

The gender dimension of non-medical use of prescription drugs in Europe and the Mediterranean region



Marilyn Clark

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Marilyn Clark
and the members
of the Pompidou Group
Expert Working Group on
the Gender Dimension of NMUPD

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Invited international organisation in the project

EMCDDA European Monitoring Center on Drugs and Drug Addiction

The Pompidou Group role in integrating a gender dimension of drug policies

The Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (the Pompidou Group) is an intergovernmental body formed in 1971. Since 1980 it has carried out its activities within the framework of the Council of Europe. Thirty-seven countries are now members of this European multidisciplinary forum which allows policy makers, professionals and experts to exchange information and ideas on a wide range of drug misuse and trafficking problems. Its mission is to contribute to the development of multidisciplinary, innovative, effective and evidence-based drug policies in its member states. It seeks to link policy, practice and science.

The Pompidou Group, perceived as a pioneer in Europe regarding the integration of the gender dimension into drug policies, has always called for a better understanding of gender specific differences.¹

The permanent correspondents – appointed by their governments to represent them within the Pompidou Group – at their meeting in Athens in November 2013, welcomed the initiative by the Italian Department for Anti-Drug Policies Presidency of the Council of Ministers to set up a gender-specific project to be funded on an Italian voluntary contribution.

The Pompidou Group decided to launch a gender-specific project analysing problems of addiction among Pompidou Group member states, former Pompidou Group member states and MedNET (PG network of co-operation in the Mediterranean Region) countries, covering Europe and the Mediterranean Region.

Already in 2001, the Pompidou Group made a contribution on the subject with a study on the sensible use of benzodiazepines and the subsequent CND Resolution 44/13 “Contribution to the appropriate use of benzodiazepines” in 2001.²

1. The gender dimension of drug policies was first discussed at the 1984 Ministerial Conference of the Pompidou Group.

2. See www.unodc.org/unodc/en/Resolutions/resolution_2001-03-28_8.html.

In January 2014, Ms Elisabetta Simeoni, Permanent Correspondent for Italy and Gender Equality Rapporteur for the Pompidou Group within the framework of the Council of Europe's Gender Equality Strategy – which aims at moving from legal equality to real equality – agreed to focus first on the following topic: the gender dimension of non-medical use of prescription drugs.

The nomination of experts took place within a few weeks. They were then given a few months to reply to the survey. Marilyn Clark presented the draft report at a conference in Rome in September 2014 opened by Counsellor Attorney Patrizia de Rose, General Manager, Department for Anti-Drug Policies, Presidency of the Council of Ministers, and attended by the researchers from the countries participating in the study and from UNICRI and EMCDDA.

During the 16th Pompidou Group Ministerial Conference in November 2014, the media expressed a strong interest in this first study on the gender dimension of the non-medical use of prescription drugs in the Mediterranean region and in Europe.

Executive summary

Background

Understanding gender as it relates to drug use and drug-use disorders is a critical requirement for developing effective policy and practice responses. This study aims to explore the gender dimension of the non-medical use of prescription drugs (NMUPD) in Europe and the Mediterranean region, to build on the corpus of knowledge on the subject, and to help identify gaps in this knowledge.

Working definitions

This study uses the definition of NMUPD developed by the Lithuanian Presidency of the Council of the EU in 2013 : “use of a prescription drug, whether obtained by prescription or otherwise, other than in the manner or for the time period prescribed, or by a person for whom the drug was not prescribed”. This study is concerned specifically with the use of psychotropic drugs. The term “non-medical use” does not correspond to the definition of substance-related disorders in the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (DSM-V, American Psychiatric Association, 2013). For the purpose of this study’s research tool, the “use of prescription drugs” was defined as “consumption with doctor’s prescription and/or consumption as prescribed by a medical practitioner”.

Project purpose and design

The main aims of this study are:

- ▶ to explore gender differences in NMUPD in Europe and the Mediterranean region through a documentation of secondary sources;
- ▶ to identify gaps in the data available for Europe and the Mediterranean region;
- ▶ to make recommendations for further research;
- ▶ to make recommendations for policy development and practice.

The research tool used in this study was a questionnaire sent to experts nominated by the permanent correspondents of the Pompidou Group (PG) member states and former member states, and experts nominated through the PG’s Mediterranean Network (MedNET) correspondents for the Mediterranean region countries.

Geographical scope

This study is based on a geographically representative sample of PG member states, MedNET participating countries and some former PG member states. Seventeen countries participated: Cyprus, Czech Republic, Egypt, France, Germany, Greece, Ireland, Israel, Italy, Lebanon, Lithuania, Malta, Morocco, Serbia, the Netherlands, Tunisia and the United Kingdom (Wales only).¹

Results

The literature review identifies women as a high-risk category for NMUPD and shows how gender is not predictive in the same direction across different drug categories. It highlights how the telescoping phenomenon is evident for women in their NMUPD “career path” and that they manifest different patterns of use to men. It highlights how trauma and interpersonal violence may be causal factors for NMUPD among women.

