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Study on Substance Use and Health among Youth in Afghanistan 2018

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MINISTRY OF INTERIOR AFFAIRS
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MINISTRY OF EDUCATION
Deputy Ministry for Education

REGIONAL PROGRAMME
Afghanistan and Neighbouring Countries

unicef for every child

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Abbreviations used in the document

AOR	Adjusted Odds Ratio (measure of statistical association)
CI	Confidence Interval
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ESPAD	European School Survey Project on Alcohol and Other Drugs
GDP	Gross Domestic Product
HDI	Human Development Index
LTP	Lifetime prevalence (use ever in life)
LYP	Last year prevalence (use in the last 12 months)
LMP	Last month prevalence (use in the last 30 days)
MDMA	3,4-Methylenedioxymethamphetamine
NSUM	Network Scale-Up Method
OR	Odds Ratio (measure of statistical association)
RPANC	UNODC Regional Programme for Afghanistan and Neighbouring Countries
UN	United Nations
UNDP	United Nations Development Programme
UNODC	United Nations Office on Drugs and Crime
SSUHY	Study on Substance Use and Health among Youth

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Executive summary

The Study on Substance Use and Health among Youth in Afghanistan is the first study of its type and extent in Afghanistan. The study was divided into two phases. In the first phase, a school survey was carried out with a representative sample of upper-secondary school students (grades 10-12), aged 15-18, who self-completed an anonymous questionnaire, similar to the ESPAD study questionnaire. In the second phase, this was complemented by interviews with out-of-school young people aged 13-18 using a similar questionnaire. From Phase I, 10,092 questionnaires were analysed; and from Phase II, 1,110.

One fifth of the respondents reported ever having smoked cigarettes in their life. Almost one third of the males and only 6% of the females said they had done so. Daily smoking was, however, low among the students (2.6%). 6.6% of the out-of-school young people smoked on a daily basis.

15.6% of the young people said they had used drugs, alcohol or psychoactive medicines to get high during their life. 12% of the students reported having done so in the last 12 months and 7.8% in the last 30 days.

According to self-report, the most prevalent drug was cannabis (marijuana or hashish). 7.2% of high-school students reported ever having used it in their life. The following were the most prevalent substances used/misused by the students: lifetime prevalence (ever having used it in their life) was 6.4% for non-medical use of painkillers; 5.8% for inhalants; and 4.9%. for sedatives. 6.6% of students reported experience with alcohol during their life, with 4.2% reporting alcohol intoxication and 2.6% binge drinking (having five or more drinks in a row) ever in their life. Around 2.5% of students reported experience with tablet K[1] and opium, followed by a cluster of drugs with lifetime prevalence of less than 2%: methamphetamine (1.8%), heroin (1.7%) and morphine (1.7%). Amphetamine use at least once during their life was reported by 1.3% of respondents. However, intensive use (i.e. use on 40 or more occasions) was rather rare in the samples examined: 0.5% or less for all substances.

[1] Tablet K is a relatively new product on Afghanistan's drug market. It is similar to 'ecstasy' in the sense that it may contain MDMA; but it also contains several other stimulants including new psychoactive substances.

Prevalence of Self-reported use of drugs for the population aged 15 -18

	Use in lifetime	Use in the last 12 months	Use in the last 30 days
Cannabis	7.2% (5.9%-8.7%)	5.6% (4.6%-6.9%)	3.5% (2.8%-4.4%)
Painkillers[2]	6.4% (5.6%-7.3%)	4.5% (3.8%-5.4%)	2.8% (2.3%-3.5%)
Inhalants	5.8% (4.7%-7.0%)	4.1% (3.3%-5.0%)	2.8% (2.2%-3.6%)
Sedatives[3]	4.9% (3.9%-6.1%)	3.5% (2.6%-4.8%)	2.4% (1.7%-3.4%)
Tablet K	2.5% (1.9%-3.2%)	1.8% (1.3%-2.6%)	1.2% (0.8%-1.9%)
Opium	2.4% (1.8%-3.3%)	2.0% (1.4%-2.7%)	1.3% (0.9%-1.9%)
Methamphetamine	1.8% (1.3%-2.5%)	1.3% (0.9%-2.0%)	0.9% (0.5%-1.4%)
Heroin	1.7% (1.2%-2.4%)	1.3% (0.8%-2.0%)	0.8% (0.4%-1.6%)
Morphine	1.7% (1.3%-2.2%)	1.1% (0.8%-1.5%)	0.7% (0.5%-1.1%)
Amphetamine	1.3% (0.9%-1.8%)	0.9% (0.6%-1.3%)	0.5% (0.3%-0.8%)
Cocaine	1.1% (0.7%-1.6%)	0.8% (0.5%-1.2%)	0.5% (0.3%-0.8%)

Numbers in brackets represent the lower and upper bounds of the confidence interval.
Gray colour: Special caution should be used in interpreting this result due to the low percentage of reporting.

Gender differences were pronounced in the case of some drugs. It was highest in the case of cannabis, where 10.4% of males and only 1.4% of females reported its use ever in their lifetime. This constitutes almost a 7.5-fold difference. Similarly, the use of tobacco was reported almost five times more frequently in males than in females. The use of tablet K, amphetamine, alcohol and methamphetamine was three to four times higher in males than in females. On the other hand, these differences were smaller for opium (a factor of 2.6); and virtually non-existent in the case of other substances, namely the non-medical use of painkillers (almost equal levels of use); sedatives (a factor of 1.1); and inhalants (a factor of 1.2).

Prevalence of use varied by region to some extent. While cannabis use was highest among males in the North-East region, other substances were more prevalent among males in the Eastern region. On the other hand, the Southern region and to some extent the Western region had consistently lower prevalence among males of the use of the examined substances. The non-medical use of painkillers

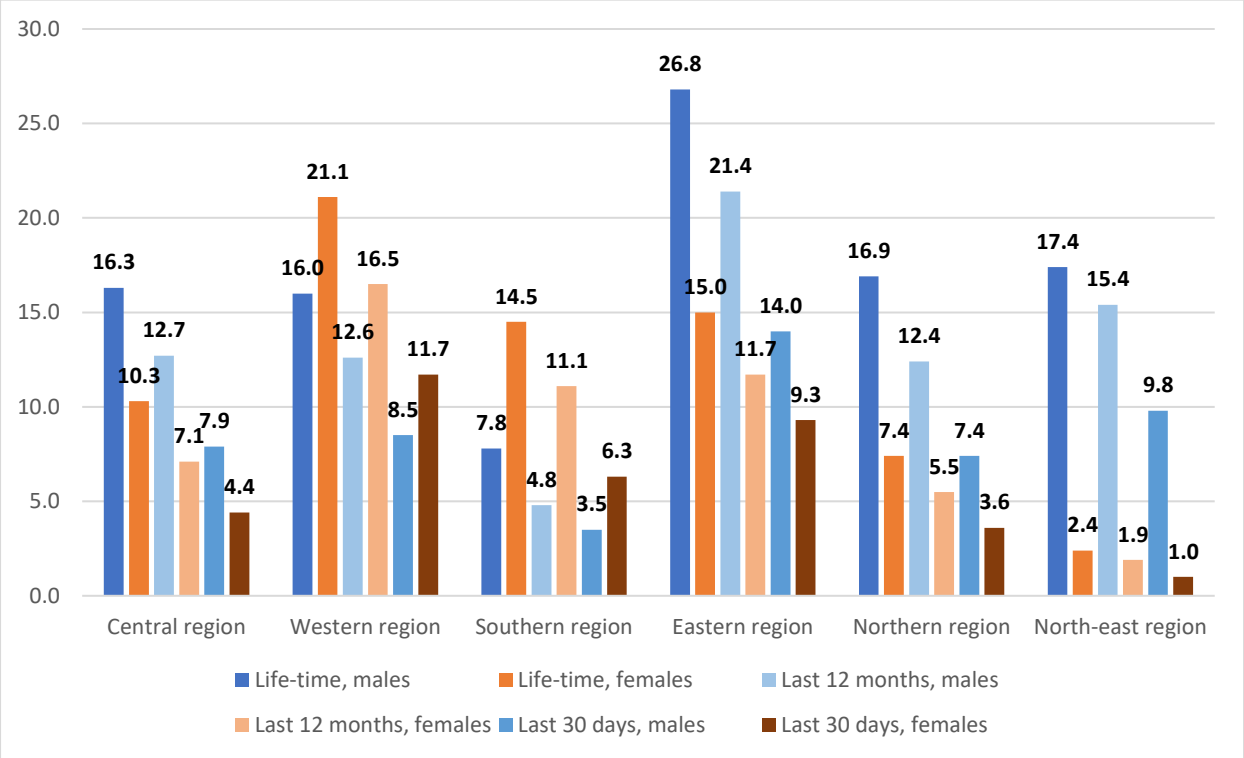
[2] Including those prescribed by a doctor.
[3] Including those prescribed by a doctor.

was highest among females in the Western region. Even more worrying was the relatively high prevalence of inhalant-use by females; and this was comparatively higher in the Western, Eastern, and Southern regions.

Interestingly, whether respondents lived in a rural or an urban area played little part in substance use. However, for in-depth analysis (multivariate analysis, which takes into account various factors at the same time), the area of residence being rural played a strong role in the case of opium and some role in the case of the non-medical use of sedatives (see below). In summary, the respondents were more likely to use drugs if they:

- had smoked cigarettes in the past 12 months;
- had friends who used the substance in question;
- perceived lower risk from substance use;
- perceived easier availability of substances;
- did not disapprove of users;
- skipped school without a medical reason; and
- displayed antisocial behaviours.

Self-reported use of any drug, alcohol or non-medical use of pharmaceutical drugs by region and gender



Other factors, such as problems experienced, lack of parental monitoring, low self-esteem, poor school performance, depressive mood or lack of social support, were also important factors associated with substance use, although their association differed by substance.

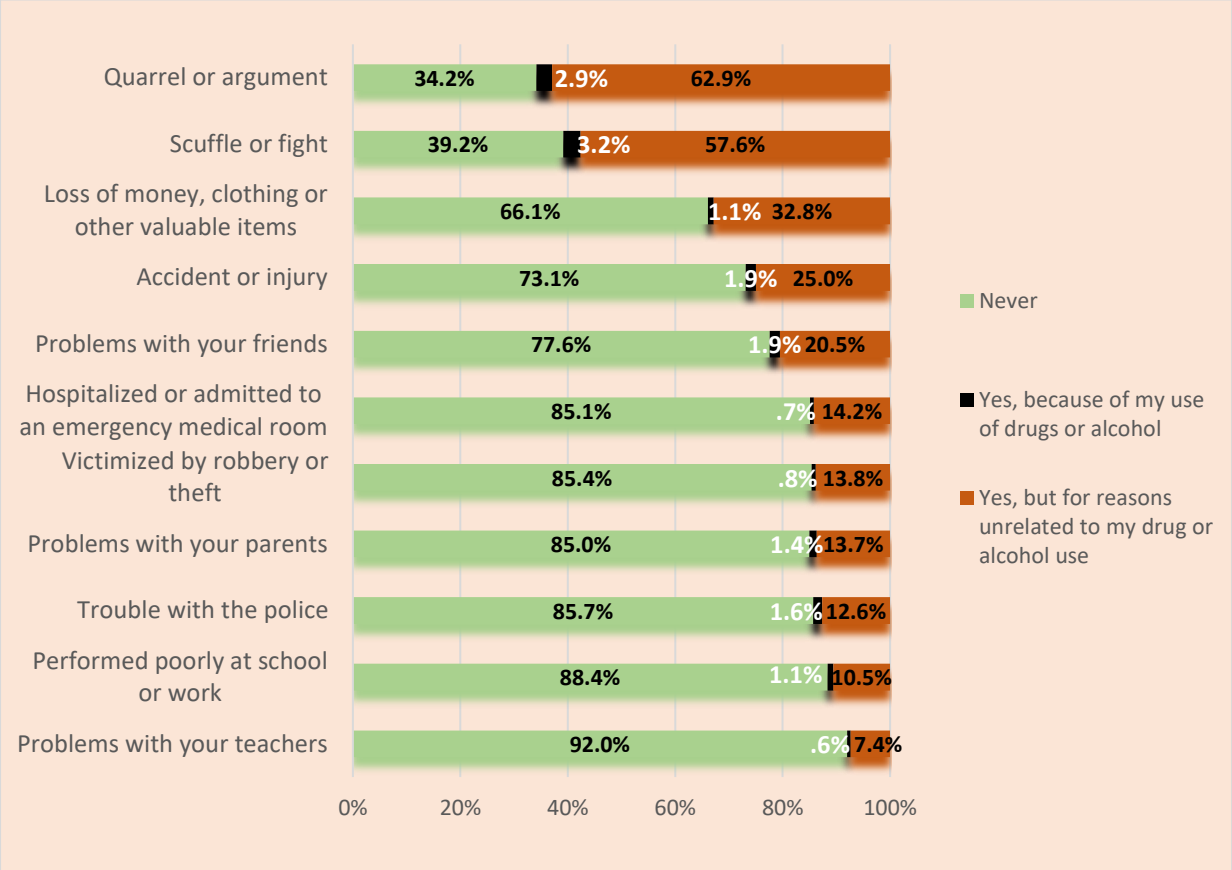
Looking in more detail at the risk and protective factors and their relative importance suggests that perceived risk, availability of substances and disapproval of users were some of the most important factors in the case of use of all of the substances included in the study questionnaire. Similarly, smoking cigarettes in the last year as well as having friends who used substances were among the strongest factors predicting the use of almost all substances. Smokers were approximately two to seven times more likely to use various substances. Being female strongly predicted the misuse of painkillers – females had more than twice increased risk of misuse compared to males – and sedatives (1.7 times increased risk). On the other hand, males were over five times more likely to smoke cigarettes and about four times more likely to smoke cannabis than females.

Age was strongly associated only with cigarette smoking and the misuse of sedatives – the older the respondent, the higher the risk of use. Opium use was over three times more likely in students who lived in rural areas. A composite measure of the degree of social support the students perceived, based on their responses to several questions, was only significantly associated with smoking: the less social support the person felt, the more likely he or she was to smoke. The extent of parental monitoring (an index composed of responses to various questions related to perceived monitoring and control from parents) was important in the case of the misuse of sedatives and the use of opium. Besides tobacco use, less control and monitoring from parents meant more use of substances.

The number of reported personal conflicts, such as arguments, scuffles or fights, was associated with the use of alcohol, opium and inhalants as well as with any use of drugs or alcohol in the past 12 months. The number and intensity of the most serious problems, such as self-harm and suicide attempts or running away from home, revealed that these problems were strong factors in predicting the misuse of painkillers, sedatives and the use of tobacco. A strong psychosocial factor in predicting the use of almost all substances was antisocial behaviour (as measured by the Antisocial Behaviour Scale). Depressive mood was an important predictor only in the case of alcohol use. Low self-esteem was strongly related to the use of tablet K and sedatives. The feeling of anomie (internal and external perception of the dissolution of social norms) predicted the use of opium. Variables related to school performance and attendance were also strong predictors of drug use. The better the self-assessed performance at school, the lower the risk of substance use. Skipping school was strongly associated with the use of many substances including cannabis, painkillers, alcohol, tablet K and tobacco.

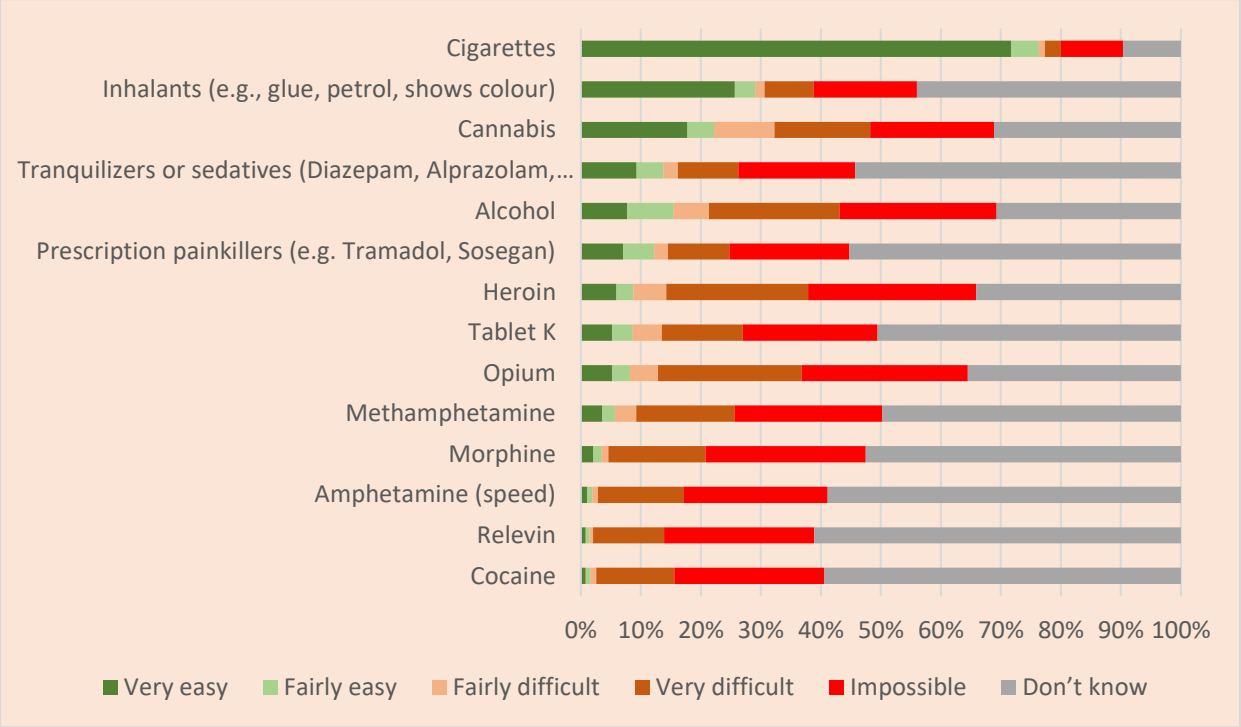
Similar findings were found in the survey of the population of young people who were out of school. Among them, the strongest predictor of both smoking and any drug or alcohol use in the past 12 months was also the fact that the person had friends who were using drugs. In the case of smoking cigarettes, friends' smoking increased the likelihood of the respondent also smoking by more than eight-fold; and males were over 21 times more likely to have used drugs or alcohol in the last 12 months if they had friends who used such substances (it was not possible to test this factor in females). In both smoking and alcohol and/or drug use, reporting personal conflicts (such as arguments, scuffles or fights, etc.) meant higher risk of substance use. Perceived availability of substances increased the likelihood of the use of any drug; while disapproval of users decreased the likelihood of smoking. Interestingly, both smoking and drug and/or alcohol use were associated with lower self-esteem in the out-of-school youth. Cigarette smoking was, in addition, associated with antisocial behaviour.

Self-reported personal conflicts in the out-of-school youth population aged 15-18



Note: based on answers to the question 'Have you ever had any of the following problems?'

Perceived availability of substances in out-of-school youth population aged 13-18



Note: based on the answers to the question 'How difficult would it be for you to obtain each of the following substances within 24 hours, if you wanted some?'

Because of differing age groups and methodologies, the comparison with previous studies is not straightforward; but there are some signs that there may have been an increase in alcohol and ATS use in the Afghan population in comparison with studies in 2015 and before.

The results of previous studies on substance use in Afghanistan compared with the present study

	2009: key informants survey, self-report, ages 15-64, last 12 months use [4]	**2015: biological samples testing, use in up to last 3 months**		**2018: YSSUH, last 12 months, self-report**	
		Adults (15+) (rural-urban)	**Children (0-14)**	**In school (13-24)**	**Out of school in the Kabul province (13-18)**
Opium total	**1.9%**		**0.6%-5.4%**[5]	**2.0% (1.4%-2.7%)**	
Opium males		2.5%-5.7%		2.6% (1.7%-3.8%)	1.7% (0.9%-2.6%)
Opium females		0.5%-4.6%		0.8% (0.7%-1.1%)	

[4] UNODC, *Drug Use in Afghanistan: 2009 Survey Executive summary* (2009).
[5] It was estimated that only 9% of the children testing positive for drugs in fact used them, the remaining 91% was environmental exposure or drug administration by an adult (as traditional medicine or to control child's pain or behaviour).

	2009: key informants survey, self-report, ages 15-64, last 12 months use [4]	2015: biological samples testing, use in up to last 3 months		2018: YSSUH, last 12 months, self-report	
Heroin total	**1%**			**1.3% (0.8%-2.0%)**	
Heroin males		1.2%-2.3%		1.7% (1.0%-2.9%)	0.5% (0.0%-1.0%)
Heroin females		0.3%-0.8%		0.5% (0.2%-0.9%)	
Cannabis total			**0.6%-3.6%**	**5.6% (4.6-6.9%**	
Cannabis males	8.1%	4.7%-6.1%		8.1% (6.5-10.2%)	7.3% (5.5-9.0%)
Cannabis females	0.2%	0.1%-2%		1.1% (0.8-1.4%)	
Alcohol total			**0.1%-<0.1%**	**2.5% (2.0-3.2%)**	
Alcohol males		0.3%-0%		3.5% (2.7-4.7%)	3.4% (2.1-4.8%)
Alcohol females		0.5%-0.3%		0.7% (0.5-1%)	

Policy and programme implications

From the policy point of view, the findings of the present study are very relevant for prevention efforts and policies in Afghanistan. Besides policies to keep children in school, comprehensive prevention programmes which address various risks and vulnerabilities simultaneously, are useful for the development of life skills and which also provide relevant information about health including substance use are among the recommended and scientific evidence-based approaches[6,7,8,9]. It is advisable that Afghanistan continues to implement drug-prevention programmes, some of which are more comprehensive and work on different levels (e.g. the FAST programme)[10]. The important part of the FAST programme, which should be implemented also within other prevention programmes in the country, lies in its prevention of school drop-out. Skipping school even without dropping out completely was associated in the present study with increased substance use. The Strengthening

[6] UNODC/WHO: *International Standards on Drug Use Prevention*. Second updated edition. March 2018.

[7] Dean R. Gerstein and Lawrence D. Green (Eds), *Preventing drug abuse: what do we know?* (National Academies Press, USA, 1993. Elisabeth B. Robertson and others, *Preventing drug use among children and adolescents. A research-based guide, 2nd edition* (Rockville, MD: Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse, 2003).

[8] Kenneth W. Griffin and Gilbert J. Botvin, "Evidence-based interventions for preventing substance use disorders in adolescents", *Child and Adolescent Psychiatric Clinics*, Vol. 19, No. 3 (July 2010), pp. 505-526.

[9] Giovanna Campello and others, "International standards on drug use prevention: the future of drug use prevention world-wide", *International Journal of Prevention and Treatment of Substance Use Disorders*, vol. 1, No. 2 (November 2014), pp. 6-27.

[10] Islamic Republic of Afghanistan Ministry of Counter Narcotics. *2015 Afghanistan Drug Report* (9 December 2015).

Families programme (SFP) for young people aged 10-14 and their parents has been implemented by UNODC since 2017 as a pilot implementation of the UNODC Strong Families global programme[11].

The present study has also shown that it is probably the case that Afghan adolescents lack precise and targeted health knowledge and information. For example, while cannabis and alcohol were deemed to be some of the most harmful substances to individuals in the out-of-school group of young people, the risk associated with various stimulant drugs and inhalants was perceived to be much lower. Health-promotion and substance-use-prevention programmes will also be needed for those outside of school (using innovative methods to reach this segment of young people in community settings). Tobacco use, which, besides its well-known health risks, was also a strong predictor of the use of other substances in the present study (in line with the scientific literature) should also be addressed by such programmes.

Special focus in these interventions should be put on education concerning the health risks of inhalant drugs. Inhalants emerge as a particularly problematic drug class because of their low perceived risk and their low age of initiation (typically 13 or younger). In addition, many females were resorting to the use of these harmful substances. For males, according to self-report, the most easily available substance after cigarettes was cannabis and for females it was inhalants. However, it should also be noted that, while the use of and attitudes toward inhalants as reflected in the present study appear worrying, the precise patterns of use were not examined. It is therefore hard to predict more precisely from the results of the present study the damage to health related to this use among the populations which were studied; and more studies may well be needed which will look in a more targeted way at the patterns of use of inhalant drugs (and other substances) among Afghan adolescents, including studies with a special focus on females.

[11] For more information, please visit https://www.unodc.org/rpanc/en/Sub-programme-3/implementation-of-the-2nd-cycle-of-strengthening-families-programme-in-the-islamic-republic-of-afghanistan.html

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1 Background

1.1 Afghanistan

The decades of armed conflict have left people in Afghanistan socially, physically and psychologically vulnerable and economically disadvantaged.

The Human Development Index (HDI) for Afghanistan was 0.496 in 2018[12], placing the country in 170th place out of 189 countries. The HDI has however increased since 1990, with improvement in a number of human-development indicators. According to the recent UNDP data (referring to 2015/2016), 55.9% of the Afghan population live in multidimensional poverty and an additional 18.1 percent are classified as vulnerable to multidimensional poverty[13].

The total population of Afghanistan in 2018/2019 was estimated at 31.6 million[14]. The Afghan population has a relatively young age structure. 47.8% of the population are under the age of 15 years; and those aged 65 and above constitute only around 2.7% of the population. This goes hand in hand with a high population-dependency ratio: for every 100 people of working age (15-64), there are 101.9 persons who are not of productive age (defined as under 15 and over 64). Moreover, in 2017, forty-two per cent of young people were not in employment, education or training, according to the International Labour Organization (ILO).

According to the UNICEF report on the country for 2019[15], it is estimated that between 2009 and 2018 alone armed conflict resulted in the deaths of almost 6,500 children and injured close to 15,000 others. Many more children were affected in numerous other ways. In 2018, for example, the United Nations verified that there had been 162 attacks against schools, hospitals and their staff. In addition, Afghan children continue to suffer from negative traditional social and cultural practices. Girls remain particularly vulnerable, facing the risk of honour killings, domestic abuse and sexual violence. Afghanistan ratified the Convention on the Rights of the Child, which sets a minimum age for marriage of 18, in 1994; and in 2003 it did the same with the Convention on the Elimination of All Forms of Discrimination Against Women, which obliges states to ensure free and full consent to marriage. In spite of those steps, however, under-age marriage remains widespread. Boys, on the other hand, are more likely than girls to be recruited by armed groups and forces.

[12] UNDP *Human Development Report 2019, Afghanistan*.
[13] See http://hdr.undp.org/en/2019-MPI for more details
[14] Islamic Republic of Afghanistan National Statistics and Information Authority. *The Statistical Yearbook of Afghanistan 2018/2019*. July 2019.
[15] UNICEF Afghanistan, *Preserving hope in Afghanistan. Protecting children in the world's most lethal conflict.* December 2019.

The literacy rate for Afghanistan is currently around 43%. Since 2011, there have been significant improvements in literacy among young people aged 15-24 (rising from 47% to 65%). A gender gap in literacy exists; but there are signs that it is decreasing[16]. Despite improvements, 3.7 million children of school age do not attend school. Of that number, 2.2 million are girls. [17] This is in part due to the fact that during the Taliban rule between 1996 and 2001 the education of girls was entirely forbidden; and that is still the case in some regions. In addition, only 66% of the population has access to clean drinking water; although the situation has been improving in recent years. Malnutrition remains a problem: currently (at the time of the study), 41% of Afghan children are stunted[18].

Last but not least, the population of Afghanistan faces massive displacement: internal, when people flee to places of greater safety, typically due to armed conflicts; and external, pushing large numbers of individuals and families abroad in search of safety, security and better conditions for themselves and their significant others. Often, these migrants are sent back to Afghanistan from the host countries[19].

There are therefore a number of negative factors impacting on the Afghan population. In summary, these are: personal and/or generational experience with conflict; violence; lack of safety; physical and psychological trauma; lack of resources for living their life in dignity; and a number of traditions which are potentially harmful for the individual. These leave the population as a whole with multiple traumas and vulnerabilities; and this in turn can also increase their risks of drug use and, in particular, intensive drug use[20].

An additional factor contributing to drug use is the high level of illicit opium-poppy cultivation in the country. Afghanistan remains the world's largest opium-producing country, accounting globally for 82% of illicit opium production, with an estimated 9,000 mt of opium produced in 2017 and, due to drought, slightly less (about 6,400 mt) in 2018[21]. While more than two-thirds (69%) of opium production takes place in the south of the country, opium cultivation and production are also present in other areas. For many individual Afghans, the poppy has become a crucial part of their livelihood. Many engage in cultivation, work on poppy fields or are involved in the illicit drug trade. In rural areas, about 35% of all village headmen reported in

[16] UNESCO, *Country report online. Afghanistan. General Information* (2019).
[17] UNICEF Afghanistan, *Preserving hope in Afghanistan. Protecting children in the world's most lethal conflict* (December 2019).
[18] UNICEF Afghanistan, *Annual Report 2018*.
[19] Islamic Republic of Afghanistan National Statistics and Information Authority. *The Statistical Yearbook of Afghanistan 2018/2019* (July 2019).
[20] Harold W. Gordon, "Early environmental stress and biological vulnerability to drug abuse." *Psychoneuroendocrinology,* vol. 27, No. 1-2 (2002), pp. 115-126.
[21] UNODC, *Afghanistan Opium Survey 2018, Cultivation and Production* (2019).

2018 that at least some villagers were cultivating opium poppy[22]. Moreover, opium and poppy straw have a long history of use in Afghanistan, including its use in traditional medicine[23].

Against the backdrop of the national situation described above, intensive drug use and drug dependency can have devastating consequences for the user and his or her surroundings, as, instead of improving their situation, it typically makes them more vulnerable to drug use and pushes them deeper into poverty and social exclusion, besides the inevitable health consequences[24].

1.2 Prevalence of drug use in Afghanistan

Afghanistan has a long history of production and use of particular substances. For instance, opium has been cultivated in Afghanistan since 1100 A.D.[25] Early scientific evidence about patterns of drug use comes from 1976. At that time, the use of opium and hashish was widespread, with both drugs used in traditional medicine and as recreational drugs. Opium was eaten or smoked, while hashish was smoked. These drugs were used mainly by poorer people. Polydrug use or intensive use with the accompanying characteristic problems was rare. Alcohol was a new drug at that time, mainly used by the more prosperous urban population[26].

More recent information on the extent and pattern of drug use in Afghanistan is available, based on surveys conducted in 2005, 2009 and 2015. In the 2005 survey, 1,480 key informants and 1,393 drug users were interviewed in 32 provincial capitals, 30 district centres and 152 villages across the country.[27] According to the results of the survey, 3.8% of the population or around 920,000 people were estimated as to be using drugs and/or alcohol. Drug use was reported more commonly among men than women – 740,000 male drug users (12% of the male population) and 120,000 women (2% of the female population) across the country were estimated to have used drugs. Cannabis was the most common drug, used by an estimated 500,000 people (2.2% of the population). It was followed by opium, used by an estimated 150,000 people (0.6% of the country's population); and finally heroin (with 50,000 users, or 0.2% of the population). The survey also reported the non-medical use of pharmaceutical drugs as being common in the

[22] Islamic Republic of Afghanistan and UNODC. *Afghanistan Opium Survey 2018. Challenges to sustainable development, peace and security* (July 2019).
[23] Weeda Mehran and Malalai Afzali, Effective Factors Associated with Drug Addiction and the Consequences of Addiction among Afghan Women" (Afghanistan Independent Human Rights Commission Research and Planning Section, February, 2008).
[24] John Brick (Ed.), *Handbook of the medical consequences of alcohol and drug abuse* (Routledge, 2012).
[25] Catherine S. Todd, Naqibullah Safi, and Steffanie A. Strathdee. "Drug use and harm reduction in Afghanistan." *Harm Reduction Journal*, vol. 2, No. 1 (2005), p. 13.
[26] Asad H. Gobar, "Drug abuse in Afghanistan" *Bulletin on narcotics* (Apr, 1976).
[27] UNODC and Ministry of Narcotics Control, Government of Afghanistan, "Afghanistan drug use survey 2005, preliminary report", November 2005.

country. The 2005 UNODC survey also looked at drug use among children up to the age of 15 and reported that around 60,000 children (0.6% of children aged 15 and under) were using drugs. The use of other drugs that included preparations made from the cannabis plant, opium poppy and inhalants/solvents was more common among children (45,000 children or 0.4% of children aged 15 and under).

In 2009, a similar geographically representative drug survey was conducted in Afghanistan: 2,614 regular drug users and the same number of key informants were interviewed in urban and rural settings across the country. As in the previous survey, drug use was much more common among men than women. According to the results, close to one million people (8% of the population) aged 15-64 had used drugs, excluding alcohol, in the past year. Overall drug use (the past-year prevalence of drug use) was highest in the Northern and Southern regions; but drug use in other regions was not significantly lower. Cannabis was the most common drug, used by more than half a million people (4% of the population), followed by opiates, such as opium and heroin (2.6 % of the population aged 15-64). It was estimated that across the country there were 230,000 people who had used opium in the past year; and 120,000 people who had used heroin in the same way. Gender difference in the use of opium was less pronounced compared to other drugs. Furthermore, 0.5% of the population aged 15-64 (corresponding to an estimated 70,000 people) reported the non-medical use of pharmaceutical opioids. It was also estimated that about 50,000 people had used tranquilizers in a non-medical way; and about 20,000 people were regularly injecting drugs. The survey did not estimate drug use among children (those younger than 15 years old); although key informants indicated that use of opium, the non-medical use of tranquilizers and cannabis was common among children. Although methodologies differed between the two surveys, it appears that there had probably been an increase in the use of opioids and cannabis, as well as an increase in the injecting of drugs, in Afghanistan.[28].

A population survey conducted in 2015[29] was a unique study, one of the few of its kind ever conducted. The survey methodology included collection of biological samples to confirm drug use (hair, urine, and saliva) as well as interviews with people using drugs. 10,549 Afghans were sampled from 2,757 randomly selected households covering urban and rural areas. While the window of detection is just few days for urine and saliva samples, hair samples typically provide the possibility of detection of drug use within the last 90 days. Overall, around 7% of the Afghan population – 16% of men, 9.5% of women and 0.8% of children - were estimated to be using

[28] UNODC, *Drug Use in Afghanistan: 2009 Survey* (2009).
[29] SGI Global, *Afghanistan National Drug survey. Preliminary Overview* (March 2015).

drugs. This corresponds to nearly two million drug users in Afghanistan. One important finding of the survey was the higher levels of drug use found in rural areas as compared to urban areas of the country[30]. The overall survey results are summarized in Table 1.

