.92 presents and compares the types of drugs used by female adult drug users in Farah City and nationally among urban adult female drug users.

The drug most often detected among Farah City households was opioids. Opioids were detected in 15% of households. Benzodiazepines were detected in 5% of households, cannabis in 2%, and amphetamine-type stimulants in 1%. No barbiturates or alcohol were detected in Farah City.

The drug-positive rate among adults was 16%. Male drug use was more than three times higher than that of women: 23% of men and 7% of women are drug users. Approximately 6% of children were drug-positive. The children tested positive only for opioids. This child drug-positive rate is the highest of all of the capitals surveyed.

Among adult drug users, 69% use opioids, 32% use benzodiazepines, 14% use cannabis, and 7% use amphetamine-type stimulants.

Opioids were detected in approximately 9% of the population and in 11% of adults. Among adult drug users, opioids were used by 64% of the men and 86% of the women.

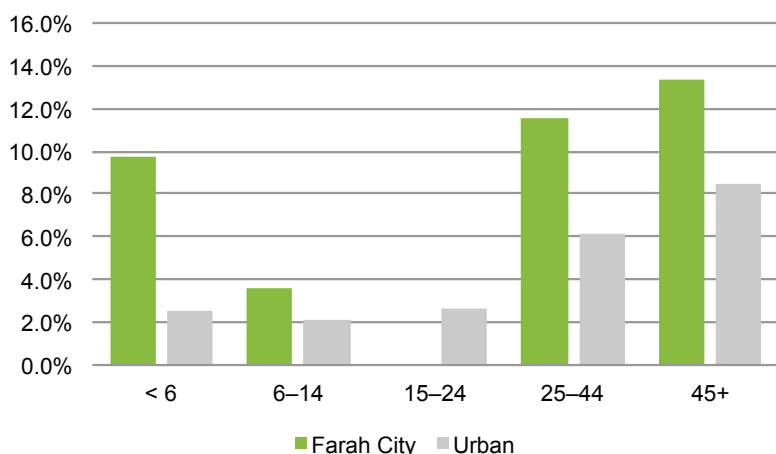


Figure 6.93. Farah City rates by age group.

Codeine is the primary form of opioids used by women. All of the male opioid users tested positive for heroin/opium, with more than half testing positive for heroin. The average hair, saliva, and urine opioid concentrations for Farah City are presented in the Appendix.

Farah City had the highest percentage of children testing positive for any drug among all of the provincial capitals studied, at 6%. All of the children who tested positive for drugs did so only for opioids in the form of opium.

Cannabis was detected in approximately 1% of the population and only in men (approximately 4% of men). This cannabis use represents usage by 14% of adult drug users in Farah City: 18% of male drug users and none of the female drug users.

Benzodiazepines were detected in 5% of households, 3% of the population and 5% of adults. Benzodiazepines are the second-most-used drug detected in men, at approximately 9%, a level substantially higher than that of women (1%). Farah is also the only capital surveyed where testing results showed a higher percentage of men using benzodiazepines than used cannabis. No benzodiazepines were detected in children. Benzodiazepines are used by 32% of

adult drug users: 36% of male drug users and 14% of female drug users.

Farah is one of only two provincial capitals where amphetamine-type stimulants were detected. The household and population rates for amphetamine-type stimulants are both approximately 1%. One individual tested positive, and tested positive for both amphetamine and methamphetamine.

The highest drug-positive rate among adults was found in the age group 45 years of age and older at approximately 13%, followed by those 25–44 years old at 12% (Figure 6.93). Both of these age group rates are higher than their respective national urban rates. No adults 15–24 years old tested positive for any drugs. Among children younger than six years old, 10% tested positive, a level significantly higher than the national urban rate. The rate for children 6–14 years old is approximately 4%, which is nearly twice the national rate.

6.4.1.7.2 SURVEY RESULTS—RURAL

Samples were collected from 303 people and 39 rural households in three randomly selected villages in Farah province, one in Anar Dara district and two in the rural area of Farah district. Household and population rates for any drug use, by village, are presented at the end of this section.

Table 6.27 presents both the household and population rates by drug class for rural Farah. Figure 6.94 presents the household rates by drug class, and Figure 6.95 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Farah. Figure 6.96 presents the rural Farah adult, men, women, and children rates. Figure 6.97

presents and compares the types of drugs detected and their usage rates between rural Farah male adult drug users and national survey rural males. Figure

Drug Class	Household	Population
Any	35.9%	8.4%
Opioids	28.2%	6.1%
Cannabis	5.1%	1.6%
Benzodiazepines	5.1%	0.6%
Barbiturates	2.6%	0.3%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

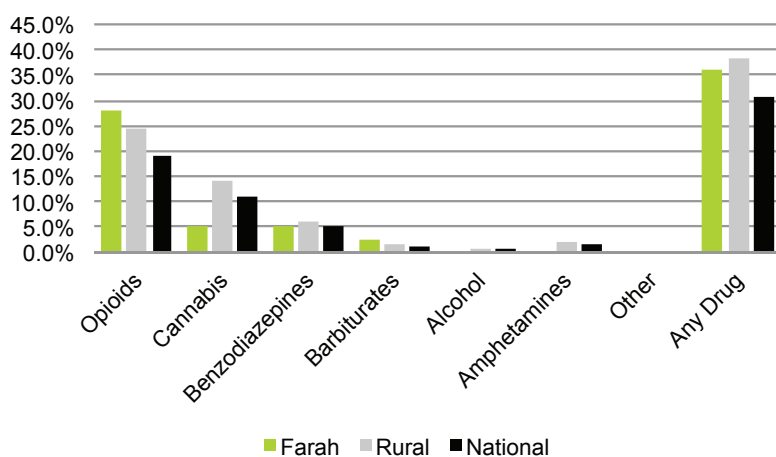


Figure 6.94. Rural Farah household rates.

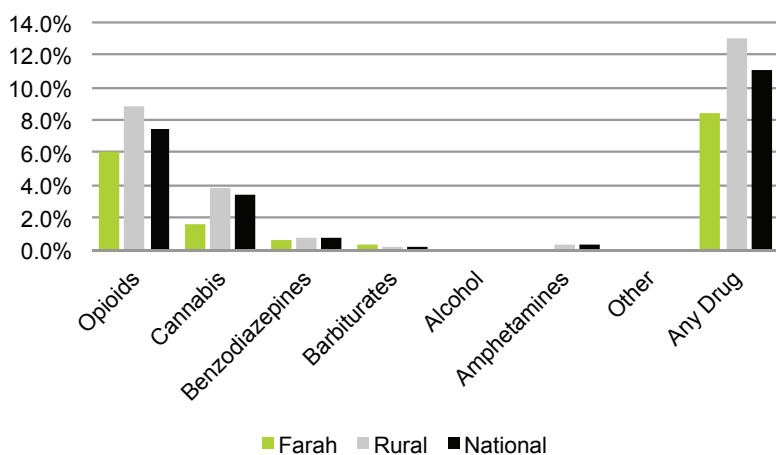


Figure 6.95. Rural Farah population rates.

6.98 presents and compares the types and rates of drugs used by female adult drug users in rural Farah and nationally among rural adult female drug users.

Approximately 36% of households, 8% of the population, and 11% of adults tested positive in Farah. The household and adults rates are slightly lower than the national rural rates, while the population rate is significantly lower. Approximately 4% of children tested positive for one or more drugs. The child rate is less than half of the national rural child rate. The rate for any drug use among men is higher than that of women, at approximately 15% versus 9%. Both the men's and women's rates are lower than their respective national rural rates.

Among adult drug users, 71% use opioids, 19% cannabis, 10% benzodiazepines, and 5% barbiturates.

Opioids were detected in approximately 28% of households, 6% of the population, and 8% of adults. Among adults, 11% of men and 6% of women tested positive. Approximately 4% of children tested positive for opioids. The household rate was higher than the national rural rate, while the population, adult, male, female, and child rates are lower.

Four children tested positive for opioids. Of these four children, one was 14 years old and the other three were three years of age or younger. All three of the younger children tested positive for opioids in hair. The 14-year-old child was positive only for codeine in hair, and at a concentration lower than those of one three-year-old and one one-year-old child.

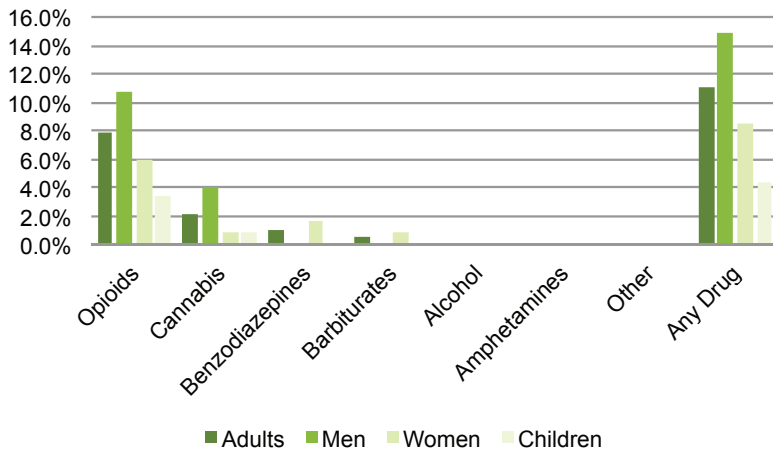


Figure 6.96. Rural Farah adult and child rates.

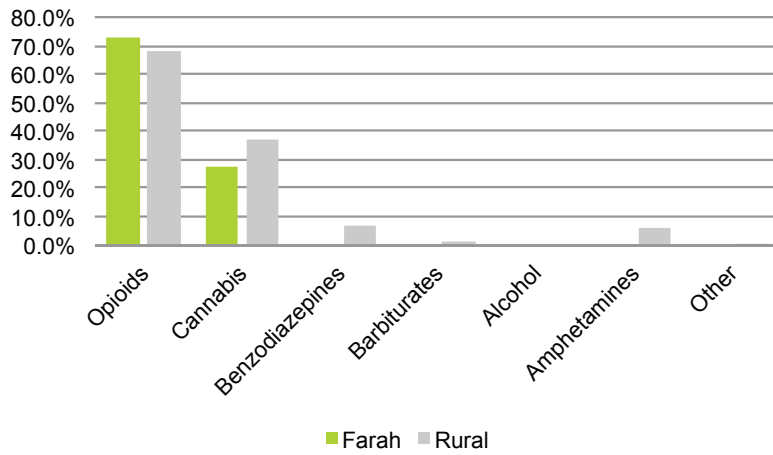


Figure 6.97. Types of drugs used by rural Farah men users.

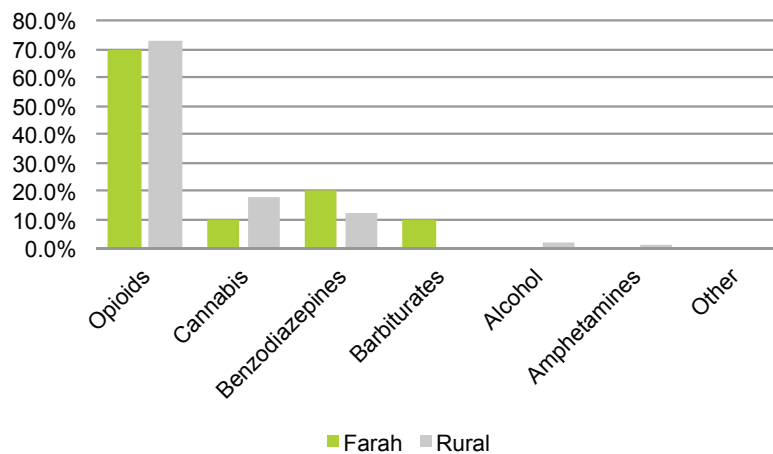


Figure 6.98. Types of drugs used by rural Farah women users.

Among male drug users, 73% use opioids, with 75% using opium and 25% using codeine. No men tested positive for heroin. Approximately 70% of female drug users use opioids, with 43% using opium, 14% using heroin, and 43% using codeine. The average hair, saliva, and urine opioid concentrations for rural Farah are presented in the Appendix.

Cannabis was detected in approximately 5% of households, 2% of the population, and 2% of adults. Approximately 4% of men and one woman (or approximately 1%) tested positive for cannabis. These rates were all lower than the national rural rate for cannabis. Among male drug users, 27% use cannabis. The one woman who tested positive for cannabis tested positive for carboxy-THC in hair.

Only one child tested positive for cannabis (or approximately 1%). The seven-year-old child tested positive for carboxy-THC in hair. A urine sample was not collected from this child, but a saliva sample was collected, and it tested negative for native-THC.

Benzodiazepines were detected in 5% of households, less than 1% of the population, and 1% of adults. Benzodiazepines were detected only in women, at a rate of approximately 2%.

Barbiturates were detected in approximately 3% of households and in less than 1% of the population and adults.

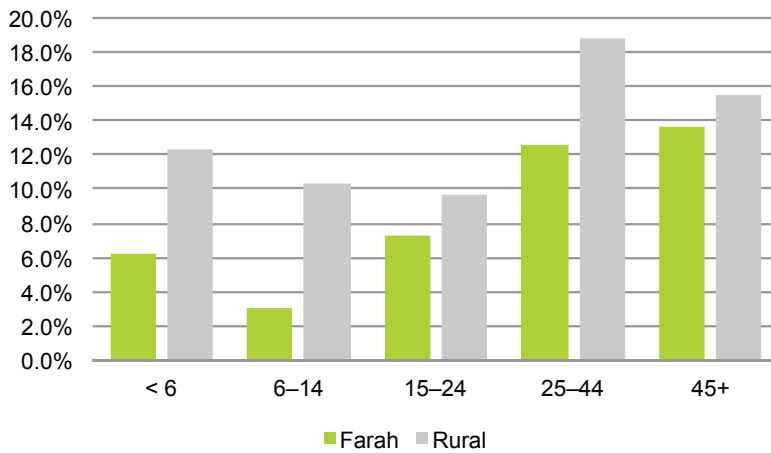


Figure 6.99. Rural Farah rates by age group.

Similar to benzodiazepines, barbiturates were detected only in women, at a rate of approximately 1%.

No amphetamine-type stimulants or alcohol were detected in Farah.

Drug use was detected in all adult age groups, but the highest rate was among those 45 years and older (Figure 6.99). The lowest rate was among those aged 15–24 years old. Among adult males, the highest rate was among those 15–24 years of age, and the lowest was among those 25–44 years old. The highest rate for females was among those 25–44 years old, and the lowest rate was for ages 15–24.

The rate among children under six years of age was 6%, and was 3% for those 6–

14 years old. In both male and female children, the highest rate was found among those under six years of age. Among female children 6–14 years old, the rate is 3%, the third lowest among the 15 provinces surveyed.

Table 6.28 presents the approximate household, population, adult, adult male, adult female, and child rates for the three Farah villages surveyed. These rates are on the basis of any drug-positive test result.

It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets are in the Appendix.

In Village #52, only opioids were detected and only among men and women (no children). This village is one of the 12 villages out of the 52 villages surveyed in which no children tested positive.

In Village #53, men and children tested positive only for opioids. Women tested positive for opioids, but significantly, tested positive for barbiturates at a rate of 2%, the highest rate for women among the 52 villages surveyed.

Table 6.28. Farah Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#52	Ana Dara	20%	3%	5%	8%	4%	0%
#53	Farah	29%	10%	12%	17%	9%	7%
#54	Farah	53%	12%	15%	20%	12%	8%

6.4.2 HIRAT PROVINCE

6.4.2.1 GEOGRAPHY

Hirat province is in the west of Afghanistan and bordered by the country of Turkmenistan to the north, Badghis and Ghor provinces to the west, Farah province to the south, and the country of Iran to the west. Approximately 39% of the province is mountainous or semi-mountainous, and 53% is flat land. The area bordering Turkmenistan is an arid desert region.

The capital of Hirat is Hirat City, the third largest city in Afghanistan. There are 16 districts and approximately 2,170 villages in Hirat.

6.4.2.2 DEMOGRAPHICS

The population of Hirat is approximately 1,816,100. The urban population of Hirat is 449,600. Approximately 1,301,300 people, or 72% of the population, reside in the rural areas of the province.

Tajiks are the major ethnic group in Hirat, followed by Pashtuns, Hazaras, Uzbeks, and Turkmen. Dari and Pashtu are spoken by 98% of the population and in 98% of the villages, with Uzbeki and Turkmeni spoken in the rest of villages.

About 36% of the population is literate: 43% of men and 28% of women. On average 55% of children are enrolled in school: 58% of boys and 52% of girls.

6.4.2.3 ECONOMY

Agriculture is the major source of income for 36% of households, including 38% of rural and 5% of urban households. Approximately 54% of households own or manage agricultural land or garden plots. About half of urban households and 11% of rural households derive income from trade and services. Trade is intimately linked with Iran, which shares a 400-mile border with



Hirat. Half of rural households and 38% of urban households earn income from non-farm labor. Carpets, rugs, and textiles are the prominent handicrafts created, and silk is produced in about 15 villages in Hirat.

6.4.2.4 INFRASTRUCTURE

Approximately 85% of households have access to water in their community, but only 31% have safe drinking water. This rises to 36% in the urban area and falls to 30% in rural areas. Eleven percent of households have to travel up to an hour to obtain water and 1% travel up to six hours.

About 22% of households have access to electricity: 74% in urban areas and only 6% in rural areas of the province. The majority of urban households obtain electricity from public sources, but only 2% of rural households do.

Roads are reasonably well developed in the province with 56% travelable throughout the year and 35% during some periods. There are still no roads in about 9% of the province.

6.4.2.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are a number of substance-abuse

treatment centers in Hirat, the second-most after Kabul. INL, Colombo Plan, UNODC, Japan, and the Ministry of Public Health (MoPH) support these centers. A list of all substance-abuse treatment services, service providers, and types of services provided at each of the centers in Hirat and other provinces in Afghanistan is included in the Appendix.

6.4.2.6 POPPY CULTIVATION

Poppies are grown in Hirat, but cultivation has historically been low to moderate. In 2012, poppy cultivation increased by 200% over 2011 levels, but subsequently declined by 12% in 2013. Poppy cultivation is expected to continue at similar levels.

6.4.2.7 SURVEY RESULTS

The urban center of Hirat City was surveyed. A rural survey was not conducted in Hirat.

6.4.2.7.1 Survey Results—Urban

Samples were collected from 253 individuals residing in 99 households in Hirat City. Approximately 18% of households, 8% of the population, and 13% of adults tested positive. These rates are the third-highest among the 11 provincial capitals surveyed.

Table 6.29 presents both the household and population rates by drug class for Hirat City. Figure 6.100 presents the household rates by drug class, and Figure 6.101 presents the population rates by drug class. Both figures include the nationwide urban and national rates for comparison to Hirat City. Figure 6.102 presents the Hirat City adult, male, female, and child rates. Figure 6.103 presents

and compares the types of drugs and their rates among Hirat City male adult drug users and national urban adult male drug users. Figure 6.104 presents and compares the types of drugs used by female adult drug users in Hirat City and

Drug Class	Household	Population
Any	18.2%	8.3%
Opioids	7.1%	4.1%
Cannabis	4.0%	1.7%
Benzodiazepines	4.0%	1.3%
Barbiturates	1.0%	0.4%
Alcohol	3.0%	1.2%
Amphetamines	0.0%	0.0%

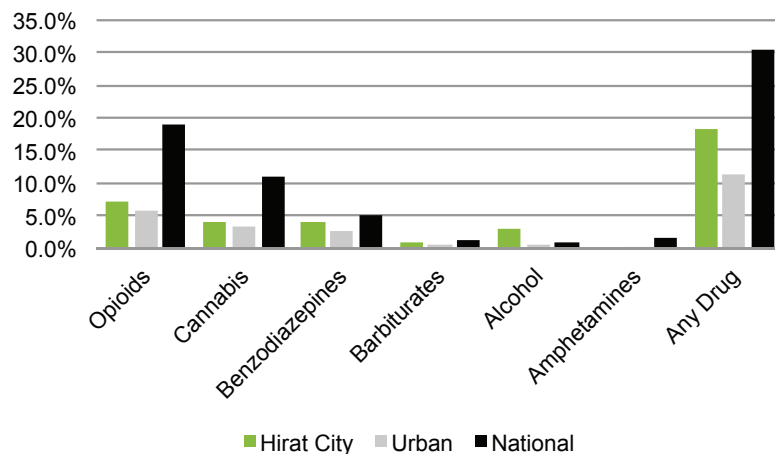


Figure 6.100. Hirat City household rates.

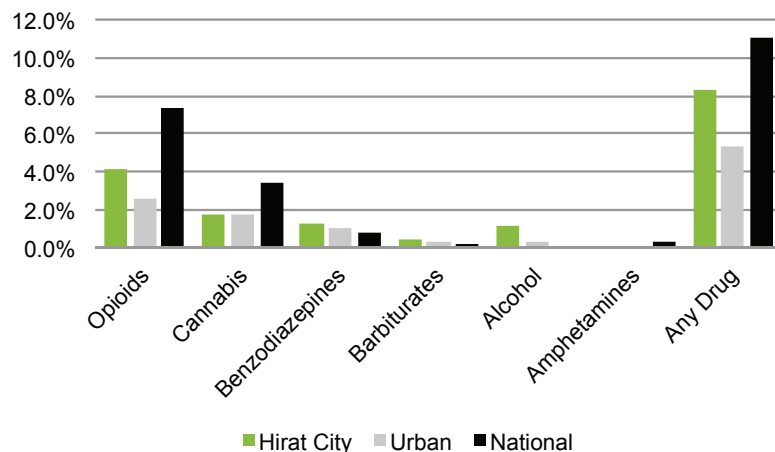


Figure 6.101. Hirat City population rates.

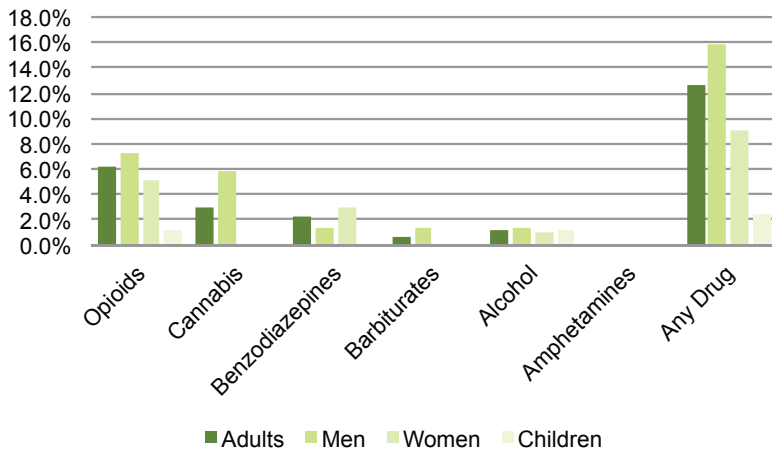


Figure 6.102. Hirat City adult and child rates.

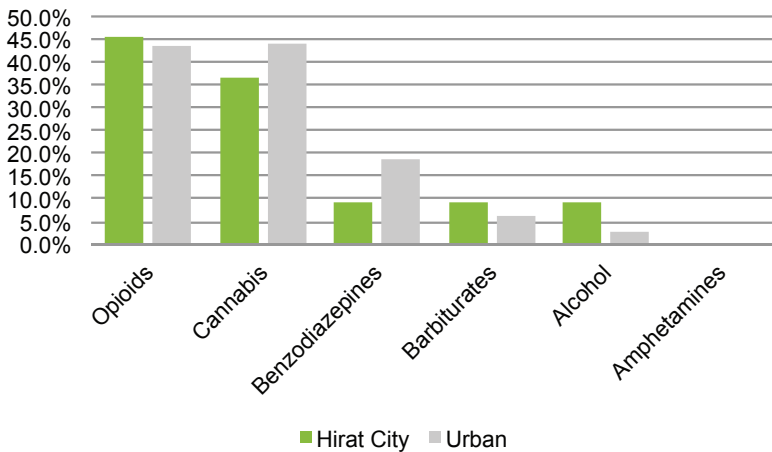


Figure 6.103. Types of drugs used by Hirat City men users.

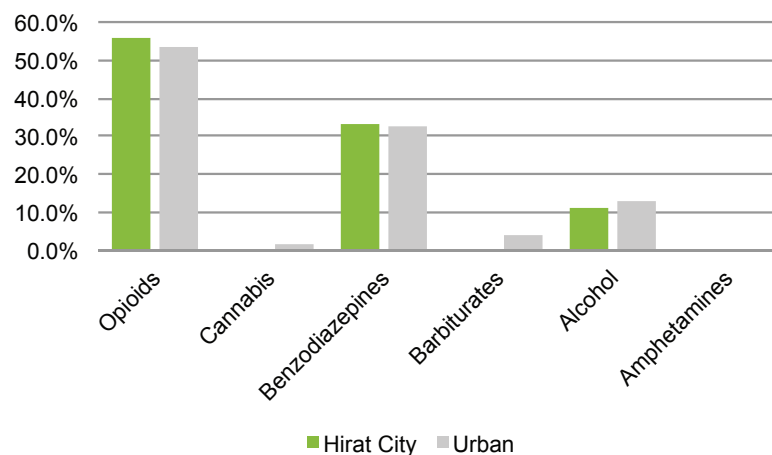


Figure 6.104. Types of drugs used by Hirat City women users.

nationally among urban adult female drug users.

The drug most often detected among households was opioids at a rate of 7%, followed by benzodiazepines and cannabis, each at 4%. Barbiturates were detected in approximately 1% of households and alcohol in 3%.

The any drug positive test rate among adults was approximately 13%. Drugs were detected in males at a rate nearly twice that of women: 16% versus 9%. Approximately 2% of children tested positive for any drug.

Among adult drug users, 49% use opioids, 23% use cannabis, 18% use benzodiazepines, 6% use barbiturates, and 10% use alcohol.

Opioids were detected in approximately 7% of households, 4% of the population and 6% of adults (7% of men and 5% of women). Opioids were detected in 46% of male adult drug users and 56% of female adult drug users.

Adult males primarily use heroin and opium, although some tested positive for codeine use. Adult females tested positive primarily for codeine use, with one woman (approximately 1%) testing positive for heroin. One child tested positive for opioids. The average hair, saliva, and urine opioid concentrations for Hirat City are presented in the Appendix.

Cannabis was detected in approximately 4% of house-

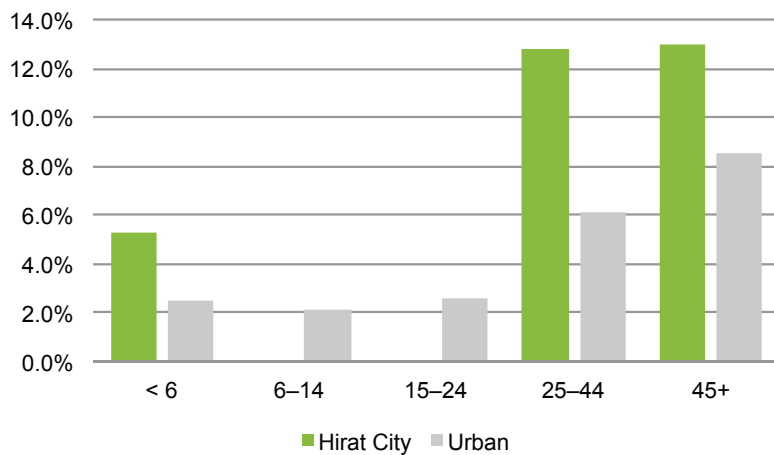


Figure 6.105. Hirat City rates by age group.

holds, 2% of the population, and 3% of adults. Cannabis was detected only in men. Approximately 36% of adult male drug users use cannabis.

Benzodiazepines were detected in approximately 4% of households, 1% of the population and 2% of adults (3% of females and 1% of males). Benzodiazepines are used by 18% of adult drug users: 33% of females and 9% of males.

Barbiturates were detected in 1% of households, in less than 1% of the population, and in 1% of adults. Barbiturates are used by approximately 1% of the adult male population and by 9% of adult male drug users. No female adults or children tested positive for barbiturates.

Alcohol was detected in 3% of households, 1% of the population, and 1% of adults. Alcohol was detected in 9% of male drug users and 11% of female drug users. However, it's important to note that only one man and one woman tested positive for alcohol. Alcohol was also de-

tected in a child under the age of six years of age, representing approximately 1% of children tested. This is the only child who tested positive for alcohol in all 11 provincial capitals.

Alcoholic beverages are believed to be the source of the detected alcohol. A *Global Post* story first published in June 2009 reported that wine is easy to find in Hirat City. Because codeine use is somewhat prevalent in Hirat City,

inquiries were made to see if the alcohol found in codeine-based medications could be a source of the alcohol drug-positive tests. While readily available with or without a prescription in Afghanistan, most codeine-based medications are not known to contain alcohol. Information obtained from a pharmacist working at the Shar Amanullah Ghasi hospital in Kabul indicates that a few pharmaceuticals sold in Afghanistan do contain alcohol, but only in small amounts. It is possible, that medication could be a source of alcohol detected in the survey.

The rates among those 25–44 years old, as well as those 45 years and older, are similar at approximately 13% (Figure 6.105). No drugs were detected among those 15–24 years old. Drugs were detected in two children, both under age six: alcohol in one and opioids in the other.

6.3.6.7.2 Survey Results—Rural

No rural survey was conducted in Hirat.

6.4.3 GHOR PROVINCE

6.4.3.1 GEOGRAPHY

Ghor is in central Afghanistan and borders the provinces of Sar-e Pul and Faryab to the north, Hirat and Badghis to the west, Helmand and Farah to the south, and Bamyan and Diakundi to the east. Approximately 92% of the province is mountainous or semi-mountainous. Only 5% is made up of flat land.

The capital of Ghor province is Chagcharan. There are 10 districts and approximately 2,172 villages in Ghor.

6.4.3.2 DEMOGRAPHICS

The population of the province is approximately 668,000. There are approximately 133,900 people living in Chagcharan, the provincial center, but only 6,700 people living in its urban center. Approximately 661,300 people, or 99% of Ghor's population, live in rural areas of the province. Most of the villages have a population of fewer than 200.

The ethnic groups in Ghor include Tajik, Hazara, Aimak, Uzbek, and Pashtun. Dari is spoken by 97% of the population and in 73% of villages. Pashtu, the second most common language, is spoken by 2% of people and in about 57 villages.

The literacy rate in Ghor is 19%: 28% for men and 8% for women. Approximately 28% of children are enrolled in school: 35% of boys and 18% of girls.

6.4.3.3 ECONOMY

Agriculture is the major source of income for 56% of households, including 60% of rural households. Approximately 60% of rural households own or manage agricultural land or garden plots. The main commodities are wheat, corn, maize, sugar, and tobacco. About 40% of households earn income through non-



farm labor. Two percent of the population reportedly derive income from opium. Most of the villages produce rugs, carpets, shawls, and/or jewelry.

6.4.3.4 INFRASTRUCTURE

Approximately 72% of households have access to water in their community, but only 14% of the households have access to safe drinking water. Twenty-four percent of households have to travel up to one hour to obtain water, and 4% have to travel between one and six hours to obtain their water.

Overall, 3% of households have access to electricity provided by public sources.

Accessibility to electricity is slightly better in rural areas, where 4% of households have access to electricity, including 2% from public sources.

6.4.3.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center in Ghor. The center does not provide outpatient treatment services, but does provide home-based, outreach, community-based, and aftercare services for adult males. The center also serves as a shelter. The Ministry of Public Health (MoPH) supports the center and pro-

vides its services. No village-based services are available in Ghor.

A list of all substance-abuse treatment services and further detail on the center in Ghor and on each of the centers in Afghanistan is included in the Appendix.

6.4.3.6 POPPY CULTIVATION

Ghor was poppy free until 2012. In 2013, opium cultivation increased by 111% with very little eradication being carried out in the province. While the amount of cultivation is not significant, poppy cultivation could continue to increase in the province.

6.4.3.7 SURVEY RESULTS

6.4.3.7.1 Survey Results—Urban

No urban survey was conducted in Ghor.

6.4.3.7.2 Survey Results—Rural

Samples were collected from 414 people and 35 rural households in four randomly selected villages: two in the rural area of Chagcharan district and two in Lal Wa Sarjangan district. Household and population rates for any drug-positive results, by village, are presented at the end of this section.

Table 6.30 presents both the household and population rates by drug class for Ghor. Figure 6.106 presents Ghor household rates by drug class, and Figure 6.107 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to Ghor. Figure 6.108 presents the Ghor adult, male, female, and child rates. Figure 6.109 presents and compares the types

of drugs and their rates among rural Ghor male adult drug users and national rural male drug users. Figure 6.110 presents and compares the types of drugs

Drug Class	Household	Population
Any	85.7%	49.1%
Opioids	85.7%	49.1%
Cannabis	0.0%	0.0%
Benzodiazepines	0.0%	0.0%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

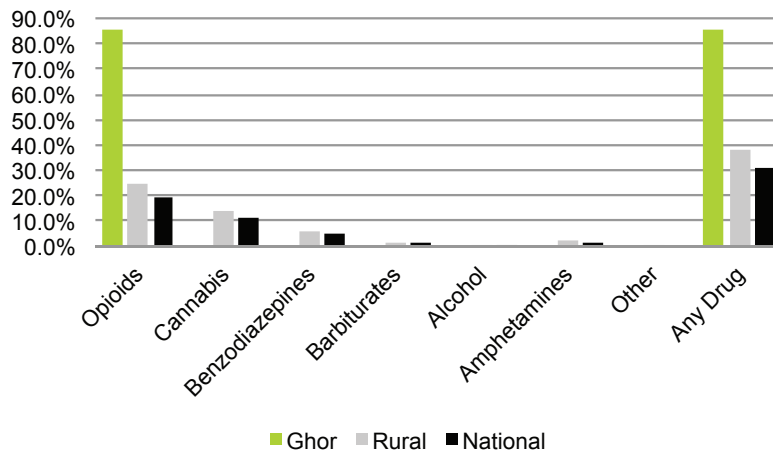


Figure 6.106. Rural Ghor household rates.

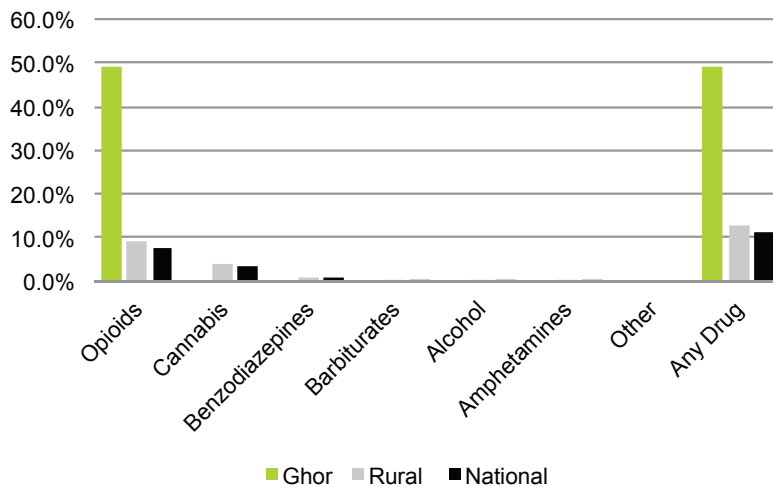


Figure 6.107. Rural Ghor population rates.

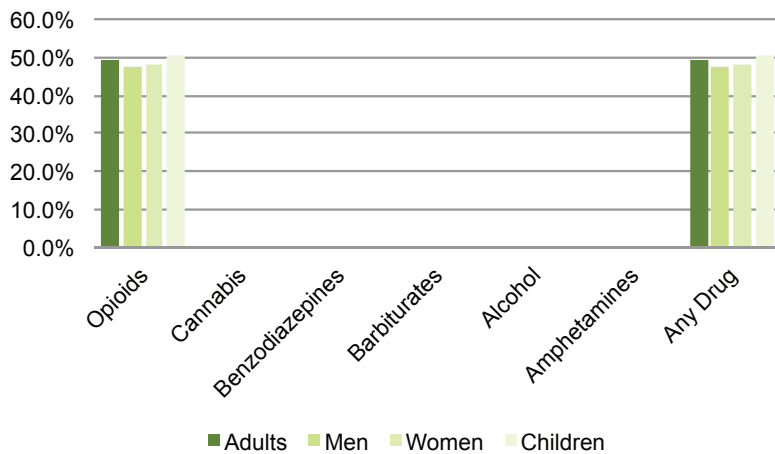


Figure 6.108. Rural Ghor adult and child rates.

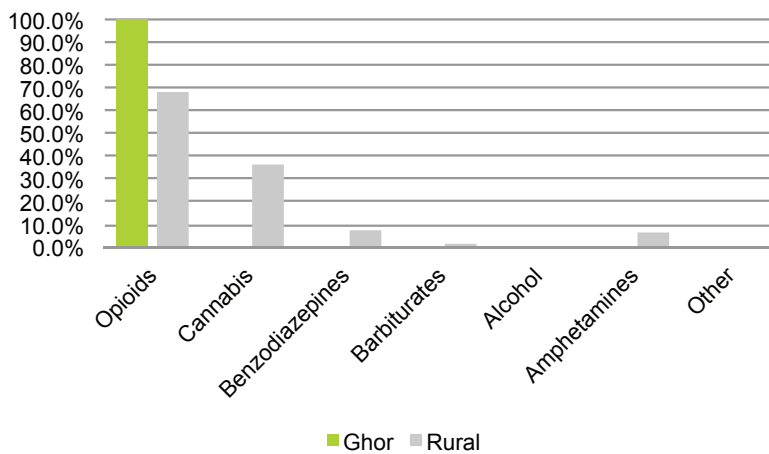


Figure 6.109. Types of drugs used by rural Ghor men users.

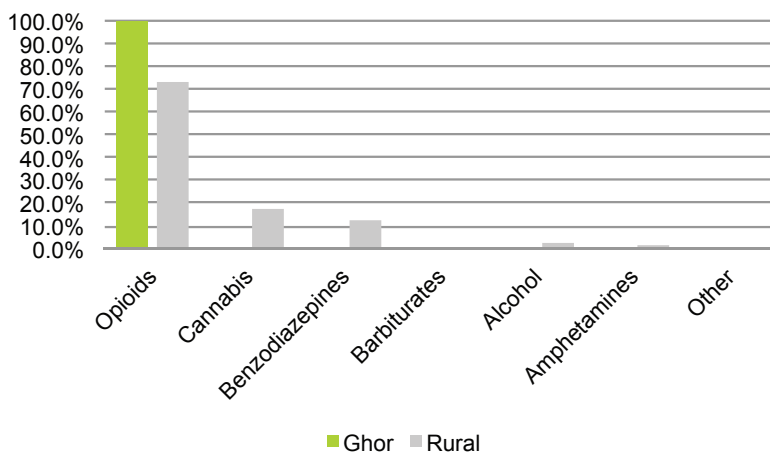


Figure 6.110. Types of drugs used by rural Ghor women users.

used by female adult drug users in rural Ghor and nationally among rural adult female drug users.

Approximately 86% of households, 49% of the population, and 48% of adults were found to be drug-positive—all only for opioids. Approximately 51% of children also tested drug-positive, again only for opioids. These rates were the highest among all of the 15 provinces surveyed.

Opioids were detected in 48% of men and 48% of women. The rates for men and women are more than four times their respective national rural rates.

Approximately 51% of children tested positive for opioids. This rate is over six times higher than the national rural rate for children. Sixteen, or 16%, of the children that tested positive were one year old. Fifty-one, or 53%, of the children who tested positive were under the age of six.

Ninety-seven of the children tested were positive for opioids, almost all (96%) for opium. Hair was collected from all 97 of these children. Saliva was also collected from 58 and urine from 44. All but one tested positive in hair, and that one child (aged four years old) tested positive only in saliva. Two other children tested positive for opioids in hair and saliva: one aged five and the other aged seven. No opioids were detected in these children's urine.

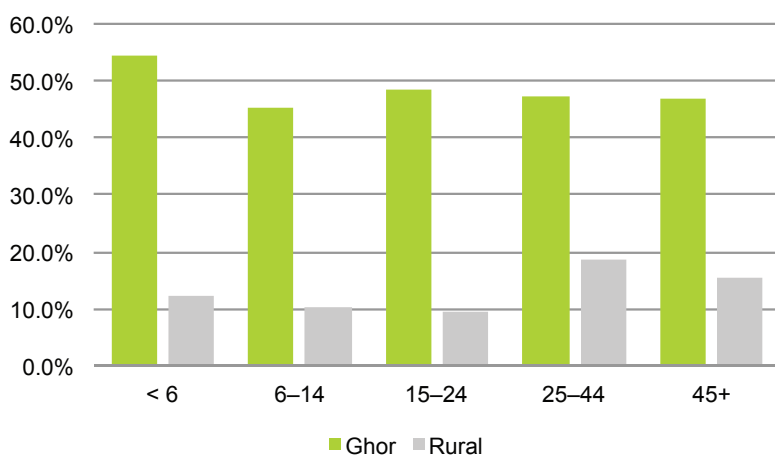


Figure 6.111. Rural Ghor rates by age group.

The data suggest that the majority of these children, especially those who are under the age of six years, and some, if not most, of the children who are between the ages of six and 14 years old are not users. A significant percentage of adults in Ghor, both male and female, use opioids. Adult drug use appears to be exposing a significant number of children in Ghor to second- and third-hand opioid smoke.

The levels of codeine and morphine in the hair of several children are at levels similar to what was found among adult users. For example, a one-year-old child had codeine in his hair samples at 932 pg/mg, as well as morphine at 2,126 pg/mg. A two-year-old child had 4,316 pg/mg of codeine and 9,958 pg/mg of morphine in her hair. In comparison, a 35-year-old man living in the same household as the two-year-old child had 1,482 pg/mg of codeine and 3,004 pg/mg of morphine in his hair.

Among male opioid users, heroin is used by approximately 2%, opium by 85%, codeine by 9%, and for 4%, the type of opioid used could not be determined. Among female opioid users, 86% use opium, 12% use codeine, and for approximately 2%, the type of opioid used could not be determined. The average hair,

saliva, and urine opioid concentrations for Ghor are presented in the Appendix.

Figure 6.111 presents the results by the following age groups: < 6 years of age, 6-14 years, 15-24 years, 25-44 years, and 45 years and older.

Drugs are used by all adult age groups, and the rates among each group are similar: 49% for those 15-24 years old, 47% for those 25-44 years old, and 47% for those aged 45 years and older. The rate for each age group is the highest among the 15

provinces surveyed.

The rates for each of the age groups are similar between males and females, except that the highest rate among males is in the 15-24 year old age group. Among drug-positive females, both age groups of 25-44 years old and 45 years and older are the same.

The combined male and female rates among children are slightly lower among those 6-14 years old than those < 6 years old. Separately, the rate among males < 6 years old is significantly higher than males 6-14 years old, while the female rates for these two age groups are similar. Regardless of age groups, the positive rates among children in this province are alarming.

Table 6.31 presents the approximate household, population, adult, male, female, and child rates for each of the four Ghor villages surveyed. These rates are based on any drug-positive test; in Ghor, only opioids were detected. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

The household rates for Villages #49, #50, and #51 were the highest among all 52 villages. Villages #50 and #51 have the highest population, adult, male, female, and child rates of all 52 villages,

and Village #51 has the very highest rates. The rates for all of the categories for Village #51 are remarkable, including alarmingly high rates among children.

Table 6.31. Ghor Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#48	Chagcharan	60%	21%	15%	18%	13%	27%
#49	Chagcharan	91%	36%	31%	47%	19%	41%
#50	Lal Wa Sarjangan	100%	54%	54%	57%	52%	55%
#51	Lal Wa Sarjangan	100%	87%	79%	59%	94%	95%



Rural man providing a saliva sample.

6.4.4 NIMROZ PROVINCE

6.4.4.1 GEOGRAPHY

Nimroz province is in the southwest of Afghanistan and is bordered by the provinces of Farah to the north and Helmand to the east as well as by the countries of Pakistan to the south and Iran to the west. Approximately 95% of the province is flat, and it is mostly a desert.

Zaranj is the provincial capital. There are six districts and approximately 649 villages in Nimroz. Before 2013, one of the six districts, Dilaram, was part of Farah province.

6.4.4.2 DEMOGRAPHICS

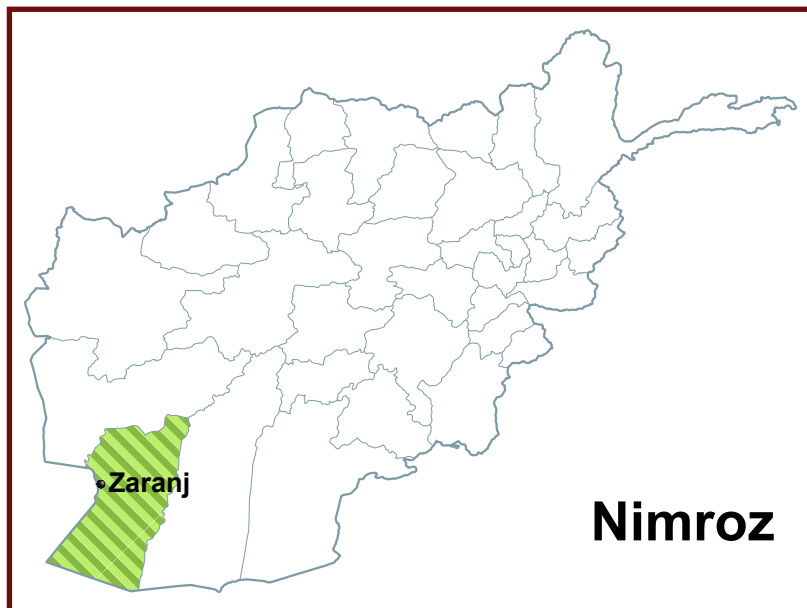
Nimroz is the second most sparsely populated province in Afghanistan, with an estimated population of 159,300. The population of the provincial capital Zaranj is estimated at 56,000 people, with approximately 25,400 living in the urban center. Approximately 133,900 people, or 84% of the population, reside in rural areas.

The major ethnic groups in the province are Baluchi, Pashtun, and Tajik. Others include Hazara and Uzbek. Baluchi is spoken by approximately 61% of the population and in 83% of the villages. Pashtu is spoken by 27% of the population and in 39 villages, followed by Dari and Uzbeki, each spoken by approximately 10% of the population.

The literacy rate is 22%: 30% for men and 11% for women. About 33% of children are enrolled in school: 39% of boys and 26% of girls.

6.4.4.3 ECONOMY

Zaranj serves as the border crossing between Afghanistan and Iran, which is of significant importance to the trade route



between South Asia and the Middle East. As a result, most people in Zaranj and many in Nimroz work in trade, particularly with Iran, and many are laborers.

Some households in the province raise crops and livestock, although only 14% of households earn income from agriculture (16% of rural households). Wheat, corn, and melon are the primary crops. Only about 16% of households (19% rural) manage or own agricultural lands or garden plots. Carpets, rugs, and jewelry are produced in a few villages in Nimroz.

6.4.4.4 INFRASTRUCTURE

Water access is good as almost all households in the province have access to water in their community, but only 38% have access to safe drinking water.

Thirty-two percent of the population has access to electricity, while access in the rural areas is surprisingly better at 38% and one-third of the electricity is public.

Roads are well-developed in Nimroz with 61% travelable throughout the year and 31% during some periods. There are still no roads in about 7% of the province.

6.4.4.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient center in Nimroz, which also provides outreach, community-based, and after-care services and serves as a shelter. The Ministry of Public Health (MoPH) supports and provides services for the inpatient center. There is also one outpatient center, which provides outreach, community-based, and after-care services. The INL and Colombo plan supports the outpatient center and its outreach services, and SHRO provides its services. The inpatient center treats adult males, adult females, and children. The outpatient/outreach center treats adult males and adult females. No village-based services are provided in Nimroz.

A list of all substance-abuse treatment services, as well as further detail on the two centers in Nimroz and on each of the centers in Afghanistan, is included in the Appendix.

6.4.4.6 POPPY CULTIVATION

Historically, cultivation of poppies in Nimroz had not been significant, but this changed in 2013. This was due in part to administrative boundary changes. The 2013 estimates for Nimroz include Dilaram district, which was previously part of Farah province. Dilaram district had been the main cultivating district in Farah, but the 2013 estimate now includes poppy cultivation from that district as part of Nimroz.

6.4.4.7 SURVEY RESULTS

Nimroz is one of two provinces in which both the provincial capital and rural villages were surveyed. Two

villages in Chakhansur district and two villages in Kang district were surveyed.

Table 6.32. Zaranj Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	28.0%	13.1%
Opioids	22.0%	10.0%
Cannabis	2.0%	1.0%
Benzodiazepines	2.0%	1.0%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	2.0%	1.0%

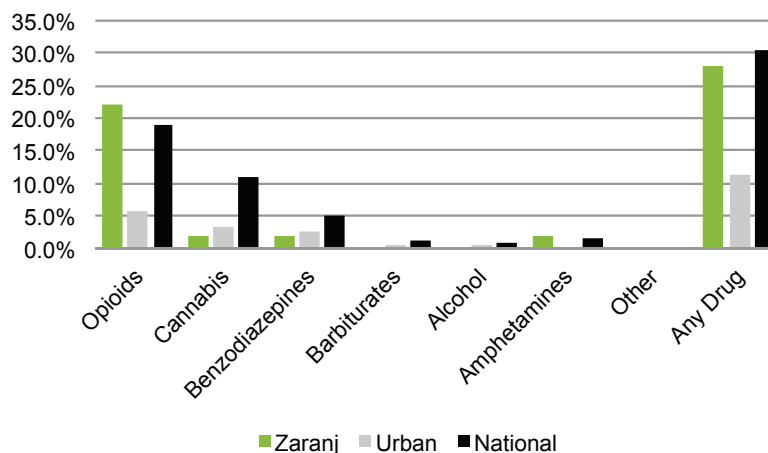


Figure 6.112. Zaranj household rates.

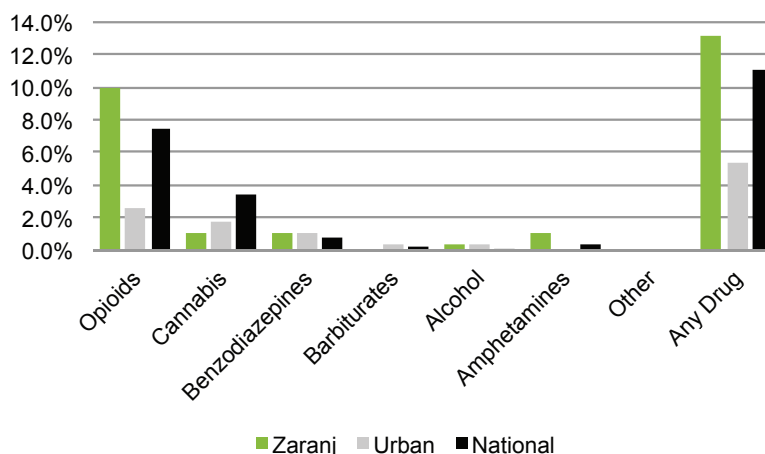


Figure 6.113. Zaranj population rates.

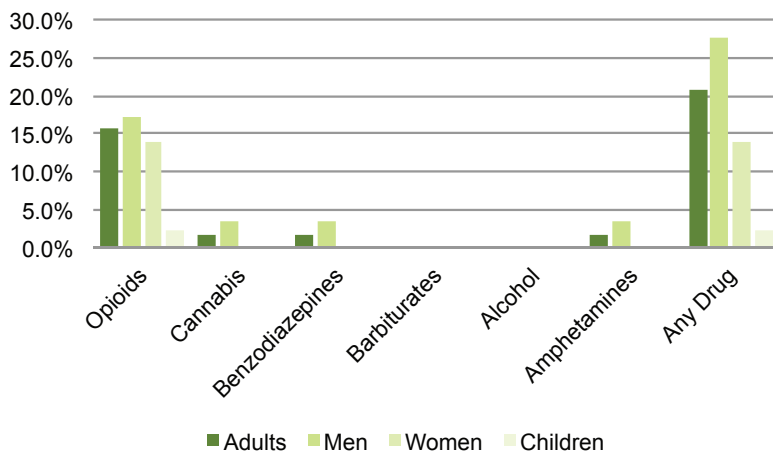


Figure 6.114. Zaranj adult and child rates.

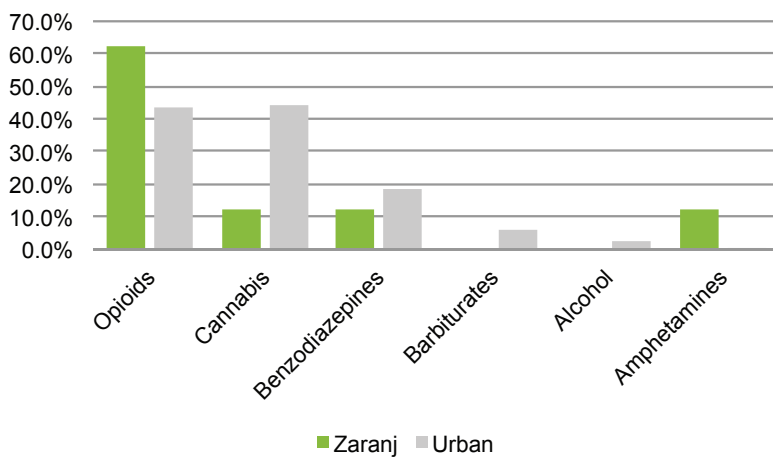


Figure 6.115. Types of drugs used by Zaranj men users.

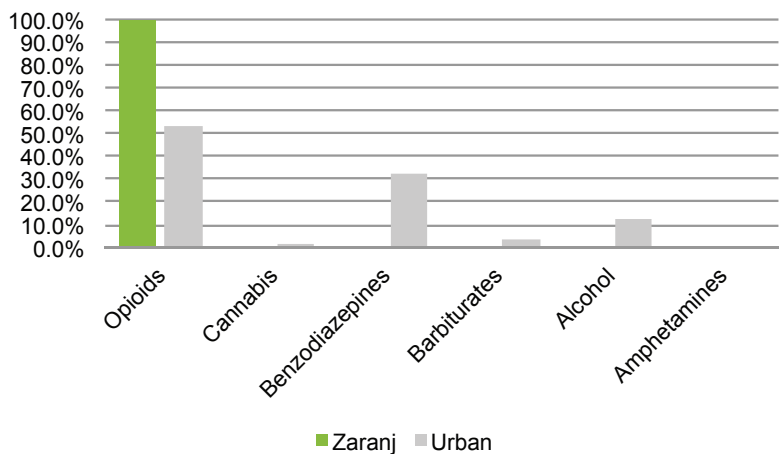


Figure 6.116. Types of drugs used by Zaranj women users.

6.4.4.7.1 SURVEY RESULTS— URBAN

Samples were collected from 125 residents and 50 households.

Table 6.32 presents both the household and population rates by drug class for Zaranj. Figure 6.112 presents Zaranj household rates by drug class, and Figure 6.113 presents the Zaranj population rates by drug class. Both figures include the national and urban rates for comparison to rates in Zaranj. Figure 6.114 presents the Zaranj adult, male, female, and child rates. Figure 6.115 presents the types of drugs and their rates among Zaranj male adult drug users and compares them to national urban adult male drug users. Figure 6.116 presents and compares the types of drugs used by female adult drug users in Zaranj and nationally among urban adult female drug users.

Approximately 28% of households, 13% of the population, and 21% of adults tested positive for one or more drugs. Zaranj had the highest rates among the 11 provincial capitals tested, mostly due to the high rates of opioid use.

Opioids were detected in approximately 22% of households, 10% of the population, and 16% of adults. The rates for amphetamines, benzodiazepines, and cannabis were all similar to each other at approximately 2% of households, 1% of the population, and 2% of adults.

Drugs were detected in nearly

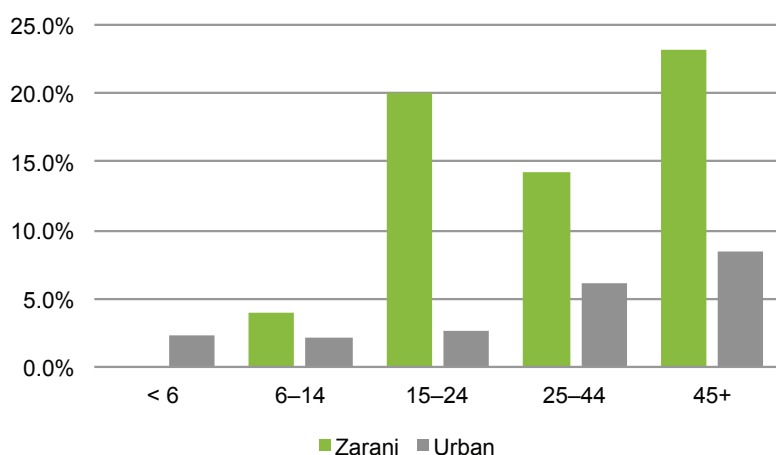


Figure 6.117. Zaranj rates by age group.

twice as many men as women, 28% versus 14%. Approximately 2% of children tested positive for drugs, all only for opioids. Adult males tested positive for amphetamine-type stimulants, benzodiazepines, cannabis, and opioids, while adult females tested positive only for opioids. Among adult drug users, 75% tested positive for opioids, 8% for benzodiazepines, 8% for cannabis, and 8% for amphetamines. Again, adult female drug users only tested positive for opioids.

Household, population, and adult opioid rates were the highest among the provincial capitals surveyed. Opioids were detected in 17% of men and 14% of women. Among adult drug users, approximately 63% of men and 100% of women tested positive for opioids. Heroin was used by approximately 40% of the adult male opioid users, opium by 40%, and codeine by 20%. Approximately 71% of adult female opioid users used codeine, 14% used opium, and 14% used heroin.

The average hair, saliva, and urine opioid concentrations for Zaranj are presented in the Appendix. The results are listed by hair, saliva, and urine tests from the men, women, and children who tested positive for opioids. Cannabis was detected in approximately 2% of households, 1% of the

population, and 2% of adults. Cannabis was only detected in adult males, at a rate of approximately 3%. About 13% of adult male drug users use cannabis.

Benzodiazepines were detected in approximately 2% of households, 1% of the population, and 2% of adults. Benzodiazepines were detected in approximately 13% of adult male drug users. No benzodiazepines were detected in women or children.

Zaranj is one of three provincial capitals in which no benzodiazepines were detected in adult females.

Amphetamine-type stimulants were detected in 2% of households, 1% of the population, and 2% of adults. Amphetamine-type stimulants were detected in approximately 13% of adult male drug users. Zaranj is one of only two provincial capitals (the other was Farah City) in which amphetamine-type stimulants in the form of methamphetamine were detected.

The highest rate of drug use by age in Zaranj was among those aged 45 years and older, followed by young adults aged 15-24 (Figure 6.117).

6.4.4.7.2 SURVEY RESULTS—RURAL

Samples were collected from 418 residents and 48 rural households in four randomly selected villages of Nimroz: two in Chakhansur District and two in Kang District. Household and population rates for any drug positive test result by village are presented at the end of this section.

Table 6.33 presents both the household and population rates by drug class for rural Nimroz. Figure 6.118 presents the household rates by drug class, and Figure 6.119 presents the population rates by drug class. Both figures include the nationwide rural and national rates for

comparison to rural Nimroz. Figure 6.120 presents the rural Nimroz adult, male, female, and child rates. Figure 6.121 presents and compares the types of drugs and their rates among rural

Drug Class	Household	Population
Any	47.9%	16.4%
Opioids	45.8%	15.2%
Cannabis	16.7%	2.9%
Benzodiazepines	18.8%	2.5%
Barbiturates	0.0%	0.0%
Alcohol	0.0%	0.0%
Amphetamines	6.3%	1.2%

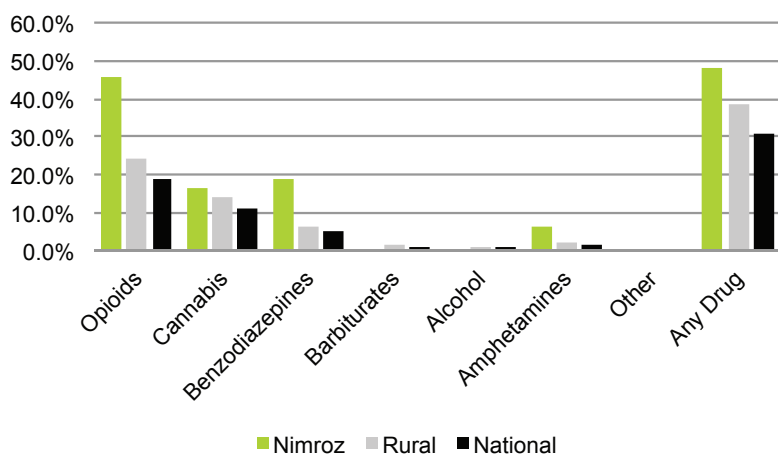


Figure 6.118. Rural Nimroz household rates.

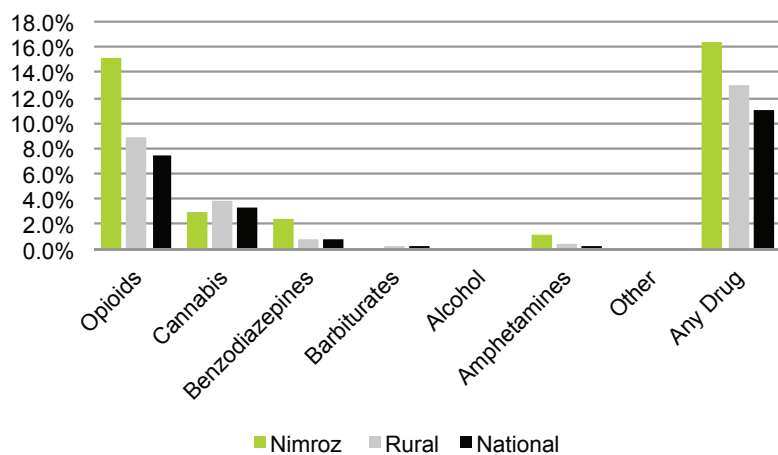


Figure 6.119. Rural Nimroz population rates.

Nimroz male adult drug users and national rural adult male drug users. Figure 6.122 presents and compares the types of drugs used by female adult drug users in rural Nimroz and nationally among rural adult female drug users.

Nimroz has one of the higher rural household and population rates among the 15 provinces surveyed: approximately 48% of households, 16% of the population, 22% of adults and 10% of children tested positive for one or more drugs.

The rate for any drug use among adult males was twice that of adult females: approximately 31% versus 14%.

Among adult drug users, 90% tested positive for opioids, 20% for benzodiazepines, 18% for cannabis, and 8% for amphetamine-type stimulants.

Opioids were detected more frequently than any other drug, in approximately 46% of households, 15% of the population, and 19% of adults. Approximately 10% of children tested positive, principally for opioids, also at 10%.

Among adult male drug users, 91% tested positive for opioids: 24% for heroin, 41% for opium, and 28% for codeine. The type of opioid could not be classified for about 7% of the opioid-positive males. Among adult female drug users, 89% use opioids: 13% use opium, 25% use heroin, and 50% use codeine. For about 13% of opioid-positive adult women, the type of opioid could not be classified.

The average concentrations of opioids found in Nimroz villages are listed in the Ap-

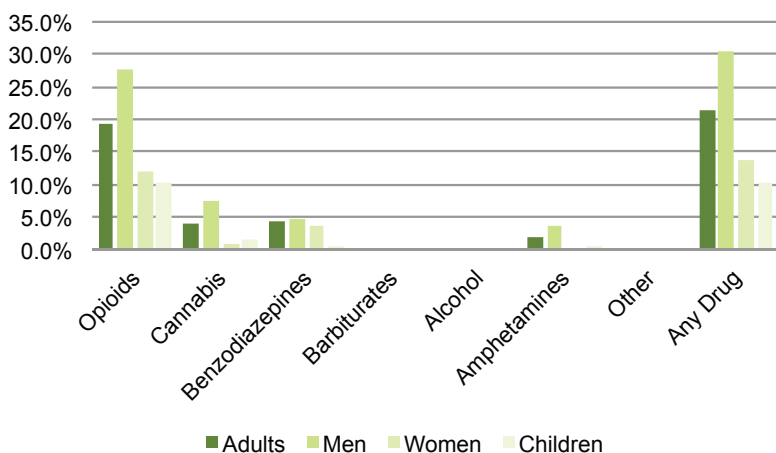


Figure 6.120. Rural Nimroz adult and child rates.

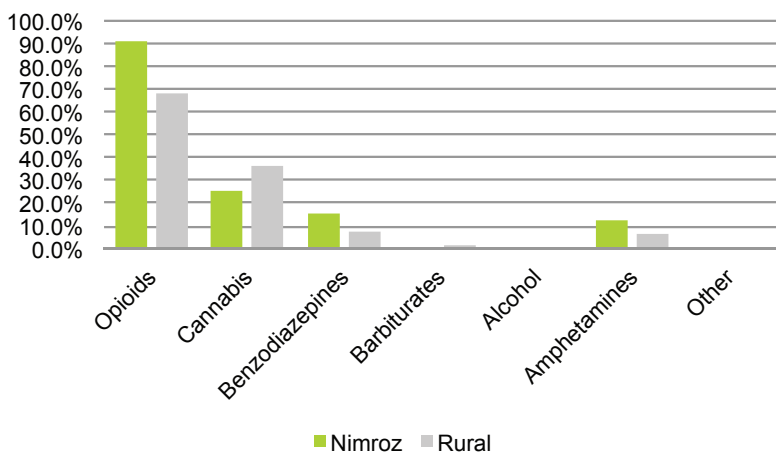


Figure 6.121. Types of drugs used by rural Nimroz men users.

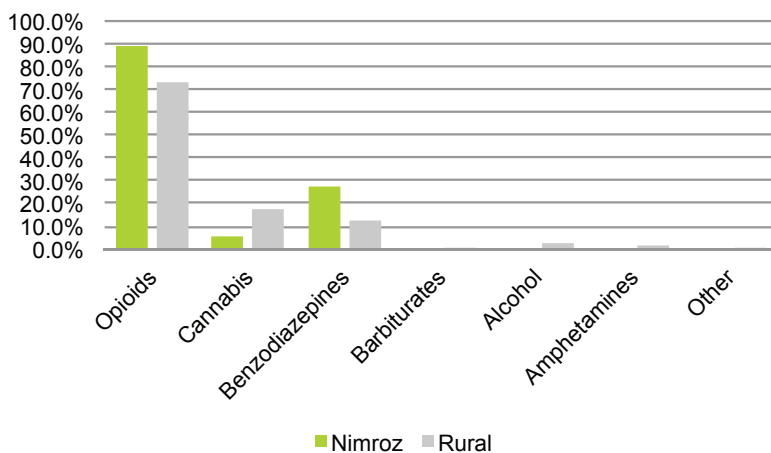


Figure 6.122. Types of drugs used by rural Nimroz women users.

pendix. The results are listed by hair, saliva, and urine for the men, women, and children who tested positive for opioids.

Cannabis was detected in approximately 17% of households, 3% of the population, and 4% of adults: 8% of men and 1% of women. Among adult male drug users, 25% tested positive for cannabis.

Benzodiazepines were detected in approximately 19% of households, 3% of the population, and 4% of adults. The household rate was the highest of the 15 provinces surveyed. Approximately 1% of children tested positive for benzodiazepines. Among adult drug users, approximately 16% of males and 28% of females tested positive for benzodiazepines.

No barbiturates or alcohol were detected in rural Nimroz. Approximately 6% of households, 1% of the population and 2% of adults tested positive for amphetamine-type stimulants. The household rate was the second-highest of the 15 provinces surveyed.

Amphetamine-type stimulants were detected in approximately 13% of adult male drug users. No adult females tested positive. One child tested positive for amphetamine-type stimulants in hair. Nimroz's proximity to Iran, where significant amounts of amphetamine-type stimulants are produced and used, may be one of the reasons why this drug is found in Nimroz and the West region.

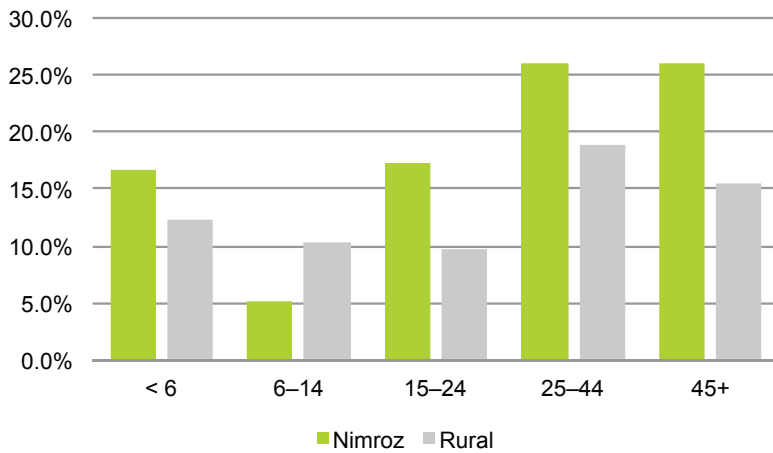


Figure 6.123. Rural Nimroz rates by age group.

Drugs were detected in all adult age groups, with the highest rate detected among those aged 45 years and older. This rate was not significantly higher than that of those aged 25–44 years (Figure 6.123). Among adults, rates were the same for those aged 25–44 years and those aged 45 years and older. Among adult men, the highest rate was found among those aged 25–44, and among adult women, the highest rate was among those aged 15–24 years. Rates for children younger than six years old were higher than rates for children aged 6–14 years.

Table 6.34 presents the approximate household, population, adult, adult male,

adult female, and child rates for the four Nimroz villages surveyed. These rates are on the basis of any drug positive. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

The adult male and the child rates for amphetamine-type stimulants in Village #38 were the highest among the villages surveyed. Village #40 any-drug positive rates were higher than most of the 52 villages surveyed. Village #40 had the highest rural benzodiazepine rate for adult males (15%) and one of the higher rates for adult females out of the 52 villages surveyed. In Village #41, the only drug detected in adult females was benzodiazepines, at a rate of 6%. This was one of the higher benzodiazepine rates for women among the 52 villages surveyed. Village #41 is also one of only eight villages out of 52 villages surveyed that no drugs were detected in children.

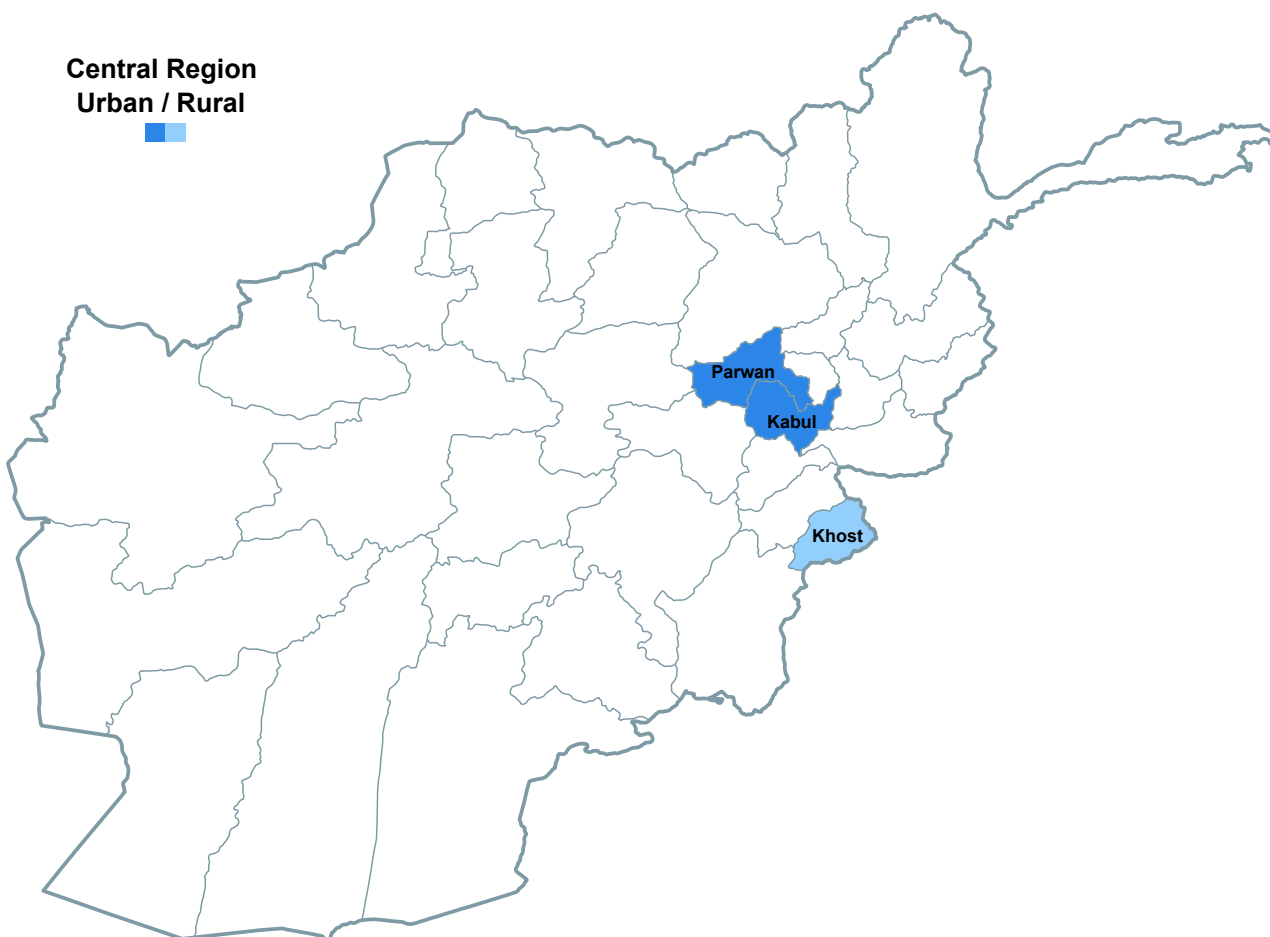
Table 6.34. Nimroz Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#38	Chaqansnoor	42%	12%	14%	23%	5%	9%
#39	Chaqansnoor	42%	12%	17%	14%	19%	6%
#40	Kang	71%	34%	39%	54%	26%	29%
#41	Kang	30%	10%	18%	32%	6%	—

6.5 CENTRAL REGION

Surveys conducted in the Central region include the provinces of Kabul, Khost and Parwan. Results for Kabul City, the capital of Afghanistan; Charikar, the cap-

ital of Parwan; and for the rural part of Khost are presented in this section. The results of the expanded study in Kabul City are also presented in the section on Kabul and Kabul City.