The submitted data indicates that, in the general population, the use of prescription drugs is higher among women than men. Prescription-drug use increases with age, with the thirties constituting the highest risk period. No conclusions about gender influences on the use of a specific class of prescription drug were reached.

While rates for prescription-drug use have been shown to be clearly higher for women, the picture for NMUPD is less clear. Few countries were able to report on NMUPD: Greece and Lithuania registered higher levels for women while the opposite was true for Lebanon and Israel. The initiation into NMUPD is marginally later for women than men. The most common source of prescription drugs for both sexes is a legal one (from a doctor), followed by “from a friend or a relative” indicating the relative ease of diversion. Data from surveys of young people indicate that lifetime rates of NMUPD are higher for women in a number of countries and that the age of first NMUPD coincides with middle adolescence.

In Germany and Serbia, the number of fatal overdoses related to the use of psychotropic prescription drugs is higher for women than men. The data on treatment are too limited to make any reliable conclusions according to gender.

Disparity in the type of drug use surveyed in relation to prescription-drug use and NMUPD makes comparison of prevalence rates particularly problematic, and there is no clear documentation of the full extent of NMUPD which would allow researchers to highlight gender differences. Data-collection instruments, such as general population drug prevalence surveys, do not always distinguish between “medical use” and “non-medical use”. The national data on the use and misuse of prescription drugs among general populations should, therefore, be interpreted very cautiously. Not all the countries which participated in this study reported on the source of the prescription drugs. While the monitoring of prescribing practices among young people is an important area of research, surveys of young people in Europe mainly explored NMUPD.

1. Wales is not a sovereign state but rather a semi-autonomous region of the UK.

All countries have legislation in place to control psychotropic prescription drugs. Not all participating countries in this study have a system in place to register the number of prescriptions for psychotropic prescription drugs and thus some were unable to provide data in this regard. The participating countries reported a number of scientific studies on NMUPD. Most reported that the issue of NMUPD was addressed in their country's national drugs policy.

Recommendations

For monitoring and research

This study recommends that the PG's permanent correspondents undertake the following actions:

Ask researchers in their respective countries to contribute to the development of monitoring systems for prescription-drug use in the general population in those European and Mediterranean region countries where they do not currently exist (with technical advice from the EMCDDA).

Recommend to researchers in their countries that, in addition to the use of "sedatives and tranquillisers", other categories of prescription drugs be included in general population surveys (GPSs).

Ask researchers in their countries to ensure that the source of prescription drugs is included in future GPSs as a core item.

Ask researchers in their countries to develop mechanisms for the monitoring of emergency hospital visits and admissions linked to NMUPD.

Ask the EMCDDA to include, as part of the common core of each GPS, questions about the medical and non-medical use of prescription drugs, and to make the defining and reporting on the extent of NMUPD a priority.

Ask the EMCDDA to develop a clear method of distinguishing the monitoring of both prescription practices and NMUPD.

Ask the ESPAD to expand the categories of prescription drugs monitored and to consider including "prescription-drug use", not only "use without a prescription".

For practice (prevention and treatment)

This study recommends that the PG's permanent correspondents undertake the following actions:

Ask the PG member states to offer differentiated responses for women in relation to prevention, harm reduction and treatment.

Ask the PG member states to develop guidelines for prescription practices that, while ensuring that individuals who need psychotropic prescription drugs (for example for the relief of pain) have access to them, this does not result in unnecessary prescriptions for these drugs which might be diverted.

Ask the PG member states to develop public education programmes on how to safely use, store and dispose of, prescription drugs.

Ask the PG member states to train medical practitioners to be able to screen and identify those individuals who are at risk of NMUPD, to hinder their movement along the path to addiction.

For policy

This study recommends that the PG's permanent correspondents undertake the following actions:

Ask the PG member states to develop coherent policies that address the use and misuse of prescription drugs, with specific reference to gender differences.

Ask the PG member states to commission studies of NMUPD which address specific issues, such as the initiation, escalation, physical and psycho-social consequences for women as an "at risk" category.

Ask the PG member states to develop national prescription-drug monitoring programmes.

Ask the PG member states to develop public education programmes on how to safely use, store and dispose of, prescription drugs.

After having been consulted by the PG secretariat, the Gender Equality Commission Secretariat suggests:

Asking PG member states to further explore the relationship between experiences of physical, sexual and psychological violence and NMUPD.

Asking PG member states to hold a round-table meeting of international organisations active in the field to present examples of best practice on NMUPD.

Asking PG member states to commission studies of NMUPD and addressing specific issues, such as the initiation, escalation, physical and psycho-social consequences in relation to women as an "at risk category".

Asking PG member states to commission a study on the relationship between violence against women and NMUPD.

Limitations

This study acknowledges a number of limitations.