Table 1: National estimates of drugs use, 2015 study

	Any drug	Opioids	Cannabis	Benzodiazepines	Amphetamine-type stimulants
National (overall)	**7.3%**	**4.9%**	**2.2%**	**0.8%**	**0.3%**
- Urban	4.4%	2.0%	1.4%	1.0%	<0.1
- Rural	8.2%	5.7%	2.4%	0.7%	0.3%
Men (overall)	**16.1%**	**10.3%**	**6.1%**	**1.4%**	**0.9%**
- Urban	10.6%	4.6%	4.7%	2.0%	<0.1%
- Rural	17.8%	12.1%	6.6%	1.3%	1.1%
Women (overall)	**9.5%**	**6.7%**	**1.5%**	**1.4%**	**0.1%**
- Urban	4.3%	2.3%	0.1%	1.4%	0.0%
- Rural	11.2%	8.1%	2.0%	1.4%	0.1%
Children (<15 years)	**0.8%**	**0.6%**	**0.20%**	**<0.1%**	**<0.1%**
- Urban	0.2%	0.1%	<0.1%	<0.1%	0.0%
- Rural	1.0%	0.7%	0.3%	<0.1%	<0.1%

Apart from the inclusion of younger age groups in the above-mentioned surveys, data about drug use in children and young people has been scarce in Afghanistan. Small local studies existed, but a study at national level was lacking. Several countries in the region had a similar problem and were seeking a joint solution. Thus, in 2015, the UNODC Regional Programme for Afghanistan and Neighbouring Countries, in collaboration with the Drug Research Section (UNODC headquarters, Vienna, Austria), launched an initiative to conduct field surveys on drug use among young people in Iran, Afghanistan, Pakistan, Tajikistan, Turkmenistan, Kyrgyzstan, Kazakhstan, and Uzbekistan.

Due to logistical and stakeholder complexities, the actual study in Afghanistan commenced and was finalized in the following years (2016-2018).

[30] Islamic Republic of Afghanistan Ministry of Counter Narcotics. *2015 Afghanistan Drug Report* (9 December 2015).

1.3 Methodology of the present study in a nutshell

A detailed description of the methodology of the present study can be found below, in section 5.

The main method used in the study was a wide, nationally representative school survey carried out with students in grades 10-12 across ten provinces (Badakhshan, Balkh, Bamyan, Herat, Kabul, Kandahar, Khost, Laghman, Nangarhar and Parwan) and covering all six regions of Afghanistan. The unit of sampling was the classroom. Data was collected by means of a questionnaire developed by UNODC and based on experience in implementing school surveys in different regions. However, in general it was similar to the questionnaire used in the ESPAD[31] survey, which is a paper-and-pencil questionnaire administered in the classroom. After data cleaning, 10,092 questionnaires were included in the data analysis. The analysis was conducted using the statistical software SPSS, using the Complex Samples module and taking into account the sampling design of the study. The estimates were weighted by the distribution of population in the country in terms of urban and rural areas and gender for grades 10-12.

Since the majority of Afghan young people are not enrolled in educational institutions (about 87% of those aged 15-24 at the time of the study, according to the Statistical Yearbook of Afghanistan[32]), another cohort of out-of-school young people in Kabul province was included to look at the extent and pattern of drug use among out-of-school young people. As there is little experience in conducting surveys among young people in community settings, this phase of the study was undertaken as a pilot study in the province of Kabul among young people aged 13-18, covering both urban and rural areas. 1,110 questionnaires were filled in by means of face-to-face interview in order to achieve the same conditions for all respondents regardless of whether they were literate or not.

More detailed analyses were performed on the in-school sample, because the sufficiently large sample size allowed this to be done. A demographic description of the samples of in-school and out-of-school young people can be found in section 7 of the present report. While the results of the school survey are representative of the young people in school settings, the results of the sample of out-of-school young people cannot be considered as representative of or generalized to that population.

[31] ESPAD Group, *ESPAD 2015 Methodology: Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016).

[32] Islamic Republic of Afghanistan National Statistics and Information Authority. *The Statistical Yearbook of Afghanistan 2017/2018* (August 2018).

2 Study results

2.1 School youth

This section presents the findings of the survey of drug use among young people who were enrolled in school across the country.

2.1.1 Substance use

2.1.1.1 Tobacco use

One fifth of the respondents reported smoking cigarettes during their lifetime. Almost one third of male and 6% of female students – nearly five times less - had smoked cigarettes during their lifetime. The older age group (19-24) had, as would be expected, a higher prevalence of smoking cigarettes during their lifetime. Young people in urban areas reported slightly higher levels of smoking than young people from a rural background. However, the difference was not statistically significant[33]. More than 18% of males reported smoking in the last 12 months and 12% of males reported having done so in the last 30 days. For females, the figures were 2.8% in the last 12 months and only 1.3% in the last 30 days. Older age groups (19 and above) again reported a higher prevalence of smoking in the last 12 months and in the last 30 days. See Table 2 for more details, including the confidence intervals for the estimates.

Among students, however, the self-reported frequency for smoking cigarettes in the 30 days preceding the survey was low. Only 2.6% of the entire in-school sample (3.8% of males and 0.2% of females) said they smoked daily; and less than one percent smoked more than ten cigarettes per day.

Early initiation of cigarette use was less common: less than 30% of those who smoked at least once in their lives reported age at first use as 13 or less (or 5.9% of the entire sample). 1.4% of all respondents (or less than 7% of those who had ever smoked) reported starting to smoke regularly by the age of 13 (2.2% of males and 0.3% of females).

Table 2: Self-reported cigarette smoking among school youth

	Estimate	Lower bound of Confidence Interval	Upper bound of Confidence Interval
Lifetime smoking cigarettes	**20.5%**	**18.9%**	**22.2%**
Males*	28.4%	25.6%	31.4%
Females*	6.0%	4.9%	7.2%

[33] Statistical significance is an estimate of whether the obtained difference could have happened by chance or not. Statistically significant difference is likely happening because of some underlying cause and not purely by chance.

	Estimate	Lower bound of Confidence Interval	Upper bound of Confidence Interval
Urban youth	22.0%[34]		
Rural youth	18.6%	15.1%	22.6%
Age 13-18*	19.7%	18.3%	21.3%
Age 19-24*	25.6%	21.5%	30.1%
Last 12 months smoking cigarettes	**12.7%**	**11.5%**	**14.0%**
Males*	18.2%	16.2%	20.4%
Females*	2.8%	2.4%	3.2%
Urban youth	13.8%		
Rural youth	11.2%	8.6%	14.5%
Age 13-18*	12.0%	10.9%	13.2%
Age 19-24*	17.3%	14.4%	20.7%
Last 30 days smoking cigarettes	**8%**	**7.2%**	**8.8%**
Males*	11.7%	10.4%	13.1%
Females*	1.3%	1.0%	1.6%
Urban youth	8.5%		
Rural youth	7.2%	5.7%	9.2%
Age 13-18*	7.4%	6.7%	8.3%
Age 19-24*	11.5%	10.3%	12.9%

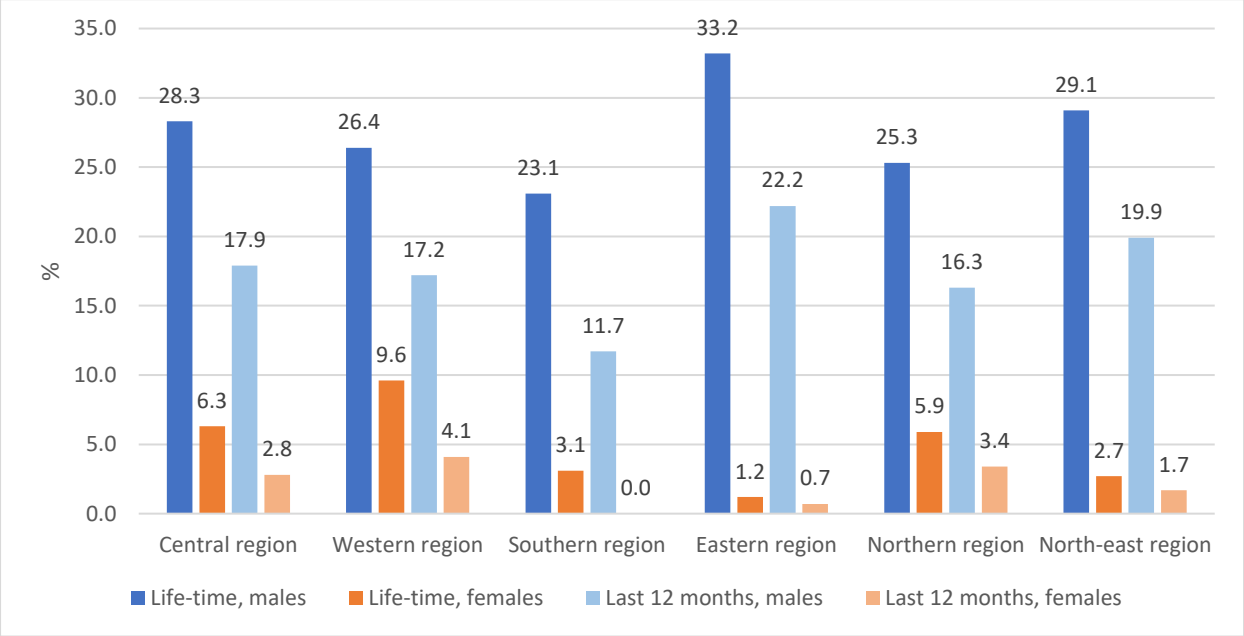
*statistically significant difference between the two neighbouring categories

The prevalence of cigarette smoking did not vary significantly between regions. However, some statistically non-significant differences in self-report were observed (see Graph 1).[35]

[34] In urban youth, the 95% CI is so narrow under the sampling design model used (difference of less than 0.05% from the central value) that it is not displayed. This is true for all CIs around urban in-school youth-substance-use estimates in the study.

[35] As gender differences were very pronounced, the self-reported prevalence of smoking (and, later, the prevalence of the use of other substances) is displayed in the graphs by gender, where the sample size for female users is sufficient. This should also enable more reliable comparison among regions in the light of the varying proportions of males and females in the samples from various regions, as well as the varying proportions of males and females in schools in the respective regions.

Graph 1: Self-reported prevalence of cigarette smoking by gender and region



Naswar is a chewable form of tobacco, commonly used in Asia. Though this was not listed under the substances used in the questionnaire, approximately 60 participants mentioned it as the most frequently used substance under 'other substances'. The prevalence of its use cannot be estimated with precision. In addition, a very frequently mentioned psychoactive product was paan, a filtered form of naswar mixed with other non-psychoactive substances (such as lime, breadcrumbs or other herbs) and administered buccally[36]. 34 respondents spontaneously mentioned its use during their life.

2.1.1.2 Alcohol use

6.6% of the study participants reported some form of alcohol use[37]. However, only 3.8% directly stated that they had ever used alcohol. The proportion of self-reported lifetime alcohol use was 5% among males and 1.5% in females. As with tobacco smoking, urban young people reported higher levels of alcohol use as compared with those in the rural settings. The self-reported use of alcohol also increased with age[38].

[36] https://www.pajhwok.com/en/2018/02/28/%E2%80%98paan%E2%80%99-use-can-cause-oral-cancer-other-diseases-say-experts

[37] There were some inconsistencies in the data. For instance, 1.8% of respondents reported never using alcohol during their life; but reported age at first intoxication and responses to other questions on alcohol use. An additional analysis was therefore performed which looked into responses to any alcohol use-related question (any occasions of alcohol use in the respective recall periods; any report of age at first alcoholic drink; first beer use; first alcohol intoxication; or any report of binge-drinking). 6.6% of the in-school sample answered positively to any of the alcohol-related questions (9.1% of males and 2.9% of females).

[38] These differences were however not statistically significant.

Binge-drinking – defined as having five or more drinks in a row – was low overall among students; but comparatively high in the light of the prevalence of having ever used alcohol: 2.6% respondents self-reported this pattern of use in their lifetime (3.5% of males and 0.8% of females). 0.5% of the entire sample, or 7.6% of those who said they had ever drunk alcohol, reported early initiation of alcohol use (age 13 or less, 0.7% of males and 0.3% of females). 4.2% (6% of males and 0.9% of females) of the entire sample, or about two thirds of ever-drinkers, reported ever having been drunk by the age of 18.

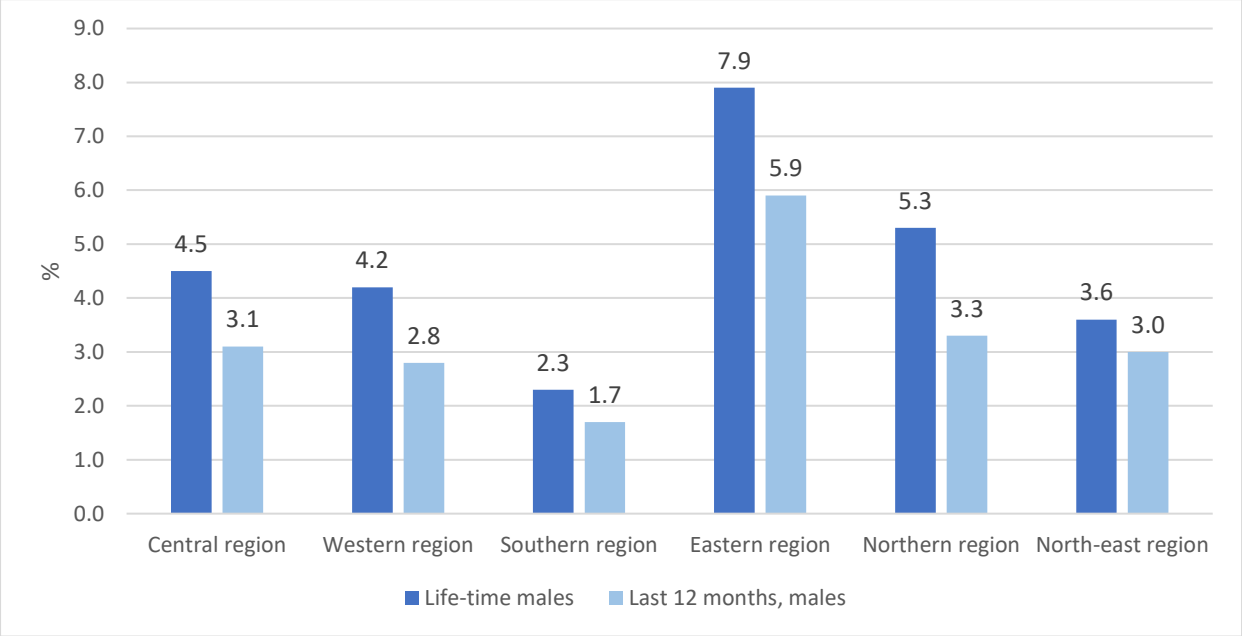
Table 3: Self-reported use of alcohol

	Central estimate	Lower bound of Confidence Interval	Upper bound of Confidence Interval
Alcohol use in lifetime	**3.8%**	**3.3%**	**4.5%**
Males*	5.0%	4.1%	6.2%
Females*	1.5%	1.3%	1.8%
Urban youth	4.3%		
Rural youth	3.2%	2.0%	5.0%
Age 13-18	3.7%	3.1%	4.4%
Age 19-24	4.7%	3.9%	5.6%
Alcohol use in the last 12 months	**2.5%**	**2.0%**	**3.2%**
Males*	3.5%	2.7%	4.7%
Females*	0.7%	0.5%	1.0%
Urban youth	2.7%		
Rural youth	2.3%	1.2%	4.3%
Age 13-18	2.5%	1.9%	3.3%
Age 19-24	2.9%	2.3%	3.7%
Alcohol use in the last 30 days	**1.6%**	**1.2%**	**2.0%**
Males*	2.2%	1.7%	3.0%
Females*	0.4%	0.3%	0.6%
Urban youth	1.6%		
Rural youth	1.5%	0.8%	2.7%
Age 13-18	1.5%	1.1%	2.1%
Age 19-24	1.9%	1.5%	2.5%

Prevalence of alcohol use was similar among the respondents in the Central, Western, Northern and North-East regions. It was only significantly higher, as compared to the national level, among males in the Eastern region; and lower among males in the Southern region (see Graph 2)[39].

[39] Even though the overall sample size for the study was large, for breakdowns such as these the numbers of users were relatively small for enabling precise comparisons in some subgroups; and so females are not included in this comparison in order to avoid any possible overinterpretation.

Graph 2: Prevalence of self-reported alcohol use among males by region



2.1.1.3 Use of other substances

Overall, 15.6% of the in-school sample reported the use of any substance including alcohol (but excluding tobacco) in their lifetime. 17.9% of males and 11.5% of females (a difference which is statistically significant) reported the use of any substance. There was no statistically significant difference between urban and rural young people; and none between the two age-groups studied.

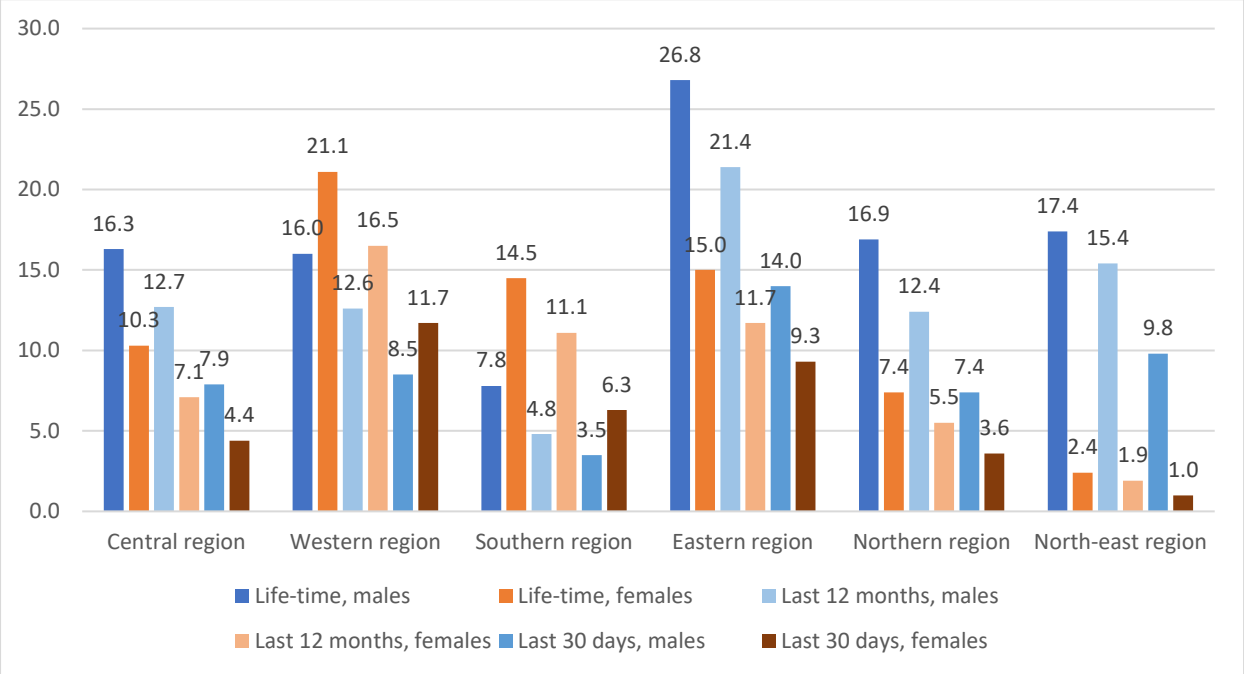
Table 4: Self-reported use of any drug, alcohol or pharmaceutical drugs

	Lifetime	**Last 12 months**	**Last 30 days**
Use of any drug, alcohol or pharmaceutical drugs	**15.6% (14.4%-16.9%)**	**12.0% (10.9%-13.3%)**	**7.8% (6.9%-8.7%)**
Males	17.9% (15.8%-20.1%)*	14.0% (12.0%-16.1%)*	8.9% (7.7%-10.3%)*
Females	11.5% (10.1%-13.1%)*	8.5% (7.0%-10.3%)*	5.7% (4.8%-6.9%)*
Urban	16.2%	12.2%	8.0%
Rural	14.8% (12.1%-17.9%)	11.8% (9.3%-15.0%)	7.5% (5.7%-9.9%)
Age 13-18	15.7% (14.3%-17.2%)	12.2% (10.9%-13.7%)	7.8% (6.9%-8.9%)
Age 19-24	14.8% (12.1%-17.8%)	10.9% (9.1%-13.0%)	7.3% (5.8%-9.3%)

Note: Confidence interval in parentheses. *signifies a statistically significant differences between the neighbouring groups (e.g. between males and females)

To some extent, the self-reported use of drugs, alcohol and psychoactive medicines varied by region. Males in the Eastern region reported a higher prevalence of use during their life and in the last 12 months, while females in the North-east region reported very low levels of use of substances.

Graph 3: Self-reported use of any drug, alcohol or pharmaceutical drugs by region and gender



The following section provides more detailed information on the use of different substances broken down by factors such as gender, age and area of residence (level of urbanisation).

The most prevalent drug according to self-reported use was cannabis: 7.2% of the high-school students reported using it during their life. The second-most prevalent substance group was painkillers (including those prescribed by a doctor), with 6.4% of students reporting that they had ever used them. Next was inhalants at 5.8%, followed by sedatives (again including those prescribed by a doctor) at 4.9%. Around 2.5% of students reported experience with tablet K[40] and opium, followed by a cluster of drugs including methamphetamine, heroin and morphine with a prevalence of less than 2%. Lifetime use of amphetamine was reported by 1.3% of the respondents. However, this number has to be interpreted with caution, because it is close to

[40] Tablet K is a relatively new product on the drug market of Afghanistan. It is similar to 'ecstasy' in a sense that it may contain MDMA, but also several other stimulants including new drugs.

the 'prevalence' of the self-reported use of the dummy drug Relevin[41]. It is recommended that any prevalence around or below the level of Relevin use should be interpreted very cautiously[42]. The prevalence of amphetamine use cannot therefore be reliably estimated. Similarly, the prevalence of cocaine use, which is below the figure for Relevin, should be interpreted with great caution.

Table 5: Self-reported use of drugs

	Use in lifetime	Use in the last 12 months	Use in the last 30 days
Cannabis	7.2% (5.9%-8.7%)	5.6% (4.6%-6.9%)	3.5% (2.8%-4.4%)
Painkillers[43]	6.4% (5.6%-7.3%)	4.5% (3.8%-5.4%)	2.8% (2.3%-3.5%)
Inhalants	5.8% (4.7%-7.0%)	4.1% (3.3%-5.0%)	2.8% (2.2%-3.6%)
Sedatives[44]	4.9% (3.9%-6.1%)	3.5% (2.6%-4.8%)	2.4% (1.7%-3.4%)
Tablet K	2.5% (1.9%-3.2%)	1.8% (1.3%-2.6%)	1.2% (0.8%-1.9%)
Opium	2.4% (1.8%-3.3%)	2.0% (1.4%-2.7%)	1.3% (0.9%-1.9%)
Methamphetamine	1.8% (1.3%-2.5%)	1.3% (0.9%-2.0%)	0.9% (0.5%-1.4%)
Heroin	1.7% (1.2%-2.4%)	1.3% (0.8%-2.0%)	0.8% (0.4%-1.6%)
Morphine	1.7% (1.3%-2.2%)	1.1% (0.8%-1.5%)	0.7% (0.5%-1.1%)
Amphetamine	1.3% (0.9%-1.8%)	0.9% (0.6%-1.3%)	0.5% (0.3%-0.8%)
Relevin	1.2% (0.9%-1.7%)	0.8% (0.5%-1.3%)	0.6% (0.3%-1.0%)
Cocaine	1.1% (0.7%-1.6%)	0.8% (0.5%-1.2%)	0.5% (0.3%-0.8%)

Numbers in brackets represent the lower and upper bound of the confidence interval.
Red colour: dummy drug, only included in the survey for validity-control purposes
Gray colour: Special caution should be used in interpreting this result due to the low percentage of reporting.

Gender differences (see Table 6) were pronounced in the case of some drugs. They were highest in the case of cannabis. 10.4% of males as against 1.4% of females reported its use at any time in their life, figures which differ by a factor of almost 7.5. In the case of stimulants such as Tablet K or methamphetamine, the gender differences were also pronounced (the prevalence for males was 3.7, 2.9 and 3.4 times higher than for females, respectively). The same pattern is found with opiates: heroin and morphine were used around 3.8 times more often by males than by females. These differences were smaller for opium (by a factor of 2.6); and virtually non-existent in the case of other substances, namely painkillers (where there were

[41] Relevin is a dummy substance widely used in school and population surveys in order to provide a proxy measure of over-reporting and otherwise unreliable reporting of use by respondents.
[42] ESPAD Group, *ESPAD 2015 Methodology: Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016).
[43] Including those prescribed by a doctor.
[44] Including those prescribed by a doctor.

almost equal levels of use); sedatives (a factor of 1.1); and inhalants (a factor of 1.2). See Graph 4 for a graphical representation of these differences.

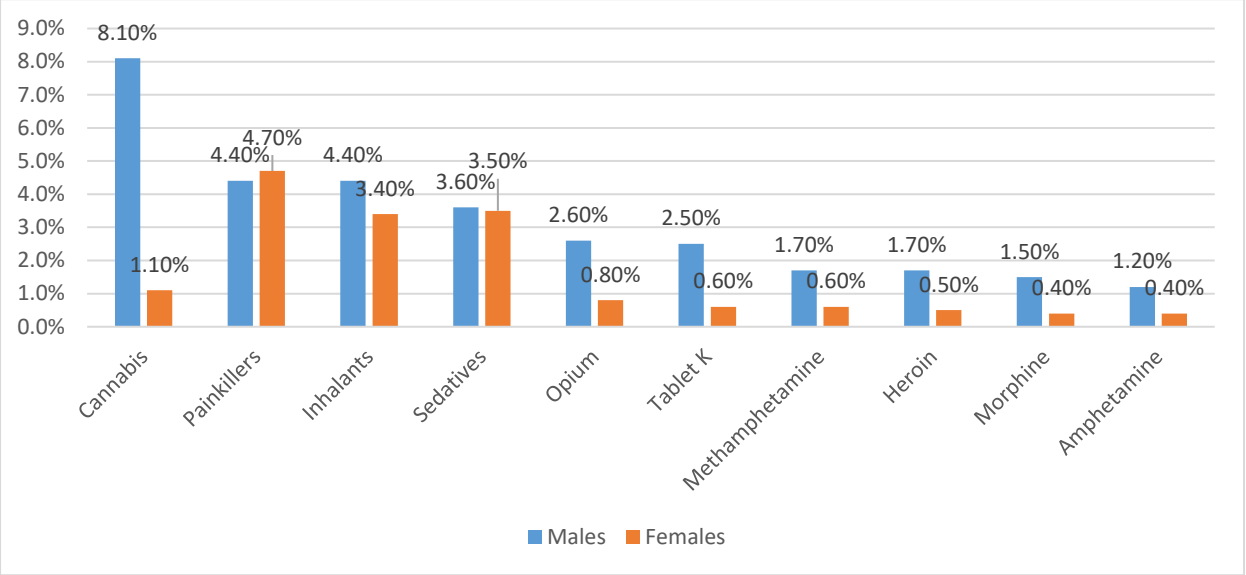
Table 6: Self-reported use of drugs by gender

	Lifetime	Last 12 months	Last 30 days
Cannabis			
Males	10.4% (8.4%-12.7%)*	8.1% (6.5%-10.2%)*	5.1% (3.9%-6.5%)*
Females	1.4% (1.1%-1.6%)*	1.1% (0.8%-1.4%)*	0.7% (0.5%-0.9%)*
Painkillers[45]			
Males	6.4% (5.4%-7.6%)	4.4% (3.5%-5.6%)	2.8% (2.1%-3.7%)*
Females	6.5% (5.4%-7.8%)	4.7% (3.7%-5.9%)	2.9% (2.1%-3.8%)*
Inhalants			
Males	6.2% (4.7%-8.1%)	4.4% (3.3%-5.9%)	3.0% (2.2%-4.2%)*
Females	5.0% (4.4%-5.7%)	3.4% (2.9%-4.0%)	2.5% (2.2%-2.8%)*
Sedatives[46]			
Males	5.1% (3.7%-6.9%)	3.6% (2.3%-5.5%)	2.4% (1.5%-3.9%)*
Females	4.5% (3.7%-5.4%)	3.5% (2.8%-4.4%)	2.4% (1.8%-3.0%)*
Tablet K			
Males	3.4% (2.5%-4.5%)*	2.5% (1.7%-3.8%)*	1.6% (1.0%-2.7%)*
Females	0.9% (0.7%-1.1%)*	0.6% (0.4%-0.8%)*	0.5% (0.4%-0.6%)*
Opium			
Males	3.1% (2.1%-4.5%)*	2.6% (1.7%-3.8%)*	1.7% (1.1%-2.8%)*
Females	1.2% (1.0%-1.5%)*	0.8% (0.7%-1.1%)*	0.5% (0.3%-0.6%)*
Methamphetamine			
Males	2.3% (1.6%-3.4%)*	1.7% (1.0%-2.7%)*	1.1% (0.6%-2.0%)*
Females	0.8% (0.6%-1.1%)*	0.6% (0.4%-0.9%)*	0.4% (0.3%-0.6%)*
Heroin			
Males	2.3% (1.5%-3.4%)*	1.7% (1.0%-2.9%)*	1.1% (0.5%-2.4%)*
Females	0.6% (0.4%-1.0%)*	0.5% (0.2%-0.9%)*	0.2% (0.1%-0.4%)*
Morphine			
Males	2.3% (1.6%-3.1%)*	1.5% (1.0%-2.2%)*	1.0% (0.6%-1.6%)*
Females	0.6% (0.5%-0.9%)*	0.4% (0.3%-0.7%)*	0.2% (0.2%-0.3%)*
Amphetamine			
Males	1.7% (1.2%-2.4%)*	1.2% (0.8%-1.8%)*	0.7% (0.4%-1.2%)*
Females	0.5% (0.3%-0.7%)*	0.4% (0.3%-0.6%)*	0.3% (0.2%-0.4%)*
Relevin			
Males	1.6% (1.1%-2.4%)*	1.1% (0.6%-1.8%)*	0.7% (0.3%-1.5%)*
Females	0.6% (0.5%-0.8%)*	0.4% (0.3%-0.5%)*	0.3% (0.2%-0.4%)*
Cocaine			
Males	1.4% (0.9%-2.2%)*	0.9% (0.5%-1.6%)*	0.6% (0.3%-1.0%)*
Females	0.5% (0.4%-0.7%)*	0.4% (0.3%-0.6%)*	0.3% (0.2%-0.4%)*

Red colour: A dummy drug, only included in the survey for validity-control purposes
Gray colour: Special caution should be used in interpreting this result due to the low percentage of reporting.
*Statistically significant difference between the two groups (males vs. females)
Numbers in brackets represent the lower and upper bound of the confidence interval.

[45] Including those prescribed by a doctor.
[46] Including those prescribed by a doctor.

Graph 4: Gender differences in last 12-month use of various drugs



While there were some differences observable between the self-reported use of different drugs by the older (19-24) and younger (13-18) students, these were, however, not statistically significant. In general, with the exception of a few substances such as painkillers, the self-reported use of most drugs was higher among the older as compared to the younger students. See Table 7.

Table 7: Self-reported use of drugs by age

	Lifetime	Last 12 months	Last 30 days
Cannabis			
Age 13-18	6.9% (5.7%-8.4%)	5.5% (4.5%-6.7%)	3.4% (2.7%-4.3%)
Age 19-24	9.2% (7.1%-11.8%)	6.8% (5.1%-8.9%)	4.2% (3.2%-5.4%)
Painkillers[47]			
Age 13-18	6.5% (5.7%-7.5%)	4.6% (3.8%-5.6%)	2.8% (2.3%-3.6%)
Age 19-24	5.6% (4.3%-7.3%)	3.9% (2.7%-5.6%)	2.7% (1.7%-4.2%)
Inhalants			
Age 13-18	6.0% (4.8%-7.5%)	4.3% (3.4%-5.4%)	2.9% (2.2%-3.8%)
Age 19-24	4.1% (3.3%-5.1%)	2.7% (2.0%-3.6%)	2.1% (1.6%-2.9%)
Sedatives[48]			
Age 13-18	5.1% (4.0%-6.5%)	3.7% (2.7%-5.2%)	2.5% (1.7%-3.7%)
Age 19-24	3.4% (2.6%-4.6%)	2.4% (1.6%-3.5%)	1.7% (1.2%-2.5%)
Tablet K			
Age 13-18	2.5% (1.9%-3.4%)	1.9% (1.2%-2.8%)	1.3% (0.8%-2.0%)
Age 19-24	2.4% (1.9%-3.0%)	1.7% (1.3%-2.1%)	1.0% (0.7%-1.3%)
Opium			
Age 13-18	2.4% (1.7%-3.3%)	2.0% (1.4%-2.9%)	1.3% (0.9%-2.1%)
Age 19-24	2.7% (1.8%-4.0%)	1.6% (1.2%-2.2%)	1.0% (0.7%-1.4%)

[47] Including those prescribed by a doctor.
[48] Including those prescribed by a doctor.

	Lifetime	Last 12 months	Last 30 days
Methamphetamine			
Age 13-18	1.8% (1.2%-2.6%)	1.3% (0.8%-2.1%)	0.9% (0.5%-1.6%)
Age 19-24	1.6% (1.2%-2.1%)	1.1% (0.8%-1.5%)	0.6% (0.4%-0.9%)
Heroin			
Age 13-18	1.7% (1.1%-2.5%)	1.3% (0.8%-2.1%)	0.9% (0.4%-1.7%)
Age 19-24	1.8% (1.3%-2.3%)	1.1% (0.7%-1.6%)	0.5% (0.2%-1.0%)
Morphine			
Age 13-18	1.7% (1.2%-2.3%)	1.1% (0.8%-1.7%)	0.7% (1.4%-1.2%)
Age 19-24	1.8% (1.3%-2.5%)	0.8% (0.5%-1.3%)	0.6% (0.3%-1.0%)
Amphetamine			
Age 13-18	1.2% (0.9%-1.8%)	0.9% (0.6%-1.3%)	0.5% (0.3%-0.9%)
Age 19-24	1.7% (1.2%-2.3%)	1.1% (0.9%-1.5%)	0.5% (0.2%-1.0%)
Relevin			
Age 13-18	1.2% (0.8%-1.8%)	0.9% (0.5%-1.4%)	0.6% (0.3%-1.1%)
Age 19-24	1.4% (0.9%-2.0%)	0.7% (0.4%-1.2%)	0.4% (0.3%-0.7%)
Cocaine			
Age 13-18	1.1% (0.7%-1.7%)	0.8% (0.5%-1.3%)	0.5% (0.3%-0.8%)
Age 19-24	1.0% (0.6%-1.8%)	0.5% (0.3%-0.9%)	0.3% (0.1%-0.7%)

Red colour: A dummy drug, only included in the survey for validity-control purposes
Gray colour: Special caution should be used in interpreting this result due to the low percentage of reporting.
Numbers in brackets represent the lower and upper bound of the confidence interval.