Province	Total Population	Urban Population	Rural Population
Kabul	4,086,500	3,435,000	651,500
Khost	556,000	11,200	544,800
Parwan	642,300	56,800	585,500

CSO 2013–2014 population estimates.

6.5.1 KABUL PROVINCE

6.5.1.1 GEOGRAPHY

Kabul province is located in central Afghanistan and bordered by Parwan province to the northwest, Kapisa to the northeast, Laghman to the east, Nangarhar to the southeast, Logar to the south, and Wardak to the southwest. Approximately 56% of the province is mountainous or semi-mountainous and about 38% is flat land.

The capital of the province and the country is Kabul City. It is situated in a valley surrounded by high mountains at the crossroads of the north-south and east-west trade routes. There are 15 districts in Kabul province and approximately 768 villages.

6.5.1.2 DEMOGRAPHICS

Kabul City is the largest and most populated city in Afghanistan with an estimated population of 3,414,100. Kabul is estimated to be the 64th largest city and the fifth fastest growing city in the world. The only other urban center in Kabul province is Paghman, which has an estimated population of 20,900. The total population of Kabul province is 4,086,500. Only 651,500, or 16%, of people live in rural areas of the province.

Kabul is a multiethnic, multicultural, and multilingual city. There are conflicting reports as to which ethnic group represents the majority of the population, but Pashuns and Tajiks together make up about 80% of the population, in nearly equal percentages. The only other prominent ethnic group is Hazara, comprising approximately 15% of the population. Other ethnic groups include Uzbek, Baloch, Turkmen, and Hindi. About 60% of the population speaks Pashtu, while Dari is spoken by about 40% of people. Pashai is spoken in a small number of villages.



The overall literacy rate in the Kabul province is 58%: 66% for men and 48% for women. On average, 46% of children are enrolled in school: 48% of boys and 44% of girls. The province has a number of higher education facilities, including four main universities: Kabul University, Kabul Polytechnic University, Kabul Medical University, and the Education University. There are also a number of private universities and vocational schools.

6.5.1.3 ECONOMY

Kabul is Afghanistan's center of trade and commerce, especially in the urban center. It is also an agricultural province with production concentrated in the rural districts.

Approximately 53% of households, including 61% of urban households and 31% of rural households, earn income from trade and services. Around 27% earn some income from non-farm labor.

Agriculture is the major source of income for 11% of households: 41% of rural households but only 3% of urban households. About 52% of rural households own or manage agricultural land or garden plots in the province, and livestock accounts for some income for rural households.

Agricultural crops grown in the province include wheat, maize, barley, grapes, and other fruits and nuts. Industrial commodities produced in the province include cotton, sugar extracts, tobacco, and olives. Honey, silk, dried sugar, and the skin of karakul, a breed of domestic sheep, are also produced, but in small quantities.

Many of the villages in the province are engaged in handicrafts. Carpet is the most common handicraft. Rugs, jewelry, pottery, and shawls are also produced in the province.

6.5.1.4 INFRASTRUCTURE

Approximately 92% of households in Kabul province have access to water in their community, with 65% having access to safe drinking water: 71% of households in the urban area but only 41% in the rural parts of the province. About 7% of households must travel up to an hour to obtain safe drinking water, and 1% travel between one and three hours.

On average, 61% of households in the province have access to electricity, with the majority obtaining it from a public source. In the urban area, 71% have access to electricity, but only 29% of households in the rural areas of the province have electricity, with half of those households (14%) obtaining their electricity from public sources.

Roads are reasonably well developed in the province, with 68% of roads travelable throughout the year and 26% travelable during some periods. No roads exist in about 5% of the province.

6.5.1.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are a large number of substance-abuse treatment centers in Kabul, the most in

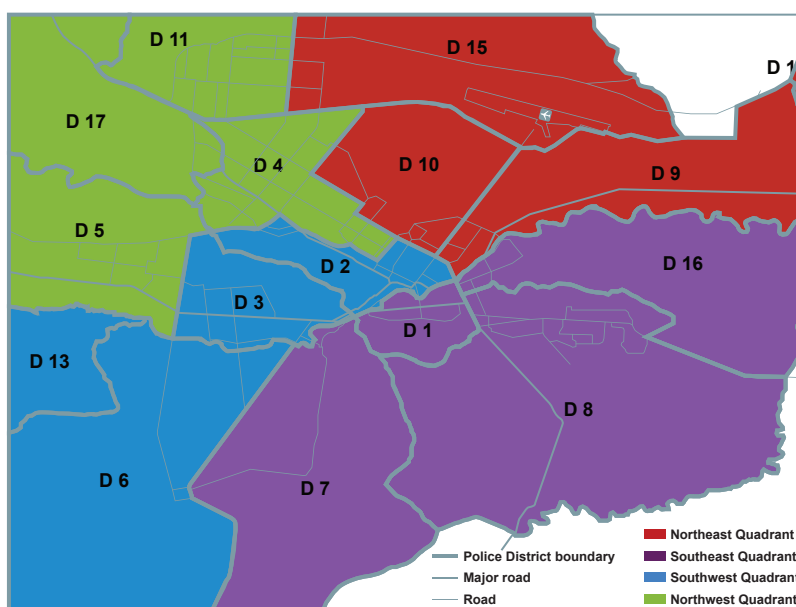
any province of Afghanistan. These centers are supported by a variety of organizations including INL, Colombo Plan, UNODC, Caritas Germany, the Norwegian Church, Japan, the World Bank, and the Ministry of Public Health (MoPH). A list of all substance-abuse treatment services, service providers, and types of services provided at each of the centers in Kabul and other provinces in Afghanistan is included in the Appendix.

6.5.1.6 POPPY CULTIVATION

Poppies are cultivated in Kabul. Although, historically, the province has not been poppy-free, the amount of poppies being cultivated in the province today is low. The amount of poppies cultivated in 2013 was the highest on record, increasing 148% over 2012, but the 2013 amount, 298 hectares, is still considered low relative to the major cultivation areas of Afghanistan.

6.5.1.7 SURVEY RESULTS

Kabul is largest urban city in Afghanistan, and for this reason, an expanded survey of the city was conducted. The results from Kabul are presented on a city-wide basis and then presented by quadrant.



The households were selected and surveyed by 16 police districts of the city. For confidentiality, survey results from the police districts are aggregated and presented by the Northeast, Northwest, Southwest, and Southeast quadrants of the city.

Drug Class	Household	Population
Any	11.1%	5.1%
Opioids	5.0%	2.3%
Cannabis	3.9%	1.9%
Benzodiazepines	2.4%	1.0%
Barbiturates	0.7%	0.3%
Alcohol	0.8%	0.2%
Amphetamines	0.0%	0.0%

No rural survey was conducted in Kabul.

6.5.1.7.1 Survey Results—Urban

Samples were collected from 3,225 people and 1,333 households in Kabul City. Approximately 11% of households, 5% of the population, and 7% of adults tested positive for one or more drugs. Of the adults, approximately 10% of men and 4% of women tested positive. Among adult drug users, 44% use opioids, 37% use cannabis, 23% use benzodiazepines, 6% use alcohol, and 5% use barbiturates.

Table 6.35 presents both the household and the population rates by drug class for Kabul City. Figure 6.124 presents the household rates by drug class, and Figure 6.125 presents the population rates

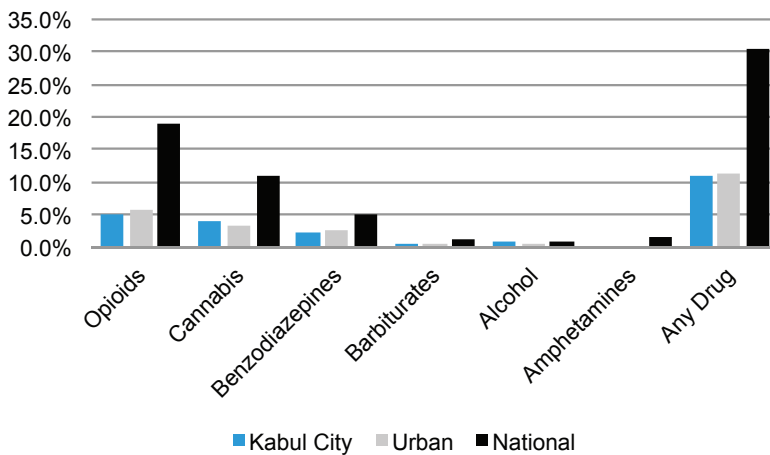


Figure 6.124. Kabul City household rates.

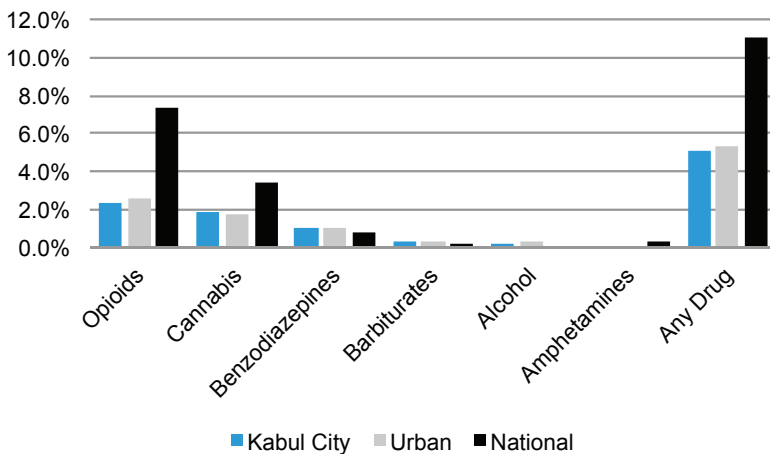


Figure 6.125. Kabul City population rates.

by drug class. Both figures include the nationwide urban and national rates for comparison to Kabul City. Figure 6.126 presents the Kabul City adult, male, female, and child rates. Figure 6.127 presents and compares the types of drugs and their rates among Kabul City male adult drug users and national urban male adult drug users. Figure 6.128 presents and compares the types of drugs used by adult female drug users in Kabul City and nationally among urban adult female drug users.

All of the drug classes except alcohol and amphetamine-type stimulants were detected in children. For comparison, children tested negative for drugs in four provincial capitals, for only opioids in four other capitals, and only barbiturates in one other capital. The only other capital, aside from Kabul City, with more than one type of

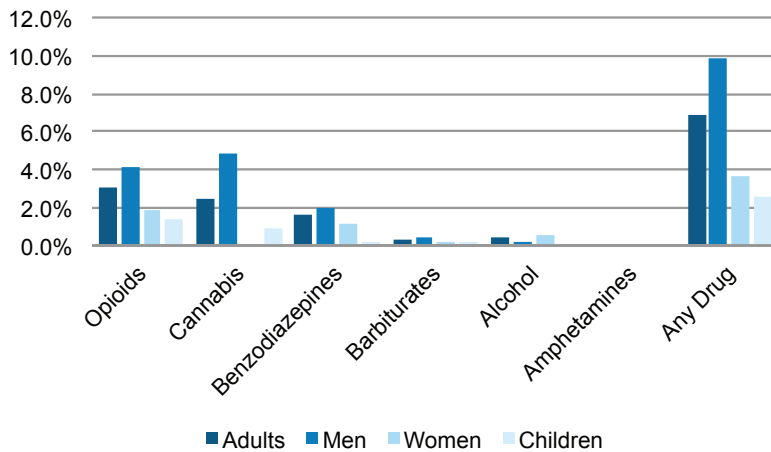


Figure 6.126. Kabul City adult and child rates.

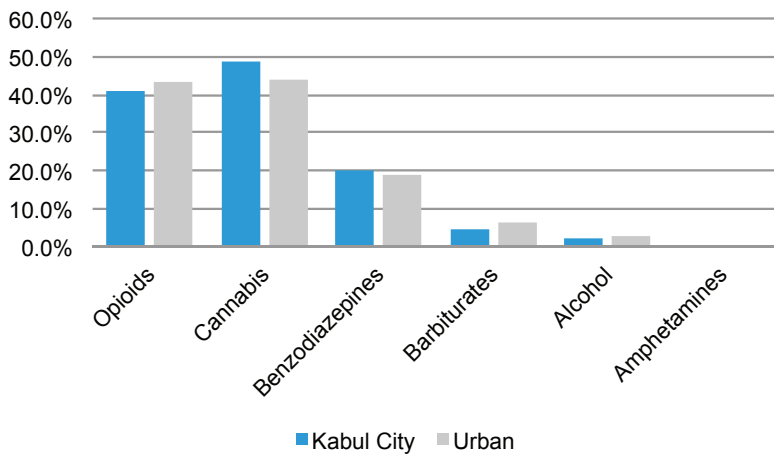


Figure 6.127. Types of drugs used by Kabul City men users.

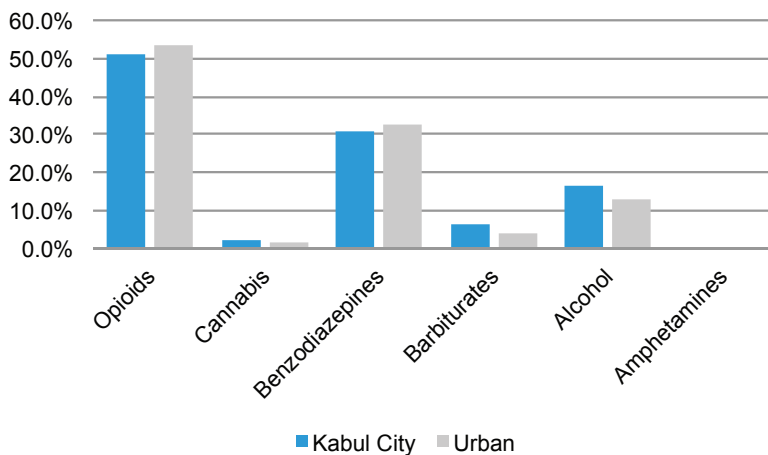


Figure 6.128. Types of drugs used by Kabul City women users.

drug detected in one or more children was Hirat, where alcohol and opioids were detected. Opioids and cannabis were each detected in approximately 1% of children in Kabul City. Barbiturates and benzodiazepines were detected in less than 1% of the Kabul City children tested.

Opioids were detected in 5% of households, 2% of the population, and 3% of adults. About half as many women as men use opioids: 4% of the male population and 2% of the female population tested positive. The average hair, saliva, and urine opioid concentrations for Kabul City are presented in the Appendix.

Opioids are used by approximately 51% of adult female drug users. Female adult opioid users primarily use codeine (56%), while 20% use opium. Heroin and pharmaceutical opioids are each used by approximately 12% of female adult drug users in Kabul.

Among adult male drug users, approximately 41% use opioids. Of those, about one-quarter of males (27%) use heroin, one-fifth (22%) use codeine, and approximately half (51%) use opium.

Fourteen children, or approximately 1% of those tested, in Kabul tested positive for opioids. Of those, about 36% tested positive for codeine, 36% for heroin and 29% for opium. Of the 14 positive tests, four (two for heroin and two for opium) were probably

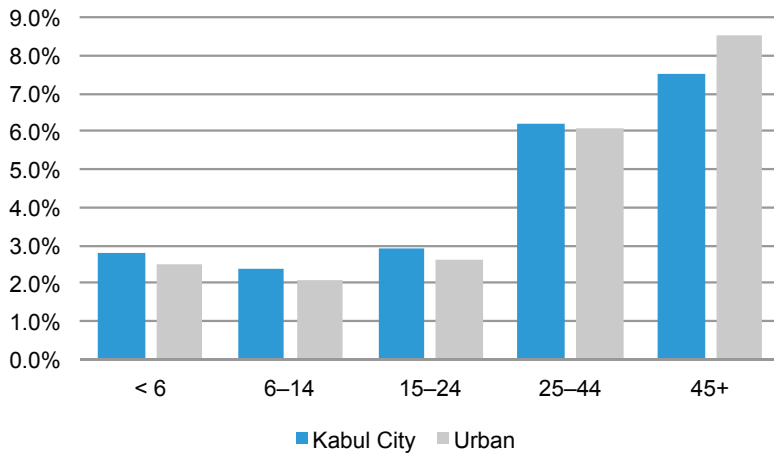


Figure 6.129. Kabul City rates by age group.

attributable to environmental exposure and nine (all five codeine positives, three heroin positives, and one opium positive) were likely administered opioids by an adult. Only one child, a 12-year-old female, is likely an opium user. This makes less than 1% of Kabul's child population active opioid users. The rest of children testing positive are affected by environmental exposure to opium/heroin smoke and/or are being given opioids by adults.

Cannabis was detected in approximately 4% of households, 2% of the population, and 3% of adults. 5% of men and less than 1% of women tested positive for cannabis. Kabul and Hirat had the highest household cannabis rates among the provincial capitals surveyed, approximately 4% in Kabul and 4% in Hirat. However, unlike Hirat, where all cannabis-positive tests were from adult males, Kabul was the only urban center in which cannabis was detected in women and children: in one woman and nine children.

Cannabis is used by 37% of adult drug users: 49% of male adult drug users and approximately 2% of female adult drug users. Cannabis is used by a greater percentage of male adult drug users than are opioids: 49% versus 41%. Even

though Kabul is the only urban center in which women tested positive for cannabis, the percentage of women using cannabis is minor.

While cannabis and opioids appear to be the drugs of choice among men, women prefer opioids. Children tested positive primarily for opioids and cannabis; just over one-third of the children who tested positive for any drug tested positive for cannabis.

The Kabul City drug-positive household and population rates for benzodiazepines and barbiturates are similar to their respective national urban prevalence rates. Benzodiazepines were detected in approximately 2% of households, 1% of the population, and 2% of adults. Approximately 20% of adult male drug users and 31% of adult female drug users use benzodiazepines.

Barbiturates were detected in approximately 1% of households, less than 1% of the population, and less than 1% of adults. Kabul is one of only four provincial capitals in which barbiturates were detected. 4% of adult male drug users and 6% of adult female drug users use barbiturates.

Alcohol was detected in 1% of households but in less than 1% of the population and less than 1% of adults. Alcohol was detected in approximately 1% of women but in less than 1% of men. Among adult drug users, 2% of males and 16% of females tested positive for alcohol. As discussed earlier in the report, medications could be a source for the alcohol-positive drug test results, but alcoholic beverages are more likely the source of the alcohol detected.

The age group of adults 45 years and older have the highest overall rate of

drug use. Adults 25–44 years old have the highest rate of opioid use, and young adults 15–24 years old have the highest rate of cannabis use. Barbiturates, benzodiazepines, and alcohol were most often used by adults 45 years and older. (Figure 6.129).

6.5.1.7.1.1 Survey Results— Northeast Kabul

The Northeast (NE) quadrant is comprised of police districts 9, 10, 12, and 15. The estimated population is 929,500 and there are approximately 150,000 households in these four districts.

District 9 has approximately 250,100 people living in 39,500 households. It has hundreds of residential apartment buildings built by the Soviets in 1970s and 1980s as well as a significant number of lower-income homes. The district is home to some industrial areas, international troop camps, and schools.

District 10 has approximately 306,800 people living in 51,200 households. A number of non-government organizations (NGOs), the U.S. Embassy, and a compound where foreigners live and work are located in this district. District 10 has thousands of modern homes as well as lower-income houses and some residential apartment buildings. Several hospitals and parks are also located in this district.

District 12 has approximately 44,200 people living in 6,800 households and is the least-populated district with the fewest number of households among all 16 Kabul City districts. The Afghanistan government built many of the newer residential homes in the 1980s. There are also a significant number of sub-standard and unauthorized houses built around the new

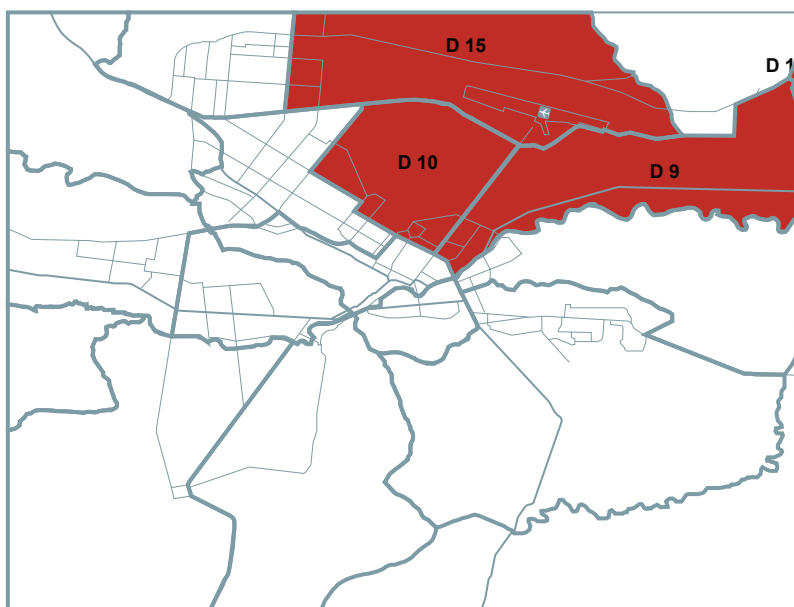
residential dwellings. The famous Puli Charkhi Jail is located in District 12. There are also a number of schools, parks, and small neighborhood markets.

District 15 has approximately 328,400 people living in 52,500 households and is the most populated district in Kabul. It includes the eastern part of Kabul International Airport. In addition to residential homes, District 15 has some schools, playgrounds, and small health treatment facilities.

Samples were collected from 807 people and 320 households in the NE quadrant. Approximately 13% of households, 6% of the population, and 8% of adults tested positive for any drug. Of adults,

Table 6.36. Northeast Quadrant Kabul City Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	13.1%	5.9%
Opioids	4.1%	2.1%
Cannabis	5.6%	2.3%
Benzodiazepines	3.8%	1.4%
Barbiturates	0.6%	0.2%
Alcohol	1.3%	0.4%
Amphetamines	0.0%	0.0%



approximately 12% of men and 4% of women tested positive. The population and men's rates were the highest among

the four quadrants of Kabul City. Drugs were detected in approximately 3% of children tested. The highest rates for any drug positive among the four districts in the NE quadrant were approximately 19% of households and 8% of the population.

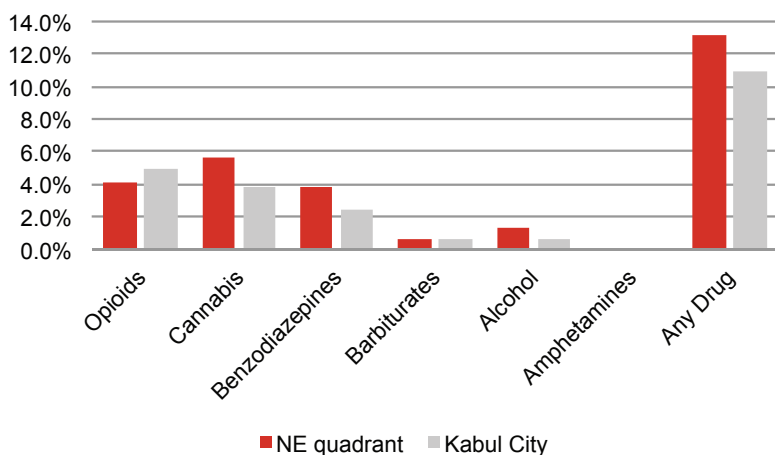


Figure 6.130. Northeast quadrant Kabul City household rates.

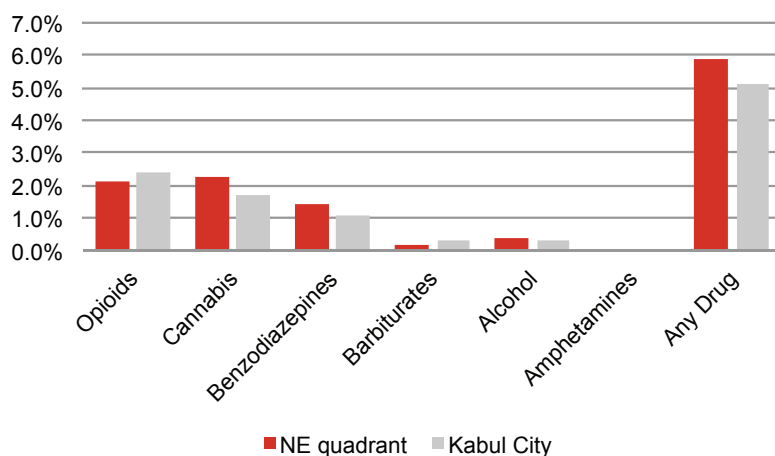


Figure 6.131. Northeast quadrant Kabul City population rates.

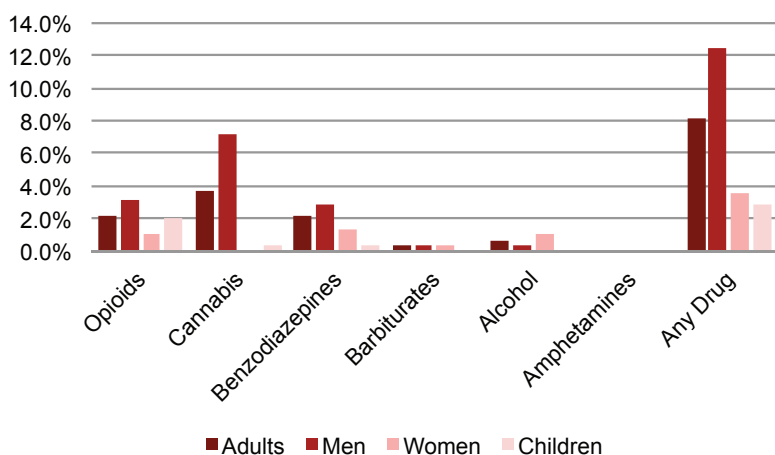


Figure 6.132. Northeast quadrant Kabul City adult and child rates.

Table 6.36 presents both the household and population rates by drug class for the NE quadrant of Kabul City. Figure 6.130 presents the household rates by drug class, and Figure 6.131 presents the population rates by drug class. Figure 6.132 presents the NE quadrant of Kabul City adult, male, female, and child rates.

Figure 6.133 presents and compares the types of drugs and their rates among Kabul City NE quadrant male adult drug users and Kabul City male adult drug users. Figure 6.134 presents and compares the types of drugs used by female adult drug users in the NE quadrant of Kabul City and among adult female drug users throughout Kabul City.

Opioids were the second most detected class of drugs in the NE quadrant. Opioids were detected in approximately 4% of households, 2% of the population, and 2% of adults: 3% of men and 1% of women. Opioids were detected in approximately 2% of children tested. The highest rate for opioids among the four districts in the NE quadrant was approximately 5% of households and 3% of the population.

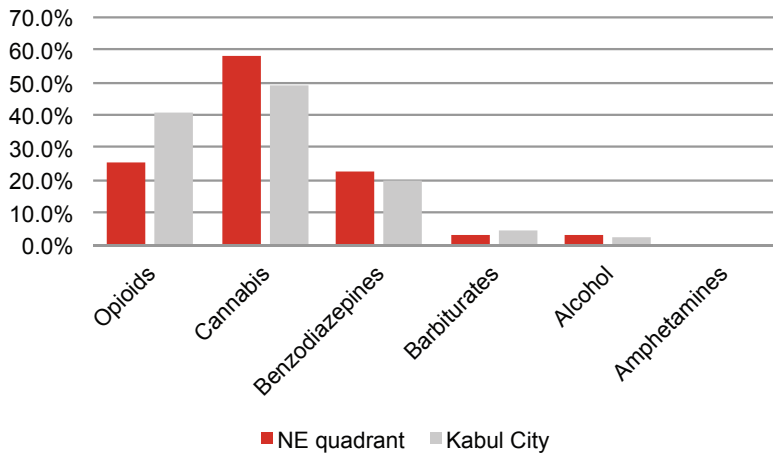


Figure 6.133. Types of drugs used by northeast quadrant Kabul City men users.

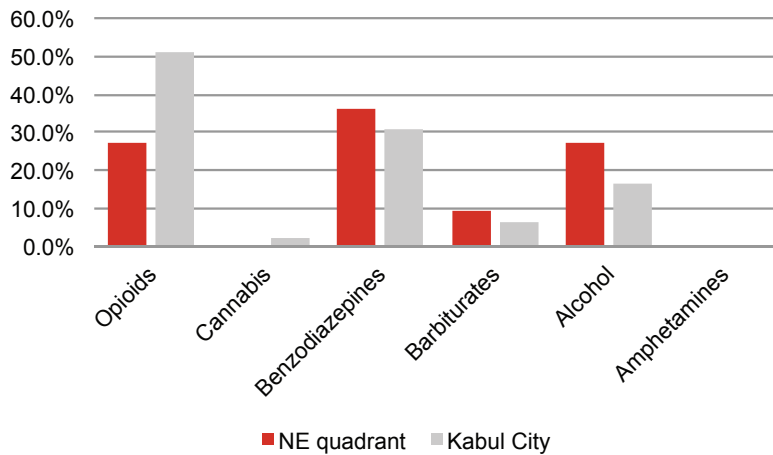


Figure 6.134. Types of drugs used by northeast quadrant Kabul City women users.

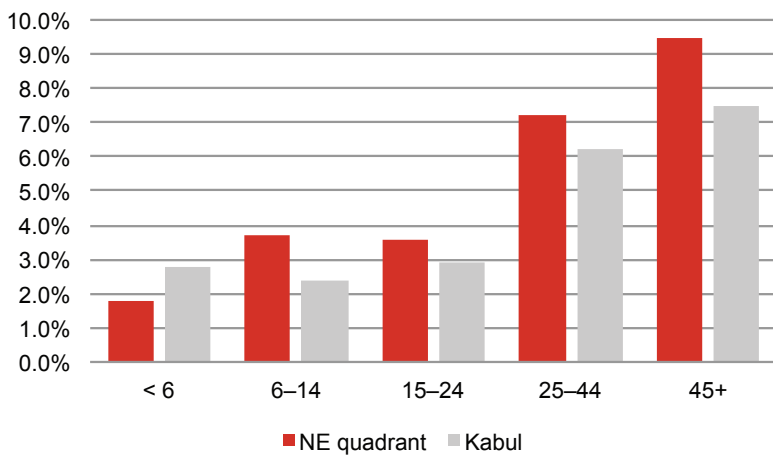


Figure 6.135. Northeast quadrant Kabul City rates by age group.

Cannabis was the drug detected at the highest rate in the NE quadrant. Cannabis was detected in approximately 6% of households, 2% of the population, and 4% of adults. Among adults, approximately 7% of men and no women tested positive. Less than 1% of children tested positive. The highest rate for cannabis among the four districts of the NE quadrant was approximately 7% of households and 3% of the population.

Barbiturates were detected in approximately 1% of households, in less than 1% of the population, and in less than 1% of adults (less than 1% of both men and women). No barbiturates were detected in children. The highest positive drug-test rate for barbiturates among the four districts of the NE quadrant was approximately 1% of households but less than 1% of the population.

Benzodiazepines were detected in approximately 4% of households, 1% of the population, and 2% of adults: 3% of men and 1% of women. Benzodiazepines were detected in children but in less than 1% of the children tested. The highest rate for benzodiazepines among the four districts in the NE quadrant was approximately 8% of households and 3% of the population.

Alcohol was detected in approximately 1% of households, in less than 1% of the population, and in 1% of

adults: < 1% of men and 1% of women. No alcohol was detected in children. The highest rate for alcohol among the four districts in the NE quadrant was approximately 6% of households and 2% of the population.

Cannabis is the drug most used by adult male drug users—it is used by approximately 58% of them. 26% use opioids, 23% use benzodiazepines, and 3% use alcohol and barbiturates. Benzodiazepines are drugs most used by adult female drug users: 36% tested positive for benzodiazepines, followed by alcohol and opioids at 27% each and barbiturates at 9%. Among children who tested positive, 71% tested positive for opioids, 14% for cannabis, and 14% for benzodiazepines.

Among the age groups, the highest drug use was found among adults aged 45 years and older, followed by those 25–44 years old. Benzodiazepine and alcohol use is highest among those aged 45 years and older. Adults aged 25–44 predominantly use cannabis, opioids, and barbiturates. The only drug used by those 15–24 years old was cannabis (Figure 6.135).

**6.5.1.7.1.2 Survey Results—
Northwest Kabul**

The Northwest (NW) quadrant includes Districts 4, 5, 11, and 17. Its population is 876,600, and there are approximately 140,300 households in the four districts.

District 4 has approximately 284,500 people living in 44,800 households. It also has a number of parks and hospitals. The Afghanistan Interior Ministry’s office is also located in this district.

District 5 has approximately 262,600 people living in 43,200 households. It has some private residential apartment buildings, several

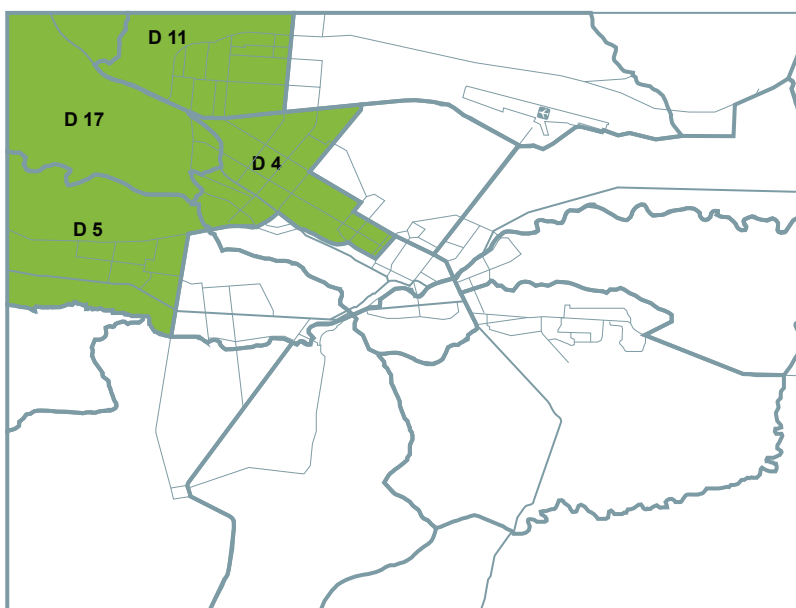
schools, a few small hospitals and health clinics, and some parks. This district was largely destroyed during a civil war in Afghanistan and is in need of redevelopment.

District 11 has approximately 240,100 people living in 38,500 households. It has a few apartment buildings and several hospitals, schools, and markets.

District 17 is the least-populated district in this quadrant with approximately 89,400 people living in 13,800 households. It has the second-fewest number of people and households in any Kabul City district. It has a few privately built apartment buildings, some parks, and several small hospitals. Most houses along the

Table 6.37. Northwest Quadrant Kabul City Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	8.0%	3.6%
Opioids	4.1%	1.8%
Cannabis	2.5%	1.3%
Benzodiazepines	1.4%	0.5%
Barbiturates	0.6%	0.2%
Alcohol	0.3%	0.1%
Amphetamines	0.0%	0.0%



Kabul-Parwan highway, which connects Kabul to Bagram Air Base, the largest military base in Afghanistan, are newly built.

Samples were collected from 884 people and 362 households in the NW quadrant. Approximately 8% of households, 4% of the population, and 5% of adults tested positive for any drug.

Among adults, 7% of men and 2% of women tested positive. Approximately 2% of children tested positive. The highest drug-positive rate among the four districts in the NW quadrant was approximately 10% of households and 4% of the population.

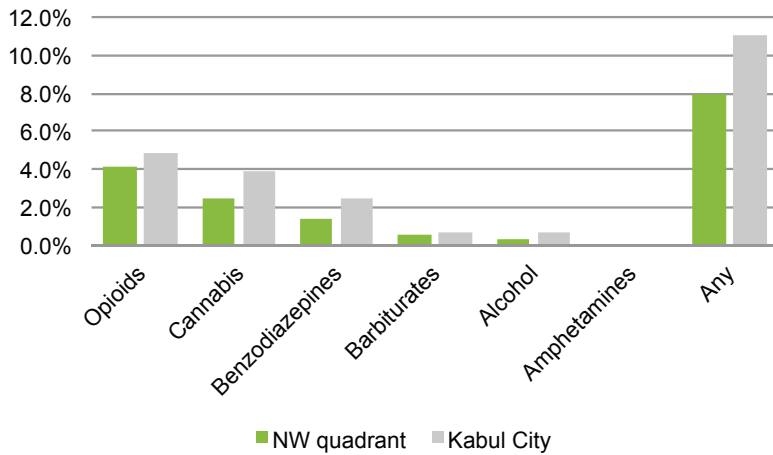


Figure 6.136. Northwest quadrant Kabul City household rates.

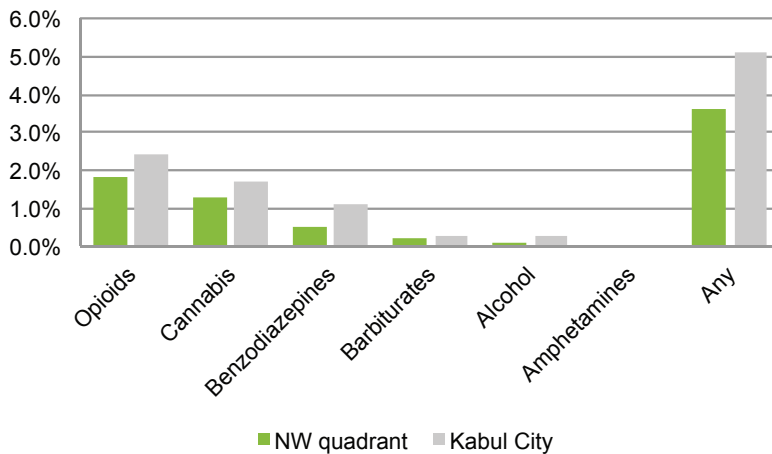


Figure 6.137. Northwest quadrant Kabul City population rates.

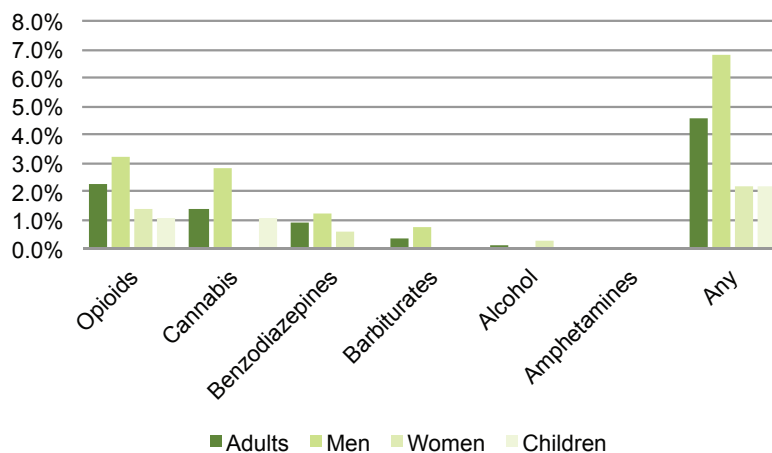


Figure 6.138. Northwest quadrant Kabul City adult and child rates.

Table 6.37 presents both the household and population rates by drug class for the NW quadrant of Kabul City. Figure 6.136 presents the household rates by drug class, and Figure 6.137 presents the population rates by drug class. Figure 6.138 presents the Kabul City NW quadrant adult, male, female, and child rates. Figure 6.139 presents and compares the types of drugs and their rates among the Kabul City NW quadrant male adult drug users and male adult drug users city-wide. Figure 6.140 presents and compares the types of drugs used by female adult drug users in NW quadrant of Kabul City and by citywide adult female drug users.

Versus the rest of Kabul City, opioids were detected most frequently in this quadrant. Approximately 4% of households, 2% of the population, and 2% of adults (3% of men and 1% of women) tested positive. Opioids were detected in approximately 1% of the children tested. The

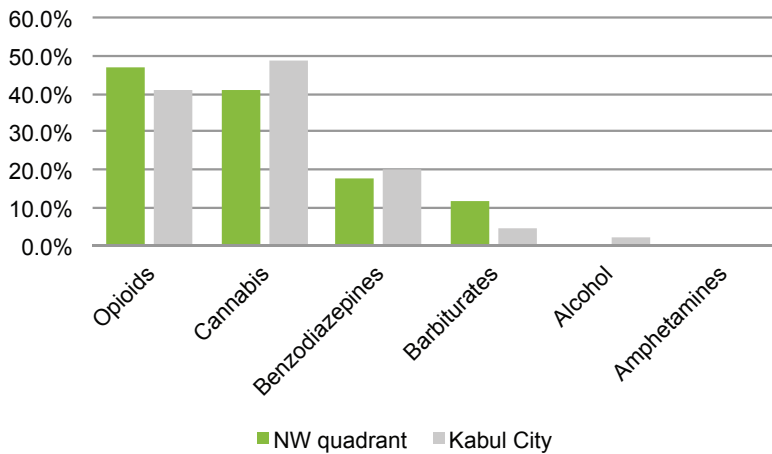


Figure 6.139. Types of drugs used by northwest quadrant Kabul City men users.

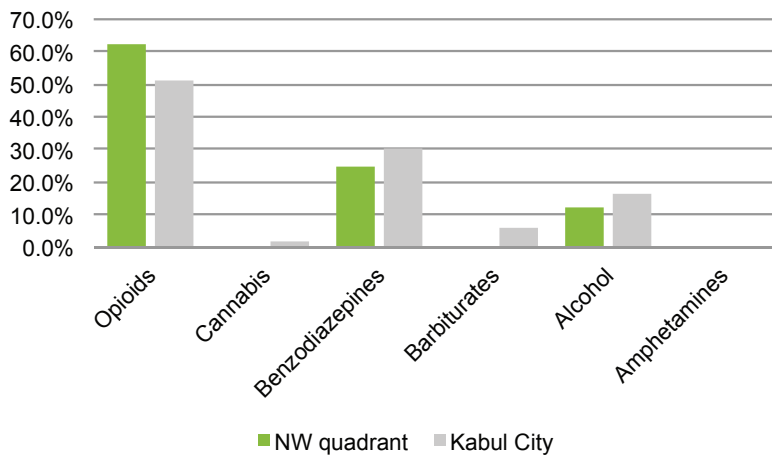


Figure 6.140. Types of drugs used by northwest quadrant Kabul City women users.

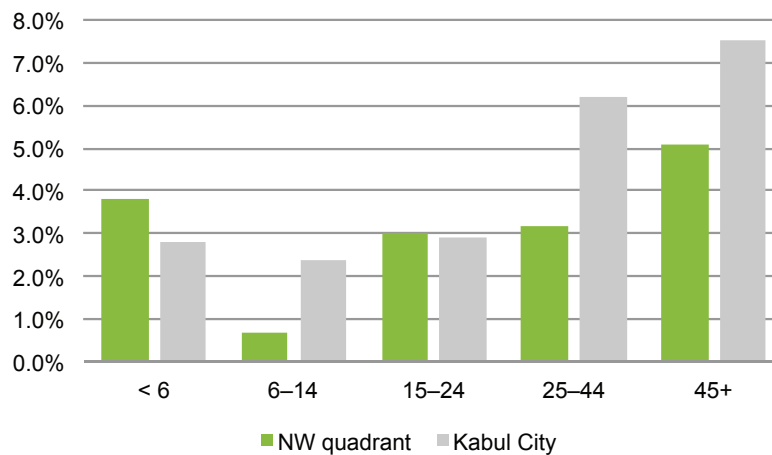


Figure 6.141. Northwest quadrant Kabul City rates by age group.

highest rate for opioids among the four districts in the NW quadrant was approximately 7% of households and 4% of the population.

Cannabis was detected in approximately 3% of households, 1% of the population, and 1% of adults (3% of men and no women). Cannabis was detected in approximately 1% of children tested. The highest rate for cannabis among the four districts in the NW quadrant was approximately 5% of households and 2% of the population.

Benzodiazepines were detected in approximately 1% of households, 1% of the population, and 1% of adults (approximately 1% of men and 1% of women). Benzodiazepines were not detected in children in the NW quadrant of Kabul City. The highest rate for benzodiazepines among the four districts of the NW quadrant was approximately 2% of households and 1% of the population.

Barbiturates were detected in approximately 1% of households, in less than 1% of the population, and in less than 1% of adults (approximately 1% of men and no women). Barbiturates were also not detected in children. The highest rate for barbiturates among the four districts of the NW quadrant was approximately 1% of households and 1% of the population.

Alcohol rates in the NW quadrant were the lowest among the four Kabul City quadrants, as well as the lowest of any provincial capital in which alcohol was detected. Alcohol was detected in less than 1% of households, in less than 1% of the population, and in less than 1% of adults (no men and less than 1% of women). The highest rate of positives for alcohol among the four districts in the NW quadrant was approximately 1% of households and 1% of the population, and only among women.

Opioids and cannabis were the drugs most used by adult drug users in the NW quadrant. Opioids were used by approximately 52% of adult drug users and cannabis by 28%. Among adult male drug users, 47% used opioids, 41% used cannabis, 18% used benzodiazepines, and 12% used barbiturates. Opioids were used by 63% of female drug users, benzodiazepines by 25%, and alcohol by 13%. Cannabis was not detected in women. Among children testing positive in the quadrant, 50% tested positive for opioids and 50% for cannabis.

The highest rates of drug use were among those aged 45 years and older. Opioid use is highest among those 25–44 years old. Adults aged 15–24 years did not test positive for any drug except cannabis, but they had the highest rate of cannabis use out of all of the age groups. The rate of drug-positive tests for cannabis among children under six years of age was half that of those 15–24 years old. Only age groups 25 and older tested positive for barbiturates and benzodiazepines. Alcohol was detected in one adult, a female in the 45+ age category (Figure 6.141).

6.5.1.7.1.3 Survey Results— Southwest Kabul

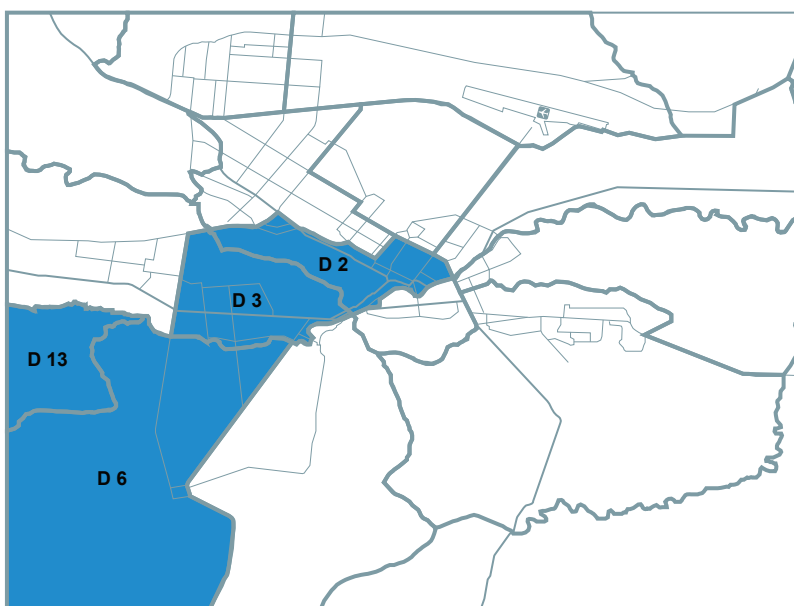
The Southwest (SW) quadrant includes Districts 2, 3, 6, and 13. Its population is estimated at 737,900. There are approximately 124,100 households in the four districts in the SW quadrant.

District 2 has approximately 110,400 people living in 18,100 households. The district covers one side of TV Mountain and includes the famous marketplace Deh-i-Afghanan. There are also several schools in District 2.

District 3 has approximately 133,700 people living in 22,100 households. It is located behind TV Mountain, where

Table 6.38. Southwest Quadrant Kabul City Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	12.3%	5.8%
Opioids	8.0%	3.8%
Cannabis	3.0%	1.5%
Benzodiazepines	2.2%	1.3%
Barbiturates	0.8%	0.4%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%



Kabul University, Kabul Medical University, the Ministry of Higher Education

and the Ministry of Commerce are located. There are also several schools, small hospitals, and parks. The district was largely destroyed during the Afghan civil war in the early 1990s. In the 1970s, a number of companies, international organizations and non-government organizations located into this district. It is still one of the principal areas for a number of national and international organizations. The Afghanistan parliament is also located in District 3.

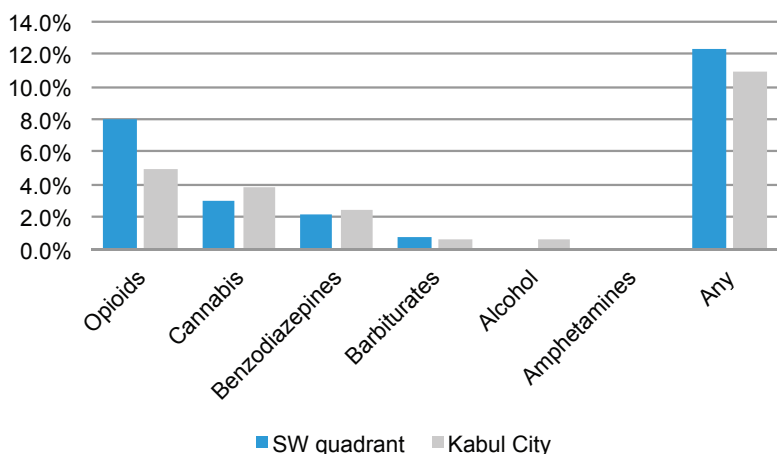


Figure 6.142. Southwest quadrant Kabul City household rates.

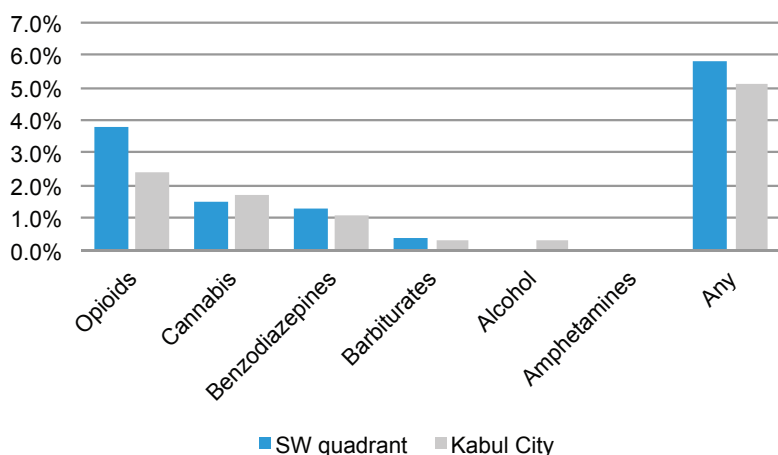


Figure 6.143. Southwest quadrant Kabul City population rates.

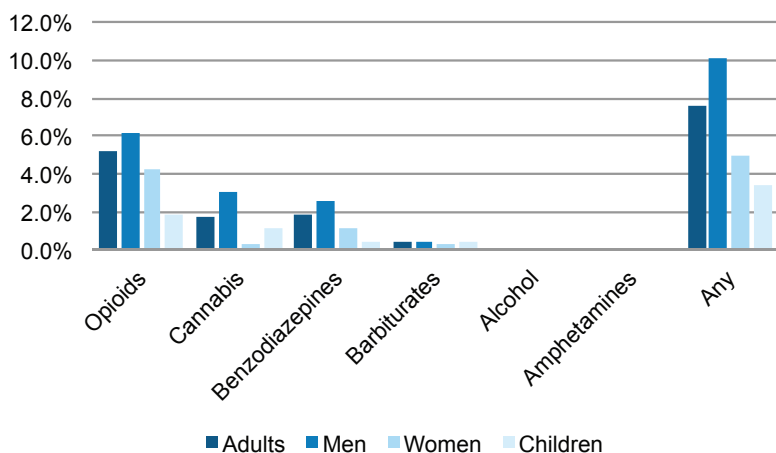


Figure 6.144. Southwest quadrant Kabul City adult and child rates.

District 6 has approximately 290,800 people living in 49,900 households. There are several schools and small hospitals. The district is considered one of the poorer areas of the city. District 6 is home to the Pul-i-Sokhta bridge, where many of the city's drug addicts gather to sleep and use drugs.

District 13 has approximately 203,000 people living in 34,000 households. It is considered a poor neighborhood and has several schools, playgrounds, small hospitals, and drug-treatment facilities.

Samples were collected from 854 people and 362 households in the SW quadrant. Approximately 12% of households, 6% of the population, and 8% of adults tested positive. Among adults, approximately 10% of men and 5% of women tested positive. Approximately 3% of children tested positive. The rate among the female population and children were the highest of the four quadrants of Kabul

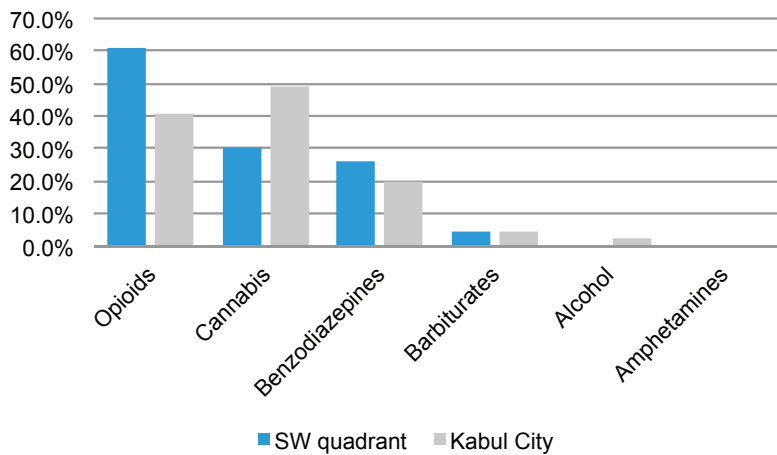


Figure 6.145. Types of drugs used by southwest quadrant Kabul City men users.

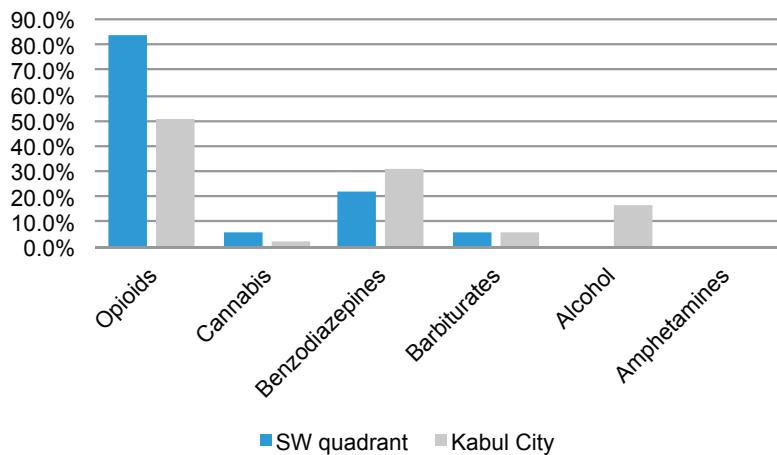


Figure 6.146. Types of drugs used by southwest quadrant Kabul City women users.

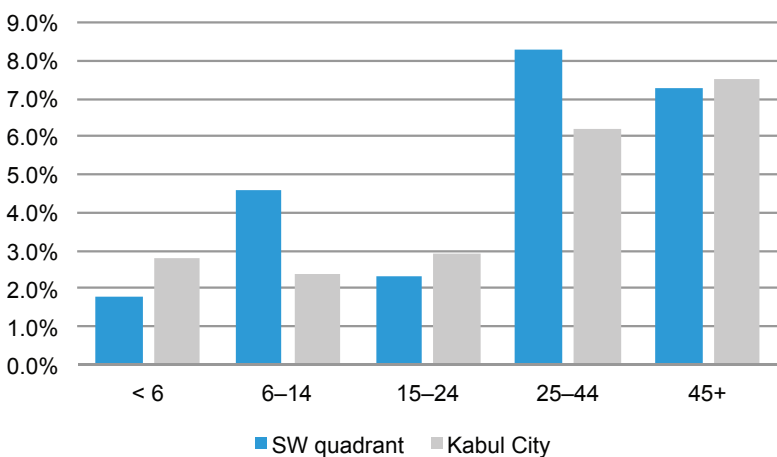


Figure 6.147. Southwest quadrant Kabul City rates by age group.

City. The highest rate of positives for any drug among the four districts in the SW quadrant was approximately 17% of households and 7% of the population.

Table 6.38 presents both the household and population rates by drug class for the SW quadrant of Kabul City. Figure 6.142 presents the household rates by drug class, and Figure 6.143 presents the population rates by drug class. Figure 6.144 presents the SW quadrant of Kabul City adult, male, female, and child rates. Figure 6.145 presents and compares the types of drugs and their rates among the Kabul City SW quadrant male adult drug users and those city-wide. Figure 6.146 presents and compares the types of drugs used by female adult drug users in the SW quadrant of Kabul City with those used by adult female drug users citywide.

Opioids were the most detected drugs in the quadrant. Opioids were detected in approximately 8% of households, 4% of the population, and 5% of adults (approximately 6% of men and 4% of women). The rates for adult men and women were the highest among the four quadrants of Kabul City. Approximately 2% of children tested positive. The highest rate for opioids among the four districts of the SW quadrant was approximately 10% of households and 5% of the population.

Cannabis was detected in approximately 3% of households, 2% of the population, and 2% of adults (approximately 3% of men and less than 1% of women). The SW quadrant was the only location in the Kabul City urban survey where women tested positive for cannabis. Approximately 1% of children tested positive. This rate for cannabis is one of the highest among the four quadrants, as well as among the other provincial capitals tested in this study. The highest rate for cannabis among the four districts in the SW quadrant was approximately 5% of households and 2% of the population.

Benzodiazepines were detected in approximately 2% of households, 1% of the population, and 2% of adults (approximately 3% of men and 1% of women). Benzodiazepines were detected in less than 1% of children tested. The highest rate for benzodiazepines among the four districts in the SW quadrant was approximately 6% of households and 2% of the population.

Barbiturates were detected in approximately 1% of households, in less than 1% of the population, and in less than 1% of adults (< 1% of men and < 1% of women). Barbiturates were detected in less than 1% of children tested. Three of the four districts in the SW quadrant had the highest rate of barbiturates detected in Kabul City, at approximately 1% of households and 1% of the population.

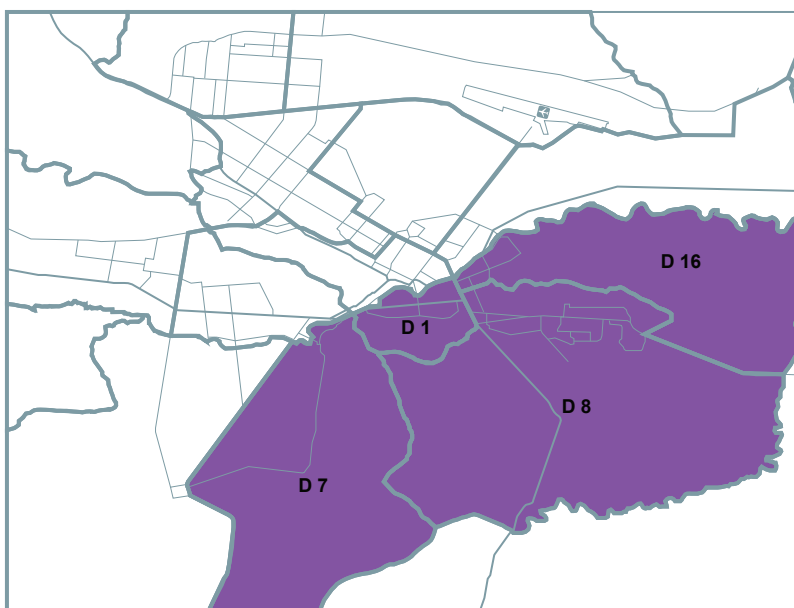
The SW quadrant is the only quadrant in Kabul City where alcohol was not detected. Opioids were used by 61% of adult male drug users, cannabis by 30%, benzodiazepines by 26%, and barbiturates by only 4%. Opioids were used by 83% of adult female drug users, benzodi-

azepines by 22%, and cannabis and barbiturates each by only 6%. Adults 25–44 years old had the highest rate of drug use among the different age groups. Cannabis rates were similar among all age groups, but the rate among children aged 6–14 years was slightly higher than those 15–24 years old. The highest rate appears to be among those aged 45 years and older, although this rate is only slightly higher than those of the other age groups. Barbiturates were detected in less than 1% of children. Benzodiazepines were detected primarily in adults aged 25 years and older, at similar rates among those 25–44 years old and those 45 years and older. (Figure 6.147).

6.5.1.7.1.4 Survey Results— Southeast Kabul

The Southeast (SE) quadrant includes districts 1, 7, 8, and 16. Its population is estimated to be 870,100. There are approximately 140,800 households in the four districts.

District 1 has approximately 90,700 people living in 15,400 households. In addition to homes, it has large marketplaces, several schools, Kabul Stadium, and several hospitals, including the Maiwand



Hospital, the Rabia Balkhi women’s hospital, a dental hospital, and medical laboratories.

District 7 has approximately 347,800 people living in 57,900 households. The Russian Embassy and Habibia High school are located in District 7. This area was largely destroyed during the Afghan civil war.

District 8 has approximately 289,100 people living in 44,200 households. It includes some privately built apartment buildings and is considered a poor area of the city. It has several schools, small clinics, and some parks.

District 16 has approximately 142,500 people living in 23,300 households. It has some schools and is also considered a poor area of the city.

Samples were collected from 680 people and 289 households. Approximately 11% of households, 5% of the population, and 8% of adults tested positive. Among adults, 11% of men and 4% of women tested positive. Approximately 2% of children tested positive. The highest rate for any drug among the four districts of the SE quadrant was approximately 18% of households and 9% of the population. These rates are the highest among all 16 Kabul City police districts.

Table 6.39 presents both the household and population rates by drug class for the Kabul City SE quadrant. Figure 6.148 presents the household rates by drug class, and Figure 6.149 presents the population rates by drug class. Figure 6.150 presents the Kabul City SE quadrant

adult, male, female, and child rates. Figure 6.151 presents and compares the types of drugs and their rates among the Kabul City SE quadrant male adult drug users and those citywide. Figure 6.152

Drug Class	Household	Population
Any	11.1%	5.1%
Opioids	3.1%	1.6%
Cannabis	4.8%	2.4%
Benzodiazepines	2.4%	0.8%
Barbiturates	0.7%	0.3%
Alcohol	1.7%	0.6%
Amphetamines	0.0%	0.0%

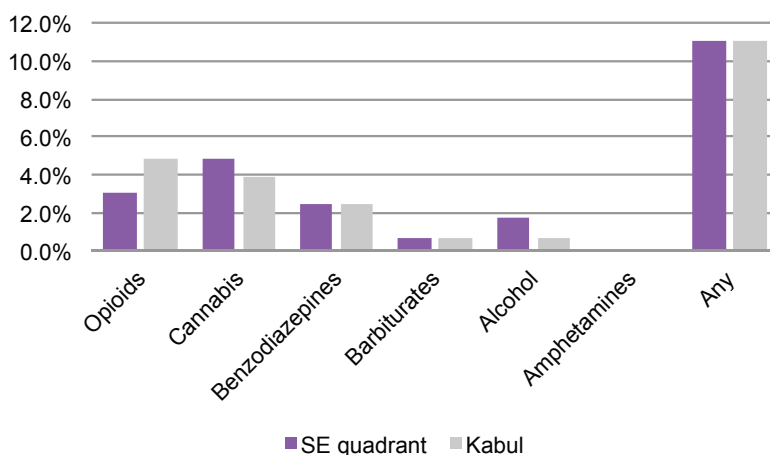


Figure 6.148. Southeast quadrant Kabul City household rates.

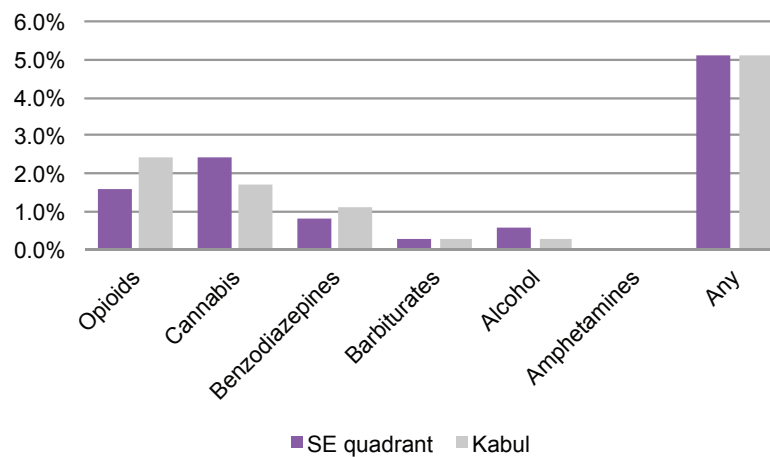


Figure 6.149. Southeast quadrant Kabul City population rates.

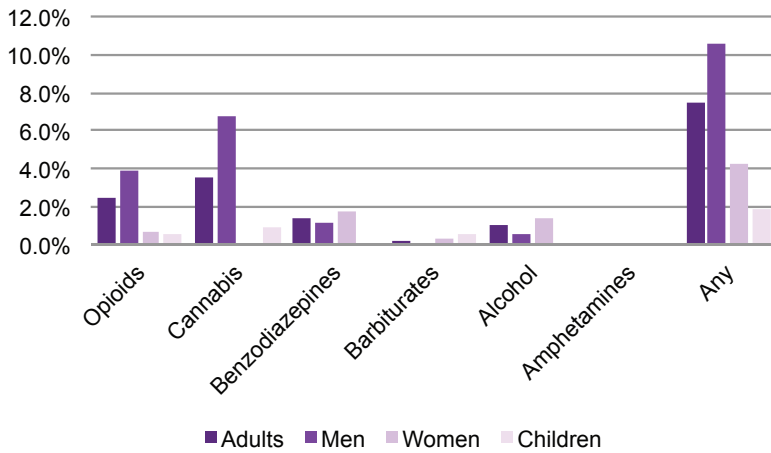


Figure 6.150. Southeast quadrant Kabul City adult and child rates.

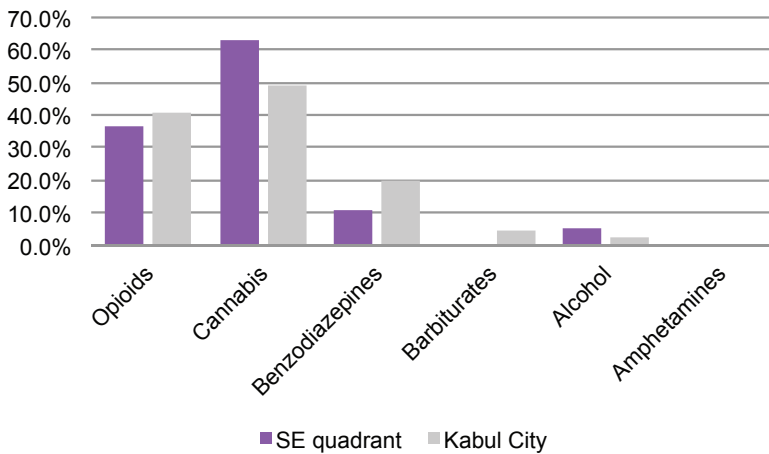


Figure 6.151. Types of drugs used by southeast quadrant Kabul City men users.

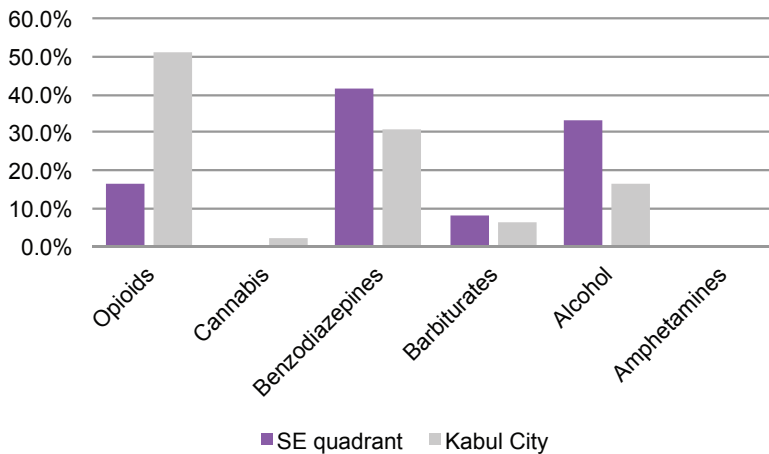


Figure 6.152. Types of drugs used by southeast quadrant Kabul City women users.

presents and compares the types of drugs used by female adult drug users in the SE quadrant of Kabul City and those used by adult female drug users citywide.

Opioids were detected in approximately 3% of households, 2% of the population, and 2% of adults (approximately 4% of men and 1% of women). The rate for women was the lowest among the four quadrants of Kabul City. Opioids were detected in approximately 1% of children. The highest rate for opioids among the four districts in the SE quadrant was approximately 7% of households and 3% of the population.

Cannabis is the most detected drug in this quadrant. Cannabis was detected in approximately 5% of households, 2% of the population, and 4% of adults (approximately 7% of men and no women). Approximately 1% of children tested positive. The highest rate for cannabis among the four districts of the SE quadrant was approximately 7% of households and 3% of the population.

Benzodiazepines were detected in 2% of households, 1% of the population, and 1% of adults (approximately 1% of men and 2% of women). The rate for women is the highest among the four quadrants of Kabul City. No benzodiazepines were detected in children in this quadrant. The highest rate for benzodiazepines among the four districts in the SE quadrant was

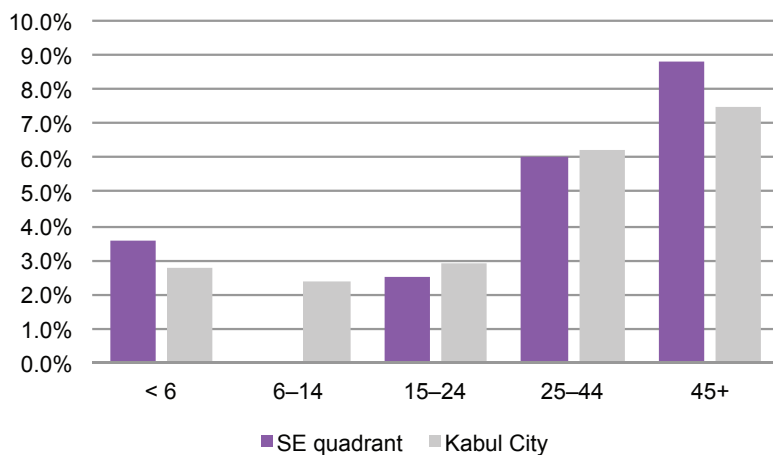


Figure 6.153. Southeast quadrant Kabul City rates by age group.

approximately 4% of households and 2% of the population.

Alcohol was detected in approximately 2% of households, by 1% of the population, and 1% of adults (approximately 1% of men and 1% of women). This quadrant had the highest alcohol rate of the four Kabul City quadrants. No children tested positive for alcohol. The highest rate for alcohol among the four districts of the SE quadrant was approximately 4% of households and 2% of the population.

Barbiturate rates were relatively low compared to other drugs. Barbiturates were detected in approximately 1% of households, in less than 1% of the population, and in less than 1% of adults (no men and less than 1% of women). Barbiturates were detected in less than 1% of children. Barbiturates were detected in only one of the four districts in the SE quadrant, where it was detected in approximately 3% of households and 2% of the population.

Cannabis was the most used drug by adult users and was only used by men. Cannabis was used by 39% of adult drug users, opioids by 29%, benzodiazepines by 23%, alcohol by 16%, and barbiturates by 3%.

Among adult male drug users, 63% use cannabis, 37% use opioids, 11% use benzodiazepines, and 5% use alcohol. Adult female drug users use benzodiazepines more than any other drug, with 42% of female drug users using benzodiazepines. 33% use alcohol. Opioids are only the third most used drug by women, used by only 17% of female drug users, the lowest rate of any Kabul City quadrant or any provincial capital. Barbiturates were used by 8% of

female users, lower only than the rate in the NE quadrant of Kabul City. This rate is higher than in any of the other provincial capitals surveyed.