Introduction

Conceptual framework and a systematic review of the literature

Preamble

Understanding gender as it relates to drug use and drug-use disorders is a critical requirement for developing effective policy and practice responses. Gender is a central category that intersects with other culturally and personally significant categories such as race, class, ethnicity and sexual orientation. While, until very recently, research into substance abuse and addiction has focused mainly on men, it is now acknowledged that the biological, social and psychological differences between men and women have an impact on the prevalence, nature, co-morbidity, intervention and lived experience of substance-use disorders (Back, Contini and Brady 2006). The EMCDDA, in a publication on gender perspectives in drug use, highlights how “gender influences not only patterns and levels of drug consumption in Europe, but also how responses to drug problems are planned and implemented” (2006: 21). Gender is also a core objective in the EU’s drug action strategy. Differences have consistently been documented between men and women in relation to the prevalence of drug use, patterns of drug use and drug-related problems. Such variations necessitate different approaches to prevention, treatment and harm reduction. According to Brady and Randall (1999), research over the last 25 years has clearly shown that male and female substance abusers show different addictive “career trajectories” and motivations for use. The onset of substance abuse is often later for women and they are often strongly influenced by partners. Many female substance abusers have partners who also abuse substances (Miller and Cervantes 1997). The addictive “career paths” of men and women are determined by different motivational factors, as are their decisions to stop abusing and enter treatment. It is also evident that women tend to experience a higher prevalence of co-morbid psychiatric disorders, such as depressive and anxiety disorders, than men. The presence of psychiatric illness often predates substance abuse in women (Brady and Randall 1999). Women may be more likely to abuse substances to cope with emotional distress which may be caused by violence in their lives. Inter-cultural evidence exists to support the association between addiction and interpersonal violence (physical, sexual and emotional) in the lives of women around the world (United Nations Office on Drugs and Crime (UNODC) 2004). Women are more likely to hide their substance abuse and are subjected to greater levels of social disapproval. They are more likely to be forced to bear the brunt of public contempt, especially in cultural contexts where femininity, honour and shame are intrinsically linked, such as in Mediterranean region countries (Clark 2012).

All of this has important implications for NMUPD, where, once again, women's involvement presents some interesting insights. Zenker (2005) highlights how the development of gender mainstreaming as a political concept and gender-specific knowledge about health and addiction has led to gender-specific epidemiological data on drug use, addiction and mortality, as well as female-specific data on the causes and courses of addiction with respect to health and social consequences. This has important implications for gender mainstreaming in professional work with female substance users and addicts, including professional training, the building of co-operation structures, and the compensation of existing deficits in all areas of research, practice and policy. Gender continues to be an important area of research in the study of addictive behaviour. In a systematic review of the literature from 1975 to 2005 on substance-abuse treatment, Greenfield et al. (2010) found a significant increase in attention to gender differences. This study will continue to build on the corpus of knowledge on the subject and will also help to identify important gaps in this knowledge. The changing role of women in society necessitates a continued effort in this regard, and, according to Brady and Randall (1999), "the translation of the research findings to the treatment community to improve treatment outcome for both sexes will be an equally exciting challenge for the field" (p. 241).

The PG has always been at the forefront of integrating gender into drug policy and has engaged in a number of efforts in this regard. As early as 1984, the PG called on policy-makers, during a ministerial conference, to pay more attention to the different needs of men and women who use drugs. The First PG Symposium on Women and Drugs took place in 1988. A 2013 report by the Gender Equality Rapporteur of the PG emphasised the need for differentiated prevention and treatment and noted that, while the gender gap for some drugs continues to exist, for other drugs and patterns of drug use this gap is narrowing. This study will highlight that this may also be the case for NMUPD. The appointment of the Gender Equality Rapporteur by the permanent correspondents of the PG in 2012 has led to increased international co-operation and the organisation of a number of seminars. The PG also hosts a project on women in prisons as part of its Prisons Programme (2010-2015). The PG has also been very active, through MedNET, in projects on gender and drug abuse in Egypt and Ukraine.

Systematic review methodology

In order to contextualise this study on the gender dimension of NMUPD in Europe and the Mediterranean region, a systematic review was conducted. While no attempt was made at a meta-analysis of the data, the review may still be defined as systematic because it was based on a clearly formulated question and it identified relevant studies through a systematic procedure of inclusion and exclusion. The review, while not attempting to appraise the quality of the research in terms of statistical procedures, summarises the evidence. According to Khan et al. (2003) it is this explicit and systematic approach that distinguishes systematic reviews from traditional reviews and commentaries. They identify five steps which were adopted in this review, bar the assessment of the quality of the studies, in order to present a review of a number of issues related to NMUPD. The steps undertaken are as follows:

Framing the questions for a review

How has the phenomenon of NMUPD been framed in the literature?

What are the main categories of NMUPD?

Where have studies of NMUPD been conducted? What is the state of the evidence base?

What are the prevalence rates of NMUPD in different parts of world?

What are the correlates of NMUPD?

How does gender impact on NMUPD?