Similarly, while there were some differences in the self-reported use of different drugs among young people in urban and rural areas, these were also not statistically significant (see Table 8).

Table 8: Self-reported use of drugs by area of residence

	Lifetime	Last 12 months	Last 30 days
Cannabis			
Urban youth	7.3%	5.9%	3.7%
Rural youth	7.0% (4.4%-10.9%)	5.3% (3.3%-8.6%)	3.3% (1.9%-5.7%)
Painkillers[49]			
Urban youth	6.6%	4.8%	2.9%
Rural youth	6.2% (4.5%-8.5%)	4.2% (2.7%-6.4%)	2.8% (1.6%-4.6%)
Inhalants			
Urban youth	5.6%	3.9%	2.7%
Rural youth	6.0% (3.7%-9.4%)	4.3% (2.6%-6.8%)	3.0% (1.7%-5.1%)
Sedatives[50]			
Urban youth	4.5%	3.2%	2.1%
Rural youth	5.4% (3.4%-8.5%)	4.1% (2.2%-7.5%)	2.7% (1.3%-5.6%)
Tablet K			
Urban youth	2.6%	1.9%	1.2%
Rural youth	2.3% (1.2%-4.4%)	1.7% (0.7%-4.1%)	1.2% (0.4%-3.2%)
Opium			

[49] Including those prescribed by the medical doctor.
[50] Including those prescribed by the medical doctor.

	Lifetime	Last 12 months	Last 30 days
Urban youth	2.0%	1.6%	1.1%
Rural youth	3.0% (1.7%-5.3%)	2.5% (1.4%-4.5%)	1.6% (0.7%-3.3%)
Methamphetamine			
Urban youth	1.6%	1.2%	0.9%
Rural youth	2.0% (1.0%-4.0%)	1.4% (0.6%-3.5%)	0.9% (0.3%-2.7%)
Heroin			
Urban youth	1.3% ()	1.0%	0.6%
Rural youth	2.2% (1.2%-4.2%)	1.7% (0.8%-3.6%)	1.1% (0.3%-3.4%)
Morphine			
Urban youth	1.5% ()	1.0%	0.6%
Rural youth	1.9% (1.1%-3.5%)	1.2% (0.6%-2.5%)	0.8% (0.3%-2.0%)
Amphetamine			
Urban youth	1.3%	0.9%	0.5%
Rural youth	1.3% (0.7%-2.7%)	1.0% (0.4%-2.1%)	0.5% (0.2%-1.5%)
Relevin			
Urban youth	1.2%	0.8%	0.6%
Rural youth	1.3% (0.7%-2.7%)	0.9% (0.3%-2.4%)	0.6% (0.1%-2.3%)
Cocaine			
Urban youth	1.0%	0.7%	0.5%
Rural youth	1.2% (0.5%-2.8%)	0.8% (0.3%-2.3%)	0.5% (0.2%-1.5%)

Red colour: A dummy drug, only included in the survey for validity-control purposes
Gray colour: Special caution should be used in interpreting this result due to the low percentage of reporting.
Numbers in brackets represent the lower and upper bound of the confidence interval.

2.1.1.4 Use of additional substances reported as free text

In their responses, the students were also able to mention other substances they had used; that they had heard about; or that their friends had used. The most frequently mentioned after naswar and paan (described above) was hookah, which is more accurately a means of using tobacco, cannabis or opium as opposed to being a substance itself. Hookah smoking was spontaneously mentioned by 42 respondents.

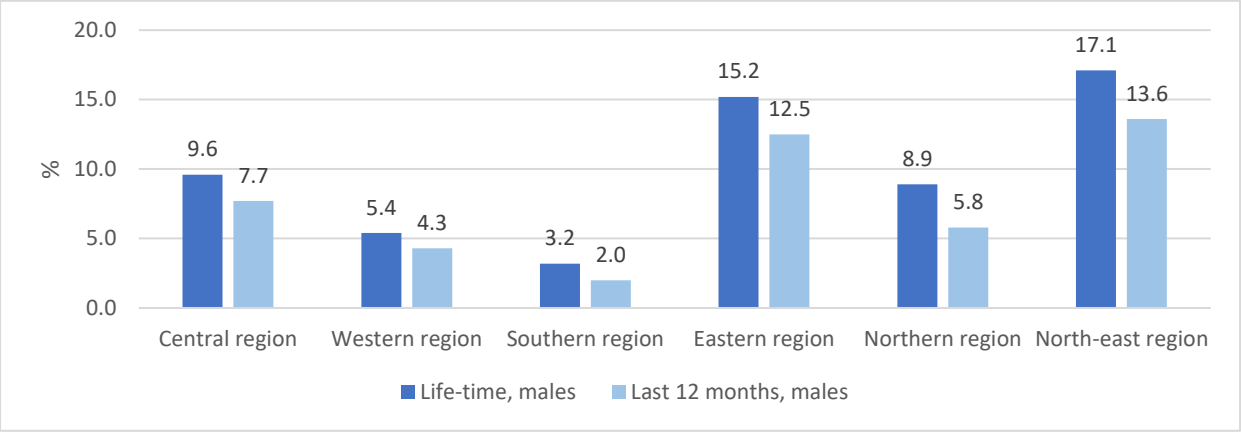
2.1.1.5 Differences among regions in the prevalence of substance use

There were clearly some differences among regions in the self-reported prevalence of the use of different substances (see Graphs 5 to 9)[51]. While cannabis use was highest among males in the North-East region, the self-reported use of other substances was more prevalent among males in the Eastern region. On the other hand, the Southern region and to some extent the Western region had consistently the lowest self-reported use of different substances among male students.

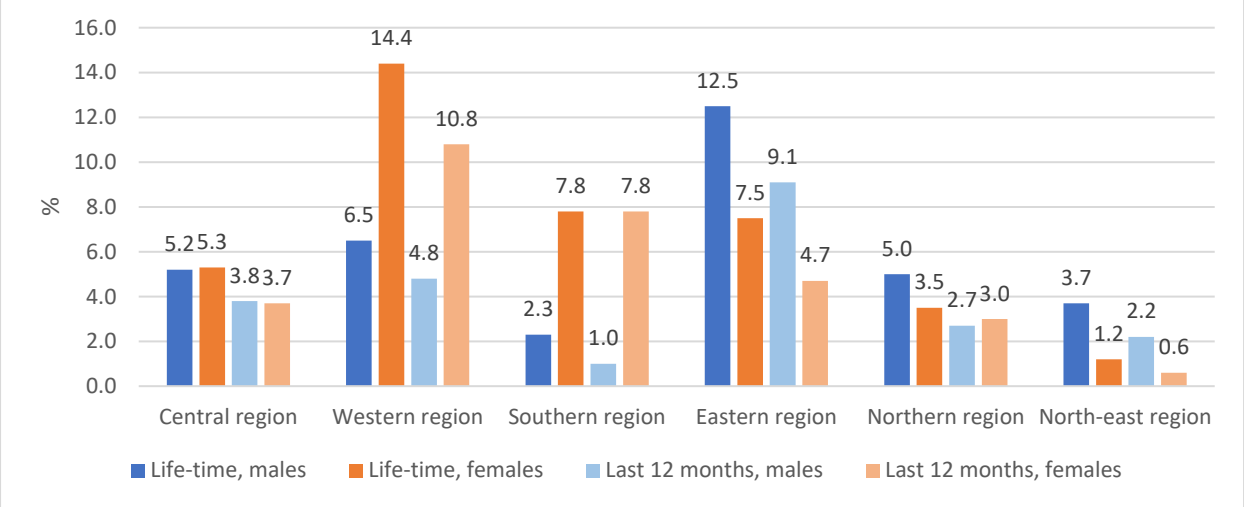
[51] Note: Females (orange bars) were not included in those graphs where their number was small in relation to prevalence because a small number of individual users might have caused large variations in the observed prevalence in some regions, deeming any comparisons invalid.

Females in many countries of the world are more inclined to use pharmaceutical drugs, often without a doctor's prescription or advice[52]. The self-reported use of painkillers was highest among females in the Western region. Even more worrying was the self-reported use of inhalants among female students - comparatively higher in the Western, Eastern, and Southern regions.

Graph 5: Self-reported use of cannabis: lifetime and last 12 months prevalence by region among male students

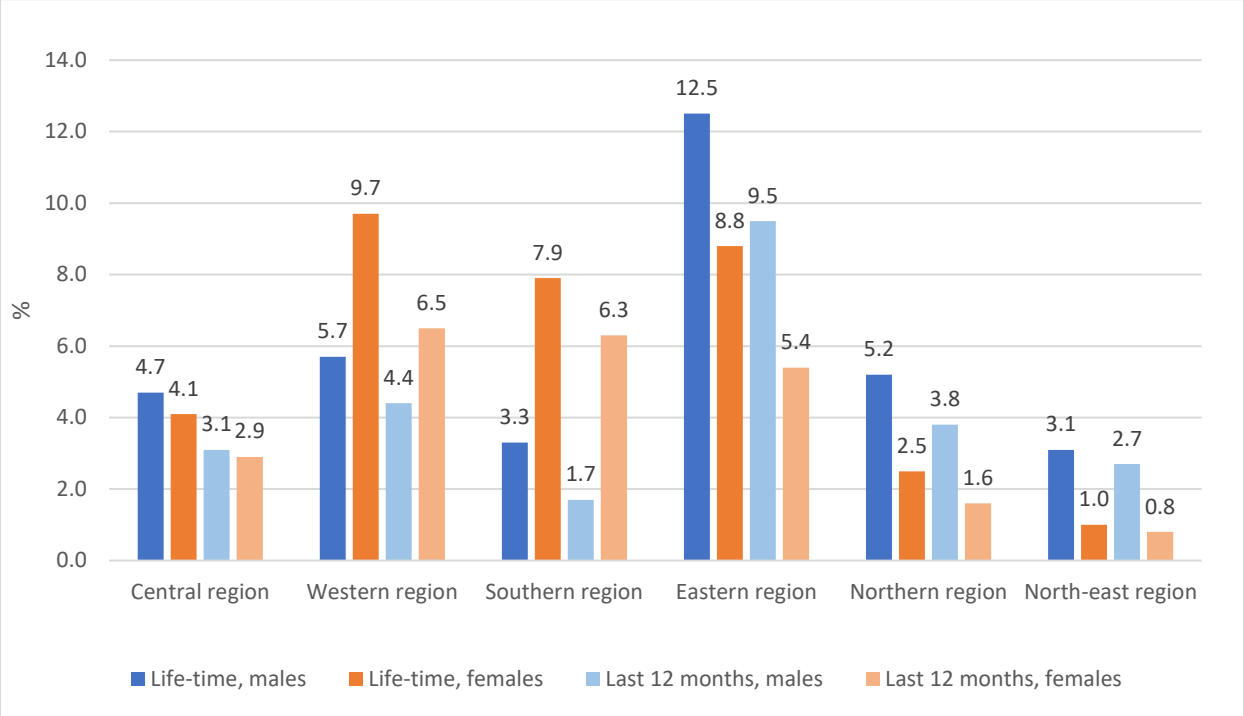


Graph 6: Self-reported use of painkillers: lifetime and last 12 months by region and gender

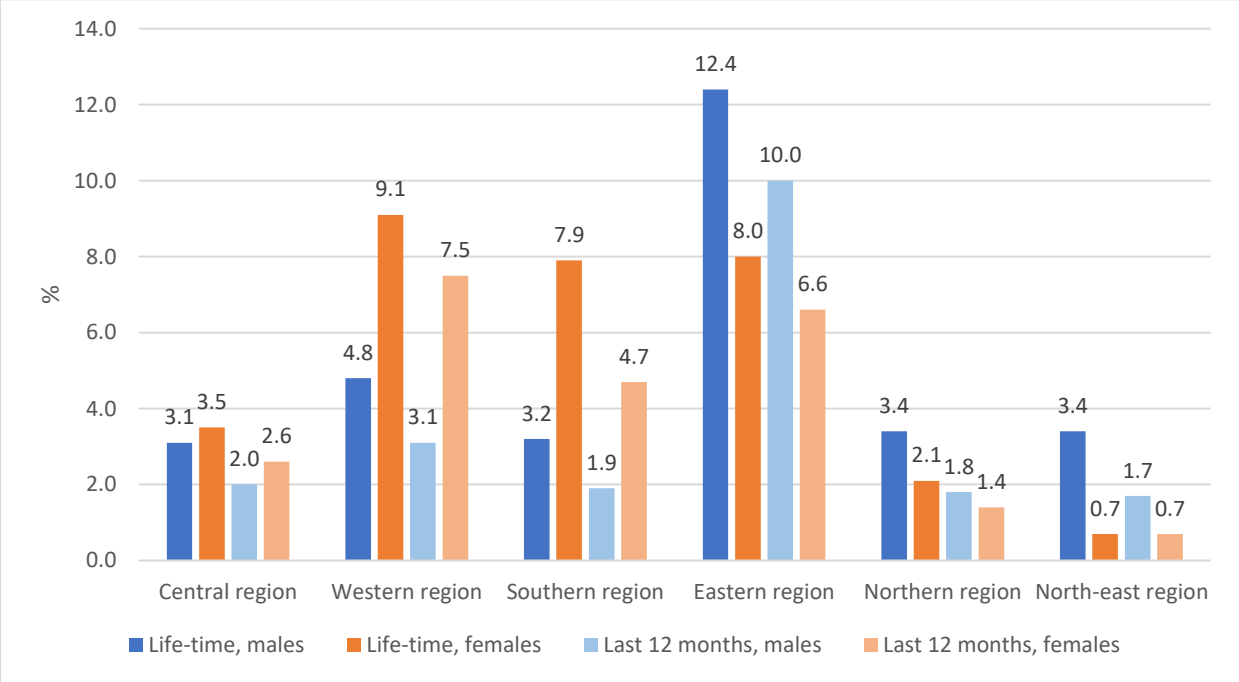


[52] Nora D. Volkow, *Prescription drugs: Abuse and addiction* (National Institute on Drug Abuse, 2005).

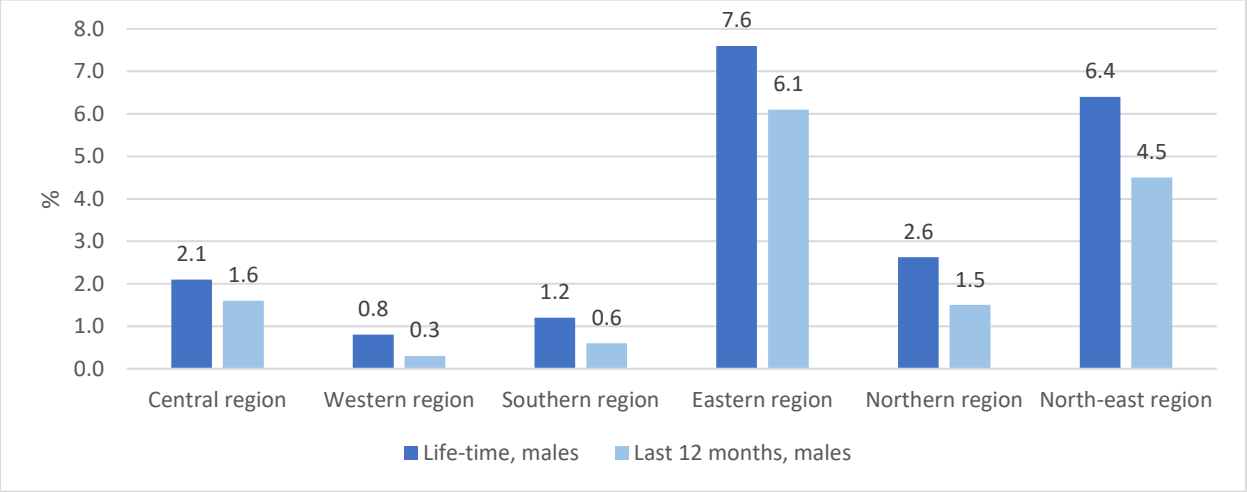
Graph 7: Self-reported use of inhalants: lifetime and last 12 months by region and gender



Graph 8: Self-reported use of sedatives: lifetime and last 12 months by region and gender



Graph 9: Self-reported use of 'tablet K': lifetime and last 12 months by region among male students



2.1.1.6 Indicators of more risky patterns of use – intensive use and early initiation

The survey also asked questions about age of initiation and the frequency of use of the different substances. Data from surveys on drug use indicate that initiation of substance use is most common in early to mid-adolescence; and, for the subgroup of users that escalate their use, substance use peaks during the transition into young adulthood. Thus, from the perspective of preventing the initiation of substance use, as well as preventing the development of substance-use disorders within the context of the healthy and safe development of young people, it is important to have a sound understanding of the patterns of substance use, as well as the personal, social and environmental influences that may result in substance use and substance-use disorders among young people.[53, 54]

Inhalants were the substances with the highest proportion of early initiators. 1.9% of the school sample reported having used them for the first time in their life by the age of 13. 1.6% of the sample had used painkillers by the age of 13; and 1.5% had used sedatives by the same age. 1% reported having used cannabis for the first time at the age of 13 or earlier. 0.8% reported they had used opium by the same age; and 0.7% reported having used heroin by that point. 0.6% of the sample reported early use of methamphetamine. Early initiation of the use of all the remaining drugs was at or below 0.5%.

[53] *World Drug Report 2018* (United Nations publication, Sales No. E.18.XI.9)
[54] John W. Toumbourou and others, "Interventions to reduce harm associated with adolescent substance use." *The Lancet*, vol. 369, No. 9570 (2007), pp. 1391-1401.

Intensive use, defined here as the use of a substance on 40 or more occasions within the recall period, was rather rare in the sample which was studied. Among young people in schools, the only substance exceeding 0.5% was cannabis, with 0.6% of the sample reporting its use on forty or more occasions in their lives. 0.4% of the respondents reported using cannabis in this intensive way in the last 12 months and the last 30 days. Use of cannabis on 20 days or more in the last 30 days is often used as an indicator of daily or almost daily cannabis use. The present study did not collect data on the number of days of use, only on the number of occasions. However, 0.5% of the in-school sample reported use of cannabis on 20 or more occasions in the last 30 days.

2.1.2 Correlates of substance use

In the section above, in addition to the main prevalence estimates, it was described how substance use varied in relation to a number of key variables: gender; age group; urban or rural area of residence; and region.

A number of factors have been shown to be associated with initiation of substance use by adolescents and its progression to substance-use disorders. These factors include environmental factors such as family structure; parental support; parental substance-use disorders; parental monitoring; peer influences; prevailing attitudes towards substance use; and the availability of substances. Individual behavioural, psychological and psychopathological characteristics are also important. These include: conduct disorders in childhood; antisocial behaviour; aggressiveness; truancy; running away from home; low self-esteem; depressive mood; and suicidality[55]. The findings from the current study regarding some of these measures are presented in the following sections[56].

2.1.2.1 Drug-related attitudes

2.1.2.1.1 Having heard about substances

The most well-known substances among the respondents were cannabis and opium, followed by heroin and methamphetamine (see Graphs 10 and 11). This corresponds to the Afghan drug situation where opioids and cannabinoids are the most widely used drugs[57].

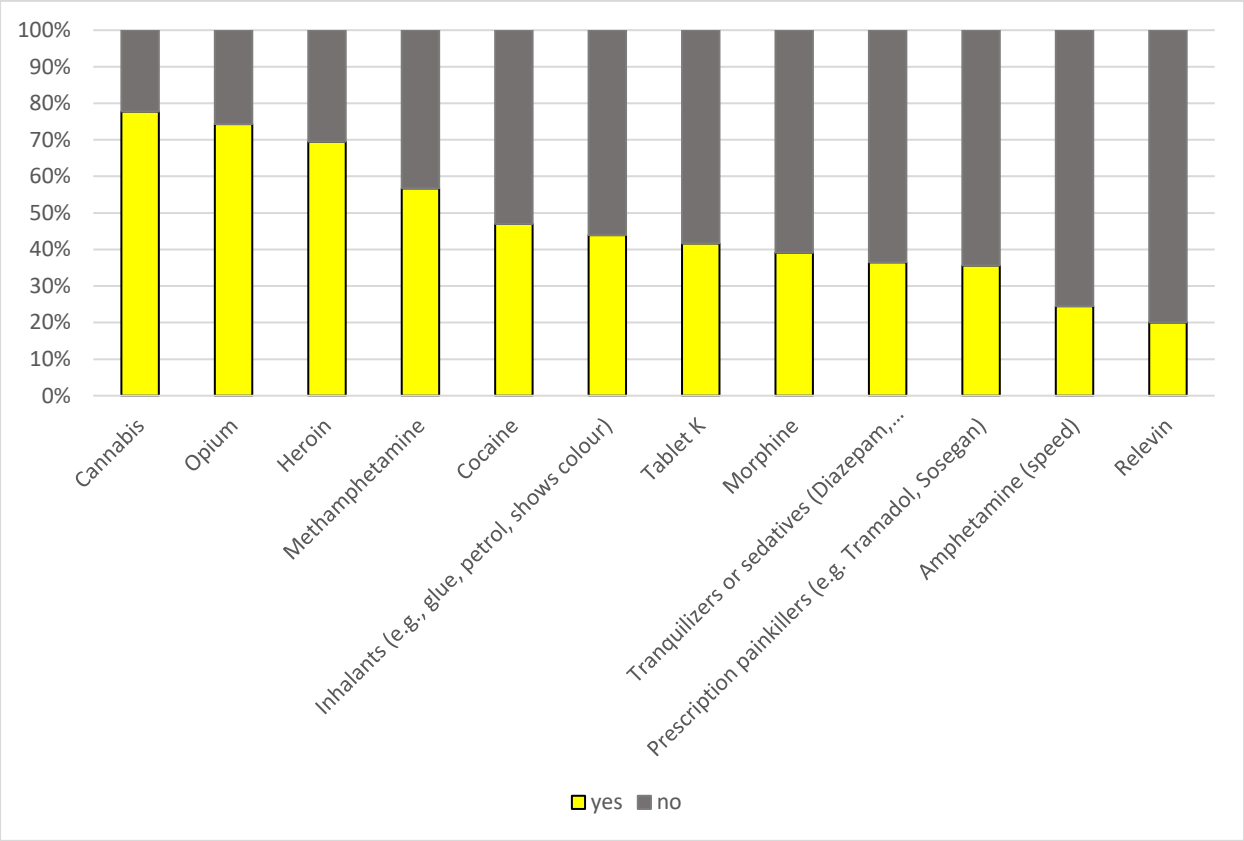
[55] Bjorn Hibell and others, *The 2007 ESPAD report. Substance use among students in 35 European Countries* (CAN, Stockholm, 2009).

[56] Bivariate relationships are presented for the most part. These are relationships between drug use and one variable at a time (e.g. perceived availability of substances and their use). They offer insight into the predictors of drug use, but do not present a complete picture of the nature of this relationship. One of the reasons is that there could be other variables at play which can, for instance, influence both the predictor as well as the outcome (drug use in this case). For instance, rural inhabitants may have lower use of a certain substance because they cannot access it (the availability of the particular substance is low in rural areas). More insight will be provided by multivariate statistical analysis. As the in-school sample was larger, it allowed for a more detailed analysis of the relationships between variables. The analysis of the bivariate relationships in the in-school sample was performed using the SPSS module Complex sample

[57] Islamic Republic of Afghanistan Ministry of Counter Narcotics. *2015 Afghanistan Drug Report* (9 December 2015).

See Graph 10. In general, students reported knowledge of most substances. Relevin, the dummy drug, which is part of the questionnaire for validity-control purposes, was reported as being the least known; but about 20% of the school sample still responded that they had heard of it.

Graph 10: Having heard of the listed substances – in-school sample

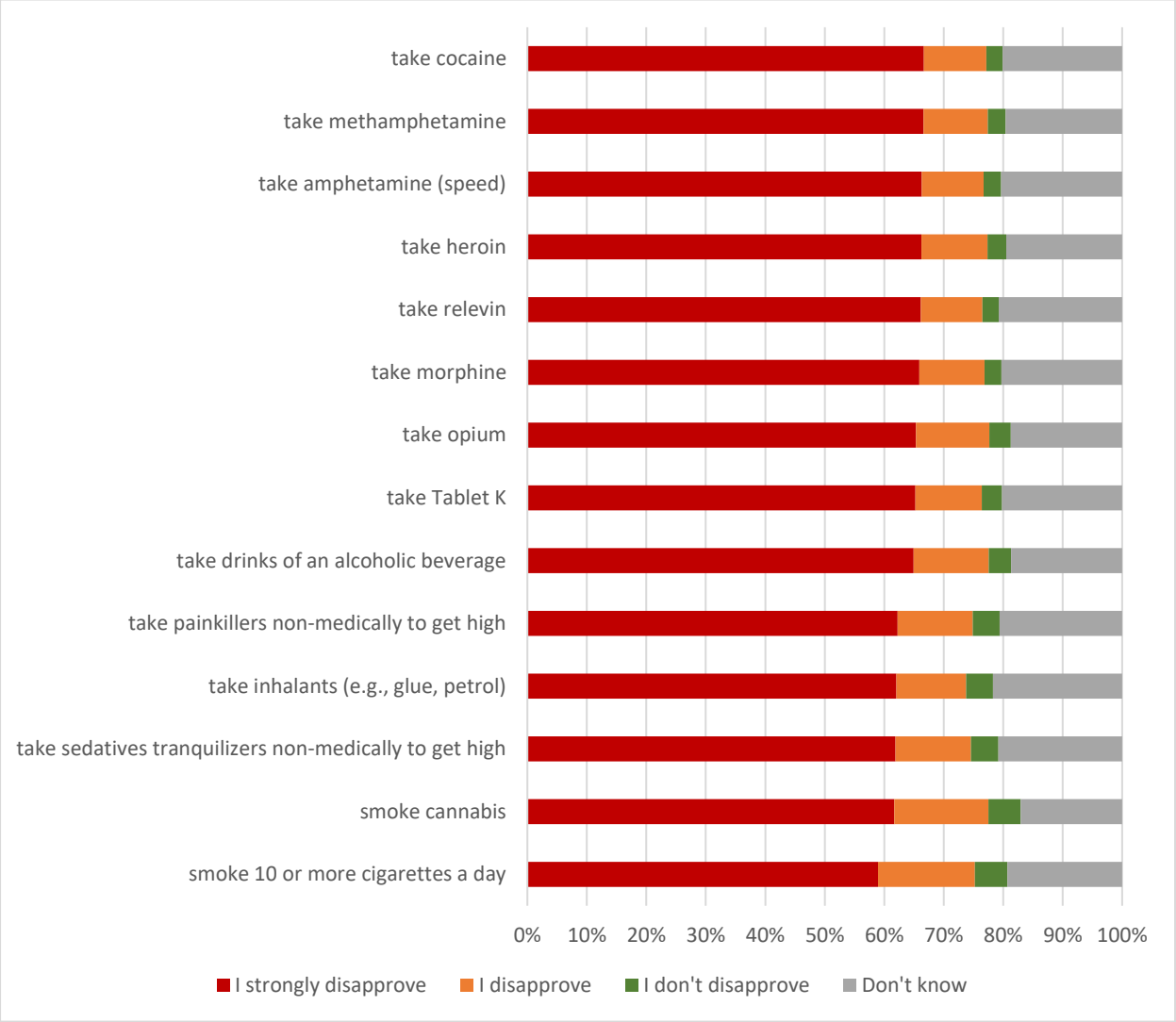


Interestingly, in the case of almost all substances, females reported having heard about them more often than males. Urban young people also reported hearing about those drugs more often than those in rural areas.

2.1.2.1.2 Disapproval of substance users

For the students, disapproval of substance users was consistently relatively high for all substance groups and not 'differentiated' by substance group (see Graph 11).

Graph 11: Disapproval of substance users by young people in schools according to substance group



Note: This graph is based on responses to the question: 'Do you disapprove of people who… ' followed by a list of substances and some patterns of use.

Male students and young people in school from a rural background reported consistently higher levels of disapproval of substance users. Those students who disapproved of the users of a particular substance had lower levels of its use (see Table 9).

Table 9: Self-reported substance use in the last 12 months

Prevalence of the use of[58]:	Disapproval[59]	No disapproval	Odd Ratio** (Confidence Interval)
Tobacco*	11.4%	33.1%	0.261 (0.206-0.332)
Cannabis*	4.2%	23.0%	0.147 (0.113-0.190)
Sedatives*	2.5%	19.1%	0.109 (0.087-0.136)
Inhalants*	2.9%	21.1%	0.114 (0.091-0.142)
Painkillers*	3.3%	20.5%	0.134 (0.107-0.166)
Alcohol*	2.0%	16.5%	0.106 (0.081-0.138)
Tablet K*	1.2%	14.3%	0.073 (0.062-0.086)
Opium*	1.6%	11.7%	0.120 (0.092-0.155)
Morphine*	0.9%	5.8%	0.141 (0.072-0.278)
Heroin*	0.9%	6.3%	0.138 (0.076-0.251)
Amphetamine*	0.6%	6.4%	0.094 (0.063-0.142)
Methamphetamine*	1.0%	8.2%	0.110 (0.075-0.160)

*for all substances, the difference between the prevalence of users between the 'disapproval' and 'no disapproval' categories was statistically significant on the level $p<0.001$
** Odd ratio is the likelihood or the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure. In this case, no disapproval of substance use means higher odds of use of the substance.
Note: based on answers to the question: 'Do you disapprove of people who… ' followed by a list of substances and some patterns of use.

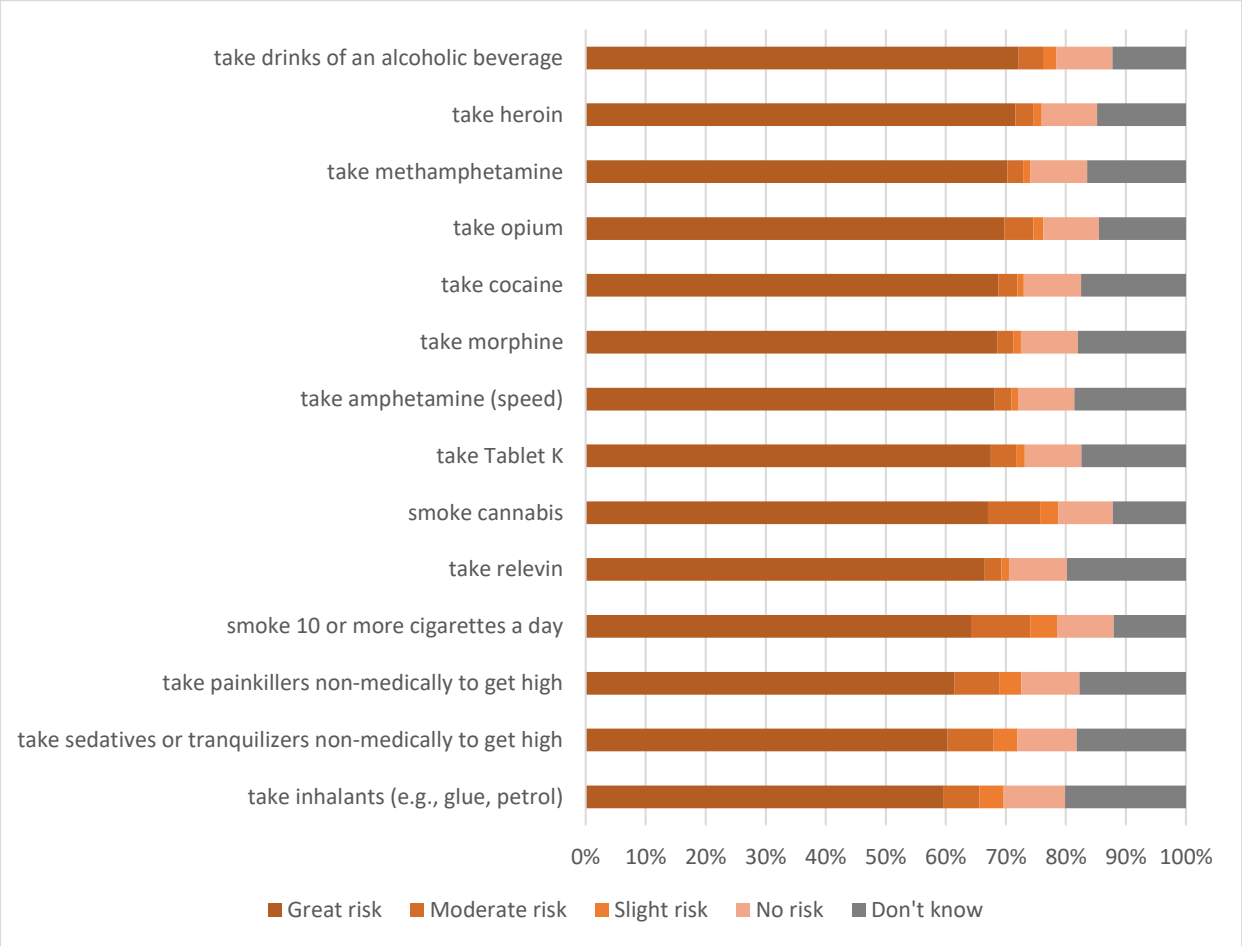
2.1.2.1.3 Perception of risk

Perception of risk is one of the known protective factors against substance use on the individual level,[60,61] but also on the country level[62,63,64]. Research has shown that low risk perception around use of drugs is associated with drug use. It is difficult to compare the risk perception of Afghan youth with the other countries because the questions in the questionnaires were to some extent formulated differently for Afghanistan. However, smoking 10 or more cigarettes per day was an identical category. 73% of in-school youth in

[58] Only substances with prevalence above the self-reported use of the dummy drug Relevin were included in the analysis.
[59] Answer options are merged: 'disapproval' is the merged answers to 'I strongly disapprove' and 'I disapprove'. 'No disapproval' corresponds to the answer option 'I don't disapprove'. Those who answered 'I don't know' were excluded from this analysis.
[60] Julio Bejarano and others, "Perception of risk and drug use: An exploratory analysis of explanatory factors in six Latin American countries." *The Journal of International Drug, Alcohol and Tobacco Research*, vol. 1, No. 1 (2011), pp. 9-17.
[61] Dagmar Dzúrová and others "Substance misuse and its risk perception in European teenagers", *Children's Geographies*, vol. 14, No. 2 (2016), pp. 203-216.
[62] Mark Morgan and others, "The ESPAD study: Implications for prevention", *Drugs: education, prevention and policy*, vol. 6, No. 2 (1999), pp. 243-256.
[63] Barbro Andersson and others, "The prevalences of and perceived risks from drug use among teenagers in 33 European countries", *Journal of Substance Use*, vol. 14, No. 3-4 (August 2009), pp.189-196.
[64] Bjorn Hibell and others, *The 2011 ESPAD Report Substance Use Among Students in 36 European Countries* (CAN, Stockholm, 2012).