Adults aged 45 and older use drugs at a higher rate than those of other age groups, but at rates similar to those of adults 25–44 years old. Children younger than 6 years old had higher rates than those 15–24 years old. No drugs were detected among children 6–14 years of age. Opioid use is highest among adults 25–44 years old, but at rates only slightly higher than those 45 years and older. Cannabis use is highest among those 45 years and older, but only slightly higher than in those 25–44 years old. Barbiturates were detected only in those 25–44 years old. Benzodiazepines were predominantly detected in those aged 45 years and older, at a rate significantly higher than in those 25–44 years old, the only other age group in which benzodiazepines were detected. Alcohol use is only slightly higher among those 45 years and older than in those 25–44 years old (Figure 6.153).

6.5.1.7.2 Survey Results—Rural

No rural villages were surveyed in Kabul province.

6.5.2 KHOST PROVINCE

6.5.2.1 GEOGRAPHY

Khost province is in central Afghanistan and is bordered by Paktiya province to the north, the country of Pakistan to the east, and Paktika province to the southwest. Approximately 59% of the province is mountainous or semi-mountainous, and 40% is flat or semi-flat.

Khost is the provincial capital or province center of Khost province. There are 13 districts and approximately 868 villages in Khost province.

6.5.2.2 DEMOGRAPHICS

Khost province has an estimated population of 556,000. Khost, the provincial capital, has a population of 139,500, with 11,200 living in the urban center. Approximately 544,800, or 98% of the population, reside in rural areas of the province.

The majority of the Khost people are Pashtuns. Pashtu is spoken by the majority of the people and in 99% of villages. Dari is spoken by about 1,000 people in two villages.

The literacy rate is 28%: 44% for men but only 7% for women. Approximately 38% of children are enrolled in school: 61% of boys but only 14% of girls.

6.5.2.3 ECONOMY

Khost is an agricultural and industrial province. Agriculture is the main source of income for about half the population. Some households also earn income from trades and services, livestock, and non-farm labor. Wheat, maize, alfalfa, clover, other fodder, fruits, nuts, and potatoes are the primary crops grown in the province.

6.5.2.4 INFRASTRUCTURE

Approximately 82% of households have



access to water in their community, but only 34% have access to safe drinking water. About 15% must travel up to an hour to obtain water and 3% must travel between one and three hours.

Electricity is not readily available for most households. Only about 4% percent of households have access to electricity, and only 2% obtain electricity from public sources.

Roads are reasonably well-developed, with 59% of the roads travelable throughout the year and 37% travelable during some periods. There are no roads in about 3% of the province.

6.4.3.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are two inpatient treatment centers in Khost. Both provide outreach and after-care services, and one of the centers also serves as a shelter. Neither center provides community-based services. The Ministry of Public Health (MoPH) supports and provides services for one of the centers. INL and Colombo Plan support the other center, and WADAN provides its services. Both centers treat adult males. Neither center provides treatment services to women or children. No village-based services are provided in Khost.

A list of all substance-abuse treatment services and further detail on the two centers in Khost and each of the centers in Afghanistan is included in the Appendix.

6.5.2.6 POPPY CULTIVATION

Khost has been, and is expected to remain, poppy-free.

6.5.2.7 SURVEY RESULTS

No urban survey was conducted in Khost. Two villages in Ismailkhail Mando Zayi district and two villages in Tani district were surveyed.

6.5.2.7.1 Survey Results—Urban

The urban center of Khost, the province capital, was not surveyed.

6.5.2.7.2 Survey Results—Rural

Samples were collected from 302 people and 23 rural households in three randomly-selected villages: one in Ismailkhail Mando Zayi district and two in Tani district. Household and population rates for any drug positive test results by village are presented at the end of this section.

Table 6.40 presents both the household and population rates by drug class for rural Khost. Figure 6.154 presents the household rates by drug class, and Figure 6.155 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Khost. Figure 6.156 presents the rural Khost adult, male, female, and child rates. Figure 6.157 presents and compares the types

of drugs and their rates among rural Khost male adult drug users and national rural male adult drug users. Figure 6.158 presents and compares the types

Drug Class	Household	Population
Any	47.8%	9.6%
Opioids	8.7%	1.1%
Cannabis	30.4%	7.7%
Benzodiazepines	17.4%	1.6%
Barbiturates	4.3%	0.3%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

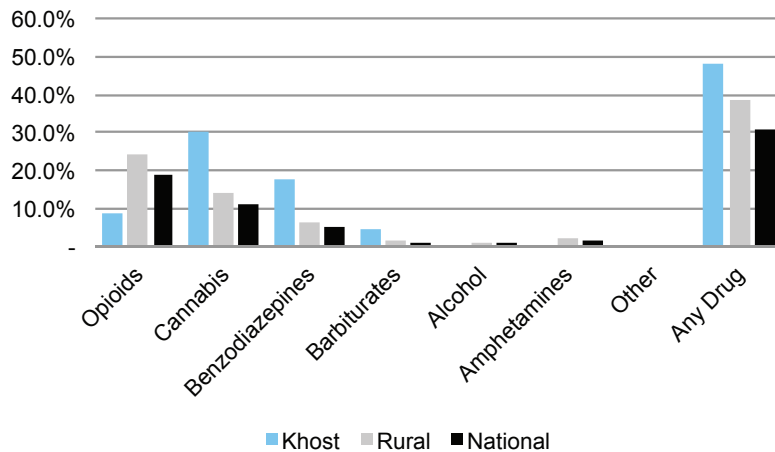


Figure 6.154. Rural Khost household rates.

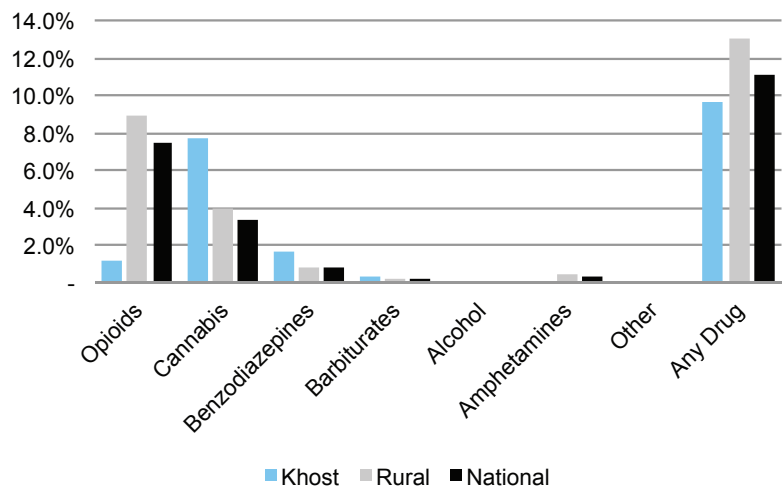


Figure 6.155. Rural Khost population rates.

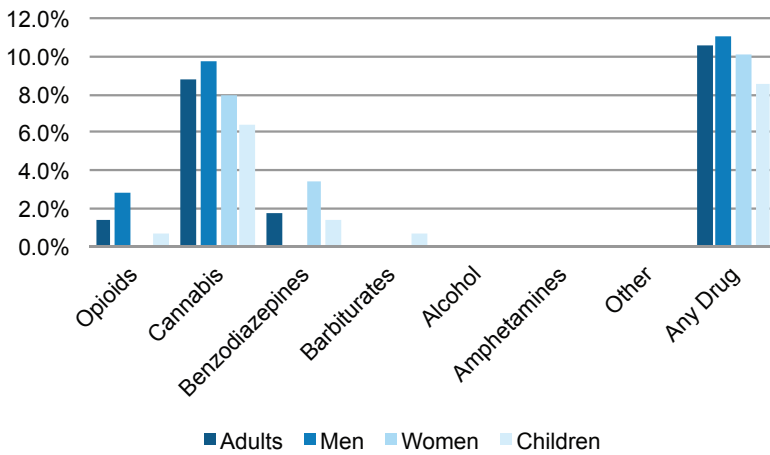


Figure 6.156. Rural Khost adult and child rates.

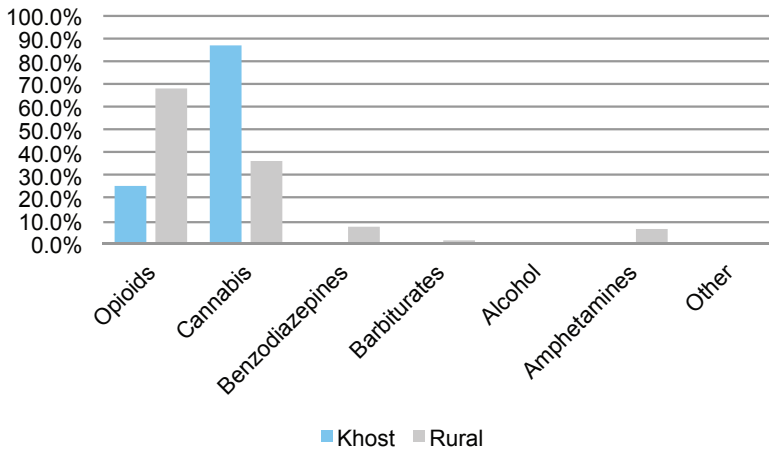


Figure 6.157. Types of drugs used by rural Khost men users.

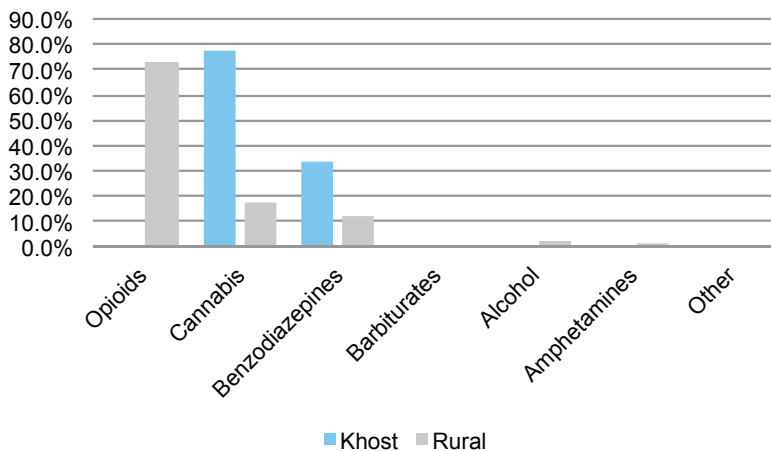


Figure 6.158. Types of drugs used by rural Khost women users.

of drugs used by female adult drug users in rural Khost and nationally among rural adult female drug users.

Approximately 48% of households, 10% of the population, and 11% of adults tested positive for any drug in Khost. The household rate was significantly higher than the national rural rate. The population and adult rates were lower than their respective national rural rates. Approximately 9% of children tested positive for one or more drugs. The children's rate was lower than the national rural child rate.

The rate for any drug use among men and women are similar: approximately 11% versus 10%. Both the male and female rates were lower than their respective national rural rates.

Among adult drug users, 13% use opioids, 83% use cannabis, and 16% use benzodiazepines.

Opioids were detected in approximately 9% of households, 1% of the population, and 1% of adults. These population rates were among the lowest found during the rural survey. Among adults, 3% of men and no women tested positive. Only one child (approximately 1% of children) tested positive for opioids. The child was one year old and tested positive for codeine and morphine at significant levels via hair sample.

Among male drug users, 25% tested positive for opioids. No women tested positive for

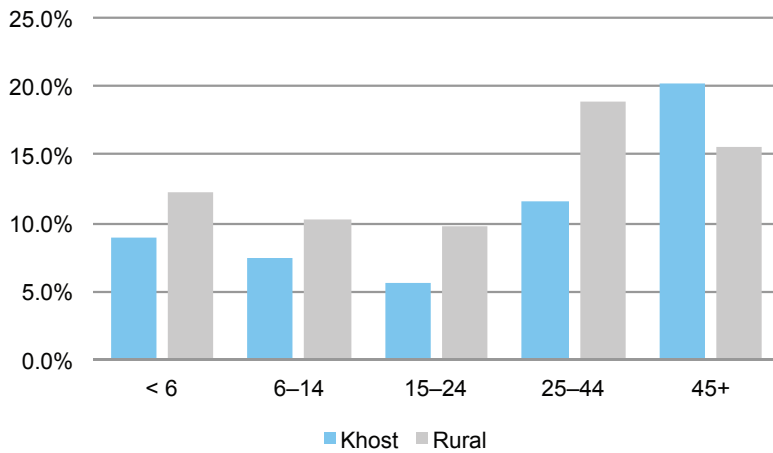


Figure 6.159. Rural Khost rates by age group.

opioids. The average hair, saliva, and urine opioid concentrations for rural Khost are presented in the Appendix.

Cannabis was detected in approximately 30% of households, 8% of the population, and 9% of adults: approximately 10% of men and 8% of women. These rates are higher than the rate for opioids in Khost. These rates were also all significantly higher than their respective national rural rates, and all were among the highest rates found in the study overall. The household, adult, and female rates were all the second-highest among the 15 provinces surveyed.

Among male drug users, 88% tested positive for cannabis, while approximately 78% of female drug users tested positive for cannabis. Among children, nine tested positive for cannabis: five aged 2 or younger and four aged 6, 8, 10, and 13. All nine tested positive for carboxy-THC in hair.

Benzodiazepines were detected in 17% of households, 2% of the population, and 2% of adults. Benzodiazepines were detected only in women and children at rates of approximately 3% and 1%, respectively. This population rate was the second-highest among the 15 provinces surveyed, and the child rate was the highest. Khost is the only province where

the household, population, and adult rates for benzodiazepines are higher than those of opioids.

Barbiturates were detected in approximately 4% of households and in less than 1% of the population. Barbiturates were only detected in children, at a rate of approximately 1%. Although this is a low rate, it is among the highest detected in children in the study.

No amphetamine-type stimulants or alcohol were detected

in Khost.

Drugs were detected in all adult age groups with the highest rate found among those aged 45 years and older. The lowest rate was among those aged 15-24. Among adult males, the highest rate was among those 25-44 years old, and the lowest was among those 15-24 years old. The highest rate for females was among those aged 45 years and older, and the lowest was among those 15-24 years old (Figure 6.159).

The rate among children under six years old was 9%, and was 8% for those 6-14 years old. In male children, the highest rate was among those younger than 6, at 13%. Among female children, the lowest rate was among those younger than 6. The rate among female children ages 6-14 was approximately 14%, among the highest rates seen for this gender/age group.

The majority of drug positive children, nine of twelve, were for cannabis. Aside from cannabis, single children also tested positive for one or more drugs spanning the spectrum of drugs surveyed. One child tested positive for barbiturates, two for benzodiazepines and one for opioids. One child, a 12-year-old female who was either on medication or was an active drug user, tested positive

for both benzodiazepines (nordazepam in hair) and barbiturates (phenobarbital in saliva and urine). Another child, a 14-year-old female who was also either on medication or was an active drug user, tested positive for multiple benzodiazepines: diazepam in hair and nordazepam, oxazepam, and temazepam in urine.

Table 6.41 presents the approximate household, population, adult, male, female and child rates for the three Khost villages surveyed. These rates are on the basis of any drug positive test result. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

In Village #5, no men tested positive for any drug. Benzodiazepines were detected only in women at a rate of approximately 7%, one of the highest rates detected among the 52 villages surveyed. Children tested positive only for barbiturates (one child, or approximately 2%) and benzodiazepines (one child, or approximately 2%), with both positives detected in the same child, a 12-year-old female. This child tested positive for nordazepam (benzodiazepines) in hair and

phenobarbital (barbiturates) in saliva (3,144 ng/ml) and urine (10,006 ng/ml), and had the highest phenobarbital concentration seen in all barbiturate-positive children.

In Village #6, men tested positive only for cannabis (at a rate of approximately 8%), and women and children tested positive for cannabis and benzodiazepines. The adult rate for cannabis was 17%, the second-highest among the 52 villages, driven mostly by the high rate of cannabis positives among adult women. The adult female rate for cannabis was 25%, the highest rate among women in the 52 villages surveyed. Approximately 4% of these cannabis-positive women also tested positive for benzodiazepines. About 14% of children tested positive for cannabis. Seven of the nine children who tested positive for cannabis in Khost province were from Village #6, and four of these seven were aged six or younger.

In Village #7, cannabis was detected in approximately 19% of adult males, a rate much higher than the adult male opioid rate (about 8%). Cannabis was the only drug detected in women. Approximately 5% of children tested positive for cannabis, and 2% tested positive for opioids. Overall, cannabis was detected in 8% of the village population, and opioids were detected in 3%.

Table 6.41. Khost Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#5	Ismailkhail Mando Zayl	33%	3%	3%	0%	7%	2%
#6	Tani	63%	16%	17%	8%	25%	16%
#7	Tani	44%	10%	13%	23%	3%	7%

6.5.3 PARWAN PROVINCE

6.5.3.1 GEOGRAPHY

Parwan is in central Afghanistan and is bordered by Baghlan and Takhar provinces to the north; Panjsher province to the northeast; Nuristan, Kapisa, and Laghman provinces to the east; Kabul and Wardak provinces to the south; and Bamyan province to the west. Parwan's landscape includes the Ghowr Band River and the Panjshir River. It is mostly a mountainous province, and its river valleys are prominent, with many vineyards and gardens. The majority of territory is usable as rangeland, with some areas of intense irrigation.

The capital of Parwan is Charikar. There are 10 districts and approximately 670 villages in Parwan.

6.5.3.2 DEMOGRAPHICS

The population of Parwan is approximately 642,300. The population of the provincial capital Charikar is 174,200 people, with 55,100 living in the urban center. Approximately 585,500 people, or 91% of the population, live in the rural areas of the province.

Tajik and Pashtun are the major ethnic groups, but Uzbek, Qizilbash, Kuchi, Hazara, and other groups live in the province. Dari is the main language spoken, followed by Pashtu.

The overall literacy rate is approximately 28%. Only 9% of women are literate. The literacy rate for men in Parwan was not available but is presumed to be higher than 28%. Approximately 54% of children are enrolled in school.

6.5.3.3 ECONOMY

Most people derive income from agriculture and livestock. The river plains are



highly fertile areas. The main crops include wheat, maize, and barley, although other crops like potato, fodder, and vegetables are also grown. The Salang area in Parwan is also famous for its fresh fish.

6.5.3.4 INFRASTRUCTURE

The percentage of households with access to water in their community is not known, but only 11% of households have access to safe drinking water.

The overall lack of electricity and roads are key constraints to development in the province.

6.5.3.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There is one inpatient treatment center in Parwan, which also provides outreach, after-care, and home-based services. No community- or village-based services are available in the province. INL and Colombo Plan support the center, and Khatiz Organization for Rehabilitation provides its services. The center treats adult males; no substance-abuse treatment services are available for women, adolescents, or children in Parwan.

A list of all substance-abuse treatment services and further detail on Parwan's

inpatient center, as well as for each of the centers in Afghanistan, is included in the Appendix.

6.5.3.6 POPPY CULTIVATION

Parwan has been, and is expected to remain, poppy-free.

6.5.3.7 SURVEY RESULTS

The urban center of Charikar, the capital, was surveyed. No rural survey was conducted in Parwan.

6.5.3.7.1 Survey Results—Urban

Samples were collected from 187 people residing in 97 households. Approximately 9% of households, 5% of the population, and 8% of adults tested positive (9% of men and 7% of women). No drugs were detected in children.

Table 6.42 presents both the household and population rates by drug class for Charikar. Figure 6.160 presents the household rates by drug class, and Figure 6.161 presents the population rates by drug class. Both figures include the nationwide urban and national rates for comparison to Charikar. Figure 6.162 presents the Charikar adult, male, female, and child rates. Figure 6.163 presents and compares the types of drugs and their rates among urban Charikar adult male drug users and national urban adult male drug users. Figure 6.164 presents and compares the types of drugs used by female adult drug users in Charikar and nationally among urban adult female drug users.

Opioids were detected in approximately 3% of house-

holds, 2% of the population and 3% of adults. The rate among men and women are similar, at approximately 3% each. Opioids were detected in 33% of adult male drug users and 43% of female drug users.

Table 6.42. Charikar Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	9.3%	4.8%
Opioids	3.1%	1.8%
Cannabis	3.1%	2.7%
Benzodiazepines	4.1%	1.8%
Barbiturates	0.0%	0.0%
Alcohol	1.0%	0.3%
Amphetamines	0.0%	0.0%

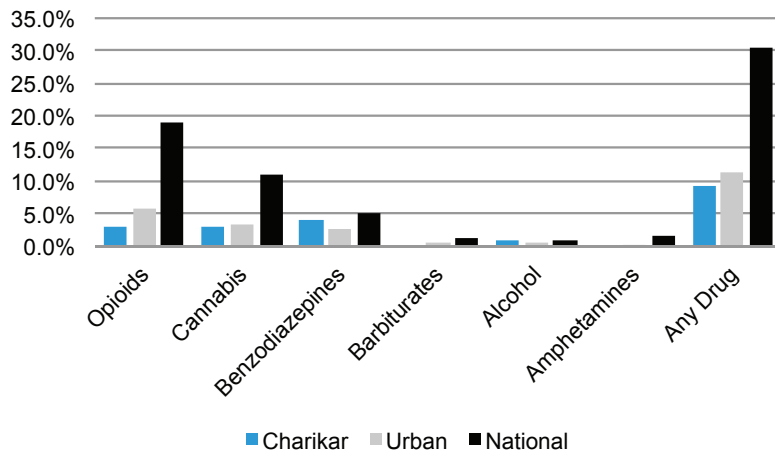


Figure 6.160. Charikar household rates.

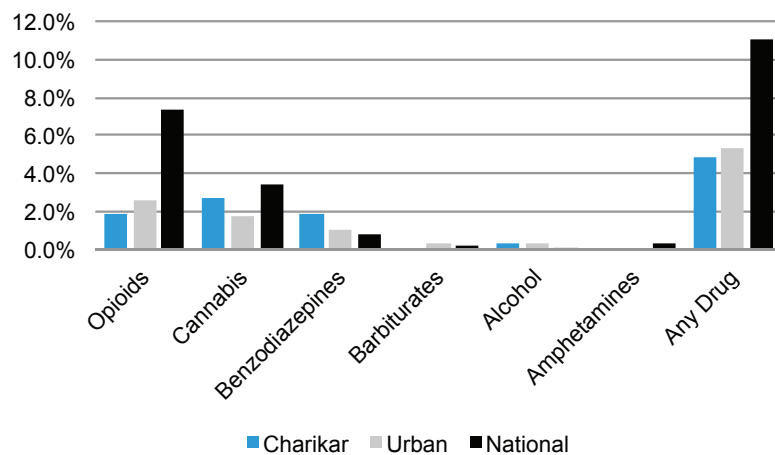


Figure 6.161. Charikar population rates.

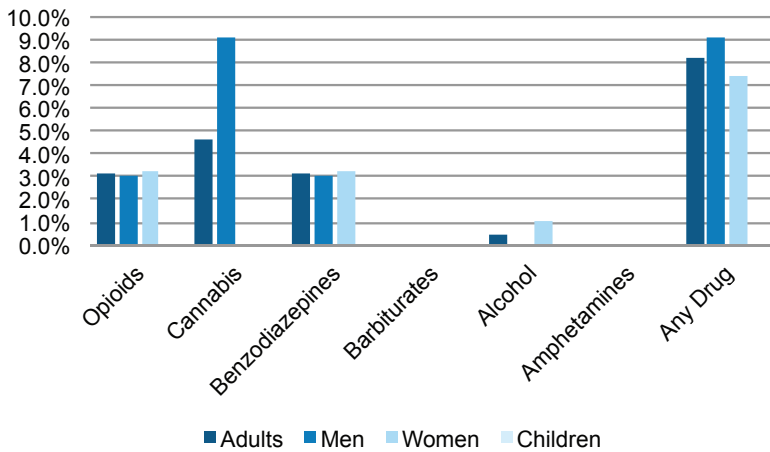


Figure 6.162. Charikar adult and child rates.

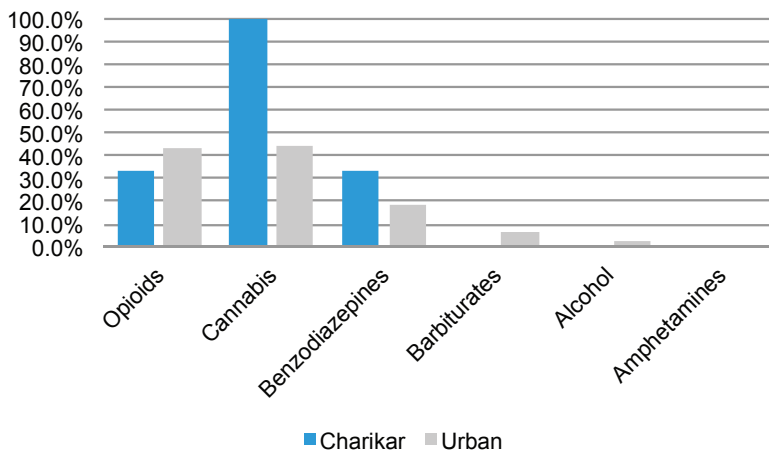


Figure 6.163. Types of drugs used by Charikar men users.

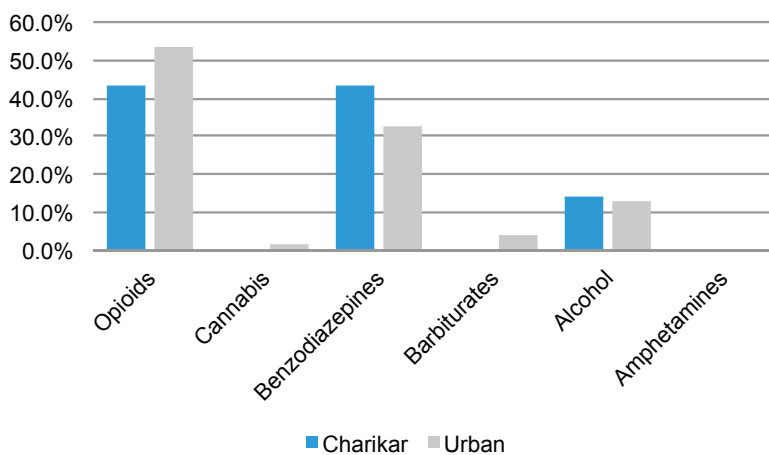


Figure 6.164. Types of drugs used by Charikar women users.

Among adult male drug users, 33% tested positive for opioids, all for opium. Among adult female drug users, approximately 43% tested positive for opioids. Most of the opioids (67%) detected in adult females were synthetic or pharmaceutical opioids, while about one-third tested positive for opium. No heroin use was detected among adult males or females. The average hair, saliva, and urine opioid concentrations for Charikar are presented in the Appendix.

Cannabis was detected in approximately 3% of households, 3% of the population, and 5% of adults. Cannabis was detected exclusively in adult males: it was detected in 9% of the adult male population and was detected in all adult male drug users. The 9% rate for adult males is the highest of any of the provincial capitals.

Benzodiazepines were detected in approximately 4% of households, 2% of the population, and 3% of adults. The rates for adult males and females were approximately the same, at 3% each. Among adult drug users, 33% of males and 43% of females tested positive for benzodiazepines.

Alcohol was detected in one woman (approximately 1% of women) and in no men. This one adult female positive represents a 14% of adult female drug user rate for alcohol.

Drug use was detected only in

adults aged 25 years and older, with the highest rate of drug use detected in adults aged 45 years and older (Figure

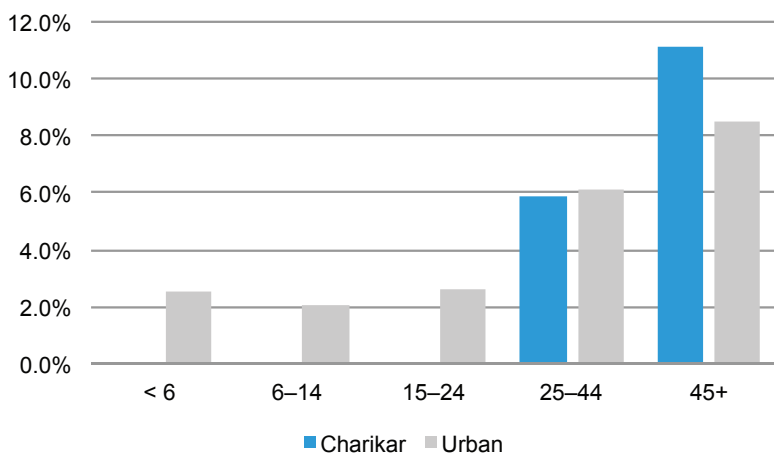


Figure 6.165. Charikar rates by age group.

6.165). Opioid rates were similar among those aged 25–44 years and those 45 years and older. Cannabis use among adults ages 25–44 is almost 2.5 times higher than that of adults aged 45 years and older. Use of benzodiazepines is higher among those aged 45 and older. The only adult benzodiazepine user in the 25–44 age group is a 30-year-old male who also tested positive for opium.

6.5.3.7.2 Survey Results—Rural

No rural villages were surveyed in Parwan.



Collecting a hair sample from a man.

6.6 SOUTH REGION

Surveys conducted in the South region include the provinces of Kandahar and

Helmand. Results for rural villages in Kandahar and Helmand are presented in this section. No provincial capitals in the South were surveyed.



Province	Total Population	Urban Population	Rural Population
Kandahar	1,175,800	409,700	766,100
Helmand	894,200	52,500	841,700

CSO 2013–2014 population estimates.

6.6.1 KANDAHAR PROVINCE

6.6.1.1 GEOGRAPHY

Kandahar province is in the south of Afghanistan and is bordered by Urozgan province to the north, Zabul province to the northeast, the nation of Pakistan to the east and south, and Helmand province to the west. Approximately 91% of the province is flat or semi-flat, and 8% is mountainous or semi-mountainous.

Kandahar City is the provincial capital. There are 18 districts and approximately 947 villages in Kandahar province.

6.6.1.2 DEMOGRAPHICS

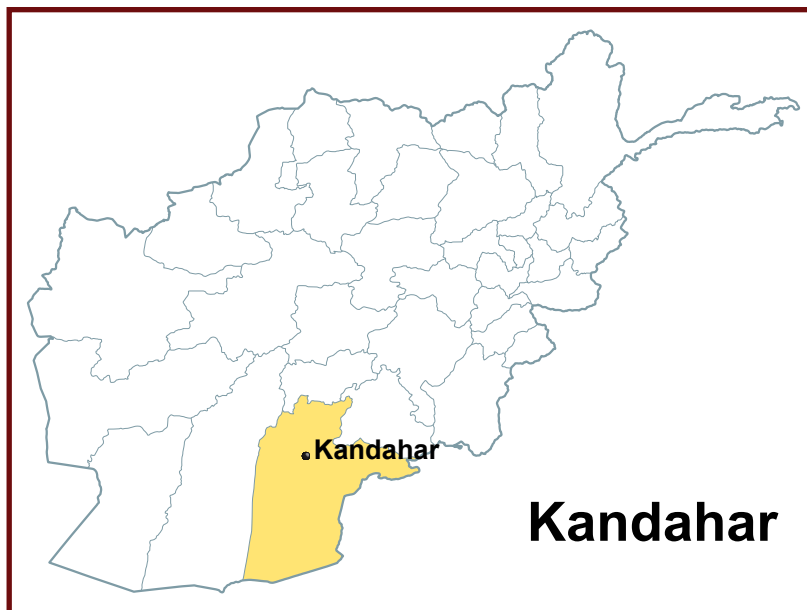
Kandahar province has an estimated population of 1,175,800. Kandahar City is the second largest city in Afghanistan and has a population of approximately 505,300, with 409,700 living in the urban center. Approximately 766,100 people, or 65% of the population, reside in rural areas of the province.

The majority of the people are Pashtun and 98% of the people speak Pashtu. Approximately 4,000 people living in six villages speak Dari, and approximately 8,000 people living in two villages speak Balochi.

The overall literacy rate is 16%: 26% for men but only 5% for women. On average, 23% of children are enrolled in school: 33% of boys and 12% of girls.

6.6.1.3 ECONOMY

Agriculture is the major source of income for approximately 28% of households, including 38% of rural households and 8% of urban households. In Kandahar City, most people derive income from non-farm labor and trades and services.



Wheat, potatoes, melon, watermelon, maize, and opium are the primary agricultural commodities. Tobacco and cotton are grown in a number of villages and a few produce sugar extracts. Even though Kandahar City is the second-largest city in Afghanistan, small industries are absent, and handicrafts are not well developed.

6.6.1.4 INFRASTRUCTURE

Approximately 87% of households have access to water in their community, but only 64% of households have access to safe drinking water: 99% of households in the urban center of Kandahar City and 50% of households in rural areas of the province. About 10% of households must travel up to an hour to obtain safe drinking water, and 3% of households must travel for between one and three hours.

25% of households have access to electricity, while only 2% of rural households do. Half of all households' electricity is from a public source.

Roads are reasonably well developed in Kandahar, with approximately 77% of roads travelable throughout the year and 19% travelable during some periods. About 3% of the province has no roads.

6.6.1.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are three inpatient treatment centers in Kandahar. Two provide outreach services, two provide community-based services, and one provides after-care services and serves as a shelter. One center additionally provides home-based services. No village-based services are available in Kandahar.

INL and Colombo Plan support one center; Japan and UNODC support another. WADAN provides services at both of these centers. The Ministry of Public Health (MoPH) supports and provides services for the third center. All three centers treat adult males. No treatment services are available for adult women or for children.

A list of all substance-abuse treatment services and further detail on the three centers in Kandahar, as well as each of the centers in Afghanistan, is included in the Appendix.

6.6.1.6 POPPY CULTIVATION

Poppies are an important commodity in Kandahar, and historically, their cultivation has been significant. Kandahar is the second largest poppy-cultivating province in Afghanistan, accounting for 13.6% of the country's poppy cultivation. In 2013, cultivation in Kandahar increased by 16%.

6.6.1.7 SURVEY RESULTS

No urban survey was conducted in Kandahar. Two villages in Arghandab district were surveyed.

6.6.1.7.1 Survey Results—Urban

The provincial capital of Kandahar City was not surveyed.

Table 6.43. Kandahar Household and Population Rates by Drug Class

Drug Class	Household	Population
Any	44.4%	19.4%
Opioids	11.1%	5.8%
Cannabis	29.6%	13.9%
Benzodiazepines	7.4%	0.7%
Barbiturates	0.0%	0.0%
Alcohol	7.4%	0.8%
Amphetamines	0.0%	0.0%

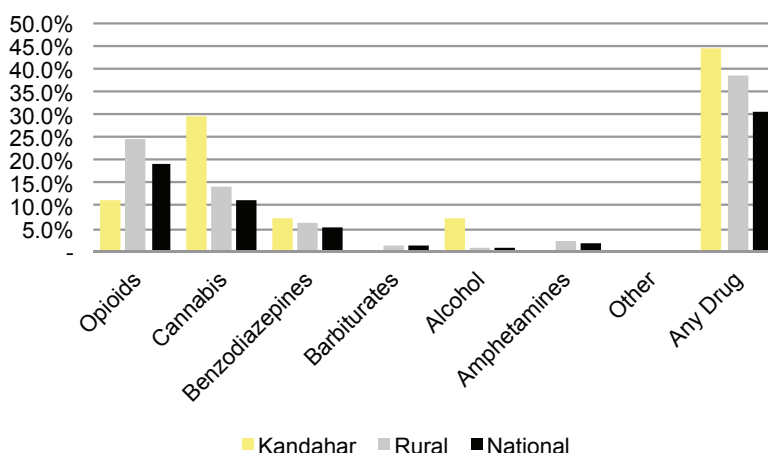


Figure 6.166. Rural Kandahar household rates.

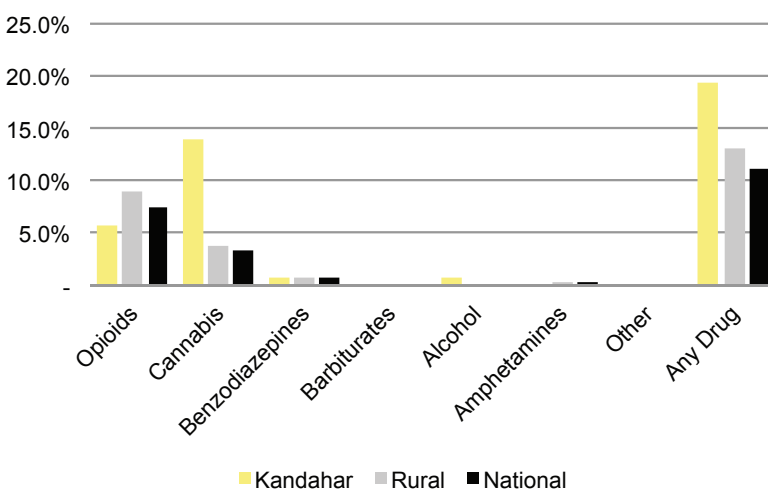


Figure 6.167. Rural Kandahar population rates.

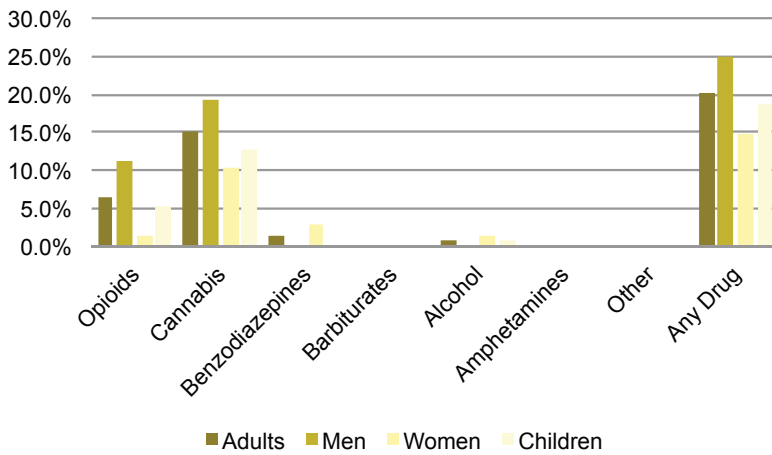


Figure 6.168. Rural Kandahar adult and child rates.

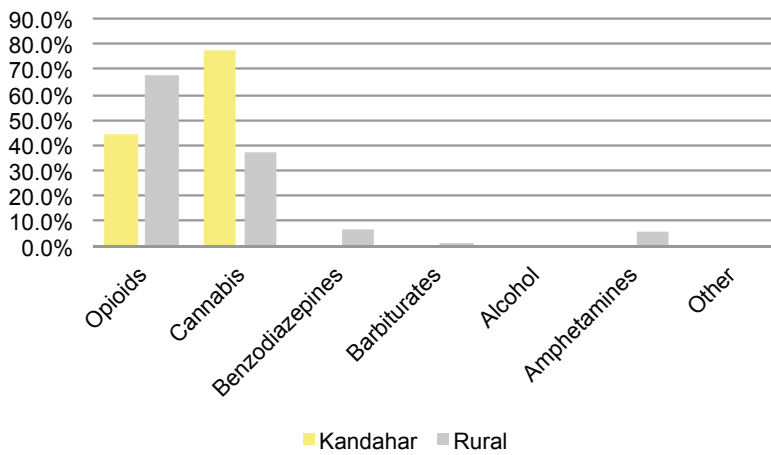


Figure 6.169. Types of drugs used by rural Kandahar men users.

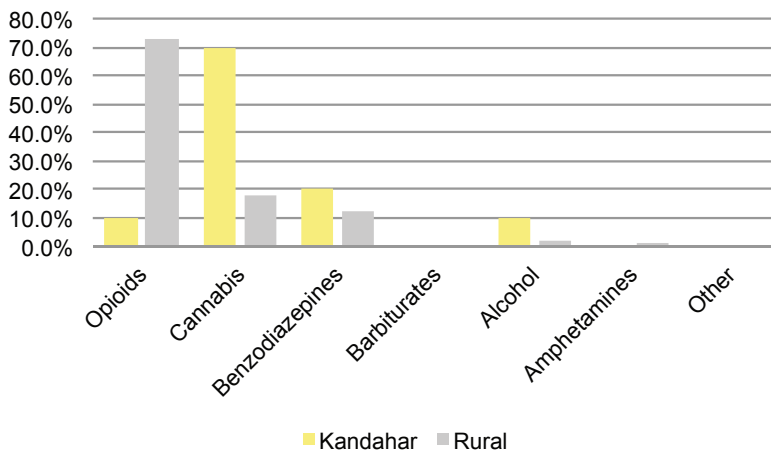


Figure 6.170. Types of drugs used by rural Kandahar women users.

6.6.1.7.2 Survey Results—Rural

Samples were collected from 221 people and 27 rural households in two randomly-selected villages, both in Arghandab district. Household and population rates for any drug positive test results by village are presented at the end of this section.

Kandahar is one of three provinces in which only two villages were surveyed. Three villages were surveyed in each of two other provinces, and the remaining 10 provinces each had four villages surveyed. The small sample size for Kandahar province increases the margin of error.

Table 6.43 presents both the household and population rates by drug class for rural Kandahar. Figure 6.166 presents the household rates by drug class, and Figure 6.167 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Kandahar. Figure 6.168 presents the rural Kandahar adult, male, female, and child rates. Figure 6.169 presents and compares the types of drugs and their rates among rural Kandahar male adult drug users and national rural adult male drug users. Figure 6.170 presents and compares the types of drugs used by female adult drug users in rural Kandahar and nationally among rural adult female drug users.

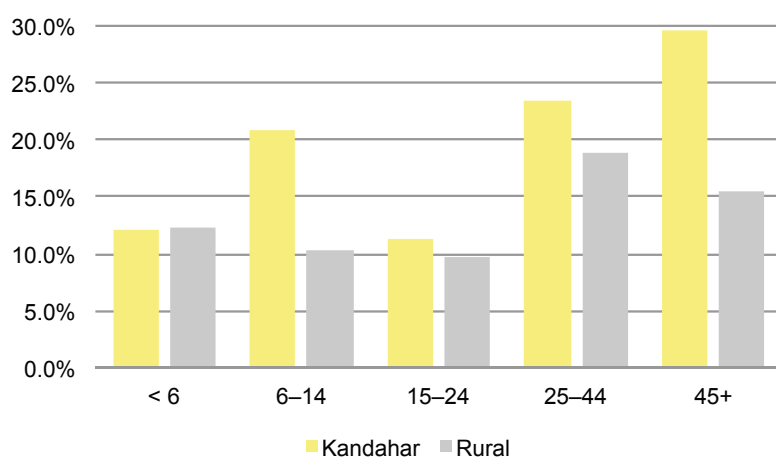


Figure 6.171. Rural Kandahar rates by age group.

Approximately 44% of households, 19% of the population, and 20% of adults tested positive in Kandahar. These rates are all higher than their respective national rural rates. Approximately 19% of children tested positive for one or more drugs, the second highest rate among the 15 provinces surveyed.

The rate for any drug use among men is significantly higher than that of women, approximately 25% versus 15%. Both the male and female rates are higher than their respective national rural rates. Among adult drug users, 32% tested positive for opioids, 75% for cannabis, 7% for benzodiazepines, and 4% for alcohol.

Opioids were detected in approximately 11% of households, 6% of the population, and 6% of adults. Approximately 5% of children tested positive for opioids. These rates were all lower than their respective national rural rates.

Among adult male drug users, approximately 44% use opioids, 25% use heroin and 75% use opium. Among adult female drug users, only one woman tested positive for opioids, specifically for heroin. The average hair, saliva, and urine opioid concentrations for rural Kandahar are presented in the Appendix.

Cannabis was the most detected drug in Kandahar province. It was detected in approximately 30% of households, 14% of the population, and 15% of adults (19% of men and 10% of women). The respective adult rates were the highest rural rates among the 15 provinces surveyed. Among adult male drug users, 78% use cannabis. Among adult female drug users, approximately 70% use cannabis.

Fifteen children tested positive for cannabis, a rate of approximately 13%. This was the second highest child rate among the 15 provinces surveyed. Five of the children tested positive for native-THC in saliva. One of those children was one year old, one was five years old, and the other three were eight to 14 years of age. All of the other 10 children were six years of age or older, and all were positive for carboxy-THC only in their hair samples.

Approximately 7% of households and 1% of the population tested positive for benzodiazepines. No adult males or children tested positive. Approximately 3% of adult females tested positive.

Amphetamine-type stimulants and barbiturates were not detected in Kandahar.

Alcohol was detected in approximately 1% of the population. It was not detected in men, but was detected in one adult female (approximately 2% of women) and one child (approximately 1% of children).

Drugs were detected in all adult age groups, but the highest rate detected was among those aged 45 years and older (Figure 6.171). The lowest rate was among those 15–24 years old. Among adult males, the highest rate was among those aged 45 years and older at 33%, the second-highest rate among the 15

provinces surveyed. The highest rate for adult females was also among those aged 45 years and older, while the lowest rate was also among those 15–24 years old.

The drug-positive rate among children younger than six is 12%, similar to the national rural rate for this age group. The rate among children 6–14 years old is 21%, which is significantly higher than the national rural rate for this age group and is the second highest rate for this age group among the 15 provinces surveyed.

Table 6.44 presents the approximate household, population, adult, male, female, and child rates for the two Kandahar villages surveyed. These rates are on the basis of any drug-positive test result. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. This is especially true for Kandahar, where the sample size is smaller than in 90% of the

provinces surveyed. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

In Village #46, the male rates for opioids and cannabis are similar, while for females the rate for cannabis is higher than that for opioids.

The cannabis rate for adult males in Village #47 was 24%, the highest among the 52 villages surveyed. Among adult females, the rate was 16%, and among children, it was 19%. The female rate was the second highest among the 52 villages surveyed. In Village #47 alcohol was detected in one woman (approximately 4% of women) and one six-year-old child (approximately 2% of children). It is only one of four villages where alcohol was detected, and the only village among the 52 villages surveyed in which alcohol was detected in a child.

Table 6.44. Kandahar Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#46	Arghandab	29%	16%	15%	18%	12%	17%
#47	Arghandab	70%	22%	24%	28%	20%	20%



6.6.2 HELMAND PROVINCE

6.6.2.1 GEOGRAPHY

Helmand is located in the south and is bordered by the provinces of Ghor to the north, Farah and Nimroz to the west, Day Kundi to the northeast, and Uruzdan and Kandahar to the east, and the country of Pakistan to the south. Helmand province is made up of 71% flat and semi-flat lands; the other 39% of the province is mountainous or semi-mountainous.

The capital of Helmand is Lashkar Gah. There are 13 districts and approximately 1,705 villages in the province.

6.6.2.2 DEMOGRAPHICS

The total population of Helmand is approximately 894,200. There are 102,000 people living in Lashkar Gah with 42,500 living in the urban center. Approximately 841,700 people, or 94% of the population, reside in rural areas of the province.

The majority of Helmand's people are Pashtun; the largest minority are Balochi. Pashtu is spoken by 92% of the population. Dari is spoken by approximately 4% of Helmand's people and in 75 villages. Balochi is spoken in only about 28 villages.

Helmand's literacy rate is very low, at approximately 5%: 8% for men and 1% for women. On average, only 6% of children are enrolled in school: about 11% of boys and a very small percentage of girls.

6.6.2.3 ECONOMY

Agriculture is the major source of income for 69% of all households, including 70% of rural households. Agricultural land and garden plots are owned and managed by 67% of the rural households. Twenty-six percent of rural



Helmand households also obtain some income from trade and services. About 20% of rural households also obtain some income from non-farming-related labor. Twenty-five percent of rural Helmand households get their income through livestock. Approximately 41% of rural households reportedly earn income from cultivating opium.

Wheat, maize, melons, and watermelons are the primary field crops. Fruit and nut trees (67%) and grapes (26%) are the main crops produced in garden plots. Small industries are nearly absent in Helmand, with only a small amount of handicrafts—mostly jewelry and some rugs—produced in the province.

6.6.2.4 INFRASTRUCTURE

Approximately 94% of Helmand households have access to water within their community, but only 28% of households have access to safe drinking water. About 6% of households must travel up to an hour to obtain water.

On average, 21% of households have access to electricity. About two-thirds of these households obtain their electricity from public sources.

Roads are reasonably well-developed, with 62% of roads travelable throughout

the year and approximately 33% of roads travelable during some periods. There are no roads in about 5% of the province.

6.6.2.5 SUBSTANCE-ABUSE TREATMENT SERVICES

There are two inpatient centers in Helmand, both of which also provide outreach and after-care services. One center also serves as a shelter; the other also provides home-based services. No village-based services are available in Helmand.

INL and Colombo Plan support one of the centers, and WADAN provides that center's services. The Ministry of Public Health (MoPH) supports and provides services for the other center. Both treat adult males. No treatment services are available for adult women, adolescents, or children.

A list of all substance-abuse treatment services and further detail on the two centers in Helmand and each of the centers in Afghanistan is included in the Appendix.

6.6.2.6 POPPY CULTIVATION

Helmand has been one of Afghanistan's main opium-cultivating provinces since about 2004. In 2012, Helmand cultivated nearly 29% of all poppies cultivated in Afghanistan. In the same year, 3,637 hectares of poppies were eradicated, more than in any other province in the country. The amount of poppies cultivated in Helmand increased by 34% in 2013 up to 100,693 hectares, or 48% of all the poppies cultivated in Afghanistan. In 2013, another 2,162 hectares were eradicated, the second highest

amount and about 29% of the total amount of poppies eradicated in Afghanistan. Even with continued eradication efforts, Helmand is likely to re-

Drug Class	Household	Population
Any	44.4%	11.4%
Opioids	16.7%	3.5%
Cannabis	22.2%	7.6%
Benzodiazepines	16.7%	1.2%
Barbiturates	11.1%	1.9%
Alcohol	0.0%	0.0%
Amphetamines	0.0%	0.0%

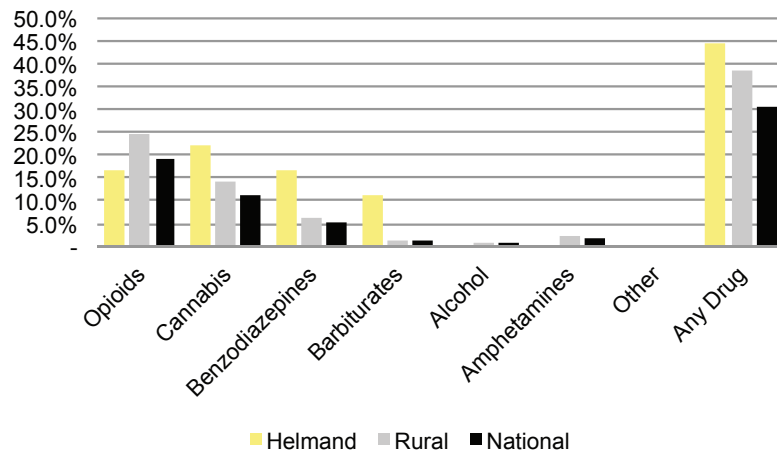


Figure 6.172. Rural Helmand household rates.

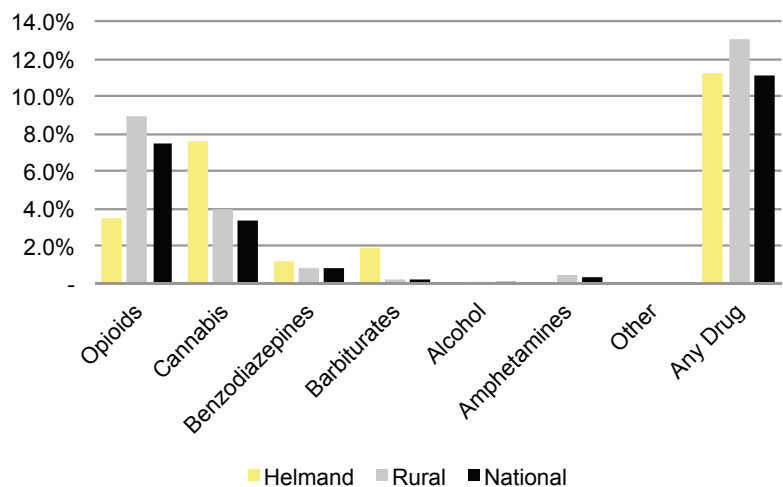


Figure 6.173. Rural Helmand population rates.

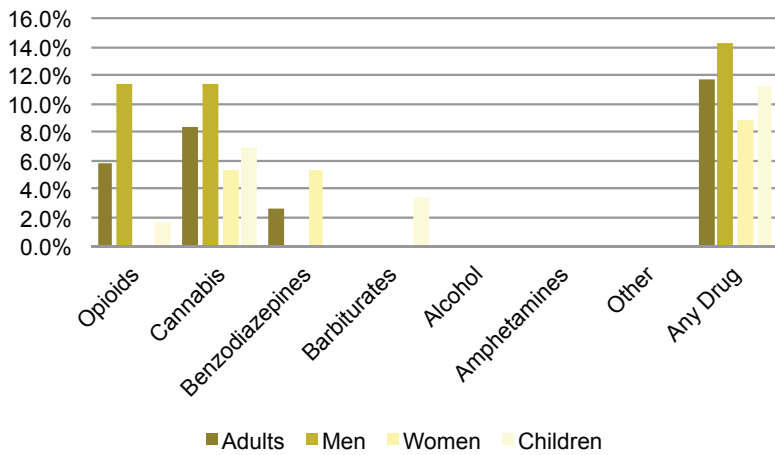


Figure 6.174. Rural Helmand adult and child rates.

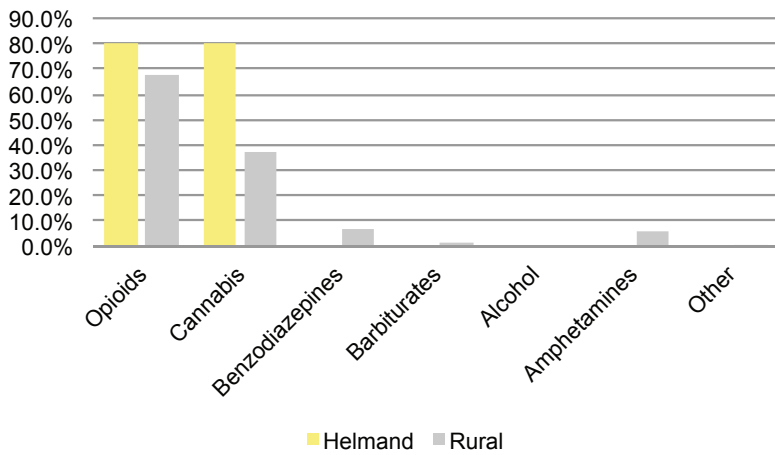


Figure 6.175. Types of drugs used by rural Helmand men users.

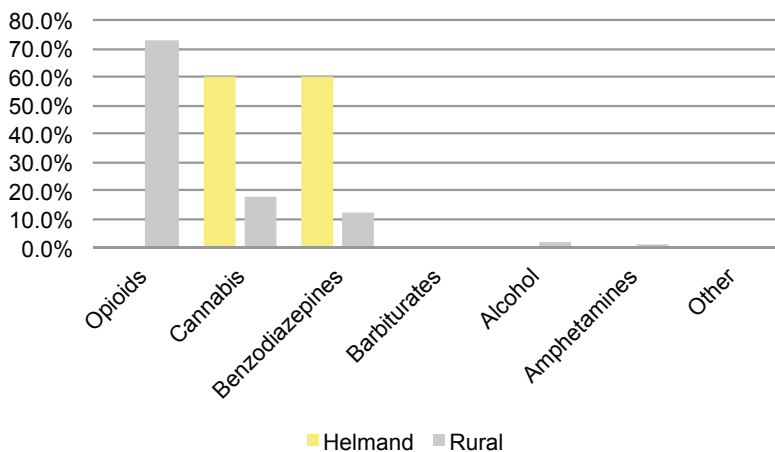


Figure 6.176. Types of drugs used by rural Helmand women users.

main a major poppy-producing province in Afghanistan.

6.6.2.7 SURVEY RESULTS

No urban survey was conducted in Helmand. Two villages were surveyed in the rural area of Lashkar Gah district.

6.6.2.7.1 Survey Results—Urban

The urban center of the provincial capital Lashkar Gah was not surveyed.

6.6.2.7.2 Survey Results—Rural

Samples were collected from 207 people and 18 rural households in two randomly selected villages, both in the rural area of Lashkar Gah district. Household and population rates for any drug positives by village are presented at the end of this section.

Helmand is one of three provinces in which only two villages were surveyed. Two other provinces had three and the remaining 10 provinces had four villages surveyed. The small sample size increases the margin of error.

Table 6.45 presents both the household and population rates by drug class for rural Helmand. Figure 6.172 presents the household rates by drug class, and Figure 6.173 presents the population rates by drug class. Both figures include the nationwide rural and national rates for comparison to rural Helmand. Figure 6.174 presents the

rural Helmand adult, male, female, and child rates. Figure 6.175 presents and compares the types of drugs and their rates among rural Helmand male adult drug users and national rural adult male drug users. Figure 6.176 presents and compares the types of drugs used by female adult drug users in rural Helmand and nationally among rural adult female drug users.

Approximately 44% of households, 11% of the population, and 12% of adults tested positive in Helmand. The household rate is higher than the national rural rate but the population and adult rates are lower. Approximately 11% of children tested positive for one or more drugs, a level similar to the national rural child rate.

The rate for men is higher than that of women, approximately 14% versus 9%. Both the men's and women's rates are lower than their respective national rural rates.

Among adult drug users, 50% use opioids, 73% use cannabis, and 23% use benzodiazepines.

Opioids were detected in approximately 17% of households, 4% of the population, and 6% of adults. These rates are lower than their respective national rural rates. Approximately 2% of children tested positive for opioids, which is lower than the national rural rate.

Among adult male drug users, 80% use opioids. Of these, approximately 50% use heroin, 25% use opium, and 25% use codeine. Among female drug users, no women tested positive for opioids. Helmand was one of only two provinces (the other was Khost) where no women tested positive for opioids. The average hair, saliva, and urine opioid concentrations for rural Helmand are presented in the Appendix.

Cannabis was the most-detected drug in Helmand. It was detected in approximately 22% of households, 8% of the

population, and 8% of adults (approximately 11% of men and 5% of women). Among adult male drug users, 80% tested positive for cannabis, and among adult female drug users, approximately 60% were positive for cannabis.

Analysis of the cannabis results from Helmand produces several interesting findings. Eight children, or approximately 7% of children, tested positive for cannabis. Seven of them were from the same village and six of them from the same household. Five of the children in that household tested positive for carboxy-THC in hair, and two also tested positive for native-THC in saliva. Another child living in the same household, aged one year, could not provide a hair sample, but did test positive in saliva. A five-year-old child who did not reside in that household but who lived in the same village also tested positive for cannabis, but only for carboxy-THC in hair. Another child did not test positive for carboxy-THC in hair but did test positive for native-THC in saliva.

The three children who tested positive for native-THC in saliva and who lived in the same household were ages one, four, and 11. The four-year-old child who tested positive for native-THC in saliva did not test positive for carboxy-THC in hair or urine. Native-THC in the hair sample, along with an absence of carboxy-THC in hair and urine, suggest the four-year-old child was administered cannabis smoke by an adult or had used cannabis very recently prior to being sampled, and the THC had not yet metabolized. The child's age makes it more likely that cannabis was administered to the child; the administration method is not known. No hair was collected from the one-year old child who tested positive for native-THC in saliva. This child's age strongly suggests cannabis had been recently administered to the child. The 11-year-old child who tested positive for native-THC in saliva did test positive for

carboxy-THC in hair and at a concentration an order of magnitude higher than what was found in the hair of the other children. This child may be an active user.

One of three men tested from the same household tested positive for cannabis. The individual, a 30-year-old male, had carboxy-THC detected in his hair at a level two orders of magnitude higher than what was detected in the children. He also tested positive for carboxy-THC in his urine. This person was negative for native-THC in saliva, which indicates he had not recently used cannabis. This male was an active user and could be a source of the cannabis detected in the children living in his same household. Two other men living in the household did not test positive. One other male, aged 40 years old, was absent at the time samples were collected.

In the second village, one eight-year-old child tested positive for native-THC in saliva. This child's hair was not sampled. Approximately 17% of households, 1% of the population and 3% of adults tested positive for benzodiazepines. Only women tested positive, at a rate of 5%, which was the highest among the 15 provinces surveyed.

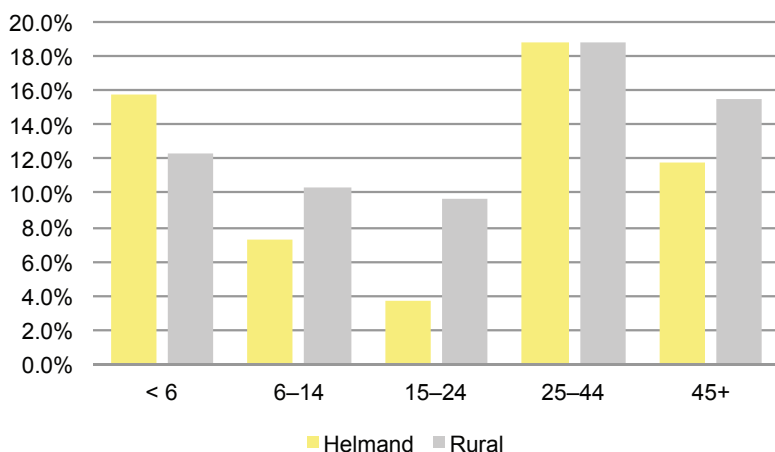


Figure 6.177. Rural Helmand rates by age group.

Approximately 11% of households and 2% of the population tested positive for barbiturates. Three children tested positive for barbiturates, representing a rate of 3%, the highest rate among the 15 provinces surveyed.

In one village, a 14-year old male child tested positive for phenobarbital in hair at 41,282 pg/mg. This concentration is the highest concentration of a barbiturate found in hair in any of the urban centers or villages surveyed. The child declined to allow collection of either saliva or urine. This child could be on medication, but the extremely high concentration in the hair sample suggests the child is more likely an active user of phenobarbital.

In a different village, two other children tested positive for barbiturates. Both of these children lived in the same household. One of the children was a five-year-old male and the other a three-year-old female. Both had phenobarbital in their saliva and urine, indicating recent use. Because of their ages, it is likely that an adult administered the drug to these children.

Neither amphetamine-type stimulants nor alcohol were detected in Helmand.

Drugs were detected in all adult age groups, with the highest rate detected among those aged 25-44 years old (Figure 6.177). The lowest rates were among those 15-24 years old. Among adult males, the highest rate was among those 25-44 years old. The highest rate for adult females was among those aged 45 years and older. No drugs were detected in men aged 45 years and older, a result seen in only two of the 15 provinces surveyed. The lowest rate for adult men and women was among those 15-24 years old. No drugs were detected in

women 15–24 years old, a result seen in a total of five provinces.

The rate among children under six years of age was 16%, which is significantly higher than the national rural rate for this age group. The rate among children 6–14 years old was 7%, slightly lower than the national rural rate for this age group.

Table 6.46 presents the approximate household, population, adult, male, female and child rates for the two Helmand villages surveyed. These rates are on the basis of any drug positive. It must be noted that because of the small sample sizes, these mean values have a large margin of error associated with the rates presented. This is especially true for Helmand where the sample size is smaller than 90% of the provinces surveyed, since only two villages were surveyed. Rates by substance for each village are presented on the village-specific summary sheets located in the Appendix.

In Village #42, adult males tested positive only for opioids and cannabis, both at the same rate of 17%. Adult females tested positive cannabis and benzodiazepines, but not opioids. Benzodiazepines were detected in 7% of adult women, one of the three highest rates among all 52 villages surveyed. Children tested positive for opioids, cannabis, and barbiturates at 3%, 10%, and 4%, respectively. The 4% positive rate for barbiturates is the highest rate among children in the 52 villages surveyed.

In Village #43, men tested positive only for opioids and cannabis, both at 10%. Women tested positive only for benzodiazepines, at 4%. One child tested positive for cannabis and one for barbiturates, putting the children’s rate for both drugs at approximately 2%. The 14-year-old male child who had the survey’s highest detected level of barbiturates is from this village.

Table 6.46. Helmand Village Rates

Village	District	Household	Population	Adults	Men	Women	Children
#42	Lashkar Gah	46%	15%	15%	17%	13%	16%
#43	Lashkar Gah	43%	6%	9%	14%	4%	4%



7.0 SPECIAL CHILDREN'S STUDIES

Children's exposure—as measured by any drug-positive test result—is generally believed to be unintentional. Children's developing brains and bodies make them more vulnerable than adults to low-level drug exposure. There is little documentation of opioid exposure and its consequences for children who live with opioid-using and/or opioid-abusing parents, so a special study on Afghan children's and women's exposure to opioids was conducted by INL between 2008 and 2011.

The study documented that children and women who live in homes where opium and heroin are smoked are being exposed to opioids. These children and non-using/non-smoking women are exposed to opioids through the inhalation of opium/heroin smoke exhaled by users (second-hand exposure) and to residues on various surfaces in the home deposited by the exhaled smoke (third-hand exposure). The study also assessed the potential effects such exposures could have on affected children.

Studies demonstrating the dangers of cigarette smoke to those in the immediate vicinity of a tobacco smoker are documented. The "second-hand" exposure to smoke produced by tobacco smokers is now recognized as a serious health issue, and "third-hand" exposure to smoke residues on surfaces near where tobacco is smoked is now also recognized as an additional route of absorption and exposure. There is little information on the effect these exposures have on those in the immediate vicinity of an opium or heroin smoker. The second- and third-hand exposure study was designed and carried out to evaluate whether, and to what extent, opioid exposure might be occurring among Afghan women and children living in homes where opium and heroin

are smoked. In the first phase of the study, 30 homes in which heroin and opium were actively smoked were identified and chosen for the study. Ambient air, surface, and hair samples from residents of those homes were collected and tested for opioid compounds. The opioid-positive results from Phase 1 are summarized in Tables 7.1 and 7.2.

The data are striking and alarming. Children as young as nine months old had detectable levels of morphine in their hair samples. For example, one 10-year-old girl had 8350 pg/mg of morphine (MOR), 4652 pg/mg of codeine (COD), and 5607 pg/mg of a heroin metabolite, 6-acetylmorphine (6-AM), in her hair. Large amounts of opioids were detected in the ambient air samples and on surfaces in homes where opium smoking occurred.

In summary:

- 30 homes were tested: 20 smoking homes and 10 controls; each had five surface samples collected for a total of 150 surface samples.
- Of the 20 smoking homes, 19 (95%) had at least one positive surface test; all control homes were negative.
- From the 20 smoking homes, 13 air samples (representing 65% of homes) were obtained, and 12 (92%) were positive.
- 69 hair samples were collected from the residents of 30 homes. Residents ranged in age from nine months to 50 years old.
- Of the 28 hair samples obtained from children in smoking homes, 17 (61%) tested positive for opium and/or heroin.
- All homes with a positive surface and/or air test had at least one resident with a positive hair sample.
- The team found not only opioids such as morphine and codeine in the residents' hair, but also a metabolite of

heroin, 6-acetylmorphine (6-AM). All three types of opioids were also detected in surface samples and in the air of these homes.

- The team also found hydromorphone (HM) and hydrocodone (HC), presumptive oxidative metabolites of morphine and codeine in residents' hair samples.

These data raised concern, but hair samples alone cannot demonstrate the amount of opioids an individual intentionally used or was passively exposed to in a home in which second- and third-hand opium smoke was present. To produce a toxicology profile of individual use or exposure, hair, saliva, and urine were collected in a second phase of the study.

In Phase 2, 20 new homes with active opium/heroin smokers and 10 control homes where opioids were not being used were chosen. From each of the residents, hair, saliva, and urine samples were collected and tested for opioids. When possible, the breast milk of consenting nursing mothers was also collected and tested for opioids. The opioid-positive results from Phase 2 are summarized in Table 7.3 and 7.4. The results were once again alarming:

- 25 smoking homes were tested and 362 samples were collected (216 biological and 146 environmental). The team collected 66 hair samples, 70 saliva samples, 70 urine samples, and 10 breast milk samples from nursing mothers who were able to produce a sufficient quantity of breast milk. The residents

sampled ranged in age from two to 60 years old. Additionally, at the 25 homes visited, the team collected 21 air samples—collected during active opium/heroin smoking—and 125 surface wipe samples

- In the 25 smoking homes, all but two had at least one resident's hair test positive for opioids. Oxidative metabolites of opium and heroin (hydromorphone and hydrocodone) and synthetic opioid (oxycodone), not routinely detected in hair samples, were

Table 7.1. Afghan Children (Phase 1) Opioid-Positive Hair Results (pg/mg)

Home #	Age	Sex	MOR	COD	6-AM	HC	HM
1	12 y	M	358	43	1369	0	0
1	10 y	F	669	93	1764	0	0
2	14 mo	F	534	122	1388	0	0
4	5 y	M	45	0	181	0	0
6	5 y	M	57	0	0	0	0
6	6 y	F	45	0	0	0	0
6	10 y	F	61	0	0	0	0
7	12 y	M	56	0	157	0	0
11	6 y	M	69	0	214	668	1745
11	5 y	F	52	0	148	0	0
13	8 y	F	45	118	0	0	0
15	9 mo	M	48	0	0	0	0
22	10 y	M	3190	2422	0	68	0
22	8 y	M	8901	6477	0	137	328
24	10 y	F	8350	4652	5607	183	569
25	11 y	M	3802	2403	1989	0	0
27	3 y	F	58	43	0	0	0

Table 7.2. Phase 1 Home #21 Opium Den Surface, Air, and Hair Results (ng/swab, pg/cartridge, or pg/mg hair)

Sample	MOR	COD	6-AM	HC	HM
Floor	123	19	10	0	0
Wall	0	1.5	5	0	0
Ceiling	6	0	16	0	0
Window	1138	102	769	0	0
Wall	191	20	214	0	0
Air, smoking	19,918	2367	369,419	0	0
Hair, 20 M	33,554	7258	28,306	333	1734
Hair, 26 M	15,174	5602	19,759	200	265

also detected in samples from six users and in one five-year-old child.

- Hair samples from 42 children aged 2–14 years were tested for opioids; 31 (74%) tested positive.
- Hair samples from 20 females aged 22–60 years were tested for opioids; 16 (80%) tested positive.
- Hair samples from four males aged 20–46 years were tested for opioids; three (75%) tested positive.
- There was active smoking during sample collection in 21 of the 25 homes; all 21 (100%) of the air samples taken during smoking tested positive for opioids. Opioids were detected in the occupants' hair and the air at remarkable concentrations.
- Of the 25 homes that had surface wipe samples taken, 24 (96%) had at least one sample test positive for opioids.

The team was only able to locate one family tested during Phase 1 for testing again during Phase 2. The results from both Phase 1 and 2 were compared and are summarized in Table 7.5.

A physiologically based pharmacokinetic (PBPK) model was developed from the available data to determine the impact of second- and third-hand opium/heroin smoke on growing children. A PBPK model is a mathematical modeling technique used to predict the absorption, distribution, metabolism and excretion of synthetic or natural chemical substances in humans and animals.

The data show that children and other non-users of opium or heroin living in homes with users who smoke opium and heroin are being affected through second- and third-hand exposure. Long-term health consequences to children from that exposure are suggested by the PBPK modeling. For example, using the model, morphine concentration after exposure in the brains of children aged 3, 5, 10, and 15 years old can be estimated

Table 7.3. Afghan Children (Phase 2) Opioid-Positive Hair Results (pg/mg)

Home #	Age	Sex	MOR	COD	6-AM	HC	HM
1	11 y	M	74	0	274	0	0
1	8 y	F	92	0	259	0	0
4	6 y	F	62	0	181	0	0
4	11 y	F	60	0	204	0	0
5	12 y	F	0	0	101	0	0
6	6 y	F	48	0	189	0	0
6	3 y	M	257	42	811	0	0
7	3 y	F	83	0	178	0	0
7	12 y	F	125	0	287	0	0
7	4 y	M	72	0	368	0	0
10	7 y	F	124	0	385	0	0
10	8 y	F	193	0	990	0	0
18	5 y	F	90	0	122	0	0
20	10 y	M	3768	1847	810	51	81
20	5 y	M	15,554	8360	1490	476	182
22	3 y	M	195	176	89	0	0
23	13 y	F	298	129	0	0	0

Table 7.4. Phase 2 Home #20 Addict's Home Surface, Air, and Hair Results (ng/swab, pg/cartridge, or pg/mg hair)

Sample	MOR	COD	6-AM	HC	HM
Child pillow	485	478	NA	0	0
Child mattress	387	375	NA	0	0
Cradle	237	193	NA	0	0
Pillar	162	165	NA	0	0
Child blanket	176	162	NA	0	0
Air, smoking	562,974	402,671	0	0	0
Hair, 35 F	15,011	15,485	1680	2612	1187
Hair, 10 M	3768	1847	810	51	81
Hair, 5 M	15,554	8360	1490	182	476

over several hours and compared to a that of a 20-year-old adult who also lives in a home where opium or heroin are smoked (Figures 7.1 and 7.2). The model assumes that the children of different ages are in the room at the time opium or heroin is smoked.