Identifying the relevant work – search method

The search for studies was extensive, searching many resources using HyDI, a one-stop search engine that allows users to search all of the University of Malta Library's print and online resources without language restrictions. The study selection criteria flowed directly from the review questions. The search was limited to articles published in English and those that were easily retrievable via the library. While no date limitations were applied to the acquisition of appropriate literature, most studies were dated after 2000. Two search terms were used. Protocol 1 used the search term "non-medical use of prescription drugs" in "all items that contain my query words in the title" and yielded 205 results. Protocol 2, using the search term "gender and non-medical use of prescription drugs" in "all items that contain my query words in the title" resulted in 33 hits.

Summarising the evidence

The evidence was summarised through the logical division of the literature review into a number of sections.

Interpreting the findings

The findings were documented in light of the main research questions identified in this study.

NMUPD: defining the subject matter

In recent years, NMUPD has become an issue causing increasing public concern around the globe (UNODC 2011). The UNODC defines it as "the taking of prescription drugs, whether obtained by prescription or otherwise, other than in the manner or for the reasons or time period described, or by a person for whom the drug was not prescribed." (UNODC 2011, p. 1). For the purposes of this study, the definition developed by the Lithuanian Presidency of the Council of the EU in 2013 will be used: "use of a prescription drug, whether obtained by prescription or otherwise, other than in the manner or for the time period prescribed, or by a person for whom the drug was not prescribed" (2013, p. 14). The study of NMUPD is concerned specifically with the use of psychotropics. It is important to note at this stage that, according to

the US National Institute on Drug Abuse (NIDA)² the term “non-medical use,” used by many of the national surveys or data-collection systems, does not correspond to the definition of abuse/dependence listed in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV), nor to the category of substance-related disorders in DSM-V. The “use of prescription drugs” is defined in this research as “consumption with a doctor’s prescription and/or consumption as prescribed by a medical practitioner”. It is worthwhile highlighting at the outset that, in many countries, data-collection instruments such as GPSs on drug use, do not always distinguish between “medical use” and “non-medical use”.

Main categories of NMUPD

Some categories of psychotropic prescription drugs are at risk of being used without a prescription for the experiences and feelings that they elicit. NIDA reports that, in the USA, “According to several national surveys, prescription medications, such as those used to treat pain, attention-deficit disorders, and anxiety, are being abused at a rate second only to marijuana among illicit drug users.”³ The same NIDA report identifies the three classes of prescription drugs that are most commonly abused: opioids, central nervous system (CNS) depressants and CNS stimulants. Below is a brief description of each of these categories.

Opioids

Opioids are a class of natural, semi-synthetic and synthetic narcotics, derived from the opium poppy and/or synthesised in pharmaceutical laboratories. They are prescribed for pain management because they reduce the intensity of pain signals in the brain. They affect the brain receptors that govern the release of neurotransmitters (e.g. dopamine), which in turn regulate emotions and allow an individual to cope with physical pain. Opioids attach to opioid receptors, found in the brain, spinal cord, gastro-intestinal tract and other organs of the body, thus reducing the perception of pain. Besides the reduction of pain, opioids also affect brain processes that can lead to tolerance, dependence and addiction (Kosten and George 2002). Popular medications of this type include hydrocodone (Vicodin), oxycodone (OxyContin, Percocet), morphine (Kadian, Avinza), codeine and related drugs.

Opioids are among the most commonly abused drugs. When an opiate travels through the bloodstream to the brain, the linkage of opioid chemicals with opioid receptors triggers the same biochemical brain processes that reward people with feelings of pleasure when they engage in sex. Opioids are prescribed therapeutically to relieve pain, but when they activate these reward processes in the absence of significant pain, they can motivate repeated use of the drug simply for pleasure (Kosten and George 2002). The main brain circuit that is activated by opioids is the mesolimbic reward system. This system generates signals in the ventral tegmental area that result in the release of dopamine in the nucleus accumbens, causing feelings of pleasure. Conditioned associations result in a memory that associates

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2. www.drugabuse.gov/sites/default/files/rxreportfinalprint.pdf.
 3. www.drugabuse.gov/sites/default/files/rprescription.pdf.

these good feelings with the environment in which they occurred, resulting in a craving when those environments are encountered again. Prescription opioids are not always used as prescribed and, according to NIDA: "Those who abuse opioids may seek to intensify their experience by taking the drug in ways other than those prescribed. For example, OxyContin is an oral medication used to treat moderate to severe pain through a slow, steady release of the opioid. People who abuse OxyContin may snort or inject it, thereby increasing their risk of serious medical complications, including overdose."⁴

According to the 2010 National Survey on Drug Use and Health (NSDUH) in the United States, opioid pain relievers are the most frequently abused prescription drugs. White women are more likely to abuse prescription painkillers than women of any other ethnicity. An overdose of opioids may lead to over-sedation, aspiration of stomach contents, respiratory depression and death. Withdrawal from opioid dependence is uncomfortable, but not life-threatening for women who are not pregnant. However, for pregnant women who are opioid dependent, abrupt withdrawal from opioids can be life-threatening to the foetus (Kaltenbach, Berghella and Finnegan 1998). Withdrawal symptoms in opioid-dependent individuals include agitation, anxiety, muscle aches and gastro-intestinal distress. Prescription opioids are often co-formulated with acetaminophen, aspirin or ibuprofen. Use of acetaminophen at high doses is associated with liver damage and may lead to liver failure. Aspirin and ibuprofen may precipitate gastro-intestinal bleeding and are usually contra-indicated during pregnancy.