Afghanistan considered this behaviour carried 'great risk'. This suggests the risk perception of smoking 10 or more cigarettes per day is higher than the ESPAD average[65], where 64% of the respondents believe that this behaviour carries 'great risk'. Similarly, to disapproval, it may be noted that in-school young people reported a more 'flat' perception of risks, with little differentiation among various substances and patterns of use. One of the most worrying aspects of their pattern of answers is that the lowest perception of risk is associated with the use of inhalants. It is well below the level of perceived risk from the dummy drug Relevin (see Graph 12).

Graph 12: Perception of risk of various patterns of substance use



Females and urban young people had a consistently higher risk perception of the use of most substances.

[65] Refer to Hibell, Bjorn and others, 2012.

Table 10 summarises the associations between the risk perception of the respective substance and its level of use among the sample. As the sample is large, the associations are statistically significant even after adjustment of the confidence intervals in line with the sampling design which was employed. However, the sizes of the differences vary and in some cases they are rather moderate (see Table 10).

Table 10: Substance use in the last 12 months according to perceived level of risk associated with the respective substance

Use in the last 12 months of[66]:	Low risk perception[67]	High risk perception	Odd Ratio** (Confidence Interval)
Tobacco*	19.2%	11.6%	0.555 (0.498-0.619)
Cannabis*	13.0%	4.4%	0.307 (0.222-0.425)
Sedatives*	8.3%	2.6%	0.294 (0.234-0.368)
Inhalants*	10.2%	2.6%	0.238 (0.211-0.269)
Painkillers*	8.5%	3.8%	0.420 (0.379-0.467)
Alcohol*	8.3%	1.7%	0.194 (0.139-0.270)
Tablet K*	4.7%	1.3%	0.274 (0.214-0.351)
Opium*	5.2%	1.3%	0.247 (0.211-0.288)
Morphine*	3.7%	0.6%	0.145 (0.079-0.266)
Heroin*	2.7%	0.8%	0.304 (0.163-0.567)
Amphetamine*	3.4%	0.5%	0.138 (0.082-0.234)
Methamphetamine*	4.1%	0.8%	0.194 (0.137-0.276)

*for all substances, the difference between the prevalence of users between the 'low risk perception' and 'higher risk perception' categories was statistically significant on the level $p<0.001$
** Odd ratio is the likelihood or the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure. In this case, low risk perception means higher odds of use of the substance.

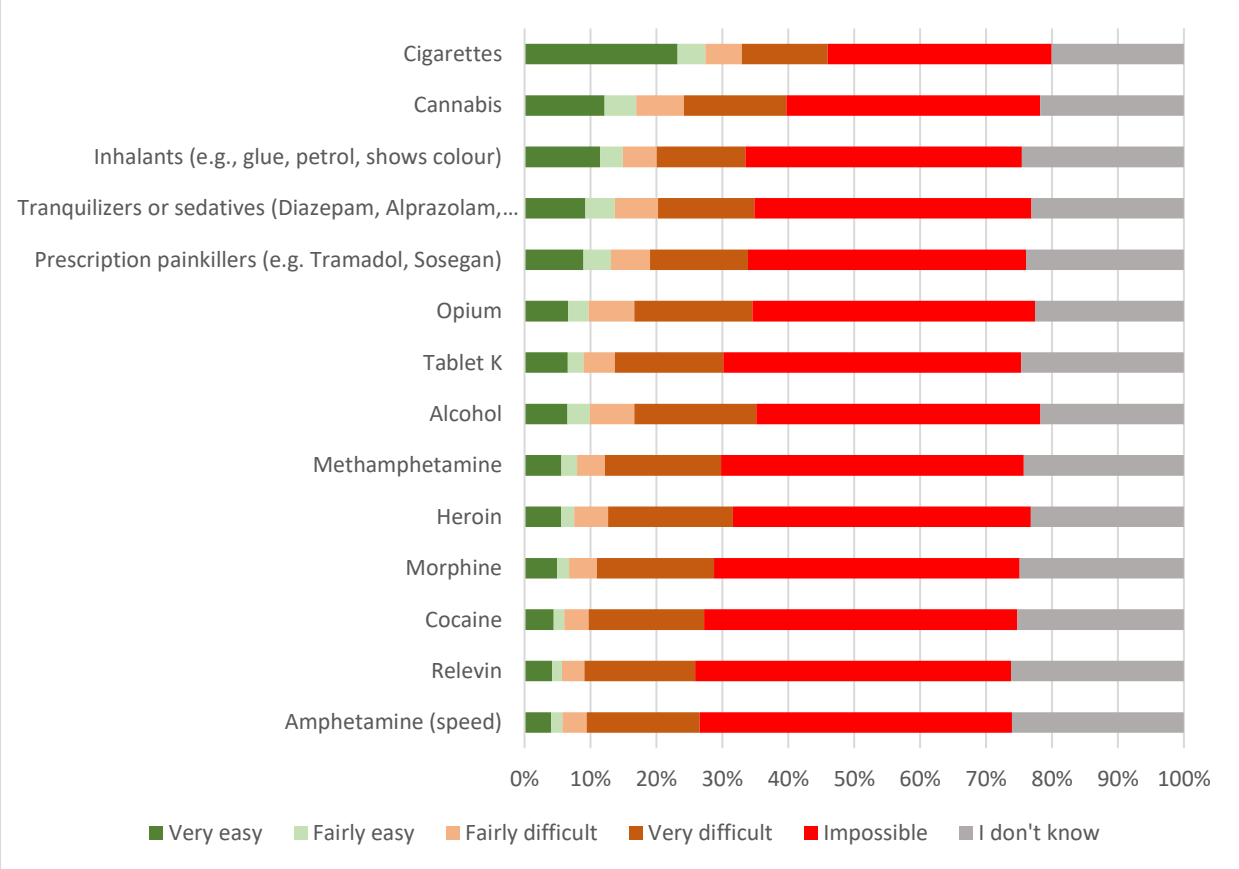
[66] Only substances above the prevalence level of the dummy drug Relevin are included in the analysis.
[67] 'No risk' and 'slight risk' answer options are merged into 'low risk perception'; and 'moderate risk' and 'great risk' into the composite category 'higher risk perception'. Students who answered 'I don't know' were excluded from the analysis.

2.1.2.1.4 Perceived availability of drugs

As the availability of illicit substances cannot be measured directly, measures of perceived availability are often used in studies as a proxy. According to many studies, perceived availability is strongly related to levels of use[68,69,70,71].

In the present study, respondents answered the following question for each of the substances listed: 'How difficult would it be for you to obtain each of the following substances within 24 hours, if you wanted some?' See Graph 13 for an overview of their answers.

Graph 13: Perceived availability of substances in school sample



Note: based on answers to the question: 'How difficult would it be for you to obtain each of the following substances within 24 hours, if you wanted some?'

[68] Nathan A. Gillespie and others, "Pathways to cannabis abuse: a multi-stage model from cannabis availability, cannabis initiation and progression to abuse", *Addiction*, vol. 104, No. 3 (March 2009), pp. 430-438.

[69] Emmanuel Kuntsche, "When cannabis is available and visible at school–a multilevel analysis of students' cannabis use", *Drugs: education, prevention and policy*, vol. 17, No. 6 (December 2010), pp. 681-688.

[70] Thoroddur Bjarnason and others "Cannabis supply and demand reduction: Evidence from the ESPAD study of adolescents in 31 European countries", *Drugs: education, prevention and policy*, vol. 17, No. 2 (January 2010), pp. 123-134.

[71] Daniela Piontek and others, 2013. "Individual and country-level effects of cannabis-related perceptions on cannabis use. A multilevel study among adolescents in 32 European countries", *Journal of Adolescent Health*, vol. 52, No. 4 (April 2013), pp. 473-479.

The highest availability was perceived in the case of substances such as cigarettes, cannabis and inhalants, above psychoactive medicines and opium. Perceived availability was higher in males than females, for most substances. The observed differences were not always large; but they were statistically significant.

Looking at the availability of substances side by side with other countries provides a wider perspective. Table 11 lists the weighted estimates of availability of various substances in the high-school population of Afghanistan and average figures from the ESPAD study[72]. The perceived availability of alcohol was considerably lower in Afghanistan than in the ESPAD countries (mainly European countries). The perceived availability of cigarettes was also just over half of the ESPAD average figure. However, for cannabis, ecstasy/tablet K, cocaine, amphetamine, and methamphetamine, the proportions of students who perceived easy availability were similar.

Table 11: International comparison of perceived easy availability of various substances. Present study vs. ESPAD 2015[73]

	Afghanistan (2018)	ESPAD (2015)
Alcohol	12.2%	78%
Cigarettes	34.3%	61%
Cannabis	21.7%	30%
Ecstasy/Tablet K	11.8%	12%
Cocaine	8.1%	11%
Amphetamine	7.7%	9%
Methamphetamine	10.5%	7%

Note: Based on the percentage of the responses 'quite easy' and 'very easy' to the question 'How difficult would it be for you to obtain the following psychoactive substances within 24 hours if you wanted to? The table cell with the higher value per row is marked in yellow.

Statistical tests were conducted in order to obtain an insight into the association between the ease of availability of various substances and their use. Students who replied that a particular substance was easily available to them had a significantly higher prevalence of its use in all cases (see Table 12).

[72] ESPAD Group, *ESPAD Report 2015. Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016).
[73] *ESPAD* Group, *ESPAD 2015 Methodology: Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016).

Table 12: Substance use in the last 12 months according to perceived availability of substances

Prevalence of use of[74]:	Easy perceived availability[75]	Not easy perceived availability	Odds Ratio (confidence interval) **
Tobacco*	23.6%	9.0%	3.102 (2.633-3.655)
Cannabis*	15.7%	3.7%	4.885 (3.897-6.123)
Sedatives*	10.6%	2.7%	4.359 (3.679-5.165)
Inhalants*	12.3%	2.8%	4.856 (3.587-6.574)
Painkillers*	15.1%	3.0%	5.851 (5.411-6.327)
Alcohol*	11.6%	1.7%	7.420 (4.732-11.636)
Tablet K*	8.8%	1.2%	8.174 (5.669-11.786)
Opium*	6.9%	1.3%	5.517 (4.087-7.447)
Morphine*	3.7%	0.9%	4.332 (2.824-6.645)
Heroin*	4.5%	1.0%	4.854 (3.149-7.482)
Amphetamine*	3.6%	0.8%	4.555 (3.742-5.544)
Methamphetamine*	4.3%	1.0%	4.386 (3.219-5.977)

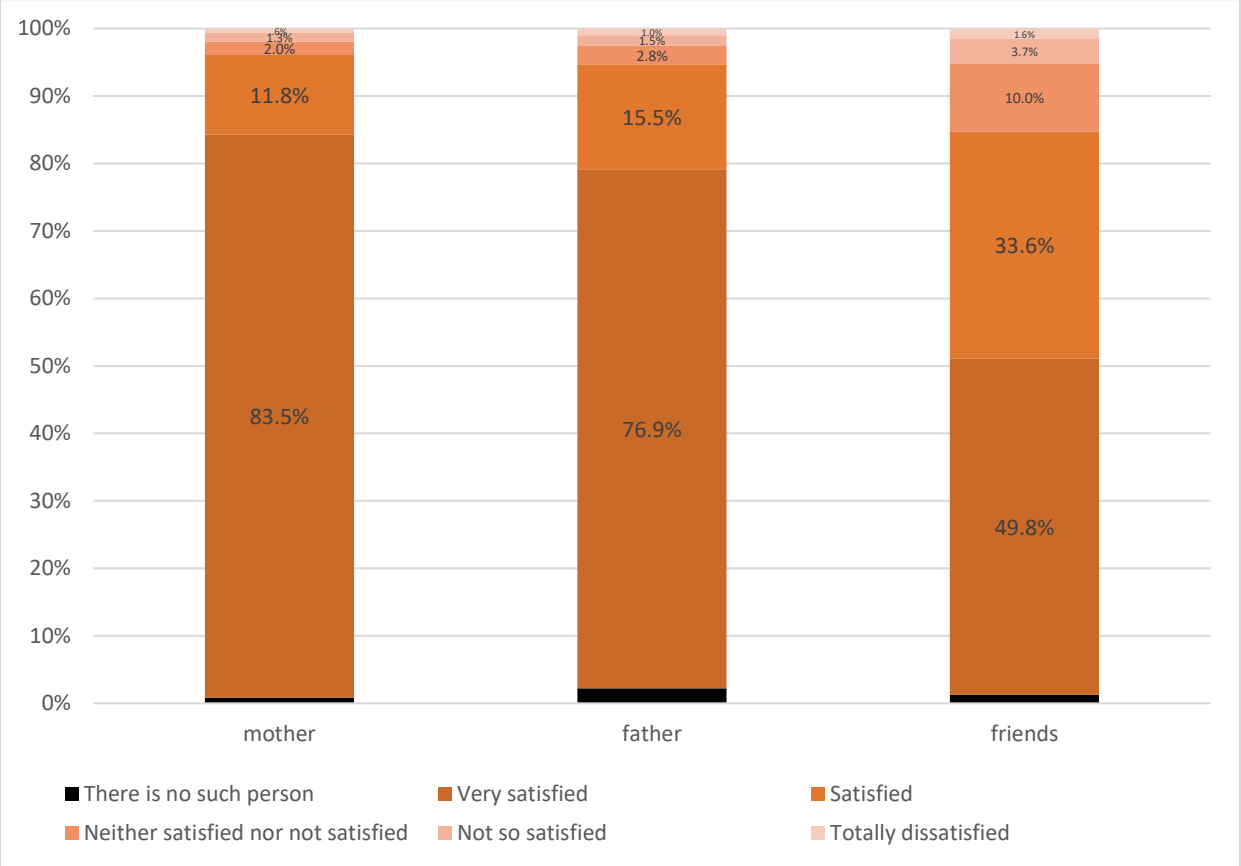
*for all substances, the difference between the prevalence of users between the 'easy perceived availability' and 'not easy perceived availability' categories was statistically significant on the level $p<0.001$
** Odd ratio is the likelihood or the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure. In this case, easy perceived availability means higher odds of use of the substance.

2.1.2.2 Psychosocial variables

Social support is one of the protective factors in drug use and is also key in recovery from drug dependency[76]. Graph 14 provides a general overview of the respondents' satisfaction with relationships with their significant others. The vast majority of the respondents in both samples declared they were satisfied with the relationship with their mother and most were also satisfied with the relationship with their father and friends.

[74] Only substances above the prevalence of the dummy drug Relevin were included.
[75] The response categories 'very easy' and 'fairly easy' were merged into 'easy perceived availability'; while the options 'fairly difficult', 'very difficult' and 'impossible' were merged into 'not easy perceived availability'. Students who answered 'I don't know' were excluded from the analysis.
[76] Stephanie S. Richter, Sandra A. Brown, and Mariam A. Mott, "The impact of social support and self-esteem on adolescent substance abuse treatment outcome." *Journal of substance abuse*, vol. 3, No. 4 (1991), pp. 371-385.

Graph 14: Usual satisfaction with relationships in the school sample



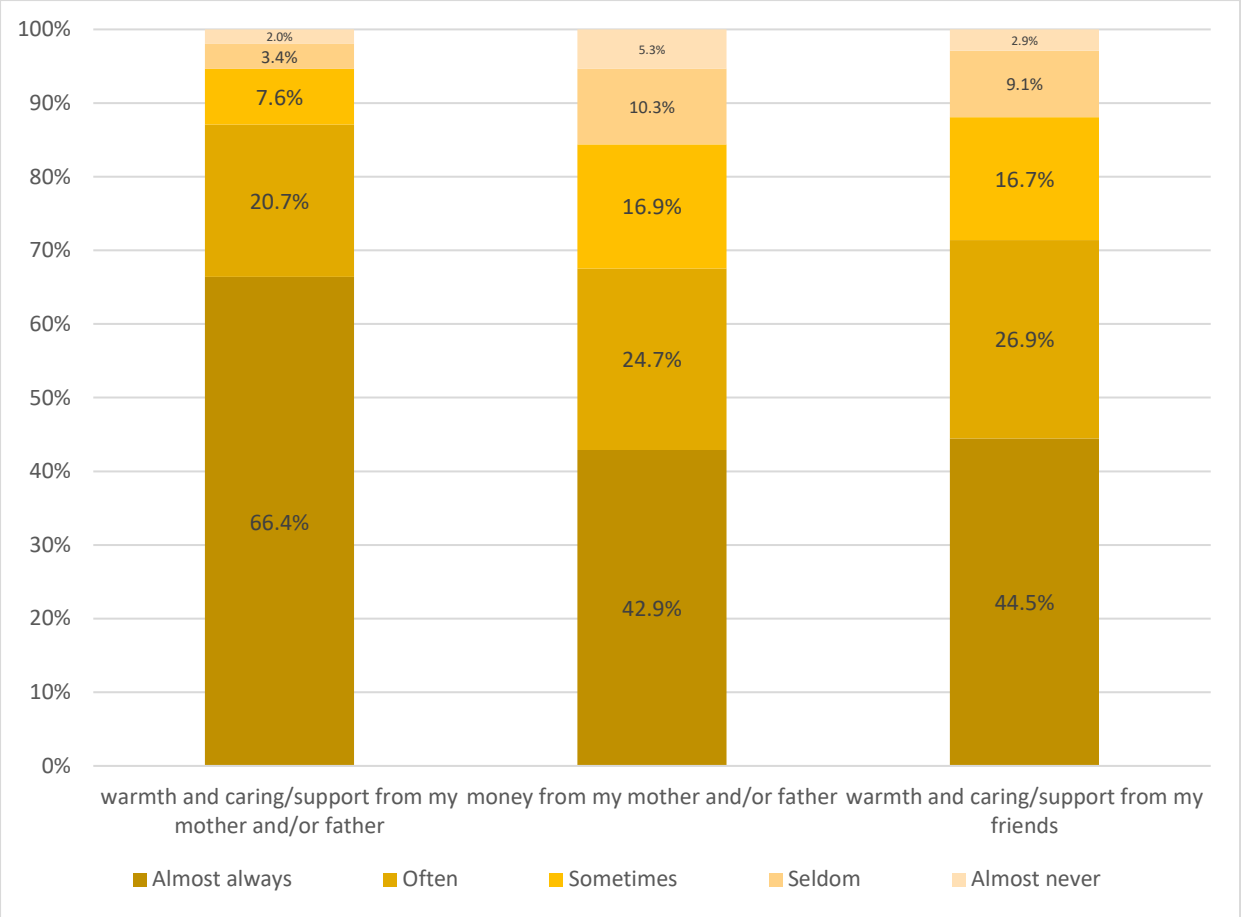
Satisfaction with all three of the important relationships (with mother, father and friends) was statistically significantly associated with substance use. This was true for virtually all substances individually (all substances in the case of the relationship with parents and most substances in the case of the relationship with friends)[77], as well as for the composite variable of any use of alcohol or drugs in the last year. There was lower substance use in respondents with higher satisfaction with relationships. For instance, those who were very satisfied with their relationship with their mother used a substance in 10.9% (CI 10-11.8%) of the cases; whereas those who were totally dissatisfied with the relationships self-reported use of a substance in 21.3% (CI 14.6-29.9%) of the cases.

Respondents were also asked how easily they were able to get warmth and caring, and money, from their significant others. The vast majority were able to obtain warmth and caring from

[77] with the exception of low-prevalence substances such as amphetamine and cocaine in the case of the relationship with father. Those satisfied with their relationships with friends smoked and drank alcohol less, used less cannabis, painkillers and sedatives and were less likely to use any substance ($p<0.01$). They were also slightly less likely to use Tablet K and inhalants ($p<0.05$).

their parents, while over half were also able to get support from their friends and money from their parents (see Graph 15).

Graph 15: Self-assessed possibility of obtaining social support and money from significant others



Note: based a question beginning with the phrase 'I can easily get… ' followed by the text under each bar.

The possibility of obtaining warmth and caring from parents and the ability to actually do that was highly significantly associated with the use of tobacco, alcohol, opium, cannabis, amphetamine, tablet K, painkillers, sedatives, inhalants and also any substances used in the last 12 months ($p<0.01$). A significant, but slightly weaker, association was observed with cocaine, methamphetamine, morphine and heroin use ($p<0.05$). The association was as expected: the less warmth the person was able to obtain from their parents, the higher their likelihood of substance use.

Obtaining money from parents was associated with cigarettes, alcohol, opium, and cannabis use as well as any drug or alcohol use in the last 12 months. Those who said they could not obtain money from their parents had a higher use of these substances. However, it needs to be

kept in mind for the interpretation of these findings that females obtained money more easily from their parents but also used substances less often. 34.5% of males in school answered they can 'almost always' get money from their parents but this response was endorsed by 46.9% of females.

Further, those who can get warmth and support from their friends use substances less often than those who cannot. The ability to obtain warmth and support from friends was highly significantly associated with the use of tobacco, morphine. cannabis, methamphetamine, tablet K, cocaine, inhalants, and any drug use ($p<0.01$); and significantly associated with painkillers, amphetamine and opium use ($p<0.05$).

For the purpose of further analyses, an Index of social support was created[78]. There was a statistically significant, but rather small, difference in the Index of social support between those who had not used any substances in the last 12 months[79] and those who reported any use of alcohol or drugs in the last 12 months [80]

2.1.2.3 Parental monitoring

Parental monitoring or control is also deemed to be one of the important protective factors in relation to drug use[81,82]. In the present study, the majority of respondents asserted that their parents set rules about what the respondent could do at home and outside of home. In most cases, parents knew with whom and where the young person was spending their evenings and/or free time (see Graph 16).

[78] The social support index was composed of the levels of satisfaction with the above three categories of important relationships (zero points was assigned to the answer 'there is no such person'); and two variables measuring the possibility of obtaining social support from these categories of persons.

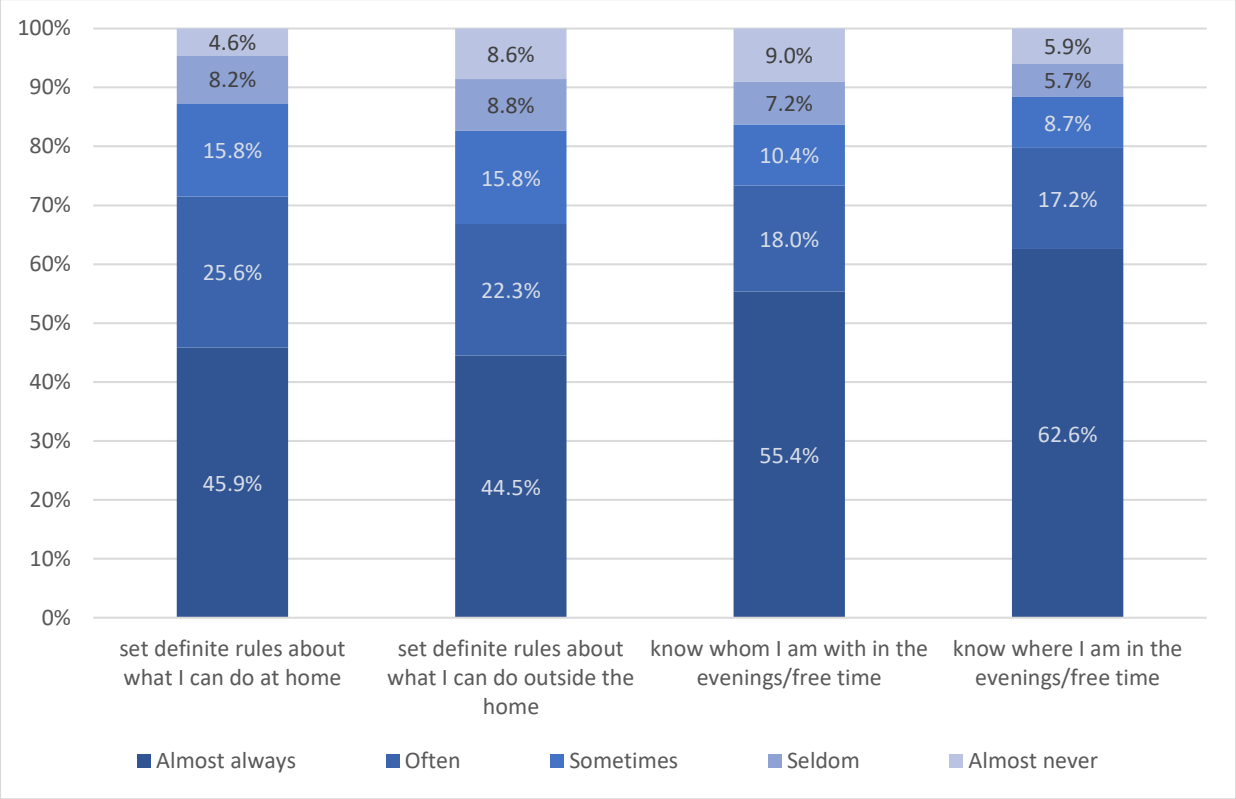
[79] On average 22.17 percent 95% CI 22.12-22.23%)

[80] Average 21.11% , 95% CI 20.88-21.34).

[81] Jill Ryan, Nicolette V. Roman, and Auma Okwany, "The effects of parental monitoring and communication on adolescent substance use and risky sexual activity: A systematic review." *The Open Family Studies Journal* vol. 7, No. 1 (2015).

[82] Abigail A. Fagan and others, "Differential effects of parental controls on adolescent substance use: For whom is the family most important?" *Journal of quantitative criminology*, vol. 29, No. 3 (2013), pp. 347-368.

Graph 16: Parental monitoring among youth in schools



Note: based on answers to the question 'How often do the following statements apply to you?' Each statement begins with 'My parent(s) … ' followed by the text under each bar of the graph.

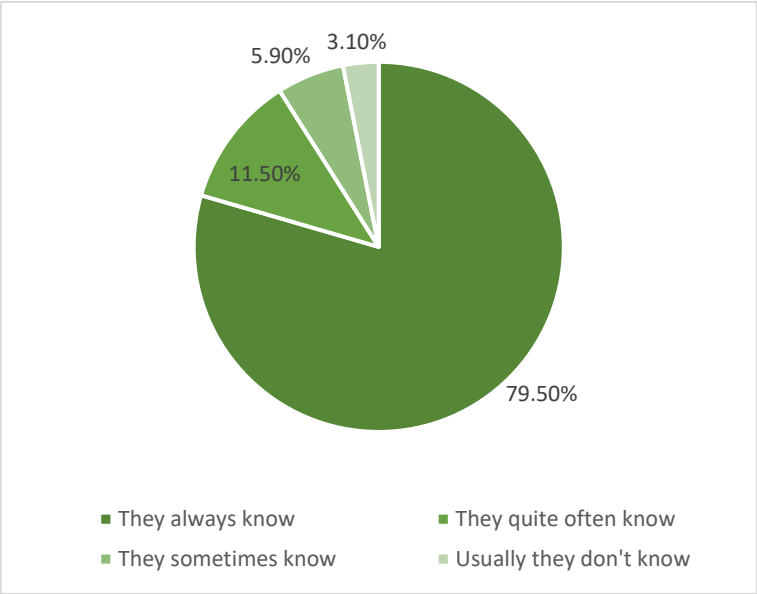
In the statistical analysis, stricter rules at home were associated with less substance use in general; and in particular with lower use of cigarettes, alcohol, cannabis, and painkillers ($p<0.01$); and with slightly lower use of opium, tablet K and inhalants ($p<0.05$). Those answering that their parents set definite rules of behaviour outside of the home reported significantly lower use of cigarettes, alcohol, cannabis, and any substance in the last 12 months ($p<0.01$). Parents' knowing whom the respondent was with in the evenings was significantly associated with the use of all substances except amphetamine; and the association was slightly weaker for sedatives, painkillers, cocaine, and methamphetamine ($p<0.05$). If parents knew whom the respondent was with, the use of substances was less likely. Use of all drugs was highly significantly lower in respondents whose parents knew where the respondents were spending their free time or evenings.

The certainty of these relationships is potentially undermined by the fact that females experience higher levels of social control and also use fewer substances. Such complex relationships are better disentangled in multivariate analyses (see below). However, as is

shown in other research, it still holds true that more parental monitoring is associated with less drug use.

A similar question: 'Do your parents know where you spend weekend evenings/nights?' (see Graph 17) yielded in principle the same result[83].

Graph 17: Spending weekend evenings/nights among in-school youth



Note: based on answers to the question 'Do your parents know where you spend weekend evenings/nights?'

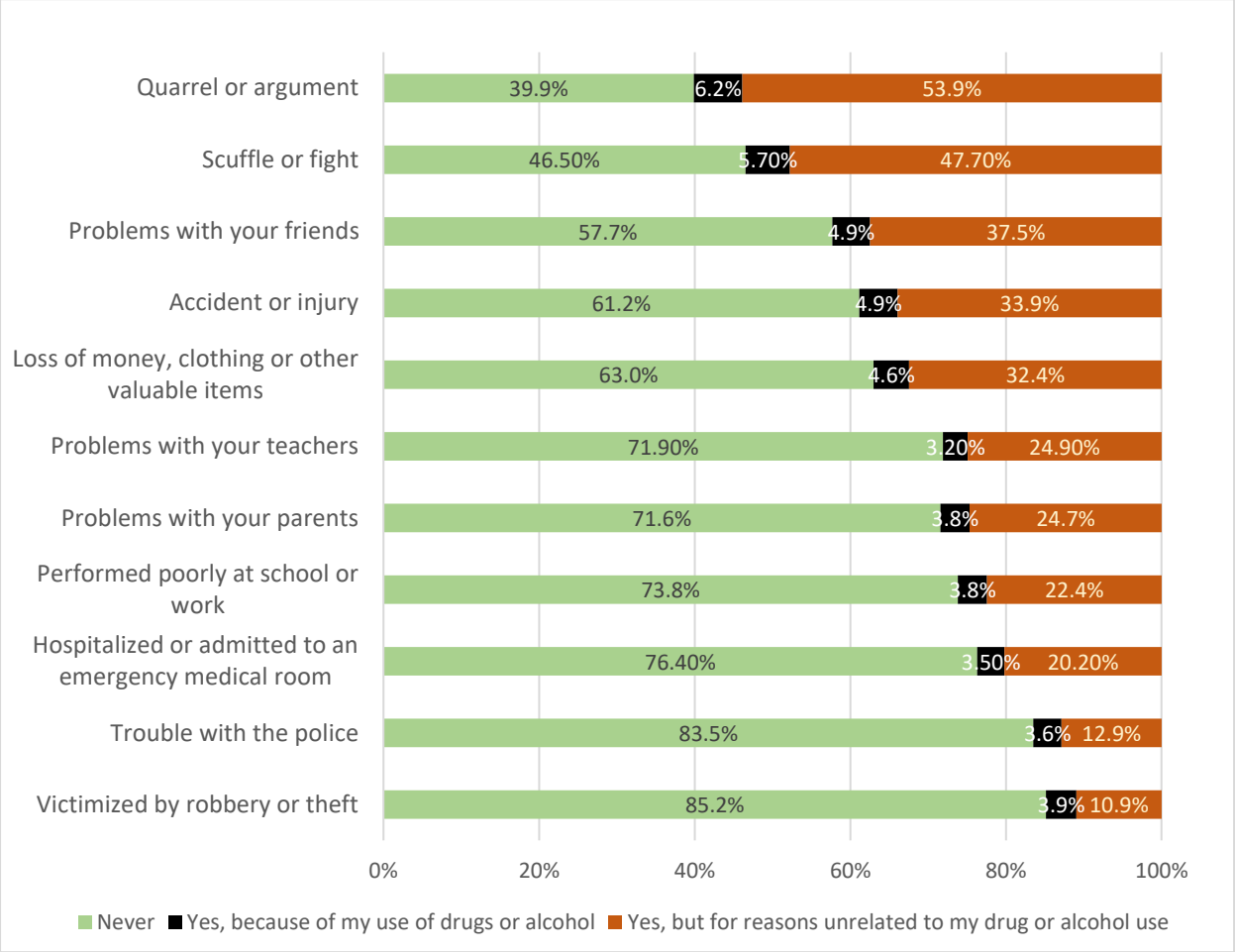
A composite variable index of parental monitoring was created for further analysis. There was a statistically significant difference in this overall measure of parental monitoring and control between those using alcohol or drugs in the last 12 months and those who were non-users. The difference was small, however [84].

2.1.2.4 Problems

The most frequently reported problems experienced by the sample were arguments and fights (see Graph 18). Only a minority of respondents reported having any of the listed problems due to their use of drugs or alcohol. In this respect, the problem category with the highest proportion among students was a quarrel or argument. 6.2% respondents from schools endorsed the option that they had this problem due to their alcohol or drug use. 5.7% of respondents reported they had had a scuffle or fight because of their alcohol or drug use.

[83] With slight difference: the use of sedatives was significantly associated with this type of parental monitoring on the 0.05 level.
[84] Non-users' overall level of parental monitoring was 20.06 (95% CI 19.89-20.23), while users of any substance or alcohol had average Index of parental monitoring of 18.74 (95% CI 18.42-19.06).

Graph 18: Self-reported problems



Note: based on answers to the question 'Have you ever had any of the following problems?'

There was a highly significant association between use during the last year of all the substances individually as well as combined (any use of drugs or alcohol in the last year) and every problem on the list (see Table 13). As expected, the prevalence of use was highest in students who considered drug or alcohol use to be the cause of the specific problem. However, drug and alcohol use as well as smoking was also increased in those who responded that they had the listed problem for reasons other than their drug and/or alcohol use.