Drastic accumulation of morphine in brain tissue is clearly seen under such circumstances. The modeling suggests that a three-year-old child would end up with several orders of magnitude more morphine in the brain than older children and adults. The younger the child, the more morphine is likely to build up in the brain for a number of physiological reasons. This pattern is duplicated in

other tissues, such as lungs, kidneys, the liver, and the skin, as well as the saliva and blood compartments.

These findings indicate that the younger the child is, the more likely it is that morphine will concentrate in the brain and other vital organs. This information is important to share with users as part of a drug prevention program. Adult users should be made aware of the consequences that smoking opium and heroin in a confined environment may have on their children. The study clearly demonstrates that children and other non-users of opium/heroin living in homes with opium/heroin smokers are being exposed and affected by second- and third-

hand opium/heroin smoke. The PBPK modeling also suggests long-term health consequences to children are likely from passive environmental exposure to opium/heroin smoke. The need for medical evaluation and treatment for these children is suggested by the results of this study. A study to assess the role and contribution of passive environmental exposure towards the future drug use or addiction of children living in

Table 7.5. Same Home* Hair Test Results (pg/mg)

	MOR	COD	6-AM	HC	HM
10 year-old boy					
2008	3190	2422	0	68	0
2009	3768	1847	810	51	81
5-year-old boy					
2008	8901	6477	0	137	328
2009	15,554	8360	1490	182	476
Boys' mother					
2008	No samples taken				
2009	15,011	15,485	1680	2612	1187

* This was home #22 in 2008 and #20 in 2009.

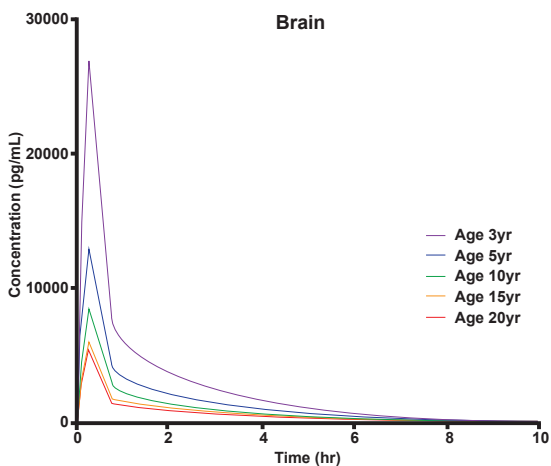


Figure 7.1. Morphine in brain after exposure by age.

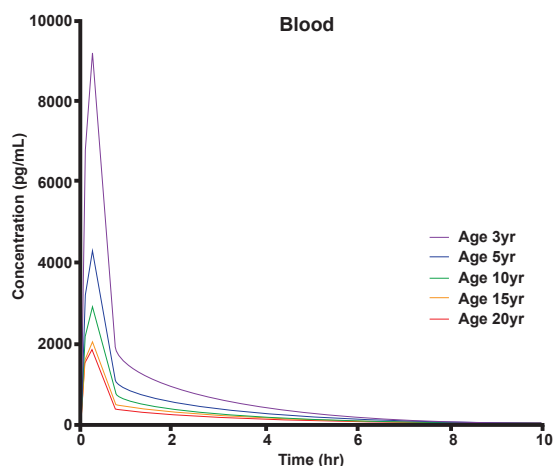


Figure 7.2. Morphine in blood after exposure by age.

homes where opium/ heroin is smoked is also needed.

The findings from this study are alarming. The findings are made more urgent by the fact that the results of ANDUS lead to estimates of approximately 660,000 to 810,000 children who could test positive for opioids in Afghanistan, and that 8–9% of them could be users. Many of the child users and some of those who are drug-positive from environmental exposure or from being given opioids by adults may be in immediate need of drug

treatment. Drug education and prevention programs must also inform adult drug users as to how their use of opioids affects children living in their homes.

The results of this study are presented in two reports, both which are included in the Appendix: “Brief Technical Report, Opium Smoke: The Study of Second- and Third-Hand Exposure in Women and Children of Afghanistan” and “Afghanistan Children’s Exposure to Second- and Third-Hand Opium Smoke and its Potential Long-Term Consequences”.



8.0 CONCLUSIONS

The Afghanistan National Drug Use Survey (ANDUS) is the largest laboratory-based drug-use survey in the world body of literature. The key findings and conclusions from the survey are important for improving the design and implementation of existing and future drug prevention and treatment programs in Afghanistan.

#1 Drug use is prevalent throughout Afghanistan with the highest rates of drug use occurring in rural villages.

Drug use occurs in approximately 31% of households with 11% of the population testing positive for one or more drugs. Rural drug use is significantly higher than in the urban centers. The rural household rate is almost four times higher (39% versus 11%) and the percentage of the population who tested positive is almost three times higher (13% versus 5%).

This is a startling and very important finding. It confirms previous interview-based surveys that found extensive drug use in Afghanistan, and now reports rates significantly higher than earlier estimates. This finding signals the need for immediate action to reduce drug use in Afghanistan, especially in the rural villages where the availability of prevention and treatment resources are currently limited.

This is a serious public health issue for children living in homes where drugs are used as well as a threat to the stability of the basic family unit. Drug use also has long-term negative effects on the economic and social framework of Afghanistan. The consequences of drug use at the family level are clear and documented by the recent 2014 UNODC report “Impact of Drug Use on Users and their Families in Afghanistan”.¹ This study states that 63.6% of drug users they interviewed reported a “...deterioration of family relationships, including fights, di-

voice or violence...” Focus groups conducted in this study also reported that “drug use caused family violence, affected children negatively and was one of the main reason for the collapse of family relationships among drug users.”

Modern treatment programs focus on drug use not as an individual behavioral disorder but as a disease of the family. Members of the drug user’s family should be involved and educated about the dangers of drug use and the treatment of the family member. Drug use is a learned behavior, often originally learned from family members and peers then passed on from one generation to the next. This may be especially significant in Afghanistan, where multi-generations and multi-families live in the same household.

Drug use is an acquired behavior that may first be seen, learned, or experienced at home. ANDUS suggests that children living in one-third of all Afghan households are seeing, learning, or experiencing adult drug use occurring in the home. This is in line with the UNODC report where it was noted that 45% of children report first using heroin at home, with 41% reporting they first obtained it from their parents. As such, home-based outreach programs and dissemination of drug prevention information in schools and community centers need to be priorities in Afghanistan to protect children and prevent the spread of drug use from one generation to the next.

The U.S. Drug Enforcement Administration (DEA) Educational Foundation organized a traveling anti-opium street theater in 2011–2012, and more than 120,000 Afghan children and adults visited the culturally appropriate performances.² This was a significant and successful step forward in community education on the dangers of opium use and needs to continue and expand throughout Afghanistan.

¹ http://www.unodc.org/documents/data-and-analysis/Studies/Impacts_Study_2014_web.pdf

² <http://www.deaeducationalfoundation.org/wp-content/uploads/2010/06/Informant-Winter-2013-Vol-7-No2.pdf>

#2 Approximately 2.9 to 3.6 million Afghans could test positive for one or more drugs and 1.0 to 1.2 million of them are children. Of this total, approximately 1.9 to 2.4 million adults and 90,000 to 110,000 children could be drug users.

Approximately 13% of adults tested positive for one or more drugs and are assumed to be drug users. Among children, 9% tested positive for one or more drugs. Unlike adults, 91% of the children who were positive are innocent victims of adult drug use in the home.

The 13% rate of drug use among Afghan adults is twice the adult global average rate of drug use reported by the UNODC.³ The 2.9 to 3.6 million estimate of the number of Afghans who could be drug-positive is significant but not surprising because as much as 50% of the national GDP is related to opium poppy cultivation and the production of opium and heroin, with many Afghans employed in various positions/roles in the opium trade. In 2014, opium poppy cultivation rose to historically high levels, up 7% over 2013; production of opium and heroin rose 17%. In light of these statistics and Afghanistan's high non-opium-related unemployment and low literacy rates, drug use is likely to increase unless a long-term education, prevention, and treatment public service campaign is developed. This must start in the home, as noted above, be part of the curriculum in every school in Afghanistan, and be supported by continual community education events and media campaigns. The message of a "Drug-Free Afghanistan" must be consistent and flow through every aspect of life in Afghanistan: in homes, schools, workplaces, and in the community.

It is also important to note that drug use does not just affect the user: it affects everyone drug users come in contact with in their daily lives. It has been sug-

gested that each drug user affects between five and 10 people around him or her: family members, friends, neighbors, co-workers, and members of the community. A conservative projection of those affected by individual drug users in Afghanistan could be almost 50% of the nation's population, and many of those so impacted are children.

Children as young as one year-old tested positive for drugs. These children were not intentionally using drugs and could only have tested positive from environmental exposure or administration of the drug by an adult. Regardless of the route of administration, the two drugs most often detected are opioids and cannabis, drugs which are extremely dangerous to young children, especially infants. This is a significant threat to the health and well-being of Afghan children.

The UNODC impact survey noted that almost 50% of Afghan children self-reported they were introduced to drugs by parents. The drug-testing profile of opioid use by children parallels that of their parents. Examination of the opioid results suggest that approximately 91% of the children who tested positive are not active drug users, but innocent second- or third-hand victims of adult smoking or were given the drug by an adult.

Regardless of the route of administration, opioids in children threaten their health. Pharmacokinetic modeling suggests that the younger the child at the time of exposure, the more likely morphine will build up in the brain for a number of physiological reasons. This pattern is duplicated in other tissues such as lung, kidney, liver, and skin, as well as in the saliva and blood compartments. The long-term effects are unknown and require further study, and it is probable that these children may require specialized drug education programs to prevent them from becoming drug users later in life. Only through a consistent long-term public awareness

³ <http://www.unodc.org/wdr2014/>

campaign can this threat to the health and well-being of Afghan children be curtailed.

#3 Considering there may be more than 2,000,000 drug users in Afghanistan, existing education, prevention, and treatment programs, especially in the rural areas, are insufficient to meet the needs of existing and new drug users.

Sixty-eight centers provide residential or inpatient treatment services, and 34 provide outpatient services in Afghanistan. These centers have the capacity to treat approximately 27,280 drug users per year on an inpatient basis. All of these centers are located in urban centers, and only five village-based programs currently exist. These programs only provide outpatient services and for defined periods of time.¹

It is concerning that the UNODC 2009 survey reports that Afghans feel the problem of drug use is worsening and that many are unaware of available treatment programs. “Only ten percent of drug users surveyed had received a form of drug treatment, although 90% of them felt that they were in need of it.”⁴ Using ANDUS projections, this results in potentially more than 2,000,000 Afghans with limited access to drug treatment; another generation of drug users will, based on current rates and projections, need this treatment in the future. It is important that the capabilities and capacities of existing treatment centers be increased and that new treatment centers be built to treat drug users in Afghanistan.

The ANDUS data suggest that drug use is widespread in Afghanistan and will continue and possibly increase without a long-term national strategy of prevention, education, and treatment. Presently, drug use significantly affects the socioeconomic stability of Afghanistan and lim-

its its future. Children are most at risk of exposure to drug use, especially opioids, with possibly more than 1,000,000 Afghan children already exposed to opioids and other drugs.

With this new information in hand, it is clear that there is not enough capacity to treat those who want or are in need of drug treatment in either urban or rural settings. Expansion and improved availability and capabilities of drug treatment and prevention programs will encourage drug users not to smoke in homes, to seek treatment, and will ultimately protect the most innocent victims of drug abuse in Afghanistan: children.

In light of the poppy cultivation and processing industry being so intertwined with Afghanistan society, drug use will not decline without a major effort to support education, prevention, and treatment. Increased funding will be necessary to expand these programs and to expand capacity to treat drug users and drug-affected children.

The United States has a long history of studying the effects of drug treatment and recently reported:

According to several conservative estimates, every dollar invested in addiction treatment programs yields a return of between \$4 and \$7 in reduced drug-related crime, criminal justice costs, and theft. When savings related to healthcare are included, total savings can exceed costs by a ratio of 12 to 1. Major savings to the individual and to society also stem from fewer interpersonal conflicts; greater workplace productivity; and fewer drug-related accidents, including overdoses and deaths.⁵

Clearly, the investment in drug education, prevention, and treatment has long-

⁴ <http://www.unodc.org/documents/data-and-analysis/Studies/Afghan-Drug-Survey-2009-Executive-Summary-web.pdf>

⁵ <http://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/frequently-asked-questions/drug-addiction-treatment-worth-its-cost>

term positive effects on society. However, these effects may take a generation or more to be seen in Afghanistan. The United States Department of State, the Colombo Plan, DEA Educational Foundation, other international donors, and the United Nations have all provided culturally appropriate education, prevention, and treatment programs in Afghanistan. These programs must continue for the

long-term and be funded for expansion into rural areas where the need is greatest. Drug use is a treatable chronic illness that can be controlled with appropriate treatment and follow-up programs. Funding for treatment, aftercare, and frequent testing is a long-term investment in Afghanistan that will have very positive social and economic outcomes.



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AFGHANISTAN NATIONAL DRUG SURVEY

APPENDIX



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Table A1. Urban, Rural, and National Rates by Population and Household

POPULATION

	Urban Study Adjusted Rate	Rural Study Adjusted Rate	National Rate
Any	5.3%	13.0%	11.1%
Opioids	2.6%	8.9%	7.4%
Cannabis	1.7%	3.9%	3.4%
Benzodiazepines	1.0%	0.8%	0.8%
Barbiturates	0.3%	0.2%	0.2%
Alcohol	0.3%	0.1%	0.1%
Amphetamines	0.0%	0.4%	0.3%

HOUSEHOLDS

	Urban Study Rate	Rural Study Rate	National Rate
Any	11.4%	38.5%	30.6%
Opioids	5.6%	24.5%	19.0%
Cannabis	3.2%	14.1%	11.0%
Benzodiazepines	2.5%	6.1%	5.1%
Barbiturates	0.6%	1.4%	1.1%
Alcohol	0.7%	0.9%	0.8%
Amphetamines	0.1%	2.2%	1.6%

Table A2. Urban, Rural, and National Rates for Men, Women, Children, and Adults

	Urban Study % Positive	Rural Study % Positive	National % Positive
Adult Men	10.6%	17.8%	16.1%
Amphetamines	0.0%	1.1%	0.9%
Barbiturates	0.7%	0.2%	0.3%
Benzodiazepines	2.0%	1.3%	1.4%
Cannabinoids	4.7%	6.6%	6.1%
Alcohol	0.3%	0.0%	0.1%
Opioids	4.6%	12.1%	10.3%
Other	0.0%	0.1%	0.1%
Adults Women	4.3%	11.2%	9.5%
Amphetamines	0.0%	0.1%	0.1%
Barbiturates	0.2%	0.1%	0.1%
Benzodiazepines	1.4%	1.4%	1.4%
Cannabinoids	0.1%	2.0%	1.5%
Alcohol	0.5%	0.3%	0.3%
Opioids	2.3%	8.1%	6.7%
Other	0.0%	0.1%	0.0%
Children	2.3%	11.3%	9.2%
Amphetamines	0.0%	0.1%	0.1%
Barbiturates	0.2%	0.3%	0.3%
Benzodiazepines	0.1%	0.1%	0.1%
Cannabinoids	0.6%	3.6%	2.9%
Alcohol	0.1%	0.0%	0.1%
Opioids	1.3%	7.5%	6.0%
Other	0.0%	0.0%	0.0%
Adults (Men + Women)	7.5%	14.5%	12.8%
Amphetamines	0.0%	0.6%	0.5%
Barbiturates	0.4%	0.1%	0.2%
Benzodiazepines	1.7%	1.3%	1.4%
Cannabinoids	2.4%	4.2%	3.8%
Alcohol	0.4%	0.1%	0.2%
Opioids	3.5%	10.1%	8.5%
Other	0.0%	0.1%	0.1%

Table A3. Urban List of Opioid Positives

Province	Age	Codeine Hair	Morphine Hair	6-AM Hair	Codeine Oral fluid	Morphine Oral fluid	6-AM Oral fluid	Codeine Urine	Morphine Urine	6-AM Urine
Badakhshan	35	3392	7719	4908	101	321	20	23305	70458	376
Badakhshan	34	175	211	137	0	0	0	0	0	0
Badakhshan	6	0	0	0	65	214.6	24.4	0	0	0
Badakhshan	65	0	141	0	0	0	0	0	0	0
Badakhshan	30	0	0	0	406.9	772.9	0	0	0	0
Badakhshan	6	0	0	139	0	0	0	0	0	0
Badakhshan	55	0	340	0	0	0	0	0	0	0
Badakhshan	7	0	168	0	0	0	0	0	0	0
Badakhshan	60	0	0	0	7	5	0	0	364	0
Balkh	46	0	0	0	0	0	0	0	615	0
Balkh	35	0	0	0	0	0	0	0	1188	0
Balkh	46	5052	2377	0	486	343	0	10070	13454	0
Balkh	45	0	0	0	0	0	0	0	1316	0
Balkh	62	0	0	0	369	6	0	21424	32756	0
Balkh	50	114	0	0	0	0	0	0	0	0
Balkh	4	0	0	419	0	0	0	0	0	0
Farah	55	0	0	0	0	0	0	2234	336	0
Farah	25	0	0	0	0	74	44	0	0	0
Farah	45	133	254	185	0	0	0	0	0	0
Farah	55	9128	7743	166	4039	2696	0	7449	16319	0
Farah	42	262	233	0	0	0	0	0	0	0
Farah	50	192	339	0	0	0	0	0	0	0
Farah	5	0	115	0	0	0	0	0	557	0
Farah	25	0	113	0	0	0	0	0	0	0
Farah	5	0	142	0	0	0	0	0	0	0
Farah	45	149	286	0	0	0	0	0	0	0
Farah	6	0	135	0	0	0	0	0	0	0
Farah	36	104	295	0	0	0	0	0	0	0
Farah	5	169	235	0	0	0	0	0	0	0
Farah	50	115	282	0	0	0	0	0	0	0
Farah	30	0	128	0	0	0	0	0	0	0
Farah	7	0	125	0	0	0	0	0	0	0

Hair, pg/mg; oral fluid, ng/ml; urine, ng/ml.

Table A3 (continued). Urban List of Opioid Positives

Province	Age	Codeine		Morphine		6-AM		Codeine		Morphine		6-AM		Codeine		Morphine		6-AM	
		Hair	Hair	Hair	Hair	Oral fluid	Oral fluid	Oral fluid	Oral fluid	Urine	Urine	Urine	Urine	Urine	Urine	Urine	Urine	Urine	Urine
Farah	35	1337	5110	4893	0	278	11	0	0	19852	12	0	0	0	0	0	0	0	0
Farah	28	904	4574	1090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faryab	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faryab	45	2512	2451	0	284	263	0	6263	33457	0	0	0	0	0	0	0	0	0	0
Hirat	32	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hirat	35	0	0	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274
Hirat	39	870	2119	2545	472	5715	9547	2690	42102	0	0	0	0	0	0	0	0	0	0
Hirat	47	0	0	0	0	0	0	705	303	0	0	0	0	0	0	0	0	0	0
Hirat	53	0	0	0	0	0	0	0	483	0	0	0	0	0	0	0	0	0	0
Hirat	60	3163	2361	0	0	0	0	1780	5523	0	0	0	0	0	0	0	0	0	0
Hirat	5	0	437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hirat	60	0	0	0	0	0	0	3901	0	0	0	0	0	0	0	0	0	0	0
Hirat	45	385	0	0	0	0	0	4633	0	0	0	0	0	0	0	0	0	0	0
Hirat	50	177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hirat	43	253	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jawzjan	48	132	199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jawzjan	52	0	0	0	504	264	0	26549	33627	0	0	0	0	0	0	0	0	0	0
Jawzjan	55	0	0	0	0	0	0	651	970	0	0	0	0	0	0	0	0	0	0
Jawzjan	55	0	0	0	0	0	0	2062	20504	0	0	0	0	0	0	0	0	0	0
Kabul	22	0	0	0	222	1174	393	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	46	0	0	0	0	0	0	0	313	0	0	0	0	0	0	0	0	0	0
Kabul	40	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	35	1042	541	0	6.8	4.9	0	5435	12088	0	0	0	0	0	0	0	0	0	0
Kabul	30	4825	13787	9376	13	212	31	15816	89471	0	0	0	0	0	0	0	0	0	0
Kabul	46	0	0	0	0	0	0	1063	1528	0	0	0	0	0	0	0	0	0	0
Kabul	49	0	0	637	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	5	0	0	446	0	0	0	0	417	0	0	0	0	0	0	0	0	0	0
Kabul	60	0	0	0	0	0	0	0	1453	0	0	0	0	0	0	0	0	0	0
Kabul	63	0	0	0	0	0	0	746	2989	0	0	0	0	0	0	0	0	0	0
Kabul	32	250	1013	3290	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	35	2817	17101	39152	367.16	1104.4	396.72	8577	237608	0	0	0	0	0	0	0	0	0	0
Kabul	4	0	569	1843	0	25.48	65.28	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	36	0	0	0	0	0	0	0	761	0	0	0	0	0	0	0	0	0	0
Kabul	23	0	0	0	0	0	0	2061	0	0	0	0	0	0	0	0	0	0	0

Hair, pg/mg; oral fluid, ng/ml; urine, ng/ml.

Table A3 (continued). Urban List of Opioid Positives

Province	Age	Codeine		Morphine		6-AM		Codeine		Morphine		6-AM		Codeine		Morphine		6-AM	
		Hair	Urine	Hair	Urine	Hair	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine
Kabul	10	134	0	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	30	4098	833	5247	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	40	411	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	40	1664	0	1204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	60	0	0	0	0	14.12	11.64	0	1950	7600	0	0	0	0	0	0	0	0	0
Kabul	39	1261	0	1790	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	60	469	0	209	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	6	271	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	48	356	0	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	5	1062	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	5	0	0	0	0	0	0	0	0	484	0	0	0	0	0	0	0	0	0
Kabul	30	3992	7905	8862	0	557	3437	362	2836	27845	268	0	0	0	0	0	0	0	0
Kabul	5	0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	26	5219	0	3848	0	601	578	0	9423	17247	0	0	0	0	0	0	0	0	0
Kabul	60	0	0	0	0	0	0	0	0	931	0	0	0	0	0	0	0	0	0
Kabul	38	803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	60	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	6	215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	62	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	25	3325	7458	10281	0	100	90	24	5150	37596	419	0	0	0	0	0	0	0	0
Kabul	32	239	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	7	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	30	0	0	0	0	701	3030	2757	2403	13640	325	0	0	0	0	0	0	0	0
Kabul	40	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	60	504	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	6	0	1365	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	70	362	207	957	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	25	0	0	0	0	0	0	0	0	968	0	0	0	0	0	0	0	0	0
Kabul	29	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	30	533	0	965	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	5	134	0	172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	65	215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	40	2546	0	2594	0	1577	137	0	44713	57826	0	0	0	0	0	0	0	0	0

Hair, pg/mg; oral fluid, ng/ml; urine, ng/ml.

Table A3 (continued). Urban List of Opioid Positives

Province	Age	Codeine		Morphine		6-AM		Codeine		Morphine		6-AM		Codeine		Morphine		6-AM	
		Hair	Urine	Hair	Urine	Hair	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine
Kabul	28	291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	35	206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	65	357	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	4	240	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	42	9631	8790	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	6	111	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	32	264	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	35	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	60	561	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	32	286	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	48	359	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	78	519	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	46	7268	17681	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	40	277	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	30	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	49	0	0	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	29	3517	5276	3985	111	1651	2554	3309	29803	8814	746	874	0	0	0	0	0	0	0
Kabul	32	3374	4037	0	28	21	0	1156	8814	746	874	0	0	0	0	0	0	0	0
Kabul	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	55	917	475	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kabul	28	4390	2525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nangarhar	40	1146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nangarhar	32	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	50	328	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	80	1403	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	55	596	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	43	0	0	211	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	50	250	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	34	649	434	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	40	9781	6366	0	317	223	0	5762	14672	2211	0	0	0	0	0	0	0	0	0
Nimroz	65	8276	4065	0	257	20	0	46318	66648	20	0	0	0	0	0	0	0	0	0

Hair, pg/mg; oral fluid, ng/ml; urine, ng/ml.

Table A3 (continued). Urban List of Opioid Positives

Province	Age	Codeine		Morphine		6-AM		Codeine		Morphine		6-AM		Codeine		Morphine		6-AM	
		Hair	Urine	Hair	Urine	Hair	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine	Oral fluid	Urine
Nimroz	7	1108	0	3370	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	35	0	0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	60	266	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nimroz	20	4038	0	2614	0	49	20	3768	12948	0	0	0	0	0	0	0	0	0	0
Nimroz	55	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parwan	50	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parwan	28	0	0	0	0	6.7	11	0	0	0	0	0	0	0	0	0	0	0	0
Parwan	30	0	0	0	0	1811	1620	5340	11346	0	0	0	0	0	0	0	0	0	0
Parwan	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Hair, pg/mg; oral fluid, ng/ml; urine, ng/ml.

Table A4. Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Badghis	45	F	N	N	N	N	N	Y	N			
Badghis	58	F	N	Y	N	N	N	Y	N	1,092.00		
Badghis	60	F	N	N	N	N	N	Y	N			NT
Badghis	1	M	N	N	N	N	N	Y	N	45.90	NT	NT
Badghis	25	M	N	N	N	N	N	Y	N	889.00	NT	NT
Badghis	35	M	N	Y	N	N	N	Y	N	36,931.00	1,122.00	1,757.00
Baghlan	1	F	N	N	N	N	N	Y	N		NT	NT
Baghlan	3	F	N	N	N	N	Y	Y	N			NT
Baghlan	7	F	N	N	N	N	N	Y	N			NT
Baghlan	8	F	N	N	N	N	N	Y	N	44.00		NT
Baghlan	25	F	N	N	N	N	N	Y	N			
Baghlan	50	F	N	N	N	N	N	Y	N			
Baghlan	3	M	N	N	N	N	N	Y	N	307.00		
Baghlan	5	M	N	N	N	N	Y	Y	N			
Baghlan	7	M	N	N	N	N	N	Y	N	91.00		
Baghlan	20	M	N	N	N	N	N	Y	N			
Baghlan	24	M	N	N	N	N	N	Y	N			
Baghlan	25	M	N	N	N	N	N	Y	N	120.00		
Baghlan	25	M	N	N	N	N	N	Y	N			
Baghlan	27	M	N	N	N	N	N	Y	N			
Baghlan	30	M	N	N	N	N	N	Y	N			
Baghlan	35	M	N	Y	N	Y	N	Y	N	4,602.00	38.00	318.00
Baghlan	37	M	N	N	N	N	N	Y	N			
Baghlan	40	M	N	N	N	N	N	Y	N	100.00		
Baghlan	40	M	N	N	N	N	N	Y	N			
Baghlan	42	M	N	N	N	N	N	Y	N			
Baghlan	43	M	N	N	N	N	N	Y	N			
Baghlan	50	M	N	N	N	N	N	Y	N			
Baghlan	54	M	N	N	N	N	N	Y	N			
Farah	2	F	N	N	N	N	N	Y	N		NT	NT
Farah	14	F	N	N	N	N	N	Y	N			
Farah	22	F	N	N	N	N	N	Y	N			
Farah	25	F	N	N	N	N	N	Y	N			NT
Farah	28	F	N	N	N	N	N	Y	N	946.00		
Farah	28	F	N	N	N	Y	N	Y	N			
Farah	28	F	N	N	N	N	N	Y	N			
Farah	30	F	N	N	N	N	N	Y	N			
Farah	35	F	N	N	N	N	N	Y	N			NT
Farah	1	M	N	N	N	N	N	Y	N		NT	NT
Farah	3	M	N	N	N	N	N	Y	N		NT	NT

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
397.00													
										171.00			
58.31		NT			NT			NT				NT	
	NT	NT		NT	NT		NT	NT			NT	NT	
	NT	NT		NT	NT		NT	NT		298.00	NT	NT	
6,676.00	416.00	8,467.00				667.00				23,323.00	10,583.00	36,324.00	
51.00	NT	NT		NT	NT			NT			NT	NT	
473.00		NT			NT			NT				NT	
92.00		NT			NT			NT				NT	
		NT			NT			NT				NT	
135.00													
		1,243.00										1,886.00	
										143.00			
189.00													
333.00													
144.00													
290.00		728.00	45.00					317.00		492.00		10,812.00	
417.00										339.00			
949.00		142.00	70.00							681.00		911.00	
1,395.00	139.00	10,392.00	60.00							620.00	36.00	13,313.00	
5,230.00	41.00	2,991.00	224.00			1,008.00		179.00		17,747.00	175.00	26,603.00	
134.00										73.00			
184.00										276.00		817.00	
4,320.00	398.00	28,914.00	977.00	13.00	257.00	111.00		580.00		2,303.00	151.00	34,627.00	
4,002.00	45.84	66,168.00	1,139.00		677.00	200.00		1,347.00		3,934.00	16.44	81,017.00	
206.00													
970.00													
809.00													
98.00	NT	NT		NT	NT			NT		236.00	NT	NT	
121.00													
	181.00	705.00										75.00	
827.00	243.00	NT	87.00	35.16	NT	58.00		NT		1,981.00	36.72	NT	
1,044.00			348.00			171.00				2,634.00			
600.00													
										74.13			
493.00										52.83			
189.00		NT			NT			NT		519.00		NT	
540.00	NT	NT		NT	NT	41.00	NT	NT		1,265.00	NT	NT	
261.00	NT	NT		NT	NT		NT	NT			NT	NT	

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amph-etamines	Barbiturates	Benzo-di-azepines	Cannabi-noids	Opioids	Other			
Farah	15	M	N	N	N	N	N	Y	N			
Farah	22	M	N	N	N	N	N	Y	N			NT
Farah	24	M	N	N	N	N	N	Y	N			
Farah	35	M	N	N	N	N	N	Y	N			NT
Farah	41	M	N	N	N	N	N	Y	N			
Farah	50	M	N	N	N	N	N	Y	N			
Farah	60	M	N	N	N	N	N	Y	N	NT		
Farah	85	M	N	N	N	N	N	Y	N	NT		NT
Ghor	1	F	N	N	N	N	N	Y	N		NT	NT
Ghor	1	F	N	N	N	N	N	Y	N		NT	NT
Ghor	1	F	N	N	N	N	N	Y	N		NT	NT
Ghor	1	F	N	N	N	N	N	Y	N		NT	NT
Ghor	1	F	N	N	N	N	N	Y	N		NT	NT
Ghor	1	F	N	N	N	N	N	Y	N		NT	NT
Ghor	2	F	N	N	N	N	N	Y	N		NT	NT
Ghor	2	F	N	N	N	N	N	Y	N		NT	NT
Ghor	2	F	N	N	N	N	N	Y	N			NT
Ghor	2	F	N	N	N	N	N	Y	N		NT	NT
Ghor	2	F	N	N	N	N	N	Y	N		NT	NT
Ghor	3	F	N	N	N	N	N	Y	N			NT
Ghor	3	F	N	N	N	N	N	Y	N			NT
Ghor	3	F	N	N	N	N	N	Y	N			NT
Ghor	3	F	N	N	N	N	N	Y	N		NT	NT
Ghor	3	F	N	N	N	N	N	Y	N			NT
Ghor	3	F	N	N	N	N	N	Y	N		NT	NT
Ghor	3	F	N	N	N	N	N	Y	N		NT	NT
Ghor	4	F	N	N	N	N	N	Y	N			
Ghor	4	F	N	N	N	N	N	Y	N		NT	NT
Ghor	5	F	N	N	N	N	N	Y	N			NT
Ghor	5	F	N	N	N	N	N	Y	N			
Ghor	5	F	N	N	N	N	N	Y	N			
Ghor	6	F	N	N	N	N	N	Y	N			
Ghor	6	F	N	N	N	N	N	Y	N			
Ghor	6	F	N	N	N	N	N	Y	N			
Ghor	7	F	N	N	N	N	N	Y	N			
Ghor	7	F	N	N	N	N	N	Y	N			
Ghor	7	F	N	N	N	N	N	Y	N			
Ghor	8	F	N	N	N	N	N	Y	N			
Ghor	8	F	N	N	N	N	N	Y	N			

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Metadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
		446.00										685.00	
2,219.00	34.24	NT	352.00		NT	141.00		NT		3,487.00	9.80	NT	
										55.00			
86.67		NT			NT			NT		65.56		NT	
		283.00							677.00			3,202.00	
5,782.00	794.00	6,124.00	409.00			174.00				4,252.00	1,813.00	10,978.00	
NT			NT			NT			NT	NT		276.00	NT
NT	719.00	NT	NT		NT	NT		NT	NT	NT	5.24	NT	NT
40.60	NT	NT		NT	NT		NT	NT		117.00	NT	NT	
108.00	NT	NT		NT	NT		NT	NT		198.00	NT	NT	
171.00	NT	NT		NT	NT		NT	NT		555.00	NT	NT	
288.00	NT	NT		NT	NT		NT	NT		579.00	NT	NT	
932.00	NT	NT		NT	NT	86.00	NT	NT		2,126.00	NT	NT	
123.00	NT	NT		NT	NT		NT	NT		268.00	NT	NT	
885.00	NT	NT		NT	NT		NT	NT		1,762.00	NT	NT	
4,316.00	NT	NT	90.00	NT	NT	173.00	NT	NT		9,958.00	NT	NT	
1,768.00		NT	65.00		NT			NT		2,098.00		NT	
478.00	NT	NT		NT	NT		NT	NT		526.00	NT	NT	
1,441.00	NT	NT		NT	NT	56.00	NT	NT		2,946.00	NT	NT	
72.00		NT			NT			NT		95.00		NT	
100.00		NT			NT			NT		181.00		NT	
230.00		NT			NT			NT		403.00		NT	
79.96	NT	NT		NT	NT		NT	NT		188.00	NT	NT	
54.07	NT	NT		NT	NT		NT	NT			NT	NT	
2,675.00		NT	56.42		NT	100.00		NT		4,268.00		NT	
479.00	NT	NT		NT	NT		NT	NT		699.00	NT	NT	
1,385.00	NT	NT		NT	NT		NT	NT		2,593.00	NT	NT	
195.00										303.00			
715.00	NT	NT		NT	NT		NT	NT		911.00	NT	NT	
	124.00	NT			NT			NT		44.00	440.00	NT	
153.00										369.00			
62.40										93.40			
98.00										200.00			
195.00										546.00			
55.00										116.00			
251.00	23.28									958.00	12.80		
700.00										1,454.00			
308.00										543.00			
57.00										102.00			
372.00										821.00			

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Ghor	8	F	N	N	N	N	N	Y	N			
Ghor	8	F	N	N	N	N	N	Y	N			
Ghor	8	F	N	N	N	N	N	Y	N			
Ghor	8	F	N	N	N	N	N	Y	N			
Ghor	8	F	N	N	N	N	N	Y	N			
Ghor	8	F	N	N	N	N	N	Y	N			
Ghor	9	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			
Ghor	10	F	N	N	N	N	N	Y	N			NT
Ghor	12	F	N	N	N	N	N	Y	N			
Ghor	12	F	N	N	N	N	N	Y	N			
Ghor	12	F	N	N	N	N	N	Y	N			
Ghor	12	F	N	N	N	N	N	Y	N			
Ghor	13	F	N	N	N	N	N	Y	N			
Ghor	14	F	N	N	N	N	N	Y	N			
Ghor	14	F	N	N	N	N	N	Y	N			
Ghor	14	F	N	N	N	N	N	Y	N			
Ghor	14	F	N	N	N	N	N	Y	N			
Ghor	16	F	N	N	N	N	N	Y	N			
Ghor	17	F	N	N	N	N	N	Y	N			
Ghor	18	F	N	N	N	N	N	Y	N			
Ghor	18	F	N	N	N	N	N	Y	N			
Ghor	18	F	N	N	N	N	N	Y	N			NT
Ghor	18	F	N	N	N	N	N	Y	N			
Ghor	18	F	N	N	N	N	N	Y	N			
Ghor	18	F	N	N	N	N	N	Y	N			
Ghor	18	F	N	N	N	N	N	Y	N			
Ghor	18	F	N	N	N	N	N	Y	N			
Ghor	20	F	N	N	N	N	N	Y	N			
Ghor	20	F	N	N	N	N	N	Y	N			
Ghor	20	F	N	N	N	N	N	Y	N			
Ghor	20	F	N	N	N	N	N	Y	N			
Ghor	22	F	N	N	N	N	N	Y	N			

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
										68.00			
108.00										131.00			
53.00										139.00			
96.00										262.00			
821.00										1,056.00			
140.00										296.00			
65.19										114.00			
41.00										63.00			
72.73										148.00			
84.00										238.00			
87.00										181.00			
70.33										111.00			
1,117.00										2,184.00			
74.94		438.00								153.00		228.00	
234.00										409.00			
357.00		NT			NT			NT		737.00		NT	
										93.00			
147.00										228.00			
224.00										345.00			
904.00										1,430.00			
59.00										103.00			
										73.82			
		350.00										124.00	
254.00										457.00			
141.00		1,281.00								287.00		336.00	
1,207.00										1,480.00			
279.00										327.00			
72.86										88.33			
364.00										364.00			
4,253.00			90.95			190.00				9,615.00			
843.00		NT			NT			NT		1,559.00		NT	
766.00										1,009.00			
1,545.00										1,710.00			
621.00										498.00			
267.00	11.44									375.00	11.40		
378.00										634.00			
4,270.00			61.56			136.00				8,003.00			
1,903.00						47.31				2,432.00			
80.00										94.00			
67.97										50.00			

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Ghor	23	F	N	N	N	N	N	Y	N			
Ghor	24	F	N	N	N	N	N	Y	N			
Ghor	25	F	N	N	N	N	N	Y	N			
Ghor	25	F	N	N	N	N	N	Y	N			
Ghor	26	F	N	N	N	N	N	Y	N			
Ghor	26	F	N	N	N	N	N	Y	N			
Ghor	26	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	28	F	N	N	N	N	N	Y	N			
Ghor	30	F	N	N	N	N	N	Y	N			
Ghor	30	F	N	N	N	N	N	Y	N			
Ghor	30	F	N	N	N	N	N	Y	N			
Ghor	30	F	N	N	N	N	N	Y	N			
Ghor	30	F	N	N	N	N	N	Y	N			
Ghor	30	F	N	N	N	N	N	Y	N			
Ghor	35	F	N	N	N	N	N	Y	N			
Ghor	35	F	N	N	N	N	N	Y	N			
Ghor	35	F	N	N	N	N	N	Y	N			
Ghor	35	F	N	N	N	N	N	Y	N			
Ghor	35	F	N	N	N	N	N	Y	N			
Ghor	35	F	N	N	N	N	N	Y	N			
Ghor	36	F	N	N	N	N	N	Y	N			
Ghor	40	F	N	N	N	N	N	Y	N			
Ghor	40	F	N	N	N	N	N	Y	N			
Ghor	45	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	50	F	N	N	N	N	N	Y	N			
Ghor	60	F	N	N	N	N	N	Y	N			NT
Ghor	60	F	N	N	N	N	N	Y	N			
Ghor	60	F	N	N	N	N	N	Y	N			
Ghor	60	F	N	N	N	N	N	Y	N			

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
97.72										184.00			
401.00										554.00			
86.08										128.00			
4,285.00	225.00		54.00			64.00				7,125.00	236.00		
1,655.00										2,548.00			
646.00										552.00			
219.00		288.00								355.00		311.00	
4,288.00			107.00			183.00				9,311.00			
147.00										225.00			
611.00		217.00								644.00		144.00	
929.00										916.00			
51,255.00	958.00	85,835.00	7,387.00	46.00	762.00	1,299.00	2.48	2,571.00		20,229.00	178.00	57,615.00	
7,292.00			176.00			258.00				11,552.00			
1,274.00										2,097.00			
123.00										166.00			
4,239.00			72.44			113.00				5,218.00			
952.00										2,131.00			
507.00	82.00	198.00								400.00	96.00	254.00	
128.00										161.00			
										73.00			
42.26										190.00			
50.30										121.00			
1,224.00	7.36									1,175.00	7.24		
149.00										168.00			
44.00										88.00			
93.27										159.00			
837.00										494.00			
1,500.00										2,215.00			
429.00										1,357.00			
274.00										411.00			
741.00										1,083.00			
2,162.00						71.61				4,554.00			
1,490.00										1,572.00			
256.00										318.00			
1,353.00		238.00								2,366.00			
1,199.00										1,488.00			
		NT			NT			NT		112.00		NT	
643.00										518.00			
57.21										81.59			
933.00										1,117.00			

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Ghor	60	F	N	N	N	N	N	Y	N			
Ghor	60	F	N	N	N	N	N	Y	N			
Ghor	60	F	N	N	N	N	N	Y	N			
Ghor	70	F	N	N	N	N	N	Y	N			
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	1	M	N	N	N	N	N	Y	N		NT	NT
Ghor	2	M	N	N	N	N	N	Y	N		NT	NT
Ghor	2	M	N	N	N	N	N	Y	N		NT	NT
Ghor	2	M	N	N	N	N	N	Y	N		NT	NT
Ghor	2	M	N	N	N	N	N	Y	N			NT
Ghor	2	M	N	N	N	N	N	Y	N			NT
Ghor	2	M	N	N	N	N	N	Y	N			NT
Ghor	3	M	N	N	N	N	N	Y	N		NT	NT
Ghor	3	M	N	N	N	N	N	Y	N		NT	NT
Ghor	3	M	N	N	N	N	N	Y	N		NT	NT
Ghor	3	M	N	N	N	N	N	Y	N		NT	NT
Ghor	4	M	N	N	N	N	N	Y	N			
Ghor	4	M	N	N	N	N	N	Y	N			
Ghor	4	M	N	N	N	N	N	Y	N		NT	NT
Ghor	4	M	N	N	N	N	N	Y	N			NT
Ghor	5	M	N	N	N	N	N	Y	N			
Ghor	5	M	N	N	N	N	N	Y	N			
Ghor	5	M	N	N	N	N	N	Y	N			
Ghor	6	M	N	N	N	N	N	Y	N			
Ghor	6	M	N	N	N	N	N	Y	N			NT
Ghor	6	M	N	N	N	N	N	Y	N		NT	NT
Ghor	7	M	N	N	N	N	N	Y	N			
Ghor	7	M	N	N	N	N	N	Y	N			
Ghor	7	M	N	N	N	N	N	Y	N			
Ghor	8	M	N	N	N	N	N	Y	N			
Ghor	8	M	N	N	N	N	N	Y	N			
Ghor	9	M	N	N	N	N	N	Y	N			

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
229.00										140.00			
114.00										183.00			
4,745.00	46.00		108.00			119.00				6,122.00	65.00		
66.22										190.00			
56.00	NT	NT		NT	NT		NT	NT		104.00	NT	NT	
176.00	NT	NT		NT	NT		NT	NT		319.00	NT	NT	
137.00	NT	NT		NT	NT		NT	NT		120.00	NT	NT	
55.00	NT	NT		NT	NT		NT	NT		83.00	NT	NT	
47.76	NT	NT		NT	NT		NT	NT		96.19	NT	NT	
304.00	NT	NT		NT	NT		NT	NT		548.00	NT	NT	
369.00	NT	NT		NT	NT		NT	NT		716.00	NT	NT	
152.00	NT	NT		NT	NT		NT	NT		248.00	NT	NT	
293.00	NT	NT		NT	NT		NT	NT		520.00	NT	NT	
607.00	NT	NT		NT	NT		NT	NT		1,085.00	NT	NT	
1,047.00	NT	NT		NT	NT		NT	NT		2,332.00	NT	NT	
3,092.00	NT	NT	150.00	NT	NT	278.00	NT	NT		7,171.00	NT	NT	
474.00	NT	NT		NT	NT		NT	NT		733.00	NT	NT	
4,801.00		NT	242.00		NT	301.00		NT		8,722.00		NT	
339.00		NT			NT			NT		481.00		NT	
303.00		NT			NT			NT		198.00		NT	
175.00	NT	NT		NT	NT		NT	NT		515.00	NT	NT	
	NT	NT		NT	NT		NT	NT		86.90	NT	NT	
875.00	NT	NT		NT	NT		NT	NT		2,359.00	NT	NT	
787.00	NT	NT		NT	NT	61.00	NT	NT		1,831.00	NT	NT	
54.00										101.00			
179.00										300.00			
1,648.00	NT	NT	42.00	NT	NT		NT	NT		3,373.00	NT	NT	
	31.00	NT			NT			NT			54.00	NT	
54.00										59.00			
										50.45			
92.50										93.00			
70.45										107.00			
127.00		NT			NT			NT		235.00		NT	
449.00	NT	NT		NT	NT		NT	NT		511.00	NT	NT	
104.00										170.00			
54.09										109.00			
114.00										171.00			
1,552.00										2,452.00			
2,388.00			44.37			70.75				3,613.00			
41.24										81.84		262.00	

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM - U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Ghor	10	M	N	N	N	N	N	Y	N			
Ghor	10	M	N	N	N	N	N	Y	N			
Ghor	11	M	N	N	N	N	N	Y	N			
Ghor	14	M	N	N	N	N	N	Y	N			
Ghor	16	M	N	N	N	N	N	Y	N			
Ghor	16	M	N	N	N	N	N	Y	N			
Ghor	16	M	N	N	N	N	N	Y	N			
Ghor	16	M	N	N	N	N	N	Y	N			
Ghor	18	M	N	N	N	N	N	Y	N	271.00	NT	
Ghor	18	M	N	N	N	N	N	Y	N			
Ghor	18	M	N	N	N	N	N	Y	N			
Ghor	18	M	N	N	N	N	N	Y	N			NT
Ghor	20	M	N	N	N	N	N	Y	N			
Ghor	20	M	N	N	N	N	N	Y	N			NT
Ghor	20	M	N	N	N	N	N	Y	N			
Ghor	20	M	N	N	N	N	N	Y	N			
Ghor	20	M	N	N	N	N	N	Y	N			
Ghor	20	M	N	N	N	N	N	Y	N			
Ghor	22	M	N	N	N	N	N	Y	N			
Ghor	23	M	N	N	N	N	N	Y	N			
Ghor	24	M	N	N	N	N	N	Y	N			
Ghor	25	M	N	N	N	N	N	Y	N			
Ghor	26	M	N	N	N	N	N	Y	N			
Ghor	27	M	N	N	N	N	N	Y	N			
Ghor	30	M	N	N	N	N	N	Y	N			
Ghor	30	M	N	N	N	N	N	Y	N			
Ghor	30	M	N	N	N	N	N	Y	N			
Ghor	30	M	N	N	N	N	N	Y	N			
Ghor	30	M	N	N	N	N	N	Y	N			
Ghor	30	M	N	N	N	N	N	Y	N			
Ghor	32	M	N	N	N	N	N	Y	N			
Ghor	35	M	N	N	N	N	N	Y	N			
Ghor	35	M	N	N	N	N	N	Y	N			
Ghor	38	M	N	N	N	N	N	Y	N			
Ghor	40	M	N	N	N	N	N	Y	N			
Ghor	40	M	N	N	N	N	N	Y	N			
Ghor	40	M	N	N	N	N	N	Y	N			
Ghor	40	M	N	N	N	N	N	Y	N			
Ghor	40	M	N	N	N	N	N	Y	N			
Ghor	40	M	N	N	N	N	N	Y	N			
Ghor	40	M	N	N	N	N	N	Y	N			
Ghor	50	M	N	N	N	N	N	Y	N	NT		
Ghor	50	M	N	N	N	N	N	Y	N			

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
45.00										46.00			
259.00			43.00							270.00			
1,823.00			100.00			245.00				3,959.00			
159.00										241.00			
45.92										58.58			
19,081.00			864.00							33,928.00			
1,384.00			133.00			246.00				1,634.00			
362.00										760.00			
427.00	NT	4,692.00	55.00	NT		43.00	NT			670.00	NT	7,764.00	
74.70										122.00			
133.00										222.00			
558.00		NT			NT			NT		910.00		NT	
144.00										318.00			
512.00		NT			NT			NT		790.00		NT	
426.00										700.00			
1,350.00										1,065.00			
258.00										347.00			
										45.00			
										42.00			
103.00										100.00			
247.00		205.00								148.00		322.00	
79.55										100.00			
268.00										119.00			
150.00										342.00			
78.05										117.00			
861.00										1,346.00			
2,618.00			48.00			146.00				7,088.00			
1,172.00	10.04									1,761.00	4.64		
72.20										132.00			
1,482.00										3,004.00			
224.00										284.00			
76.03										102.00			
243.00										432.00			
111.00										137.00			
537.00										488.00			
330.00										696.00			
1,636.00			47.64			46.87				1,494.00			
1,984.00		922.00	45.00							1,103.00		1,354.00	
NT	10,508.00	11,685.00	NT		73.00	NT	17.64	185.00	NT	NT	18,704.00	16,953.00	NT
430.00										686.00			

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Ghor	50	M	N	N	N	N	N	Y	N			
Ghor	50	M	N	N	N	N	N	Y	N			
Ghor	50	M	N	N	N	N	N	Y	N			
Ghor	50	M	N	N	N	N	N	Y	N			
Ghor	55	M	N	N	N	N	N	Y	N			
Ghor	56	M	N	N	N	N	N	Y	N			
Ghor	60	M	N	N	N	N	N	Y	N			
Ghor	60	M	N	N	N	N	N	Y	N			
Ghor	60	M	N	N	N	N	N	Y	N			
Ghor	70	M	N	N	N	N	N	Y	N			
Ghor	70	M	N	N	N	N	N	Y	N		NT	
Helmand	9	F	N	N	N	N	N	Y	N		NT	NT
Helmand	4	M	N	N	N	N	N	Y	N		NT	
Helmand	15	M	N	N	N	N	N	Y	N	152.00		
Helmand	27	M	N	N	N	N	Y	Y	N	490.00	NT	599.00
Helmand	36	M	N	N	N	N	Y	Y	N			
Helmand	38	M	N	N	N	N	Y	Y	N	61.37	NT	
Kandahar	3	F	N	N	N	N	N	Y	N	360.00	NT	
Kandahar	3	F	N	N	N	N	N	Y	N	481.00	33.76	NT
Kandahar	3	F	N	N	N	N	N	Y	N	48.00	NT	NT
Kandahar	5	F	N	N	N	N	N	Y	N	131.00		
Kandahar	8	F	N	N	N	N	N	Y	N	175.00		
Kandahar	45	F	N	N	N	N	N	Y	N	29.00		
Kandahar	12	M	N	N	N	N	N	Y	N	85.00		
Kandahar	20	M	N	N	N	N	N	Y	N	261.00		
Kandahar	24	M	N	N	N	N	N	Y	N			
Kandahar	32	M	N	N	N	N	Y	Y	N			
Kandahar	65	M	N	N	N	N	Y	Y	N	NT		
Kapisa	1	F	N	N	N	N	N	Y	N	828.00	NT	NT
Kapisa	2	F	N	N	N	N	N	Y	N	777.00	NT	NT
Kapisa	3	F	N	N	N	N	N	Y	N		NT	NT
Kapisa	8	F	N	N	N	N	N	Y	N	2,052.00		
Kapisa	25	F	N	N	N	N	N	Y	N		NT	NT
Kapisa	26	F	N	Y	N	N	N	Y	N		124.00	78.00
Kapisa	35	F	N	N	N	N	N	Y	N	473.00		
Kapisa	36	F	N	N	N	N	N	Y	N	449.00		
Kapisa	1	M	N	N	N	N	N	Y	N		NT	NT
Kapisa	2	M	N	N	N	N	N	Y	N	2,979.00	NT	NT
Kapisa	4	M	N	N	N	N	N	Y	N	616.00	NT	NT
Kapisa	4	M	N	N	N	N	N	Y	N		NT	NT

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
630.00										872.00			
										45.69			
10,266.00			526.00			442.00				10,688.00			
221.00										458.00			
465.00										467.00			
76.00										128.00			
105.00										175.00			
132.00										151.00			
3,854.00			59.00			80.00				7,041.00			
116.00										419.00			
220.00	NT			NT			NT			327.00	NT		
87.00	NT	NT		NT	NT		NT	NT			NT	NT	
50.00	NT			NT			NT			128.00	NT		
331.00	NT	3,113.00		NT		41.09	NT			920.00	NT	21,363.00	
412.00										338.00			
4,691.00	NT	6,593.00	345.00	NT		86.02	NT			3,862.00	NT	11,168.00	
	NT			NT			NT			76.00	NT		
		NT			NT			NT		112.00	15.28	NT	
	NT	NT		NT	NT		NT	NT		13.00	NT	NT	
										30.00			
										42.00			
										24.00			
										45.00			
		133.00										340.00	
94.21										46.43		1,259.00	
NT	7.48	495.00	NT			NT			NT	NT	13.88	1,680.00	NT
	NT	NT		NT	NT		NT	NT		184.00	NT	NT	
	NT	NT		NT	NT		NT	NT		247.00	NT	NT	
160.00	NT	NT		NT	NT		NT	NT		272.00	NT	NT	
73.00										611.00			
151.00	NT	NT		NT	NT		NT	NT		223.00	NT	NT	
	40.00	6,477.00						1,240.00			837.00	51,021.00	
67.00										137.00			
										126.00			
164.00	NT	NT		NT	NT		NT	NT		64.00	NT	NT	
111.00	NT	NT		NT	NT		NT	NT		745.00	NT	NT	
	NT	NT		NT	NT		NT	NT		140.00	NT	NT	
82.08	NT	NT		NT	NT		NT	NT		112.00	NT	NT	

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Kapisa	13	M	N	N	N	N	N	Y	N	287.00		
Kapisa	28	M	N	Y	N	N	N	Y	N	312.00	6,982.00	3,535.00
Kapisa	34	M	N	Y	N	Y	N	Y	N	63,400.00	498.00	53.00
Kapisa	35	M	N	Y	Y	Y	N	Y	N	15,510.00	71,892.00	NT
Kapisa	38	M	N	N	N	N	Y	Y	N	46.28		
Kapisa	41	M	N	N	N	Y	N	Y	N	2,391.00	3,253.00	2,470.00
Kapisa	60	M	N	N	N	N	N	Y	N			
Kapisa	60	M	N	N	N	N	N	Y	N	NT		
Khost	1	M	N	N	N	N	N	Y	N		NT	NT
Khost	22	M	N	N	N	N	Y	Y	N			
Khost	70	M	N	N	N	N	N	Y	N			
Kunduz	1	F	N	N	N	N	N	Y	N		NT	NT
Kunduz	2	F	N	N	N	N	N	Y	N			NT
Kunduz	2	F	N	N	N	N	N	Y	N	NT		
Kunduz	6	F	N	N	N	N	N	Y	N			NT
Kunduz	6	F	N	N	N	N	N	Y	N			
Kunduz	6	F	N	N	N	N	N	Y	N			
Kunduz	12	F	N	N	N	N	N	Y	N			
Kunduz	15	F	N	N	N	N	N	Y	N			
Kunduz	19	F	N	N	N	N	N	Y	N			
Kunduz	21	F	N	N	N	N	N	Y	N			
Kunduz	27	F	N	N	N	N	N	Y	N	NT	NT	
Kunduz	28	F	N	N	N	N	N	Y	N			
Kunduz	30	F	N	N	N	N	Y	Y	N			
Kunduz	30	F	N	N	N	N	N	Y	N			
Kunduz	35	F	N	N	N	N	N	Y	N			
Kunduz	40	F	N	N	N	N	N	Y	N			
Kunduz	40	F	N	N	N	N	N	Y	N			
Kunduz	46	F	N	N	N	N	N	Y	N			
Kunduz	50	F	N	N	N	N	N	Y	N			
Kunduz	52	F	N	N	N	N	N	Y	N			
Kunduz	55	F	N	N	N	N	N	Y	N			
Kunduz	59	F	N	N	N	N	N	Y	N	NT	NT	
Kunduz	60	F	N	N	N	N	N	Y	N			
Kunduz	60	F	N	N	N	Y	N	Y	N			
Kunduz	62	F	N	N	N	N	N	Y	N	NT	NT	
Kunduz	65	F	N	N	N	N	N	Y	N		NT	
Kunduz	1	M	N	N	N	N	N	Y	N	NT	NT	
Kunduz	3	M	N	N	N	N	N	Y	N	NT	NT	
Kunduz	5	M	N	N	N	N	N	Y	N			NT

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
										83.00			
222.00	1,200.00	14,390.00				43.00		399.00		666.00	4,091.00	132,617.00	
10,007.00	27.56	5,342.00	499.00			1,519.00				35,945.00	341.00	39,841.00	
3,708.00	5,200.00	NT	179.00		NT	638.00		NT		10,875.00	55,857.00	NT	
1,353.00			52.39										
829.00	914.00	8,489.00				50.00				1,650.00	18,283.00	49,052.00	
155.00		1,870.00								150.00		7,179.00	
NT		280.00	NT			NT			NT	NT		834.00	NT
540.00	NT	NT		NT	NT		NT	NT		1,257.00	NT	NT	
		3,330.00										5,919.00	
		271.00										595.00	
228.00	NT	NT		NT	NT			NT		333.00	NT	NT	
1,000.00		NT	60.71		NT			NT		803.00		NT	
NT		561.00	NT			NT			NT	NT		1,218.00	NT
72.10		NT			NT			NT		100.00		NT	
1,313.00			52.80			57.76				1,664.00			
1,030.00						56.64				2,084.00			
354.00										357.00			
169.00										135.00			
										60.66			
6,269.00			89.64			48.45				6,632.00			
NT	NT	10,758.00	NT	NT		NT	NT	201.00	NT	NT	NT	22,532.00	NT
													1,098.00
7,176.00	683.00	10,359.00	456.00	6.20		105.00				3,469.00	206.00	13,916.00	
251.00		575.00								88.55		1,404.00	
7,385.00	102.00	17,486.00	405.00			61.49				3,074.00	35.92	24,226.00	
153.00										132.00		343.00	
		238.00										673.00	
639.00	13.28	601.00	92.11							286.00	43.04	1,541.00	
987.00										2,820.00			
232.00										86.89			
4,891.00	60.80	5,601.00	822.00			88.77				1,833.00	5.44	7,299.00	
NT	NT	5,537.00	NT	NT		NT	NT	102.00	NT	NT	NT	10,573.00	NT
10,051.00	15.68	5,764.00	2,292.00			193.00				3,666.00	6.76	11,912.00	
12,008.00	1,127.00	38,110.00	1,794.00	103.00	372.00	412.00		707.00		6,452.00	88.84	42,808.00	
NT	NT	1,077.00	NT	NT		NT			NT	NT	NT	1,828.00	NT
127.00	NT	551.00		NT						55.50	NT	1,921.00	
NT	NT	962.00	NT	NT		NT	NT		NT	NT	NT	2,179.00	NT
NT	NT		NT	NT		NT	NT	46.00	NT	NT	NT	829.00	NT
2,593.00		NT	113.00		NT			NT		2,333.00		NT	

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Kunduz	8	M	N	N	N	N	N	Y	N			
Kunduz	9	M	N	N	N	N	N	Y	N			
Kunduz	17	M	N	Y	N	N	N	Y	N	175.00		
Kunduz	27	M	N	N	N	N	N	Y	N	3,032.00	579.00	2,665.00
Kunduz	30	M	N	N	N	N	N	Y	N	314.00	2,340.00	
Kunduz	31	M	N	N	N	Y	N	Y	N			
Kunduz	32	M	N	N	N	N	Y	Y	N			
Kunduz	34	M	N	N	N	N	N	Y	N			
Kunduz	45	M	N	N	N	N	N	Y	N			
Kunduz	52	M	N	N	N	Y	N	Y	N	NT	9.28	11.00
Kunduz	52	M	N	N	N	N	N	Y	N			
Kunduz	60	M	N	N	N	N	N	Y	N	NT		
Kunduz	72	M	N	N	N	N	N	Y	N	NT		
Kunduz	78	M	N	N	N	N	N	Y	N	NT		
Kunduz	80	M	N	N	N	N	N	Y	N	NT	NT	
Laghman	1	F	N	N	N	N	N	Y	N			NT
Laghman	3	F	N	N	N	N	N	Y	N			
Laghman	6	F	N	N	N	N	N	Y	N			
Laghman	14	F	N	N	N	N	N	Y	N			
Laghman	20	F	N	N	N	N	N	Y	N	235.00		
Laghman	1	M	N	N	N	N	N	Y	N		NT	NT
Laghman	19	M	N	N	N	N	N	Y	N			
Laghman	19	M	N	N	N	N	N	Y	N			
Laghman	23	M	N	N	N	N	Y	Y	N			
Laghman	25	M	N	N	N	N	N	Y	N			
Laghman	25	M	N	N	N	N	N	Y	N			
Laghman	27	M	N	N	N	N	N	Y	N			
Laghman	27	M	N	N	N	N	N	Y	N			
Laghman	33	M	N	N	N	N	N	Y	N			
Nimroz	1	F	N	N	N	N	N	Y	Y		NT	NT
Nimroz	1	F	N	N	N	N	N	Y	Y		NT	NT
Nimroz	3	F	N	N	N	N	N	Y	N			NT
Nimroz	4	F	N	N	N	N	Y	Y	N			NT
Nimroz	4	F	N	N	N	N	N	Y	N			
Nimroz	5	F	N	N	N	N	N	Y	N		NT	NT
Nimroz	5	F	N	N	N	N	N	Y	N			
Nimroz	6	F	N	N	N	N	N	Y	N			
Nimroz	7	F	N	N	N	N	N	Y	N			
Nimroz	9	F	N	N	N	N	N	Y	N			
Nimroz	16	F	N	N	N	N	N	Y	N			

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
261.00										329.00			
173.00										248.00			
801.00										842.00		417.00	
4,949.00	187.00	16,478.00	178.00			478.00		230.00		13,407.00	2,863.00	54,259.00	
444.00	592.00									1,229.00	2,939.00		
19,084.00	464.00	43,160.00	997.00	13.60	230.00	452.00		445.00		11,658.00	61.76	34,030.00	
164.00										48.00			
305.00													
3,180.00	312.00	59,909.00	181.00			94.10				2,010.00	37.36	53,841.00	
NT	3,632.00	34,385.00	NT			NT		424.00	NT	NT	4,528.00	38,057.00	NT
8,645.00	267.00	43,569.00	1,334.00	11.28	533.00	464.00		460.00		3,824.00	66.16	50,064.00	
NT			NT			NT			NT	NT	26.24		NT
NT	808.00	16,359.00	NT	30.56		NT		298.00	NT	NT	611.00	28,880.00	NT
NT	1,106.00	7,865.00	NT			NT			NT	NT	2,836.00	11,610.00	NT
NT	NT	11,241.00	NT	NT		NT	NT	249.00	NT	NT	NT	18,335.00	NT
245.00		NT			NT			NT		91.00		NT	
44.00													
132.00										58.00			
50.00													
										95.00			
121.00	NT	NT		NT	NT		NT	NT		51.00	NT	NT	
495.00										145.00			
82.00													
121.00										59.00			
64.00										45.00			
96.00										53.00			
1,029.00										450.00			
256.00										151.00			
78.00													
93.00	NT	NT		NT	NT		NT	NT		246.00	NT	NT	
46.40	NT	NT		NT	NT		NT	NT		67.70	NT	NT	
	12.24	NT			NT			NT			17.84	NT	
98.20		NT			NT			NT		232.00		NT	
106.00										98.25	26.20		
282.00	NT	NT		NT	NT		NT	NT		221.00	NT	NT	
49.11										51.78			
40.00										40.70			
87.25										110.00			
94.00										201.00			
		2,412.00											

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Nimroz	16	F	N	N	N	N	N	Y	N			
Nimroz	18	F	N	N	N	N	N	Y	N	1,235.00		
Nimroz	18	F	N	N	N	N	N	Y	N			
Nimroz	19	F	N	N	N	Y	N	Y	N	89.40		
Nimroz	23	F	N	N	N	N	N	Y	N	64.00		
Nimroz	23	F	N	N	N	Y	N	Y	N			
Nimroz	23	F	N	N	N	N	N	Y	N			NT
Nimroz	28	F	N	N	N	N	Y	Y	N			
Nimroz	32	F	N	N	N	N	N	Y	N			
Nimroz	35	F	N	N	N	N	N	Y	N			
Nimroz	40	F	N	N	N	N	N	Y	N	183.00		
Nimroz	45	F	N	N	N	N	N	Y	N			
Nimroz	55	F	N	N	N	Y	N	Y	N			
Nimroz	60	F	N	N	N	N	N	Y	N			
Nimroz	70	F	N	N	N	N	N	Y	N			
Nimroz	1	M	N	N	N	N	N	Y	N	81.00	NT	NT
Nimroz	1	M	N	Y	N	Y	N	Y	N	698.00	NT	NT
Nimroz	1	M	N	N	N	N	N	Y	N		NT	NT
Nimroz	1	M	N	N	N	N	N	Y	N		NT	NT
Nimroz	1	M	N	N	N	N	N	Y	N		NT	NT
Nimroz	4	M	N	N	N	N	N	Y	N			
Nimroz	4	M	N	N	N	N	N	Y	N			
Nimroz	10	M	N	N	N	N	N	Y	N			
Nimroz	13	M	N	N	N	N	N	Y	N			
Nimroz	17	M	N	N	N	N	N	Y	N			
Nimroz	18	M	N	N	N	N	N	Y	N			
Nimroz	18	M	N	N	N	Y	Y	Y	N			
Nimroz	18	M	N	N	N	N	N	Y	N			
Nimroz	18	M	N	N	N	N	N	Y	N			
Nimroz	20	M	N	Y	N	N	N	Y	N	166.00		
Nimroz	20	M	N	N	N	N	Y	Y	N			
Nimroz	20	M	N	N	N	N	Y	Y	N			
Nimroz	20	M	N	N	N	N	N	Y	N			
Nimroz	25	M	N	Y	N	N	N	Y	N	222.00		
Nimroz	25	M	N	N	N	N	N	Y	N	540.00		
Nimroz	25	M	N	N	N	N	N	Y	N	NT		
Nimroz	26	M	N	N	N	Y	N	Y	N	786.00		
Nimroz	28	M	N	N	N	N	N	Y	N	83.73		
Nimroz	30	M	N	Y	N	N	N	Y	N			
Nimroz	30	M	N	N	N	N	N	Y	N			

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
295.00		182.00								342.00		493.00	
										169.00			
57.10													
118.00										78.99			
87.87		NT			NT			NT				NT	
51.60													
140.00										54.63			
	12.00										24.80		
244.00										54.76			
80.41													
9,196.00	496.00	18,737.00	481.00			202.00		235.00		7,694.00	738.00	31,726.00	
837.00			102.00							444.00		431.00	
791.00	67.60	31,571.00	45.00									2,711.00	
	NT	NT		NT	NT		NT	NT			NT	NT	
46.00	NT	NT		NT	NT		NT	NT		336.00	NT	NT	
	NT	NT		NT	NT		NT	NT		46.96	NT	NT	
112.00	NT	NT		NT	NT		NT	NT		196.00	NT	NT	
456.00	NT	NT		NT	NT	41.62	NT	NT		877.00	NT	NT	
694.00	35.36									2,176.00	123.00		
63.40										52.20			
	13.76										32.64		
363.00										184.00			
231.00										673.00			
807.00	22.96									1,315.00	42.16		
7,016.00			319.00			133.00				3,218.00			
1,190.00	3.76	1,741.00	261.00			62.90		202.00		842.00	8.00	11,636.00	
2,017.00			257.00			77.55				1,811.00			
2,752.00	204.00	12,857.00	266.00			79.00				2,043.00		24,065.00	
13,514.00	258.00	6,918.00	1,250.00			550.00				7,572.00	82.52	18,640.00	
9,880.00	86.00	16,954.00	596.00			164.00				4,040.00	10.24	21,966.00	
151.00										70.81			
5,765.00	69.84	30,196.00	1,030.00			284.00		1,078.00	573.00	5,218.00	20.28	45,258.00	
48.91										113.00			
NT		323.00	NT			NT			NT	NT		793.00	NT
9,901.00			2,073.00			483.00				9,309.00			
7,948.00	46.56	7,687.00	530.00			327.00				5,872.00	13.28	15,218.00	
12,321.00	13.92	5,119.00	5,066.00			1,082.00		150.00		12,232.00	7.88	12,630.00	
195.00		322.00											

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Nimroz	30	M	N	N	N	Y	Y	Y	N			
Nimroz	30	M	N	N	N	N	N	Y	N			
Nimroz	32	M	N	N	N	N	N	Y	N			
Nimroz	35	M	N	N	N	Y	Y	Y	N	454.00		
Nimroz	40	M	N	N	N	N	N	Y	N	55.00		
Nimroz	40	M	N	N	N	N	N	Y	N			
Nimroz	47	M	N	N	N	N	N	Y	N	NT		
Nimroz	50	M	N	N	N	N	N	Y	N			
Nimroz	51	M	N	N	N	N	Y	Y	N			
Nimroz	60	M	N	N	N	N	N	Y	N	NT	NT	
Nimroz	64	M	N	N	N	Y	N	Y	N	NT		
Nimroz	65	M	N	N	N	N	N	Y	N			
Nimroz	80	M	N	N	N	N	N	Y	N	NT		
Nuristan	40	F	N	N	N	N	N	Y	N			8.00
Nuristan	7	M	N	N	N	N	N	Y	N			
Nuristan	20	M	N	N	N	N	N	Y	N	NT		8.00
Samangan	7	F	N	N	N	N	N	Y	N			
Samangan	25	F	N	N	N	N	N	Y	N			
Samangan	28	F	N	N	N	N	N	Y	N			
Samangan	10	M	N	N	N	N	N	Y	N			
Samangan	27	M	N	N	N	N	N	Y	N			
Samangan	35	M	N	N	N	N	N	Y	N			
Samangan	38	M	N	N	N	N	N	Y	N			
Samangan	40	M	N	N	N	N	N	Y	N			
Samangan	57	M	N	N	N	N	Y	Y	N			
Sar e Pul	1	F	N	N	N	N	N	Y	N	54.00	NT	NT
Sar e Pul	5	F	N	N	N	N	N	Y	N			
Sar e Pul	7	F	N	N	N	N	N	Y	N			NT
Sar e Pul	17	F	N	N	N	N	N	Y	N			NT
Sar e Pul	17	F	N	N	N	N	N	Y	N			
Sar e Pul	20	F	N	N	N	N	N	Y	N			
Sar e Pul	27	F	N	N	N	N	N	Y	N			
Sar e Pul	30	F	N	N	N	N	N	Y	N			
Sar e Pul	40	F	N	N	N	N	N	Y	N			
Sar e Pul	50	F	N	N	N	N	N	Y	N			
Sar e Pul	50	F	N	N	N	N	N	Y	N			
Sar e Pul	55	F	N	N	N	N	N	Y	N	52.00		
Sar e Pul	60	F	N	N	N	N	N	Y	N			
Sar e Pul	69	F	N	N	N	N	N	Y	N			NT
Sar e Pul	2	M	N	N	N	N	N	Y	N		NT	NT

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
4,905.00	21.52	3,270.00	1,754.00	5.56		217.00		305.00		3,905.00	17.84	17,886.00	
2,265.00		410.00	260.00							1,358.00		2,864.00	
15,381.00	208.00	12,474.00	1,362.00			553.00		295.00		9,541.00	184.00	31,079.00	
6,926.00	273.00	11,771.00	392.00			192.00				8,211.00	85.28	22,833.00	
13,881.00	128.00	19,905.00	481.00			183.00		172.00		10,616.00	101.00	24,494.00	
1,334.00										445.00		550.00	
NT	342.00	71,282.00	NT	85.68		NT		1,795.00	NT	NT	94.68	57,563.00	NT
426.00			67.00							135.00			
4,228.00	47.84		375.00			93.78				2,711.00	26.64		
NT	NT		NT	NT		NT	NT		NT	NT	NT	525.00	NT
NT	59.00	22,867.00	NT			NT		801.00	NT	NT	14.64	42,287.00	NT
	10.72										27.20		
NT		3,241.00	NT			NT			NT	NT		732.00	NT
		302.00										534.00	
217.00										93.00			
NT			NT			NT			NT	NT		176.00	NT
201.00													
855.00			51.44										
127.00													
45.00										55.00			
3,900.00	108.00	3,388.00	246.00			68.00				2,318.00	29.00	4,763.00	
44.00													
224.00													
												343.00	
1,670.00	82.00	68,602.00	612.00	30.00	2,122.00	48.00		1,557.00		652.00		53,024.00	
	NT	NT		NT	NT			NT	NT		NT	NT	
71.52										96.41			
90.93	12.52	NT			NT			NT		78.90	8.08	NT	
41.40		NT			NT			NT		60.00		NT	
	6.72										10.92		
580.00													
127.00													
43.00													
275.00										510.00			
162.00													
66.28	261.00												
101.00													
201.00		NT			NT			NT		334.00		NT	
69.81	NT	NT		NT	NT			NT	NT	58.02	NT	NT	

Table A4 (continued). Rural List of Opioid Positives

Province	Age	Sex	Positive (Y/N) by Drug Class							6-AM - H	6-AM - OF	6-AM- U
			Alcohol	Amphetamines	Barbiturates	Benzo-diazepines	Cannabinoids	Opioids	Other			
Sar e Pul	9	M	N	N	N	N	N	Y	N			
Sar e Pul	11	M	N	N	N	N	N	Y	N			
Sar e Pul	13	M	N	N	N	N	N	Y	N			
Sar e Pul	26	M	N	Y	N	N	N	Y	N			
Sar e Pul	28	M	N	N	N	Y	N	Y	N	1,715.00		121.00
Sar e Pul	30	M	N	N	N	N	N	Y	N			
Sar e Pul	32	M	N	Y	N	N	N	Y	N			
Sar e Pul	35	M	N	Y	N	N	N	Y	N			
Sar e Pul	38	M	N	N	N	N	N	Y	N			
Sar e Pul	40	M	N	Y	Y	Y	N	Y	N	565.00		NT
Sar e Pul	44	M	N	N	N	N	N	Y	N			
Sar e Pul	53	M	N	N	N	N	N	Y	N			
Sar e Pul	65	M	N	N	N	N	N	Y	N			
Takhar	1	F	N	N	N	N	N	Y	N		NT	NT
Takhar	8	F	N	N	N	N	N	Y	N			
Takhar	37	F	N	N	N	N	N	Y	N			
Takhar	40	F	N	N	N	N	N	Y	N			
Takhar	2	M	N	N	N	N	N	Y	N	47.51	NT	NT
Takhar	3	M	N	N	N	N	N	Y	N		NT	NT
Takhar	6	M	N	N	N	N	N	Y	N			
Takhar	9	M	N	N	N	N	N	Y	N			
Takhar	12	M	N	N	N	N	N	Y	N			
Takhar	12	M	N	N	N	N	N	Y	N			
Takhar	21	M	N	N	N	N	N	Y	N			
Takhar	22	M	N	N	N	N	N	Y	N	49.00		
Takhar	22	M	N	N	N	N	N	Y	N			
Takhar	26	M	N	N	N	N	N	Y	N			
Takhar	28	M	N	N	N	N	N	Y	N			
Takhar	30	M	N	N	N	N	N	Y	N			
Takhar	40	M	N	Y	N	N	N	Y	N	2,309.00		
Takhar	40	M	N	N	N	N	N	Y	N	NT		

H, hair pg/mg; OF, oral fluid ng/ml; U, urine ng/ml.