CNS depressants

CNS depressants are a group of drugs with diverse chemical structures that induce behavioural depression. This desired effect produces relief from anxiety and inhibitions and induces relaxation, sleep, unconsciousness and anaesthesia by inhibiting the excitability of neurons. They include:

- Benzodiazepines, such as diazepam (Valium) and alprazolam (Xanax), used to treat anxiety, acute stress reactions, and panic attacks. Triazolam (Halcion) and estazolam (ProSom) are prescribed for sleep disorders. Long-term use of benzodiazepines may lead to tolerance, dependence or addiction.
- Barbiturates, such as mephobarbital (Mebaral), sodium phenobarbital (Luminal) and sodium pentobarbital (Nembutal), are prescribed less frequently because of their higher risk of overdose compared to benzodiazepines. However, they are still used in surgical procedures and for seizure disorders.

White women abuse sedatives and tranquillisers significantly more frequently than women of any other race or ethnicity. Women over 35 are more likely to abuse sedatives, and those aged between 18 and 50 are more likely to abuse tranquillisers (Substance Abuse and Mental Health Services Administration (SAMHSA) 2011). Abuse of sedatives often occurs in conjunction with abuse of other substances or prescription drugs. The combination of sedatives with opioids can increase the effect of the opioid and the risk of an overdose. Abrupt withdrawal from benzodiazepines and

4. www.drugabuse.gov/sites/default/files/rprescription.pdf, p. 3.

barbiturates can be severe and life-threatening, and can cause seizures and acute heart and psychiatric conditions (Licata and Rowlett 2008).

CNS depressants affect the brain neurotransmitter gamma-aminobutyric acid which works by decreasing brain activity, to cause drowsiness.⁵

CNS stimulants

CNS stimulants are most commonly prescribed for the treatment of attention-deficit hyperactivity disorder (ADHD) and include various formulations of methylphenidate (Ritalin, Concerta), dextroamphetamine (Dexedrine) and mixed-salts amphetamine (Adderall) (Greenhill et al. 2002). Although prescription stimulants are considered medically sound and efficacious for treating the symptoms of ADHD, the high potential for abuse of these medications, paired with an increase in both their medical and illicit use over the past decade, has captured the attention of public-health officials (Kollins, MacDonald and Rush 2001; Johnston, O'Malley and Bachman 2003). They may be used non-medically for cognitive enhancement (Smith and Farah, 2011). Non-medical use of stimulants is most common among students and women under 50. The 2010 NSDUH report indicated that 6.7% of women reported having used stimulants not prescribed to them. White women were two-to-four-times more likely to abuse stimulants than women of any other race or ethnicity. These drugs can be ingested or crushed for inhalation or injection. Their adverse effects include hypertension, tachycardia, arrhythmia and neurological dysfunction. Prolonged abuse of stimulants can result in addiction. Withdrawal symptoms include fatigue, depression and sleep disturbances.

Prevalence, correlates and patterns of use

According to the 2013 report by the Lithuanian Presidency of the Council of the EU: "Gaps in monitoring prescribing patterns of licit controlled medicines and difficulties in detecting the population who misuse prescription medicines have made the definition of the extent and the severity of the problem across Europe particularly challenging thus far" (p. 7).

There is still no coherent and comprehensive monitoring system across Europe and the Mediterranean region, where countries collect information on NMUPD in various ways. This does not facilitate the comparability of data. Addressing NMUPD is a delicate matter because it is important that drugs that have recognised medical use remain available, while preventing their diversion and misuse. In June 2010, the UNODC, together with the World Health Organisation (WHO), convened a technical consultation of researchers, policy-makers and practitioners to address the issue. The consultation highlighted that NMUPD is a new threat to public health and that, despite alarming evidence, not much attention has yet been paid to NMUPD, with very little data on its prevalence and consequently little idea about what should be done.⁶ While this study aims to explore the gender dimension of NMUPD, a quick

5. see www.drugabuse.gov/sites/default/files/rrprescription.pdf.

6. see www.unodc.org/docs/treatment/PDmtg/Katri_goals_and_scope_of_the_meeting.pdf.

review of the current evidence base on NMUPD will help to contextualise it and allow further analysis to focus on gender.