Table 13: Prevalence of last 12 months use of any substance (drugs or alcohol, % of respondents) according to the response to the various problems-related questions

	Never	Yes, because of my use of drugs or alcohol	Yes, but for reasons unrelated to my drug or alcohol use
Victimized by robbery or theft*	10.6%	26.6%	18.2%

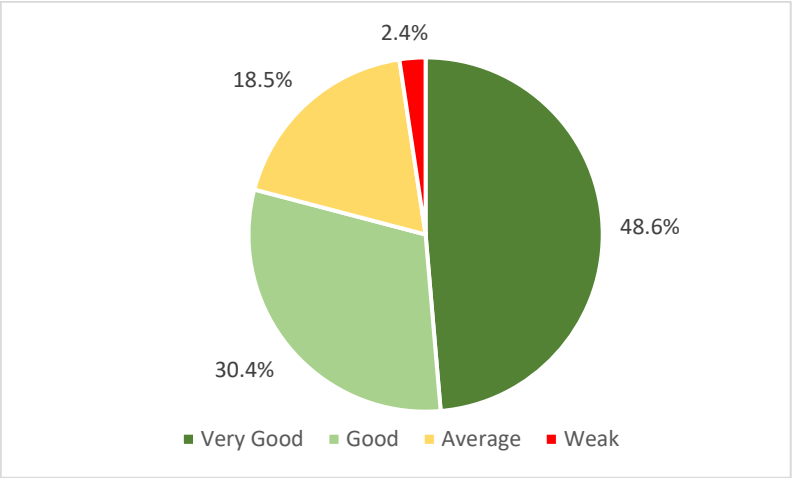
Trouble with the police*	10.5%	29.0%	18.3%
Hospitalized or admitted to an emergency medical room*	10.3%	27.9%	16.2%
Performed poorly at school or work*	9.5%	34.5%	16.4%
Problems with your parents*	9.1%	37.9%	16.6%
Problems with your teachers*	9.6%	32.1%	16.7%
Loss of money, clothing or other valuable items*	9.1%	29.8%	14.8%
Accident or injury*	8.8%	28.8%	15.5%
Problems with your friends*	8.7%	35.0%	14.4%
Scuffle or fight*	6.9%	28.6%	15.3%
Quarrel or argument*	6.9%	28.2%	13.7%

*for all problems, there was a statistically significant association of drug use with the three levels of problems (in columns) on the level $p<0.001$

2.1.2.5 Schoolwork and truancy

Two questions in the questionnaire related to school: self-assessed performance at school and skipping school due to non-medical reasons. More than three quarters of the students assessed themselves as good or very good at schoolwork (see Graph 19).

Graph 19: Self-assessed school performance



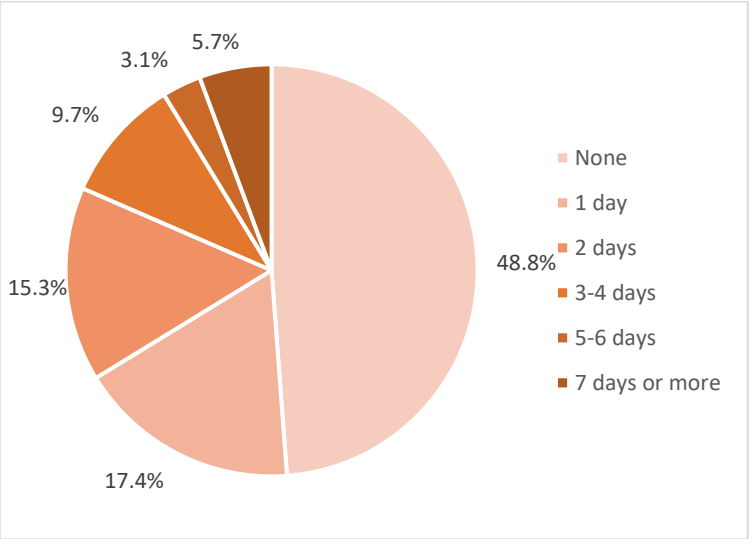
Note: based on answers to the question 'How good do you think you are at schoolwork, compared to other people in your school?'

Self-assessed school performance was also clearly associated with the prevalence of substance use in the case of all drugs individually, as well as combined (results not shown). For instance, looking at any drug or alcohol use in the last 12 months, students who self-rated as very good

had a prevalence of 8.6% of this use; 'good' students had a prevalence of 13%; 'average' self-raters had a prevalence of 17.6%; and those who felt they were 'weak' students reported drug or alcohol use in 28.5% of cases.

As can be seen from Graph 20, skipping school for non-medical reasons was quite common in the sample, with more than half of the respondents reporting this behaviour and 8.8% reporting skipping school for 5 days or more in the last 30 days.

Graph 20: Truancy



Note: based on answers to the question 'During the last 30 days, on how many days have you missed school because you skipped or 'cut' without having a medical reason?'

Truancy, or skipping school for non-medical reasons, was also significantly associated with the use of all substances individually and combined, in a dose-response manner (the greater the number of days of school skipped, the greater the likelihood of substance use). See Table 14.

Table 14: Cigarette smoking and drug or alcohol use prevalence as a function of days of school skipped

	none	1 day	2 days	3-4 days	5-6 days	7 days or more
Cigarette smoking in the last 12 months*	6.4%	10.3%	18.0%	24.7%	27.7%	28.9%
Alcohol or drug use in the last 12 months*	7.3%	10.8%	16.1%	20.9%	24.1%	24.6%

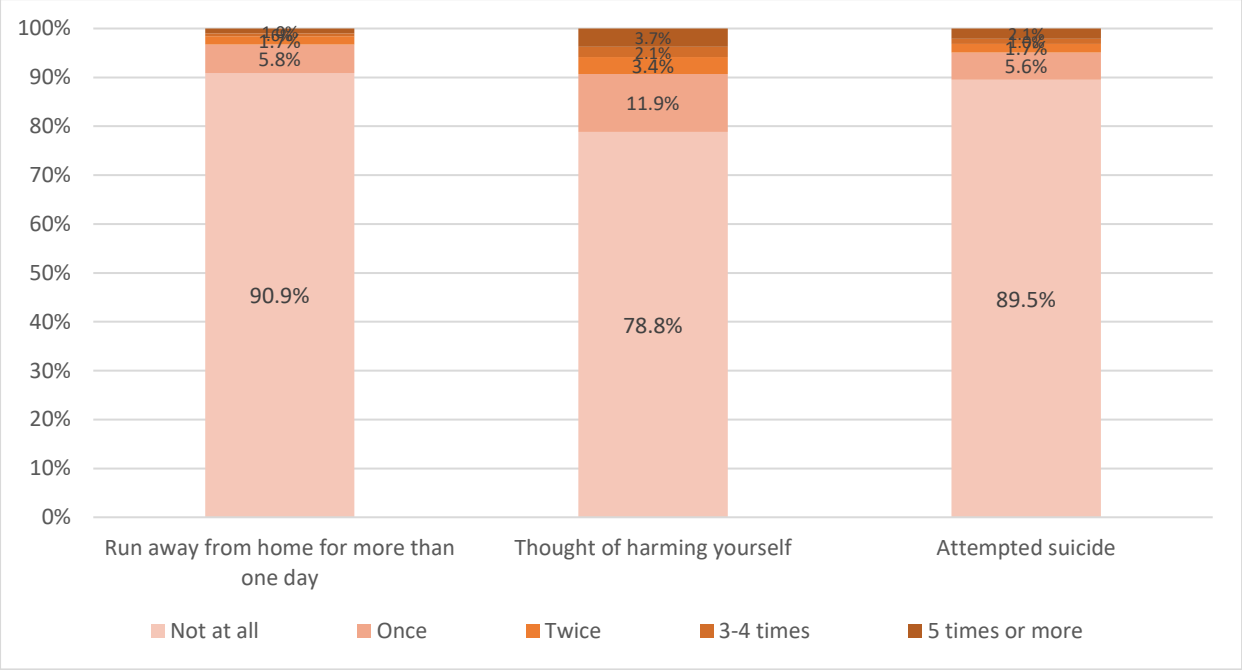
*for both, cigarettes and alcohol/drugs, there was a statistically significant association of substance use with the number of days in which the respondent skipped school (in columns) on the level $p<0.001$

2.1.2.6 Self-harm and running away from home

Self-harm can be an indicator of the most serious problems in adolescents. Self-harm includes attempting suicide and running away from home. 10.5% of the in-school young people reported attempting suicide at least once and more than 20% reported thinking of self-harm at least once. While the prevalence of suicidal attempts is alarming, it is in line with European studies of high-school students where the prevalence of self-reported suicidal attempts averaged at 10.5% and ranged from 4.1% to 23.5% in 17 countries[85].

Less than 10% (9.1%) of the school group reported ever running away from home for more than one day. See Graph 21.

Graph 21: Indicators of the most serious problems – self-harm and running away from home



Note: based on answers to the question 'Has any of the following ever happened to you?'

As with the previous analyses of other risk and protective factors, the prevalence of use of all substances individually as well as combined was highly significantly associated with the indicators of the most serious problems in adolescents – running away from home, thoughts of self-harm and actually attempting suicide. See Table 15 for analysis of drug and/or alcohol use and its association with these problems. It can be seen from the table that reporting self-harm and running away from home two or more times was the 'turning point' for substantially increased drug and/or alcohol use.

[85] Anna Kokkevi and others, "Adolescents' self-reported suicide attempts, self-harm thoughts and their correlates across 17 European countries", *Journal of Child Psychology and Psychiatry*, Vol. 53, No.4 (April 2012), pp. 381-389.

As the number of occasions on which these problems occurred increased, the proportion of users did not increase by much more.

Table 15: The prevalence of self-reported drug or alcohol use (%) in the last 12 months

	Not at all	Once	Twice	3-4 times	5 times or more
Run away from home for more than one day*	10.1%	27.7%	32.9%	44.7%	33.4%
Thoughts of harming yourself*	8.9%	19.6%	27.4%	30.6%	26.9%
Attempting suicide*	10.3%	23.1%	31.9%	29.1%	27.7%

*for all three types of the most serious problems, there was a statistically significant association of substance use with the number of occasions, in which these problems were experienced by the respondent (in columns), on the level $p<0.001$
Note: based on responses to the three questions assessing self-harm and running away from home

2.1.2.7 Psychometric measures of self-esteem, depressive mood, feeling of social anomie and antisocial behaviour

Four psychometric scales were selected to be used within the study to measure the following: students' level of self-esteem (based on Rosenberg's self-esteem scale); depressive mood (CES-D); the feeling of anomie[86] - this refers to the lack of the usual social or ethical standards in an individual or group (Anomie Scale of Exteriority and Constraint); and antisocial behaviour (Antisocial Behaviour Scale)[87]. However, the scales were not applied as such - only some items were chosen to be included in the questionnaire. Hence their results, mainly total scores, cannot be compared with the published studies and existing standards. Nevertheless, the total scores obtained in the present study can be used as a particular measure of the target constructs, namely self-esteem, depressive mood, the feeling of anomie and antisocial behaviour.

From the analyses performed, it follows that those who had used drugs or alcohol in the 12 months leading up to the survey had significantly lower self-esteem, a stronger depressive mood, higher antisocial behaviour and a probably similar or slightly lower feeling of social anomie. Table 16 summarises these results, side by side with the basic characteristics of the applied scales.

In conclusion, the items that were drawn from the Antisocial Behaviour Scale had good internal consistency; those taken from Rosenberg's self-esteem scale and the Depressive Mood scale (CES-D) were also satisfactory in that regard; and the items taken from the Anomie Scale of

[86] a condition where there is disintegration or disappearance of the norms and values that are considered common to the society. The scale measures both the perception of this phenomenon in the society around the respondent and their individual internalized norms.
[87] Björn Hibell and others, *The 2007 ESPAD report. Substance use among students in 35 countries*, (2009), pp. 173-174

Exteriority and Constraint had low reliability as measured by internal consistency, which is probably due to the fact that only two items from the scale were used (see Table 16).

Table 16: Description of scales used in the analysis and their total scores in users vs. non-users of drugs or alcohol in the last 12 months

Items from scale	# of items used in the study	Crohnbach alpha^	Respondents with no use of drugs or alcohol in the previous 12 months (total score of scale items)	Respondents with use of drugs and/or alcohol in the previous 12 months (total score of scale items)
Rosenberg's self-esteem scale	7 of 10	0.619	20.44 (20.35-20.53)	19.39 (19.20-19.58)
Depressive mood scale (CES-D)	5 of 6	0.727	4.87 (4.81-4.93)	6.00 (5.80-6.20)
Anomie Scale of Exteriority and Constraint	2 of 6	0.550	4.61 (4.57-4.64)	4.48 (4.43-4.53)
Antisocial Behaviour Scale	9 of 10	0.842	1.63 (1.58-1.68)	4.60 (4.29-4.90)

^ For the purpose of understanding the reliability of the applied versions of the scales, Cronbach's alpha was calculated.

2.1.2.8 The relative importance of the factors assessed in analysing substance use: Multivariate statistical analyses[88]

As mentioned earlier, testing the relationship of different variables with drug use one at a time (in bivariate analyses) is important; but a deeper understanding can be obtained through the use of multivariate statistical models. These are able to estimate the 'net effect' of factors by controlling for other factors at the same time. In order to study the relative importance in drug use of various factors, multivariate logistic regression models were applied to the existing data where the sample and in particular the subsample sizes allowed, . Table 17 shows the variables included in the final models; their effect size measured by Adjusted Odds Ratio; and their

[88] Multivariate models built on the in-school sample data were not adjusted for sampling design in the same way as frequency and bivariate analyses (using SPSS Complex Samples module). This decision was taken due to the fact that in the case of large samples multivariate normal distribution of the variables is often the case; and in fact in several studies unweighted procedures have shown minimal differences in comparison with weighted procedures (e.g. Adam C. Carle, "Fitting multilevel models in complex survey data with design weights: Recommendations." *BMC medical research methodology*, vol. 9, No. 1 (2009), p. 49.

statistical significance in the case of high-school students. Initial models including all the variables, together with the full details of the final models, can be found in Annex 5.

An interpretation of the results of these analyses as shown in Table 17 is that we are looking at the strongest factors associated with substance use in the present study; but the existence or influence of other factors and correlates cannot be ruled out. In the present analysis, the initial model included all the variables listed in the first column of Table 17; and the final model was derived in an empirical way (i.e. non-significant variables and those that failed to improve the model were gradually removed from the models).

Table 17: Use of various substances in the last 12 months in students predicted in Multinomial logistic regression models[89]

Reference category in brackets	Any drug or alcohol	Cannabis	Painkillers	Inhalants	Sedatives	Opium	Alcohol	Tablet K	Cigarette smoking
Gender (being female)	1.409 (.001)	.262 (.000)	2.281 (.000)		1.652 (.033)				.192 (.000)
Age					1.178 (.058)				.862 (.001)
Urban/rural residence (rural residence)					1.947 (.003)	3.132 (.002)			
Smoking cigarettes in the last year (yes)	4.044 (.000)	6.979 (.000)	1.807 (.008)	1.816 (.010)		2.386 (.021)	5.626 (.000)	2.480 (.006)	
Use of substances (drugs or alcohol) by friends (yes)	3.036 (.000)	1.761 (.005)	1.599 (.016)		1.771 (.019)		1.832 (.032)		2.903 (.000)
Number of friends who also use the substance in question	n.a.	.980 (.003)	.866 (.000)	.976 (.001)	.848 (.000)		.947 (.001)		
Number of friends using any substances	.991 (.000)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Index of social support									1.065 (.001)
Index of parental monitoring					1.058 (.041)	1.118 (.009)			1.050 (.001)
Risk perception[90]	1.016 (.000)	1.400 (.000)	1.400 (.000)	1.754 (.000)	1.343 (.003)	1.796 (.000)	1.749 (.000)	1.642 (.000)	1.170 (.008)
Perceived availability[72]		.787 (.000)	.652 (.000)	.740 (.000)	.699 (.000)	.623 (.000)	.704 (.000)	.600 (.000)	.863 (.000)
Disapproval of users[72]		1.654 (.000)	2.137 (.000)	2.220 (.000)	2.158 (.000)	2.329 (.000)	2.149 (.000)	3.453 (.000)	1.465 (.000)
Number of reported problems (question 25)	.932 (.000)			.934 (.029)		.868 (.006)	.906 (.008)		
Index of the most serious problems			.902 (.007)		.877 (.005)				.911 (.002)
Depressive mood measure							1.087 (.015)		

[89] A common weak point of the multivariate statistical models aiming at explaining substance use is their relatively low proportion of variance explained. This means that there are other strong factors which also contribute to the outcome (substance use); but which were not and usually cannot be measured in studies.

[90] Index, in cases where 'all substances' is the dependent variable or related to the substance in question (which is the dependent variable), e.g. cannabis in case of predicting cannabis use.

Reference category in brackets	Any drug or alcohol	Cannabis	Painkillers	Inhalants	Sedatives	Opium	Alcohol	Tablet K	Cigarette smoking
Self-esteem measure					1.092 (.005)			1.251 (.000)	
Feeling of anomie measure						1.244 (.041)			
Antisocial behaviour scale		.937 (.000)	.957 (.004)	.945 (.000)	.962 (.050)	.919 (.000)		.931 (.001)	.925 (.000)
Self-assessed school performance	.852 (.004)								.708 (.000)
Truancy/skipping school without medical reason	.875 (.000)	.822 (.000)	.859 (.005)				.848 (.022)	.821 (.034)	.806 (.000)
Reference category in brackets	Any drug or alcohol	Cannabis	Painkillers	Inhalants	Sedatives	Opium	Alcohol	Tablet K	Cigarette smoking

Note: Adjusted OR and its statistical significance of the variables included in the final model.

As can be seen from Table 17, perceived risk, availability of substances and disapproval of users were some of the most important factors in the cases of all the substances studied. Smoking cigarettes in the last year and having friends who use substances were among the strongest factors predicting the use of almost all substances. Smokers were approximately two to seven times more likely to use various substances. Being female strongly predicted the use of painkillers (the risk was more than doubled) and sedatives (the risk was increased by a factor of 1.7); and being male predicted the use of tobacco and cannabis (males were over five times more likely to smoke cigarettes and about four times more likely to smoke cannabis than females). Age was strongly associated only with cigarette smoking and sedatives use. Living in a rural area had a strong net effect on opium use (this was over three times more likely in rural students); and had some effect on the use of sedatives. The index of social support was only significantly associated with smoking when controlled for other factors. The index of parental monitoring was important in the case of sedatives and opium use, besides tobacco use. The number of reported problems (refer to Graph 18) was associated with the use of alcohol, opium and inhalants and also with any use of drugs or alcohol in the last 12 months; while the measure of number and intensity of the most serious problems, such as self-harm or running away from home, were strong factors in predicting the use of painkillers, sedatives and tobacco.

Among the psychometric scales, the one which was a strong factor in predicting the use of almost all substances was the Antisocial Behaviour Scale. Depressive mood was, somewhat surprisingly, an important predictor only in the case of alcohol use. Self-esteem was strongly related to the use of tablet K and sedatives. Interestingly but logically, the feeling of anomie predicted the use of opium. Variables related to school performance and attendance were also strong predictors of use. The level of self-assessed performance at school was strongly associated with the use of any substance and with smoking; while skipping school was strongly

associated with the use of many substances: any substance; cannabis; painkillers; alcohol; tablet K; and tobacco.

2.1.2.9 Associations between opium use and opium production at province level

Associations at province level were explored between the level of opium production per inhabitant and the use of opium. There was virtually zero relationship between opium production in a province and opium use by the surveyed students from that province (data not shown).

2.2 Out-of-school youth

2.2.1 Substance use

2.2.1.1 Tobacco use

Almost one third of males and 7.3% of females reported smoking at least once in their life. Approximately one in five male adolescents had smoked in the last 12 months (3.7% of females); and almost 12% of males reported smoking cigarettes in the last 30 days leading up to the survey. See Table 18 for more details.

6.6% of the sample smoked daily. 2.8% smoked more than 10 cigarettes per day; and 2.2% smoked 20 cigarettes or more (for males, the corresponding figures were 9.1%, 3.9% and 3%).[91]

Over 10% of the sample had started smoking by the age of 13. In males, this proportion was 13%, which is more than one third of self-disclosed smokers.

Table 18: Cigarette smoking in youth out of school. Self-report[92]

	Total	Lower bound of CI	Upper bound of CI
Smoking ever in life			
Males	30.9%	27.4%	34.1%
Females	7.3%	4.7%	10.6%
Smoking in the last 12 months			
Males	18.8%	16.1%	21.6%
Females	3.7%	1.7%	5.6%
Smoking in the last 30 days			

[91] From this point onwards, we report only on substance use in males. This is because virtually no females reported drug use in the out-of-school survey and only three reported alcohol use ever in life. We suspect that these answers might not be reliable and that substance use was denied due to issues of social desirability (female respondents probably did not feel comfortable disclosing in a face-to-face interview, even though they were interviewed by a gender-matched trained professional).

[92] All confidence intervals for out-of-school youth are based on 95% CI for proportion, normal approximation to the binomial distribution. They are computed by SPSS by means of bootstrapping.

	Total	Lower bound of CI	Upper bound of CI
Males	**11.7%**	**9.4%**	**14.0%**
Females	**1.0%**	**0.0%**	**2.3%**

2.2.1.2 Alcohol use

7.3% of out-of-school males mentioned any form or indication of alcohol use under the various alcohol-related questions; although only 5.6% answered directly that they had used alcohol in their life on at least one occasion. See Table 19 for more details.

3.9% of out-of-school males reported binge drinking at least once in their life. 0.8% of this sample reported early initiation (first alcoholic drink by the age of 13); and 4.9% stated the age of first intoxication by alcohol which was 17 years or younger in all cases.

Table 19: Alcohol use in out-of-school males. Self-report

	Central estimate	Lower bound of CI	Upper bound of CI
Alcohol use ever in life	5.6%	4.0%	7.3%
Alcohol use in the last 12 months	3.4%	2.1%	4.8%
Alcohol use in the last 30 days	2.2%	1.2%	3.2%

2.2.1.3 Use of other substances

13% of males in the out-of-school sample admitted using drugs or alcohol ever in their life, 8.8% in the last 12 months and 5.5% in the last 30 days (see Table 20 for more details).

Table 20: Use of any drug, alcohol or psychoactive medicines. Self-report

	Use in lifetime	Use in the last 12 months	Use in the last 30 days
Males out of school	13.0% (10.6%-15.3%)	8.8% (6.8%-10.7%)	5.5% (4.0%-7.1%)

Table 21 summarises the levels of self-reported use by substance. The most prevalent drugs were cannabis, with 10.5% reporting having tried it at least once in their life, and tablet K with 3.2% having used it at least once. See Table 21 for more details.

Table 21: Self-reported use of drugs and psychoactive medicines by males out of school

	Use in lifetime	Use in the last 12 months	Use in the last 30 days
Cannabis	10.5% (8.4%-12.6%)	7.3% (5.5%-9.0%)	4.0% (2.7%-5.3%)
Tablet K	3.2% (2.0%-4.5%)	2.4% (1.4%-3.6%)	1.5% (0.8%-2.4%)
Painkillers[93]	1.9% (1.1%-2.9%)	1.8% (1.0%-2.8%)	1.0% (0.4%-1.8%)
Inhalants	1.8% (0.9%-2.8%)	1.5% (0.8%-2.4%)	0.8% (0.2%-1.4%)
Opium	1.8% (1.0%-2.7%)	1.7% (0.9%-2.6%)	1.1% (0.5%-1.9%)
Methamphetamine	1.7% (0.9%-2.7%)	1.5% (0.7%-2.4%)	0.9% (0.3%-1.6%)
Sedatives[94]	1.4% (0.6%-2.3%)	1.4% (0.6%-2.3%)	0.9% (0.3%-1.6%)
Heroin	0.8% (0.2%-1.4%)	0.5% (0.0%-1.0%)	0.4% (0.0%-0.9%)
Morphine	0.4% (0.0%-0.9%)	0.3% (0.0%-0.6%)	0.1% (0.0%-0.4%)
Amphetamine	0.4% (0.0%-0.9%)	0.3% (0.0%-0.7%)	0.1% (0.0%-0.4%)
Relevin	0.3% (0.0%-0.7%)	0.1% (0.0%-0.4%)	n.a.
Cocaine	0.3% (0.0%-0.7%)	0.1% (0.0%-0.4%)	n.a.

Red colour: A dummy drug, only included in the survey for validity-control purposes
Gray colour: Special caution should be exercised in interpreting this result due to the low percentage of reporting.

2.2.1.4 Indicators of more risky patterns of use – intensive use and early initiation

3.4% of the respondents reported using cannabis on 40 or more occasions in their life and 2.9% reported doing so in the last 12 months. 0.7% had used it on 40 or more occasions in the last 30 days, while 1.4% had used it on 20 or more occasions in the same time window. Using heroin, opium and methamphetamine on 40 or more occasions in life reached a level of 0.5% in the out-of-school sample.

2.2.2 Correlates of substance use

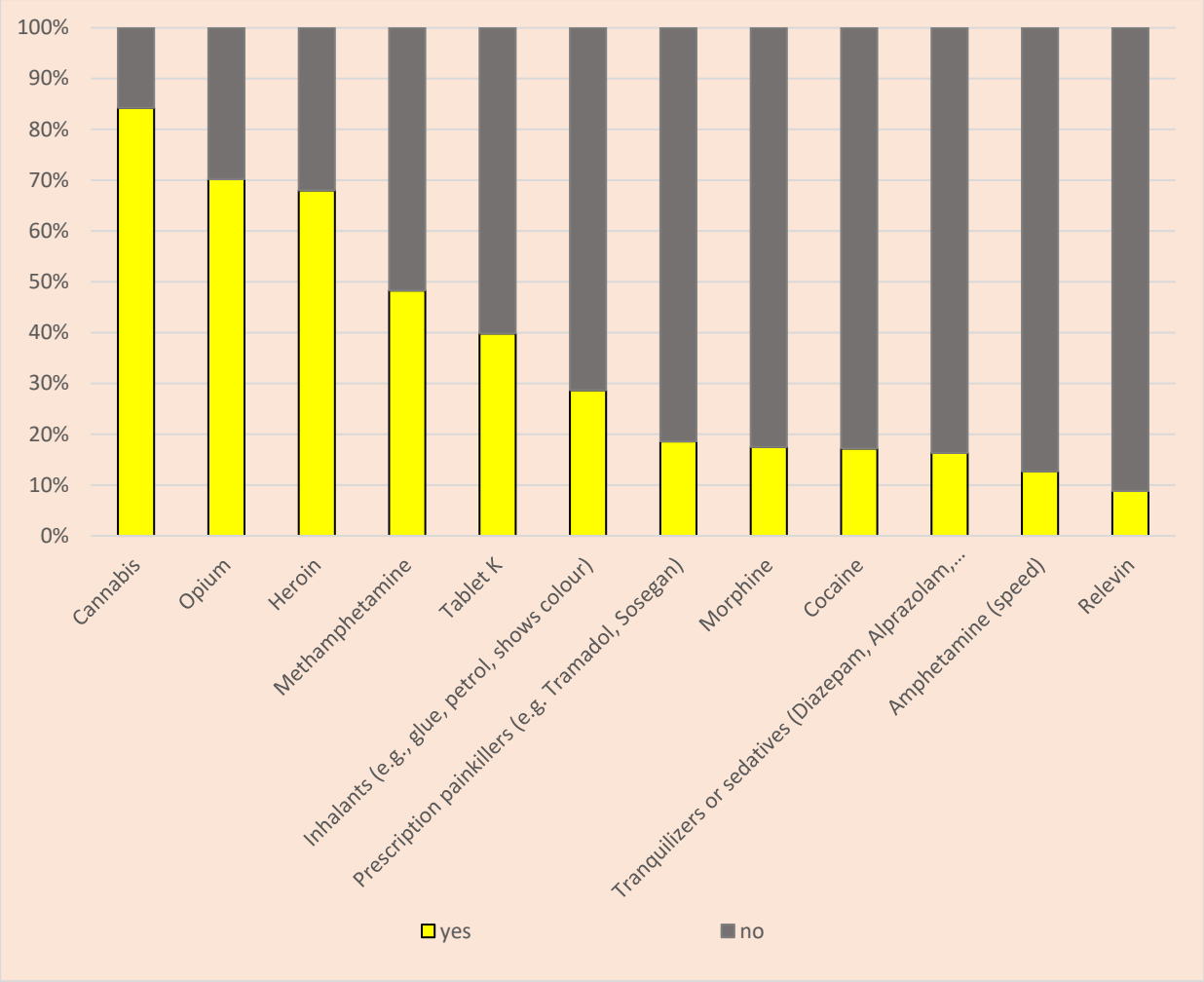
2.2.2.1 Drug-related attitudes

2.2.2.1.1 Having heard about substances

The substances which were most well-known to the respondents were cannabis and opium, followed by heroin and methamphetamine (see Graph 22). Relevin, the dummy drug which is part of the questionnaire for validity-control purposes, was reported as least known; although approximately 9% of the out-of-school sample indicated that they had heard of it.

[93] Including those prescribed by a doctor.
[94] Including those prescribed by a doctor.

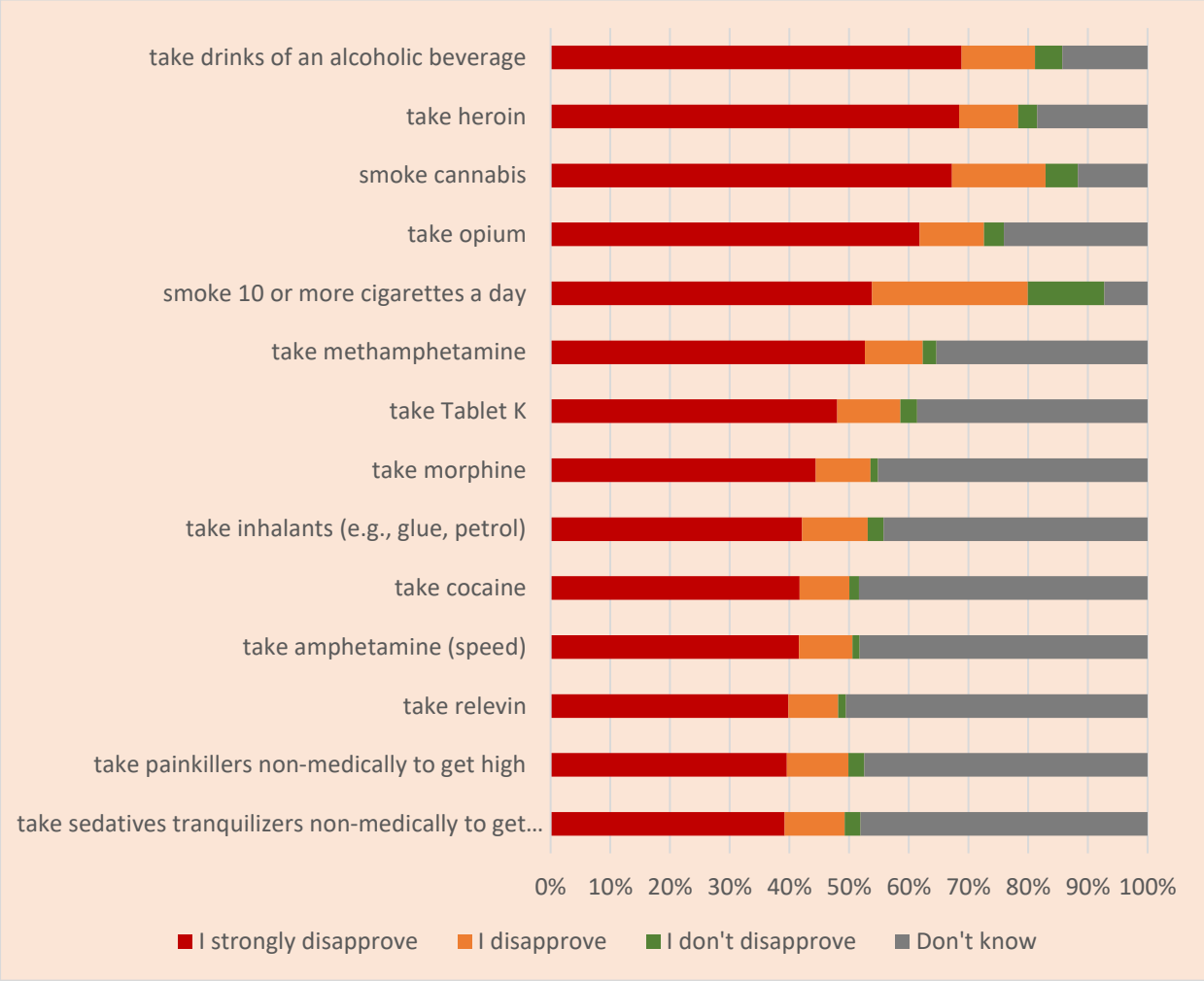
Graph 22: Having heard of the listed substances – out-of-school sample



2.2.2.1.2 Disapproval of substance users

Disapproval of substance users differed substantially between in-school young people and the out-of-school young people who were interviewed in Kabul. While for students it was consistently relatively high for all substance groups, it was more 'differentiated' by substance group for the out-of-school young people (see Graph 23).