Codeine - H	Codeine - OF	Codeine - U	Hydrocodone - H	Hydrocodone - OF	Hydrocodone - U	Hydromorphone - H	Hydromorphone - OF	Hydromorphone - U	Methadone - H	Morphine - H	Morphine - OF	Morphine - U	Norpropoxyphene - H
42.56	16.00										39.00		
										41.39			
44.42										65.99			
473.00	901.00	14,616.00	50.48	10.76						197.00	2,553.00	31,144.00	
1,534.00	2.24	649.00	188.00			148.00				3,105.00	11.68	7,127.00	
135.00													
6,131.00	28.00	17,816.00	588.00	7.92	371.00	230.00		400.00		3,733.00	24.00	32,287.00	
3,342.00	52.00	10,269.00	169.00			81.00		88.00		1,453.00	21.00	16,565.00	
40.00													
297.00	134.00	NT		12.04	NT			NT		476.00	1,352.00	NT	
31,875.00	941.00	9,960.00	6,604.00	129.00		1,741.00		219.00		22,916.00	76.00	14,621.00	
9,259.00	310.00	18,838.00	3,744.00	39.00	453.00	500.00		503.00		4,094.00	108.00	27,927.00	
57.00										83.00			
68.91	NT	NT		NT	NT			NT	NT	121.00	NT	NT	
169.00										320.00			
	8.64										24.60		
149.00										368.00			
1,234.00	NT	NT		NT	NT			NT	NT	1,877.00	NT	NT	
1,398.00	NT	NT		NT	NT			NT	NT	2,702.00	NT	NT	
233.00										475.00			
175.00										266.00			
373.00										561.00			
173.00										232.00			
60.89													
1,115.00										599.00			
149.00										206.00			
1,746.00	702.00	2,701.00	199.00			53.40				1,044.00	1,011.00	5,741.00	
5,340.00	290.00	786.00	479.00			252.00		100.00		10,916.00	390.00	4,928.00	
314.00										141.00			
10,860.00	3,750.00	29,316.00	706.00			534.00				10,325.00	10,058.00	39,930.00	
NT	10.12	136.00	NT			NT			NT	NT	10.04	302.00	NT

Table A5. Margins of Error¹

	Sample Size	Prevalence Rate	Margin of Error	Confidence Intervals
Urban: All Provinces Surveyed				
Households	2,187	11.4%	± 1.1%	(10.3%, 12.5%)
Population ²	5,230	5.3%	± 0.9%	(4.4%, 6.2%)
Adults ²	3,525	7.5%	± 1.1%	(6.4%, 8.6%)
Men	1,370	10.6%	± 1.4%	(9.3%, 12.1%)
Women	2,155	4.3%	± 0.7%	(3.6%, 5.0%)
Children	1,705	2.3%	± 0.6%	(1.7%, 2.9%)
Rural: All Provinces Surveyed				
Households	587	38.5%	± 3.3%	(35.2%, 41.8%)
Population	5,319	13.0%	± 1.3%	(11.7%, 14.3%)
Adults	2,914	14.5%	± 1.5%	(13.0%, 16.0%)
Men	1,341	17.8%	± 1.7%	(16.1%, 19.5%)
Women	1,573	11.2%	± 1.3%	(9.9%, 12.5%)
Children	2,405	11.3%	± 1.1%	(10.2%, 12.4%)
National³: All Provinces Surveyed				
Households	2,774	30.6%	± 2.8%	(27.8%, 33.4%)
Population	10,549	11.1%	± 0.7%	(10.4%, 11.8%)
Adults	6,439	12.8%	± 1.0%	(11.8%, 13.8%)
Men	2,711	16.1%	± 1.6%	(14.5%, 17.7%)
Women	3,723	9.5%	± 1.2%	(8.3%, 10.7%)
Children	4,110	9.2%	± 1.0%	(8.2%, 10.2%)

¹ Margins of error and confidence intervals were constructed using a 90% confidence interval.

² Prevalence rate, margin of error, and confidence intervals are weighted to reflect the correct proportions of men, women, and children in the total population.

³ Prevalence rate, margin of error, and confidence intervals are weighted to reflect the correct proportions of urban and rural populations in the total population.

Table A6. Margins of Error¹, Village Examples

	Sample Size	Prevalence Rate	Margin of Error	Confidence Intervals
Village 51				
Population	108	86.9%	± 8.4%	(78.5%, 95.3%)
Adults	70	79.2%	± 10.3%	(68.9%, 89.5%)
Men	34	58.8%	± 13.9%	(44.9%, 72.7%)
Women ²	36	94.4%	± 6.8%	(84.5%, 98.1%)
		adj: 91.3%		
Children ²	38	94.7%	± 6.5%	(85.2%, 98.2%)
		adj: 91.7%		
Ghor Province (four villages)				
Population	414	49.1%	± 6.9%	(42.2%, 56.0%)
Adults	222	47.8%	± 7.8%	(40.0%, 55.6%)
Men	99	47.5%	± 8.3%	(39.2%, 55.8%)
Women	123	48.0%	± 7.4%	(40.6%, 55.4%)
Children	192	50.5%	± 5.9%	(44.6%, 56.4%)
Village 42				
Population	106	15.4%	± 13.8%	(1.6%, 29.2%)
Adults ²	37	14.8%	± 23.5%	(4.9%, 38.2%)
		adj: 21.5%		
Men ²	6	16.7%	± 23.2%	(3.8%, 50.3%)
		adj: 27.1%		
Women ²	31	12.9%	± 10.0%	(5.9%, 25.8%)
		adj: 15.9%		
Children	69	15.9%	± 7.2%	(8.7%, 23.1%)
Helmand Province (two villages)				
Population	207	11.4%	± 6.5%	(4.9%, 17.9%)
Adults	91	11.7%	± 8.2%	(3.5%, 19.9%)
Men ²	35	14.3%	± 9.7%	(7.1%, 26.6%)
		adj: 16.9%		
Women ²	56	8.9%	± 6.4%	(4.4%, 17.2%)
		adj: 10.8%		
Children	116	11.2%	± 4.8%	(6.4%, 16.0%)

¹ Prevalence rate, margin of error, and confidence intervals are weighted to reflect the correct proportions of men, women, and children in the total population.

² Because of the small sample size and/or small number of positives, the Wilson's interval, which is based on the adjusted Wilson's estimate of the proportion, was used.

Table A6. Margins of Error¹, Village Examples

	Sample Size	Prevalence Rate	Margin of Error	Confidence Intervals
Village 15				
Population ²	100	0.0%	± 4.1%	(0.0%, 8.1%)
		adj 4.1%		
Adults ²	50	0.0%	± 5.2%	(0.0%, 10.3%)
		adj 5.2%		
Men ²	19	0.0%	± 6.2%	(0.0%, 12.5%)
		adj 6.2%		
Women ²	31	0.0%	± 4.0%	(0.0%, 8.0%)
		adj 4.0%		
Children ²	50	0.0%	± 2.6%	(0.0%, 5.1%)
		adj 2.6%		
Sar-e Pul Province (four villages)				
Population	404	11.0%	± 4.5%	(6.5%, 15.5%)
Adults	236	12.1%	± 5.0%	(7.1%, 17.1%)
Men	107	14.0%	± 5.5%	(8.5%, 19.5%)
Women	129	10.1%	± 4.4%	(5.7%, 14.5%)
Children	168	9.5%	± 3.7%	(5.8%, 13.2%)

¹ Prevalence rate, margin of error, and confidence intervals are weighted to reflect the correct proportions of men, women, and children in the total population.

² Because of the small sample size and/or small number of positives, the Wilson's interval, which is based on the adjusted Wilson's estimate of the proportion, was used.

Table A7. Percent Positives Among Adult Drug Users, National

	Urban	Rural	National
Adult Men			
Amphetamines	0.3%	6.3%	4.9%
Barbiturates	6.3%	1.3%	2.5%
Benzodiazepines	18.6%	7.1%	9.8%
Cannabinoids	44.0%	36.8%	38.5%
Alcohol	2.8%	0.0%	0.7%
Opioids	43.3%	67.8%	62.0%
Other	0.0%	0.4%	0.3%
Adult Women			
Amphetamines	0.0%	1.1%	0.9%
Barbiturates	3.8%	0.6%	1.3%
Benzodiazepines	32.6%	12.5%	17.3%
Cannabinoids	1.3%	17.6%	13.7%
Alcohol	12.7%	2.3%	4.8%
Opioids	53.5%	72.7%	68.1%
Other	0.0%	0.6%	0.4%
Adults			
Amphetamines	0.2%	4.3%	3.3%
Barbiturates	5.6%	1.0%	2.1%
Benzodiazepines	22.4%	9.2%	12.4%
Cannabinoids	32.3%	29.3%	30.0%
Alcohol	5.5%	0.9%	2.0%
Opioids	46.1%	69.7%	64.1%
Other	0.0%	0.5%	0.4%

Table A8. National Rates of Poly Drug Use

	Urban	Rural	National
Men	1.5%	2.8%	2.4%
Women	0.1%	0.8%	0.6%
Children	0.1%	0.3%	0.3%
Adults	0.7%	1.7%	1.4%
Total	0.5%	1.1%	0.9%

Table A9. Urban Rates by Age Group

	Faizabad	Jalalabad	Mazar-e-Sharif	Bamyan	Mehmaneh	Sheberghan	Hirat	Farah	Zaranj	Charikar	Kabul	TOTAL
< 6	0.0%	1.8%	2.0%	0.0%	0.0%	0.0%	5.3%	9.7%	0.0%	0.0%	2.8%	2.5%
6-14	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	4.0%	0.0%	2.4%	2.1%
15-24	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	2.9%	2.6%
25-44	4.3%	4.2%	1.4%	0.0%	4.7%	0.0%	12.8%	11.5%	14.3%	5.9%	6.2%	6.1%
45+	3.8%	7.8%	10.8%	4.2%	7.8%	7.1%	13.0%	13.4%	23.1%	11.1%	7.5%	8.5%
Total	3.7%	4.1%	4.1%	4.2%	3.9%	2.6%	8.7%	9.8%	12.8%	5.3%	5.1%	5.3%

Table A10. Rural Rates by Age Group

	Farah	Khost	Takhar	Kapisa	Sar e Pul	Ghor	Badghis	Baghian	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
< 6	6.2%	8.9%	6.4%	7.7%	9.0%	54.3%	1.0%	8.2%	12.2%	15.8%	16.5%	12.0%	16.7%	5.9%	0.0%	12.3%
6-14	3.1%	7.5%	8.1%	3.4%	11.0%	45.4%	2.5%	6.8%	20.9%	7.3%	8.7%	2.4%	5.1%	18.9%	2.2%	10.3%
15-24	7.3%	5.6%	6.5%	1.2%	4.6%	48.5%	0.0%	7.7%	11.3%	3.7%	9.1%	10.0%	17.2%	10.6%	0.0%	9.7%
25-44	12.6%	11.5%	16.5%	20.7%	15.1%	47.3%	5.5%	17.6%	23.4%	18.8%	27.2%	20.5%	26.1%	9.9%	9.3%	18.8%
45+	13.6%	20.2%	1.2%	6.3%	17.2%	46.8%	4.3%	13.0%	29.7%	11.8%	28.1%	5.7%	26.1%	8.6%	1.7%	15.5%

Table B1. Urban Study Household Counts and Percents

	Faizabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	Kabul City	TOTAL
Household counts												
Any Drug	7	10	10	1	5	5	18	20	14	9	148	276
Amphetamines	0	0	0	0	0	0	0	1	1	0	0	2
Barbiturates	0	2	1	0	0	0	1	0	0	0	9	13
Benzodiazepines	0	3	2	0	2	2	4	5	1	4	32	55
Cannabinoids	0	3	1	1	2	1	4	2	1	3	52	70
Alcohol	0	0	0	0	0	0	3	0	0	1	10	14
Opioids	7	2	7	0	2	2	7	15	11	3	66	122
Household percents												
Any Drug	7.1%	10.3%	10.3%	3.0%	7.6%	5.1%	18.2%	20.0%	28.0%	9.3%	11.1%	11.4%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	2.0%	0.0%	0.0%	0.1%
Barbiturates	0.0%	2.1%	1.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.7%	0.6%
Benzodiazepines	0.0%	3.1%	2.1%	0.0%	3.0%	2.0%	4.0%	5.0%	2.0%	4.1%	2.4%	2.5%
Cannabinoids	0.0%	3.1%	1.0%	3.0%	3.0%	1.0%	4.0%	2.0%	2.0%	6.1%	3.9%	3.2%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	1.0%	0.8%	0.7%
Opioids	7.1%	2.1%	7.2%	0.0%	3.0%	2.0%	7.1%	15.0%	22.0%	3.1%	5.0%	5.6%

Table B2. Urban Survey Adjusted Percents

	NE Kabul City	NW Kabul City	SW Kabul City/SE Kabul City	Kabul City	Fairzabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	TOTAL
Adult Males	3%	6%	10%	30%	30%	30%	30%	29%	30%	29%	29%	30%	30%	29%	30%
Any Drug	12.4%	6.8%	10.1%	9.9%	4.9%	12.3%	8.8%	4.0%	11.4%	8.0%	15.9%	23.4%	27.6%	9.1%	10.6%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	3.4%	0.0%	0.0%
Barbiturates	0.4%	0.8%	0.4%	0.4%	0.0%	1.8%	1.8%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.7%
Benzodiazepines	2.8%	1.2%	2.6%	2.0%	0.0%	1.8%	1.8%	0.0%	2.9%	2.0%	1.4%	8.5%	3.4%	3.0%	2.0%
Cannabinoids	7.2%	2.8%	3.1%	4.9%	0.0%	5.3%	1.8%	4.0%	5.7%	2.0%	5.8%	4.3%	3.4%	9.1%	4.7%
Ethanol	0.4%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.3%
Opioids	3.2%	3.2%	6.1%	4.1%	4.9%	3.5%	5.3%	0.0%	5.7%	4.0%	7.2%	14.9%	17.2%	3.0%	4.6%
Adult Females	28%	28%	28%	28%	28%	28%	28%	29%	28%	29%	29%	28%	28%	29%	28%
Any Drug	3.5%	2.2%	5.0%	3.7%	3.1%	2.1%	4.1%	0.0%	3.1%	2.0%	9.1%	7.0%	14.0%	7.4%	4.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Barbiturates	0.3%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Benzodiazepines	1.3%	0.6%	1.1%	1.1%	0.0%	2.1%	1.0%	0.0%	3.1%	1.0%	3.0%	1.0%	0.0%	3.2%	1.4%
Cannabinoids	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Ethanol	1.0%	0.3%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	1.1%	0.5%
Opioids	1.0%	1.4%	4.2%	1.9%	3.1%	0.0%	3.1%	0.0%	0.0%	1.0%	5.1%	6.0%	14.0%	3.2%	2.3%
Children (Male & Female)	69%	66%	62%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%
Any Drug	2.9%	2.2%	3.4%	2.6%	3.6%	1.1%	1.1%	0.0%	0.0%	0.0%	2.4%	5.7%	2.2%	0.0%	2.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Barbiturates	0.0%	0.0%	0.4%	0.2%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Benzodiazepines	0.4%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Cannabinoids	0.4%	1.1%	1.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
Ethanol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.1%
Opioids	2.0%	1.1%	1.9%	1.4%	3.6%	0.0%	1.1%	0.0%	0.0%	0.0%	1.2%	5.7%	2.2%	0.0%	1.3%

Table B2 (continued). Urban Survey Adjusted Percents

	NE Kabul City	NW Kabul City	SW Kabul City/SE Kabul City	Kabul City	Faizabad	Jalalabad	Mazar-e-Sharif	Banyan City	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	Total
% of Total Urban Populations															
Any Drug	5.9%	3.6%	5.8%	5.1%	3.8%	4.7%	4.3%	1.2%	4.3%	2.9%	8.3%	11.4%	13.1%	4.8%	5.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	1.0%	0.0%	0.0%
Barbiturates	0.2%	0.2%	0.4%	0.3%	0.0%	1.0%	0.5%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.3%
Benzodiazepines	1.4%	0.5%	1.3%	0.8%	0.0%	1.1%	0.8%	0.0%	1.7%	0.9%	1.3%	2.8%	1.0%	1.8%	1.0%
Cannabinoids	2.3%	1.3%	1.5%	2.4%	0.0%	1.6%	0.5%	1.2%	1.7%	0.6%	1.7%	1.3%	1.0%	2.7%	1.7%
Ethanol	0.4%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.3%	0.3%
Opioids	2.1%	1.8%	3.8%	1.6%	3.8%	1.0%	2.9%	0.0%	1.7%	1.5%	4.1%	8.6%	10.0%	1.8%	2.6%
% of Total Adults	2.6%	2.5%	2.8%	1.7%											
Any Drug	2.5%	2.4%	2.7%	1.6%	4.0%	7.3%	6.5%	2.0%	7.3%	5.1%	12.6%	15.5%	20.9%	8.2%	7.5%
Amphetamines	2.3%	2.3%	2.6%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	1.8%	0.0%	0.0%
Barbiturates	2.2%	2.2%	2.5%	1.3%	0.0%	0.9%	0.9%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.4%
Benzodiazepines	2.1%	2.1%	2.3%	1.2%	0.0%	1.9%	1.4%	0.0%	3.0%	1.5%	2.2%	4.9%	1.8%	3.1%	1.7%
Cannabinoids	1.9%	2.0%	2.2%	1.1%	0.0%	2.7%	0.9%	2.0%	2.9%	1.0%	2.9%	2.2%	1.8%	4.6%	2.4%
Ethanol	1.8%	1.9%	2.1%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.5%	0.4%
Opioids	1.7%	1.8%	2.0%	0.8%	4.0%	1.8%	4.2%	0.0%	2.9%	2.5%	6.2%	10.6%	15.7%	3.1%	3.5%

Table B3. Urban Survey Sample Counts

	NE Kabul City	NW Kabul City	SW Kabul City	SE Kabul City	Kabul City	Faizabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmanneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	TOTAL
Adult Males	249	251	228	179	907	61	57	57	25	35	50	69	47	29	33	1370
Any Drug	31	17	23	19	90	3	7	5	1	4	4	11	11	8	3	147
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Barbiturates	1	2	1	0	4	0	1	1	0	0	0	1	0	0	0	7
Benzodiazepines	7	3	6	2	18	0	1	1	0	1	1	1	4	1	1	29
Cannabinoids	18	7	7	12	44	0	3	1	1	2	1	4	2	1	3	62
Ethanol	1	0	0	1	2	0	0	0	0	0	0	1	0	0	0	3
Opioids	8	8	14	7	37	3	2	3	0	2	2	5	7	5	1	67
Adult Females	314	360	361	287	1322	98	97	97	33	65	99	99	100	50	95	2155
Any Drug	11	8	18	12	49	3	2	4	0	2	2	9	7	7	7	92
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barbiturates	1	0	1	1	3	0	0	0	0	0	0	0	0	0	0	3
Benzodiazepines	4	2	4	5	15	0	2	1	0	2	1	3	1	0	3	28
Cannabinoids	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Ethanol	3	1	0	4	8	0	0	0	0	0	0	1	0	0	1	10
Opioids	3	5	15	2	25	3	0	3	0	0	1	5	6	7	3	53
Children (Male & Female)	244	273	265	214	996	83	92	88	28	55	86	85	87	46	59	1705
Any Drug	7	6	9	4	26	3	1	1	0	0	0	2	5	1	0	39
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barbiturates	0	0	1	1	2	0	1	0	0	0	0	0	0	0	0	3
Benzodiazepines	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
Cannabinoids	1	3	3	2	9	0	0	0	0	0	0	0	0	0	0	9
Ethanol	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Opioids	5	3	5	1	14	3	0	1	0	0	0	1	5	1	0	25

Table B3 (continued). Urban Survey Sample Counts

	NE Kabul City	NW Kabul City	SW Kabul City	SE Kabul City	Kabul City	Faizabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	Total
Total Sampled	807	884	854	680	3225	242	246	242	86	155	235	253	234	125	187	5230
Any Drug	49	31	50	35	165	9	10	10	1	6	6	22	23	16	10	278
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Barbiturates	2	2	3	2	9	0	2	1	0	0	0	1	0	0	0	13
Benzodiazepines	12	5	11	7	35	0	3	2	0	3	2	4	5	1	4	59
Cannabinoids	19	10	11	14	54	0	3	1	1	2	1	4	2	1	3	72
Ethanol	4	1	0	5	10	0	0	0	0	0	0	3	0	0	1	14
Opioids	16	16	34	10	76	9	2	7	0	2	3	11	18	13	4	145
Total Adults: Male + Female	563	611	589	466	2229	159	154	154	58	100	149	168	147	79	128	3925
Any Drug	42	25	41	31	139	6	9	9	1	6	6	20	18	15	10	239
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Barbiturates	2	2	2	1	7	0	1	1	0	0	0	1	0	0	0	10
Benzodiazepines	11	5	10	7	33	0	3	2	0	3	2	4	5	1	4	57
Cannabinoids	18	7	8	12	45	0	3	1	1	2	1	4	2	1	3	63
Ethanol	4	1	0	5	10	0	0	0	0	0	0	2	0	0	1	13
Opioids	11	13	29	9	62	6	2	6	0	2	3	10	13	12	4	120

Table B4. Urban Survey Sample Percents

	NE Kabul City	NW Kabul City	SW Kabul City	SE Kabul City	Kabul City	Faizabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmanneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	TOTAL
Adult Males	31%	28%	27%	26%	28%	25%	23%	24%	29%	23%	21%	27%	20%	23%	18%	26%
Any Drug	12.4%	6.8%	10.1%	10.6%	9.9%	4.9%	12.3%	8.8%	4.0%	11.4%	8.0%	15.9%	23.4%	27.6%	9.1%	10.7%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	3.4%	0.0%	0.1%
Barbiturates	0.4%	0.8%	0.4%	0.0%	0.4%	0.0%	1.8%	1.8%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.5%
Benzodiazepines	2.8%	1.2%	2.6%	1.1%	2.0%	0.0%	1.8%	1.8%	0.0%	2.9%	2.0%	1.4%	8.5%	3.4%	3.0%	2.1%
Cannabinoids	7.2%	2.8%	3.1%	6.7%	4.9%	0.0%	5.3%	1.8%	4.0%	5.7%	2.0%	5.8%	4.3%	3.4%	9.1%	4.5%
Ethanol	0.4%	0.0%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.2%
Opioids	3.2%	3.2%	6.1%	3.9%	4.1%	4.9%	3.5%	5.3%	0.0%	5.7%	4.0%	7.2%	14.9%	17.2%	3.0%	4.9%
Adult Females	38.9%	40.7%	42.3%	42.2%	41.0%	40.5%	39.4%	40.1%	38.4%	41.9%	42.1%	39.1%	42.7%	40.0%	50.8%	41.2%
Any Drug	3.5%	2.2%	5.0%	4.2%	3.7%	3.1%	2.1%	4.1%	0.0%	3.1%	2.0%	9.1%	7.0%	14.0%	7.4%	4.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Barbiturates	0.3%	0.0%	0.3%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Benzodiazepines	1.3%	0.6%	1.1%	1.7%	1.1%	0.0%	2.1%	1.0%	0.0%	3.1%	1.0%	3.0%	1.0%	0.0%	3.2%	1.3%
Cannabinoids	0.0%	0.0%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ethanol	1.0%	0.3%	0.0%	1.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	1.1%	0.5%
Opioids	1.0%	1.4%	4.2%	0.7%	1.9%	3.1%	0.0%	3.1%	0.0%	0.0%	1.0%	5.1%	6.0%	14.0%	3.2%	2.5%
Children (Male & Female)	30.2%	30.9%	31.0%	31.5%	30.9%	34.3%	37.4%	36.4%	32.6%	35.5%	36.6%	33.6%	37.2%	36.8%	31.6%	32.6%
Any Drug	2.9%	2.2%	3.4%	1.9%	2.6%	3.6%	1.1%	1.1%	0.0%	0.0%	0.0%	2.4%	5.7%	2.2%	0.0%	2.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Barbiturates	0.0%	0.0%	0.4%	0.5%	0.2%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Benzodiazepines	0.4%	0.0%	0.4%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Cannabinoids	0.4%	1.1%	1.1%	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
Ethanol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.1%
Opioids	2.0%	1.1%	1.9%	0.5%	1.4%	3.6%	0.0%	1.1%	0.0%	0.0%	0.0%	1.2%	5.7%	2.2%	0.0%	1.5%

Table B4 (continued). Urban Survey Sample Percents

	NE Kabul City	NW Kabul City	SW Kabul City	SE Kabul City	Kabul City	Fatuzabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	TOTAL
% of Total Urban Populations																
Any Drug	6.1%	3.5%	5.9%	5.1%	5.1%	3.7%	4.1%	4.1%	1.2%	3.9%	2.6%	8.7%	9.8%	12.8%	5.3%	5.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.8%	0.0%	0.0%
Barbiturates	0.2%	0.2%	0.4%	0.3%	0.3%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.2%
Benzodiazepines	1.5%	0.6%	1.3%	1.0%	1.1%	0.0%	1.2%	0.8%	0.0%	1.9%	0.9%	1.6%	2.1%	0.8%	2.1%	1.1%
Cannabinoids	2.4%	1.1%	1.3%	2.1%	1.7%	0.0%	1.2%	0.4%	1.2%	1.3%	0.4%	1.6%	0.9%	0.8%	1.6%	1.4%
Ethanol	0.5%	0.1%	0.0%	0.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.5%	0.3%
Opioids	2.0%	1.8%	4.0%	1.5%	2.4%	3.7%	0.8%	2.9%	0.0%	1.3%	1.3%	4.3%	7.7%	10.4%	2.1%	2.8%
% of Total Adults																
Any Drug	7.5%	4.1%	7.0%	6.7%	6.2%	3.8%	5.8%	5.8%	1.7%	6.0%	4.0%	11.9%	12.2%	19.0%	7.8%	6.8%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	1.3%	0.0%	0.1%
Barbiturates	0.4%	0.3%	0.3%	0.2%	0.3%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.3%
Benzodiazepines	2.0%	0.8%	1.7%	1.5%	1.5%	0.0%	1.9%	1.3%	0.0%	3.0%	1.3%	2.4%	3.4%	1.3%	3.1%	1.6%
Cannabinoids	3.2%	1.1%	1.4%	2.6%	2.0%	0.0%	1.9%	0.6%	1.7%	2.0%	0.7%	2.4%	1.4%	1.3%	2.3%	1.8%
Ethanol	0.7%	0.2%	0.0%	1.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.8%	0.4%
Opioids	2.0%	2.1%	4.9%	1.9%	2.8%	3.8%	1.3%	3.9%	0.0%	2.0%	2.0%	6.0%	8.8%	15.2%	3.1%	3.4%

Table B5. Urban Survey Adjusted Number of Positives

	NE Kabul City	NW Kabul City	SW Kabul City	SE Kabul City	Kabul City	Faizabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmanneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	TOTAL
Adult Males	267,960	252,938	213,382	300,150	987,334	9,396	61,654	109,504	3,480	23,258	22,504	128,528	10,498	7,366	15,834	1,379,356
Any Drug	33,360	17,131	21,525	31,859	97,971	462	7,572	9,606	139	2,658	1,800	20,490	2,457	2,032	1,439	146,627
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	223	254	0	477
Barbiturates	1,076	2,015	936	0	4,354	0	1,082	1,921	0	0	0	1,863	0	0	0	9,220
Benzodiazepines	7,533	3,023	5,615	3,354	19,594	0	1,082	1,921	0	665	450	1,863	893	254	480	27,202
Cannabinoids	19,371	7,054	6,551	20,122	47,897	0	3,245	1,921	139	1,329	450	7,451	447	254	1,439	64,573
Ethanol	1,076	0	0	1,677	2,177	0	0	0	0	0	0	1,863	0	0	0	4,040
Opioids	8,609	8,062	13,102	11,738	40,277	462	2,163	5,763	0	1,329	900	9,314	1,564	1,270	480	63,522
Adult Females	251,430	236,614	198,882	277,878	920,286	8,932	58,116	103,994	3,480	22,272	21,866	124,526	9,802	7,076	15,428	1,295,778
Any Drug	8,608	5,263	9,917	11,619	34,110	273	1,198	4,288	0	685	442	11,321	686	991	1,137	55,132
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barbiturates	801	0	551	968	2,088	0	0	0	0	0	0	0	0	0	0	2,088
Benzodiazepines	3,203	1,316	2,204	4,841	10,442	0	1,198	1,072	0	685	221	3,774	98	0	487	17,977
Cannabinoids	0	0	551	0	696	0	0	0	0	0	0	0	0	0	0	696
Ethanol	2,402	658	0	3,873	5,569	0	0	0	0	0	0	1,258	0	0	162	6,989
Opioids	2,402	3,289	8,264	1,936	17,403	273	0	3,216	0	0	221	6,289	588	991	487	29,469
Children (Male & Female)	376,110	354,648	298,536	418,572	1,381,380	13,272	86,730	154,602	5,040	32,970	32,130	183,246	14,700	10,458	22,638	1,937,166
Any Drug	10,790	7,794	10,139	7,824	36,060	480	943	1,757	0	0	0	4,312	845	227	0	44,623
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barbiturates	0	0	1,127	1,956	2,774	0	943	0	0	0	0	0	0	0	0	3,717
Benzodiazepines	1,541	0	1,127	0	2,774	0	0	0	0	0	0	0	0	0	0	2,774
Cannabinoids	1,541	3,897	3,380	3,912	12,482	0	0	0	0	0	0	0	0	0	0	12,482
Ethanol	0	0	0	0	0	0	0	0	0	0	0	2,156	0	0	0	2,156
Opioids	7,707	3,697	5,633	1,956	19,417	480	0	1,757	0	0	0	2,156	845	227	0	24,682

Table B5 (continued). Urban Survey Adjusted Number of Positives

	NE Kabul City	NW Kabul City	SW Kabul City	SE Kabul City	Kabul City	Faizabad	Jalalabad	Mazar-e-Sharif	Bamyan City	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Charikar	Total
Total Population	895,500	844,400	710,800	996,600	3,289,000	31,600	206,500	368,100	12,000	76,500	76,500	436,300	35,000	24,900	53,900	4,612,300
Any Drug	52,959	30,188	41,581	51,302	168,142	1,215	9,713	15,651	139	3,343	2,242	36,122	3,988	3,250	2,576	246,382
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	223	254	0	477
Barbiturates	1,877	2,015	2,613	2,924	9,217	0	2,024	1,921	0	0	0	1,863	0	0	0	15,025
Benzodiazepines	12,277	4,339	8,946	8,195	32,810	0	2,280	2,993	0	1,350	671	5,636	991	254	967	47,953
Cannabinoids	20,912	10,951	10,482	24,034	61,076	0	3,245	1,921	139	1,329	450	7,451	447	254	1,439	77,751
Ethanol	3,478	658	0	5,550	7,746	0	0	0	0	0	0	5,276	0	0	162	13,185
Opioids	18,719	15,248	26,999	15,630	77,097	1,215	2,163	10,737	0	1,329	1,121	17,759	2,986	2,488	967	117,873
Total Adults: Male + Female	519,390	489,752	412,264	578,028	1,907,620	18,328	119,770	213,498	6,960	45,530	44,370	253,054	20,300	14,442	31,262	2,675,134
Any Drug	42,169	22,394	31,442	43,478	132,082	736	8,770	13,894	139	3,343	2,242	31,811	3,143	3,023	2,576	201,758
Amphetamines	0	0	0	0	0	0	0	0	0	0	0	0	223	254	0	477
Barbiturates	1,877	2,015	1,487	968	6,443	0	1,082	1,921	0	0	0	1,863	0	0	0	11,308
Benzodiazepines	10,736	4,339	7,819	8,195	30,036	0	2,280	2,993	0	1,350	671	5,636	991	254	967	45,179
Cannabinoids	19,371	7,054	7,102	20,122	48,593	0	3,245	1,921	139	1,329	450	7,451	447	254	1,439	65,269
Ethanol	3,478	658	0	5,550	7,746	0	0	0	0	0	0	3,121	0	0	162	11,029
Opioids	11,011	11,351	21,366	13,674	57,680	736	2,163	8,980	0	1,329	1,121	15,603	2,152	2,261	967	92,991

Table B6. Rural Household Counts and Rates

	Farah	Khost	Takhar	Kapisa	Sar-e Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
Households	39	23	53	43	44	35	48	54	27	18	55	28	48	27	45	567
Any Drug	14	11	11	11	22	30	6	16	12	8	28	17	23	9	8	226
Amphetamines	0	0	1	2	4	0	2	1	0	0	0	0	3	0	0	13
Barbiturates	1	1	2	0	1	0	1	0	0	2	0	0	0	0	0	8
Benzodiazepines	2	4	1	2	5	0	0	3	2	3	2	3	9	0	0	36
Cannabinoids	2	7	3	5	5	0	1	6	8	4	12	13	8	7	2	83
Alcohol	0	0	0	0	0	0	0	0	2	0	1	1	0	0	1	5
Opioids	11	2	5	7	15	30	3	9	3	3	19	6	22	3	6	144
Other	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Households																
Any Drug	35.9%	47.8%	20.8%	25.6%	50.0%	85.7%	12.5%	29.6%	44.4%	44.4%	50.9%	60.7%	47.9%	33.3%	17.8%	38.5%
Amphetamines	0.0%	0.0%	1.9%	4.7%	9.1%	0.0%	4.2%	1.9%	0.0%	0.0%	0.0%	0.0%	6.3%	0.0%	0.0%	2.2%
Barbiturates	2.6%	4.3%	3.8%	0.0%	2.3%	0.0%	2.1%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%
Benzodiazepines	5.1%	17.4%	1.9%	4.7%	11.4%	0.0%	0.0%	5.6%	7.4%	16.7%	3.6%	10.7%	18.8%	0.0%	0.0%	6.1%
Cannabinoids	5.1%	30.4%	5.7%	11.6%	11.4%	0.0%	2.1%	11.1%	29.6%	22.2%	21.8%	46.4%	16.7%	25.9%	4.4%	14.1%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%	0.0%	1.8%	3.6%	0.0%	0.0%	2.2%	0.9%
Opioids	28.2%	8.7%	9.4%	16.3%	34.1%	85.7%	6.3%	16.7%	11.1%	16.7%	34.5%	21.4%	45.8%	11.1%	13.3%	24.5%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.2%

Table B7. Rural Survey Adjusted Percents

	Farah	Khoost	Takhar	Kapisa	Sar-e-Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
Adult Males																
Any Drug	14.9%	11.1%	12.1%	11.7%	14.0%	47.5%	5.3%	21.6%	25.0%	14.3%	21.7%	17.4%	30.5%	10.7%	5.9%	17.8%
Amphetamines	0.0%	0.0%	0.9%	2.7%	3.7%	0.0%	1.1%	1.0%	0.0%	0.0%	0.9%	0.0%	3.8%	0.0%	0.0%	1.1%
Barbiturates	0.0%	0.0%	0.9%	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Benzodiazepines	0.0%	0.0%	0.9%	2.7%	3.7%	0.0%	0.0%	2.1%	0.0%	0.0%	1.7%	0.0%	4.8%	0.0%	0.0%	1.3%
Cannabroids	4.1%	9.7%	1.9%	6.3%	2.8%	0.0%	3.2%	6.2%	19.4%	11.4%	13.0%	12.1%	7.6%	8.9%	2.0%	6.6%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Opioids	10.8%	2.8%	7.5%	6.3%	9.3%	47.5%	2.1%	14.4%	11.1%	11.4%	11.3%	6.1%	27.6%	1.8%	5.0%	12.1%
Other	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Adult Females																
Any Drug	8.6%	10.1%	2.0%	4.9%	10.1%	48.0%	2.3%	5.2%	14.9%	8.9%	18.1%	6.0%	13.7%	6.5%	2.5%	11.2%
Amphetamines	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Barbiturates	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Benzodiazepines	1.7%	3.4%	0.0%	0.0%	1.6%	0.0%	0.0%	0.7%	3.0%	5.4%	0.8%	3.0%	3.8%	0.0%	0.0%	1.4%
Cannabroids	0.9%	7.9%	0.0%	1.0%	0.0%	0.0%	0.0%	3.0%	10.4%	5.4%	2.4%	2.0%	0.8%	4.3%	0.0%	2.0%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.8%	1.0%	0.0%	0.0%	0.8%	0.3%
Opioids	6.0%	0.0%	2.0%	3.9%	8.5%	48.0%	2.3%	1.5%	1.5%	0.0%	15.0%	1.0%	12.2%	2.2%	1.7%	8.1%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.1%
Children (Male & Female)																
Any Drug	4.4%	8.5%	7.3%	5.8%	9.5%	50.5%	1.7%	7.4%	18.6%	11.2%	11.4%	5.9%	10.4%	14.6%	1.1%	11.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%
Barbiturates	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Benzodiazepines	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%
Cannabroids	0.9%	6.4%	2.6%	1.1%	4.8%	0.0%	0.0%	4.5%	12.7%	6.9%	4.2%	3.2%	1.6%	13.6%	0.0%	3.6%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Opioids	3.5%	0.7%	4.2%	4.7%	4.2%	50.5%	0.6%	4.0%	5.1%	1.7%	7.2%	2.7%	10.4%	1.0%	1.1%	7.5%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table B7 (continued). Rural Survey Adjusted Percents

	Farah	Khoost	Takhar	Kapisa	Sar-e-Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
Total																
Any Drug	8.4%	9.6%	7.4%	7.3%	11.0%	49.1%	2.8%	10.4%	19.4%	11.4%	16.2%	9.2%	16.4%	11.8%	2.9%	13.0%
Amphetamines	0.0%	0.0%	0.3%	1.0%	1.4%	0.0%	0.8%	0.3%	0.0%	0.0%	0.2%	0.0%	1.2%	0.0%	0.0%	0.4%
Barbiturates	0.3%	0.3%	0.5%	0.3%	0.3%	0.0%	0.2%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Benzodiazepines	0.6%	1.6%	0.3%	0.8%	1.5%	0.0%	0.0%	0.7%	0.7%	1.2%	0.7%	0.8%	2.5%	0.0%	0.0%	0.8%
Cannabinoids	1.6%	7.7%	1.8%	2.6%	2.8%	0.0%	0.8%	4.5%	13.9%	7.6%	6.2%	5.4%	2.9%	10.3%	0.6%	3.9%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.2%	0.3%	0.0%	0.0%	0.2%	0.1%
Opioids	6.1%	1.1%	4.6%	5.0%	6.9%	49.1%	1.5%	5.9%	5.8%	3.5%	10.5%	3.2%	15.2%	1.4%	2.4%	8.9%
Other	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Adults: Male + Female																
Any Drug	11.0%	10.6%	7.4%	8.6%	12.1%	47.8%	3.7%	12.9%	20.1%	11.7%	19.9%	12.1%	21.5%	8.6%	4.3%	14.5%
Amphetamines	0.0%	0.0%	0.5%	1.9%	1.9%	0.0%	0.9%	0.5%	0.0%	0.0%	0.4%	0.0%	1.8%	0.0%	0.0%	0.6%
Barbiturates	0.5%	0.0%	0.5%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Benzodiazepines	1.1%	1.7%	0.5%	1.5%	2.7%	0.0%	0.0%	1.4%	1.5%	2.6%	1.3%	1.4%	4.9%	0.0%	0.0%	1.3%
Cannabinoids	2.1%	8.8%	1.0%	3.9%	1.4%	0.0%	1.4%	4.5%	15.1%	8.4%	7.7%	7.4%	3.9%	6.6%	1.1%	4.2%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.4%	0.5%	0.0%	0.0%	0.4%	0.1%
Opioids	7.9%	1.4%	4.9%	5.2%	8.9%	47.8%	2.2%	7.5%	6.4%	5.8%	13.1%	3.7%	19.3%	2.0%	3.4%	10.1%
Other	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%

Table B8. Rural Survey Sample Counts

	Farah	Khost	Takhar	Kapisa	Sare-Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
Adult Males	74	72	107	111	107	99	94	97	36	35	115	132	105	56	101	1341
Any Drug	11	8	13	13	15	47	5	21	9	5	25	23	32	6	6	239
Amphetamines	0	0	1	3	4	0	1	1	0	0	1	0	4	0	0	15
Barbiturates	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
Benzodiazepines	0	0	1	3	4	0	0	2	0	0	2	0	5	0	0	17
Cannabinoids	3	7	2	7	3	0	3	6	7	4	15	16	8	5	2	88
Alcohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Opioids	8	2	8	7	10	47	2	14	4	4	13	8	29	1	5	162
Other	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Adult Females	116	89	102	102	129	123	130	135	67	56	127	100	131	46	120	1573
Any Drug	10	9	2	5	13	59	3	7	10	5	23	6	18	3	3	176
Amphetamines	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Barbiturates	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Benzodiazepines	2	3	0	0	2	0	0	1	2	3	1	3	5	0	0	22
Cannabinoids	1	7	0	1	0	0	0	4	7	3	3	2	1	2	0	31
Alcohol	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	4
Opioids	7	0	2	4	11	59	3	2	1	0	19	1	16	1	2	128
Other	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Children (Male & Female)	113	141	192	190	168	192	178	176	118	116	166	185	182	103	185	2405
Any Drug	5	12	14	11	16	97	3	13	22	13	19	11	19	15	2	272
Amphetamines	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	3
Barbiturates	0	1	1	0	0	0	1	0	0	4	0	0	0	0	0	7
Benzodiazepines	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3
Cannabinoids	1	9	5	2	8	0	0	8	15	8	7	6	3	14	0	86
Alcohol	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Opioids	4	1	8	9	7	97	1	7	6	2	12	5	19	1	2	181
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table B8 (continued). Rural Survey Sample Counts

	Farah	Khost	Takhar	Kapisa	Sar-e-Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Leghman	Nimroz	Nuristan	Samangan	TOTAL
Total	303	302	401	403	404	414	402	408	221	207	408	417	418	205	406	5319
Any Drug	26	29	29	29	44	203	11	41	41	23	67	40	69	24	11	687
Amphetamines	0	0	1	4	5	0	3	1	0	0	1	0	5	0	0	20
Barbiturates	1	1	2	1	1	0	1	0	0	4	0	0	0	0	0	11
Benzodiazepines	2	5	1	3	6	0	0	3	2	3	3	3	11	0	0	42
Cannabinoids	5	23	7	10	11	0	3	18	29	15	25	24	12	21	2	205
Alcohol	0	0	0	0	0	0	0	0	2	0	1	1	0	0	1	5
Opioids	19	3	18	20	28	203	6	23	11	6	44	14	64	3	9	471
Other	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
Total Adults: Male + Female	190	161	209	213	236	222	224	232	103	91	242	232	236	102	221	2914
Any Drug	21	17	15	18	28	106	8	28	19	10	48	29	50	9	9	415
Amphetamines	0	0	1	4	4	0	2	1	0	0	1	0	4	0	0	17
Barbiturates	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	4
Benzodiazepines	2	3	1	3	6	0	0	3	2	3	3	3	10	0	0	39
Cannabinoids	4	14	2	8	3	0	3	10	14	7	18	18	9	7	2	119
Alcohol	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	4
Opioids	15	2	10	11	21	106	5	16	5	4	32	9	45	2	7	290
Other	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2

Table B9. Rural Survey Sample Percents

	Farah	Khost	Takhar	Kapisa	Sar-e Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
Adult Males																
Any Drug	14.9%	11.1%	12.1%	11.7%	14.0%	47.5%	5.3%	21.6%	25.0%	14.3%	21.7%	17.4%	30.5%	10.7%	5.9%	17.8%
Amphetamines	0.0%	0.0%	0.9%	2.7%	3.7%	0.0%	1.1%	1.0%	0.0%	0.0%	0.9%	0.0%	3.8%	0.0%	0.0%	1.1%
Barbiturates	0.0%	0.0%	0.9%	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Benzodiazepines	0.0%	0.0%	0.9%	2.7%	3.7%	0.0%	0.0%	2.1%	0.0%	0.0%	1.7%	0.0%	4.8%	0.0%	0.0%	1.3%
Cannabisoids	4.1%	9.7%	1.9%	6.3%	2.8%	0.0%	3.2%	6.2%	19.4%	11.4%	13.0%	12.1%	7.6%	8.9%	2.0%	6.6%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Opioids	10.8%	2.8%	7.5%	6.3%	9.3%	47.5%	2.1%	14.4%	11.1%	11.4%	11.3%	6.1%	27.6%	1.8%	5.0%	12.1%
Other	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Adult Females																
Any Drug	8.6%	10.1%	2.0%	4.9%	10.1%	48.0%	2.2%	5.2%	14.9%	8.9%	18.1%	6.0%	13.7%	6.5%	2.5%	11.2%
Amphetamines	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Barbiturates	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Benzodiazepines	1.7%	3.4%	0.0%	0.0%	1.6%	0.0%	0.0%	0.7%	3.0%	5.4%	0.8%	3.0%	3.8%	0.0%	0.0%	1.4%
Cannabisoids	0.9%	7.9%	0.0%	1.0%	0.0%	0.0%	0.0%	3.0%	10.4%	5.4%	2.4%	2.0%	0.8%	4.3%	0.0%	2.0%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.8%	1.0%	0.0%	0.0%	0.8%	0.3%
Opioids	6.0%	0.0%	2.0%	3.9%	8.5%	48.0%	2.3%	1.5%	1.5%	0.0%	15.0%	1.0%	12.2%	2.2%	1.7%	8.1%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.1%
Children (Male & Female)																
Any Drug	4.4%	8.5%	7.3%	5.8%	9.5%	50.5%	1.7%	7.4%	18.6%	11.2%	11.4%	5.9%	10.4%	14.6%	1.1%	11.3%
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%
Barbiturates	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Benzodiazepines	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%
Cannabisoids	0.9%	6.4%	2.6%	1.1%	4.8%	0.0%	0.0%	4.5%	12.7%	6.9%	4.2%	3.2%	1.6%	13.6%	0.0%	3.6%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Opioids	3.5%	0.7%	4.2%	4.7%	4.2%	50.5%	0.6%	4.0%	5.1%	1.7%	7.2%	2.7%	10.4%	1.0%	1.1%	7.5%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table B9 (continued). Rural Survey Sample Percents

	Farah	Khost	Takhar	Kapisa	Sar-e Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
Total																
Any Drug	8.6%	9.6%	7.2%	7.2%	10.9%	49.0%	2.7%	10.0%	18.6%	11.1%	16.4%	9.6%	16.5%	11.7%	2.7%	12.9%
Amphetamines	0.0%	0.0%	0.2%	1.0%	1.2%	0.0%	0.7%	0.2%	0.0%	0.0%	0.2%	0.0%	1.2%	0.0%	0.0%	0.4%
Barbiturates	0.3%	0.3%	0.5%	0.2%	0.2%	0.0%	0.2%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Benzodiazepines	0.7%	1.7%	0.2%	0.7%	1.5%	0.0%	0.0%	0.7%	0.9%	1.4%	0.7%	0.7%	2.6%	0.0%	0.0%	0.8%
Cannabinoids	1.7%	7.6%	1.7%	2.5%	2.7%	0.0%	0.7%	4.4%	13.1%	7.2%	6.1%	5.8%	2.9%	10.2%	0.5%	3.9%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.2%	0.2%	0.0%	0.0%	0.2%	0.1%
Opioids	6.3%	1.0%	4.5%	5.0%	6.9%	49.0%	1.5%	5.6%	5.0%	2.9%	10.8%	3.4%	15.3%	1.5%	2.2%	8.9%
Other	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Adults: Male + Female																
Any Drug	11.1%	10.6%	7.2%	8.5%	11.9%	47.7%	3.6%	12.1%	18.4%	11.0%	19.8%	12.5%	21.2%	8.8%	4.1%	14.2%
Amphetamines	0.0%	0.0%	0.5%	1.9%	1.7%	0.0%	0.9%	0.4%	0.0%	0.0%	0.4%	0.0%	1.7%	0.0%	0.0%	0.6%
Barbiturates	0.5%	0.0%	0.5%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Benzodiazepines	1.1%	1.9%	0.5%	1.4%	2.5%	0.0%	0.0%	1.3%	1.9%	3.3%	1.2%	1.3%	4.2%	0.0%	0.0%	1.3%
Cannabinoids	2.1%	8.7%	1.0%	3.8%	1.3%	0.0%	1.3%	4.3%	13.6%	7.7%	7.4%	7.8%	3.8%	6.9%	0.9%	4.1%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.4%	0.4%	0.0%	0.0%	0.5%	0.1%
Opioids	7.9%	1.2%	4.8%	5.2%	8.9%	47.7%	2.2%	6.9%	4.9%	4.4%	13.2%	3.9%	19.1%	2.0%	3.2%	10.0%
Other	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%

Table B10. Rural Survey Province Population Estimates

	Farah	Khost	Takhar	Kapisa	Sar e Pul	Ghor	Badghis	Baghian	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nooristan	Samangan	TOTAL
Total # of People in Households Sampled within Province	343	366	534	518	521	450	519	564	302	276	553	467	478	274	521	6686
Men	79	97	150	152	154	97	130	144	77	62	154	132	119	64	153	1764
Women	125	96	130	126	149	129	159	165	73	60	156	117	139	64	133	1821
Children	139	173	254	240	218	224	230	255	152	154	243	218	220	146	235	3101
Estimated Population	9,503	21,506	8,011	6,688	21,689	10,234	4,732	17,384	5,919	29,078	14,703	18,599	7,490	4,616	7,076	187,208
Men	2,189	5,700	2,250	1,957	6,411	2,206	1,185	4,438	1,509	6,532	4,095	5,257	1,865	1,078	2,078	49,392
Women	3,463	5,641	1,950	1,622	6,203	2,934	1,450	5,086	1,431	6,321	4,148	4,660	2,178	1,078	1,806	50,988
Children	3,851	10,165	3,810	3,089	9,075	5,094	2,097	7,860	2,979	16,225	6,461	8,682	3,447	2,460	3,192	86,828
Estimated Proportions																
Men	23%	27%	28%	29%	30%	22%	25%	26%	25%	22%	28%	28%	25%	23%	29%	26%
Women	36%	26%	24%	24%	29%	29%	31%	29%	24%	22%	28%	25%	29%	23%	26%	27%
Children	41%	47%	48%	46%	42%	50%	44%	45%	50%	56%	44%	47%	46%	53%	45%	46%

Table B11. Rural Survey Adjusted Number of Positives

	Farah	Khost	Takhar	Kapisa	Sar e Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nooristan	Samangan	TOTAL
Adult Males	9,503	21,506	8,011	6,668	21,689	10,234	4,732	17,384	5,919	29,078	14,703	18,599	7,490	4,616	7,076	187,208
Any Drug	325	633	273	229	899	1,047	63	961	377	833	890	916	568	116	123	8,688
Amphetamines	0	0	21	53	240	0	13	46	0	0	36	0	71	0	0	545
Barbiturates	0	0	21	18	60	0	0	0	0	0	0	0	0	0	0	109
Benzodiazepines	0	0	21	53	240	0	0	92	0	0	71	0	89	0	0	618
Cannabinoids	89	554	42	123	180	0	38	275	293	747	534	637	142	96	41	3,199
Alcohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Opioids	237	168	168	123	599	1,047	25	641	168	747	463	319	515	19	103	5,889
Other	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	36
Adult Females	2,189	5,700	2,250	1,957	6,411	2,206	1,185	4,438	1,509	6,532	4,095	5,257	1,865	1,078	2,078	48,750
Any Drug	289	570	38	80	625	1,407	33	264	214	564	751	280	289	70	45	5,591
Amphetamines	0	0	0	16	0	0	11	0	0	0	0	0	0	0	0	64
Barbiturates	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Benzodiazepines	60	190	0	0	96	0	0	38	43	339	33	140	83	0	0	699
Cannabinoids	30	444	0	16	0	0	0	151	149	339	98	93	17	47	0	985
Alcohol	0	0	0	0	0	0	0	0	21	0	33	47	0	0	15	127
Opioids	209	0	38	64	529	1,407	33	75	21	0	621	47	266	23	30	4,066
Other	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	32
Children (Male & Female)	3,463	5,641	1,950	1,622	6,203	2,934	1,450	5,086	1,431	6,321	4,148	4,660	2,178	1,078	1,806	49,970
Any Drug	170	865	278	179	864	2,574	35	581	555	1,818	739	516	360	358	35	10,008
Amphetamines	0	0	0	0	54	0	12	0	0	0	0	0	19	0	0	110
Barbiturates	0	72	20	0	0	0	12	0	0	559	0	0	0	0	0	258
Benzodiazepines	0	144	0	0	0	0	0	0	0	0	0	0	19	0	0	110
Cannabinoids	34	649	99	33	432	0	0	357	379	1,119	272	282	57	334	0	3,164
Alcohol	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	37
Opioids	136	72	159	146	378	2,574	12	313	151	280	467	235	360	24	35	6,660
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table B11 (continued). Rural Survey Adjusted Number of Positives

	Farah	Khost	Takhar	Kapisa	Sar e Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nooristan	Samangan	TOTAL
Total	15,155	32,847	12,212	10,247	34,303	15,374	7,367	26,908	8,859	41,931	22,945	28,516	11,533	6,772	10,960	285,958
Any Drug	794	2,069	589	488	2,388	5,028	132	1,805	1,146	3,316	2,381	1,712	1,227	544	203	24,287
Amphetamines	0	0	21	69	294	0	36	46	0	0	36	0	90	0	0	719
Barbiturates	30	72	41	18	60	0	12	0	0	559	0	0	0	0	0	398
Benzodiazepines	60	334	21	53	336	0	0	129	43	339	104	140	191	0	0	1,427
Cannabinoids	153	1,647	141	172	612	0	98	782	822	2,204	904	1,012	216	477	41	7,348
Alcohol	0	0	0	0	0	0	0	0	47	0	33	47	0	0	15	164
Opioids	582	230	365	333	1,506	5,028	70	1,029	341	1,026	1,550	600	1,141	67	167	16,615
Other	0	0	21	0	0	0	0	0	0	0	33	0	0	0	0	68
Total Adults: Male + Female	11,692	27,206	10,261	8,625	28,100	12,440	5,917	21,822	7,428	35,610	18,798	23,856	9,355	5,694	9,154	235,958
Any Drug	624	1,204	312	309	1,524	2,455	97	1,225	591	1,488	1,641	1,196	868	186	169	14,279
Amphetamines	0	0	21	69	240	0	24	46	0	0	36	0	71	0	0	609
Barbiturates	30	0	21	18	60	0	0	0	0	0	0	0	0	0	0	141
Benzodiazepines	60	190	21	53	336	0	0	129	43	339	104	140	172	0	0	1,317
Cannabinoids	119	998	42	139	180	0	38	425	443	1,085	632	730	159	143	41	4,184
Alcohol	0	0	0	0	0	0	0	0	21	0	33	47	0	0	15	127
Opioids	446	158	206	187	1,128	2,455	59	716	189	747	1,083	365	781	43	133	9,955
Other	0	0	21	0	0	0	0	0	0	0	33	0	0	0	0	68

Table B12. Urban Survey: Adjusted Positive Rates Among Drug Users

	Faizabad	Mazar-e-Sharif	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Jalalabad	Charikar	Bamyan City	Kabul City	TOTAL
Adult Males												
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	12.5%	0.0%	0.0%	0.0%	0.0%	0.3%
Barbiturates	0.0%	20.0%	0.0%	0.0%	9.1%	0.0%	0.0%	14.3%	0.0%	0.0%	4.4%	6.3%
Benzodiazepines	0.0%	20.0%	25.0%	25.0%	9.1%	36.3%	12.5%	14.3%	33.4%	0.0%	20.0%	18.6%
Cannabinoids	0.0%	20.0%	50.0%	25.0%	36.4%	18.2%	12.5%	42.9%	100.0%	100.0%	48.9%	44.0%
Alcohol	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	2.8%
Opioids	100.0%	60.0%	50.0%	50.0%	45.5%	63.7%	62.5%	28.6%	33.4%	0.0%	41.1%	43.3%
Adult Females												
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Barbiturates	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	3.8%
Benzodiazepines	0.0%	25.0%	100.0%	50.0%	33.3%	14.3%	0.0%	100.0%	42.8%	0.0%	30.6%	32.6%
Cannabinoids	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	1.3%
Alcohol	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	14.2%	0.0%	16.3%	12.7%
Opioids	100.0%	75.0%	0.0%	50.0%	55.6%	85.7%	100.0%	0.0%	42.8%	0.0%	51.0%	53.5%
Total Adults												
Amphetamines	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	8.4%	0.0%	0.0%	0.0%	0.0%	0.2%
Barbiturates	0.0%	13.8%	0.0%	0.0%	5.9%	0.0%	0.0%	12.3%	0.0%	0.0%	4.9%	5.6%
Benzodiazepines	0.0%	21.5%	40.4%	29.9%	17.7%	31.5%	8.4%	26.0%	37.5%	0.0%	22.7%	22.4%
Cannabinoids	0.0%	13.8%	39.8%	20.1%	23.4%	14.2%	8.4%	37.0%	55.9%	100.0%	36.8%	32.3%
Alcohol	0.0%	0.0%	0.0%	0.0%	9.8%	0.0%	0.0%	0.0%	6.3%	0.0%	5.9%	5.5%
Opioids	100.0%	64.6%	39.8%	50.0%	49.0%	68.5%	74.8%	24.7%	37.5%	0.0%	43.7%	46.1%

Table B13. Rural Survey: Adjusted Positive Rates Among Drug Users

	Farah	Khost	Takhar	Kapisa	Sar-e Pul	Ghor	Badghis	Baghlan	Kandahar	Helmand	Kunduz	Laghman	Nimroz	Nuristan	Samangan	TOTAL
Adult Males																
Amphetamines	0.0%	0.0%	7.7%	23.1%	26.7%	0.0%	20.0%	4.8%	0.0%	0.0%	4.0%	0.0%	12.5%	0.0%	0.0%	6.3%
Barbiturates	0.0%	0.0%	7.7%	7.7%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%
Benzodiazepines	0.0%	0.0%	7.7%	23.1%	26.7%	0.0%	0.0%	9.5%	0.0%	0.0%	8.0%	0.0%	15.6%	0.0%	0.0%	7.1%
Cannabinoids	27.3%	87.5%	15.4%	53.8%	20.0%	0.0%	60.0%	28.6%	77.8%	80.0%	60.0%	69.6%	25.0%	83.3%	33.3%	36.8%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Opioids	72.7%	25.0%	61.5%	53.8%	66.7%	100.0%	40.0%	66.7%	44.4%	80.0%	52.0%	34.8%	90.6%	16.7%	83.3%	67.8%
Other	0.0%	0.0%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
Adult Females																
Amphetamines	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%
Barbiturates	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
Benzodiazepines	20.0%	33.3%	0.0%	0.0%	15.4%	0.0%	0.0%	14.3%	20.0%	60.0%	4.3%	50.0%	27.8%	0.0%	0.0%	12.5%
Cannabinoids	10.0%	77.8%	0.0%	20.0%	0.0%	0.0%	0.0%	57.1%	70.0%	60.0%	13.0%	33.3%	5.6%	66.7%	0.0%	17.6%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	4.3%	16.7%	0.0%	0.0%	33.3%	2.3%
Opioids	70.0%	0.0%	100.0%	80.0%	84.6%	100.0%	100.0%	28.6%	10.0%	0.0%	82.6%	16.7%	88.9%	33.3%	66.7%	72.7%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.6%
Total Adults: Male + Female																
Amphetamines	0.0%	0.0%	6.7%	22.3%	15.7%	0.0%	24.6%	3.7%	0.0%	0.0%	2.2%	0.0%	8.2%	0.0%	0.0%	4.3%
Barbiturates	4.8%	0.0%	6.7%	5.7%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%
Benzodiazepines	9.6%	15.8%	6.7%	17.1%	22.0%	0.0%	0.0%	10.5%	7.2%	22.6%	6.3%	11.7%	19.5%	0.0%	0.0%	9.2%
Cannabinoids	19.0%	82.9%	13.5%	45.1%	11.8%	0.0%	39.2%	34.7%	75.0%	72.5%	38.5%	61.1%	18.3%	77.0%	24.4%	29.3%
Alcohol	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	2.0%	3.9%	0.0%	0.0%	8.9%	0.9%
Opioids	71.4%	13.2%	66.3%	60.6%	74.0%	100.0%	60.8%	58.5%	32.0%	49.8%	66.0%	30.5%	90.0%	23.0%	78.9%	69.7%
Other	0.0%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.5%

Table B14. Urban Survey: Type and Source of Opioids

	Faizabad	Mazar-e-Sharif	Mehmaneh	Sheberghan	Hirat City	Farah City	Zaranj	Jalalabad	Charikar	Bamyan City	Kabul City	TOTAL
Men												
Opium	66.7%	100.0%	100.0%	100.0%	40.0%	42.9%	40.0%	50.0%	100.0%	0.0%	51.4%	55.2%
Heroin + Opium	33.3%	0.0%	0.0%	0.0%	20.0%	57.1%	40.0%	0.0%	0.0%	0.0%	27.0%	26.9%
Codeine	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	20.0%	50.0%	0.0%	0.0%	21.6%	17.9%
Pharmaceutical	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Women												
Opium	66.7%	33.3%	0.0%	100.0%	0.0%	16.7%	14.3%	0.0%	33.3%	0.0%	20.0%	22.6%
Heroin + Opium	33.3%	0.0%	0.0%	0.0%	20.0%	16.7%	14.3%	0.0%	0.0%	0.0%	12.0%	13.2%
Codeine	0.0%	66.7%	0.0%	0.0%	80.0%	66.7%	71.4%	0.0%	0.0%	0.0%	56.0%	54.7%
Pharmaceutical	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	12.0%	9.4%

Table B15. Rural Survey: Type and Source of Opioids

	Badghis	Baghlan	Farah	Ghor	Helmand	Kandahar	Kapisa	Khost	Kunduz	Laghman	Nimroz	Nuristan	Samangan	Sar-e Pul	Takhar
Men															
Opium	0%	21%	75%	85%	25%	75%	29%	100%	31%	0%	41%	0%	20%	20%	50%
Heroin	100%	14%	0%	2%	50%	25%	71%	0%	31%	0%	24%	100%	0%	20%	25%
Codeine	0%	50%	25%	9%	25%	0%	0%	0%	31%	100%	28%	0%	60%	20%	25%
Indeterminate	0%	14%	0%	4%	0%	0%	0%	0%	8%	0%	7%	0%	20%	40%	0%
Pharmaceutical	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	100%	99%	100%	100%	100%	100%	100%	100%	101%	100%	100%	100%	100%	100%	100%
Women															
Opium	0%	50%	43%	86%	0%	0%	25%	0%	47%	0%	13%	0%	0%	36%	100%
Heroin	33%	0%	14%	0%	0%	100%	75%	0%	0%	100%	25%	100%	0%	9%	0%
Codeine	67%	50%	43%	12%	0%	0%	0%	0%	11%	0%	50%	0%	100%	55%	0%
Indeterminate	0%	0%	0%	2%	0%	0%	0%	0%	37%	0%	13%	0%	0%	0%	0%
Pharmaceutical	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%
	100%	100%	100%	100%	0%	100%	100%	0%	100%	100%	101%	100%	100%	100%	100%

Table B16. Urban Survey Average Opioid Concentrations

	Men	Women	Children
Heroin and Opium			
Hair (pg/mg)			
6-AM	5,556	752	634
Morphine	7,000	1,023	471
Codeine	3,489	1,149	
Hydrocodone	719	584	
Hydromorphone	333		
Oxycodone			
Oral Fluid (ng/mL)			
6-AM	1,467	11	45
Morphine	1,526	40	120
Codeine	668	49	65
Hydrocodone			
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM	313	274	
Morphine	48,606	12,948	417
Codeine	6,958	3,768	
Hydrocodone			
Hydromorphone	534		
Oxycodone			
Predominantly Opium			
Hair (pg/mg)			
6-AM			
Morphine	1,452	2,582	505
Codeine	2,229	2,194	381
Hydrocodone	630		
Hydromorphone	193	106	
Oxycodone			189
Oral Fluid (ng/mL)			
6-AM			
Morphine	273	392	

Table B16 (continued). Urban Survey Average Opioid Concentrations

	Men	Women	Children
Oral Fluid (ng/mL)			
Codeine	495	207	
Hydrocodone	27		
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM			
Morphine	12,954	1,240	503
Codeine	11,456	746	
Hydrocodone	480		
Hydromorphone	1,508		
Oxycodone			
Codeine Only			
Hair (pg/mg)			
6-AM			
Morphine		1,746	122
Codeine	390	731	384
Hydrocodone	267	295	
Hydromorphone		180	
Oxycodone			
Oral Fluid (ng/mL)			
6-AM			
Morphine		223	
Codeine		317	
Hydrocodone			
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM			
Morphine		5,104	
Codeine	2,225	3,079	
Hydrocodone			
Hydromorphone			
Oxycodone			

Table B16 (continued). Urban Survey Average Opioid Concentrations

	Men	Women	Children
Faizabad			
Hair (pg/mg)			
6-AM	4,908	137	139
Morphine	3,930	276	168
Codeine	3,392	175	
Hydrocodone	288		
Hydromorphone	235		
Oxycodone			
Saliva (ng/mL)			
6-AM	20		24
Morphine	163	773	215
Codeine	54	407	65
Hydrocodone	2		
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM	376		
Morphine	35,411		
Codeine	23,305		
Hydrocodone			
Hydromorphone	928		
Oxycodone			
Mazar-e-Sharif			
Hair (pg/mg)			
6-AM			419
Morphine	2,377		
Codeine	5,052	114	
Hydrocodone	267		
Hydromorphone	129		
Oxycodone			
Saliva (ng/mL)			
6-AM			
Morphine	175		
Codeine	428		
Hydrocodone	5		
Hydromorphone			
Oxycodone			

Table B16 (continued). Urban Survey Average Opioid Concentrations

	Men	Women	Children
Mazar-e-Sharif			
Urine (ng/mL)			
6-AM			
Morphine	15,799	966	
Codeine	15,747		
Hydrocodone			
Hydromorphone			
Oxycodone			
Farah City			
Hair (pg/mg)			
6-AM	2,050	185	
Morphine	3,058	202	150
Codeine	1,969	170	169
Hydrocodone	1,428		
Hydromorphone	477		
Oxycodone			
Saliva (ng/mL)			
6-AM	28		
Morphine	1,016		
Codeine	4,039		
Hydrocodone			
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM	12		
Morphine	18,086	336	557
Codeine	7,449	2,234	
Hydrocodone			
Hydromorphone	300		
Oxycodone			
Mehmaneh			
Hair (pg/mg)			
6-AM			
Morphine	2,451		
Codeine	2,512		
Hydrocodone	941		
Hydromorphone	147		
Oxycodone			

Table B16 (continued). Urban Survey Average Opioid Concentrations

	Men	Women	Children
Mehmaneh			
Saliva (ng/mL)			
6-AM			
Morphine	263		
Codeine	284		
Hydrocodone	18		
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM			
Morphine	17,021		
Codeine	3,283		
Hydrocodone			
Hydromorphone	1,132		
Oxycodone			
Hirat City			
Hair (pg/mg)			
6-AM	2,545	106	
Morphine	2,240		437
Codeine	1,403	329	
Hydrocodone	171		
Hydromorphone			
Oxycodone			189
Saliva (ng/mL)			
6-AM	9,547		
Morphine	5,715		
Codeine	472		
Hydrocodone			
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM		274	
Morphine	16,036	303	
Codeine	2,790	2,669	
Hydrocodone			
Hydromorphone			
Oxycodone			

Table B16 (continued). Urban Survey Average Opioid Concentrations

	Men	Women	Children
Sheberghan			
Hair (pg/mg)			
6-AM			
Morphine		199	
Codeine		132	
Hydrocodone			
Hydromorphone			
Oxycodone			
Saliva (ng/mL)			
6-AM			
Morphine	264		
Codeine	504		
Hydrocodone			
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM			
Morphine	17,299		
Codeine	13,600		
Hydrocodone			
Hydromorphone			
Oxycodone			
Kabul City			
Hair (pg/mg)			
6-AM	8,677	1,361	775
Morphine	4,823	5,172	251
Codeine	2,142	782	310
Hydrocodone	441	138	
Hydromorphone	315	106	
Oxycodone			
Saliva (ng/mL)			
6-AM	931	18	65
Morphine	885	60	25
Codeine	358		
Hydrocodone	101		
Hydromorphone			
Oxycodone			

Table B16 (continued). Urban Survey Average Opioid Concentrations

	Men	Women	Children
Kabul City			
Urine (ng/mL)			
6-AM	361		
Morphine	29,572	1,734	456
Codeine	6,765	1,404	
Hydrocodone	480		
Hydromorphone	1,601		
Oxycodone			
Jalalabad			
Hair (pg/mg)			
6-AM			
Morphine	104		
Codeine	1,146		
Hydrocodone			
Hydromorphone			
Oxycodone			
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Oxycodone			
Zaranj			
Hair (pg/mg)			
6-AM	161		
Morphine	1,536	2,319	3,370
Codeine	2,360	2,725	1,108
Hydrocodone	2,220	444	
Hydromorphone	240	180	
Oxycodone			

Table B16 (continued). Urban Survey Average Opioid Concentrations

	Men	Women	Children
Zaranj			
Saliva (ng/mL)			
6-AM		3	
Morphine	20	122	
Codeine	257	183	
Hydrocodone	11		
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM			
Morphine	34,430	13,810	
Codeine	46,318	4,765	
Hydrocodone			
Hydromorphone	565		
Oxycodone			
Charikar			
Hair (pg/mg)			
6-AM			
Morphine			
Codeine		144	
Hydrocodone			
Hydromorphone			
Oxycodone			
Saliva (ng/mL)			
6-AM			
Morphine	1,620	11	
Codeine	1,811	7	
Hydrocodone			
Hydromorphone			
Oxycodone			
Urine (ng/mL)			
6-AM			
Morphine	11,346	305	
Codeine	5,340		
Hydrocodone			
Hydromorphone			
Oxycodone			

Table B17. Rural Survey Average Opioid Concentrations

	Men	Women	Children
Heroin and Opium			
Hair (pg/mg)			
6-AM	4,690	441	509
Morphine	3,457	1,575	794
Codeine	2,423	1,106	483
Hydrocodone	591	119	96
Hydromorphone	330	122	121
Oral Fluid (ng/mL)			
6-AM	9,635	124	34
Morphine	3,874	135	85
Codeine	897	68	37
Hydrocodone	15	35	
Hydromorphone	18		
Urine (ng/mL)			
6-AM	1,154	43	
Morphine	18,847	7,697	1,122
Codeine	9,464	2,257	762
Hydrocodone	375		
Hydromorphone	402	514	46
Predominantly Opium			
Hair (pg/mg)			
6-AM			
Morphine	2,145	1,693	850
Codeine	1,702	1,138	486
Hydrocodone	729	94	96
Hydromorphone	258	117	121
Oral Fluid (ng/mL)			
6-AM			
Morphine	1,408	57	93
Codeine	815	71	37
Hydrocodone	16	35	
Hydromorphone	18		