Prevalence

According to the UNODC, only some countries in Europe monitor the prevalence and patterns of NMUPD (UNODC 2011, p. 6). The main attempts to monitor drug use and abuse have focused on illicit drugs, alcohol and tobacco, and nobody has attempted to estimate the magnitude of NMUPD, leaving a number of gaps requiring urgent attention. According to Casati et al. (2012) “although awareness of the misuse of medicines is increasing, data on the extent of the problem in the European Union are lacking” (p. 228). Advances in the pharmaceutical industry have resulted in the development of powerful psychoactive drugs that, when used appropriately, can contribute to improved health and well-being, but when used inappropriately can result in harm, dependence and addiction. The UNODC reports that, in Europe, NMUPD has not been considered to be a big problem, apart from the abuse of opioid substitution drugs (UNODC, 2011, p.8).

While the evidence base in Europe is being built, NMUPD is now known to be one of the most common drug problems facing individuals in the USA. According to Sigmon (2006), the incidence of non-medical use of prescription opioids alone increased by 400% between 1990 and 2000. SAMHSA reports that, in 2009, there were 7 million people over the age of 12 who reported having used drugs non-medically in the previous 30 days. In addition, an estimated 5.3 million people had used painkillers medically, 2 million had used tranquillisers medically, 1.3 million had used stimulants non-medically and 370 000 had used tranquillisers non-medically, in the previous month. In 2010, 2 million people reported having used prescription painkillers non-medically for the first time in the previous year (Lithuanian Presidency of the Council of the EU 2013, quoting statistics from the US Centers for Disease Control). In the USA in 2009, the use of psychotropics ranked second after cannabis, and registered an annual prevalence rate of no less than 6.4% among the population aged 12 and above. Non-medical use of pain medication stood at 4.9% and of tranquillisers at 2.2%, while the annual prevalence rate for cocaine stood at 1.9% (SAMHSA 2009). Many people report that the first drug they abused was a prescription drug. In the same year, prescription-opioid misuse in Canada was reported to be lower than in the USA but that “Canadians have become the second-largest consumers of prescription opioids” (Lithuanian Presidency of the Council of the EU 2013, p. 17). The use of prescription opioids for non-medical purposes (0.4% annual prevalence) was higher than the use of heroin (0.3%). Stimulant use registered at 0.1% and use of sedatives and tranquillisers at 0.2% (Lithuanian Presidency of the Council of the EU 2013, p. 17). A systematic review of the literature by Casati et al. in 2012 found similarly alarming figures in some European countries: for example, in Germany it is estimated that between 1.6% and 1.7% of the population are dependent on prescription drugs. In Scotland, a cross-sectional postal survey of adults discovered that 37% of respondents said they had used painkillers without a prescription in the last two weeks, and that women were more likely to use over-the-counter painkillers than men (Casati et al. 2012, p. 230). In a Norwegian prescription database study, 0.5% of respondents said they had exceeded the maximum recommended dose.

In France, a study of community pharmacies found high levels of codeine misuse and concluded that there was a significant risk of fentanyl abuse and dependence. In Sweden, the abuse of Tramadol by women is highlighted in the review by Casati et al. (2012). Finland and Sweden recorded increases in deaths caused by Tramadol poisoning between 2002 and 2007 (Casati et al. 2012). In 2009, the EMCDDA reported that the countries in Europe with the highest patient demand for treatment with sedatives and tranquillisers were Sweden, Norway and Finland, plus Northern Ireland in the UK. The use of benzodiazepines is common among drug users all over Europe, including substitution treatment patients. Studies show that between 11% and 70% of these patients report current use of benzodiazepines. The UNODC also reports a decline in heroin use over the last decade⁷ but an increase in the use of synthetic opioids, such as fentanyl, and the injection of stimulants, reflect the increasingly multi-faceted nature of drug abuse in Europe (EMCDDA Statistical Bulletin 2009).

The Lithuanian Presidency of the Council of the EU (2013) concluded that “European data concerning prescription-opioid misuse are limited” (p. 19). This study hopes to redress this imbalance.

Source

An important question for researchers to consider is what has contributed to this increase in NMUPD. Increased media attention and easy access to prescription drugs via the internet have been considered as potential contributory factors. Others may have been the increased number of prescriptions issued (thus increasing the availability of the drugs), easy access through family members and friends as well as a lack of awareness and monitoring by the medical authorities. The misconceptions about the relative safety and lack of addictive potential of prescription drugs are also an important consideration. SAMHSA, in the 2008 NSDUH, identified the numerous sources from which painkillers were obtained for their most recent non-medical use by respondents aged 12 and over.⁸ The most common of these sources was “free from a friend or relative” (55.9%) followed by “from one doctor” (18%) followed by “bought/took from a friend/relative” (14.3%), “other” (4.8%), “bought from a drug dealer/stranger” (4.3%) and finally “bought on the internet” (0.4%). When asked where the friend or relative had obtained the drug, 81.7% reported “from one doctor” clearly indicating the diversion of these drugs from legal sources. The issue of source will be explored in this study.