Graph 23: Disapproval of substance users in out-of-school youth according to substance group



Note: Response to the question: 'Do you disapprove of people who… ', followed by a list of substances and selected patterns of use

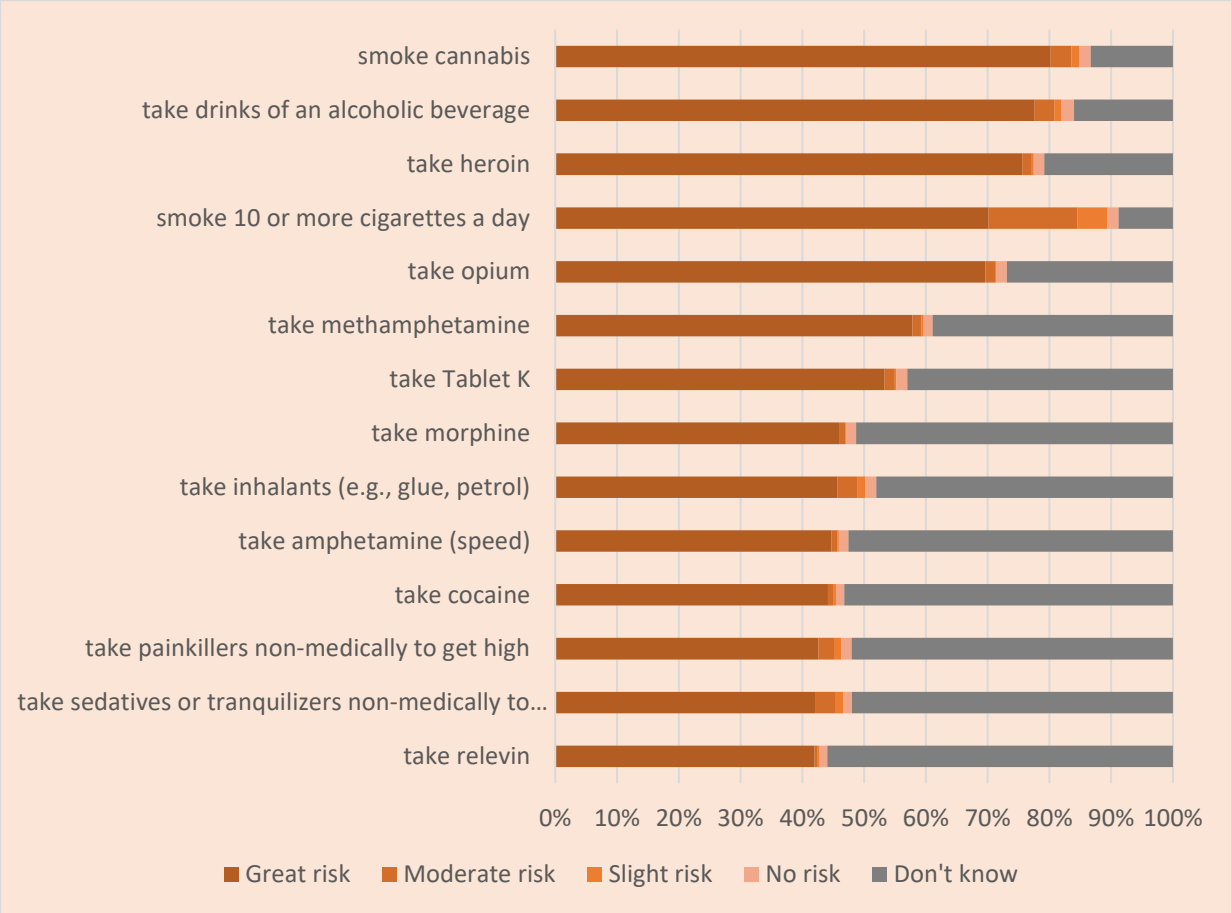
2.2.2.1.3 Perception of risk

For the out-of-school young people, perception of risk was also differentiated by substance. However, the order of the substances and patterns of use was quite different and, in some cases, opposed to what is known in the scientific literature about the risks and harms from different substances. (It should be noted here that no perfect ranking of harm from different substances presently exists, in spite of repeated attempts on the part of researchers to find one[95,96].) For example, while the group of young people who were not in school perceived

[95] David J. Nutt and others, "Development of a rational scale to assess the harm of drugs of potential misuse." *The Lancet*, vol. 369, No. 9566 (2007), pp. 1047-1053.
[96] David J. Nutt, Leslie A. King, and Lawrence D. Phillips, "Drug harms in the UK: a multicriteria decision analysis." *The Lancet*, vol. 376, No. 9752 (2010), pp. 1558-1565.

cannabis and alcohol to be two of the potentially most harmful substances, various stimulant drugs or even inhalants were perceived as carrying a much lower risk for the individual (see Graph 24).

Graph 24: Perception of risk[97] of various patterns of substance use. Out-of-school youth

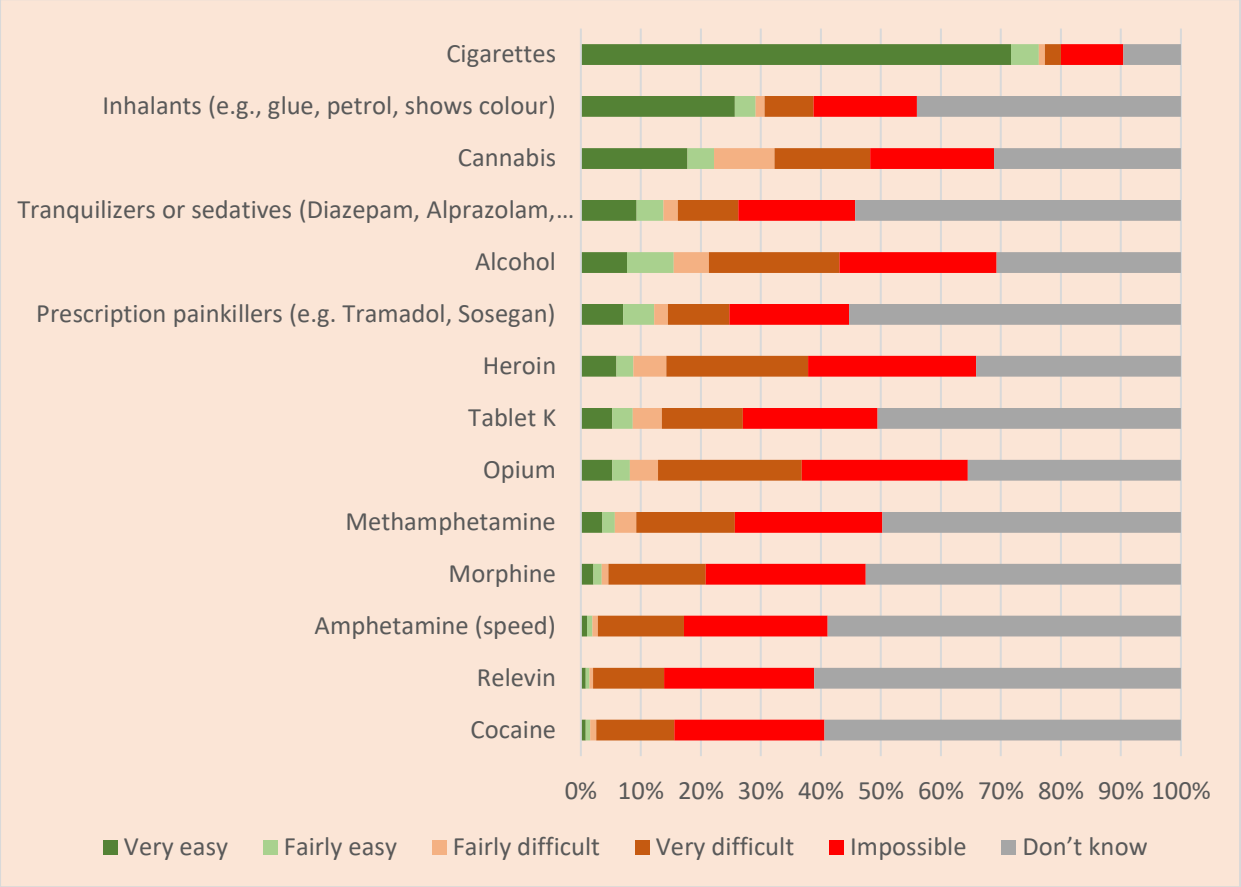


2.2.2.1.4 Perceived availability of drugs

The perceived easy availability of cigarettes was even higher in the out-of-school sample than the average for ESPAD. Inhalants also had relatively high perceived ease of availability as far as this group of young people was concerned (see Graph 25).

[97] Answer to the question: 'How much do you think people risk harming themselves (physically or in other ways) if they...'

Graph 25: Perceived availability of substances in out-of-school sample

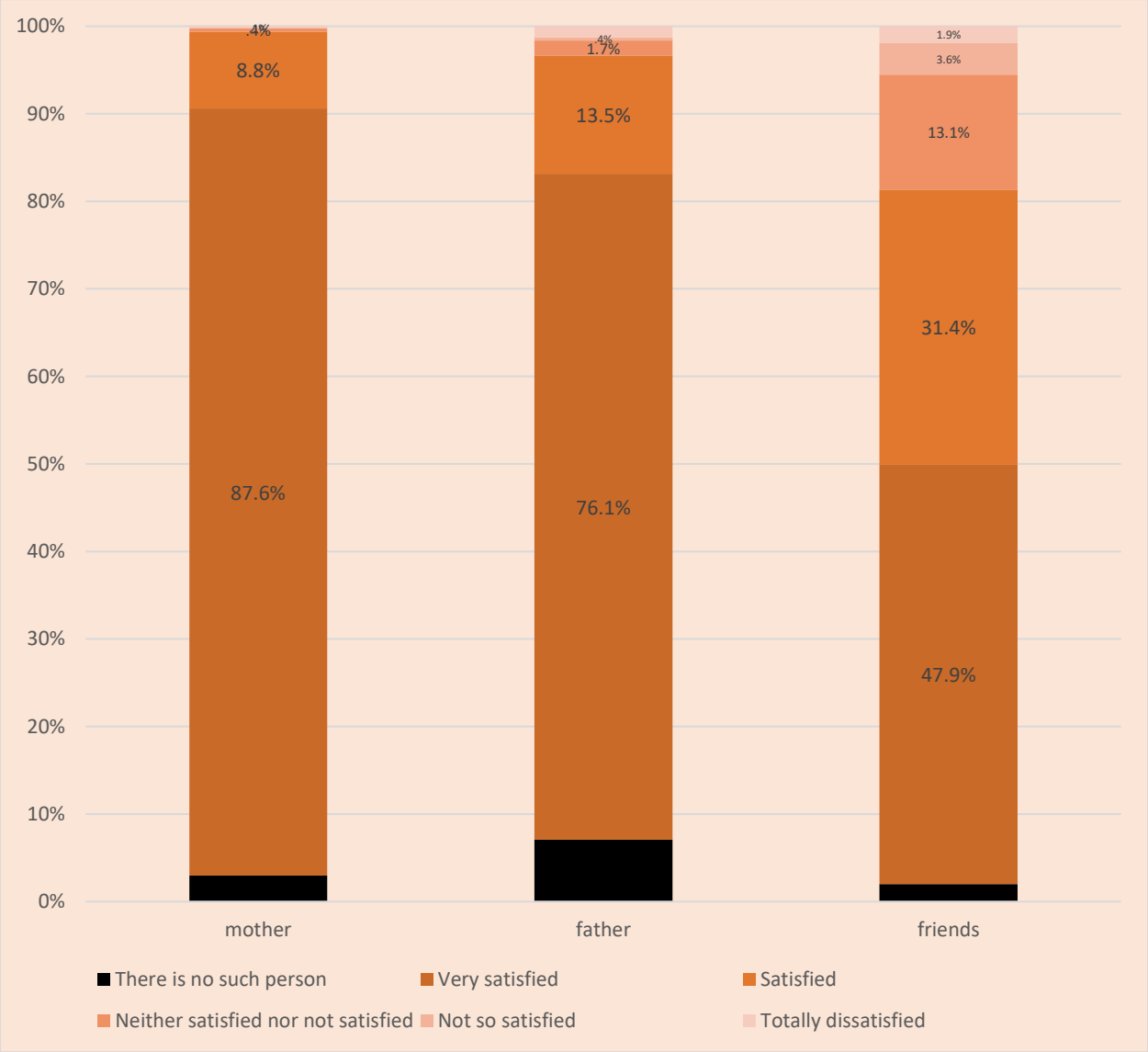


Note: based on the answers to the question 'How difficult would it be for you to obtain each of the following substances within 24 hours, if you wanted some?'

2.2.2.2 Psychosocial variables

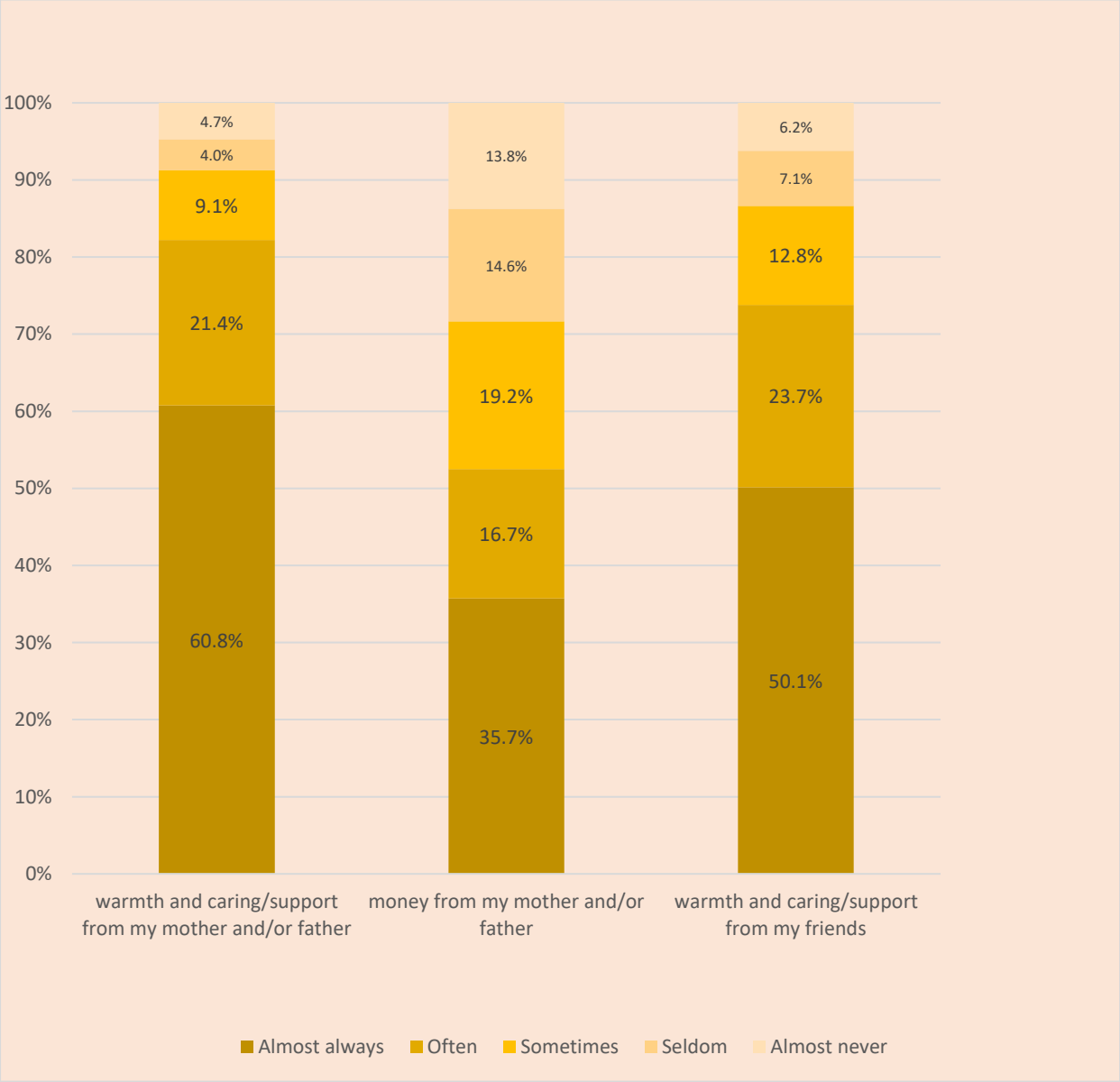
Graph 26 provides a general overview of the respondents' satisfaction with relationships with their significant others. The vast majority of the respondents, as with the young people in school, declared they were satisfied with their relationship with their mother; and most were also satisfied with their relationship with their father and their friends. However, in the out-of-school sample, the proportion of adolescents who had lost one or both of their parents was higher.

Graph 26: Usual satisfaction with relationships in the out-of-school sample



Respondents were also asked how easily they were able to obtain warmth and caring and money from their significant others. The vast majority were able to obtain warmth and caring from their parents, while over half were also able to obtain support from their friends and money from their parents (see Graph 27).

Graph 27: Self-assessed possibility of obtaining social support and money from significant others. Out-of-school sample

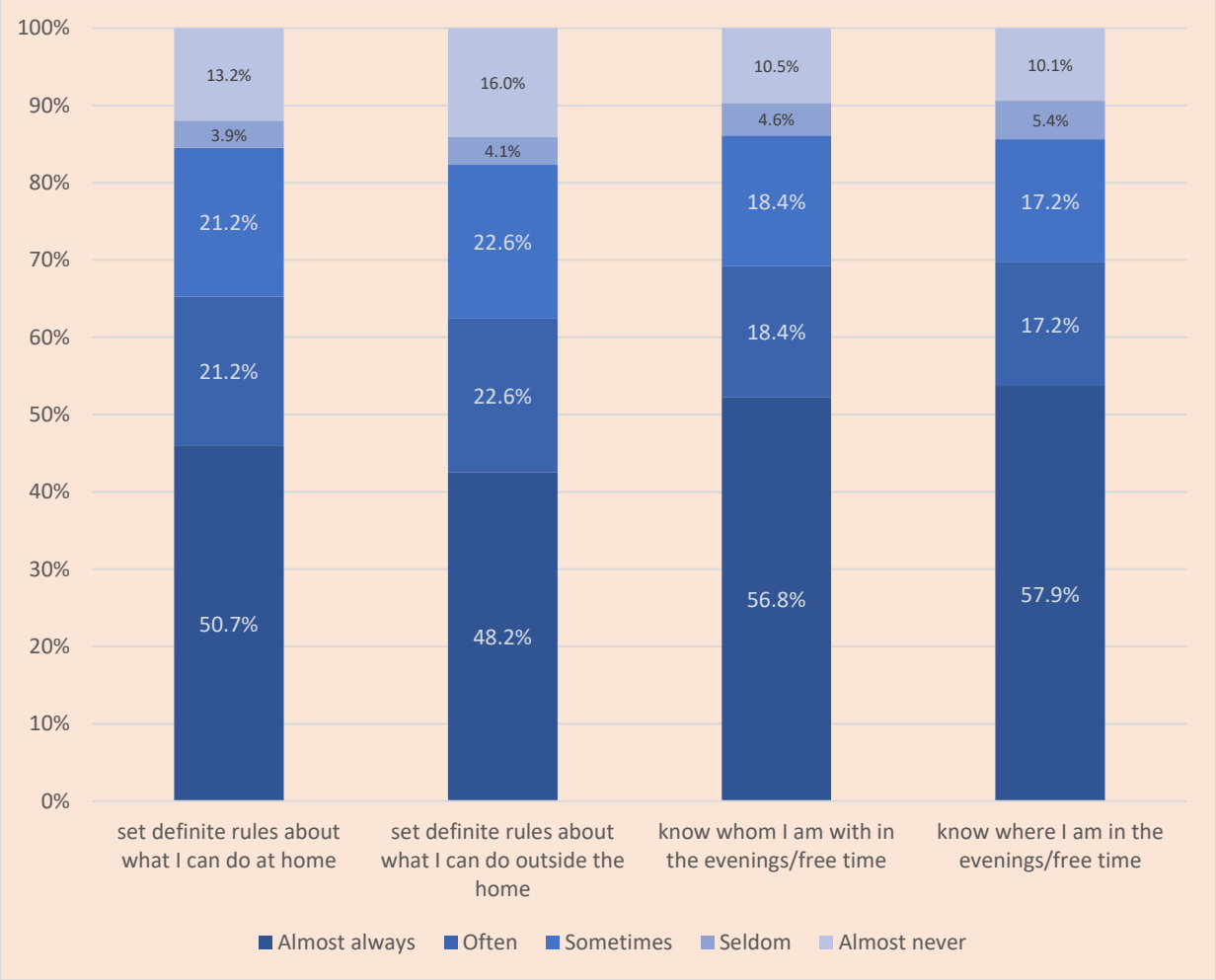


Note: based a question beginning with the phrase 'I can easily get… ', followed by the text under each bar.

2.2.2.3 Parental monitoring

In the present study, the majority of respondents asserted that their parents set rules about what the respondent could do both in and away from the home. In most cases, parents knew with whom and where the youngster was spending their evenings and/or free time (see Graph 28).

Graph 28: Parental monitoring among youth out of school

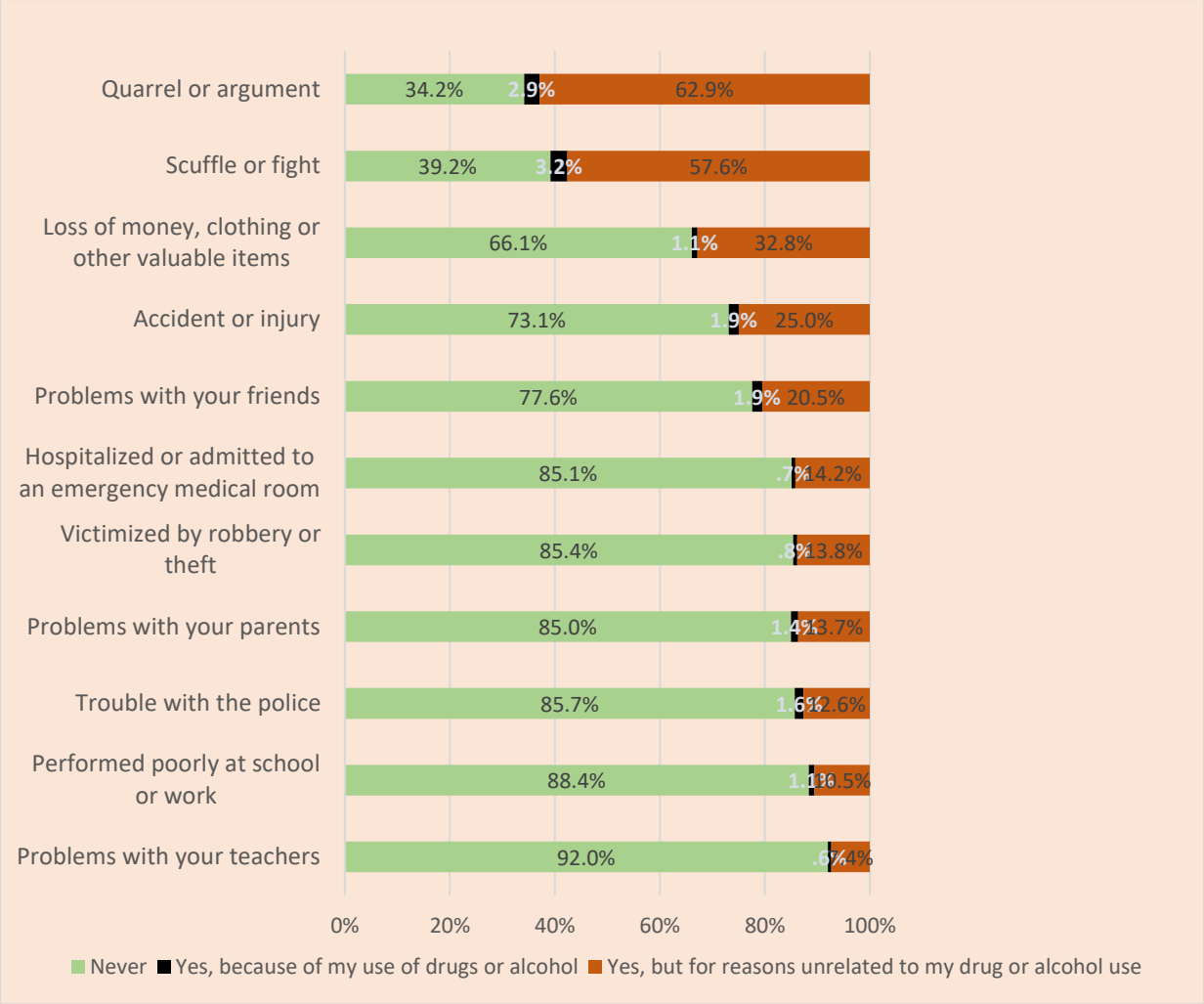


Note: based on answers to the question 'How often do the following statements apply to you?' Each statement begins with 'My parent(s) …', followed by the text under each bar of the Graph.

2.2.2.4 Problems

Like young people in schools, the most frequently reported problems experienced by the sampled group were arguments and fights (see Graph 29). Only a minority of respondents reported experiencing any of the given problems because of their use of drugs or alcohol. The two most frequent problems experienced in relation to alcohol or drug use were a scuffle or a fight, with a figure of 3.2%; and a quarrel or an argument, in 2.9% of cases.

Graph 29: Self-reported problems

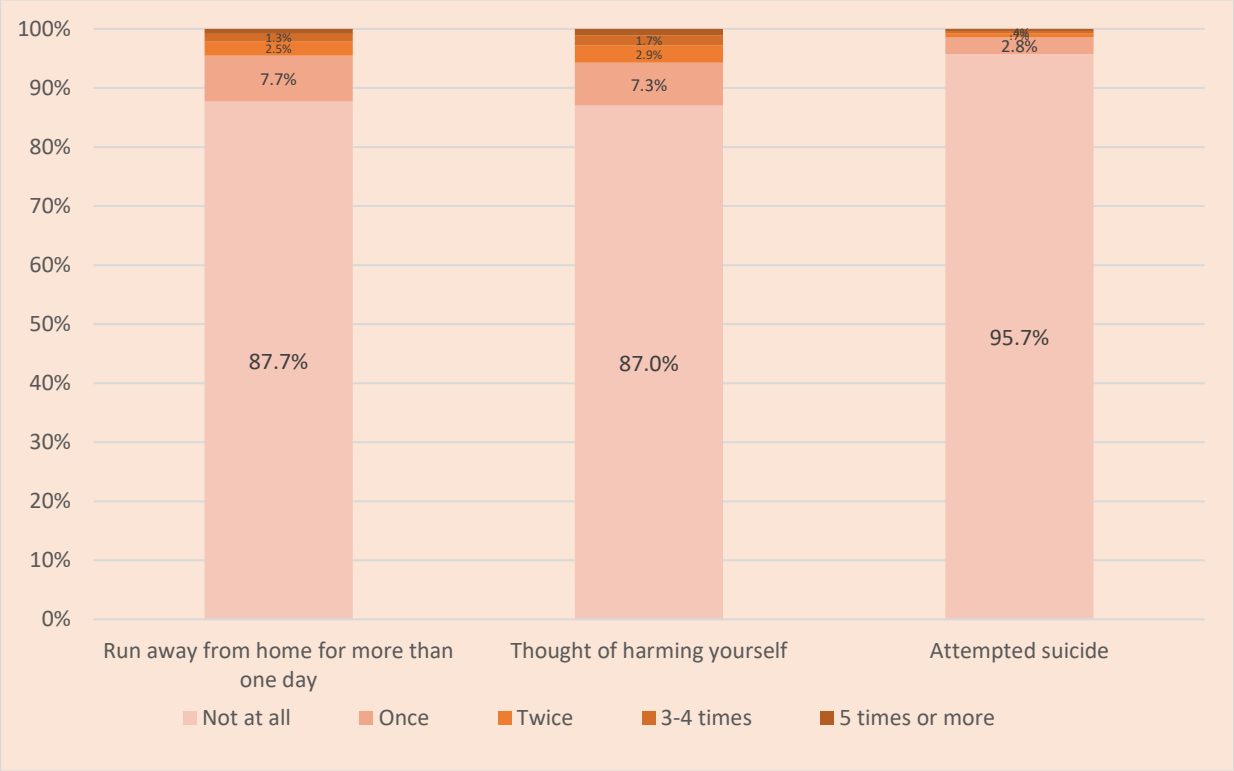


Note: based on answers to the question 'Have you ever had any of the following problems?'

2.2.2.5 Self-harm and running away from home

Among the particular indicators of the most serious problems in adolescents can be self-harm, including attempting suicide and running away from home. The prevalence of self-harm was, to some extent, higher for the young people in school than for the out-of-school young people; while running away from home occurred more often in the out-of-school group. 4.3% of the out-of-school sample reported attempting suicide at least once; and 13% had thought of self-harm at least once. Almost 13% of the out-of-school group reported having ever run away from home for more than one day. See Graph 30.

Graph 30: Indicators of the most serious problems – self-harm and running away from home. Out-of-school youth



Note: based on answers to the question 'Has any of the following ever happened to you?'

2.2.2.6 Psychometric measures of self-esteem, depressive mood, feeling of social anomie and antisocial behaviour

Four psychometric scales were selected to be used within the study to measure the following: students' level of self-esteem (Rosenberg's self-esteem scale); depressive mood (CES-D); the feeling of anomie (Anomie Scale of Exteriority and Constraint); and antisocial behaviour (Antisocial Behaviour Scale)[98]. However, the scales were not applied in full and only some items were chosen to be included in the questionnaire. Because of this, the results (mainly the overall scores) cannot be compared with published studies and existing standards. Notwithstanding that fact, the total scores obtained in the present study can be used to some extent as a measure of the target constructs, namely self-esteem; depressive mood; the feeling of anomie; and antisocial behaviour.

[98] Björn Hibell and others, *The 2007 ESPAD report. Substance use among students in 35 countries*, (2009), pp. 173-174

In the out-of-school sample, a t-test was used to test the difference between scale-item totals in users as opposed to non-users of drugs or alcohol in the last 12 months (excluding tobacco). See Table 22.

Table 22: Mean scores for the item totals of the items drawn from the scales used

	Last year prevalence of use of substances including alcohol, but excluding tobacco	n	Mean total score	SD
Antisocial Behaviour Scale**	no	1007	1.3535	2.54192
	yes	74	6.1757	6.09819
Anomie Scale of Exteriority and Constraint	no	757	3.3950	1.49996
	yes	63	3.6825	1.56396
Depressive mood scale (CES-D)**	no	1010	4.2624	3.36652
	yes	75	5.9200	3.95843
Rosenberg's self-esteem scale**	no	1004	20.8625	2.87545
	yes	76	19.0132	3.69321

** $p<0.001$ (highly statistically significant)

Note: Asterisks next to the scale title indicate a statistical significance in the difference in score between the users and non-users of substances in the last 12 months.

2.2.2.7 The relative importance of the studied factors in substance use: Multivariate statistical analyses

In the case of out-of-school young people, the sample was smaller and this prevented multivariate analyses being carried out for most substances. However, it was possible by means of multinomial logistic regression to analyse tobacco use for the last 12 months across the entire sample; and the use of any drug or alcohol among males. All variables initially considered can be found in Table 23. The parameters which have their values specified in the Table (the values are Adjusted odds ratio with statistical significance in brackets) are those which were included in the final models. Like the multivariate analyses in the school sample, the initial models with all the variables, together with full details on the final models, can be found in Annex 5.

Table 23: Use of tobacco in the entire sample of out-of-school youth and any drug or alcohol in males in the last 12 months

Reference category in brackets	Any drug or alcohol	Cigarette smoking
Gender (being female)		
Age		.801 (.005)
Urban/rural residence (rural residence)		
Smoking cigarettes in the last year (yes)		
Use of drug or alcohol/tobacco by friends (yes)	21.686 (.000)	8.208 (.000)
Number of friends who also use the substance in question		.962 (.000)
Number of friends using any substances		
Index of social support		
Index of parental monitoring		
Risk perception[99]		
Perceived availability[92]	.941 (.011)	
Disapproval of users[92]		1.880 (.000)
Number of reported problems (question 30)	.754 (.001)	.872 (.004)
Index of the most serious problems		
Depressive mood measure		
Self-esteem measure	1.225 (.013)	1.112 (.005)
Feeling of anomie measure		
Antisocial behaviour scale		.901 (.002)
Educational level of the respondent		
Loss of father/mother (yes)		
Employment status of the respondent (working)		
Reference category in brackets	Any drug or alcohol	Cigarette smoking

Note: predicted in Multinomial logistic regression models. Adjusted OR and its statistical significance for the variables included in the final model

As can be seen from Table 23 (the first column of the table), only a few variables from all those initially included in the model remained in the final model as the most important predictors of substance use. The strongest predictor of both smoking and any drug or alcohol use in the last

[99] Index, in cases where 'all substances' is the dependent variable or related to the substance in question (which is the dependent variable), e.g. cannabis in the case of predicting cannabis use.

12 months was the fact that a person had had substance-using friends: in the case of smoking cigarettes, friends' smoking increased the likelihood of the respondent also smoking more than eight-fold; and males were over 21 times more likely to have used drugs or alcohol in the last 12 months if they had had friends who used such substances. Cigarette smoking was also associated with age in both genders. In both outcome categories (smoking and alcohol and/or drug use), reporting various problems (refer to Graph 29) was associated with substance use. Perceived availability increased the likelihood of the use of any drug; while disapproval of users decreased the likelihood of smoking. Interestingly, both outcomes were associated with lower self-esteem in out-of-school young people. Cigarette smoking was, in addition, associated with antisocial behaviour.

3 Discussion

The Study on Substance Use and Health among Youth in Afghanistan is the first study of its kind and scale in Afghanistan; and, from certain points of view, the world. Its first phase used an EPSAD-like methodology in upper-secondary schools (grades 10-12) and was representative of high schools in all six regions of Afghanistan. It used a paper-and-pencil questionnaire administered in the classroom. Its second phase used a unique sample of 13-18 year-old adolescents who had not been attending school at the time of the study. It used a questionnaire similar to the one in the first phase, administered by means of interview because many of the out-of-school young people were illiterate (in the present study's sample, a quarter of the males and over third of the females were illiterate).

3.1 Signs of validity and reliability for the data collected

We examined signs of validity and reliability for the data collected (see Annex 3). Content validity was assured by a thorough process of questionnaire translation and cultural and language adaptation, with several rounds of testing during the formative-research phase (see Methodology section below for more details). In order to understand the reliability of the data collected, it was checked for logical consistency in the answers and the missing data. The results of this analysis were compared with other studies, where possible. It was found during this process that the data collected in schools had a slightly higher occurrence of logical inconsistencies. Compared to the ESPAD study, the inconsistencies were at the higher end of the ESPAD data in this respect. The same was true for the rate of missing data. The dummy drug Relevin was also reported relatively more frequently. 1.2% of students reported its use. compared with the ESPAD average of 0.7%; but six ESPAD countries had higher rates of Relevin 'use' self-report than Afghanistan. The increased reporting of Relevin is usually considered to signify increased over-reporting. The results of the study were interpreted with this in mind. The out-of-school sample displayed low levels of logical inconsistencies, missing data and almost no reporting of Relevin use.

The highest rate of inconsistencies was found, in both samples, in the alcohol-related questions. This could be related to the fact that while alcohol is an illicit, illegal and socially unacceptable drug with prevalence of use similar to other illicit drugs in Afghanistan, there are a lot of detailed questions about it in the ESPAD questionnaire, upon which the data collection was based. In addition, alcohol is placed in the beginning of the drug section of the questionnaire, apart from other drugs and next to tobacco. This is because alcohol is legal and highly prevalent in Europe, where the questionnaire was originally developed. For Afghan adolescents, these questions

might have been too detailed, as many would not had come across this substance in their life by the time of the survey and might not have such a detailed knowledge of forms of alcohol (such as beer as mentioned in the questionnaire) and patterns of its use (such as intoxication or binge-drinking).