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Predominantly Opium			
Urine (ng/mL)			
6-AM			
Morphine	11,522	4,081	1,122
Codeine	7,556	2,031	762
Hydrocodone	375		
Hydromorphone	404	152	46
Codeine Only			
Hair (pg/mg)			
6-AM			
Morphine	1,139	1,907	174
Codeine	1,284	2,061	195
Hydrocodone	357	2,494	52
Hydromorphone	135	1,299	
Oral Fluid (ng/mL)			
6-AM			
Morphine	45	178	8
Codeine	328	367	13
Hydrocodone	43	46	
Hydromorphone		2	
Urine (ng/mL)			
6-AM			
Morphine	39,838	20,134	229
Codeine	41,086	30,131	690
Hydrocodone	1,176	762	
Hydromorphone	1,266	2,571	
Indeterminates			
Hair (pg/mg)			
6-AM			
Morphine	4,584	2,765	
Codeine	7,912	5,305	

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Indeterminates			
Hair (pg/mg)			
Hydrocodone	1,415	806	
Hydromorphone	446	177	
Oral Fluid (ng/mL)			
6-AM			
Morphine	75	161	
Codeine	266	357	
Hydrocodone	40	55	
Hydromorphone			
Urine (ng/mL)			
6-AM			
Morphine	18,263	13,541	
Codeine	13,105	10,828	
Hydrocodone	404	372	
Hydromorphone	364	471	

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Badghis			
Hair (pg/mg)			
6-AM	18,910	1,092	46
Morphine	11,811	171	
Codeine	6,676	228	
Hydrocodone			
Hydromorphone	667		
Saliva (ng/mL)			
6-AM	1,122		
Morphine	10,583		
Codeine	416		
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	1,757		
Morphine	36,324		
Codeine	8,467		
Hydrocodone			
Hydromorphone			
Baghlan			
Hair (pg/mg)			
6-AM	1,607		147
Morphine	2,941		143
Codeine	1,385	135	201
Hydrocodone	419		
Hydromorphone	440		
Saliva (ng/mL)			
6-AM	38		
Morphine	95		
Codeine	156		
Hydrocodone	13		
Hydromorphone			
Urine (ng/mL)			
6-AM	318		
Morphine	24,014	1,886	
Codeine	18,223	1,243	
Hydrocodone	467		
Hydromorphone	606		

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Farah			
Hair (pg/mg)			
6-AM		946	
Morphine	1,965	1,052	751
Codeine	2,696	631	255
Hydrocodone	381	218	
Hydromorphone	158	115	41
Saliva (ng/mL)			
6-AM			
Morphine	609	37	
Codeine	516	212	
Hydrocodone		35	
Hydromorphone			
Urine (ng/mL)			
6-AM			
Morphine	3,785	75	
Codeine	2,284	705	
Hydrocodone			
Hydromorphone			
Ghor			
Hair (pg/mg)			
6-MAM	271		
Morphine	1,784	2,017	953
Codeine	1,245	2,012	531
Hydrocodone	222	1,007	93
Hydromorphone	167	248	152
Saliva (ng/mL)			
6-MAM			
Morphine	9,354	99	169
Codeine	5,259	222	59
Hydrocodone		46	
Hydromorphone	18	2	
Urine (ng/mL)			
6-MAM			
Morphine	6,598	14,581	238
Codeine	4,376	17,355	690
Hydrocodone	73	762	
Hydromorphone	185	2,571	

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Helmand			
Hair (pg/mg)			
6-AM	234		
Morphine	1,707		128
Codeine	1,811		69
Hydrocodone	345		
Hydromorphone	64		
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	599		
Morphine	16,266		
Codeine	4,853		
Hydrocodone			
Hydromorphone			
Kandahar			
Hair (pg/mg)			
6-AM	261	29	213
Morphine	46		50
Codeine	94		
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			34
Morphine	14		15
Codeine	7		
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM			
Morphine	1,093		
Codeine	314		
Hydrocodone			
Hydromorphone			

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Kapisa			
Hair (pg/mg)			
6-AM	16,332	461	1,257
Morphine	9,857	162	273
Codeine	2,712	109	118
Hydrocodone	243		
Hydromorphone	563		
Saliva (ng/mL)			
6-AM	20,656	124	
Morphine	19,643	837	
Codeine	1,835	40	
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	2,019	78	
Morphine	45,905	51,021	
Codeine	6,074	6,477	
Hydrocodone			
Hydromorphone	399	1,240	
Khost			
Hair (pg/mg)			
6-AM			
Morphine			1,257
Codeine			540
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-MAM			
Morphine	3,257		
Codeine	1,801		
Hydrocodone			
Hydromorphone			

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Kunduz			
Hair (pg/mg)			
6-AM	1,174		
Morphine	4,717	2,056	917
Codeine	4,697	3,872	780
Hydrocodone	673	850	76
Hydromorphone	372	151	57
Saliva (ng/mL)			
6-AM		976	
Morphine	1,552	64	
Codeine	921	334	
Hydrocodone	18	55	
Hydromorphone			
Urine (ng/mL)			
6-AM	1,338		
Morphine	32,166	10,844	1,409
Codeine	29,121	8,055	762
Hydrocodone	382	372	
Hydromorphone	351	337	46
Laghman			
Hair (pg/mg)			
6-AM		235	
Morphine	151	95	67
Codeine	278		118
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-MAM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Nimroz			
Hair (pg/mg)			
6-AM	330	393	390
Morphine	4,148	1,262	321
Codeine	5,351	1,082	175
Hydrocodone	961	209	
Hydromorphone	299	202	42
Saliva (ng/mL)			
6-AM			
Morphine	49	381	50
Codeine	112	192	20
Hydrocodone	46		
Hydromorphone			
Urine (ng/mL)			
6-AM			
Morphine	19,501	8,840	
Codeine	13,373	13,226	
Hydrocodone			
Hydromorphone	600	235	
Nuristan			
Hair (pg/mg)			
6-AM			
Morphine			93
Codeine			217
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	8	8	
Morphine	176	534	
Codeine		302	
Hydrocodone			
Hydromorphone			

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Badghis			
Hair (pg/mg)			
6-AM	18,910	1,092	46
Morphine	11,811	171	
Codeine	6,676	228	
Hydrocodone			
Hydromorphone	667		
Saliva (ng/mL)			
6-AM	1,122		
Morphine	10,583		
Codeine	416		
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	1,757		
Morphine	36,324		
Codeine	8,467		
Hydrocodone			
Hydromorphone			
Baghlan			
Hair (pg/mg)			
6-AM	1,607		147
Morphine	2,941		143
Codeine	1,385	135	201
Hydrocodone	419		
Hydromorphone	440		
Saliva (ng/mL)			
6-AM	38		
Morphine	95		
Codeine	156		
Hydrocodone	13		
Hydromorphone			
Urine (ng/mL)			
6-AM	318		
Morphine	24,014	1,886	
Codeine	18,223	1,243	
Hydrocodone	467		
Hydromorphone	606		

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Farah			
Hair (pg/mg)			
6-AM		946	
Morphine	1,965	1,052	751
Codeine	2,696	631	255
Hydrocodone	381	218	
Hydromorphone	158	115	41
Saliva (ng/mL)			
6-AM			
Morphine	609	37	
Codeine	516	212	
Hydrocodone		35	
Hydromorphone			
Urine (ng/mL)			
6-AM			
Morphine	3,785	75	
Codeine	2,284	705	
Hydrocodone			
Hydromorphone			
Ghor			
Hair (pg/mg)			
6-MAM	271		
Morphine	1,784	2,017	953
Codeine	1,245	2,012	531
Hydrocodone	222	1,007	93
Hydromorphone	167	248	152
Saliva (ng/mL)			
6-MAM			
Morphine	9,354	99	169
Codeine	5,259	222	59
Hydrocodone		46	
Hydromorphone	18	2	
Urine (ng/mL)			
6-MAM			
Morphine	6,598	14,581	238
Codeine	4,376	17,355	690
Hydrocodone	73	762	
Hydromorphone	185	2,571	

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Helmand			
Hair (pg/mg)			
6-AM	234		
Morphine	1,707		128
Codeine	1,811		69
Hydrocodone	345		
Hydromorphone	64		
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	599		
Morphine	16,266		
Codeine	4,853		
Hydrocodone			
Hydromorphone			
Kandahar			
Hair (pg/mg)			
6-AM	261	29	213
Morphine	46		50
Codeine	94		
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			34
Morphine	14		15
Codeine	7		
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM			
Morphine	1,093		
Codeine	314		
Hydrocodone			
Hydromorphone			

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Kapisa			
Hair (pg/mg)			
6-AM	16,332	461	1,257
Morphine	9,857	162	273
Codeine	2,712	109	118
Hydrocodone	243		
Hydromorphone	563		
Saliva (ng/mL)			
6-AM	20,656	124	
Morphine	19,643	837	
Codeine	1,835	40	
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	2,019	78	
Morphine	45,905	51,021	
Codeine	6,074	6,477	
Hydrocodone			
Hydromorphone	399	1,240	
Khost			
Hair (pg/mg)			
6-AM			
Morphine			1,257
Codeine			540
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-MAM			
Morphine	3,257		
Codeine	1,801		
Hydrocodone			
Hydromorphone			

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Kunduz			
Hair (pg/mg)			
6-AM	1,174		
Morphine	4,717	2,056	917
Codeine	4,697	3,872	780
Hydrocodone	673	850	76
Hydromorphone	372	151	57
Saliva (ng/mL)			
6-AM		976	
Morphine	1,552	64	
Codeine	921	334	
Hydrocodone	18	55	
Hydromorphone			
Urine (ng/mL)			
6-AM	1,338		
Morphine	32,166	10,844	1,409
Codeine	29,121	8,055	762
Hydrocodone	382	372	
Hydromorphone	351	337	46
Laghman			
Hair (pg/mg)			
6-AM		235	
Morphine	151	95	67
Codeine	278		118
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-MAM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			

Table B17 (continued). Rural Survey Average Opioid Concentrations

	Men	Women	Children
Nimroz			
Hair (pg/mg)			
6-AM	330	393	390
Morphine	4,148	1,262	321
Codeine	5,351	1,082	175
Hydrocodone	961	209	
Hydromorphone	299	202	42
Saliva (ng/mL)			
6-AM			
Morphine	49	381	50
Codeine	112	192	20
Hydrocodone	46		
Hydromorphone			
Urine (ng/mL)			
6-AM			
Morphine	19,501	8,840	
Codeine	13,373	13,226	
Hydrocodone			
Hydromorphone	600	235	
Nuristan			
Hair (pg/mg)			
6-AM			
Morphine			93
Codeine			217
Hydrocodone			
Hydromorphone			
Saliva (ng/mL)			
6-AM			
Morphine			
Codeine			
Hydrocodone			
Hydromorphone			
Urine (ng/mL)			
6-AM	8	8	
Morphine	176	534	
Codeine		302	
Hydrocodone			
Hydromorphone			

Table C1. Village 1, Laghman Province, Qarghayee District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	9	9	9	9	
Any drug	4	4	0	2	44.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	1	0	1	22.2%
Cannabis	3	3	0	1	33.3%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	11.1%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	11	11	11	11	
Any drug	6	5	0	2	54.5%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	1	0	1	18.2%
Cannabis	3	3	0	1	27.3%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	0	0	18.2%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	95	95	94	
Men Tested	26	24	26	25	
Women Tested	27	27	26	25	
Children Tested	47	44	43	44	
Number with Any Positive Results	9	8	0	2	9.0%
Men	6	6	0	1	23.1%
Women	2	1	0	1	7.4%
Children	1	1	0	0	2.1%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C1 (continued). Village 1, Laghman Province, Qarghayee District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	1	0	1	2.0%
Men	0	0	0	0	0.0%
Women	2	1	0	1	7.4%
Children	0	0	0	0	0.0%
Number Cannabis Positive	4	4	0	1	4.0%
Men	4	4	0	1	15.4%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	3	3	0	0	3.0%
Men	2	2	0	0	7.7%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.1%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #1 Population Data

- Total number of residents: 115
- Residents in households: 105
- Non-household residents:10
- Average number of people / household: 11.67
- Estimated number of households in village: 250
- Estimated population: 2,917

Table C2. Village 2, Laghman Province, Qarghayee District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	8	8	8	8	
Any drug	5	5	0	0	62.5%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	3	3	0	0	37.5%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	0	0	37.5%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	18	18	18	18	
Any drug	8	8	0	0	44.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	5	5	0	0	27.8%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	0	0	16.7%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	105	99	97	92	
Men Tested	36	31	36	33	
Women Tested	25	25	25	25	
Children Tested	44	43	36	34	
Number with Any Positive Results	14	14	0	0	13.3%
Men	4	4	0	0	11.1%
Women	3	3	0	0	12.0%
Children	7	7	0	0	15.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C2 (continued). Village 2, Laghman Province, Qarghayee District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	10	10	0	0	9.5%
Men	2	2	0	0	5.6%
Women	2	2	0	0	8.0%
Children	6	6	0	0	13.6%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	4	4	0	0	3.8%
Men	2	2	0	0	5.6%
Women	1	1	0	0	4.0%
Children	1	1	0	0	2.3%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #2 Population Data

- Total number of residents: 126
- Residents in households: 111
- Non-household residents: 15
- Average number of people / household: 13.86
- Estimated number of households in village: 320
- Estimated population: 4,440

Table C3. Village 3, Laghman Province, Alingar District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	6	6	6	6	
Any drug	5	4	3	4	83.3%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	16.7%
Cannabis	4	4	2	3	66.7%
Alcohol	1	0	0	1	16.7%
Opioids	2	2	0	0	33.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	10	10	10	10	
Any drug	6	5	3	4	60.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	10.0%
Cannabis	4	4	2	3	40.0%
Alcohol	1	0	0	1	10.0%
Opioids	3	3	0	0	30.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	105	93	96	93	
Men Tested	34	26	33	30	
Women Tested	23	23	23	23	
Children Tested	48	44	40	40	
Number with Any Positive Results	12	10	5	6	11.4%
Men	8	7	4	5	23.5%
Women	1	0	1	1	4.3%
Children	3	3	0	0	6.3%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C3 (continued). Village 3, Laghman Province, Alingar District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	1	0	1	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	1	1	4.3%
Children	0	0	0	0	0.0%
Number Cannabis Positive	7	6	4	5	6.7%
Men	7	6	4	5	20.6%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	1	0	0	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	0	1	4.3%
Children	0	0	0	0	0.0%
Number Opioid Positive	5	5	0	0	4.8%
Men	2	2	0	0	5.9%
Women	0	0	0	0	0.0%
Children	3	3	0	0	6.3%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #3 Population Data

- Total number of residents: 121
- Residents in households: 110
- Non-household residents: 11
- Average number of people / household: 18.33
- Estimated number of households in village: 221
- Estimated population: 4,051

Table C4. Village 4, Laghman Province, Alingar District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	5	5	5	5	
Any drug	3	3	0	0	60.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	3	3	0	0	60.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others					
FAMILIES					
Number Tested Positive	15	15	15	14	
Any drug	3	3	0	0	20.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	3	3	0	0	20.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others					0.0%
INDIVIDUALS					
Number Persons Tested	107	101	88	78	
Men Tested	36	30	33	28	
Women Tested	25	25	25	24	
Children Tested	46	46	30	26	
Number with Any Positive Results	5	5	0	0	4.7%
Men	5	5	0	0	13.9%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C4 (continued). Village 4, Laghman Province, Alingar District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	3	3	0	0	2.8%
Men	3	3	0	0	8.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	0	0	1.9%
Men	2	2	0	0	5.6%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #4 Population Data

- Total number of residents: 152
- Residents in households: 141
- Non-household residents: 11
- Average number of people / household: 28.2
- Estimated number of households in village: 255
- Estimated population: 7,191

Table C5. Village 5, Khost Province, Ismail-khail Mandozi District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	6	6	6	6	
Any drug	2	2	1	2	33.3%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	0	1	1	16.7%
Benzodiazepines	2	2	0	1	33.3%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	14	14	14	14	
Any drug	3	3	1	2	21.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	0	1	1	7.1%
Benzodiazepines	3	3	0	1	21.4%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	99	90	86	
Men Tested	21	21	21	21	
Women Tested	31	31	31	29	
Children Tested	48	47	38	36	
Number with Any Positive Results	3	3	1	2	3.0%
Men	0	0	0	0	0.0%
Women	2	2	0	1	6.5%
Children	1	1	1	1	2.1%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C5 (continued). Village 5, Khost Province, Ismail-khail Mandozi District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	1	0	1	1	1.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	1	0	1	1	2.1%
Number Benzodiazepine Positive	3	3	0	1	3.0%
Men	0	0	0	0	0.0%
Women	2	2	0	1	6.5%
Children	1	1	0	0	2.1%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #5 Population Data

- Total number of residents: 140
- Residents in households: 130
- Non-household residents: 30
- Average number of people / household: 21.67
- Estimated number of households in village: 360
- Estimated population: 7,801

Table C6. Village 6, Khost Province, Tanai District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	8	8	8	8	
Any drug	5	5	1	2	62.5%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	2	0	1	25.0%
Cannabis	4	4	1	1	50.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	10	10	10	10	
Any drug	7	7	1	2	70.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	2	0	1	20.0%
Cannabis	6	6	1	1	60.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	99	84	77	73	
Men Tested	25	15	24	25	
Women Tested	24	22	23	21	
Children Tested	50	47	30	27	
Number with Any Positive Results	16	15	1	2	16.2%
Men	2	1	1	1	8.0%
Women	6	6	0	0	25.0%
Children	8	8	0	1	16.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C6 (continued). Village 6, Khost Province, Tanai District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	2	0	1	2.0%
Men	0	0	0	0	0.0%
Women	1	1	0	0	4.2%
Children	1	1	0	1	2.0%
Number Cannabis Positive	15	14	1	1	15.2%
Men	2	1	1	1	8.0%
Women	6	6	0	0	25.0%
Children	7	7	0	0	14.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #6 Population Data

- Total number of residents: 123
- Residents in households: 112
- Non-household residents: 11
- Average number of people / household: 14
- Estimated number of households in village: 600
- Estimated population: 8,400

Table C7. Village 7, Khost Province, Tanai District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	9	9	9	9	
Any drug	4	3	2	2	44.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	3	2	2	2	33.3%
Alcohol	0	0	0	0	0.0%
Opioids	2	1	0	1	22.2%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	11	11	11	11	
Any drug	4	3	2	2	36.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	3	2	2	2	27.3%
Alcohol	0	0	0	0	0.0%
Opioids	2	1	0	1	18.2%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	103	98	80	78	
Men Tested	26	24	26	25	
Women Tested	34	33	33	34	
Children Tested	43	41	21	19	
Number with Any Positive Results	10	5	4	4	9.7%
Men	6	1	4	4	23.1%
Women	1	1	0	0	2.9%
Children	3	3	0	0	7.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C7 (continued). Village 7, Khost Province, Tanai District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	8	4	4	3	7.8%
Men	5	1	4	3	19.2%
Women	1	1	0	0	2.9%
Children	2	2	0	0	4.7%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	3	1	0	2	2.9%
Men	2	0	0	2	7.7%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.3%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #7 Population Data

- Total number of residents: 136
- Residents in households: 124
- Non-household residents: 12
- Average number of people / household: 13.78
- Estimated number of households in village: 385
- Estimated population: 5,305

Table C8. Village 8, Nuristan Province, Noorgram District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	12	11	12	8	
Any drug	6	5	0	2	50.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	5	5	0	1	41.7%
Alcohol	0	0	0	0	0.0%
Opioids	1	0	0	1	8.3%
Others					
FAMILIES					
Number Tested Positive	22	18	22	14	
Any drug	7	6	0	2	31.8%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	6	6	0	1	27.3%
Alcohol	0	0	0	0	0.0%
Opioids	1	0	0	1	4.5%
Others					0.0%
INDIVIDUALS					
Number Persons Tested	100	67	90	39	
Men Tested	27	21	25	11	
Women Tested	18	4	18	3	
Children Tested	55	42	47	25	
Number with Any Positive Results	19	17	0	2	19.0%
Men	5	4	0	1	18.5%
Women	1	0	0	1	5.6%
Children	13	13	0	0	23.6%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C8 (continued). Village 8, Nuristan Province, Noorgram District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	18	17	0	1	18.0%
Men	5	4	0	1	18.5%
Women	0	0	0	0	0.0%
Children	13	13	0	0	23.6%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	1	0	0	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	0	1	5.6%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #8 Population Data

- Total number of residents: 153
- Residents in households: 140
- Non-household residents:13
- Average number of people / household: 11.67
- Estimated number of households in village: 143
- Estimated population: 1,669

Table C9. Village 9, Nuristan Province, Noorgram District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	15	15	14	14	
Any drug	3	3	1	1	20.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	2	2	1	0	13.3%
Alcohol	0	0	0	0	0.0%
Opioids	2	1	0	1	13.3%
Others					
FAMILIES					
Number Tested Positive	22	22	21	18	
Any drug	4	4	1	1	18.2%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	3	3	1	0	13.6%
Alcohol	0	0	0	0	0.0%
Opioids	2	1	0	1	9.1%
Others					0.0%
INDIVIDUALS					
Number Persons Tested	105	99	103	80	
Men Tested	29	28	29	24	
Women Tested	28	27	28	22	
Children Tested	48	44	46	34	
Number with Any Positive Results	5	4	1	1	4.8%
Men	1	0	0	1	3.4%
Women	2	2	0	0	7.1%
Children	2	2	1	0	4.2%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C9 (continued). Village 9, Nuristan Province, Noorgram District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	3	3	1	0	2.9%
Men	0	0	0	0	0.0%
Women	2	2	0	0	7.1%
Children	1	1	1	0	2.1%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	1	0	1	1.9%
Men	1	0	0	1	3.4%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.1%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #9 Population Data

- Total number of residents: 149
- Residents in households: 134
- Non-household residents:15
- Average number of people / household: 8.93
- Estimated number of households in village: 330
- Estimated population: 2,947

Table C10. Village 10, Kapisa Province, Hesai Awal Kohistan District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	12	12	12	12	
Any drug	4	4	1	1	33.3%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	0	8.3%
Cannabis	4	4	0	0	33.3%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	1	1	8.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	16	16	16	16	
Any drug	4	4	1	1	25.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	0	6.3%
Cannabis	4	4	0	0	25.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	1	1	6.3%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	103	96	92	88	
Men Tested	30	25	30	30	
Women Tested	28	27	28	28	
Children Tested	45	44	34	30	
Number with Any Positive Results	7	7	1	1	6.8%
Men	4	4	1	1	13.3%
Women	1	1	0	0	3.6%
Children	2	2	0	0	4.4%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C10 (continued). Village 10, Kapisa Province, Hesai Awal Kohistan District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	1	0	1	0	1.0%
Men	1	0	1	0	3.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	6	6	0	0	5.8%
Men	3	3	0	0	10.0%
Women	1	1	0	0	3.6%
Children	2	2	0	0	4.4%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	1	1	1.9%
Men	2	2	1	1	6.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #10 Population Data

- Total number of residents: 126
- Residents in households: 115
- Non-household residents: 11
- Average number of people / household: 9.58
- Estimated number of households in village: 130
- Estimated population: 1,245

Table C11. Village 11, Kapisa Province, Hesai Awal Kohistan District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	13	13	13	13	
Any drug	2	2	0	0	15.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	0	0	7.7%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	7.7%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	22	22	22	22	
Any drug	2	2	0	0	9.1%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	0	0	4.5%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	4.5%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	95	83	80	
Men Tested	32	30	31	31	
Women Tested	31	30	29	29	
Children Tested	37	35	23	20	
Number with Any Positive Results	4	4	0	1	4.0%
Men	3	3	0	1	9.4%
Women	1	1	0	0	3.2%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C11 (continued). Village 11, Kapisa Province, Hesai Awal Kohistan District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	2	2	0	0	2.0%
Men	2	2	0	0	6.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	0	1	2.0%
Men	1	1	0	1	3.1%
Women	1	1	0	0	3.2%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #11 Population Data

- Total number of residents: 154
- Residents in households: 144
- Non-household residents: 10
- Average number of people / household: 11.08
- Estimated number of households in village: 95
- Estimated population: 1,053

Table C12. Village 12, Kapisa Province, Mahmood Raqi District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	8	8	8	8	
Any drug	4	4	2	3	50.0%
Amphetamines	2	2	0	0	25.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	1	0	0	12.5%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	4	4	2	3	50.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	22	22	22	22	
Any drug	5	5	2	3	22.7%
Amphetamines	2	2	0	0	9.1%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	1	0	0	4.5%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	5	5	2	3	22.7%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	99	91	83	80	
Men Tested	23	18	23	22	
Women Tested	22	22	21	22	
Children Tested	54	51	39	36	
Number with Any Positive Results	16	15	5	5	16.2%
Men	6	5	4	4	26.1%
Women	3	3	1	1	13.6%
Children	7	7	0	0	13.0%
Number Amphetamines Positive	4	4	1	0	4.0%
Men	3	3	1	0	13.0%
Women	1	1	0	0	4.5%
Children	0	0	0	0	0.0%

Table C12 (continued). Village 12, Kapisa Province, Mahmood Raqi District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	1	0	1	0	1.0%
Men	1	0	1	0	4.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	2	1	0	2.0%
Men	2	2	1	0	8.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	2	2	1	1	2.0%
Men	2	2	1	1	8.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	14	12	4	4	14.1%
Men	4	3	3	3	17.4%
Women	3	2	1	1	13.6%
Children	7	7	0	0	13.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #12 Population Data

- Total number of residents: 134
- Residents in households: 124
- Non-household residents: 10
- Average number of people / household: 15.5
- Estimated number of households in village: 160
- Estimated population: 2,480

Table C13. Village 13, Kapisa Province, Mahmood Raqi District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	1	1	0	0	10.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	10.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	16	16	16	16	
Any drug	1	1	0	0	6.3%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	6.3%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	101	99	80	78	
Men Tested	26	25	26	24	
Women Tested	21	21	19	20	
Children Tested	54	53	35	34	
Number with Any Positive Results	2	2	0	0	2.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	2	2	0	0	3.7%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C13 (continued). Village 13, Kapisa Province, Mahmood Raqi District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	0	0	2.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	2	2	0	0	3.7%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #13 Population Data

- Total number of residents: 145
- Residents in households: 135
- Non-household residents: 10
- Average number of people / household: 13.5
- Estimated number of households in village: 140
- Estimated population: 1,890

Table C14. Village 14, Sar-e Pul Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	9	9	9	9	
Any drug	8	8	1	2	88.9%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	3	3	0	2	33.3%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	6	6	1	1	66.7%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	20	20	20	20	
Any drug	10	10	1	3	50.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	4	4	0	2	20.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	8	8	1	1	40.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	102	98	96	93	
Men Tested	32	28	32	32	
Women Tested	31	31	31	31	
Children Tested	39	39	33	30	
Number with Any Positive Results	13	13	1	3	12.7%
Men	6	6	1	3	18.8%
Women	6	6	0	0	19.4%
Children	1	1	0	0	2.6%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C14 (continued). Village 14, Sar-e Pul Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	4	4	0	2	3.9%
Men	3	3	0	2	9.4%
Women	1	1	0	0	3.2%
Children	0	0	0	0	0.0%
Number Cannabis Positive	1	1	0	0	1.0%
Men	1	1	0	0	3.1%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	9	9	1	1	8.8%
Men	3	3	1	1	9.4%
Women	5	5	0	0	16.1%
Children	1	1	0	0	2.6%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #14 Population Data

- Total number of residents: 130
- Residents in households: 119
- Non-household residents: 11
- Average number of people / household: 13.22
- Estimated number of households in village: 320
- Estimated population: 4,230

Table C15. Village 15, Sar-e Pul Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	14	14	14	14	
Any drug	0	0	0	0	0.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	19	19	19	19	
Any drug	0	0	0	0	0.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	90	83	71	
Men Tested	19	15	19	16	
Women Tested	31	30	30	25	
Children Tested	50	45	34	30	
Number with Any Positive Results	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C15 (continued). Village 15, Sar-e Pul Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #15 Population Data

- Total number of residents: 149
- Residents in households: 139
- Non-household residents: 10
- Average number of people / household: 9.93
- Estimated number of households in village: 310
- Estimated population: 3,078

Table C16. Village 16, Sar-e Pul Province, Sancharak District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	7	3	7	2	70.0%
Amphetamines	2	2	1	0	20.0%
Barbiturates	1	0	1	0	10.0%
Benzodiazepines	2	0	2	1	20.0%
Cannabis	5	1	5	0	50.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	2	1	20.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	8	3	8	2	47.1%
Amphetamines	2	2	1	0	11.8%
Barbiturates	1	0	1	0	5.9%
Benzodiazepines	2	0	2	1	11.8%
Cannabis	6	1	6	0	35.3%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	2	1	11.8%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	102	96	94	83	
Men Tested	31	25	31	29	
Women Tested	32	32	32	29	
Children Tested	39	39	31	25	
Number with Any Positive Results	13	3	13	2	12.7%
Men	4	3	4	1	12.9%
Women	1	0	1	1	3.1%
Children	8	0	8	0	20.5%
Number Amphetamines Positive	2	2	1	0	2.0%
Men	2	2	1	0	6.5%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C16 (continued). Village 16, Sar-e Pul Province, Sancharak District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	1	0	1	0	1.0%
Men	1	0	1	0	3.2%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	0	2	1	2.0%
Men	1	0	1	0	3.2%
Women	1	0	1	1	3.1%
Children	0	0	0	0	0.0%
Number Cannabis Positive	10	1	10	0	9.8%
Men	2	1	2	0	6.5%
Women	0	0	0	0	0.0%
Children	8	0	8	0	20.5%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	2	1	2.0%
Men	2	2	2	1	6.5%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #16 Population Data

- Total number of residents: 137
- Residents in households: 126
- Non-household residents: 11
- Average number of people / household: 12.6
- Estimated number of households in village: 840
- Estimated population: 10,584

Table C17. Village 17, Sar-e Pul Province, Sancharak District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	11	11	11	11	
Any drug	7	7	5	4	63.6%
Amphetamines	2	2	1	1	18.2%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	7	7	5	4	63.6%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	15	15	15	15	
Any drug	7	7	5	4	46.7%
Amphetamines	2	2	1	1	13.3%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	7	7	5	4	46.7%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	93	89	76	
Men Tested	25	22	25	24	
Women Tested	35	35	34	29	
Children Tested	40	36	30	23	
Number with Any Positive Results	18	16	9	4	18.0%
Men	5	5	4	4	20.0%
Women	6	5	2	0	17.1%
Children	7	6	3	0	17.5%
Number Amphetamines Positive	3	2	2	1	3.0%
Men	2	2	1	1	8.0%
Women	0	0	0	0	0.0%
Children	1	0	1	0	2.5%

Table C17 (continued). Village 17, Sar-e Pul Province, Sancharak District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	17	16	8	4	17.0%
Men	5	5	4	4	20.0%
Women	6	5	2	0	17.1%
Children	6	6	2	0	15.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #17 Population Data

- Total number of residents: 147
- Residents in households: 137
- Non-household residents: 10
- Average number of people / household: 12.45
- Estimated number of households in village: 305
- Estimated population: 3,797

Table C18. Village 18, Baghlan Province, Doshi District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	11	11	11	11	
Any drug	7	7	1	0	63.6%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	5	5	1	0	45.5%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	0	0	27.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	20	20	20	20	
Any drug	8	7	1	0	40.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	6	5	1	0	30.0%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	0	0	15.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	97	93	92	87	
Men Tested	20	18	20	20	
Women Tested	38	38	38	38	
Children Tested	39	37	34	29	
Number with Any Positive Results	17	14	3	0	17.5%
Men	5	3	2	0	25.0%
Women	5	4	1	0	13.2%
Children	7	7	0	0	17.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C18 (continued). Village 18, Baghlan Province, Doshi District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	13	10	3	0	13.4%
Men	4	2	2	0	20.0%
Women	4	3	1	0	10.5%
Children	5	5	0	0	12.8%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	6	6	0	0	6.2%
Men	1	1	0	0	5.0%
Women	1	1	0	0	2.6%
Children	4	4	0	0	10.3%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #18 Population Data

- Total number of residents: 151
- Residents in households: 139
- Non-household residents: 12
- Average number of people / household: 12.64
- Estimated number of households in village: 120
- Estimated population: 1,516

Table C19. Village 19, Baghlan Province, Doshi District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	13	13	13	13	
Any drug	2	0	1	2	15.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	7.7%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	0	0	1	7.7%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	22	22	22	22	
Any drug	2	0	1	2	9.1%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	4.5%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	0	0	1	4.5%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	106	103	101	88	
Men Tested	23	21	23	23	
Women Tested	42	42	42	36	
Children Tested	41	40	36	29	
Number with Any Positive Results	4	0	3	2	3.8%
Men	3	0	3	1	13.0%
Women	1	0	0	1	2.4%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C19 (continued). Village 19, Baghlan Province, Doshi District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	1	0	1	1	0.9%
Men	1	0	1	1	4.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	2	0	2	0	1.9%
Men	2	0	2	0	8.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	1	0	0	1	0.9%
Men	0	0	0	0	0.0%
Women	1	0	0	1	2.4%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #19 Population Data

- Total number of residents: 167
- Residents in households: 152
- Non-household residents: 15
- Average number of people / household: 11.69
- Estimated number of households in village: 115
- Estimated population: 1,345

Table C20. Village 20, Baghlan Province, Khost District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	13	13	13	13	
Any drug	3	2	1	3	23.1%
Amphetamines	1	1	0	0	7.7%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	1	0	1	15.4%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	2	15.4%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	15	15	15	15	
Any drug	3	2	1	3	20.0%
Amphetamines	1	1	0	0	6.7%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	1	0	1	13.3%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	2	13.3%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	102	102	88	83	
Men Tested	20	20	20	20	
Women Tested	24	24	23	24	
Children Tested	58	58	45	39	
Number with Any Positive Results	10	9	3	6	9.8%
Men	6	6	3	5	30.0%
Women	1	0	0	1	4.2%
Children	3	3	0	0	5.2%
Number Amphetamines Positive	1	1	0	0	1.0%
Men	1	1	0	0	5.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C20 (continued). Village 20, Baghlan Province, Khost District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	1	0	1	2.0%
Men	1	1	0	0	5.0%
Women	1	0	0	1	4.2%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	9	9	3	5	8.8%
Men	6	6	3	5	30.0%
Women	0	0	0	0	0.0%
Children	3	3	0	0	5.2%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #20 Population Data

- Total number of residents: 132
- Residents in households: 121
- Non-household residents: 11
- Average number of people / household: 9.31
- Estimated number of households in village: 762
- Estimated population: 7,094

Table C21. Village 21, Baghlan Province, Khost District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	17	17	17	17	
Any drug	4	4	2	2	23.5%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	1	0	5.9%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	1	2	17.6%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	4	4	2	2	23.5%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	1	0	5.9%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	1	2	17.6%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	103	101	98	95	
Men Tested	34	34	34	33	
Women Tested	31	31	31	31	
Children Tested	38	36	33	31	
Number with Any Positive Results	10	8	4	2	9.7%
Men	7	7	1	2	20.6%
Women	0	0	0	0	0.0%
Children	3	1	3	0	7.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C21 (continued). Village 21, Baghlan Province, Khost District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	3	1	3	0	2.9%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	3	1	3	0	7.9%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	7	7	1	2	6.8%
Men	7	7	1	2	20.6%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #21 Population Data

- Total number of residents: 162
- Residents in households: 152
- Non-household residents: 10
- Average number of people / household: 8.94
- Estimated number of households in village: 831
- Estimated population: 7,429

Table C22. Village 22, Samangan Province, Feroz Nakhcheer District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	12	12	12	12	
Any drug	2	1	1	1	16.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	1	0	8.3%
Alcohol	0	0	0	0	0.0%
Opioids	1	0	0	1	8.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	2	1	1	1	11.8%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	1	0	5.9%
Alcohol	0	0	0	0	0.0%
Opioids	1	0	0	1	5.9%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	102	85	94	81	
Men Tested	27	23	26	25	
Women Tested	30	25	30	26	
Children Tested	45	37	38	30	
Number with Any Positive Results	2	1	1	1	2.0%
Men	2	1	1	1	7.4%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C22 (continued). Village 22, Samangan Province, Feroz Nakhcheer District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	1	1	1	0	1.0%
Men	1	1	1	0	3.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	1	0	0	1	1.0%
Men	1	0	0	1	3.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #22 Population Data

- Total number of residents: 131
- Residents in households: 131
- Non-household residents: 0
- Average number of people / household: 10.92
- Estimated number of households in village: 192
- Estimated population: 2,096

Table C23. Village 23, Samangan Province, Feroz Nakhcheer District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	2	2	1	1	20.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	0	1	10.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	20.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	13	13	13	13	
Any drug	2	2	1	1	15.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	0	1	7.7%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	15.4%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	101	85	90	85	
Men Tested	23	21	23	23	
Women Tested	37	27	37	37	
Children Tested	41	37	30	25	
Number with Any Positive Results	2	2	1	1	2.0%
Men	2	2	1	1	8.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C23 (continued). Village 23, Samangan Province, Feroz Nakhcheer District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	1	1	0	1	1.0%
Men	1	1	0	1	4.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	1	1	2.0%
Men	2	2	1	1	8.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #23 Population Data

- Total number of residents: 135
- Residents in households: 135
- Non-household residents: 0
- Average number of people / household: 13.5
- Estimated number of households in village: 97
- Estimated population: 1,310

Table C24. Village 24, Samangan Province, Daria Soof Bala District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	12	12	12	12	
Any drug	2	1	0	1	16.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	1	0	0	1	8.3%
Opioids	1	1	0	0	8.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	2	1	0	1	11.8%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	1	0	0	1	5.9%
Opioids	1	1	0	0	5.9%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	96	87	85	
Men Tested	24	20	24	23	
Women Tested	28	28	28	27	
Children Tested	48	48	35	35	
Number with Any Positive Results	3	2	0	1	3.0%
Men	1	1	0	0	4.2%
Women	2	1	0	1	7.1%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C24 (continued). Village 24, Samangan Province, Daria Soof Bala District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	1	0	0	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	0	1	3.6%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	0	0	2.0%
Men	1	1	0	0	4.2%
Women	1	1	0	0	3.6%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #24 Population Data

- Total number of residents: 144
- Residents in households: 133
- Non-household residents: 11
- Average number of people / household: 11.08
- Estimated number of households in village: 146
- Estimated population: 1,618

Table C25. Village 25, Samangan Province, Daria Soof Bala District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	11	11	10	11	
Any drug	2	2	1	1	18.2%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	18.2%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	16	17	
Any drug	2	2	1	1	11.8%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	11.8%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	103	97	85	77	
Men Tested	27	22	27	25	
Women Tested	25	25	21	24	
Children Tested	51	50	37	28	
Number with Any Positive Results	4	4	1	1	3.9%
Men	1	1	1	1	3.7%
Women	1	1	0	0	4.0%
Children	2	2	0	0	3.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C25 (continued). Village 25, Samangan Province, Daria Soof Bala District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	4	4	1	1	3.9%
Men	1	1	1	1	3.7%
Women	1	1	0	0	4.0%
Children	2	2	0	0	3.9%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #25 Population Data

- Total number of residents: 132
- Residents in households: 122
- Non-household residents: 10
- Average number of people / household: 11.09
- Estimated number of households in village: 185
- Estimated population: 2,052

Table C26. Village 26, Takhar Province, Worsach District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	15	15	15	15	
Any drug	5	5	1	1	33.3%
Amphetamines	0	0	0	0	0.0%
Barbiturates	2	2	1	1	13.3%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	2	2	0	0	13.3%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	6.7%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	6	6	1	1	35.3%
Amphetamines	0	0	0	0	0.0%
Barbiturates	2	2	1	1	11.8%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	2	2	0	0	11.8%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	0	0	11.8%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	96	90	85	
Men Tested	30	26	30	30	
Women Tested	27	27	27	26	
Children Tested	43	43	33	29	
Number with Any Positive Results	10	10	2	1	10.0%
Men	5	5	2	1	16.7%
Women	0	0	0	0	0.0%
Children	5	5	0	0	11.6%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C26 (continued). Village 26, Takhar Province, Worsach District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	2	2	1	1	2.0%
Men	1	1	1	1	3.3%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.3%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	6	6	1	0	6.0%
Men	2	2	1	0	6.7%
Women	0	0	0	0	0.0%
Children	4	4	0	0	9.3%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	0	0	2.0%
Men	2	2	0	0	6.7%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #26 Population Data

- Total number of residents: 146
- Residents in households: 136
- Non-household residents: 10
- Average number of people / household: 9.07
- Estimated number of households in village: 155
- Estimated population: 1,406

Table C27. Village 27, Takhar Province, Worsach District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	15	15	15	15	
Any drug	3	3	1	1	20.0%
Amphetamines	1	1	0	0	6.7%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	1	0	0	6.7%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	13.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	18	18	18	18	
Any drug	3	3	1	1	16.7%
Amphetamines	1	1	0	0	5.6%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	1	0	0	5.6%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	11.1%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	93	87	74	
Men Tested	26	21	26	25	
Women Tested	28	27	27	25	
Children Tested	46	45	34	24	
Number with Any Positive Results	14	13	3	2	14.0%
Men	6	6	2	2	23.1%
Women	1	0	1	0	3.6%
Children	7	7	0	0	15.2%
Number Amphetamines Positive	1	1	0	0	1.0%
Men	1	1	0	0	3.8%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C27 (continued). Village 27, Takhar Province, Worsach District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	1	1	0	0	1.0%
Men	1	1	0	0	3.8%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	12	11	3	2	12.0%
Men	4	4	2	2	15.4%
Women	1	0	1	0	3.6%
Children	7	7	0	0	15.2%
Number Other Positive	1	1	0	0	1.0%
Men	1	1	0	0	3.8%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #27 Population Data

- Total number of residents: 159
- Residents in households: 149
- Non-household residents: 10
- Average number of people / household: 9.93
- Estimated number of households in village: 250
- Estimated population: 2,483

Table C28. Village 28, Takhar Province, Rostaq District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	13	13	13	13	
Any drug	0	0	0	0	0.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	0	0	0	0	0.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	101	95	88	80	
Men Tested	23	17	23	21	
Women Tested	27	27	27	25	
Children Tested	51	51	38	34	
Number with Any Positive Results	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C28 (continued). Village 28, Takhar Province, Rostaq District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #28 Population Data

- Total number of residents: 134
- Residents in households: 123
- Non-household residents: 11
- Average number of people / household: 9.46
- Estimated number of households in village: 220
- Estimated population: 2,081

Table C29. Village 29, Takhar Province, Rostaq District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	3	2	2	1	30.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	0	1	0	10.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	20.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	18	18	18	18	
Any drug	3	2	2	1	16.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	0	1	0	5.6%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	1	11.1%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	90	76	73	
Men Tested	28	20	27	26	
Women Tested	20	19	19	19	
Children Tested	52	51	30	28	
Number with Any Positive Results	5	3	3	2	5.0%
Men	2	1	2	2	7.1%
Women	1	1	0	0	5.0%
Children	2	1	1	0	3.8%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C29 (continued). Village 29, Takhar Province, Rostaq District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	1	0	1	0	1.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	1	0	1	0	1.9%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	4	3	2	2	4.0%
Men	2	1	2	2	7.1%
Women	1	1	0	0	5.0%
Children	1	1	0	0	1.9%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #29 Population Data

- Total number of residents: 137
- Residents in households: 126
- Non-household residents: 11
- Average number of people / household: 12.6
- Estimated number of households in village: 162
- Estimated population: 2,041

Table C30. Village 30, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	14	14	14	14	
Any drug	5	4	3	0	35.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	2	2	1	0	14.3%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	0	14.3%
Others	1	0	1	0	
FAMILIES					
Number Tested Positive	20	20	20	20	
Any drug	5	4	3	0	25.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	2	2	1	0	10.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	0	10.0%
Others	1	0	1	0	5.0%
INDIVIDUALS					
Number Persons Tested	101	94	98	90	
Men Tested	23	20	23	23	
Women Tested	32	32	32	29	
Children Tested	46	42	43	38	
Number with Any Positive Results	10	7	7	2	9.9%
Men	6	6	4	2	26.1%
Women	2	1	1	0	6.3%
Children	2	0	2	0	4.3%
Number Amphetamines Positive	1	0	1	1	1.0%
Men	1	0	1	1	4.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C30 (continued). Village 30, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	7	3	5	2	6.9%
Men	5	3	3	2	21.7%
Women	0	0	0	0	0.0%
Children	2	0	2	0	4.3%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	4	4	2	2	4.0%
Men	3	3	2	2	13.0%
Women	1	1	0	0	3.1%
Children	0	0	0	0	0.0%
Number Other Positive	1	0	1	0	1.0%
Men	0	0	0	0	0.0%
Women	1	0	1	0	3.1%
Children	0	0	0	0	0.0%

Village #30 Population Data

- Total number of residents: 157
- Residents in households: 146
- Non-household residents: 11
- Average number of people / household: 10.43
- Estimated number of households in village: 380
- Estimated population: 3,963

Table C31. Village 31, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	11	11	11	11	
Any drug	7	7	2	0	63.6%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	7	7	1	0	63.6%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	0	18.2%
Others	0	0	0	0	
FAMILIES					
Number Tested Positive	23	22	23	23	
Any drug	9	9	2	0	39.1%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	9	9	1	0	39.1%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	0	8.7%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	101	76	94	89	
Men Tested	29	16	28	27	
Women Tested	30	29	29	29	
Children Tested	42	31	37	33	
Number with Any Positive Results	15	13	3	1	14.9%
Men	7	5	3	1	24.1%
Women	3	3	0	0	10.0%
Children	5	5	0	0	11.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C31 (continued). Village 31, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	12	11	2	1	11.9%
Men	5	4	2	1	17.2%
Women	2	2	0	0	6.7%
Children	5	5	0	0	11.9%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	4	3	1	0	4.0%
Men	3	2	1	0	10.3%
Women	1	1	0	0	3.3%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #31 Population Data

- Total number of residents: 157
- Residents in households: 147
- Non-household residents: 10
- Average number of people / household: 13.36
- Estimated number of households in village: 340
- Estimated population: 4,544

Table C32. Village 32, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	15	15	15	15	
Any drug	7	6	5	7	46.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	6.7%
Cannabis	1	1	0	0	6.7%
Alcohol	0	0	0	0	0.0%
Opioids	7	6	5	7	46.7%
Others	0	0	0	0	
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	9	8	7	9	52.9%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	5.9%
Cannabis	1	1	0	0	5.9%
Alcohol	0	0	0	0	0.0%
Opioids	9	8	7	9	52.9%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	103	84	93	92	
Men Tested	32	23	30	30	
Women Tested	35	34	33	34	
Children Tested	36	27	30	28	
Number with Any Positive Results	23	19	10	12	22.3%
Men	6	3	6	5	18.8%
Women	9	8	4	7	25.7%
Children	8	8	0	0	22.2%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C32 (continued). Village 32, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	1	2	2	1.9%
Men	2	1	2	2	6.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	2	1	1	0	1.9%
Men	1	0	1	0	3.1%
Women	1	1	0	0	2.9%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	22	19	9	12	21.4%
Men	5	3	5	5	15.6%
Women	9	8	4	7	25.7%
Children	8	8	0	0	22.2%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #32 Population Data

- Total number of residents: 148
- Residents in households: 140
- Non-household residents: 8
- Average number of people / household: 9.33
- Estimated number of households in village: 327
- Estimated population: 3,052

Table C33. Village 33, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	15	14	15	15	
Any drug	9	5	4	9	60.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	6.7%
Cannabis	2	1	1	1	13.3%
Alcohol	1	0	0	1	6.7%
Opioids	8	4	3	8	53.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	15	14	15	15	
Any drug	9	5	4	9	60.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	1	1	6.7%
Cannabis	2	1	1	1	13.3%
Alcohol	1	0	0	1	6.7%
Opioids	8	4	3	8	53.3%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	103	59	89	98	
Men Tested	31	20	30	29	
Women Tested	30	25	26	30	
Children Tested	42	14	33	39	
Number with Any Positive Results	19	9	4	13	18.4%
Men	6	3	2	3	19.4%
Women	9	5	2	7	30.0%
Children	4	1	0	3	9.5%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C33 (continued). Village 33, Kunduz Province, Qalai Zaal District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	1	0	1	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	1	1	3.3%
Children	0	0	0	0	0.0%
Number Cannabis Positive	4	3	1	1	3.9%
Men	4	3	1	1	12.9%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	1	0	0	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	0	1	3.3%
Children	0	0	0	0	0.0%
Number Opioid Positive	14	6	3	11	13.6%
Men	2	0	1	2	6.5%
Women	8	5	2	6	26.7%
Children	4	1	0	3	9.5%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #33 Population Data

- Total number of residents: 130
- Residents in households: 120
- Non-household residents: 10
- Average number of people / household: 8.00
- Estimated number of households in village: 393
- Estimated population: 3,144

Table C34. Village 34, Badghis Province, Qadis District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	13	13	13	13	
Any drug	1	1	0	0	7.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	7.7%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	1	1	0	0	5.9%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	5.9%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	81	76	73	
Men Tested	19	11	15	13	
Women Tested	42	38	38	37	
Children Tested	39	32	23	23	
Number with Any Positive Results	3	3	0	0	3.0%
Men	2	2	0	0	10.5%
Women	1	1	0	0	2.4%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C34 (continued). Village 34, Badghis Province, Qadis District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	1	1	0	0	1.0%
Men	1	1	0	0	5.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	2	2	0	0	2.0%
Men	1	1	0	0	5.3%
Women	1	1	0	0	2.4%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #34 Population Data

- Total number of residents: 152
- Residents in households: 142
- Non-household residents: 10
- Average number of people / household: 10.92
- Estimated number of households in village: 95
- Estimated population: 1,038

Table C35. Village 35, Badghis Province, Qadis District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	11	11	11	11	
Any drug	2	2	0	0	18.2%
Amphetamines	1	1	0	0	9.1%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	0	0	9.1%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	12	12	12	12	
Any drug	2	2	0	0	16.7%
Amphetamines	1	1	0	0	8.3%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	1	1	0	0	8.3%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	102	79	57	64	
Men Tested	24	14	14	20	
Women Tested	33	28	24	25	
Children Tested	45	37	19	19	
Number with Any Positive Results	2	2	0	0	2.0%
Men	1	1	0	0	4.2%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.2%
Number Amphetamines Positive	1	1	0	0	1.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.2%

Table C35 (continued). Village 35, Badghis Province, Qadis District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	1	1	0	0	1.0%
Men	1	1	0	0	4.2%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #35 Population Data

- Total number of residents: 134
- Residents in households: 124
- Non-household residents: 10
- Average number of people / household: 11.27
- Estimated number of households in village: 135
- Estimated population: 1,522

Table C36. Village 36, Badghis Province, Ab Kamari District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	14	14	14	14	
Any drug	2	2	1	1	14.3%
Amphetamines	1	1	1	1	7.1%
Barbiturates	1	1	0	0	7.1%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	1	1	7.1%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	21	21	21	21	
Any drug	2	2	1	1	9.5%
Amphetamines	1	1	1	1	4.8%
Barbiturates	1	1	0	0	4.8%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	1	1	4.8%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	94	86	64	
Men Tested	26	20	26	24	
Women Tested	27	27	27	24	
Children Tested	47	47	33	16	
Number with Any Positive Results	4	4	1	1	4.0%
Men	1	1	1	1	3.8%
Women	1	1	0	0	3.7%
Children	2	2	0	0	4.3%
Number Amphetamines Positive	2	2	1	1	2.0%
Men	1	1	1	1	3.8%
Women	1	1	0	0	3.7%
Children	0	0	0	0	0.0%

Table C36 (continued). Village 36, Badghis Province, Ab Kamari District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	1	1	0	0	1.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.1%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	3	3	1	1	3.0%
Men	1	1	1	1	3.8%
Women	1	1	0	0	3.7%
Children	1	1	0	0	2.1%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #36 Population Data

- Total number of residents: 147
- Residents in households: 138
- Non-household residents: 9
- Average number of people / household: 9.86
- Estimated number of households in village: 113
- Estimated population: 1,114

Table C37. Village 37, Badghis Province, Ab Kamari District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	1	1	0	0	10.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	10.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	15	15	15	15	
Any drug	1	1	0	0	6.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	1	1	0	0	6.7%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	100	96	86	66	
Men Tested	25	21	25	24	
Women Tested	28	28	27	19	
Children Tested	47	47	34	23	
Number with Any Positive Results	2	2	1	0	2.0%
Men	1	1	1	0	4.0%
Women	1	1	0	0	3.6%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C37 (continued). Village 37, Badghis Province, Ab Kamari District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	1	1	1	0	1.0%
Men	1	1	1	0	4.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	1	1	0	0	1.0%
Men	0	0	0	0	0.0%
Women	1	1	0	0	3.6%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #37 Population Data

- Total number of residents: 125
- Residents in households: 115
- Non-household residents: 10
- Average number of people / household: 11.5
- Estimated number of households in village: 92
- Estimated population: 1,058

Table C38. Village 38, Nimroz Province, Chaqansoor District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	12	12	12	12	
Any drug	5	5	3	4	41.7%
Amphetamines	2	1	0	1	16.7%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	2	0	0	16.7%
Cannabis	1	1	1	1	8.3%
Alcohol	0	0	0	0	0.0%
Opioids	5	5	3	3	41.7%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	22	22	22	22	
Any drug	6	6	3	4	27.3%
Amphetamines	2	1	0	1	9.1%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	2	0	0	9.1%
Cannabis	1	1	1	1	4.5%
Alcohol	0	0	0	0	0.0%
Opioids	6	6	3	3	27.3%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	106	98	100	96	
Men Tested	26	24	26	24	
Women Tested	37	36	37	37	
Children Tested	43	38	37	35	
Number with Any Positive Results	12	12	5	5	11.3%
Men	6	6	5	5	23.1%
Women	2	2	0	0	5.4%
Children	4	4	0	0	9.3%
Number Amphetamines Positive	4	4	1	1	3.8%
Men	3	3	1	1	11.5%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.3%

Table C38 (continued). Village 38, Nimroz Province, Chaqansoor District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	3	3	0	0	2.8%
Men	1	1	0	0	3.8%
Women	1	1	0	0	2.7%
Children	1	1	0	0	2.3%
Number Cannabis Positive	2	2	1	1	1.9%
Men	1	1	1	1	3.8%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.3%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	11	11	4	4	10.4%
Men	5	5	4	4	19.2%
Women	2	2	0	0	5.4%
Children	4	4	0	0	9.3%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #38 Population Data

- Total number of residents: 128
- Residents in households: 118
- Non-household residents: 10
- Average number of people / household: 9.83
- Estimated number of households in village: 240
- Estimated population: 2,360

Table C39. Village 39, Nimroz Province, Chaqansoor District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	12	12	12	12	
Any drug	5	3	4	3	41.7%
Amphetamines	1	1	0	0	8.3%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	5	3	4	3	41.7%
Others					
FAMILIES					
Number Tested Positive	22	22	22	22	
Any drug	7	4	5	3	31.8%
Amphetamines	1	1	0	0	4.5%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	7	4	5	3	31.8%
Others					0.0%
INDIVIDUALS					
Number Persons Tested	107	103	94	93	
Men Tested	28	24	27	26	
Women Tested	27	27	27	27	
Children Tested	52	52	40	40	
Number with Any Positive Results	12	7	7	4	11.2%
Men	4	3	2	2	14.3%
Women	5	3	2	2	18.5%
Children	3	1	3	0	5.8%
Number Amphetamines Positive	1	1	0	0	0.9%
Men	1	1	0	0	3.6%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C39 (continued). Village 39, Nimroz Province, Chaqansoor District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	12	7	7	4	11.2%
Men	4	3	2	2	14.3%
Women	5	3	2	2	18.5%
Children	3	1	3	0	5.8%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #39 Population Data

- Total number of residents: 141
- Residents in households: 128
- Non-household residents: 13
- Average number of people / household: 10.67
- Estimated number of households in village: 125
- Estimated population: 1,333

Table C40. Village 40, Nimroz Province, Kang District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	14	14	14	14	
Any drug	10	9	8	10	71.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	5	1	2	4	35.7%
Cannabis	6	6	1	2	42.9%
Alcohol	0	0	0	0	0.0%
Opioids	10	9	7	10	71.4%
Others					
FAMILIES					
Number Tested Positive	25	25	25	25	
Any drug	17	14	9	12	68.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	5	1	2	4	20.0%
Cannabis	6	6	1	2	24.0%
Alcohol	0	0	0	0	0.0%
Opioids	17	14	8	11	68.0%
Others					0.0%
INDIVIDUALS					
Number Persons Tested	102	93	92	85	
Men Tested	26	20	26	24	
Women Tested	35	35	35	34	
Children Tested	41	38	31	27	
Number with Any Positive Results	35	32	10	14	34.3%
Men	14	11	8	10	53.8%
Women	9	9	1	4	25.7%
Children	12	12	1	0	29.3%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C40 (continued). Village 40, Nimroz Province, Kang District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	6	1	2	5	5.9%
Men	4	1	2	3	15.4%
Women	2	0	0	2	5.7%
Children	0	0	0	0	0.0%
Number Cannabis Positive	8	8	1	2	7.8%
Men	5	5	1	2	19.2%
Women	1	1	0	0	2.9%
Children	2	2	0	0	4.9%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	34	31	9	12	33.3%
Men	13	10	7	9	50.0%
Women	9	9	1	3	25.7%
Children	12	12	1	0	29.3%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #40 Population Data

- Total number of residents: 139
- Residents in households: 129
- Non-household residents: 10
- Average number of people / household: 9.21
- Estimated number of households in village: 175
- Estimated population: 1,613

Table C41. Village 41, Nimroz Province, Kang District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	3	1	1	3	30.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	0	0	2	20.0%
Cannabis	1	1	1	1	10.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	1	1	0	20.0%
Others					
FAMILIES					
Number Tested Positive	24	24	24	24	
Any drug	4	2	1	3	16.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	0	0	2	8.3%
Cannabis	2	2	1	1	8.3%
Alcohol	0	0	0	0	0.0%
Opioids	2	1	1	1	8.3%
Others					0.0%
INDIVIDUALS					
Number Persons Tested	103	94	94	96	
Men Tested	25	22	24	25	
Women Tested	32	32	32	31	
Children Tested	46	40	38	40	
Number with Any Positive Results	10	6	3	7	9.7%
Men	8	6	3	5	32.0%
Women	2	0	0	2	6.3%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C41 (continued). Village 41, Nimroz Province, Kang District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	0	0	2	1.9%
Men	0	0	0	0	0.0%
Women	2	0	0	2	6.3%
Children	0	0	0	0	0.0%
Number Cannabis Positive	2	2	1	1	1.9%
Men	2	2	1	1	8.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	7	5	3	4	6.8%
Men	7	5	3	4	28.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #41 Population Data

- Total number of residents: 114
- Residents in households: 103
- Non-household residents: 11
- Average number of people / household: 10.3
- Estimated number of households in village: 212
- Estimated population: 2,184

Table C42. Village 42, Helmand Province, Lashkargah District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	11	11	11	11	
Any drug	5	4	1	2	45.5%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	0	1	1	9.1%
Benzodiazepines	2	0	0	2	18.2%
Cannabis	2	2	1	1	18.2%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	0	0	27.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	14	14	14	13	
Any drug	5	4	1	2	35.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	0	1	1	7.1%
Benzodiazepines	2	0	0	2	14.3%
Cannabis	2	2	1	1	14.3%
Alcohol	0	0	0	0	0.0%
Opioids	3	3	0	0	21.4%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	106	103	86	77	
Men Tested	6	5	6	6	
Women Tested	31	31	30	29	
Children Tested	69	67	50	42	
Number with Any Positive Results	16	11	6	5	15.1%
Men	1	1	0	1	16.7%
Women	4	3	0	2	12.9%
Children	11	7	6	2	15.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C42 (continued). Village 42, Helmand Province, Lashkargah District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	3	0	3	2	2.8%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	3	0	3	2	4.3%
Number Benzodiazepine Positive	2	0	0	2	1.9%
Men	0	0	0	0	0.0%
Women	2	0	0	2	6.5%
Children	0	0	0	0	0.0%
Number Cannabis Positive	11	9	3	1	10.4%
Men	1	1	0	1	16.7%
Women	3	3	0	0	9.7%
Children	7	5	3	0	10.1%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	3	3	0	0	2.8%
Men	1	1	0	0	16.7%
Women	0	0	0	0	0.0%
Children	2	2	0	0	2.9%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #42 Population Data

- Total number of residents: 173
- Residents in households: 173
- Non-household residents: n/a
- Average number of people / household: 15.73
- Estimated number of households in village: 1500
- Estimated population: 23,591

Table C43. Village 43, Helmand Province, Lashkargah District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	7	7	7	7	
Any drug	3	2	3	1	42.9%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	1	0	0	14.3%
Benzodiazepines	1	0	1	1	14.3%
Cannabis	2	1	2	0	28.6%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	11	11	11	11	
Any drug	4	2	3	1	36.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	1	0	0	9.1%
Benzodiazepines	1	0	1	1	9.1%
Cannabis	2	1	2	0	18.2%
Alcohol	0	0	0	0	0.0%
Opioids	0	0	0	0	0.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	101	89	97	99	
Men Tested	29	22	27	29	
Women Tested	25	24	25	25	
Children Tested	47	43	45	45	
Number with Any Positive Results	7	5	3	3	6.9%
Men	4	4	1	2	13.8%
Women	1	0	1	1	4.0%
Children	2	1	1	0	4.3%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C43 (continued). Village 43, Helmand Province, Lashkargah District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	1	1	0	0	1.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	1	1	0	0	2.1%
Number Benzodiazepine Positive	1	0	1	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	1	1	4.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	4	3	2	2	4.0%
Men	3	3	1	2	10.3%
Women	0	0	0	0	0.0%
Children	1	0	1	0	2.1%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	3	3	0	2	3.0%
Men	3	3	0	2	10.3%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #43 Population Data

- Total number of residents: 112
- Residents in households: 103
- Non-household residents: 9
- Average number of people / household: 14.71
- Estimated number of households in village: 373
- Estimated population: 5,487

Table C44. Village 46, Kandahar Province, Arghandab District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	17	17	17	17	
Any drug	5	3	3	2	29.4%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	0	1	5.9%
Cannabis	2	1	2	1	11.8%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	0	11.8%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	22	22	22	22	
Any drug	5	3	3	2	22.7%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	0	0	1	4.5%
Cannabis	2	1	2	1	9.1%
Alcohol	0	0	0	0	0.0%
Opioids	2	2	1	0	9.1%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	112	104	108	104	
Men Tested	11	8	11	11	
Women Tested	42	42	41	41	
Children Tested	59	54	56	52	
Number with Any Positive Results	17	14	6	2	15.2%
Men	2	1	1	1	18.2%
Women	5	4	2	1	11.9%
Children	10	9	3	0	16.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C44 (continued). Village 46, Kandahar Province, Arghandab District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	1	0	0	1	0.9%
Men	0	0	0	0	0.0%
Women	1	0	0	1	2.4%
Children	0	0	0	0	0.0%
Number Cannabis Positive	8	6	5	1	7.1%
Men	1	0	1	1	9.1%
Women	3	3	2	0	7.1%
Children	4	3	2	0	6.8%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	8	8	1	0	7.1%
Men	1	1	0	0	9.1%
Women	1	1	0	0	2.4%
Children	6	6	1	0	10.2%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #46 Population Data

- Total number of residents: 157
- Residents in households: 157
- Non-Household Residents: n/a
- Average number of people / household: 9.23
- Estimated number of households in village: 170
- Estimated population: 1,569

Table C45. Village 47, Kandahar Province, Arghandab District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	7	7	3	1	70.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	1	0	0	10.0%
Cannabis	6	6	3	1	60.0%
Alcohol	2	0	0	0	20.0%
Opioids	1	0	1	1	10.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	14	14	14	14	
Any drug	7	7	3	1	50.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	1	1	0	0	7.1%
Cannabis	6	6	3	1	42.9%
Alcohol	2	0	0	0	14.3%
Opioids	1	0	1	1	7.1%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	109	92	106	94	
Men Tested	25	17	25	24	
Women Tested	25	22	25	25	
Children Tested	59	53	56	45	
Number with Any Positive Results	24	16	7	5	22.0%
Men	7	4	3	3	28.0%
Women	5	4	1	1	20.0%
Children	12	8	3	1	20.3%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C45 (continued). Village 47, Kandahar Province, Arghandab District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	1	1	0	0	0.9%
Men	0	0	0	0	0.0%
Women	1	1	0	0	4.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	21	15	7	2	19.3%
Men	6	4	3	2	24.0%
Women	4	3	1	0	16.0%
Children	11	8	3	0	18.6%
Number Alcohol Positive	2	0	0	2	1.8%
Men	0	0	0	0	0.0%
Women	1	0	0	1	4.0%
Children	1	0	0	1	1.7%
Number Opioid Positive	3	1	1	3	2.8%
Men	3	1	1	3	12.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #47 Population Data

- Total number of residents: 154
- Residents in households: 145
- Non-household residents: 9
- Average number of people / household: 14.5
- Estimated number of households in village: 300
- Estimated population: 4,350

Table C46. Village 48, Ghor Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	6	6	2	1	60.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	6	6	2	1	60.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	12	12	12	12	
Any drug	6	6	2	1	50.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	6	6	2	1	50.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	102	101	86	75	
Men Tested	22	21	22	22	
Women Tested	24	24	24	21	
Children Tested	56	56	40	32	
Number with Any Positive Results	22	21	2	1	21.6%
Men	4	3	1	1	18.2%
Women	3	3	0	0	12.5%
Children	15	15	1	0	26.8%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C46 (continued). Village 48, Ghor Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	22	21	2	1	21.6%
Men	4	3	1	1	18.2%
Women	3	3	0	0	12.5%
Children	15	15	1	0	26.8%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #48 Population Data

- Total number of residents: 129
- Residents in households: 118
- Non-household residents: 11
- Average number of people / household: 11.8
- Estimated number of households in village: 450
- Estimated population: 5,310

Table C47. Village 49, Ghor Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	11	11	11	11	
Any drug	10	10	0	0	90.9%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	10	10	0	0	90.9%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	12	12	0	0	70.6%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	12	12	0	0	70.6%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	101	96	85	77	
Men Tested	15	14	14	15	
Women Tested	32	32	32	28	
Children Tested	54	50	39	34	
Number with Any Positive Results	35	35	0	2	34.7%
Men	7	7	0	2	46.7%
Women	6	6	0	0	18.8%
Children	22	22	0	0	40.7%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C47 (continued). Village 49, Ghor Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	35	35	0	2	34.7%
Men	7	7	0	2	46.7%
Women	6	6	0	0	18.8%
Children	22	22	0	0	40.7%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #49 Population Data

- Total number of residents: 131
- Residents in households: 118
- Non-household residents: 13
- Average number of people / household: 10.72
- Estimated number of households in village: 127
- Estimated population: 1,361

Table C48. Village 50, Ghor Province, Lal Wa Sarjangal District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	7	7	7	7	
Any drug	7	7	1	3	100.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	7	7	1	3	100.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	7	7	7	7	
Any drug	7	7	1	3	100.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	7	7	1	3	100.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	103	100	87	81	
Men Tested	28	25	28	27	
Women Tested	31	31	30	28	
Children Tested	44	44	29	26	
Number with Any Positive Results	56	55	1	3	54.4%
Men	16	16	0	0	57.1%
Women	16	16	0	1	51.6%
Children	24	23	1	2	54.5%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C48 (continued). Village 50, Ghor Province, Lal Wa Sarjangan District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	56	55	1	3	54.4%
Men	16	16	0	0	57.1%
Women	16	16	0	1	51.6%
Children	24	23	1	2	54.5%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #50 Population Data

- Total number of residents: 119
- Residents in households: 108
- Non-household residents: 11
- Average number of people / household: 15.43
- Estimated number of households in village: 120
- Estimated population: 1,852

Table C49. Village 51, Ghor Province, Lal Wa Sarjangal District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	7	7	7	7	
Any drug	7	7	5	5	100.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	7	7	5	5	100.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	15	15	15	15	
Any drug	15	15	5	7	100.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	15	15	5	7	100.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	108	100	89	78	
Men Tested	34	28	33	33	
Women Tested	36	36	36	34	
Children Tested	38	36	20	11	
Number with Any Positive Results	90	89	8	7	83.3%
Men	20	20	1	1	58.8%
Women	34	34	6	4	94.4%
Children	36	35	1	2	94.7%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C49 (continued). Village 51, Ghor Province, Lal Wa Sarjangan District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	90	89	8	7	83.3%
Men	20	20	1	1	58.8%
Women	34	34	6	4	94.4%
Children	36	35	1	2	94.7%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #51 Population Data

- Total number of residents: 116
- Residents in households: 106
- Non-household residents: 10
- Average number of people / household: 15.14
- Estimated number of households in village: 113
- Estimated population: 1,711

Table C50. Village 52, Farah Province, Anar Dara District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	10	10	10	10	
Any drug	2	0	2	1	20.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	0	2	1	20.0%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	11	11	11	11	
Any drug	2	0	2	1	18.2%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	2	0	2	1	18.2%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	97	87	84	68	
Men Tested	25	19	25	18	
Women Tested	28	26	28	25	
Children Tested	44	42	31	25	
Number with Any Positive Results	3	1	2	1	3.1%
Men	2	1	1	0	8.0%
Women	1	0	1	1	3.6%
Children	0	0	0	0	0.0%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C50 (continued). Village 52, Farah Province, Anar Dara District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	3	1	2	1	3.1%
Men	2	1	1	0	8.0%
Women	1	0	1	1	3.6%
Children	0	0	0	0	0.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #52 Population Data

- Total number of residents: 107
- Residents in households: 95
- Non-household residents: 12
- Average number of people / household: 9.5
- Estimated number of households in village: 150
- Estimated population: 1,425

Table C51. Village 53, Farah Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	14	14	14	14	
Any drug	4	4	2	2	28.6%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	0	1	1	7.1%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	4	4	2	2	28.6%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	17	17	17	17	
Any drug	4	4	2	2	23.5%
Amphetamines	0	0	0	0	0.0%
Barbiturates	1	0	1	1	5.9%
Benzodiazepines	0	0	0	0	0.0%
Cannabis	0	0	0	0	0.0%
Alcohol	0	0	0	0	0.0%
Opioids	4	4	2	2	23.5%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	104	88	85	66	
Men Tested	29	26	29	19	
Women Tested	46	39	44	32	
Children Tested	29	23	12	15	
Number with Any Positive Results	11	8	4	4	10.6%
Men	5	3	2	3	17.2%
Women	4	3	2	1	8.7%
Children	2	2	0	0	6.9%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C51 (continued). Village 53, Farah Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	1	0	1	1	1.0%
Men	0	0	0	0	0.0%
Women	1	0	1	1	2.2%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Cannabis Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	10	8	3	3	9.6%
Men	5	3	2	3	17.2%
Women	3	3	1	0	6.5%
Children	2	2	0	0	6.9%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #53 Population Data

- Total number of residents: 126
- Residents in households: 116
- Non-household residents: 10
- Average number of people / household: 8.29
- Estimated number of households in village: 380
- Estimated population: 3,150

Table C52. Village 54, Farah Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
HOUSEHOLDS					
Number Tested Positive	15	15	15	15	
Any drug	8	7	0	3	53.3%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	0	0	2	13.3%
Cannabis	2	2	0	0	13.3%
Alcohol	0	0	0	0	0.0%
Opioids	5	5	0	1	33.3%
Others	0	0	0	0	0.0%
FAMILIES					
Number Tested Positive	20	20	20	20	
Any drug	9	8	0	3	45.0%
Amphetamines	0	0	0	0	0.0%
Barbiturates	0	0	0	0	0.0%
Benzodiazepines	2	0	0	2	10.0%
Cannabis	2	2	0	0	10.0%
Alcohol	0	0	0	0	0.0%
Opioids	6	6	0	1	30.0%
Others	0	0	0	0	0.0%
INDIVIDUALS					
Number Persons Tested	102	92	89	69	
Men Tested	20	17	20	13	
Women Tested	42	42	41	38	
Children Tested	40	33	28	18	
Number with Any Positive Results	12	11	1	3	11.8%
Men	4	4	1	1	20.0%
Women	5	4	0	2	11.9%
Children	3	3	0	0	7.5%
Number Amphetamines Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Table C52 (continued). Village 54, Farah Province, Markaz District

	Any	Hair	Oral Fluid	Urine	% Positive
Number Barbiturate Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Benzodiazepine Positive	2	0	0	2	2.0%
Men	0	0	0	0	0.0%
Women	2	0	0	2	4.8%
Children	0	0	0	0	0.0%
Number Cannabis Positive	5	5	1	0	4.9%
Men	3	3	1	0	15.0%
Women	1	1	0	0	2.4%
Children	1	1	0	0	2.5%
Number Alcohol Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%
Number Opioid Positive	6	6	0	1	5.9%
Men	1	1	0	1	5.0%
Women	3	3	0	0	7.1%
Children	2	2	0	0	5.0%
Number Other Positive	0	0	0	0	0.0%
Men	0	0	0	0	0.0%
Women	0	0	0	0	0.0%
Children	0	0	0	0	0.0%

Village #54 Population Data

- Total number of residents: 142
- Residents in households: 132
- Non-household residents: 10
- Average number of people / household: 8.8
- Estimated number of households in village: 560
- Estimated population: 4,928