Risk categories

Chronic pain patients

When patients are in physical or emotional pain, prescribing prescription drugs often appears to be the simplest and most efficient way to relieve their suffering and distress. However, in a minority of cases, this approach may lead to prescription-drug abuse and patient harm (Fishbain et al. 1992; Isaacson et al. 2005; Morasco and Dobscha 2008).

7. See www.unodc.org/docs/treatment/PDmtg/NIAZ_presentation_1.pdf.

8. www.unodc.org/docs/treatment/PDmtg/Compton_Pharmaceuticals_Vienna_UNODC.pdf.

Older adults

While older adults have been identified as an “at risk” group for NMUPD, there is little comparable data on drug abuse in this population (Lohse and Müller-Oerlinghausen 2004). According to Pfeiffer-Gerschel (2010), in Germany, 80% of prescriptions for benzodiazepines are for patients aged over 60, as are 80% of prescriptions for hypnotics issued in England in the UK.

Adolescents and young adults

According to the NSDUH, conducted in the USA in 2006, 9.1% of teenagers (aged between 12 and 17) said they had misused prescription drugs in 2005, and in 2006 as many new users of cannabis as abusers of prescription drugs were registered. Among adolescents, predictors of prescription-drug abuse included being female, poor academic performance and having a history of misuse of other substances (Compton and Volkow 2006; SAMHSA 2006; Schepis and Krishnan-Sarin 2008; Simoni-Wastila et al. 2004). Several studies have reported a recent increase in the number of prescriptions for stimulants issued to young people in the USA (Olfson et al. 2003; Robison et al. 2002, Safer, Zito and Fine 1996). This increase is probably due to several factors, including increased diagnosis (Goldman et al. 1998) and a tendency to prescribe longer treatments (Safer, Zito and Fine 1996).

Drug abusers

According to a number of studies (Havens et al. 2011; Haydon et al. 2005; Tetrault et al. 2008; Sung et al. 2005) abusers of illegal drugs complement their daily intake with prescription drugs.

People with mental health difficulties

A study conducted by Wu et al. in 2007 showed how the presence of mental health difficulties correlated highly with the risk of stimulant abuse in both men and women. In 2010, Back et al. found that severe psychological problems were associated with NMUPD, and Homish et al. (2010) found that higher levels of depressive symptoms were associated with an increased risk of NMUPD. In 2012, Zullig and Divin found that depression, suicidal thoughts and suicide attempts correlated with NMUPD more in women than in men.

Healthcare professionals

Physicians are as likely to experience drug and alcohol addiction as anyone in the general population, but are more likely to abuse prescription drugs. Self-treatment with prescription drugs is a “unique concern” for doctors. Other factors that place healthcare professionals at risk include: anxiety, depression, stress at work, family stress and injury (Seppala and Berge 2010).

Gender

The UNODC (2011) found that the most prevalent factors associated with the abuse of prescription drugs for non-medical purposes include “being female,

being unmarried, being aged over 34, being Caucasian, having completed high school, being in poor/fair health and drinking alcohol daily” (p. 18). Furthermore, ESPAD (2011) reports that lifetime non-medical use of tranquillisers and sedatives without a doctor’s prescription is more common among girls (8%) than boys (5%). A similar greater susceptibility of women to NMUPD is reported by other studies (Simoni-Wastila et al. 2004; Alonso et al. 2004). Research also shows that women are more likely than men to use only prescription drugs, compared to a mixture of prescription drugs and illegal drugs, while the majority of illegal drug users tend to be men. Women who use prescription drugs for non-medical purposes rarely abuse several drugs, thus creating a possible new user population (Myers et al. 2003). Simoni-Wastila et al. (2004) found that women are much more likely to abuse prescription drugs than men. Wu et al. (2007) also found that slightly more women abused prescription drugs than men. Simoni-Wastila and Strickler (2004) also found that being female, unmarried and in poor health were all risk factors for the abuse of prescription drugs. Casati et al. (2012), in a review of the literature in the EU, found that women are at “increased risk of misusing medicine” (p. 233). Perhaps, due to the fact that illegal drug abuse is seen to be more deviant and that illegal drug abuse by women is more frowned upon than illegal drug abuse by men (Hecksher and Hesse 2009) women may be more likely to abuse prescription drugs. Inciardi and Munoz (as cited in Rigg and Ibanez 2010) note that: prescription drugs are easier to obtain than illegal drugs and there is less chance of being arrested for possessing them; their use is more socially acceptable; and they are perceived as safer than illegal drugs. This may contribute to the apparent higher prevalence of NMUPD among women. The issue of gender, which is the main focus of this study, is explored in detail in the section below.