An important fact which remains is that the levels of underreporting are unknown in both samples and cannot be determined. This is a common problem with self-report methodologies and has many causes, ranging from recall bias to unwillingness to disclose personal information, in particular about behaviour which is not socially desirable and may be even illegal. Notably, no females reported drug use in the out-of-school sample, apart from one, who reported painkiller-use during her life. It is unclear whether this reflects the real situation or is the result of underreporting, perhaps due to not feeling comfortable about admitting drug use during a face-to-face interview. As a result, apart from tobacco use, only substance use by males in the out-of-school sample was included in the analysis.

It should also be mentioned that during the formative-research phase most respondents reported a willingness to respond truthfully to drug-use questions in general in the focus-groups settings; although some were worried about disclosing their own drug use or said they would decide on the day of the survey according to the actual arrangements in place to ensure privacy (see Annex 6). This fact seems to support lower underreporting; but the actual extent of underreporting still cannot be verified.

An additional validation of the findings is to be found in the statistical analysis of the results, where all the expected relationships between variables (mainly risk and the protective factors relating to use) were corroborated in line with the published scientific literature; and the detected levels of use were indeed in line with previous studies conducted in Afghanistan (see below).

3.2 Prevalence of substance use among the youth of Afghanistan

While the study can be deemed to be valid and reasonably reliable, it may be asked whether the findings can be generalised to the entire population of young people of the relevant age in Afghanistan. While the in-school survey was representative of the population of high-school students and geographically representative of all regions of Afghanistan, it is difficult to generalise the results to the young people of Afghanistan in general. This is mainly because participation in study in grades 10-12 (or in higher levels of education) has been relatively low

in Afghanistan. According to the Statistical Yearbook of Afghanistan 2017/2018[100], almost 90% of the inhabitants aged 15-24 years were at that point not enrolled in high school; but this proportion cannot be precisely applied in relation to school participation because of the uneven age-distribution of the children and young people attending schools. On the other hand, the idea that the findings may be more generally applied is supported by the fact that in the out-of-school sample most of the key substances which were studied had comparable prevalence levels for males in both the in-school and out-of-school sample. The out-of-school sample thus provides some external validation of the findings obtained in schools.

After smoking, which was reported by about one in five youngsters, the most prevalent drug according to self-report was cannabis (marijuana or hashish). 7.2% of high-school students reported having ever used it in their life. The next most prevalent substances were painkillers, with 6.4% of students admitting they used them, followed by inhalants with a figure of 5.8% and finally sedatives at 4.9%. It should be noted that for the categories of painkillers and sedatives the data on use were collected in the broadest sense - i.e. any use of these medicines, even their legitimate use following an official prescription or suggestion from a doctor, is included in the answers and not just their misuse in order to obtain a 'high'.

One worrying finding among these figures that requires further attention is the relatively high prevalence of the use of inhalants. This is because these substances have no legitimate medical uses and are in fact very damaging for the users' health and do increase mortality[101]. This concern is further deepened by the fact that the findings show relatively low risk-perception regarding the use of inhalants; reported ease of availability; and weak disapproval of their use.

3.3 Prevalence of substance use in the light of studies of adolescents in other countries

It is not possible to make a reliable comparison, by looking at the results of other studies, between the prevalence of substance use among Afghan adolescents and the situation internationally. This is because of differences in areas such as methodologies, precise age groups[102], and cultural and legal factors, for example. However, it is useful to look at the results

[100] Islamic Republic of Afghanistan National Statistics and Information Authority. *The Statistical Yearbook of Afghanistan 2017/2018* (August 2018).

[101] Dinwiddie, Stephen H. "Abuse of inhalants: a review." Addiction, vol. 89, No. 8 (August 1994), pp. 925-939.

[102] For instance, the age ranges included in the present study, mostly in the case of the school students (13-24), were much wider than those included in ESPAD (15-16). However, in the case of Afghanistan this may be useful in its own context, as there are indications that the age of drug-use initiation may be higher. For example, the study on the impact of drug addiction has found the average age of hashish-use initiation among drug users to be 19.6 years, with both male and female participants (UNODC, *Impacts of Drug Use on Users and Their Families in Afghanistan*, 2014). However, it is the case that any direct international comparability is limited.

of both side by side, while keeping in mind the caveats. In the case of the prevalence of smoking during life, Afghan young people had lower self-reported prevalence than European countries; but similar to the prevalence of smoking found in the USA's study 'Monitoring the Future' - apart from the profound gender gap for use found in Afghanistan and which is almost non-existent in the USA. The use of alcohol in Afghanistan was much lower than in Western countries; but its prevalence is difficult to compare due to important legal and cultural differences. Cannabis use was lower in the Afghan sample than the ESPAD average (16% in ESPAD, while it was 7.2% for those Afghan young people in high school). However, it was very similar to the figures for the Nordic countries in Europe (7-8%). The use of tranquilisers and inhalants in Afghanistan was very similar to the ESPAD average[103].

3.4 Drug use among youth in the light of previous drug surveys in Afghanistan

As mentioned in Section 1, the latest country-wide drug-use surveys were conducted in Afghanistan in 2005, 2009 and 2015. The 2005 survey is now rather outdated and the survey used unclear recall periods. We therefore look here at the results of the current study in the light of the 2009 and 2015 surveys. Table 24 summarises those results from the two historical studies and the present study which focus on similar categories of substances (in the same rows). Unequal age groups (mentioned in the table) have to be kept in mind.

Table 24: The results of previous studies on substance use in Afghanistan versus the present study

	2009: key informants survey, self-report, ages 15-64, last 12 months use [104]	**2015: biological samples testing, use in up to last 3 months**		**2018: YSSUH, last 12 months, self-report**	
		Adults (15+) (rural-urban)	**Children (0-14)**	**In school (13-24)**	**Out of school in the Kabul province (13-18)**
Opium total	**1.9%**		**0.6%-5.4%**[105]	**2.0% (1.4%-2.7%)**	
Opium males		2.5%-5.7%		2.6% (1.7%-3.8%)	1.7% (0.9%-2.6%)
Opium females		0.5%-4.6%		0.8% (0.7%-1.1%)	

[103] ESPAD Group, *ESPAD Report 2015. Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016).
[104] UNODC, *Drug Use in Afghanistan: 2009 Survey Executive summary* (2009).
[105] It was estimated that only 9% of the children testing positive for drugs in fact used them, the remaining 91% was environmental exposure or drug administration by an adult (as traditional medicine or to control child's pain or behaviour).

	2009: key informants survey, self-report, ages 15-64, last 12 months use [104]	2015: biological samples testing, use in up to last 3 months		2018: YSSUH, last 12 months, self-report	
Heroin total	**1%**			**1.3% (0.8%-2.0%)**	
Heroin males		1.2%-2.3%		1.7% (1.0%-2.9%)	0.5% (0.0%-1.0%)
Heroin females		0.3%-0.8%		0.5% (0.2%-0.9%)	
Cannabis total			**0.6%-3.6%**	**5.6% (4.6-6.9%**	
Cannabis males	8.1%	4.7%-6.1%		8.1% (6.5-10.2%)	7.3% (5.5-9.0%)
Cannabis females	0.2%	0.1%-2%		1.1% (0.8-1.4%)	
Alcohol total			**0.1%-<0.1%**	**2.5% (2.0-3.2%)**	
Alcohol males		0.3%-0%		3.5% (2.7-4.7%)	3.4% (2.1-4.8%)
Alcohol females		0.5%-0.3%		0.7% (0.5-1%)	

Viewing the results of the present study in the context of the results of the previous studies shows that the results from these three studies are quite consistent. The exception is probably the higher use of cannabis and alcohol in the present study (see Table 17). This could also be the case with amphetamine and methamphetamine. Comparison of the results involving ATS is not shown in the table; but the 2015 report contains a mention of 0.3% of the biological samples resulting as positive for ATS[106]. In contrast to that, methamphetamine use in the last 12 months was reported in 1.3% of the students in the present study; and amphetamine reported by 0.9% of the students in the same period of time (but only 0.3% in the out-of-school sample). Before an interpretation of any possible increase, three facts have to be kept in mind. First, there was a substantial difference in methodology between the 2015 and 2018 studies which centred around the data-collection method (biological samples versus self-report) and the age-grouping employed in the two studies. Second, the biological samples refer to the last three months at the most, while the present study results shown in Table 17 refer to use in the last 12 months. Finally, the observed difference could have been caused by pre-selection in the school sample: relatively few young people in Afghanistan attend grades 10-12 and they could be more affluent, and have more progressive, open-minded, and educated parents. This may be correlated with the (largely experimental or possibly recreational) use of some substances. It is, however,

[106] SGI Global, *Afghanistan National Drug survey. Preliminary Overview* (March 2015).

possible that the use of alcohol and ATS (in particular methamphetamine) in Afghanistan increased between 2015 and 2018.

3.5 Prevalence of use in subgroups

An interesting observation to be made is that while in previous studies the difference between substance use in urban and rural areas is relatively sizeable, these differences, if any, were very small in the present study. It is difficult easily to explain this observation. One causal factor may be that the rural-school population is very different from a typical rural-school population (school involvement is even lower in the rural areas of Afghanistan for various reasons); and thus the mere fact that our respondents were attending school may have made them more like their peers in urban areas. However, this observation was also made regarding the out-of-school sample. However, the out-of-school sample was obtained solely in Kabul province. Another possible explanation for this observation is the widespread movement of the inhabitants of Afghanistan which intensified around the time of the study. Many inhabitants were displaced, mainly for security reasons linked to the ongoing conflict between the government and anti-government forces. Family ties and the related social mixing could also play a role in this lack of difference.

Some profound differences between males and females were observed in the present study, in line with previous studies and the available information. These differences are most likely caused by cultural norms and cultural factors. For women in Afghanistan, appearance in public is relatively limited[81]; they have smaller social networks; and they often have a more restricted right to make decisions about their life and activities (this was corroborated in the focus-group discussions which were part of the formative-research phase of the present study, see Annex 6). It is very likely, then, that the pathways by which females access and use drugs will differ significantly from those used by males. For instance, in a study conducted among female drug users in Afghanistan in 2008, more than half of the women reported being initiated into drug use by close family members and almost 40% had addicted husbands.[107] The gender differences were smaller for opium and virtually non-existent in the case of some other substances, namely painkillers, sedatives and inhalants. While the findings for inhalants are, again, especially worrying and can be related to their easier availability, the similar (or sometimes even higher)

[107] Weeda Mehran and Malalai Afzali, Effective Factors Associated with Drug Addiction and the Consequences of Addiction among Afghan Women" (Afghanistan Independent Human Rights Commission Research and Planning Section, February, 2008).

use of painkillers and sedatives in women as compared to men is almost a universal phenomenon, observed across countries and continents[108].

3.6 Risk and protective factors

In principle, the study's results were consistent with the literature on risk and protective factors relating to drug use and dependence[109,110]; and this, in turn, serves as a sign of the reliability of the data gathered. The present study also shows that the various factors may play stronger or weaker roles in predicting the use of various substances.

For all substances, the strongest identified factor was use of drugs by an adolescent's network of friends. This factor is well established in the scientific literature and numerous studies exist which corroborate its importance[111,112,113]. Tobacco played the role of 'the gateway drug', as smoking cigarettes within the last 12 months was an important factor in terms of the use of almost all substances; and this is again in line with the published scientific research[114]. Drug-related attitudes, such as risk perception and disapproval of users, as well as the perceived availability of substances, were also among the factors associated with the use of virtually all the substances analysed. This is a good sign, suggesting that good-quality prevention programmes have the potential to influence future use of substances. On the other hand, this relationship is a complex one to interpret correctly, as it is to some extent a problem of 'the chicken or the egg'. This is because a naïve subject (a person who has never tried the drugs in question) can only imagine what they might think about the use of particular substances and those who use them; and their views might change dramatically after an initial experience of the substance. The significance of variables relating to school performance and in particular school attendance is also promising, in the sense that policies aimed at ensuring adolescents enrol in school and continue to attend thereafter, besides other benefits, may well have some effect on decreasing the future use of substances by adolescents.

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[108] Nora D. Volkow, *Prescription drugs: Abuse and addiction* (National Institute on Drug Abuse, 2005).

[109] Judith S. Brook and others, "Risk and protective factors of adolescent drug use: Implications for prevention programs." In: *Handbook of drug abuse prevention* (Springer, Boston, MA, 2006), pp. 265-287.

[110] David J. Hawkins, Richard F. Catalano, and Janet Y. Miller. "Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention." *Psychological bulletin*, vol. 112, No. 1 (1992), p. 64.

[111] Stephen J Bahr, John P. Hoffmann and Xiaoyan Yang, "Parental and peer influences on the risk of adolescent drug use", *Journal of Primary Prevention*, vol. 26, No. 6 (October 2005), pp. 529-551.

[112] Rhonda Ramirez and others, "Peer influences on adolescent alcohol and other drug use outcomes", *Journal of Nursing Scholarship*, vol. 44, No. 1 (February 2012), pp. 36-44.

[113] Alice Y. Loke and Yim-wah Mak, "Family process and peer influences on substance use by adolescents", *International Journal of Environmental Research and Public Health*, vol. 10, No. 9 (August 2013), pp. 3868-3885.

[114] Mohammad R. Torabi, William J. Bailey and Massoumeh Majd-Jabbari, "Cigarette smoking as a predictor of alcohol and other drug use by children and adolescents: evidence of the "gateway drug effect"", *Journal of school health*, vol. 63, No. 7 (September 1993), pp. 302-306.

An additional analysis was conducted at the province level between variables related to opium use on the one hand and measures of opium production on the other. The relationship between poppy cultivation and opium use was close to zero. This appears to be a positive sign. However, it has to be mentioned that while data on poppy cultivation were available at the province level, district-level data on poppy cultivation were not available; and the study was significantly more likely to be conducted in poppy-free districts in the selected provinces.

3.7 Additional limitations

Apart from the limitations mentioned so far, one additional limitation is related to the fact that the analysis has revealed that skipping school was an important factor related to drug use. The proportion of students skipping school on the day of the Afghanistan survey was clearly higher than both the published ESPAD average and the value for any individual ESPAD country (see the Methodology section for more details). This has therefore in all probability had an impact on the estimates for prevalence. Because those who skipped school had, according to the results of the present study, a higher probability of substance use than those who did not, it is likely that the study has underestimated the overall prevalence of substance use.

As previously mentioned, while face-to-face interviews might have carried higher risks in terms of the social desirability of the answers, it is equally true that completing the questionnaires in the classroom may have led to less reliable responses (as was indicated by the missing items and logical inconsistencies) and more overreporting (indicated by the relatively higher rate of positive responses to the questions regarding the 'use' of the dummy drug Relevin). In addition, students may have had a reduced feeling of privacy as they were often seated very near each other; and they may also perhaps have taken the opportunity to joke about the questionnaire by filling in unrealistic answers. Some of these answers were filtered out during the data-cleaning phase; but some may not have been clearly noticeable during the systematic data checking.

3.8 Message for prevention and policies

The findings of the present study are, from the point of view of policy, most relevant for prevention efforts and related policies within Afghanistan. Comprehensive prevention programmes – which address various risks and vulnerabilities simultaneously; are useful for the development of life skills; and also provide relevant information about health including

substance use – are among the recommended, scientific evidence-based approaches[115,116,117,118]. While Afghanistan has begun implementing some drug-prevention programmes, some of which are more comprehensive and work on various levels (e.g. the FAST programme)[119], keeping up the good work and increasing its coverage is advisable. The important part of the FAST programme, which should be implemented also in other prevention programmes in the country, is preventing school drop-out. Skipping school, even without dropping out of it completely, was associated in the present study with increased substance use. Likewise, the Strengthening Families programme (SFP) for young people aged 10-14 and their parents has been implemented by RPANC since 2017 as a pilot implementation of the UNODC Strong Families global programme[120].

The present study has shown that in all probability Afghan adolescents lack precise and targeted knowledge and information about health. For example, while the out-of-school young people deemed cannabis and alcohol to be some of the most harmful substances for individuals, the risks of various stimulant drugs or even inhalants were perceived as much lower. As it might not be a practical aim in the near future to have all children and adolescents in Afghanistan enrolled in the nation's schools, prevention campaigns focussed on health and substance use are at present needed just as much for those outside of school (e.g. delivered by means of social media or TV). Tobacco use should also be addressed by such programmes. Besides its well-known inherent health risks, tobacco use was also a strong predictor in the present study of the use of other substances (in line with the scientific literature).

Special focus in these interventions should also be put on education regarding the health risks associated with inhalant drugs. This is because one of the most worrying aspects of the answer patterns for adolescents in schools was their perception of risk for the use of inhalants as very low - far below the level of perceived risk from the dummy drug Relevin (see Graph 24). In addition, inhalants among all the substances in the study were associated with the highest number of early initiators (those who started to use the drug at the age of 13 or less). In addition,

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[115] UNODC/WHO, *International Standards on Drug Use Prevention. Second updated edition* (March 2018).

[116] Dean R. Gerstein and Lawrence D. Green (Eds), *Preventing drug abuse: what do we know?* (National Academies Press, USA, 1993. Elisabeth B. Robertson and others, *Preventing drug use among children and adolescents. A research-based guide, 2nd edition* (Rockville, MD: Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse, 2003).

[117] Kenneth W. Griffin and Gilbert J. Botvin, "Evidence-based interventions for preventing substance use disorders in adolescents", *Child and Adolescent Psychiatric Clinics*, vol. 19, No. 3 (July 2010), pp. 505-526.

[118] Giovanna Campello and others, "International standards on drug use prevention: the future of drug use prevention world-wide", *International Journal of Prevention and Treatment of Substance Use Disorders*, Vol. 1, No. 2 (November 2014), pp. 6-27.

[119] Islamic Republic of Afghanistan Ministry of Counter Narcotics. *2015 Afghanistan Drug Report* (9 December 2015).

[120] For more information, please visit https://www.unodc.org/rpanc/en/Sub-programme-3/implementation-of-the-2nd-cycle-of-strengthening-families-programme-in-the-islamic-republic-of-afghanistan.html

many females resorted to the use of these harmful substances. According to self-report, the most easily available substance for males after cigarettes was cannabis; but for females it was inhalants. It must, however, be added that while the use of and attitudes to inhalants in the present study appears worrying, the precise patterns of the use of this substance were not examined. It is therefore hard to predict accurately from the results of the present study the resulting damage to health among the populations which were the focus of the study. More studies may well therefore be needed in order to look in a more targeted way at the patterns of use of inhalant drugs (and other substances) among Afghan adolescents, including studies with a special focus on females.

4 Conclusions

The Study on Substance Use and Health among Youth conducted in Afghanistan in 2018 has shown signs of validity and the data collected has proven to be reasonably reliable.

About one in five Afghan adolescents reported ever having smoked, although the intensity of smoking at the time of the study was not high (relatively few respondents smoked daily). The most prevalent drugs were cannabis, painkillers, inhalants and sedatives. There were profound differences between males and females in the use of some substances (mainly tobacco and cannabis), but not in others (such as painkillers, sedatives and inhalants).

In comparison with a 2015 study of substance use, as well as older studies, there may have been an increase in alcohol and ATS use in Afghanistan.

The strongest risk factors for substance use were peer drug-use and tobacco use in the last year. Attitudes to drugs and their perceived availability also played an important role and so did various psychosocial factors. However, their relative importance differed by substance.

The study findings call for comprehensive prevention programmes that address drug use in the context of known risk and protective factors, including life skills and general health knowledge. In the light of the present study, prevention programmes should include preventing the use of inhalants. Tobacco use should also be addressed; and efforts to decrease skipping school is among the factors that might well pay off in an effort to decrease substance use and related harm among Afghan young people.

5 Methodology

The methodology of the study was developed with the aim of international comparability on the one hand; but also necessary adaptation to the national situation and culture on the other. The ESPAD methodology was chosen as a starting point and modified up to a point in order to be applicable to the specific situation in Afghanistan. ESPAD was selected because of the fact that it has been used widely in Europe and beyond since 1995. This means that comparable data and a wide range of experience are both available. The ESPAD methodology has thus been very well tested and continuously improved. Many studies have been carried out which provide information on its validity and reliability as well as a range of other aspects[121].

Among the problems that required to be solved in the study-design phase were the large numbers of children and young people out of school; the limited resources; and the security challenges. Due to these factors, the study was divided into two phases. Phase I consisted of collecting data in the classroom, similar to the ESPAD study; and Phase II consisted of collecting data from adolescents outside of school.

5.1 Aims of the Study on Substance Use and Health among Youth

The aims of the study were:

1. To obtain insight into levels of drug, alcohol and tobacco use among Afghan adolescents, and correlates of this use.
2. To establish and strengthen the scientific capacity of Afghanistan to conduct a similar study in the future.
3. To provide recommendations for suitable interventions towards prevention of drug use among youth.

5.2 Target population and coverage of the total population of the respective age

The study was primarily intended to be aimed at young people aged 15-18 who were in school; and young people aged 13-18 who were out of school. In Phase I of the study, students in upper-secondary education (grades 10-12) were surveyed in class. The age groups most often attending these grades are those aged 15-18. However, students at a particular stage in the Afghan educational system are not necessarily all the same age. This is because some may start

[121] ESPAD Group, *ESPAD Report 2015. Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016). ESPAD Group, *ESPAD 2015 Methodology: Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016) and www.espad.org for full list of studies.

school later; and in addition, many will move in and out of school for various reasons. For these reasons. the age of the students participating in the data-collection part of the present study went as high as 30 (although only those aged 24 and below were included in the data analysis - see Annex 4). It is not possible precisely to estimate the achieved coverage of the entire adolescent population of Afghanistan by surveying those in grades 10-12. This is because participation in upper-secondary education in Afghanistan is hard to estimate with any precision. However, the available data suggests that it is relatively low. In 2017/2018, there were almost 950,000 students enrolled in upper-secondary education; but the population of 15-19-year-olds was estimated to be over 3.2 million[122]. Besides the fact that some children are not able to start school at all, less than a quarter of all enrolled students complete the first nine years of education; while less than 10% pursue education up to grade 12[123]. There are multiple reasons for non-participation in upper-secondary education which include poverty; security issues; beliefs, attitudes and traditions; and lack of availability. Being female is highly correlated with non-participation in education: out of the 8,971,018 pupils and students enrolled in education in 2017/2018, only 3,445,776 students (38%) were female. Moreover, as the level of education increases, the proportion of females decreases. According to the data, the proportion of girls enrolled in upper-secondary education at the time the study was being planned was 35%[124].

In Phase II, only adolescents aged 13-18 were sampled. The sampling design used in this phase was non-probabilistic, which makes it impossible to determine the coverage of the age group in question. However, stratification ensured that both genders as well as adolescents from urban and rural areas were included proportionally.

[122] Islamic Republic of Afghanistan National Statistics and Information Authority, *The Statistical Yearbook of Afghanistan 2017/2018* (August 2018).
[123] WENR. *Education in Afghanistan* (September 6, 2016).
[124] EMIS, 2016

5.3 Sampling method

Phase I of the study employed a complex sampling design with stratification and multi-stage cluster sampling.

Initially, the country was divided by region. All six regions of Afghanistan were covered. From each region, the province with the largest number of students attending upper-secondary education was chosen first[125]. Then, based on the distribution of students across the regions, additional provinces were chosen from the regions with the highest number of students. This allowed the regions to be sampled in a proportional way with respect to the size of the student population in each region[126].

All the capital cities of the selected provinces were included in the further steps of the sampling process. In addition, based on simple random sampling, two rural districts were selected from all the rural districts. However, in this sampling, only those districts were included where security and accessibility were satisfactory and where there was at least one girls' high school[127]. The rural districts meeting these criteria

[125] With only one exception: Daikundi was replaced by Kandahar, to ensure appropriate representation of all the ethnicities, languages and cultures of Afghanistan.

[126] From the regions with 1-12% of the upper secondary students (of all such students in the country), only one province was selected. From the regions with 13-24% of the nation's 10-12 graders, two provinces were selected and from the region with 25-36% of the students, three provinces were selected for data collection.

[127] First, the districts of each selected province were divided into secure and unsecure. Then among the secure districts, two were selected by simple random sampling. During the time of the survey, security in Alingar worsened. It was therefore decided to select more schools in the only secure rural district of Laghman (Qarghaee).

were then randomly sampled (see Images below for the geographic distribution of the chosen provinces and districts).

The next step was to ensure that, within the grades (10-12) being sampled, the genders were proportionally represented. This was done by dividing the schools into girls' schools and boys' schools. Data from the Ministry of Education was used to achieve a composition sample which was as close as possible to the distribution of gender within the higher-secondary system (35% female and 65% male).

After this division, a two-stage cluster sampling process was performed. Within the girls' and boys' schools in each district, a simple random sample of schools was taken, followed by a simple random sample of classrooms within each selected school. The final sampling unit was the classroom.

In Phase II of the study, the sampling procedure used to achieve a sample of 13-18-year olds who were not enrolled in school was non-probabilistic. Given the pioneer nature of this phase of the study and the available resources, the selection of the sample took part solely in Kabul province. All urban and two randomly selected rural districts were included in the sampling process. Finally, 43 sites/villages within those districts were randomly selected. In order to obtain access to a population which was, to a great extent, hard to reach (something which is especially true for female adolescents), police chiefs and village elders with the support from local Community Development Councils (CDCs) were asked to nominate study participants of the correct gender and age. The final sampling unit was the individual.

5.4 Sampling frame and sample-size calculation

The sampling frame of Phase I of the study consisted of all the general schools in the country, public or private, where 10-12 graders study; and where accessibility and security allowed the research team access. The sampling frame excluded special schools/schools for adolescents with disabilities; religious schools; technical schools; and vocational schools.

The original suggested sample size was to be 2,500, similar to the sample sizes typically used in the ESPAD study; but, with correction for the cluster-sampling design which was used, it was finally decided to make the sample size 10,000[128].The sample-sizes for each of the provinces were proportional to the student population of the selected provinces. However, provinces with

[128] Sayed Jalal Pashtoon. *Youth Survey on Substance Use and Health in Afghanistan. Second draft of the report* (2019).

fewer students were oversampled to a small degree in order to achieve a sample-size of at least 500 participants. This was in order to be able to obtain reliable estimates at the province level. This increased the size of the planned study sample to 10,771 participants.

The sampling frame of Phase II of the study included any adolescent aged 13-18 from the surveyed sites within Kabul province who was, at the time of the study, not attending school. The calculated planned sample size was rounded to 1000 participants in the study-planning phase.

5.5 Final participation in the study and refusals at the school and class level

In total, 177 schools (109 boys' schools and 68 girls' schools) with their 406 classes participated in in Phase I of the survey. Altogether, 11,093 students participated in the survey. There were no refusals at the school and class level. Refusals at the student level were recorded within the 'classroom reports' (see below).

There were 1,110 participants in Phase II. Refusals occurred rarely but were not recorded. Those respondents who did not wish to participate were replaced by another respondent.

5.6 Classroom reports

The data-collection process in the classrooms during Phase I was thoroughly documented by means of classroom reports, very similar to those used in the ESPAD study.

23% of students were recorded as absent on the day of the survey. Refusals at student level were infrequent and in fact zero in the vast majority of the classrooms. In total, the refusal rate was 1.7%. However, it differed significantly between the genders: while only about 1% of the boys refused to fill in the questionnaire, 2.8% of the girls did so. In three quarters of the classrooms, no disturbances were recorded. In 23% of the classrooms, a few students caused disturbances during the data collection. More intense disturbances were rare. In only two classrooms were more than half of the students reported to have caused disturbances. In most cases, the observed disturbances were giggles or eye-contact with classmates. Less often, loud comments were observed. Both the refusal rate and the level of disturbances were very similar to the ESPAD study[129]. The survey leaders reported that in more than 95% of participating classrooms all or

[129] ESPAD Group, *ESPAD 2015 Methodology: Results from the European School Survey Project on Alcohol and Other Drugs* (Publications Office of the European Union, Luxembourg, 2016).

almost all the students were interested in the survey. There was only one classroom where less than half of the students were reported to be interested in the survey.

5.7 Mode of data collection

In Phase I of the study, the mode of data collection was a paper-and-pencil questionnaire. Students were instructed to fill in the forms using a ballpoint pen in order to avoid any possible correction at later stages.

In Phase II of the study, the mode of data collection was face-to-face interview, given that a number of the respondents were illiterate (a quarter of males and a third of females). The respondent's answers were recorded by the interviewer on a questionnaire form similar to the one used in Phase I, with a few different questions. A small incentive – a gift of a notebook and a pen – was used to motivate the participant to collaborate.

The questionnaire used in both phases was almost identical to the standard ESPAD questionnaire (the questionnaires can be found in Annex 1 – youth in schools and Annex 2 – out-of-school youth). The ESPAD questionnaire contains questions on the demographic profile of the respondent including: spare-time activities; their tobacco, alcohol and other psychoactive substance use; their perceived availability of drugs; and their attitudes towards the associated risks and towards users of the substances. Further questions were those on the respondent's social profile – mainly the social support from parents and friends; parental monitoring; and some additional psychosocial variables. Moreover, questions on various problems experienced, with or without relation to substance use, and specific measures of self-harm and running away from home were also included. All these elements of the questionnaire are based on decades of research into the risk and protective factors of substance use and are expected to have some correlations with it. Besides these modules chosen from the ESPAD study, questions examining drug use occurring in the social networks of students were added for the purpose of obtaining indirect estimates by means of the Network Scale-up Method (see below).

The Phase II questionnaire included some additional questions about the living conditions, literacy and level of education and the family and work situation of the respondent.

5.8 Languages of the survey and the translation and adaptation process

The survey was conducted in the two main languages used in the country: Pashto and Dari. In Phase I, the language chosen was based on the dominant instruction language of the school being surveyed; and in Phase II on the basis of the geographical area that was being surveyed.

The translation was carried out by one translator (Dr. Sayed Jalal Pashtoon) to ensure consistency across the two language versions. Back-translation was not performed. The translated versions were approved and culturally adapted through several iterations of formative research (see below) and expert opinion from the project's steering committee[130].

5.9 Cognitive testing and pilot testing of the questionnaire

Cognitive testing of the questionnaire was conducted in the form of in-depth interviews with sixteen students from Kandahar and Kabul.

The following step was the pre-testing.

Pre-testing was also carried out in schools from Kandahar and Kabul (two schools from each province). In the first step, two classrooms were randomly selected from each school. Afterwards, the questionnaire was distributed among the students while respecting the respondents' norms of confidentiality. Certain additional variables were also recorded. These included: willingness to participate in the study; the number of occasions when students found questions difficult to interpret or require explanation; and the average time for students to complete the questionnaire. In the third step, students were invited to participate in focus groups and were asked to provide their views on the nature and order of the questions represented and how it could be refined to make it more respondent-friendly and more easily answered. The students were also asked about their knowledge regarding each drug represented in the questionnaire.

Finally, the questionnaire was pilot-tested in two selected high schools, one of them a boys' school and the other one a girls' school. In the former, the language of instruction was Dari and in the latter it was Pashto. Two grades were selected per school. The pilot testing helped to identify questions which were causing confusion and led to a set of recommendations to improve the data-collection process and the questionnaire. For instance, students did not know about magic mushrooms, LSD and ketamine and as these were also not relevant from the point of view of the drug situation nationally the Project's Steering Committee (PSC) removed the questions relating to these substances from the questionnaire.

[130] The project's steering committee (PSC) was a group of experts composed of focal points of the relevant ministries with various backgrounds (health, research, education, etc.). Its role was to support and advise on the implementation of the study and endorse decisions throughout the process. The PSC meetings were chaired by the Research and Studies Director of the MCN and later by the Research and Studies Director of the Deputy Ministry of Counter Narcotics Police of Afghanistan (CNPA), Ministry of Interior. Ministry of Counter Narcotics was later dissolved by a Decree from the President (in the fourth quarter of 2018) and the Directorate for Research and Studies was transferred to the CNPA of MoI.

5.10 Final sample size before data cleaning

From the 11,093 envelopes with questionnaires collected during Phase I of the study, 531 questionnaires had to be excluded during the data-entry phase. Most of these were returned entirely blank or were missing more than 50% of the answers in the questionnaire. Some questionnaires also had to be excluded due to the fact that they carried comments written in childish or colourful language and this raised serious doubts about the validity of the responses in these questionnaires. 10,561 questionnaires were entered into the dataset before further data cleaning.

All 1,110 questionnaires collected in the Phase II of the survey were considered valid and were entered in the database.

5.11 Consent and confidentiality

According to national rules and regulations, the study had to go through a process of ethical approval from Institutional Review Board of the Ministry of Public Health of Afghanistan.

In Phase II of the study, approval from parent(s)/guardian or a social centre if the former did not exist was required before approaching respondents below the age of 18. The approval from parent(s)/guardian was verbal. A refusal to give this approval was very rare.

During an introductory briefing at the start of the data collection, the respondent was informed about the purpose of the study and that their participation was voluntary and anonymous.

The questionnaires were collected, and interviews were performed by trained survey leaders, always of matching gender (e.g. female researchers in girls' schools and interviewing female adolescents) in order to comply with cultural norms and increase the chance of the survey leaders being accorded trust. In Phase I, the survey leaders remained at the front of the classroom during the data collection. Schoolteachers were not present in the classroom during the data collection. The survey leaders only moved towards a student who asked for an explanation regarding a particular question.

In the text on the front page of the questionnaire (which was also read out to the adolescent who was being interviewed in Phase II of the study), the respondents were reassured about the fact that full confidentiality applied and that participation was voluntary and carried no repercussions if they refused. They were also explicitly asked not to provide their name and not to write it anywhere on the questionnaire. After completion of the questionnaire or the

interview, the filled-in forms were inserted in a blank envelope and sealed by or in front of the respondent.

5.12 Data collection timing

The periods of data collection were as follows:

- Phase I of the study (the school survey) was carried out between the end of September 2018 and the end of November 2018.
- Phase II of the study (interviews with adolescents currently not enrolled in schools) was carried between 6 November 2018 and 25 November 2018.

The average time for self-completion of the questionnaire was 40 minutes.

5.13 Data entry

Data entry was carried out by trained data-entry clerks. They entered the data into an Access database designed and developed by UNODC. It was performed manually.