Table D1. List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity		
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat. Annual Capacity	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity		Number of Patients		Treatment Duration Factor	Annual Capacity
1	Kabul Province	INL, Colombo Plan	WADAN	1		1					1				17	50	4	200	0	20	8	160	360		
2		INL, Colombo Plan	WADAN	1		1					1				17	50	4	200	0	20	8	160	360		
3		INL, Colombo Plan	SSAWO	1		1						1			8	20	8	160	0	20	8	160	320		
		INL, UNODC	SSAWO												2	5	8	40	0	0	0	0	40		
4		INL, UNODC	SSAWO	1		1								1	2	10	8	80	0	0	0	0	80		
		INL, Colombo Plan	SSAWO												9	15	8	120	0	0	0	0	120		
5		INL, Colombo Plan	SSAWO	1		1							1		17	50	2	100	0	0	0	0	100		
6		MoPH	MoPH	1		1					1	150	1				200	8	1600	0	0	0	0	1600	
7		INL, UNODC	Nejat Center	1	1	1					1	40	1			13	60	8	480	100	0	0	0	580	
8	Caritas Germany	Nejat Center	1									1			10	10	12	120	0	0	0	0	120		
9	Caritas Germany	Nejat Center				1						1			7	0	0	0	0	0	0	0	0		

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity			
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat.	Home Based				
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity	Annual Capacity	Number of Patients		Treatment Duration Factor	Annual Capacity	
10		Norwegian Church Aid	Nejat Center		1		1						1				11	0	0	0	250	0	0	0	250	
11		INL, UNODC	OHSS		1	1						35	1					5	0	0	0	250	0	0	0	250
12		INL, UNODC	FHO		1	1						35	1					5	0	0	0	250	0	0	0	250
13		Japan, UNODC	SAF		1	1				1			1					5	0	0	0	250	0	0	0	250
14		World Bank	MDM				1						1					5	0	0	0	0	0	0	0	0
15		INL, UNODC	WADAN		1										1			10	40	8	320	0	0	0	0	320
16		INL, UNODC	WADAN		1									1				6	20	8	160	0	0	0	0	160
17		INL, UNODC	WADAN		1	1							1	1	1	1	1	5	0	0	0	250	0	0	0	250
18		INL, UNODC	Nejat Center		1										1			7	40	2	80	0	0	0	0	80
19		INL, UNODC	Nejat Center		1	1							1	1	1	1	1	6	0	0	250	0	0	0	0	250
20	INL, UNODC	ASP		2	2							1	1	1	1	1	9	0	0	0	0	0	0	0	0	

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services								Target Groups					Capacity							Total Annual Treatment Capacity	
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat. Annual Capacity	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity		Number of Patients	Treatment Duration Factor		Annual Capacity
21	Kabul Province	INL, UNODC	OHSS		1	1								1	1	1	6	0	0	0	250	0	0	0	250
22		INL, Colombo Plan	KOR	1		1				1							17	50	4	200	0	20	8	160	360
23		INL, Colombo Plan	SSAWO	1		1				1							12	40	4	160	0	20	8	160	320
24		INL, Colombo Plan	SHRO	1		1				1							8	20	4	80	0	20	8	160	240
25		INL, Colombo Plan	WADAN	1		1				1							8	20	4	80	0	20	8	160	240
26		INL, Colombo Plan	KOR		1	1				1		1					6	0	0	170	0	0	0	0	170
27		INL, Colombo Plan	SSAWO		1	1				1		1					6	0	0	170	0	0	0	0	170
28		INL, Colombo Plan	OHSS		1	1				1		1					6	0	0	0	170	0	0	0	170
29		INL, Colombo Plan	WADAN	1		1				1			1				17	50	2	100	0	0	0	0	100
30	Herat Province	INL, Colombo Plan	SHRO			1										8	20	8	160	0	20	8	160	320	
		INL, UNODC	SHRO	1		1				1						3	10	8	80	0	0	0	0	80	

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List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity		
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat. Annual Capacity	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity		Number of Patients		Treatment Duration Factor	Annual Capacity
31		INL, UNODC	SHRO	1		1					1				1		10	8	80	0	0	0	0	80	
		INL, Colombo Plan	SHRO													9	15	8	120	0	0	0	0	120	
32		Japan, UNODC	FHO	1					1					1	5			150	0	0	0	0	150		
33		Japan, UNODC	SHRO							35	1				1	3	0	0	0	0	0	0	0	0	
34		Japan, UNODC	ASP		1										1	5	0	0	0	60	0	0	0	60	
35		MoPH	MoPH	1		1			1	1	1	1			1	22	30	8	240	260	0	0	0	360	
36		INL, UNODC	ARC	1	1	1				1					1	4	20	8	160	0	0	0	0	160	
37		INL, UNODC	ARC	1	1	1				1							10	8	80	0	0	0	0	80	
38		INL, UNODC	ARC		1	1				1					1	6	0	0	0	250	0	0	0	250	
39		INL, UNODC	KOR		1	1				1					1	5	0	0	0	250	0	0	0	250	
40		INL, UNODC	KOR		1	1				1					1	6	0	0	0	250	0	0	0	250	

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity		
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat. Annual Capacity	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity		Number of Patients		Treatment Duration Factor	Annual Capacity
41		INL, Colombo Plan	OSD	1		1					1				12	40	8	320	0	0	0	0	320		
42		INL, Colombo Plan	SHRO	1		1						1			8	20	8	160	0	20	8	160	320		
		INL, UNODC	SHRO													10	8	80	0	0	0	0	80		
43	Balkh Province	INL, UNODC	SHRO	1		1							1		5	15	2	30	0	0	0	0	30		
44		INL, UNODC	SHRO	1		1								1		10	8	80	0	0	0	0	80		
		INL, Colombo Plan	SHRO													9	15	8	120	0	0	0	0	120	
45			MoPH	MoPH	1		1			1	1	1	1			26	50	8	400	400	0	0	0	800	
46			INL, Colombo Plan	SHRO		4	4		4							9	0	0	0	240	0	0	0	240	
47		INL, UNODC	KOR		1	1				1		1	1	1	3	0	0	0	250	0	0	0	250		
48		INL, UNODC	Nejat Center	1		1							1		9	50	2	100	0	0	0	0	100		
49	Nangarhar	INL, Colombo Plan	WADA N	1		1									8	20	8	160	0	20	8	160	320		
		INL, UNODC	WADA N													9	5	8	40	0	0	0	0	40	

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity		
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat.	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity	Annual Capacity	Number of Patients		Treatment Duration Factor	Annual Capacity
50	Farah Province	INL, UNODC	WADAN	1	1				1				1			10	2	20	0	0	0	0	20		
51		INL, UNODC	WADAN	1	1				1					1		5	8	40	0	0	0	0	40		
		INL, Colombo Plan	WADAN	1	1				1					1	9	15	8	120	0	0	0	0	120		
52		MoPH	MoPH	1	1			1	1	1	1				24	50	8	400	400	0	0	0	800		
53		World Bank	OTCD				1					1				13	0	0	0	0	0	0	0		
54		INL, UNODC	Nejat Center	1									1		7	20	2	40	0	0	0	0	40		
55		INL, UNODC	KOR		1							1	1	1	1	3	0	0	0	250	0	0	0	250	
56	Farah Province	INL, Colombo Plan	WADAN	1	1				1			1		8	20	8	160	0	20	8	160	320			
57		INL, Colombo Plan	WADAN	1	1				1				1	9	15	8	120	0	0	0	0	120			
58		INL, Colombo Plan	SHRO	1	1				1		1				8	20	4	80	0	20	8	160	240		
59		MoPH	MoPH	1	1				1	1	1				19	20	8	160	0	0	0	0	160		
60		INL, UNODC	KOR		1	1				1		1	1	1	6	0	0	0	250	0	0	0	250		

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity		
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat. Annual Capacity	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity		Number of Patients		Treatment Duration Factor	Annual Capacity
61	Badakhshan Province	INL, Colombo Plan	SHRO	1		1									8	20	8	160	0	20	8	160	320		
		INL, UNODC	SHRO			1										3	10	8	80	0	0	0	0	80	
62		INL, UNODC	SHRO	1		1								1		25	8	200	0	0	0	0	200		
		INL, Colombo Plan	SHRO			1										9	15	8	120	0	0	0	0	120	
63			INL, UNODC	SHRO		1					1	1	1	1	1	3	0	0	0	250	0	0	0	250	
64			INL, Colombo Plan	WADAN	1		1				1					8	20	4	80	0	20	8	160	240	
65			Japan, UNODC	SHRO				1								13	0	0	0	540	0	0	0	540	
66			MoPH	MoPH	1		1			1	1	1		1	1	19	20	8	160	140	20	8	160	460	
67	Jawzjan	INL, Colombo Plan	SHRO	1		1				1		1			17	50	2	100	0	0	0	0	100		
68		MoPH	MoPH	1		1			1	1	1			1	26	50	8	400	400	0	0	0	800		
69	Bamyan	INL, Colombo Plan	SHRO	1		1				1					8	20	4	80	0	20	8	160	240		
70		MoPH	MoPH	1		1			1	1	1			1	17	20	8	160	140	20	8	160	460		

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services								Target Groups					Capacity							Total Annual Treatment Capacity	
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat.	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity	Annual Capacity	Number of Patients	Treatment Duration Factor		Annual Capacity
71	Faryab	Norwegian Church Aid	Nejat Center	1											16	10	12	120	0	0	0	240	360		
72		MoPH	MoPH	1		1			1	1	1	1			1	19	20	8	160	140	20	8	160	460	
73		INL, Colombo Plan	Nejat Center		1	1			1	1						6	0	0	0	120	0	0	0	120	
74	Helmand	INL, Colombo Plan	WADAN	1		1				1					12	20	4	80	0	20	8	160	240		
75		MoPH	MoPH	1		1				1	1					7	20	8	160	0	0	0	0	160	
76	Kandahar	INL, Colombo Plan	WADAN	1		1									8	20	4	80	0	20	8	160	240		
77		Japan, UNODC	WADAN	1					1							7	20		250	0	0	0	0	250	
78		MoPH	MoPH	1		1			1	1	1						20	8	160	140	0	0	0	300	
79	Parwan	INL, Colombo Plan	KOR	1		1									8	20	4	80	0	20	8	160	240		
80	Khost	INL, Colombo Plan	WADAN	1		1									8	20	4	80	0	20	8	160	240		
81		MoPH	MoPH	1		1				1	1						20	8	160	0	0	0	0	160	

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity		
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat.	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity		Annual Capacity		Number of Patients	Treatment Duration Factor
82	Paktia	INL, Colombo Plan	WADAN	1		1					1					8	20	4	80	0	20	8	160	240	
83	Dai Kundi	INL, Colombo Plan	KOR	1		1					1					8	20	4	80	0	20	8	160	240	
84	Konar	MoPH	MoPH	1		1				1	1						20	8	160	140	20	8	160	460	
85	Samangan	MoPH	MoPH	1		1			1	1	1					19	20	8	160	140	20	8	160	460	
86	Ghazni	MoPH	MoPH	1		1				1	1					17	20	8	160	140	20	8	160	460	
87		INL, Colombo Plan	WADAN		1	1			1	1		1	1				6	0	0	0	170	0	0	0	170
88	Nimroz	MoPH	MoPH	1		1			1	1	1	1		1		17	20	8	160	140	0	0	0	300	
89		INL, Colombo Plan	SHRO			1			1	1		1	1				6	0	0	0	170	0	0	0	170
90	Ghor	MoPH	MoPH	1		1			1	1	1					17	20	8	160	140	20	8	160	460	
91	Konoz	MoPH	MoPH	1		1			1	1	1	1				19	20	8	160	140	20	8	160	460	
92	Takhar	INL, Colombo Plan	SHRO	1		1						1				12	40	4	160	0	20	8	160	320	
93	Wardak	INL, Colombo Plan	WADAN	1		1						1				8	20	4	80	0	20	8	160	240	

List of all substance abuse treatment services in Afghanistan

No	Location	Donor	Implementer	Services							Target Groups					Capacity							Total Annual Treatment Capacity		
				Inpatient (Residential)	Out Patient	Outreach	Harm Reduction	Village Based	Community Based	After care	Shelter (# of beds)	Adults		Adolescent		Children	Number of clinical staff	Inpatient			Out-pat.	Home Based			
												Male	Female	Male	Female			Number of beds	Treatment duration factor	Annual Capacity		Number of Patients		Treatment Duration Factor	Annual Capacity
94	Laghman	INL, Colombo Plan	SSAWO		1	1			1	1					6	0	0	0	170	0	0	0	170		
95		MoPH	MoPH	1		1			1	1	1				19	20	8	160	140	20	8	160	460		
96	Logar	INL, Colombo Plan	WADAN		1	1				1					3	0	0	0	0	0	0	0	0		
97		INL, Colombo Plan	WADAN		1	1			1	1					6	0	0	0	170	0	0	0	170		
98	Zabul	INL, Colombo Plan	WADAN		1	1			1	1					6	0	0	0	170	0	0	0	170		
99	Baghlian	INL, Colombo Plan	KOR		1	1			1	1					6	0	0	0	170	0	0	0	170		
100		MoPH	MoPH	1		1			1	1	1			1		20	8	160	180	0	0	0	300		
101	Kapisa	MoPH	MoPH	1		1			1	1	1			1		20	8	160	180	0	0	0	300		
Total				68	34	88	4	5	25	77	315	73	39	16	14	31	945	1995	13280	8860	640	5360	27280		

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* Facilities 30 and 31 share staff.

Acronyms

ARC (Afghan Relief Committee)
 ASP (Afghan Support Point)
 CNPI (INL's Counter Narcotics Public Information Program)
 FHO (Friends of Humanity Organization)
 GPI (INL's Good Performance Initiative Program)
 INL (Bureau for International Narcotics and Law Enforcement Affairs, Department of State, United States of America)
 KOR (Khatiz Organization for Rehabilitation)
 MCN (Ministry of Counternarcotics, Government of the Islamic Republic of Afghanistan)
 MDM (Medicins du Monde, French NGO)
 MOPH (Ministry of Public Health, Government of the Islamic Republic of Afghanistan)
 OHSS (Organization for Health and Social Services)
 OSD (Organization for Social Development)
 OTCD (Organization of Technical Cooperation for Community Development)
 SHRO (Shahamat Health and Rehabilitation Organization)
 SSAWO (Social Services for Afghan Women Organization)
 TBD (To Be Determined)
 UNODC (United Nations Office on Drugs and Crime)
 WADAN (Welfare Association for the Development of Afghanistan)

Definitions

Donor: National or international partner providing funding and national or international partner providing oversight.

Implementer: Local partner delivering services

Inpatient (residential) services: Clients are admitted into a facility where they reside for the duration of their treatment program.

Outpatient services: Clients visit a facility one or more times a week for one or more hours, where they receive substance abuse treatment services.

Outreach services: Staff will conduct awareness activities in the community, which may include visiting areas of high drug use and motivating drug users to enter treatment. Outreach services in isolation does not constitute substance abuse treatment.

Harm reduction services: Interventions aimed at decreasing the harms associated with drug use, which are listed in the WHO, UNODC, UNAIDS Technical Guide. Harm reduction interventions in isolation do not constitute substance abuse treatment.

Village-based services: Treatment services delivered in a rural setting, whereby drug treatment clinical staff from urban areas travel to villages and deliver outpatient services during a defined period of time. The unique model was developed for Afghanistan based on an adaptation of a rural-based treatment model from India.

Community-based services: Centers serve as focal point for raising awareness in the community on dangers of drugs. Centers may provide a variety of services, such as prevention as well as referrals for drug users to access health services.

Aftercare services: Post-treatment assistance, including relapse prevention and referral to other services.

Shelter: Provides temporary housing, food and motivational counseling to refer drug users into treatment.

Clinical staff: Individuals who provide some type of psychosocial counseling and support in a treatment setting.

Home-based treatment services: Clinical staff visit drug users in their home and provide individual and family counseling.

Brief Technical Report

Opium Smoke: The Study of Second- and Third-Hand Exposure in Women and Children of Afghanistan



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Opium Smoke: The Study of Second- and Third-Hand Exposure in Women and Children of Afghanistan



IT IS WELL-DOCUMENTED that Afghanistan produces 90% of the world's supply of opium, but there is little known about the opium and other drugs being abused by the Afghan population. The continued production and abuse of opium and abuse of other drugs and prescription medications degrade the long-term political, social, and economic stability of Afghanistan.

The United States Department of State, Bureau of International Narcotics and Law Enforcement Affairs (INL) has been working with the Afghanistan Ministry of Counter Narcotics to reduce demand and prevent drug abuse. The International Demand Reduction Program (IDR) under INL funds programs on demand reduction training (education, prevention, treatment, research) and public awareness. As part of this program, in 2008, the U.S. State Department contracted with a team of scientists led by two of the world's leading experts on drug abuse, Mark S. Gold, MD, the Donald Ditzner Eminent Scholar and chairman of the department of psychiatry, University of Florida College of Medicine, and Bruce A. Goldberger, PhD, professor of pathology and psychiatry with the University of Florida College of Medicine and director of the William R. Maples Center for Forensic Medicine. The Scientific Team Director was David M. Martin, PhD, JMJ Technologies, Inc. In consultation with INL, the team designed a study to evaluate the indoor environment of homes in Afghanistan where opium and opium products (e.g., heroin) are abused. Research has documented the dangers of passive tobacco smoke, especially to children, but little is known about passive exposure to opium smoke. Air, surface, and hair samples taken at these homes were tested to determine whether the non-smoking residents are unwilling victims of exposure to opium products by drug-abusing members of the household.

Samples were collected, coded, and shipped for testing to a commercial toxicology laboratory in the United States (United States Drug Testing Laboratories, Des Plaines, Illinois). Hair samples were collected according to standard protocol, and surface samples were obtained by wiping a target area with a 1-in. square of polyester filtering material. Air samples were obtained by drawing air through a specially designed column attached to an air pump operating at 1000 mL/minute for 30 minutes. Opiates were isolated from the hair and wipe samples by solid-phase extraction followed by liquid chromatography–tandem mass spectrometry.

The results of the study are stunning. Not only were opium products detected in indoor air samples, the concentrations found in the air were significant. Wipe samples collected from a variety of surfaces had equally significant amounts of opium products, and some of the surface samples were obtained from bedding, eating utensils, toys, and other items with which children come into direct, regular, and repeated contact. The data from the study suggest that inhalation of second-hand smoke and contact with contaminated surfaces (i.e., third-hand exposure) are endangering women and children living in households where opium or other drugs are abused.

For example, a 10-year-old girl's hair sample contained 8350 pg/mg of morphine, 4652 pg/mg of codeine, and 5607 pg/mg of a heroin metabolite (6-acetylmorphine). Such findings in a child are remarkable: for comparison, analyses of samples obtained from heroin addicts have demonstrated lower concentrations. The same hair sample contained hydrocodone and hydromorphone, synthetic opioid compounds, raising the question of whether prescription drug abuse is also a problem in Afghanistan.

Afghan Children (Year One) Positive Opiate Hair Results (pg/mg)

Home #	Age	Sex	MOR	COD	6-AM	HC	HM
1	12 y	M	358	43	1369	0	0
1	10 y	F	669	93	1764	0	0
2	14 mo	F	534	122	1388	0	0
4	5 y	M	45	0	181	0	0
6	5 y	M	57	0	0	0	0
6	6 y	F	45	0	0	0	0
6	10 y	F	61	0	0	0	0
7	12 y	M	56	0	157	0	0
11	6 y	M	69	0	214	668	1745
11	5 y	F	52	0	148	0	0
13	8 y	F	45	118	0	0	0
15	9 mo	M	48	0	0	0	0
22	10 y	M	3190	2422	0	68	0
22	8 y	M	8901	6477	0	137	328
24	10 y	F	8350	4652	5607	183	569
25	11 y	M	3802	2403	1989	0	0
27	3 y	F	58	43	0	0	0

Study Year One

THE TEAM TESTED 30 HOMES, and forensic laboratory data from two independent laboratories confirmed the remarkably high results found in the hair of women and children living in homes where opium is smoked.

- 30 homes were tested: 20 smoking homes and 10 controls; each had 5 surface samples completed for a total of 150 surface samples.
- Of the 20 smoking homes, 19 (95%) had a positive surface test; all control homes were negative.
- From the 20 smoking homes, 13 air samples were obtained, and 12 (92%) were positive.
- 69 hair samples from 30 homes' residents ranging in age from 9 months to 50 years were collected.
- Of the 28 hair samples obtained from children in smoking homes, 17 (61%) tested positive.
- All homes with a positive surface and/or air test had at least one resident with a positive hair sample.
- The team found not only opium products such as morphine and codeine, but heroin metabolites in the residents' hair, on the surfaces, and in the air of these homes.
- The team also found presumptive oxidative metabolites of morphine and codeine in the hair samples.

The most striking aspect of the hair analysis data is the identification of high concentrations of opium products (morphine and codeine), a heroin metabolite, and presumptive oxidative metabolites of morphine and codeine in the hair of the children. The youngest child tested was 9 months old, and the oldest was 12 years old. A 14-month-old girl had 534 pg/mg of morphine, 122 pg/mg of codeine, and 1388 pg/mg of heroin metabolite (6-acetylmorphine) in her hair sample. These results were so significant that the samples were sent to a second independent analytical toxicology laboratory for validation. The results of the second set of analyses confirmed the first set of results, which support the innocent exposure of Afghan children to heroin and other opium products.

Study Year Two

THE TEAM UPDATED and tailored the sampling plan used for Year One to the Year Two study. Year Two was necessitated by the startling results of Year One. The objective was to increase the sample size and test the findings of Year One. Three provinces were selected: Kabul, Nangarhar, and Badakhshan. The field team collected samples from 25 smokers' homes located in these three provinces in November 2009; five of the homes from the Year One study were also

Air Samples from Afghan Homes (Year One) (pg/cartridge)

Home #	Collection Time	MOR	COD	6AM
5	30 min, active smoking	trace	0	0
6	30 min, active smoking	512	1453	2
11	30 min, active smoking	4274	0	135,980
12	30 min, active smoking	969	0	1746
16	30 min, active smoking	29,680	4187	1,260,640
21	30 min, active smoking	19,918	2367	369,419
22	28 min, active smoking	45,477	87,960	234
23	30 min, active smoking	191,650	121,704	82,628
24	30 min, active smoking	2732	579	36,855
26	30 min, active smoking	24,408	3582	316,249
27	30 min, active smoking	1440	0	18,885
28	30 min, active smoking	1,999,465	1,860,561	24,099

Afghan Children (Year Two) Positive Opiate Hair Results (pg/mg)

Home #	Age	Sex	MOR	COD	6-AM	HC	HM
1	11 y	M	74	0	274	0	0
1	8 y	F	92	0	259	0	0
4	6 y	F	62	0	181	0	0
4	11 y	F	60	0	204	0	0
5	12 y	F	0	0	101	0	0
6	6 y	F	48	0	189	0	0
6	3 y	M	257	42	811	0	0
7	3 y	F	83	0	178	0	0
7	12 y	F	125	0	287	0	0
7	4 y	M	72	0	368	0	0
10	7 y	F	124	0	385	0	0
10	8 y	F	193	0	990	0	0
18	5 y	F	90	0	122	0	0
20	10 y	M	3768	1847	810	51	81
20	5 y	M	15,554	8360	1490	476	182
22	3 y	M	195	176	89	0	0
23	13 y	F	298	129	0	0	0

Air Samples from Afghan Homes (Year Two) (pg/cartridge)

Home #	Collection Time	MOR	COD	6-AM
1	30 min, active smoking	2547	703	253,721
3	30 min, active smoking	99,741	11,389	3,359,758
4	30 min, active smoking	2515	557	119,914
5	30 min, active smoking	12,034	2223	922,998
6	30 min, active smoking	21,150	7300	2,415,820
7	30 min, active smoking	1497	0	46,756
8	30 min, active smoking	117,865	21,641	3,331,718
10	28 min, active smoking	30,526	4234	1,401,109
11	30 min, active smoking	55,450	13,159	706,690
12	30 min, active smoking	1261	514	118,448
13	30 min, active smoking	36,250	9471	3,451,600
21	30 min, active smoking	6653	3024	107,848

included. The field collection team obtained a total of 125 wipe samples from various surfaces in the homes and hair samples from 66 individuals: 42 children, 20 adult females, and 4 adult males. The team also collected 21 air samples; active smoking was occurring in 21 of the 25 homes when the sampling was performed. The study concentrated on collecting samples primarily from women and children to confirm Year One’s findings of extremely high opium and opium product concentrations in the hair of women and children.

The study team also conducted field tests on the collected urine and saliva for a panel of drugs that included amphetamine, methamphetamine, opiates, cocaine, phencyclidine (PCP), and cannabis (THC). The field tests provide a presumptive and qualitative indication for the presence of drugs. The field testing, although outside the Year Two study scope of work, provides interesting information, and the results suggest that the testing of additional drugs besides opiates may be warranted.

Year Two Results Confirmed Year One Findings

- 25 smoking homes were tested, and 362 samples were collected (216 biological and 146 environmental samples). The team collected 66 hair samples, 70 saliva samples, 70 urine samples, and 10 breast milk samples from nursing mothers who were able to produce a sufficient quantity of breast milk. The residents sampled ranged in age from 2 to 60 years. At the 25 homes visited, the team also collected 21 air samples and 125 wipe samples; the air samples were collected during active opium/heroin smoking.
- Of the 25 smoking homes, all but two had at least one resident’s hair test positive for opiates. Synthetic opiates (hydrocodone, hydromorphone, and oxycodone) not routinely seen in hair samples were also detected in samples from six users and one 5-year-old child.
 - Hair samples from 42 children aged 2–14 years were tested for opiates; 31 (74%) tested positive.
 - Hair samples from 20 females aged 22–60 years were tested for opiates; 16 (80%) tested positive.
 - Hair samples from 4 males aged 20–46 years were tested for opiates; 3 (75%) tested positive.
- There was active smoking during sample collection in 21 of the 25 homes; all 21 (100%) of the air samples taken during smoking tested positive for opiates. Both opium and heroin were detected in the occupants’ hair and the air at remarkable concentrations
- Of the 25 homes that had surface wipe samples taken, 24 (96%) had at least one sample test positive for opiates.

High levels of opium and heroin in children’s hair samples and the presence of the synthetic opioids hydromorphone and hydrocodone in users’ hair samples were also seen in Year One, confirming those findings. The origin of these compounds is not clear at this time.

Year One Home #21 Opium Den Surface, Air, and Hair Results (ng/swab, pg/cartridge, or pg/mg hair)

Sample	MOR	COD	6-AM	HC	HM
Floor	123	19	10	0	0
Wall	0	1.5	5	0	0
Ceiling	6	0	16	0	0
Window	1138	102	769	0	0
Wall	191	20	214	0	0
Air, smoking	19,918	2367	369,419	0	0
Hair, 20 M	33,554	7258	28,306	333	1734
Hair, 26 M	15,174	5602	19,759	200	265

The most startling finding in Year Two concerned the hair of a five-year-old boy in home #20. The hair contained not only high concentrations of opiates but also synthetic opioids. The hair sample from this child contained 15,554 pg/mg of morphine, 8360 pg/mg codeine, 1490 pg/mg of heroin metabolite, 182 pg/mg hydrocodone, 476 pg/mg hydromorphone, and 41 pg/mg oxymorphone.

The surface wipe samples were collected from a variety of surfaces, including children’s toys and bedding materials. The results demonstrated opiates in a number of surfaces children come into regular contact with, including children’s milk bottles, toys, and clothing. Opiates were also detected on pillows, blankets, and mattresses, where long periods of time are spent, increasing the potential for exposure to opiates.

Year Two Home #20 Addict’s Home Surface, Air and Hair Results (ng/swab, pg/cartridge, or pg/mg hair)

Sample	MOR	COD	6-AM	HC	HM
Child pillow	485	478	NA	0	0
Child mattress	387	375	NA	0	0
Cradle	237	193	NA	0	0
Pillar	162	165	NA	0	0
Child blanket	176	162	NA	0	0
Air, smoking	562,974	402,671	0	0	0
Hair, 35 F	15,011	15,485	1680	2612	1187
Hair, 10 M	3768	1847	810	51	81
Hair, 5 M	15,554	8360	1490	182	476

The Year Two study took advantage of the opportunity to collect not only the air, wipe, and hair samples from the 25 homes, but other biological samples (urine, saliva, and breast milk) from the individuals in those homes for possible future testing. The combination of data can better quantify the subject’s drug exposure. For example, breast milk can be collected from nursing mothers to evaluate infant drug exposure, oral fluid (saliva) can be collected to assess blood/plasma levels of the opium/heroin products, and urine can be collected to study the elimination profile of the opium/heroin products. Testing of these samples is anticipated in the Year Three study.

Although not in the scope of the Year Two study, the scientific team also elected to have the field collection team use and perform instant field tests on the urine and saliva samples. The field tests included opiates and other drugs and provided some interesting results, which suggested that a larger study with a wider drug screen would be appropriate. Readers should note that the scientific team has not correlated the field test results with the laboratory-based opiate test results from the hair samples. This work will also be performed in Year Three of this study, when all of the raw data will be carefully reviewed.

Significance of Findings

ALTHOUGH SECOND-HAND cigarette smoke has been shown to cause environmental contamination and is a known carcinogen, second-hand smoke from drugs of abuse like opium, cocaine, methamphetamine, and marijuana have largely been ignored. In countries and populations where drugs are smoked environmental contamination needs to be studied in detail. Those living in close proximity to the primary drug smoker are smoking themselves, but without their consent, as demonstrated by our data. So-called third-hand exposure to cigarette smoke is now being analyzed: this involves the effects of smoke residue on humans who occupy or inhabit dwellings or workplaces where smokers once smoked and may be even more devastating than second-hand effects. Third-hand exposure needs to be considered for opiates because they are easily absorbed through contact and the skin.

These data are unique and important for public health, child protection services, and health promotion of those living in homes where drugs of any kind are smoked. Potential routes of drug absorption in these subjects include inhalation of opium/heroin-laden smoke, dermal absorption, and oral ingestion. The size of the dwelling is a critical factor, so too may be the surface residue of drugs that may remain available for later absorption through the skin. Negative effects on the body, including on the developing brain, are always of greater concern in children than in adults.

To the team's knowledge, these findings are unique and have never been reported in the scientific literature.

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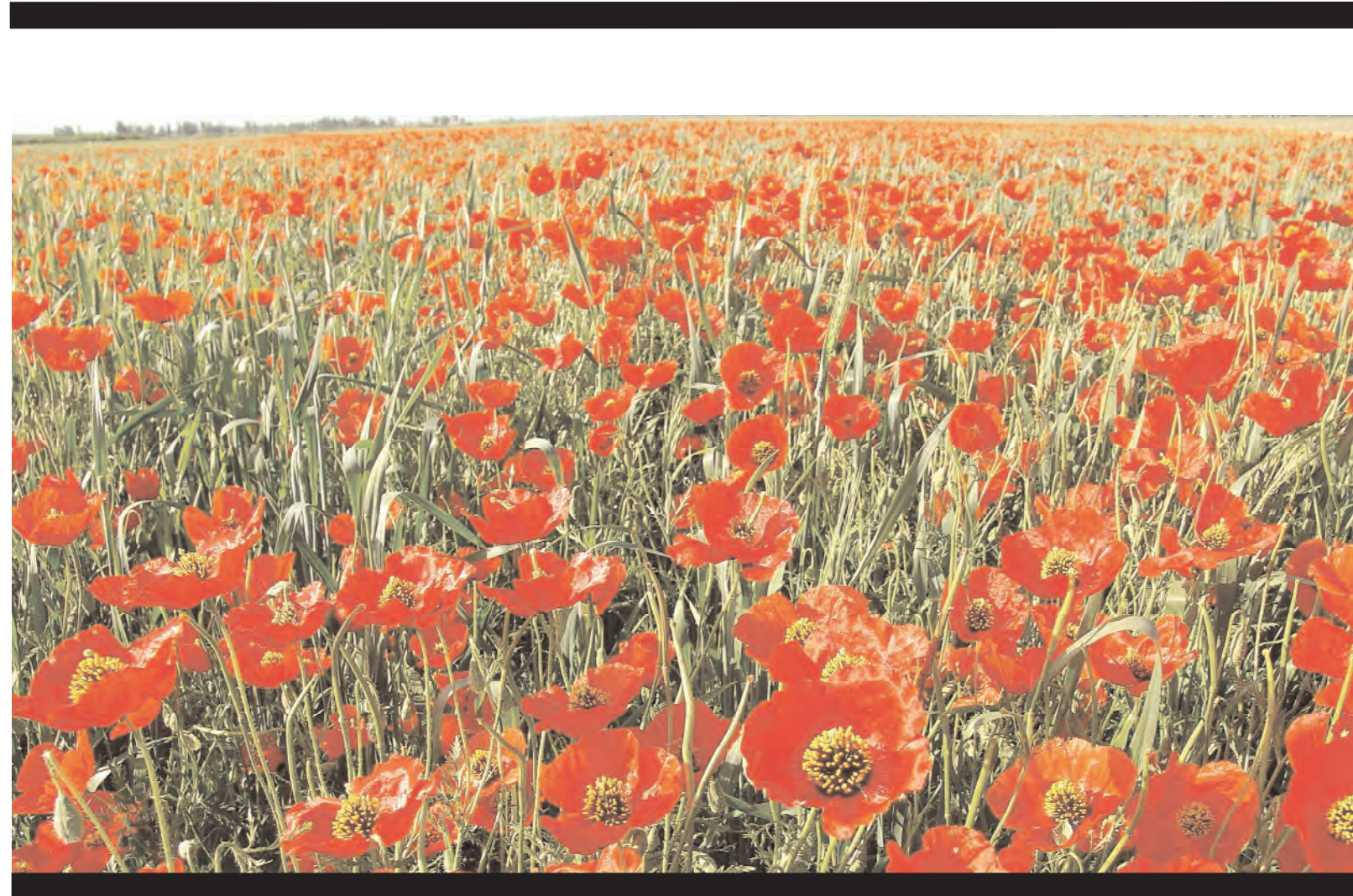
Same Home* Hair Test Results (pg/mg)

	MOR	COD	6-AM	HC	HM
10 year-old boy					
2008	3190	2422	0	68	0
2009	3768	1847	810	51	81
5-year-old boy					
2008	8901	6477	0	137	328
2009	15,554	8360	1490	182	476
Boys' mother					
2008		No samples taken			
2009	15,011	15,485	1680	2612	1187

* This was home #22 in 2008 and #20 in 2009.



Afghanistan Children's Exposure to Second- and Third-Hand Opium Smoke and its Potential Long-Term Consequences



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Executive Summary

THE UNITED STATES DEPARTMENT OF STATE, Bureau of International Narcotics and Law Enforcement Affairs (INL) has been working with the Afghanistan Ministry of Counter Narcotics to reduce opium demand and prevent and treat drug abuse. The International Demand Reduction Program (IDR) under INL funds programs on demand reduction training (education, prevention, treatment, research) and public awareness. The continued production and abuse of opium and abuse of other drugs and prescription medications degrade the long-term political, social, and economic stability of Afghanistan.

In 2010, Afghanistan was the leading producer of the world's supply of opium with 63% of global cultivation, and overall opiate use increased from 1.4% in 2005 to 2.7% of the population aged 15–64 in 2009. Opium use increased by more than 50% to 1.9% of the population and heroin use increased by 140% to 1% of the population. There is little known about the relationship between opium and other drugs being abused by the Afghan population and the health risks they pose to children.

The main issues listed regarding children in the World Drug Report, a UNDOC publication, center on greater risk of drug use and other risky behaviors. It notes that “drugs generate crime, street violence and other social problems that harm communities”, and in terms of health, “in some regions, illicit drug use is contributing to the rapid spread of infectious diseases like HIV and hepatitis”. However, there is not any reference to the fact that the abuse of opium by parents may indirectly or directly endanger children living in those homes through health effects of the opioids. Furthermore, there has been little documentation of this innocent exposure of children to opium or the long-term developmental effects on Afghan children.

Children are uniquely vulnerable to low-level toxin exposure in their developing brain tissue, and this exposure may result in

- Increased risk of sudden infant death
- Abnormal brain development and neurocognitive behavior
- Mental, emotional, and behavioral disorders
- Attention deficit, hyperactivity, anxiety, and depressive disorders
- Tolerance to analgesic effect of opium compounds

- Drug abuse and withdrawal-related disorders
- Physical growth, reflex, and motor coordination retardation
- Inhibitory effects on antibody and immune response
- Hormone systems' effects on several hypothalamic-pituitary pathways
- Increased risks for osteoporosis and bone fracture, diabetes, and cardiac complications

Based on these risk factors, a study was designed to determine the environmental exposures to opium in households where opium products are abused through smoking. Additionally, Afghanistan women and children in these settings were studied to note the potential exposure to second- and third-hand opium smoke. The study was divided into three phases:

- Phase One: Air, surface, and hair samples were collected and tested for opium product.
- Phase Two: Air, surface, hair, urine, oral fluid, and breast milk were collected and tested for opium products, as well as other drugs of abuse.
- Phase Three: A physiologically based pharmacokinetic (PBPK) model was developed, and data from Phases One and Two were analyzed.

All analyses were conducted by a reference laboratory utilizing state-of-the-art analytical techniques including enzyme-linked immunosorbent assay and liquid chromatography–tandem mass spectrometry. In addition, in order to ensure the reliability of the analytical data, a second toxicology laboratory was utilized to confirm subset of analyses.

Air monitoring demonstrated very high levels of opium product including morphine, codeine, and 6-acetylmorphine in homes where opium and heroin were being smoked. In addition, morphine, codeine, and 6-acetylmorphine were deposited on household surfaces including children's bedding and toys.

Significant concentrations of opium products including morphine, codeine, and 6-acetylmorphine were present in urine, oral fluid, and hair specimens obtained from children as young as 14 months old. Most remarkable were several children with hair concentrations of

morphine, codeine, and 6-acetylmorphine comparable to published reports of adult heroin users in the U.S. While these concentrations in the hair should be interpreted with caution, the degree of positivity can be correlated to both passive and active exposure to drug and possibly environmental contamination.

Morphine, codeine, and 6-acetylmorphine were present in urine, oral fluid, breast milk, and hair specimens obtained from adult women, the mothers of the children sampled in the study. One notable finding was positive oral fluid and breast milk results in women who were actively breast feeding.

The data obtained in this study were subjected to a physiologically based pharmacokinetic model (PBPK) to characterize the relative risk of morphine exposure in the adults and children. The model was based on pharmacokinetic parameters published in the peer-reviewed literature. The PBPK modeling derived from biological sampling in homes of opium and heroin smokers indicates

morphine exposure equivalent to intravenous dosing of 0.02–150 micrograms of morphine per day.

These data provide a snapshot of the exposure taking place in the homes of opium smokers in Afghanistan and demonstrate that children in these homes have measurable opioids in their systems. They do not represent the Afghanistan population as a whole as this study specifically targeted homes where it was known that active opium smoking occurred. However, these data support the need for further study of children exposed to opium products, as well as other smoked drugs such as cocaine and methamphetamine.

This study does not provide a comprehensive view of opium or opiate effects on children, but it does indicate the need for the promotion of early intervention and development of education and prevention programs to protect children from the consequences of second- and third-hand exposure to potent psychotropic and addictive drugs.

Background and Study Design

The global use of opioids is an extensive and pervasive problem, with an estimated 12 to 21 million people using them in 2009, and three quarters of those using heroin. In 2010, Afghanistan was the leading producer of the world's supply of opium with 63% of global cultivation, and overall opiate use increased from 1.4% in 2005 to 2.7% of the population aged 15–64 in 2009. Opium use increased by more than 50% to 1.9% of the population and heroin use increased by 140% to 1% of the population.¹

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There is little known about the relationship between opium and other drugs being abused by the Afghan population and the health risks this poses to children. The main issues listed regarding children in the World Drug Report, a UNDOC publication, center on greater risk of drug use and other risky behaviors. It notes that “drugs generate crime, street violence and other social problems that harm communities”, and in terms of health, “in some regions, illicit drug use is contributing to the rapid spread of infectious diseases like HIV and hepatitis”. However, there is not any reference to the fact that the abuse of opium by parents may indirectly or directly endanger children living in those homes through health effects of the opioids. Furthermore, there has been little documentation of this innocent exposure of children to opium or its long-term effects on Afghan children developmentally.

Children are uniquely vulnerable to low-level toxin exposure in their developing brain tissue, and this exposure may result in ²⁻⁹

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- Attention deficit, hyperactivity, anxiety, and depressive disorders.
- Tolerance to analgesic effect of opium compounds.
- Drug abuse and withdrawal-related disorders.
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Institutional Review Board Review

The study was reviewed by the Chesapeake Research Review (Chesapeake IRB), and it was determined that it did not constitute human subjects research, and therefore did not require direct IRB oversight.

Phase One Study

In 2008, our group designed a pilot study, Phase One, to evaluate the indoor environment of homes in Afghanistan where opium and opium product (e.g., heroin) are abused. Research has documented the dangers of passive tobacco smoke, especially to children, but little is known about passive exposure to opium smoke. Air, surface, and hair samples taken at these homes were tested for opium products to determine whether the non-smoking residents are unwilling victims of exposure to opium products by drug-abusing members of the household.

Samples were collected in Kabul, Kandahar, and Badakhshan provinces in Afghanistan from homes of active opium addicts who provided consent to participate in the study. Control samples were collected from homes where no opium smoking was known to occur. Opium or heroin was smoked by adults in the household an average of 2–3 times a day, and sometimes more. Hair samples were collected according to standard protocol, and five surface samples were obtained in each home by wiping a target area with a 1-inch square of polyester filtering material. Air samples were obtained by drawing air through a specially designed column attached to an air pump operating at 1000 mL/minute for 30 minutes near the time the smoking occurred. The samples were coded and shipped for testing to a commercial toxicology laboratory in the United States (United States Drug Testing Laboratories, USDTL, Des Plaines, Illinois). To ensure the reliability of the analytical data, a subset of samples was sent to an independent reference laboratory (NMS Labs, Willow Grove, Pennsylvania) for reanalysis. The results of the subset of analyses were similar, thus confirming the results obtained by USDTL. Opioids were isolated from the air, hair, and wipe samples by solid-phase extraction followed by liquid chromatography–tandem mass spectrometry.¹⁰

Phase One—Home 1

This is the home of a husband and wife, approximate age 50 years, with five children: two daughters and three sons. In the 1990s, when the Taliban came into power in Afghanistan, the family moved to Pakistan. While in Pakistan, the husband began using heroin and continued to do so after moving back to Afghanistan. He has been in treatment once and now only uses low quantities of opium daily by smoking. He does not work and steals to obtain money for drugs, about \$18 USD per day. The husband sold his 12-year-old daughter to a 70-year-old man, who subsequently married her, for \$800 USD to pay off drug debts.

Air samples were not obtained for technical reasons, but all surfaces in the home yielded positive findings for morphine, codeine, and 6-AM. Hair test results from the mother and two children are as follows:

	Morphine (pg/mg)	Codeine (pg/mg)	6-Acetylmorphine (pg/mg)
Mother	2970	609	13,968
10-year-old girl	669	93	1764
12-year-old boy	358	43	1369

Phase One Study Results

The results of the Phase One study are stunning. Not only were opium products detected in indoor air samples, the concentrations found in the air were substantial. Wipe samples collected from a variety of surfaces had equally significant amounts of opium products, and some of the surface samples were obtained from bedding, eating utensils, toys, and other items with which children come into direct, regular, and repeated contact. The data from the study suggest that inhalation of second-hand smoke and contact with contaminated surfaces (i.e., third-hand exposure) are endangering women and children living in households where opium or other drugs are abused.

For example, a 10-year-old girl's hair sample contained 8350 pg/mg of morphine, 4652 pg/mg of codeine, and 5607 pg/mg of 6-acetylmorphine. These concentrations are similar to published reports of heroin analytes in hair of heroin users.¹¹

The team tested 30 homes, and data from two independent laboratories confirmed the results found in the hair of women and children living in homes where opium is smoked.

- 30 homes were tested: 20 smoking homes and 10 controls; each had 5 surface samples completed for a total of 150 surface samples.
- Of the 20 smoking homes, 19 (95%) had a positive surface test; all control homes were negative.
- From the 20 smoking homes, 13 air samples were obtained, and 12 (92%) were positive.

Air Samples from Afghan Homes (Phase One) (pg/cartridge)

Home #	Collection Time	MOR	COD	6AM
5	30 min, active smoking	trace	0	0
6	30 min, active smoking	512	1453	2
11	30 min, active smoking	4274	0	135,980
12	30 min, active smoking	969	0	1746
16	30 min, active smoking	29,680	4187	1,260,640
21	30 min, active smoking	19,918	2367	369,419
22	28 min, active smoking	45,477	87,960	234
23	30 min, active smoking	191,650	121,704	82,628
24	30 min, active smoking	2732	579	36,855
26	30 min, active smoking	24,408	3582	316,249
27	30 min, active smoking	1440	0	18,885
28	30 min, active smoking	1,999,465	1,860,561	24,099

- 69 hair samples from 30 homes' residents ranging in age from 9 months to 50 years were collected.
- Of the 28 hair samples obtained from children in smoking homes, 17 (61%) tested positive.
- All homes with a positive surface and/or air test had at least one resident with a positive hair sample.
- The team identified not only opium products such as morphine and codeine, but also 6-acetylmorphine in the residents' hair, on the surfaces, and in the air of these homes.
- The team also identified the presumptive oxidative metabolites of morphine and codeine, hydromorphone and hydrocodone, respectively, in the hair samples.

The most striking aspect of the hair analysis data is the identification of opium products (morphine and codeine), 6-acetylmorphine, and presumptive oxidative metabolites of morphine and codeine (hydromorphone and hydrocodone) in the hair of the children. For example, a 14-month-old girl had 534 pg/mg of morphine, 122 pg/mg of codeine, and 1388 pg/mg of 6-acetylmorphine in her hair sample.

Phase Two—Home 14

This is a home of a husband and wife, ages 50 and 30 years, respectively. Both have been active opium users for years, have never received treatment, are unemployed, and obtain money and food by begging. There was active heroin smoking in the home, yielding air concentrations of 470 and 391 ng/cartridge of morphine and codeine, respectively. All tested surfaces in the home yielded positive findings for morphine and codeine.

There were five children, four daughters and one son ranging in age from 2 to 14 years. The woman was still nursing the youngest children and provided hair, oral fluid, and breast milk samples. The results are as follows:

	Morphine	Codeine	6-Acetylmorphine
Hair (pg/mg)	324	69	593
Oral fluid (ng/mL)	1016	6701	339
Breast milk (ng/mL)	518	159	none detected

Samples were also obtained from the 4-year-old child, and the results are as follows:

	Morphine	Codeine	6-Acetylmorphine
Hair (pg/mg)	3192	1286	286
Oral fluid (ng/mL)	35	16	4
Urine (ng/mL)	none detected	none detected	none detected

Phase Two Study

The team updated and tailored the sampling plan used for Phase One to develop the Phase Two study. Phase Two was necessitated by the startling results found in Phase One. The objective of Phase Two included increasing the sample size as a means to confirm the findings of Phase One.

During the initial pilot phase of the study, the only sample of biological origin evaluated was hair. Other samples such as blood and serum were considered, but due to the invasive nature of sample collection, blood and serum samples were not obtained. Breast milk was obtained from nursing mothers in Phase Two of the study. Hair is an ideal sample for the documentation of the long-term or chronic exposure to drugs. Furthermore, the analysis of hair for opioid content, including morphine, codeine, and 6-acetylmorphine, has been utilized for decades in the drug-testing arena. However, an important consideration of hair analysis is the potential for external contamination and how this contamination can influence the testing results. Thus, the hair test result is a composite of both incorporated drug, resulting from systemic exposure, and external drug from the environment. With this limitation in mind, systemic drug exposure cannot be confidently quantified from hair drug concentrations because it reflects both the contribution of systemically available drug and external contamination.

Urine samples are routinely employed in the workplace drug-testing arena. Drugs and drug metabolites are readily detected in urine for days to weeks following the ingestion of a drug. The analysis of oral fluid (saliva) samples was recently introduced to the field of toxicology, and its application to drug testing has been facilitated by the development of standardized collection systems. Oral fluid can be viewed as a distillate of the blood compartment and used to establish recent drug ingestion.

All three of these sample types, hair, urine, and breast milk, have unique strengths and limitations. However, when all three are used together, they provide valuable information regarding the history of an individual's drug ingestion. This relationship was used in the Phase Two study design.

The city of Kabul and the provinces of Nangarhar and Badakhshan were selected for Phase Two. The field team collected samples from 25 known opium smokers' homes located in Kabul and the two provinces in November 2009; 5 of the homes from the Phase One study were included in the 25 homes, but only 2 of the families that were there in Phase One could be located. The field collection team

Air Samples from Afghan Homes (Phase Two) (pg/cartridge)

Home #	Collection Time	MOR	COD	6-AM
1	30 min, active smoking	2547	703	253,721
3	30 min, active smoking	99,741	11,389	3,359,758
4	30 min, active smoking	2515	557	119,914
5	30 min, active smoking	12,034	2223	922,998
6	30 min, active smoking	21,150	7300	2,415,820
7	30 min, active smoking	1497	0	46,756
8	30 min, active smoking	117,865	21,641	3,331,718
10	28 min, active smoking	30,526	4234	1,401,109
11	30 min, active smoking	55,450	13,159	706,690
12	30 min, active smoking	1261	514	118,448
13	30 min, active smoking	36,250	9471	3,451,600
21	30 min, active smoking	6653	3024	107,848

obtained a total of 125 wipe samples from various surfaces in the homes. In addition, the team collected 66 hair samples, 70 oral fluid samples, 70 urine samples, and 10 breast milk samples from nursing mothers who were able to produce a sufficient quantity of breast milk. The residents sampled ranged in age from 2 to 60 years, with 42 children, 20 adult females, and 4 adult males. The team also collected 21 air samples; active smoking was occurring in 21 of the 25 homes when the sampling was performed. In the 25 smoking homes that were tested, 362 samples were collected (216 biological and 146 environmental samples). The study concentrated on collecting samples primarily from women and children to confirm the Phase One findings of extremely high opium and opium product concentrations in the hair of women and children.

Phase Two Study Results

The Phase Two results confirmed Phase One findings.

- There was active smoking during sample collection in 21 of the 25 homes; all 21 (100%) of the air samples taken during smoking tested positive for opioids. Both morphine and codeine were detected in the occupants' hair and the air at remarkable concentrations.
- Of the 25 smoking homes, all but two had at least one resident's hair test positive for opioids. Synthetic opioids (hydrocodone, hydromorphone, and oxycodone) were also detected in samples from six users and one 5 year-old child.
- Hair samples from 42 children aged 2–14 years were tested for opioids; 31 (74%) tested positive.
- Hair samples from 20 females aged 22–60 years were tested for opioids; 16 (80%) tested positive.
- Hair samples from 4 males aged 20–46 years were tested for opioids; 3 (75%) tested positive.
- Of the 25 homes that had surface wipe samples taken, 24 (96%) had at least one sample test positive for opioids.
- Of the 10 breast milk samples collected, 9 met the criteria for analysis and 2 (22%) were positive for both morphine and codeine.
- The two positive breast milk sample donors also had positive oral fluid samples for morphine and codeine.

Summary of Positive Urine Results (ng/mL)

Age	Sex	Morphine	Codeine	6-AM
3	Male		323	
12	Female		617	
32	Female	> 1000	> 1000	
13	Female	> 1000	> 1000	23
13	Male	> 1000	> 1000	

Summary of Positive Oral Fluid Results (ng/mL)

Age	Sex	Morphine	Codeine	6-AM	Diazepam
4	Male	350	17	41	6.4
4	Female	35	16	4	
14	Female	16	75		
10	Male	36	52		
5	Male	3	9		
13	Male	72	9	7	
13	Female	23			
11	Male	32		15	
8	Female	4		8	
7	Female	27		4	
8	Male	25		16	
7	Female	39		7	
5	Male	171	12	614	
3	Female		24	35	

The most significant finding in the Phase Two data concerns the hair of a five-year-old boy whose hair sample contained high concentrations of morphine and codeine, as well as hydromorphone and hydrocodone. The hair sample from this child contained 15,554 pg/mg of morphine, 8360 pg/mg codeine, 1490 pg/mg of heroin metabolite 6-acetylmorphine, 182 pg/mg hydrocodone, 476 pg/mg hydromorphone, and 41 pg/mg oxymorphone (hydromorphone metabolite).

Seventy urine, 70 oral fluid, and 10 breast milk samples that were collected as part of the Phase Two study and had been frozen at -20°C for approximately a year were shipped to USDTL. The urine and breast milk samples were collected without a preservative and the oral fluid was collected using a Quantisal[®] collection device that included a preservative. It should be noted that samples were collected under difficult field conditions and then shipped from Afghanistan to the United States, a process which took several days.

Sixty-three of the urine samples met the criteria for analysis; the others were of insufficient quantity or excluded for other reasons. There were nine opiate-positive results; no other drugs were found in the specimens, although a 10-panel drug class screen was run on each sample. The 10-panel drug class screen included, but was not limited to, amphetamines, methylenedioxyamphetamine, barbiturates, benzodiazepines, cocaine, methadone, opiates, phencyclidine, oxycodone, propoxyphene, cannabinoids, ethanol, creatinine, specific gravity, pH, and nitrates. Metabolites of several of the drug classes were tested making the total count of drugs screened and potentially confirmed to be 34 individual drugs, including alcohol. This panel was chosen as an earlier United Nations reports^{12–14} on drug abuse in Afghanistan suggested a wide range of pharmaceutical and other drugs may be abused. Creatinine, specific gravity, pH, and nitrates are common validity tests performed on urine specimens and were used to determine the samples' suitability for analysis. The urine results are as follows:

- 63 samples were tested and 9 were positive (14%).

- All samples were positive for opioids only; no other drugs were found.
- 2 of the positive opiate urine samples were positive for 6-acetylmorphine (22%).
- 3 of the positive opiate urine samples were positive for hydromorphone (33%), and one of these samples was also positive for hydrocodone.
- 5 of the positive opiate urine samples were obtained from children under the age of 13.

All 70 of the oral fluid samples met the criteria for analysis; the results are as follows:

- 70 samples were tested and 26 were positive (37%).
- All samples were positive for opioids.
- 2 of the adult positive opiate samples were positive for phenobarbital and diazepam.
- 1 of the positive opiate samples was a 4-year-old girl who was also positive for diazepam.
- 20 of the 26 positives (80%) were positive for heroin.
- 14 of the 26 positives (54%) were from children ranging in age from 4 to 14 years old.

In Phase Two of the study, 10 samples of breast milk was obtained from consenting nursing mothers using a manual pump (Ameda single hygienikit system), immediately put on ice in the field, and refrigerated when returned to the processing center in Kabul. The samples were shipped to the U.S. with ice packs. Once received and inspected, 9 of the 10 samples were sent to USDTL for analysis, as the 10th sample

Phase One—Home 22 and Phase Two—Home 20

This home was visited twice. The residents are a husband and wife, ages 56 and 35 years, respectively, with four sons ranging in age from 2 to 15 years. Both husband and wife have been smoking opium for 20 years and received at least one treatment each. The husband occasionally works as a guard in the bazaar and earns an average of \$3 USD per day, most of which most goes to buy drugs. The husband and wife both smoke in the house in the presence of their children and admitted to occasionally blowing smoke in their faces to quiet them. The mother is breast feeding the 2-year-old child.

In Phase One, there was active heroin smoking in the home yielding air concentrations of 45,477, 87,960, and 234 pg/cartridge of morphine, codeine, and 6-AM, respectively. All surfaces in the home tested yielded positive findings for morphine and codeine.

In Phase Two, there was active heroin smoking in the home yielding air concentrations of 563 and 402 pg/cartridge of morphine and codeine, respectively. All surfaces in the home, including those which children come into close contact with, tested yielded positive findings for morphine and codeine.

The results of hair analysis in Phase One and Phase Two:

	Morphine (pg/mg)	Codeine (pg/mg)	6-Acetylmorphine (pg/mg)	Hydrocodone (pg/mg)	Hydromorphone (pg/mg)
Phase One					
8-year-old boy	8901	6477	none detected	137	328
10-year-old boy	3190	2422	none detected	68	none detected
Phase Two					
Mother	15,011	15,485	1680	2612	1187
5-year-old boy	15,554	8360	1490	182	476
10-year-old boy	3768	1847	810	51	81

In Phase Two, urine, oral fluid, and breast milk samples were obtained:

All oral fluid results in this household were positive indicating recent exposure to opium product, perhaps within a few hours of sampling. The 10-year-old boy also had a positive urine sample for morphine, further confirming the exposure was within a few days of sampling.

		Morphine (ng/mL)	Codeine (ng/mL)	6-Acetylmorphine (ng/mL)
Mother	Oral fluid	77	163	19
	Breast milk	358	107	none detected
5-year-old boy	Oral fluid	3	9	none detected
	Urine	none detected	none detected	none detected
10-year-old boy	Oral fluid	36	52	none detected
	Urine	222	none detected	none detected

leaked in transit. A 10-panel drug screen was used as pharmaceutical abuse had been reported in previous UN studies and the oral fluid test of one of the nursing mothers was positive for diazepam.

Two of the nine breast milk samples were positive for both morphine and codeine, and both of those nursing mothers also had concurrent positive oral fluid samples for morphine and codeine.

The surface wipe samples were collected from a variety of surfaces, including children’s toys and bedding materials. The results demonstrated opioids in a number of surfaces children come into regular contact with, including children’s milk bottles, toys, and clothing. Opioids were also detected on pillows, blankets, and mattresses, where long periods of time are spent, increasing the potential for exposure to opioids.

These findings bring new importance to the dangers of “third-hand smoke” now being reported for children in homes where tobacco is smoked. Such exposure does not coincide only with the inhalation of actual smoke. The tobacco residues accumulate on carpets, floors and bedding where children spend a great deal of time. Our study confirms that this formation of residues on surfaces occurs within opium smoking homes as well. This presents a unique danger to children, as even small exposures of these powerful opium products over time can have significant impact on the developing brain. Although it is not known exactly how opium products enter the children’s body via third-hand exposure, there are three main potential routes: oral, inhalation, and absorption.^{15–17} All three routes are easily available to children who spend a large amount of time on rugs, floors, and bedding where opium product residues accumulate.

The Phase Two study took advantage of the opportunity to collect not only air, wipe, and hair samples from the 25 homes, but other biological samples (urine, oral fluid, and breast milk) from the individuals in those homes for possible future testing. The combination of data can better quantify the subjects’ drug exposure. For example, breast milk can be collected from nursing mothers to evaluate infant drug exposure, oral fluid can be collected to assess blood/plasma levels of the opium/heroin products, and urine can be collected to study the elimination profile of the opium/heroin products. The results from Phase Two were used in Phase Three to develop a Physiologically Based Pharmacokinetic (PBPK) Model to estimate fluid and organ concentrations of morphine, and therefore, indicate its potential health effects in children exposed to opium smoke.

Phase Three Study

A PBPK model was developed to characterize the risk of morphine exposure in children and adults in Afghanistan exposed to opium smoke, by providing predicted concentrations of circulating drug levels in blood and tissue. PBPK models are an important class of dosimetry models that are useful for predicting the local exposure at target organs or to determine a bioavailable dose from exposure conditions of interest where limited data are available. These models have the advantage of allowing integration of the experimental data that were collected in this study with pre-existing information available in the literature from previous studies. PBPK modeling consists of a series of mathematical representations of biological tissues, fluids, and physiological processes in the whole body that capture the absorption, distribution, metabolism, and excretion of chemicals that enter the body.

Conventional pharmacokinetic models generalize complex drug transport schemes into simple one-, two-, or three-compartment models, and are typically developed based upon data of the concentration versus time profiles of drugs in blood and/or urine. In contrast, PBPK models are composed of mathematical representations of physiologically realistic body tissues, fluids, organs, and/or systems that are specific to age and sex. In addition, they utilize drug-specific partition coefficients, which characterize the pharmacokinetic properties of the particular molecule and are derived from experimental or literature data.

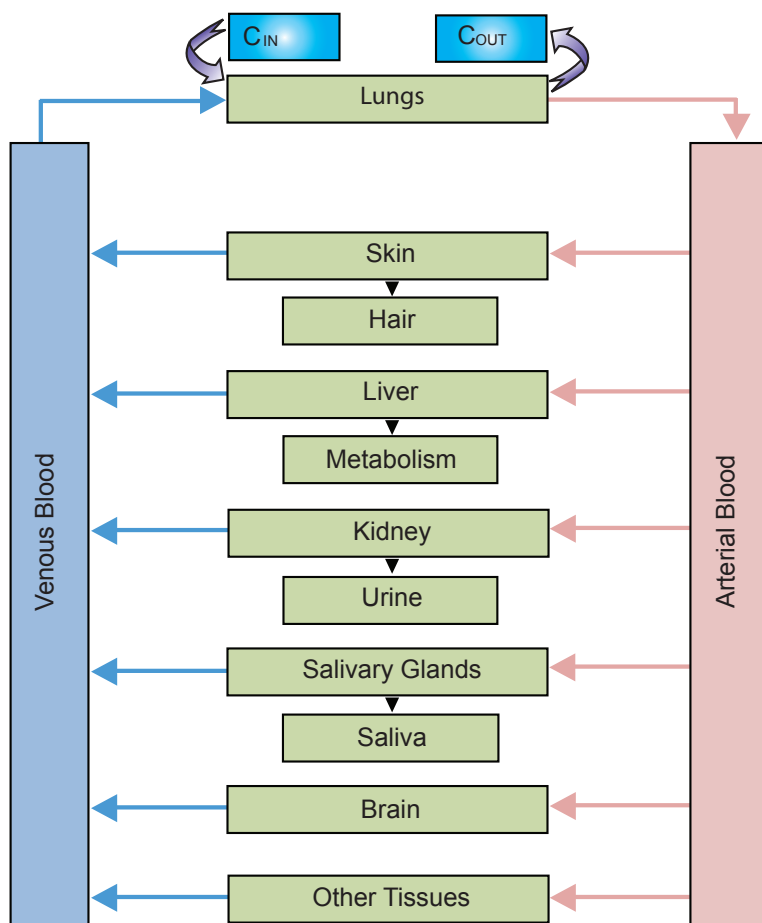


Figure 1. PBPK model for second- and third-hand exposure to morphine.

The application of PBPK models in risk assessment is often constrained by limited data available to calibrate and test the model and to validate the model assumptions and the values derived from model simulations. Depending on the available data, PBPK models intended for risk assessment applications would preferably include the target organ as one of the compartments. During the modeling process, target tissues are generally represented individually (e.g., brain, lungs), whereas all other tissues are lumped together (e.g., “other tissues”). Most PBPK models are capable of estimating blood concentrations, which may be used as a surrogate for tissue concentrations at the site of activity.

Development of the Physiologically Based Pharmacokinetic Model

As shown in Figure 1, the PBPK model for the Afghanistan dataset consists of seven distributional compartments (lungs, skin, liver, kidney, salivary glands, brain, and other tissues) and three elimination compartments (hair, urine, and saliva). The model parameters, both physiological blood flows and corresponding partition coefficients for morphine, were set on the basis of published studies.^{2,18–21}

The PBPK modeling and simulations were performed utilizing nonlinear mixed effect modeling software (NONMEM version 6.2). Because the data set obtained from the Afghanistan population corresponds to age group ~1 to 60 years and both sexes, it was important to incorporate the physiological parameters correspondingly. Physiological parameters and partition coefficients between tissues and plasma were adjusted for age and gender. Physiological parameters, like blood flow to tissues, depend on cardiac output, which increases from 0.5 L/min in newborns to ~7 L/min in teenagers, then attains a plateau value of ~5.8 L/min in adults. As an example, this change in cardiac output causes an increase in adipose tissue blood flow from 12 mL/min (1 year old) to 502 mL/min (adult). For the present model, the age range was divided into five categories (< 3 years old, 3–7, 7–12, 12–18, and > 18 years old), and physiological parameters were assumed to be same in each of these age groups.

Because of limited data, the PBPK model developed in the present study assumed that the exposure to opiates was due to morphine exposure alone through inhaled air. Although data regarding morphine, codeine, and metabolites were collected in air, surface samples, hair, oral fluid, urine, and breast milk, the PBPK model estimated the inhalation exposure to morphine based on the hair concentrations of morphine only. Although it is recognized that some morphine ingestion will occur by oral recycling of opiates excreted in the salivary glands and through

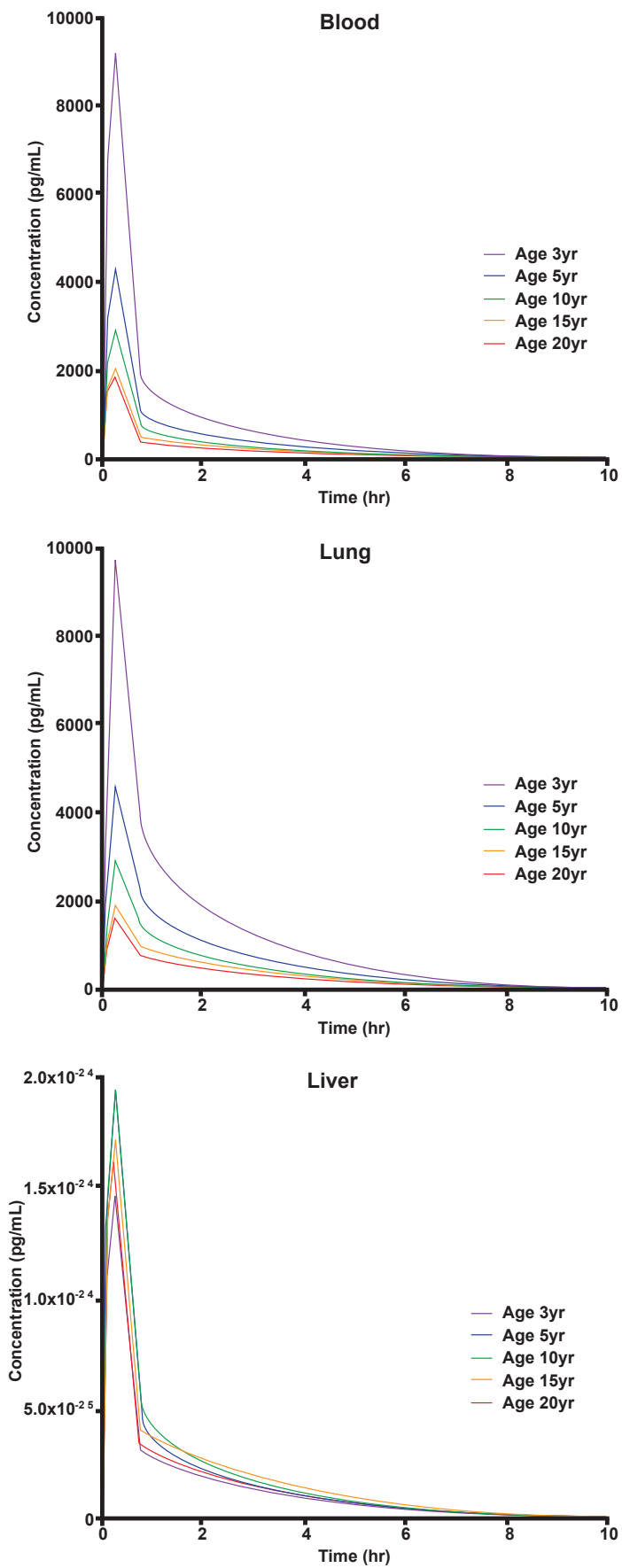


Figure 2. Plasma concentration time profiles in different tissues.

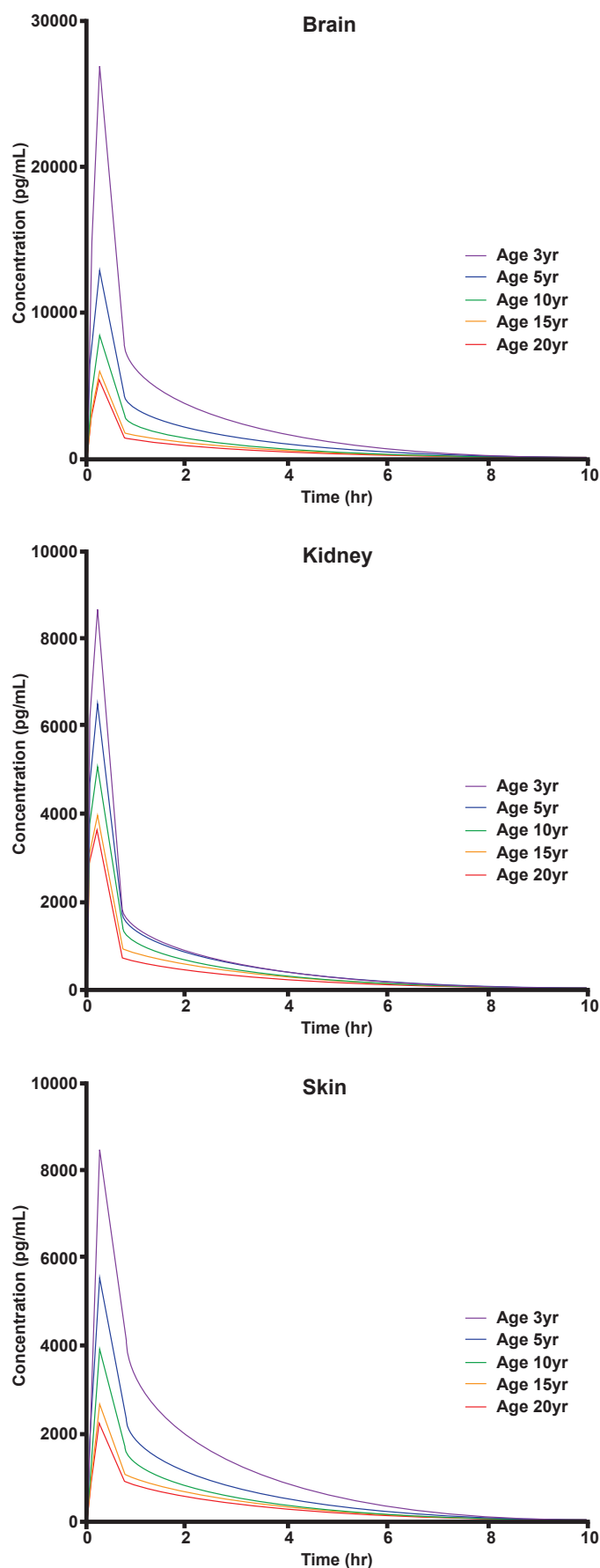


Figure 2. Plasma concentration time profiles in different tissues.

environmental sources, this was not considered in the developed PBPK model. The concentrations in the oral fluid were not used as a measure for determination of exposure because the elimination of morphine depends on pH and also on conditions for collection of oral fluid (induced versus normal). Furthermore, the oral fluid can be contaminated from oral exposure. The output of this conservative model indicates that breast milk may be a significant exposure source for the population being studied, but this was not factored into the estimation.

The elimination of morphine to the hair compartment used in the model was based on the ratio of the morphine in the hair to plasma.²² It is understood that morphine concentrations in hair can also result from contamination due to deposition from the air, and if this were occurring then the hair data would overestimate exposure. Also, data showed high air concentrations of morphine and codeine at the time of sampling, which coincided with smoking in the houses, and surface samples taken also demonstrated high levels of opiates. In order to rule out that the opiates in hair might be due to environmental contamination as opposed to metabolism and elimination, the Phase One and Two findings presented in Appendix I were analyzed for correlations in study participants who were aged 14 years or younger. The correlation coefficients derived from this analysis are presented in Appendix II.

As expected, the morphine and codeine in the air correlated almost perfectly with a correlation coefficient value of 0.9797, 1 being perfect. Hair and surface morphine and codeine increase generally as the air levels increase, with the correlation coefficients on the order of 0.4 to 0.5. When compared with air morphine and codeine, oral fluid codeine is correlated at greater than 0.6. Urine codeine only correlates with air morphine (0.36). The morphine metabolite 6-acetylmorphine was correlated highly with surface morphine and codeine, but oral fluid morphine and codeine were not. Because the oral fluid was weakly correlated with air morphine, it would not have been a good sample set to use in dose estimation. Further, oral fluid reflects acute exposure and results are highly dependent on collection time after exposure, which was not available in this study. On the other hand, hair levels of morphine and codeine correlated well with air levels, so it is reasonable to use hair in the dose estimation.

Unfortunately, these observations do not allow the study team to entirely rule out environmental contamination of the hair. However, follow up with the analytical laboratory regarding their washing protocol, along with collaborative findings from a separate laboratory, lend confidence to the belief that the hair levels observed are unlikely to be due

to environmental contamination. Unlike urine and oral fluid, hair also has the advantage of being a cumulative elimination compartment, and it can be used to extrapolate cumulative exposure to morphine. The partition coefficients specific to morphine as reported by Edington et al.¹⁸ were taken from the literature, and physiological tissue volumes were calculated based on equations specific to each tissue for the desired age group.

PBPK Results

After establishing the model and physiological parameters, simulations were performed to determine the inhalation exposure of morphine in children and adults, based on the measured concentration in the hairs. The simulation, in combination with the hair data, suggests that the exposure of morphine was equivalent to intravenous dosing of between ~0.02 and 150 micrograms per day. Therefore, a representative dose of 100 micrograms of inhaled morphine was chosen to evaluate differences in tissue levels among the various groups that were exposed.

Figure 2 shows the concentration versus time profile in the blood, lung, liver, brain, kidney, skin, salivary glands, and breast milk compartments (if applicable) for morphine among the five age groups after exposure to 100 micrograms through inhalation. The data show that, as expected, the equivalent dose in children produces higher levels of morphine as compared to adults.