5.14 Quality Assurance

Besides regular meetings of the study steering committee overseeing the work and the constant supervisory role of the Regional UNODC office in Kabul, a special procedure was created for independent monitoring of the study's fieldwork. Monitoring teams from UNODC, the Ministry of Education, the Ministry of Counter-Narcotics, UNICEF and the IRB/Research Team of the Ministry of Public Health visited all the selected provinces and out-of-school youth survey sites in Kabul to monitor the progress and quality of field-data collection using a detailed standard form designed specifically for this purpose. Altogether, the designated observers made 53 field visits and the overall result of these visits was highly positive: the data collectors adhered to the protocol in virtually all of the aspects monitored.

5.15 Data cleaning

The data entered into the database were further cleaned and some missing values replaced according to standard approaches similar to those used in ESPAD.

In summary, 469 cases were removed from the in-school sample for various reasons (11 due to repetitive marking of extreme values; 15 cases due to the reporting age being 25 or higher; and 443 due to missing information on age). In the in-school sample, 5,320 missing values were replaced in a conservative manner (e.g. assuming no use in the last month where there was self-reported no use ever in life and in the last year and a missing answer to the question on last-month use), which constituted under 2% of the values of the relevant variables. In the out-of-

school sample, no cases needed to be removed from the analysis. Only 82 missing values (0.3% of the relevant values) were replaced using the same criteria as applied in the in-school sample.

Full technical details of the data-screening and cleaning procedures as well as the process for replacing missing values can be found in Annex 4.

5.16 Statistical analyses

Both samples were analysed using the SPSS statistical software. As the in-school sample was obtained using a complex sampling design, the SPSS Complex Samples module was used to analyse that sample for the estimation of frequencies and proportions as well as for computing and testing bivariate relationships between variables. This module enables the researcher to precisely define the sampling design and use this information in the adjustment of confidence intervals in the analysis and the statistical tests performed. In all the analyses, weighting was employed to reflect the urban/rural and male/female distribution of upper-secondary school students in Afghanistan. Analyses have shown that the slight oversampling in some provinces had close to zero influence on the resulting estimates; and thus weighting, or other correction in the analyses, to reflect the distribution of students by province was not needed.

Multivariate statistical analyses were performed using the standard procedures and without using the SPSS Complex Samples module. This is because multivariate normal distribution of the variables is often the case with large samples. In several simulation studies, unweighted procedures have shown minimal differences in comparison with weighted procedures[131].

Even though many of the variables analysed and some of the obtained indices or screening-scales scores were not, strictly speaking, of the interval or ratio type of measurement, they were pseudo-continuous and carried a lot of information which would have been lost if the data were analysed as strictly ordinal. Therefore, as suggested by many authors, parametric methods were chosen because they are deemed to be more robust, especially, when Likert-type scales are used[132,133,134]. Likert-type scales were used in many of the questions in the final questionnaire.

In the case of the out-of-school sample, which was obtained by a non-probabilistic sample design, the computed confidence intervals are obtained by means of Bootstrap techniques and

[131] Adam C. Carle, "Fitting multilevel models in complex survey data with design weights: Recommendations." *BMC medical research methodology*, vol. 9, No. 1 (2009): 49.
[132] Geoff Norman, "Likert scales, levels of measurement and the "laws" of statistics", *Advances in Health Sciences Education. Theory and Practice*, vol. 15 (2010), pp. 625–632.
[133] Gail M. Sullivan and Anthony R. Artino, "Analyzing and interpreting data from Likert-type scales", *Journal of Graduate Medical Education*, vol. 5, No. 4 (December 2013), pp. 541–542.
[134] M.E. Cohen, "Consive review: analysis of ordinal dental data: evaluation of conflicting recommendations", *Journal of Dental Research*, vol. 80, No. 1 (January 2001), pp. 309-313.

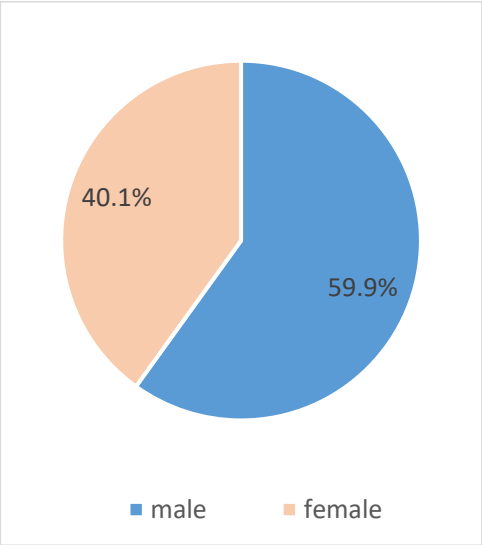
are based on the assumption of normal distribution. They are therefore probably too narrow. Females out of school were, moreover, probably too reluctant to admit drug and alcohol use. Some females reported smoking and only four females (1.3%, 0.3%-2.7%) reported ever using alcohol in their life - two of them also in the last 12 months. None of the females reported alcohol use in the last 30 days or any drug use during their life, the last 12 months or the last 30 days, with the exception of one female respondent admitting sedative-use in her life (but not recently). It is very likely that some substance use exists in females who are out of school; but the respondents did not feel comfortable about disclosing it in a face-to-face interview. The females' responses regarding substance use were therefore treated with great caution; and while tobacco use was included in the analyses drug and alcohol use in females out of school was not included in the models, due to the possibility of substantial bias.

6 Description of the two study samples (demographic variables)

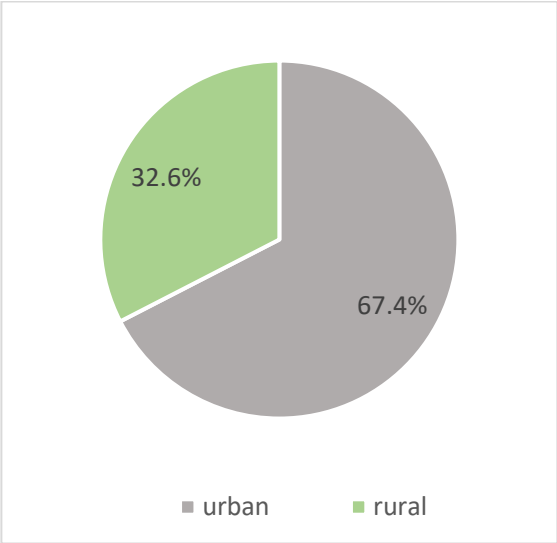
6.1 Students in schools

60% of the sample of the students from high schools were males (see Graph 31). More than two thirds were living in urban areas (see Graph 32).

Graph 32: Gender distribution (in-school sample)

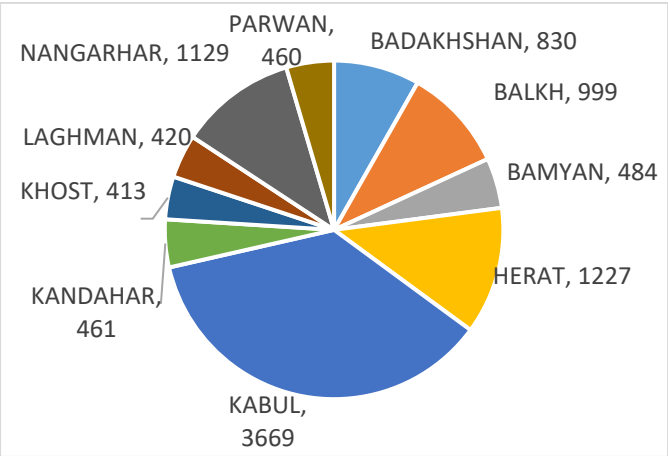


Graph 31: The area of residence of the respondents (in-school sample)

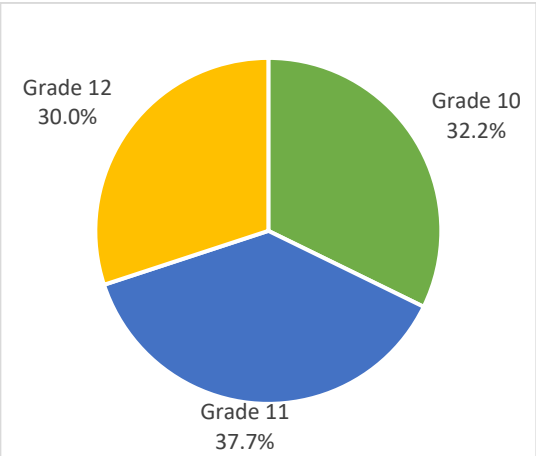


The highest proportion of the students in the sample were studying in Kabul. The other provinces were represented proportionally, according to the numbers of high-school students in the included provinces (see Graph 33 and Methodology chapter).

Graph 34: Province where the respondent's school is located (number of respondents). In-school sample



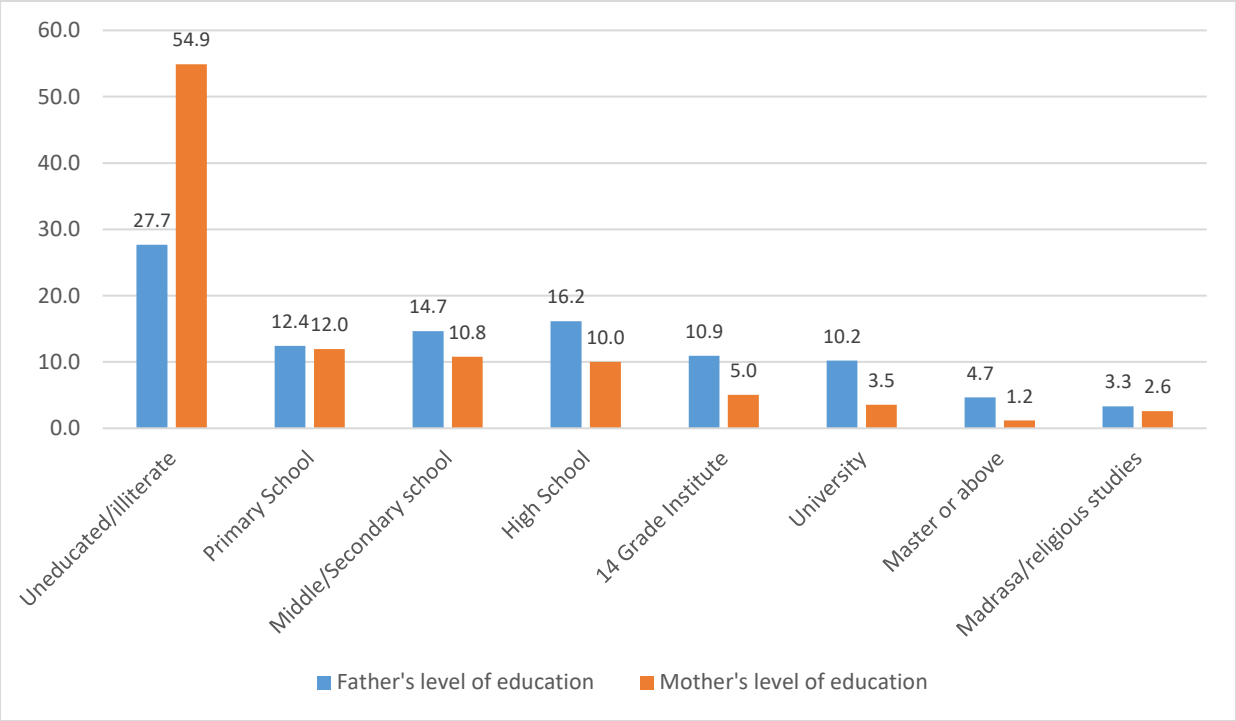
Graph 33: The representation of grades in the in-school sample



The self-reported age of the students included in the analysis ranged from 13 to 24 years. The mean age was 17.3 years (SD+-1.4); and the three largest categories were 16, 17 and 18-year old students (17%, 30% and 32% of the in-school sample, respectively). Grades 10, 11 and 12 were represented approximately equally in the sample (see Graph 34).

When it comes to the educational level of students' parents, mothers were clearly less educated, with over half of them being illiterate (see Graph 35).

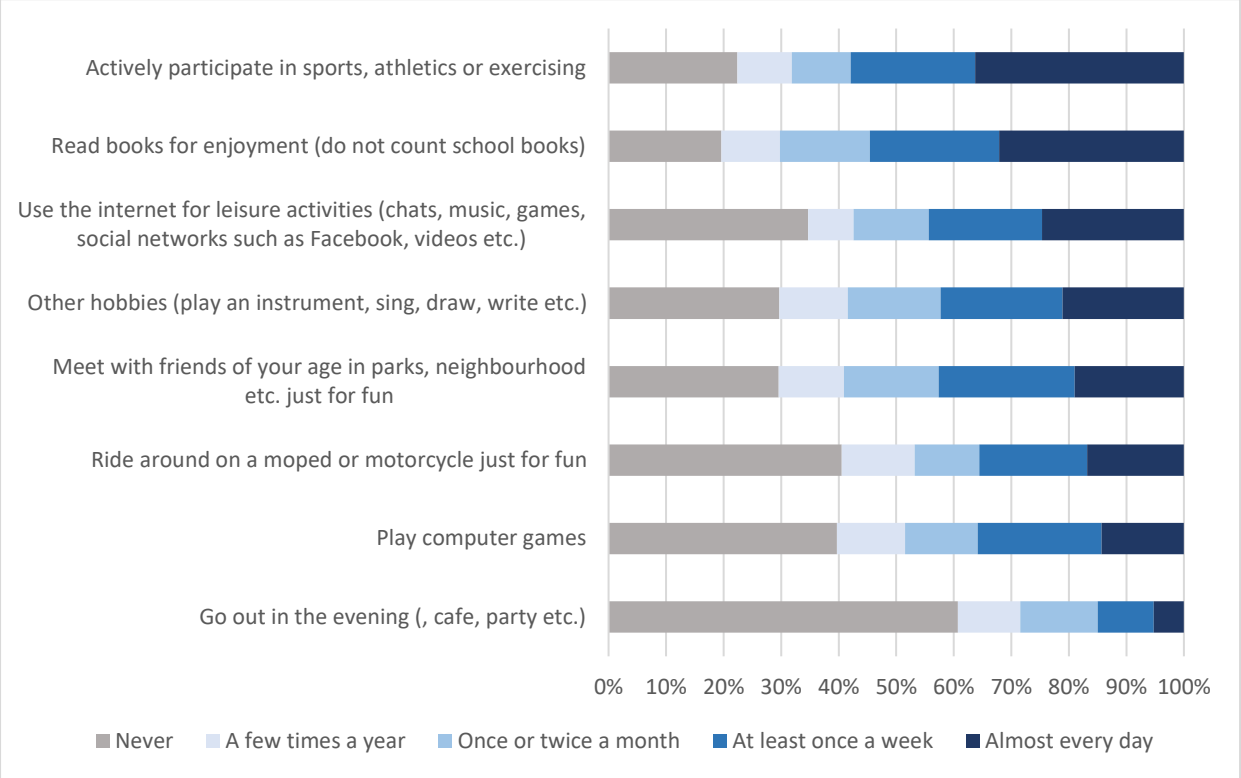
Graph 35: Educational level of respondent's parents (%). In-school sample



Rural mothers and fathers had significantly lower levels of education than urban parents ($p<0.001$, data not shown). Among the urban young people attending school, there was a higher proportion of females (41.2%) than among rural school young people (37.7%), $p<0.001$.

Graph 36 shows the responses to the question: 'How often (if at all) do you do each of the following?' and provides an overview of hobbies and spare time activities in which the young people in school engage.

Graph 36: Hobbies and spare time activities. Youth in schools



Significant gender differences were detected in the area of hobbies which were practised (see Table 25 – a statistically significant difference between the genders is marked by asterisks).

Table 25: Gender differences in practised hobbies and spare time activities. In-school sample

	Never		A few times a year		Once or twice a month		At least once a week		Almost every day	
	males	females	males	females	males	females	males	females	males	females
Actively participate in sports, athletics or exercising**	14.0 %	36.9%	7.6%	13.1%	9.7%	11.6%	24.1 %	17.2%	44.6 %	21.2%
Read books for enjoyment (do not count schoolbooks)**	19.5 %	19.4%	9.2%	12.1%	15.7 %	16.0%	23.6 %	21.1%	32.0 %	31.3%
Use the internet for leisure activities (chats, music, games, social networks such as Facebook, videos etc.)**	30.2 %	40.9%	7.6%	8.1%	13.8 %	11.3%	21.6 %	16.9%	26.9 %	22.9%

Other hobbies (play an instrument, sing, draw, write etc.)**	34.2 %	20.7%	11.8 %	12.1%	16.9 %	14.9%	20.2 %	23.0%	16.9 %	29.3%
Meet with friends of your age in parks, neighbourhood etc. just for fun**	19.8 %	47.3%	10.1 %	13.5%	18.2 %	13.5%	29.0 %	14.0%	22.9 %	11.7%
Ride around on a moped or motorcycle just for fun**	26.3 %	66.3%	12.5 %	13.6%	13.1 %	7.6%	24.2 %	8.4%	23.9 %	4.1%
Play computer games**	38.6 %	39.5%	11.0 %	14.3%	13.6 %	11.3%	22.7 %	19.6%	14.1 %	15.3%
Go out in the evening (cafe, party etc.)**	57.6 %	65.8%	11.5 %	10.3%	13.9 %	13.0%	10.9 %	7.4%	6.1%	3.5%

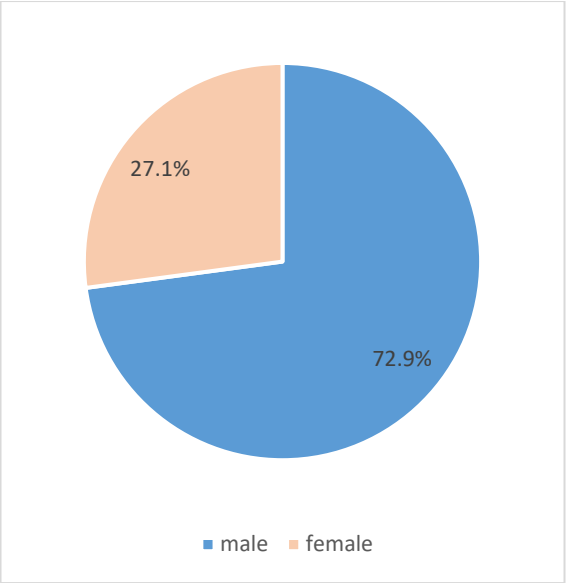
**$p<0.001$

The differences between urban and rural young people in hobbies practised and spare-time activities were moderate and significant on the level $p<0.001$ in the case of playing computer games (less for rural young people); using the internet for leisure activities (less for rural young people); reading books for enjoyment (slightly more 'every day' for rural young people); and going out in the evening to visit a café or attend a party (rural young people more often chose the option 'never').

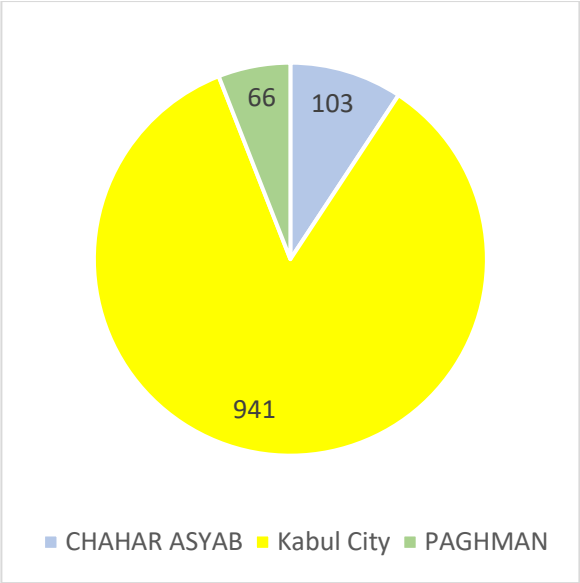
6.2 Out-of-school youth

73% of the respondents in the out-of-school sample were male (see Graph 37). All the respondents came from Kabul province. The vast majority (85%) came from the city of Kabul (see Graph 38). These were also the respondents living in urban areas. The remaining 15% lived in rural areas.

Graph 38: Gender distribution of the school sample out-of-school youth sample



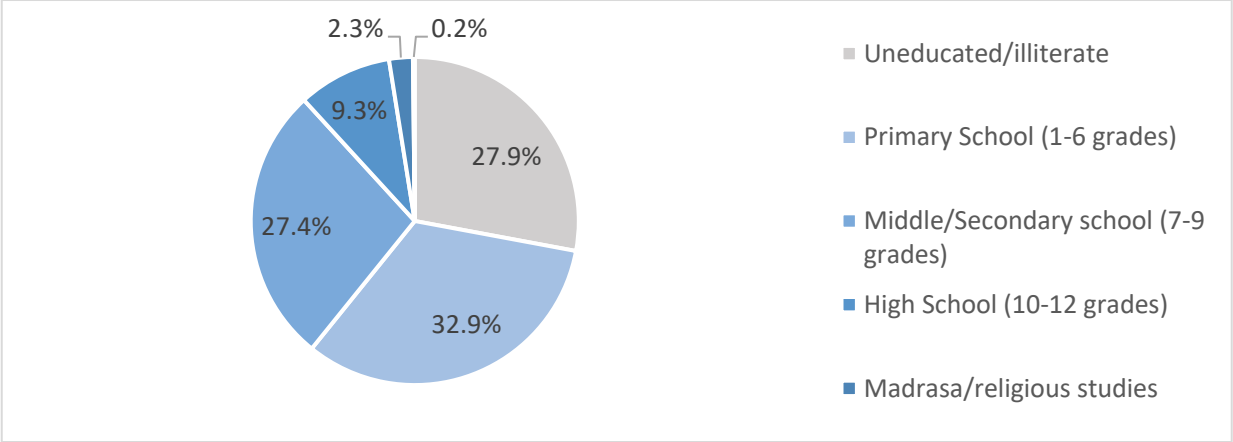
Graph 37: The area of residence of Out-of- the respondent (number of respondents).



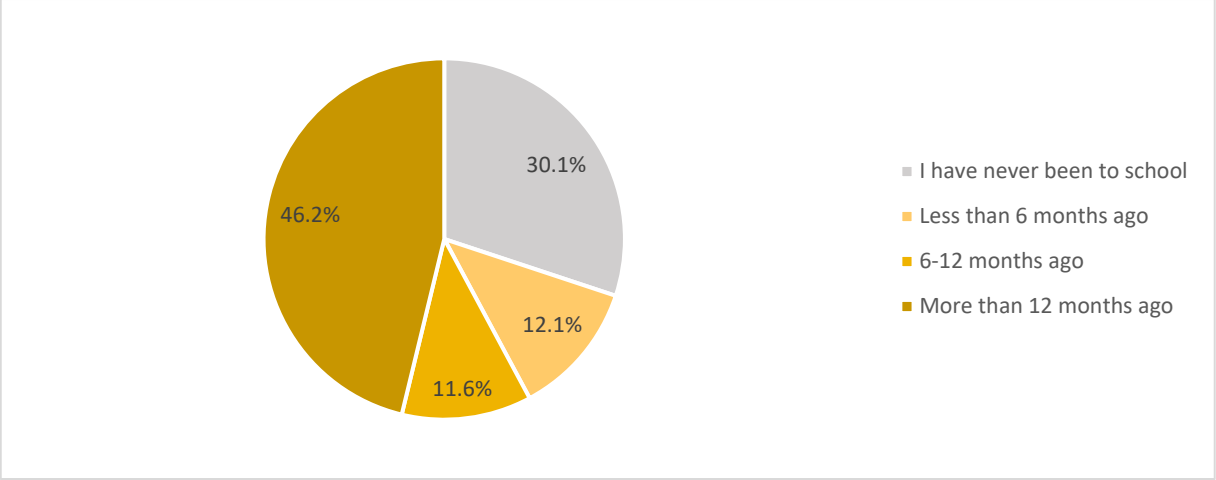
The respondents' age ranged from 13 to 18. The average age of the sample was 16.5 (SD+-1.6). The largest category was 18-year old adolescents (44%), followed by 16-year olds (25%) and 14 years-old (16%).

The highest educational level achieved by the respondents varied from those who were illiterate (28%) to those who had already completed high school (2.3%) – see Graph 39 for more details. The level of literacy was higher in males than females – 24.8% of males were illiterate but this rose to 36.2% for females. For more than half of those who had ever attended school, the last time they had been there had been more than 12 months previously (see Graph 40).

Graph 39: Educational level of respondent. Out-of-school youth

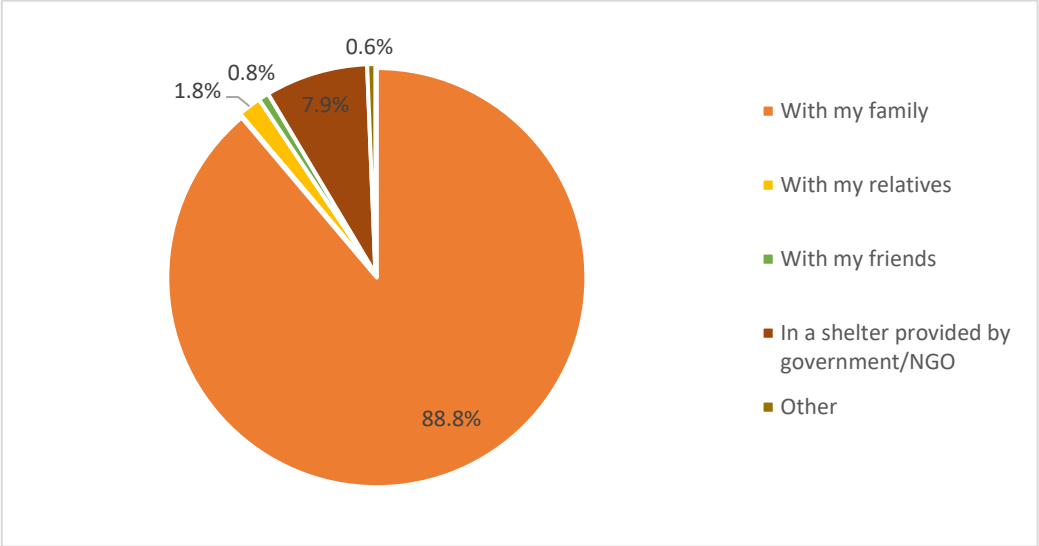


Graph 40: Distribution of responses to question 'When was the last time you went to school?' Out-of-school youth

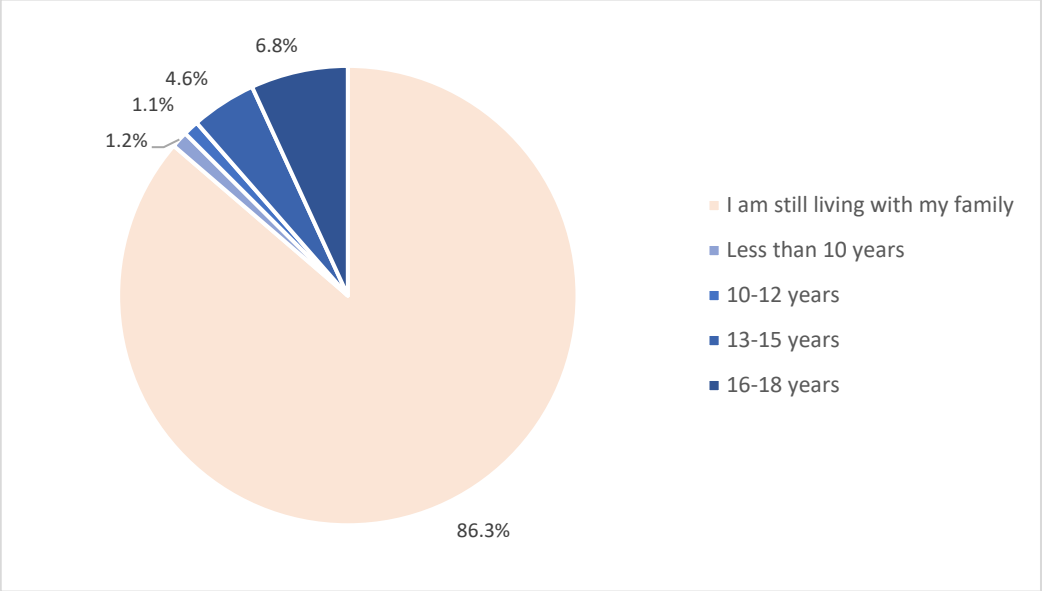


The vast majority of the study respondents who were not enrolled in school lived with their family (almost 90%). 8% lived in a shelter provided by the Afghan government or an NGO. See Graph 41. Those respondents who had left home had usually done so after the age of 13 and more often from the age of 15 onwards (see Graph 42).

Graph 41: Distribution of responses to question 'Where do you live/who do you live with?' Out-of-school youth

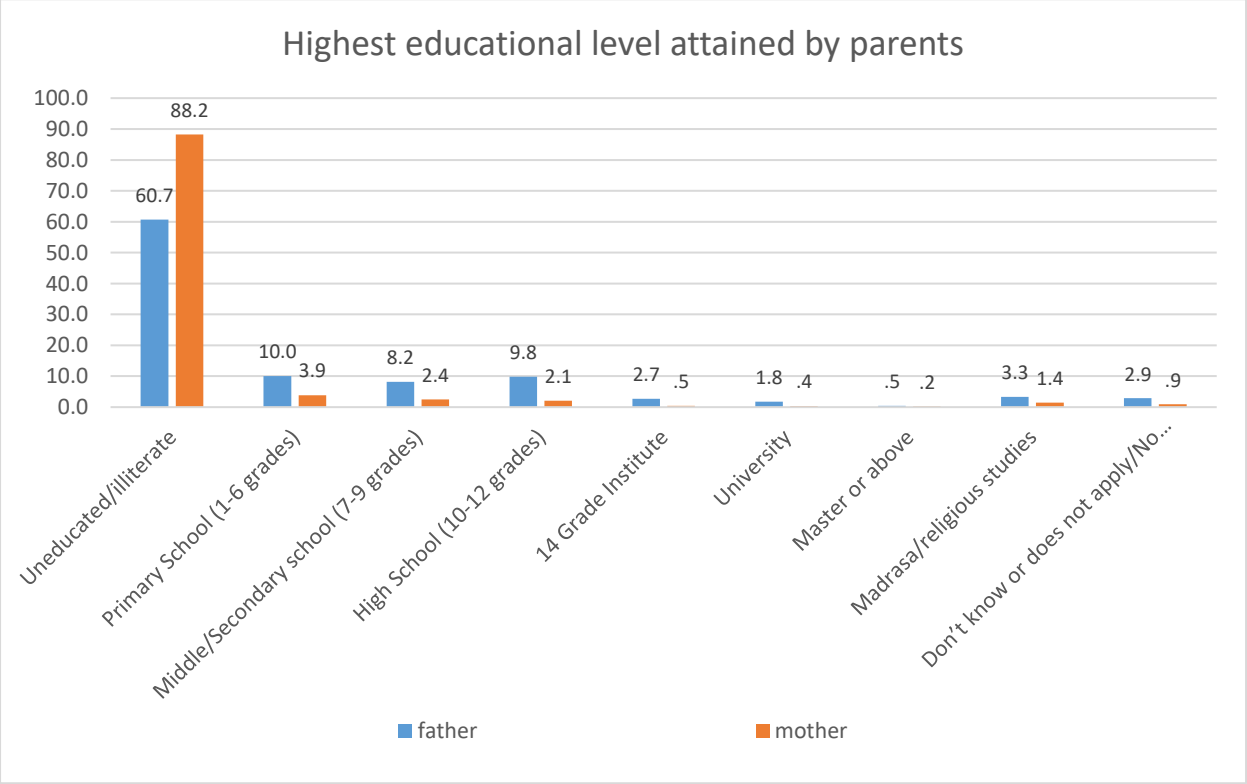


Graph 42: Distribution of responses to question 'How old were you when you left home?' Out-of-school youth



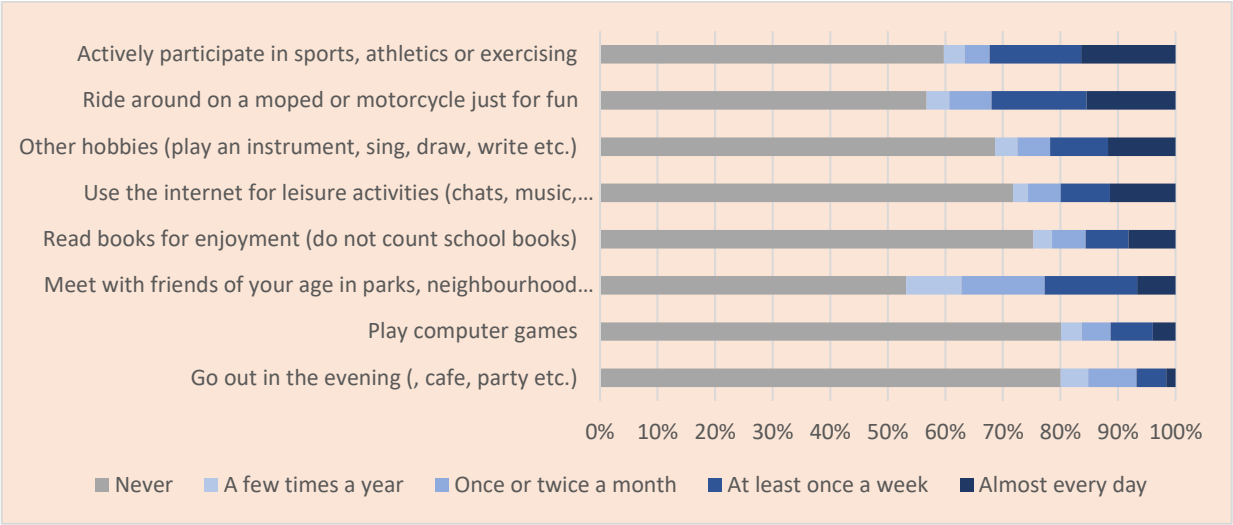
The educational level attained by parents of out-of-school young people was clearly lower than in the case of young enrolled in upper-secondary schools (see Graph 43). Fathers were illiterate in the case of over 60% of the respondents and mothers in almost 90%.

Graph 43: Highest educational level attained by parents. Out-of-school youth



Almost 10% of the out-of-school young people reported that their father had passed away; and 5% had lost their mother. Regarding the working status of the respondents and their family members, precisely one third of them reported that they were working (44.6% among the males and 3% among the females). 60.4% reported that their father worked. 29.4% had working brothers. Only 2.1% of the young people reported that their mother worked; and 0.3% of the group stated that their sisters worked. Only 0.4% of the respondents answered that no-one was working in their family. The engagement of the out-of-school young people in hobbies or spare-time activities was clearly less than among those attending school (see Graph 44). This was even more the case for females (data not shown).

Graph 44: Hobbies or spare time activities. Out-of-school youth



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