In comparing the salivary gland output from the model with the oral fluid results in the study (Appendix I), it seems that the model may underestimate exposure in several cases. For instance, an 11-year old had 32 ng/mL morphine (32,000 pg/mL), but the peak indicated in the model is 4 ng/mL. Although this is not an exhaustive listing, an 8-year-old boy had 25,000, a 3-year-old girl had 35,000, and a 4-year-old boy had 350,000 ng/mL of morphine detected, all of which are far higher than predicted by the model.

However, as mentioned previously, the oral fluid results did not correlate well with other specimens, and there are many factors that can influence the measured values. Breast milk results are also far higher than what is predicted by the model. Though these data are clearly limited, this analysis concludes that the model likely underestimates the dose for the exposed populations. Even so, these data are cause for alarm, as children have much greater circulating levels than adults given the same exposure.

The developed PBPK model is a first step in building a framework to capture and characterize the exposure and disposition of morphine (and related opioids) in the investigated population in Afghanistan. Clearly, more data are necessary to further characterize this situation, and further studies would allow continued development of this model and inclusion of greater detail. However, the results already indicate the magnitude of this problem. Of particular concern is the fact that, based on available knowledge and the collected samples, it is obvious that young infants are at greatest risk to be exposed to dangerously high opioid levels. Figure 2 shows that the youngest are at greatest risk in every organ system studied, especially the brain.

Conclusions and Recommendations

Although second-hand cigarette smoke has been shown to cause environmental contamination and is a known carcinogen, second-hand smoke from drugs of abuse such as opium, cocaine, methamphetamine, and marijuana have largely been ignored. In countries and populations where drugs are smoked environmental contamination needs to be studied in detail. Those living in close proximity to the primary drug smoker are smoking themselves, but without their consent, as demonstrated by our data. So-called third-hand exposure to cigarette smoke is now being analyzed: this involves the effects of smoke residue on humans who occupy or inhabit dwellings or workplaces where smokers once smoked and

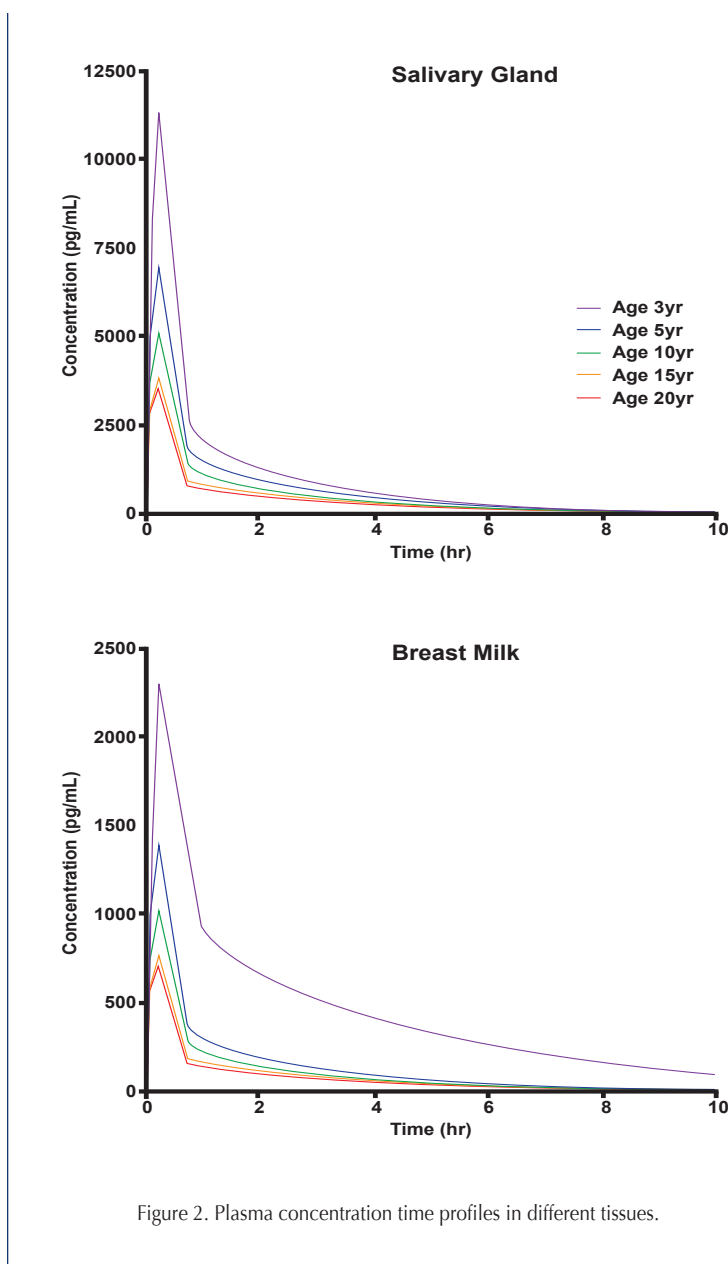


Figure 2. Plasma concentration time profiles in different tissues.

may be even more devastating than second-hand effects. Third-hand exposure needs to be considered for opioids because they are easily absorbed through contact and the skin. The risks associated with the chronic use of opioids such as morphine are further elaborated in the following paragraphs, though they are not limited to these.

These findings bring new importance to the dangers of “third-hand smoke” now being reported for children in homes where tobacco is smoked. This exposure is and does not coincide only with the inhalation of actual smoke. The tobacco residues accumulate on carpets, floors and bedding where children spend a great deal of time. Our study confirms that this formation of residues on surfaces occurs within opium smoking homes as well. This presents a unique danger for children who are smaller than adults as even small exposures of these powerful opium products over time can have significant impact on the developing brain. Although it is not known exactly how opium products enter children’s bodies via third-hand exposure, there are three main routes: oral, inhalation, or absorption.¹⁵⁻¹⁷ All three routes are easily available to children who spend a large amount of time on rugs, floors, and bedding where opium product residues accumulate.

Exposure to opioids in air, direct second-hand smoke, tends to be mitigated by the number of smoking episodes per 24-hour period and factors that we have discussed previously for cigarette smoking. The presence of second-hand smoke in the air depends on the smoking volume but also upon the square foot of the home and the permeability of the walls. Second-hand opium smoke produces peaks and corresponding troughs in plasma and brain levels. Third-hand smoke effects are those related to absorbable drugs left behind on the walls, floors, and all surfaces associated with living at home. The skin readily allows absorption of these drugs and as expected, crawling children who spend so much time on a drug-infused floor would have the highest concentrations of the drug from this exposure route.

The exposure of the nursing infant to breast milk containing opiates presents a unique problem. Spending most of its time being carried or placed on the mother’s breast does minimize environmental contact exposures discussed, but if the mother is smoking herself or directly exposed to high enough levels of second-hand opium, the nursing infant would be expected to have high, maintenance levels of opioids in blood and brain until weaning. Such exposure presents challenges for the children in terms of cognitive development and learning.

The chronic use of morphine is associated with abuse potential, development of tolerance to the analgesic effect, addiction, and drug diversion. Studies have looked at risk factors for opioid abuse and dependence and a history of younger age of use of morphine were suggested predictors of opioid misuse.^{23,24} In general, infants and children have unusual sensitivity to opioid agents. In clinical use, morphine should not be used in premature neonates because of the increased risk for severe respiratory depression.²⁵ In newborns and young infants, morphine elimination is much slower because of immature liver and kidney function.²⁶

The chronic use of opioids has also been associated with depression, anxiety, and drug abuse disorders. The most potential long-term complications of chronic opioid therapy are opioid tolerance and opioid induced paradoxical hyperanalgesia. Common opioid-related adverse events of chronic opioid use included dry mouth, nausea, constipation, dizziness, drowsiness and somnolence, pruritus, and vomiting. This was similar in order, but lower in frequency than that found previously with other opioids in chronic non-malignant pain (constipation, nausea, and somnolence). Most of the common side effects (except constipation) diminish or resolve with continued opioid use. Conversely, some side effects such as immune and sexual dysfunction are more apparent after long-term treatment.²⁷

Chronic opioid administration can cause inhibitory effects on antibody and cellular immune responses, cytokine expression, and phagocytic activity. The immunosuppression leading to infectious disease is also potential complications of opioid pharmacotherapy.^{28,29} Opioids can influence hormone systems; the term opioid endocrinopathy has been used for opioid-induced hormonal changes. Opioid endocrinopathy affects several hypothalamic-pituitary pathways affecting both men and women. The most prominent deficiencies are evident in the gonadal hormones, but other hormone deficiencies can occur as well, including growth hormone. Opioids can cause a decrease in testosterone, estrogen, luteinizing hormone, and gonadotropin-releasing hormone. Endocrine deficiencies, potentially related, increased risks for osteoporosis and bone fracture, diabetes, and cardiac complications.^{8,30,31} The risk associated with chronic morphine use for an individual varies with tolerance developed.

These data are unique and important for public health, child protection services, and health promotion of those living in homes where drugs of any kind are smoked. Potential routes of drug absorption in these subjects include inhalation of opium/heroin-laden smoke, dermal

absorption, and oral ingestion. The size of the dwelling is a critical factor, so too may be the surface residue of drugs that may remain available for later absorption through the skin. Negative effects on the body, including on the developing brain, are always of greater concern in children than in adults.

To the team’s knowledge, these findings are unique and have never been reported in the scientific literature, with strong correlations between measured environmental levels and biological samples from at risk bystanders. Continued research is needed in this area, with a goal of following the children exposed to opiate levels at early ages as they grow and mature. These studies will further document the consequences of early childhood exposure to opiates, provide help for those children innocently exposed, and develop education and prevention programs to protect future generations of children, not only in Afghanistan, but children worldwide from innocent exposure to drugs of abuse.



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PREVALENCE OF DRUG USE IN THE AFGHANISTAN VILLAGE OF ANA GILDAY



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EXECUTIVE SUMMARY

It has been reported that extensive opium use occurs in rural villages in Afghanistan. If true, this could create serious public health and safety issues. In order to determine the extent of opium use, hair samples were collected and tested for opiates and other drugs.

Hair samples were collected and tested for opiates and other drugs from 658 residents of the village of Ana Gilday. An additional 47 oral fluid samples were obtained from residents who could either not provide a hair sample or whose length of hair was very short. Altogether, approximately 50% of the estimated 1,408 residents of Ana Gilday were sampled, and of those tested, 39% were males and 61% females. Of the population tested, there were 285 children, or 40%, 1–12 years old, 59 adolescents, or 8%, 13–17 years old, and 361 adults, or 51%, 18 years and older.

The residents resided in 241 households with a total of 249 families; eight households were two-family households. Out of 241 households tested, 55% had at least one person who tested positive in the household.

Of the 705 individuals tested for opiates, 236 or 33.5% tested positive. Hair (658) and oral fluid (47) sample results were combined. Among females, 144 or 33.4% tested positive for opiates. Among males, 92 or 33.6% tested positive for opiates.

Among 285 children between the ages of 1 and 12 (inclusive), 54 out of 158 females (34.2%) tested positive, and 41 out of 127 males (32.3%) tested positive. Among 59 adolescents between the ages of 13 and 17 (inclusive), 4 out of 33 females (12.1%) tested positive and 1 out of 26 males (3.9%) tested positive. Among 361 adults ages 18 and older, 86 out of 240 females (35.8%) and 50 out of 121 males (40.1%) tested positive.

A small number of residents (< 2%) were positive for multiple drugs. Specifically, ten residents (nine adults, one child) tested positive for both benzodiazepines and opiates. Three other samples tested positive for opiates and a second drug (barbiturates, oxycodone, or cannabinoids).

The results of this study indicate widespread drug use and potential second- and third-hand exposure to opium product in Ana Gilday. Further study, including randomized sampling of hair, oral fluid, and urine samples, should be conducted to validate these preliminary findings. Also, a brief interview of the individuals sampled would be valuable in obtaining behavioral and socioeconomic information, as well as detailed information regarding drug use such as drug preference and drug use patterns. These data are striking and suggest that prevention, education, and treatment programs are needed in the rural communities of Afghanistan.

Ana Gilday Village Study: Opiate-Positive Results

(All results based on hair and oral fluid testing)

	Sample Size	Positive for Opiates	Percent Positive (%)
Total Individuals	705	236	33.5
Total Households	241	At least one positive	55.0
Adults (Age 18+)	361	136	37.7
Male	121	50	41.3
Female	240	86	35.8
Adolescents (Age 13–17)	59	5	8.5
Male	26	1	3.9
Female	33	4	12.1
Children (Age 1–12)	285	95	33.3
Male	127	41	32.3
Female	158	54	34.2

KEY FINDINGS

- Out of 705 individuals tested, 236 (33.5%) tested positive for opiates
- Out of 241 households sampled, 55% had at least one person in the household test positive

Adults (Age 18+):

- 37.7% (136 out of 361) of samples were positive for a drug
- Out of 121 samples from males, 50 tested positive (41.3%)
- Out of 240 samples from females, 86 tested positive (35.8%)

Adolescents (Age 13–17):

- 8.5% (5 out of 59) of samples were positive for a drug
- Out of 33 samples from females, 4 tested positive (12.1%)
- Out of 26 samples from males, 1 tested positive (3.9%)

Children (Age 1–12):

- 33.3% (95 out of 285) of samples were positive for a drug
- Out of 158 samples from females, 54 tested positive (34.2%)
- Out of 127 samples from males, 41 tested positive (32.3%)

Other Drugs:

- 13 of the individuals (1.8%) tested positive for opiates and one or more other drugs, including diazepam, barbiturates, oxycodone, and cannabinoids



Introduction

It has been suggested that there is significant use of opium in many of the rural villages of Afghanistan. The U.S. Department of State's Bureau of International Narcotics and Law Enforcement Affairs (INL), in cooperation with the Afghanistan Ministry of Health, conducted a case study to determine the extent of opium use in the rural villages of Afghanistan.

The village of Ana Gilday is located in the Kohnar Kaldar region of Balkh province and one of the villages where it is reported that the residents use opium products on a regular basis. This study was designed to determine whether this is true and if so, to what extent opium is used or exposed to among the villagers of Ana Gilday.

With the help of the village elder the goal was to test the hair for opiates and other drugs in as many of the residents as possible. Sample collection took place over a period of four days from July 20, 2011, to July 23, 2011. Once the study began and the village elder left town, many of the residents no longer consented to allow their hair samples to be collected. As a result sample collection was stopped and the team left the village. After further consultation with the village elders and help from the District Administrator, the team went back on December 25, 2011, and continued the collection for one day. This report presents the results of testing on the 705 individuals living in the village of Ana Gilday.

Subjects and IRB Approval

All residents of the Village of Ana Gilday were considered eligible to be included in the study; only those that refused to provide hair or oral fluid samples were excluded.

The data collection for the entire village was carried out by the same team of medical professional women and men who are trained to collect samples for the Afghanistan National Drug Use Study. They explained the purpose of the study and obtained informed consent of all members of the village that participated in the study and guardians of the children. An estimated 1203 people were identified as residing in 241 of the households. There are between 50 and 60 additional households from which

the team did not attempt to collect samples and approximately 300 additional people may reside in those households. Gender and age was noted on all participants of the study. A second collection was made by the team on December 25, 2011. At that time, oral fluid samples were obtained if hair samples were not able to be collected. Samples from an additional 201 individuals from 53 households were collected.

Hair and oral fluid samples were obtained from the residents according to the research protocols previously approved for the "Afghanistan National Drug Use Survey". This project was approved by the Islamic Republic of Afghanistan Ministry of Public Health Institutional Review Board (Case # 9111).

Testing of Hair, Oral Fluid, and Urine Samples

Hair samples were sent for testing to United States Drug Testing Laboratory (USDTL) of Chicago, Illinois, a commercial toxicology laboratory. The analyses included tests for a wide range of drugs and drug classes by immunoassay, gas chromatography-mass spectrometry, and liquid chromatography-mass spectrometry. The 10-panel drug class screen included, but was not limited to, amphetamines, methylenedioxymethamphetamine, barbiturates, benzodiazepines, cocaine, methadone, opiates, phencyclidine, oxycodone, propoxyphene, and cannabinoids. All presumptive immunoassay-positive samples were subjected to mass spectrometry analysis, which provided confirmation and quantitation of analytes. There were 31 hair samples from the first round of sample collection that did not meet the minimum requirement for testing of the full panel of drugs tests. These samples were tested only for the presence of opium products.

Resident Participation Rates

Out of 241 households, 210 households (87.1%) had at least one member who contributed hair or oral fluid samples for analysis. The total number of hair samples per household ranged from 1 ($n = 57$ households) to 15, with the median number of samples about 2 per household. The records indicate that, during the first round of sample collections, 614 people contributed hair samples; although final analytic results were obtained from 583 subjects residing in 164 households. This was due to 31 of the

samples from three households being insufficient for analysis, reducing the total households and individuals tested. During the second round of sample collections, an additional 76 analyzable hair samples were obtained. From those residents who were not willing or able to provide a hair sample during the second phase of collections, the team collected oral fluid samples when possible. The number of oral fluid samples per household ranged from 1 ($n = 23$ households) to 6. A total of 49 oral fluid samples were obtained, out of which 47 were analyzable or met the inclusion criteria. Two individuals who provided hair samples were dropped from the study as they did not meet the inclusion criteria and one individual had both hair and oral fluid collected but only the oral fluid met the inclusion criteria. After these adjustments, the total number of hair samples was 658.

Overall response rates from this study are displayed in Figure 1. Response rates reflect proportions of the original study population that were willing to provide hair or oral fluid samples. The overall response rate was 52.5% (739/1408) of the estimated population (1408). However, 31 hair samples from the first round of collections were not analyzable, two participants did not meet inclusion criteria due to missing demographics, and one hair sample from the second round of sampling was dropped. This brought the total number of hair and oral fluid samples to 705. The response rate was 42% among village males (302/722) and 64% among village females (435/686). Response rates varied by age: 55% of children 12 years and under participated, compared with 50% of adolescents between 13 and 17 years old, and 51% of adults 18 years and older. Response rates also varied by gender and within age groups. In particular, we note that only 37% of adult males over 18 years participated in the study, compared with 66% of adult females.

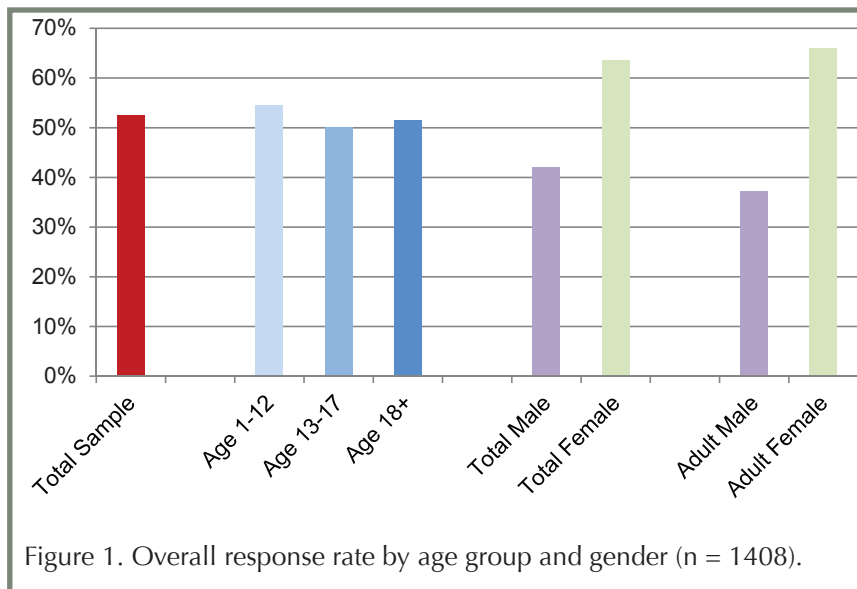


Figure 1. Overall response rate by age group and gender ($n = 1408$).

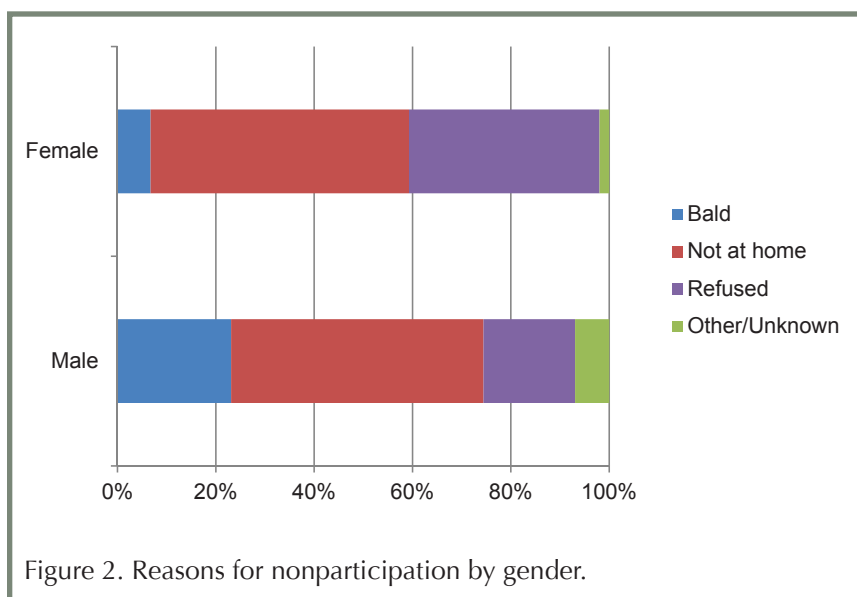


Figure 2. Reasons for nonparticipation by gender.

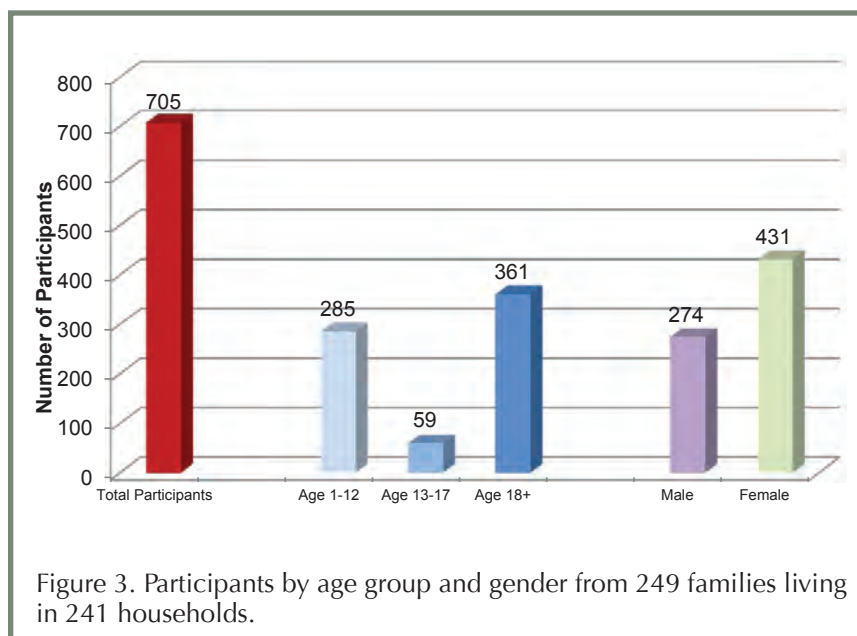


Figure 3. Participants by age group and gender from 249 families living in 241 households.

Reasons for non-participation are graphically depicted in Figure 2. Among male non-participants, 23% were bald, 51% were not at home, and 19% refused to take part in the study. Among female non-participants, 7% (all who were young children) were listed as bald, 53% were not at home, and 39% refused to take part. Although baldness accounted for 20+% of the cases where no hair sample was collected, half of these were boys 12 or under, not adult men. In the case where the person was not at home, half of this group was adult males,

and it appears that about 2/3 of adult men were not sampled because they were not home. These distinctions may make a difference in planning for future village case studies

The final sample of subjects tested for opiates included 705 subjects; as some samples were insufficient to analyze, the final total by gender were 274 (38%) who were male and 431 (61%) who were female.

There were 285 children between 1 and 12 years old (inclusive), 59 adolescents who were between the ages of 13 and 17 (inclusive), and 361 adults ages 18 and older. Individuals tested for opiates came from 241 unique households with 249 different families (eight households were two-family households).

Table 1. Opiate Hair Test Results: Overall Sample By Gender

Gender	Negative	Positive	Total
Female	287 (66.6%)	144 (33.4%)	431
Male	182 (66.4%)	92 (33.6%)	274
Total	469 (66.5%)	236 (33.5%)	705

Table 2. Opiate Hair Test Results: Children Aged 1–12 Years By Gender

Gender	Negative	Positive	Total
Female	104 (65.8%)	54 (34.2%)	158
Male	86 (67.7%)	41 (32.3%)	127
Total	90 (66.7%)	95 (33.3%)	285

Table 3. Opiate Hair Test Results: Adolescents Aged 13–17 Years By Gender

Gender	Negative	Positive	Total
Female	29 (87.9%)	4 (12.1%)	33
Male	25 (96.2%)	1 (3.8%)	26
Total	54 (91.5%)	5 (8.5%)	59

Table 4. Opiate Hair Test Results: Adults Aged 18+ Years By Gender

Gender	Negative	Positive	Total
Female	154 (64.2%)	86 (35.8%)	240
Male	1 (58.7%)	50 (41.3%)	121
Total	225 (62.3%)	136 (37.7%)	361

Results and Discussion

Almost all of the positive test results in the study were indicative of opiate use or exposure. The drug test results are displayed in Tables 1–4 and in Figures 4 and 5. Among the non-opiate positive tests, there were four positive tests for benzodiazepines, all in adults who were also positive for opium products (see Table 5).

As most of the positive samples were from opium products, we describe the opiate test findings in greater detail. Additional analyses breaking down patterns of metabolites detected are shown in Table 6. We have also appended detailed opiate positive data for each of the 238 opiate positive subjects, broken down by age group: Adults over the age of 18, adolescents aged 13–17 years old and children 12 years old and younger.

Table 1 highlights the finding that overall, women have almost identical rates of positive opiate tests compared with men. However, many men were not at home, refused testing, shaved their heads, or were bald and samples could not be obtained. Overall, in this sampling about 3 in 9 (34%) of villagers who were tested had a positive test for opiates.

Two-hundred fifty-eight children as young as one-year old were tested. A female infant, who was one-year old, ID # 3I, had a morphine level of 1235 pg/mg, codeine level of 1422 pg/mg and hydrocodone level of 196 pg/mg in hair.

There was another one-year-old infant female, ID# 81E, whose hair was positive for morphine 3199 pg/mg, codeine 3704 pg/mg, oxymorphone 4600 pg/mg, and oxycodone 225 pg/mg. In fact, all children in that household, a two-year-old girl and four-year-old boy, were also positive for opiates.

A summary of the children’s hair test results is shown in Table 2. Again, it is interesting to note that the female children had a rate of positives similar to males.

These samples were not randomly taken and the percentages are close so it is difficult to draw a conclusion. It does suggest that at least 30% of the children are exposed to second or third hand opium products and several children are positive in some households.

Only 5 of the 59 adolescents sampled were found to have positive tests (see Table 3). This may be a reflection of adolescents being outside the house more than the children who are exposed to second- and third-hand opium products for longer periods of time. It also may be a result of the limited sample size of 59 adolescents compared to 285 children or 361 adults.

It could be possible that adolescent Afghans may be less inclined to use opium compounds than their elders. Without a systematic random survey of the residents, particularly the adolescents, it would be difficult to ascertain why the rate of positives are lower among the adolescent population of Ana Gilday.

Table 4 shows the results of adults tested. The percentages of adults and children positives are similar for females, but the rate of positives is higher for male adults than for male children. Across the entire adult subsample of 361 tests, the rate of positives is almost 38%.

Unfortunately, cooperation rates declined throughout the course of the study. There are almost twice as many test results from adult women than from adult men. Women may stay in

the homes more than men and as such, similar to the children, have longer exposure to second- and third-hand opium smoke.

This may bias the sample estimates of drug use (or exposure) upwards. However, men may be the primary consumers of opium products and their absence from the sample would then, in turn, impose a downward bias on the sample estimates of drug use or exposure.

Tables 2–4 are graphically depicted in Figure 4, clearly showing the overall rate of over 30% positives across the adult and children population and between males and females. The adolescent population was small in comparison to the adult and children tested. Additional samples from adolescents would be needed to ensure it is representative of the adolescent population in Ana Gilday.

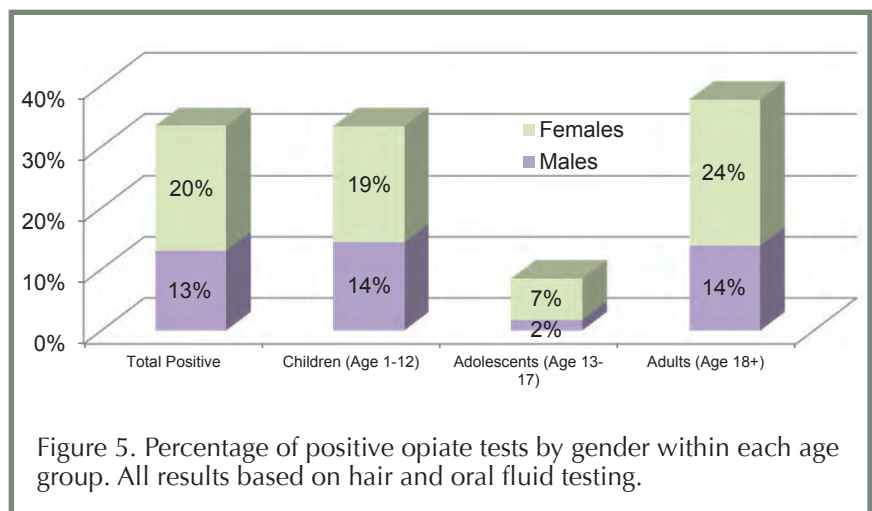
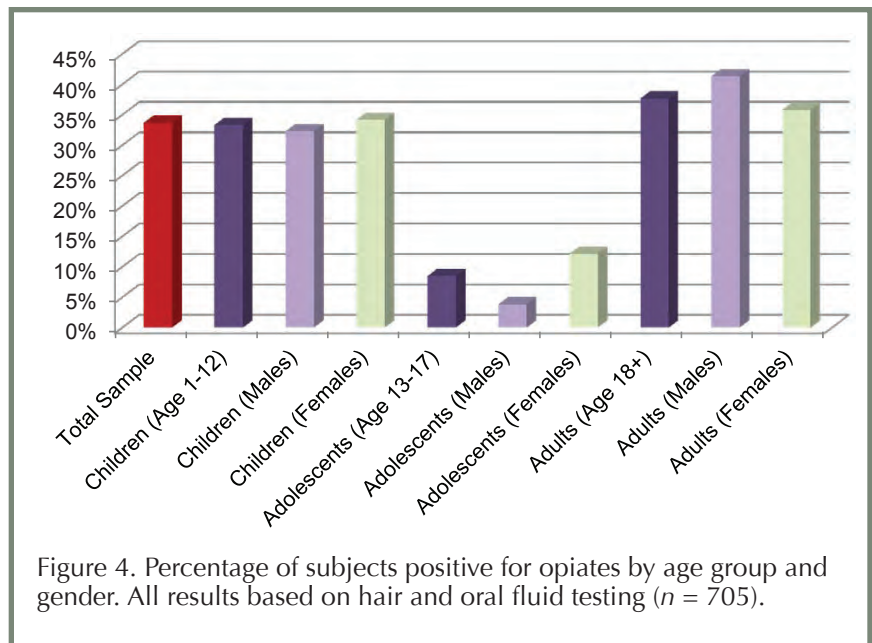


Table 5. Opium Products and Diazepam Positive Test Results in Hair Samples

Donor ID	Age (years)	Gender	Morphine (pg/mg)	Codeine (pg/mg)	6-AM (pg/mg)	Hydro-morphine (pg/mg)	Hydro-codone (pg/mg)	Nordia-zepam (pg/mg)	Diazepam (pg/mg)
123A	55	F	10,300	16,661	111	360	3,504	371	1,648
194B	55	F	21,430	15,529	1,006	793	2,360	63	2,373
198A	46	M	6,703	4,792	156	235	0	240	985
201A	63	F	477	612	0	20	0	632	534
214B	23	M	6,765	2,469	1,920	543	259	663	4,411
233B	30	F	11,013	14,619	1,051	328	1,491	228	651
233C	10	M	13,888	13,649	184	705	2,370	978	582
8A	50	F	3,785	3,956	2,291	0	389	153	563
8CC	22	M	13,550	7,704	3,535	673	760	303	354
9B	44	F	8,571	22,039	0	0	2,832	50	227

Tables 1–3 are combined in Figure 5 showing that overall there were significantly more females tested in the study creating a bias in the sampling. This most likely was an artifact of early cooperative testing among the residents and later refusals by the male population. This extended to the males refusing to allow the testing of the woman and children in their households. This shift of testing more women than men must be considered in the overall evaluation of the study results.

Depressant Use and Multiple-Family Households

There were 10 residents who were positive for diazepam and its metabolite nordiazepam. Individual ID# 123A was not only positive for a diazepam, but opium products as well. Participant 194B was the only person at home in household #194 and had very high levels of morphine, codeine, 6-AM, and diazepam. Individual 198A lived in a single-person household and tested positive for opium, heroin and diazepam. The test results from subject 201A were also indicative of opium and diazepam use. Sample 214B came from a 23-year old male residing in a three-person household.

The test results of all three residents were indicative of opium use, but individual 214B also tested positive for 6-AM (heroin) and diazepam. Participants 233B and 233C are from the same household and family, testing positive for opium, heroin and diazepam use. Residents ID# 8A and ID# 8CC were from two separate families living in the same household. As both had the heroin metabolite 6-AM as

well as large amounts of morphine and codeine in their samples, this suggests that not only opium but heroin was being abused in that household. There were a total of 18 residents in this household with 9 positive individuals including a 3-year-old girl (ID# 8GG) and a 1-year-old girl (ID# 8K) who were both positive for opium products.

Multiple families lived in eight of the tested households: #1, #2, #4, #8, #17, #23, #30, and #63. It is interesting to note that in 7 or 87% of multiple family households at least one resident was positive for opiate products. Also, five of the households or 63% had at least one member of each family testing positive for opium products.

This suggests that one opium product using family member transfers that use, abuse, or environmental exposure to other household members. Children as noted in household #8 are especially at risk. Household #30 had a 5-year-old girl, ID# 30E, positive for opium products in one family and a 1-year-old boy and 4-year-old girl positive in the other family living in the same household.

These finding suggest that multiple family households may be as increased risk of abusing opium products. However, because of limited sampling of multiple-family households, a definitive statement cannot be made. This does indicate that testing of multiple-family households should continue and community services should provide drug education for multiple families living together in a single household.

Table 6. Number of Opiate Positives in Oral Fluid and Hair

Analyte	Number Positive*	Minimum Hair Positive (pg/mg) [†]	Maximum Hair Positive (pg/mg) [†]
Morphine	211	100	84,508
Codeine	226	107	57,932
6-AM	23	102	3,806
Hydrocodone	129	101	9,183
Hydromorphone	61	101	2,651
Oxycodone	9	101	4,600
Oxymorphone	2	225	1,230

* This includes hair and oral fluid tests.

[†] The reported concentrations are for hair samples only.

Table 6 separates the metabolites classified as “positive” by laboratory analysis. Hydrocodone and hydromorphone were of relatively higher prevalence than oxycodone and oxymorphone, which are now thought to be metabolites of opium product use, abuse, or exposure.

It should also be noted that among the 238 subjects testing positive for opiates, 29 (12%) had only one metabolite detected, 75 (32%) had two metabolites detected, 70 (29%) had three metabolites detected, 48 (20%) had four metabolites detected, and 16 (7%) had five metabolites detected. Thus, the majority of subjects (88%) had multiple opiate metabolites detected in their samples.

Conclusion

Positive hair tests for opium products can be indicative of intentional abuse, naïve use or environmental exposure. Many of the children tested positive in Ana Gilday and, as some of the adult female, may have spent more time in the home increasing the amount of environmental exposure. As such some if not all of the opium compounds found in children’s and some of the women’s hair are likely from second- and third-hand exposure rather than use. Hair testing with oral fluid and urine sample would be helpful to differentiate between recent use and environmental exposure.

This does not limit the risk to the children of Ana Gilday as regardless of how opium products enter the system they still have the same effects. Also, no

one knows the long-term effects of living in such an opium product rich environment has on mental and physical development. We did not ask or have any report from the field of intention exposure of children by adults to opium products to make them more manageable. As stated above, more extensive oral fluid and/or urine testing coupled with hair testing would provide more information on the extent of opium products exposure and potential effects than hair testing alone.

While the findings suggest roughly similar rates of positive tests across gender in each age group, these findings must be interpreted with caution because of different participation rates by gender. In every age group, rates of participation were higher for females than for males. In particular, with over two thirds of adult males not providing hair samples for opiate tests because they were not home, were bald or refused, it is difficult to draw firm conclusions about the true nature of gender differences with respect to opiate test findings in this study. Also, the low participation rate in the 13–17-year-old group makes a conclusion difficult, but it is interesting to note the teen boys had a positive rate of 300% that of the girls. This alone should require further study.

No surveys were conducted on the demographics of the households and individuals tested. The only information collected was age, gender and if multiple families lived in each household. Other information that characterizes the nature of opium use or abuse may produce a more complete understanding the role of opium in the community. This may help with

the development of prevention and treatment program. For example, it may help to know which opium products are used (opium, heroin, or pharmaceutical), routes of administration and for what purpose opium products are used similar to the survey used in the ongoing Afghanistan National Drug Use Study. A more formal survey could be designed based on the results of this case study of Ana Gilday.

One of the more interesting findings is the lower prevalence rate among adolescents. While this may be due to the smaller sample size, it may also be due to cultural or generational factors. Conversely those that were positive may, whether adolescent or children, be positive from environmental exposure rather than use. Regardless of the route of administration opiates in adolescents and children can have serious developmental effects. The findings suggest

a study of adolescents and children should be conducted to include hair, oral fluid, and urine testing and a survey designed to ascertain adolescent and child drug use or exposure among rural villagers.

In summary, this study suggests that there is a high rate of opiate use, abuse, or environmental exposure among young children and adults in the village of Ana Gilday. Hair and oral fluid testing results indicate that over 30% of the adults and children in the village are exposed to, use, or abuse opiates.

Household level data suggest that opiates are present in 55% of all households as at least one person tested positive. Irrespective of possible sample biases, these combined findings suggest that opiates are highly prevalent in this village. It is important to point out that valium use was found in 14 of the residents. It is not known if this medication was prescribed or obtained illicitly.



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PREVALENCE OF DRUG USE IN THE AFGHANISTAN VILLAGE OF KOHNAR KALDAR



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None of the people or places depicted in the photographs herein were participants or locations included in the study.



EXECUTIVE SUMMARY

It has been reported that extensive opium use occurs in rural villages in Afghanistan. If true, this could create serious public health and safety issues. In order to determine the extent of opium use, hair samples were collected and tested for opiates and other drugs from 601 of the approximate 1138 residents of the village of Kohnar Kaldar in Afghanistan. An additional 152 oral fluid samples were obtained from residents who could either not provide a hair sample or whose length of hair was very short. Combined hair and oral fluid resulted in 753 individuals tested or 66% of the population of Kohnar Kaldar. Of the 753 tested residents 44.5% were males and 55.5% females. There were 306 children who participated between the ages of 1 and 12 years old, 41% of the sample, 75 adolescents who were 13–17 years old, 10% of the sample, and 369 adults 18 years and older or 49% of the tested population.

Out of the 753 individuals included in this study, 12 had missing information on their gender, and three of those 12 additionally lacked information on their age. The samples from these 12 subjects were retained for analysis to not reduce the sample size. The residents lived in 239 households, each housing one family. Out of 233 households from which test results could be obtained, 62.7% had at least one person who tested positive for at least one drug in the household.

Of the 753 individuals tested for opiates, 272 (36.1%) tested positive for at least one drug. Hair (601) and oral fluid (152) sample results were combined. Among females, 152 or 37% tested positive for opiates. Among males, 115 or 35% tested positive for opiates. The difference in proportions of opiate positives across gender is not statistically significant ($\chi^2 (1) = 0.36, P = 0.55$).

Among 302 children between the ages of 1 and 12 (inclusive), 61 out of 153 females (39.9%) tested positive, and 53 out of 149 males (35.6%) tested positive. Among 75 adolescents between the ages of 13 and 17 (inclusive), 6 out of 47 females (12.8%) tested positive and 8 out of 28 males (28.6%) tested positive. Among 364 adults ages 18 and older, 85 out of 211 females (40.3%) and 54 out of 153 males (35.3%) tested positive. None of the differences in proportions of opiate positives across gender within each age group were statistically significant.

A number of residents were positive for multiple drugs. Specifically, 14 residents (9 adults, 5 children) tested positive for both benzodiazepines and opiates. Three samples tested positive for cannabinoids (one exclusively, the second with positive opiates, and the third with positive benzodiazepines and opiates).

Kohnar Kaldar Village Study: Opiate-Positive Results

(All results based on hair and oral fluid testing)

	Sample Size	Positive for Opiates	Percent Positive (%)
Total Individuals	753	272	36.1
Total Households	233	At least one positive	62.7
Adults (Age 18+)	369	143	38.7
Male	153	54	35.3
Female	211	85	40.3
Adolescents (Age 13–17)	75	14	18.7
Male	28	8	28.6
Female	47	6	12.8
Children (Age 1–12)	306	114	37.2
Male	149	53	35.6
Female	153	61	39.9

KEY FINDINGS

- Out of 753 individuals tested, 36.1% tested positive for opiates
- Out of 233 households tested, 62.7% had at least one person in the household test positive

Adults (Age 18+):

- 38.7% (143 out of 369) of samples were positive for a drug
- Out of 211 samples from females, 85 tested positive (40.3%)
- Out of 153 samples from males, 54 tested positive (35.3%)

Adolescents (Age 13–17):

- 18.7% (14 out of 75) of samples were positive for a drug
- Out of 47 samples from females, 6 tested positive (12.8%)
- Out of 28 samples from males, 8 tested positive (28.6%)

Children (Age 1–12):

- 37.2% (114 out of 306) of samples were positive for a drug
- Out of 153 samples from females, 61 tested positive (39.9%)
- Out of 149 samples from males, 53 tested positive (35.6%)

Other Drugs:

- 14 individuals tested positive for diazepam and for opium products
- 2 individuals tested positive for opiates and one other drug (cannabinoids)
- 1 individual tested positive exclusively for cannabinoids



Introduction

It has been suggested that there is significant use of opium in many of the rural villages of Afghanistan. The Afghanistan Ministry of Health, in cooperation with the U.S. Department of State Bureau of International Narcotics and Law Enforcement Affairs (INL), conducted a case study to determine the extent of opium use in the rural village of Kohnar Kaldar in Afghanistan.

Kohnar Kaldar located in Balkh province is one of the villages where it is reported that the majority of residents use opium products on a regular basis. This study was designed to determine whether this is true and, if so, to what extent opium is used among the villagers of Kohnar Kaldar.

Hair samples were the primary sample collected in this study. If no hair was available due to its being very short or being bald, oral fluid samples were collected. The collection was carried out by the same team of medical professional women and men who are trained to collect samples for the Afghanistan National Drug Use Study. Sample collection took place over a period of four days from January 10 to January 14, 2012. This report presents the results of testing of 753 residents of Kohnar Kaldar.

Subjects and IRB Approval

All residents of the Village of Kohnar Kaldar were considered eligible to be included in the study. Hair was the primary sample. Oral fluid samples were collected on those residents who were bald or had very short hair. Only those who refused were excluded.

Hair and oral fluid samples were obtained from the residents according to the research protocols previously approved for the “Afghanistan National Drug Abuse Survey”. In addition, written or verbal informed consent was obtained from all participants of the study and guardians of children. This project was approved by the Islamic Republic of Afghanistan Ministry of Public Health Institutional Review Board (Case # 9111).

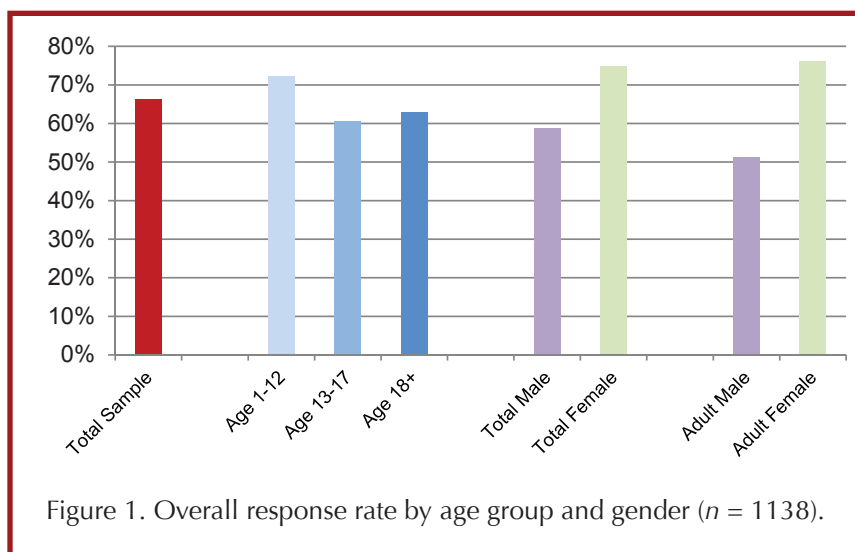
Testing of Hair and Oral Fluid Samples

Hair and oral fluid samples were sent to a commercial toxicology laboratory for testing, United States Drug Testing Laboratory in Chicago, Illinois, USA. The analyses included tests for a wide range of drugs and drug classes by immunoassay, gas chromatography–mass spectrometry, and liquid chromatography–mass spectrometry. The 10-panel drug class screen included, but was not limited to, amphetamines, methylenedioxymethamphetamine, barbiturates, benzodiazepines, cocaine, methadone, opiates, phencyclidine, oxycodone, propoxyphene, and cannabinoids. All presumptive immunoassay positive samples were subjected to mass spectrometry analysis, which provided confirmation and quantitation of analytes.

Resident Participation Rates

Out of 233 households, 146 households (62.7%) had at least one member who contributed hair or oral fluid samples for analysis. The total number of hair samples per household ranged from 0 ($n = 26$ households) to 10 ($n = 1$) with the median number of samples about 2 per household. Final analytic results were obtained from 601 hair samples.

From those residents who were not willing or able to provide a hair sample, the team collected oral fluid samples when possible. The number of oral fluid samples per household ranged from 0 ($n = 119$ households) to 5 ($n = 1$). A total of 159 oral fluid samples were obtained, out of which 152 were used for analysis.



Altogether, a total of 753 hair and oral fluid samples from subjects residing in 233 households were used in this analysis.

Response rates from this study are displayed in Figure 1. The overall response rate was 66.1 % (753 out of 1138) of the estimated population. The response rate was 58.8 % among village males (330 out of 561) and 74.7% among village females (411 out of 550). Response rates varied by age: 72.2% of children 12 years and under participated, compared with 60.5% of adolescents between 13 and 17 years old, and 62.9% of adults 18 years and older. Response rates also varied by gender within age groups. In particular, we note that only 51.3% of adult males over 18 years participated in the study, compared with 76.2% of adult females.

Reasons for non-participation are graphically depicted in Figure 2. Among male non-participants, 3% were bald, 75.8% were not at home, and 12.6% refused to take part in the study. Among female non-participants, 0.7% were listed as bald, 44.6% were not at home, and 45.1% refused to take part.

The final sample of subjects tested for opiates included 753 subjects; the final total by gender were 330 (43.8%) who were male and 411 (54.6%) who were female. Gender was unknown for 12 subjects (1.6%). There were 306 children between 1 and 12 years old (inclusive), 75 adolescents who were between the ages of 13 and 17 (inclusive), and 369 adults ages 18 and older. For the remaining 3 participants, age was not recorded.

Individuals tested for opiates were from 233 unique single-family households.

Results and Discussion

As there was an enormous amount of data, the professional help of a scientific statistician was used, Daniel Fuhrmann, Ph.D., of the University of Wisconsin-Milwaukee's Center for Applied Behavioral Health Research. He assisted with the downloading of the data from the

laboratory into a statistical program, analyzing the study data, and preparation of charts in this report.

Almost all of the positive test results in the study were indicative of opiate use or exposure. The drug test results are displayed in Tables 1–4 and Figures 4 and 5. Among the positive tests were 14 individuals (9 adults and 5 children) who tested positive for benzodiazepines and for opium products (see Table 5).

As most of the positive samples were from opium products, we describe both hair and oral fluid opiate test findings in greater detail. Additional analyses breaking down patterns of metabolites detected are shown in Table 6. We have also appended detailed opiate positive data for each of the 272 opiate positive subjects (both hair and oral fluid samples), broken down by age group: Adults over the age of

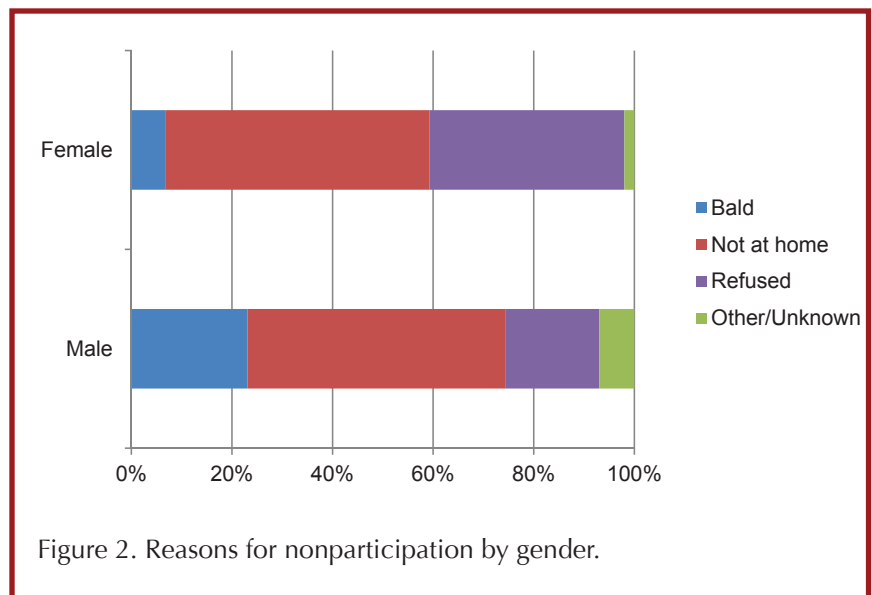


Figure 2. Reasons for nonparticipation by gender.

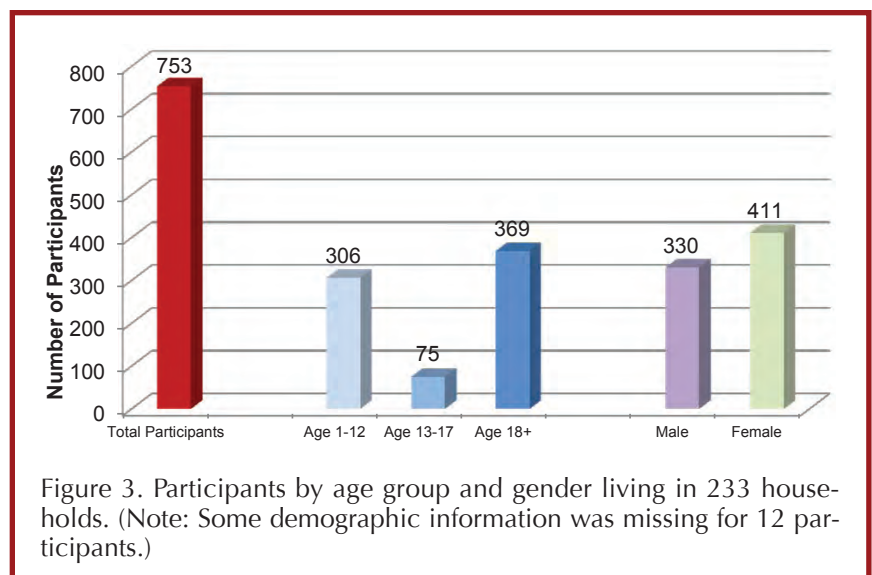


Figure 3. Participants by age group and gender living in 233 households. (Note: Some demographic information was missing for 12 participants.)

18, adolescents ages 13–17 years, and children 12 years old and younger.

Tables 1A–1C highlight the findings from hair and oral fluid tests for opiates. Cell values represent counts and row percentages. Overall, in this sampling about 36.1% (272 out of 753) of villagers had a positive test for opiates. Women have very similar rates of positive opiate tests compared with men in both the hair matrix and oral fluid matrix. In this sampling, about 39.4% (237 out of 601) of villagers whose hair was tested had a positive test for opiates. However, it is noteworthy that many men refused testing, shaved their heads or were bald and hair samples could not be obtained. As a back-up, oral fluid samples were obtained and tested for opiates. Oral fluid tests, however, showed a lower prevalence of opiate use or exposure than hair tests.

Two-hundred seventy-two hair tests and 34 oral fluid tests were obtained from children as young as 1 year old. A summary of the children’s test results is shown below in Tables 2A–2C. Again, it is interesting to note that the female children had a similar rate of positives than males. These samples were not randomly taken and the percentages are close so it is difficult to draw a conclusion. The hair test results suggest that at least 41% of the children are exposed to second- or third-hand opium products and several children are positive in some households. The oral test results, however, show only a very limited prevalence of opiate use/exposure.

Hair and oral fluid results for adolescents (13–17 years old) are presented in Tables 3A–3C. Only 14 of the 66 hair samples from adolescents were found to have positive tests (see Table 3B). None of the 9

Table 1A. Opiate Test Results (Hair and Oral Fluid): Overall Sample By Gender

Gender	Negative	Positive	Total
Female	259 (63.0%)	152 (37.0%)	411
Male	215 (65.2%)	115 (34.8%)	330
Unknown	7 (58.3%)	5 (41.7%)	12
Total	481 (63.9%)	272 (36.1%)	753

Table 2A. Opiate Test Results (Hair and Oral Fluid): Children Aged 1–12 Years By Gender

Gender	Negative	Positive	Total
Female	92 (60.1%)	61 (39.9%)	153
Male	96 (64.4%)	53 (35.6%)	149
Unknown	4 (100%)	0 (0%)	4
Total	192 (62.8%)	114 (37.2%)	306

Table 1B. Opiate Hair Test Results: Overall Sample By Gender

Gender	Negative	Positive	Total
Female	212 (60.6%)	138 (39.4%)	350
Male	147 (61.0%)	94 (39.0%)	241
Unknown	5 (50.0%)	5 (50.0%)	10
Total	364 (60.6%)	237 (39.4%)	601

Table 2B. Opiate Hair Test Results: Children Aged 1–12 Years By Gender

Gender	Negative	Positive	Total
Female	77 (56.2%)	60 (43.8%)	137
Male	79 (59.9%)	53 (40.1%)	132
Unknown	3 (100%)	0 (0%)	3
Total	159 (58.5%)	113 (41.5%)	272

Table 1C. Opiate Oral Fluid Test Results: Overall Sample By Gender

Gender	Negative	Positive	Total
Female	47 (77.1%)	14 (22.9%)	61
Male	68 (76.4%)	21 (23.6%)	89
Unknown	2 (100%)	0 (0%)	2
Total	117 (77.0%)	35 (23.0%)	152

Table 2C. Opiate Oral Fluid Test Results: Children Aged 1–12 Years By Gender

Gender	Negative	Positive	Total
Female	15 (93.8%)	1 (6.2%)	16
Male	17 (100%)	0 (0%)	17
Unknown	1 (100%)	0 (0%)	1
Total	33 (97.1%)	1 (2.9%)	34

oral fluid samples were positive for opiates. This may be a reflection of adolescents being outside the house more than the children who are exposed to second- and third-hand opium products for longer periods of time. It also may be a result of the limited sample size of hair and oral fluid results from 75 adolescents compared to 306 children or 369 adults.

Tables 4A–4C show the results of adults tested. The percentages of adults and children positives are similar for females and males. Across the entire adult subsample of 261 hair tests, the rate of positives is almost 42%. The oral fluid results indicate that opiate use/exposure is prevalent among 30% of adults compared to near-zero prevalence among children and adolescents.

There are over twice as many hair test results from adult women than from adult men. Women may stay in the homes more than men and as such, sim-

ilar to the children, have longer exposure to second- and third-hand opium smoke. This may bias the hair sample estimates of drug abuse (or exposure) upwards. However, men may be the primary consumers of opium products and their absence from the sample would then, in turn, impose a downward bias on the sample estimates of drug use (or exposure). The oral fluid test results do not support the hypothesis of higher opiate use/exposure in male adults relative to female adults, however.

Proportions of opiate positives from Tables 1–4 are graphically depicted in Figures 4A–4C. Figure 4A summarizes the results for hair and oral fluid results combined. Figure 4C clearly shows the overall rate of about 40% positives in hair tests across the adult and children population and between males and females. As is evident in Figure 4C, the proportion of 23% of opiate positives in oral fluid results

Table 3A. Opiate Test Results (Hair and Oral Fluid): Adolescents Aged 13–17 Years By Gender

Gender	Negative	Positive	Total
Female	41 (87.2%)	6 (12.8%)	47
Male	20 (71.4%)	8 (28.6%)	28
Total	61(81.3%)	14 (18.7%)	75

Table 3B. Opiate Hair Test Results: Adolescents Aged 13–17 Years By Gender

Gender	Negative	Positive	Total
Female	36 (85.7%)	6 (14.3%)	42
Male	16 (66.7%)	8 (33.3%)	24
Total	52 (78.8%)	14 (21.2%)	66

Table 3C. Opiate Oral Fluid Test Results: Adolescents Aged 13–17 Years By Gender

Gender	Negative	Positive	Total
Female	5 (100%)	0 (0%)	5
Male	4 (100%)	0 (0%)	4
Total	9 (100%)	0 (0%)	9

Table 4A. Opiate Test Results (Hair and Oral Fluid): Adults Ages 18+ Years By Gender

Gender	Negative	Positive	Total
Female	126 (59.7%)	85 (40.3%)	211
Male	99 (64.7%)	54 (35.3%)	153
Unknown	1 (20%)	4 (80%)	5
Total	226 (61.3%)	143 (38.7%)	369

Table 4B. Opiate Hair Test Results: Adults Ages 18+ Years By Gender

Gender	Negative	Positive	Total
Female	99 (57.9%)	72 (42.1%)	171
Male	52 (61.2%)	33 (38.8%)	85
Unknown	1 (20%)	4 (80%)	5
Total	152 (58.2%)	109 (41.8%)	261

Table 4C. Opiate Oral Fluid Test Results: Adults Ages 18+ Years By Gender

Gender	Negative	Positive	Total
Female	27 (67.5%)	13 (32.5%)	40
Male	47 (69.1%)	21 (30.9%)	68
Total	74 (68.5%)	34 (31.5%)	108

is not a good representation of opiate use/exposure across age groups. Children and Adolescents have a (near-) zero prevalence while the adult proportion of positives is about 31%. The adolescent population was small in comparison to the adult and children tested; additional samples could be taken to ensure it is representative of the adolescent population in Kohnar Kaldar.

Proportions of opiate positives broken down by gender from Tables 1–4 are combined in Figures 5A–5C.

Across hair and oral fluid tests, the propensity of individuals being female and having a positive test result for opiates is 20.2%. Males who are positive for opiates make up about 15.3% of the full sample.

Using only hair tests results, the proportion of individuals who are female and positive versus male and positive is particularly striking among adults (see Figure 5B). To a large extent, however, this is because more than twice as many women than men were in the adult group.

Figure 5C shows a higher propensity of male positives in oral fluids than female positives. Since far more men refused hair testing than women, there were almost 75% more oral fluid samples from males than from females. Within each gender, the prevalence of opiate positives is actually similar.

Overall, there were significantly more females tested in the study (411 females versus 330 males), indicating a potential bias in the sampling. This most likely was an artifact of early cooperative testing among the residents and later refusals by the male population. This extended to the males refusing to allow the testing of the woman and children in their households. This shift of testing more women than men must be considered in the overall evaluation of the study results.

Depressant Use

There were 14 residents who were positive for the depressant diazepam and its metabolite nor-diazepam.

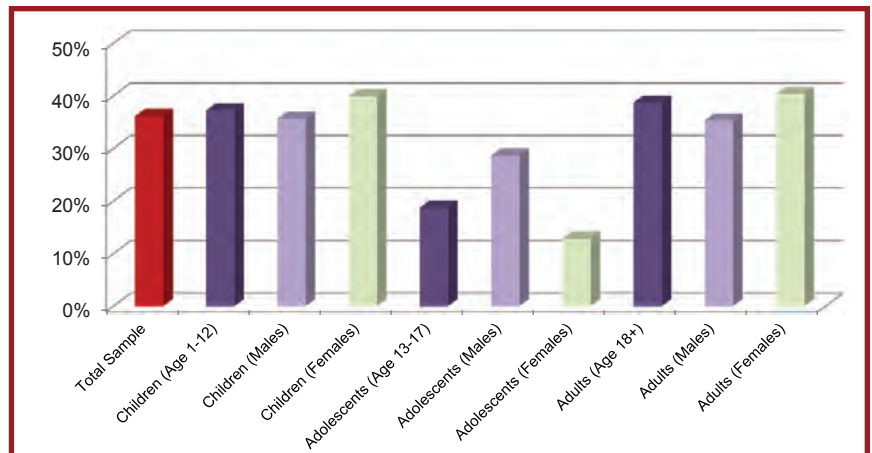


Figure 4A. Percentages of subjects positive for opioids by age group and gender. Results are based on 753 hair and oral fluid tests (306 children, 75 adolescents, and 369 adults).

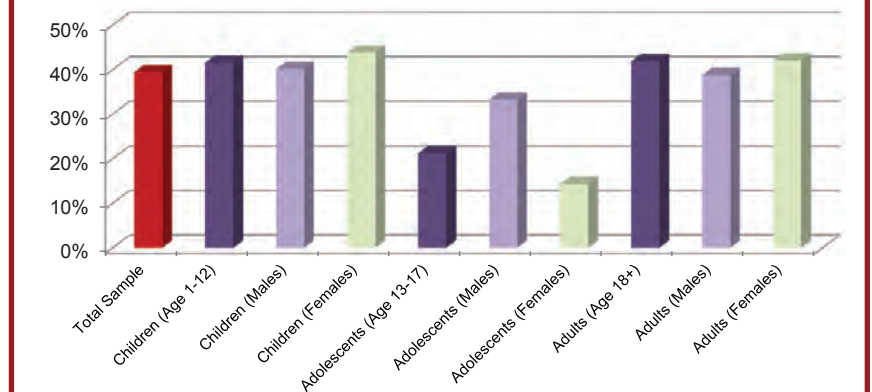


Figure 4B. Percentages of subjects positive for opioids by age group and gender. Results are based on 601 hair tests (272 children, 66 adolescents, and 261 adults).

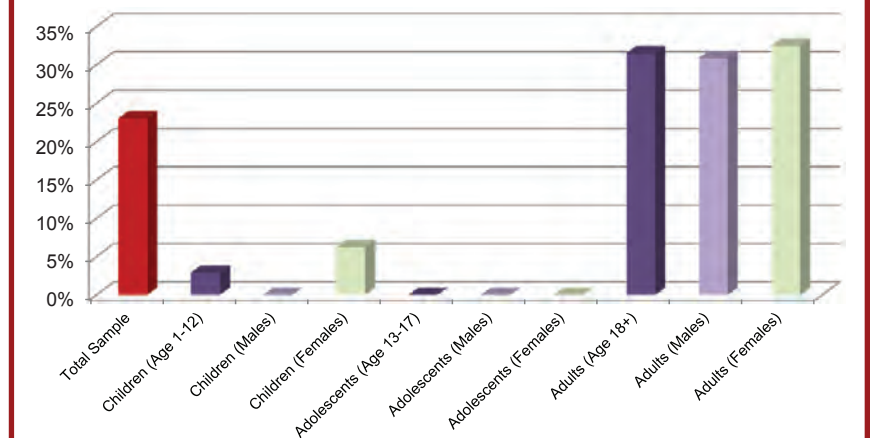


Figure 4C. Percentages of subjects positive for opioids by age group and gender. Results are based on 152 oral fluid tests only (34 children, 9 adolescents, and 108 adults).

Individual ID# 256A not only was positive for a diazepam, but opium products as well. Four individuals in household #260 were positive for diazepam and opiates, two adults and two male children ages 9 and 7 years. One adult and two children ages 5 and 2 years old in household #283 tested positive for diazepam, opiates, and 6-AM (heroin). One adult and a 2-year old child in household #480 were positive for opiates and diazepam. The remaining individuals were the only subjects from their households to test positive for diazepam and opiates.

Tables 6A and 6B separate the metabolites classified as “positive” by laboratory analysis across hair and oral fluid tests. Morphine and codeine were of highest prevalence in both test matrices. Hydrocodone and hydromorphone were of relatively higher prevalence than oxycodone and oxymorphone which now are thought to be metabolites of opium product use, abuse or exposure. It should also be noted that among the 272 subjects testing positive for opiates, 21 (7.7%) had only one metabolite detected, 113 (41.5%) had two metabolites detected, 78 (28.7%) had three metabolites detected, 55 (20.2%) had four metabolites detected, and 5 (1.8%) had five metabolites detected. Thus, the majority of subjects (92.3%) had multiple opiate metabolites detected in their samples.

Conclusion

Positive hair tests for opium products can be indicative of intentional abuse, naïve use or environmental exposure. Many of the children tested positive in Kohnar Kaldar and as some of the adult female may have spent more time in the home increasing the amount of environmental exposure. As such some if not all of the opium compounds found in their hair children and some of the women are from second- and third-hand exposure. This does not limit the risk to the children of Kohnar Kaldar as regardless of how opium products enter the system they still have the same effects. Also, no

one knows the long term effects of living in such an opium product rich environment has on mental and physical development. We did not ask or have any report from the field of intention exposure of children by adults to opium products to make them more manageable. More extensive oral fluid and/or urine testing coupled with hair testing will provide more information on the extent of opium products exposure and potential effects than hair testing alone.

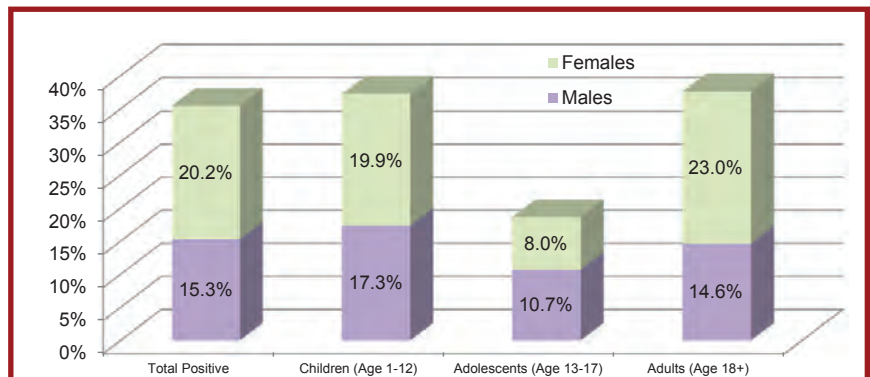


Figure 5A. Percentages of males and females testing positive for opiates within each age group sampled. Results are based on 753 hair and oral fluid tests (306 children, 75 adolescents, and 369 adults).

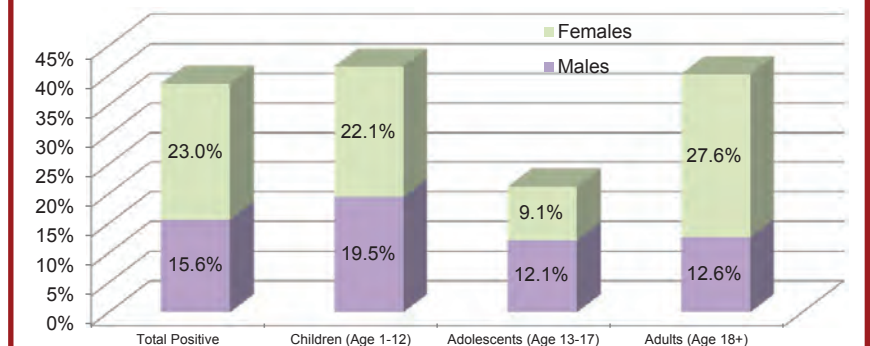


Figure 5B. Percentages of males and females testing positive for opiates within each age group sampled. Results are based on 601 hair tests (272 children, 66 adolescents, and 261 adults).

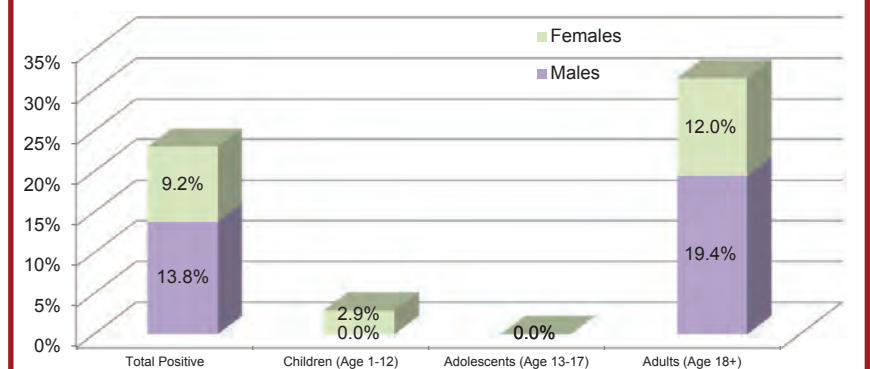


Figure 5C. Percentages of males and females testing positive for opiates within each age group sampled. Results based on 152 oral fluid tests only (34 children, 9 adolescents, and 108 adults).

Table 5. Opium Products and Diazepam Positive Test Results in Hair Samples

Donor ID	Matrix	Age (years)	Gender	Morphine (pg/mg)	Codeine (pg/mg)	6-AM (pg/mg)	Hydro-morphone (pg/mg)	Hydro-codone (pg/mg)	Nordia-zepam (pg/mg)	Diazepam (pg/mg)
256A	H	45	M	958	2162	0	0	286	409	422
260A	H	35	M	8095	19048	0	191	2284	1009	1630
260B	H	30	F	3308	6730	0	186	1538	729	1892
260D	H	9	M	1417	797	0	0	33	0	1833
260E	H	7	M	1228	724	0	0	0	0	982
283A	H	30	M	9902	16935	1816	427	1519	562	1256
283E	H	5	F	2548	3700	603	64	194	0	1805
283F	H	2	M	847	2318	194	66	307	0	1968
305B	H	40	F	4859	8618	0	491	2602	202	22
357A	OF*	41	M	469	1025	0	2.24	38	11.6	12
378B	H	44	F	6541	9722	0	187	559	65	1302
447A	H	27	M	5835	2493	7576	180	0	166	1133
480A	H	45	M	14070	21391	0	804	1691	1100	9649
480G	H	2	M	3551	5385	0	306	684	0	734

* OF concentration is in pg/mL.

Table 6A. Opiate Concentrations in Positive Hair Samples

Analyte	Number Positive	Minimum Hair Positive (pg/mg)	Maximum Hair Positive (pg/mg)
Morphine	230	100	63,428
Codeine	221	101	54,201
6-AM	15	117	7,576
Hydrocodone	110	101	5,553
Hydromorphone	57	109	804
Oxycodone	6	22	61
Oxymorphone	0	—	—

Table 6B. Opiate Concentrations in Positive Oral Fluid Samples

Analyte	Number Positive	Minimum Oral Fluid Positive (pg/mg)	Maximum Oral Fluid Positive (pg/mg)
Morphine	34	13	5,098
Codeine	35	10	3,158
6-AM	0	—	—
Hydrocodone	23	2	60
Hydromorphone	1	2.16	2.16
Oxycodone	0	—	—
Oxymorphone	0	—	—

While the findings suggest roughly similar rates of positive tests across gender in each age group, these findings must be interpreted with caution because of different participation rates by gender. In every age group, rates of participation were higher for females than for males. In particular, with the participation rate of adult males for providing hair samples for opiate tests (59%) being lower than that of female adults (76%), it is difficult to draw firm conclusions about the true nature of gender differences with respect to opiate test findings in this study.

No surveys were conducted on the demographics of the households and individuals tested. The only information collected was age, gender and if multiple families lived in each household. Other information that characterizes the nature of opium use or abuse may produce a more complete understanding the role of opium in the community. This may help with the development of prevention and treatment program. For example, it may help to know which opium products are used (opium, heroin or pharmaceutical), routes of administration and for what purpose opium products are used. A more formal survey could be designed based on the results of this case study of Kohнар Kaldar.

In summary, this study suggests that there is a high rate of opiate use, abuse or environmental exposure among young children and adults in the village of Kohнар Kaldar. Hair and oral fluid testing results indicate that over 36% of adults and children in the village are exposed to, use or abuse opiates. Household level data suggest that opiates are present in 62.7% of all households as at least one person tested positive. Irrespective of possible sample biases, these combined findings suggest that opiates are highly prevalent in this village. It is important to point out that valium use was found in 14 of the residents. It is not known if this medication was prescribed or obtained illicitly.

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