Gender and NMUPD

Research on substance use has focused on the use of alcohol, tobacco and illegal drugs (Ford 2008). The relationship between abuse of these substances and gender has been extensively studied, and men have been consistently found to be more likely to use them than women. On the other hand, research regarding the role of gender in NMUPD has generated contradictory findings (Simoni-Wastila et al. 2004). While some studies have claimed that NMUPD is more common among women than men (McHugh et al. 2013; Simoni-Wastila et al. 2004; Sung et al. 2005; Women’s Health Council 2009; Wu et al. 2007), others have suggested that NMUPD is more common among men than women, especially in relation to opioid abuse (McCabe et al. 2005; McCabe, Teter and Boyd 2006; Banta-Gren et al. 2009). The 2006 NSDUH from SAMHSA revealed marked differences: men were shown to be 1.6 times more likely to have abused prescription opioids (Back et al. 2010). Some other studies found no significant gender differences in NMUPD (Teter et al. 2006; Viana et al. 2012). One study also found that lesbian, gay, bisexual and trans-sexual (LGBT) people were more likely to misuse prescription drugs (Benotsch et al. 2013). Back et al.(2010) claim that, given that women tend to visit their physicians more often and that they generally identify as having more physical and emotional difficulties than men, they may be more likely to be prescribed drugs which they later abuse.

Type of prescription drug

The complex relationships of men and women with prescription drugs is probably compounded by the difference in how each sex uses them. Gender is not predictive in the same direction across different drug categories; therefore the variation in prescription-drug abuse must be evaluated for specific types of drugs (Dollar and Ray 2013). Studies on specific categories of prescription drugs have demonstrated that women are 48% more likely to use prescription tranquillisers than men (Simoni-Wastila 2000; Simoni-Wastila et al. 2004). On the other hand, studies have shown mixed results for NMUPD of stimulants: some indicate a greater likelihood of males using stimulants non-medically and others show insignificant gender differences (Garnier-Dykstra et al. 2012; Lookatch, Moore and Katz 2014; Pilkinton and Cannatella 2012). Wu et al. (2007) found that men were more likely than women to misuse methylphenidate (a stimulant), but were less likely to misuse amphetamines or “diet pills”. These differences in the types of prescription drugs abused point to differences in the motives for such abuse. According to Dollar and Ray (2013), painkillers are more likely to be used non-medically by men, while tranquillisers and stimulants were more commonly used non-medically by women. Connell suggests that men engage in more non-medical use of prescription painkillers, due to masculine ideals which encourage this behaviour (as cited in Dollar and Ray, 2013 p. 943). In addition, Dollar and Ray’s findings may also be accounted for by studies which show that women are more likely than men to be prescribed painkillers, and may therefore be less likely to appear to misuse them because they have legitimate prescriptions for them (Simoni-Wastila et al. 2004). Data from the Norwegian prescription database found that, in the previous year, there was a 2.4% prevalence for women to be issued with prescriptions for carisoprodol (a muscle relaxant used for the treatment of acute lower-back pain), compared to a 1.3% prevalence for men. Continued exposure to a prescription drug, however, increases the likelihood of misuse, dependency and withdrawal symptoms. Higher prescription rates therefore place women at higher risk of NMUPD, and they are more susceptible to the drug’s effects than men (Garnier-Dykstra et al. 2012; Gear et al. 1996; Simoni-Wastila 2000).

Although the 2012 study by Garnier-Dykstra et al. showed a greater likelihood of non-medical use of prescription stimulants among men than women, these gender differences decreased significantly when opportunity for exposure to the drugs was accounted for. In addition, women have been found to be more likely to engage in non-medical use of prescription tranquillisers and narcotic painkillers, but not of sedative-hypnotics and stimulants (Simoni-Wastila 2000; Simoni-Wastila et al. 2004). In the same way as for the use of stimulants in the 2012 study by Garnier-Dykstra et al. mentioned above, the difference in these prevalence rates may be accounted for by the variations in prescription rates and exposure to the particular drugs. When investigating NMUPD, it is therefore necessary to take into consideration the relevant confounding variables, in order to obtain a more comprehensive and accurate portrayal of gender differences (Pilkinton and Cannatella 2012). Such variables include: age, country of origin, susceptibility, co-morbid disorders and exposure. The relationship between gender and NMUPD has also been studied with regard to variations in the sources of the drug, exposure to particular drugs, age of onset of use, length of use, treatment, motives and consequences of use (Back et

al. 2010). These variables will also be addressed in this study. In Ireland, a 2009 study of women and substance misuse cited national drug prevalence data from 2006-7 which showed that Irish women “predominate in the misuse of prescription drugs [sedatives, tranquillisers and anti-depressants]” (Women’s Health Council 2009: 10). The authors of the study also reported the findings of a government committee set up to inquire into benzodiazepine use in Ireland, which “found higher usage amongst females of all age groups” (Department of Health and Children 2002 as cited in Women’s Health Council 2009), and other Irish research which showed that “women are twice as likely as men to have benzodiazepines prescribed to them for ‘non-clinical’ symptoms such as stress, grief, acute or chronic illness, physical pain or adjustment to a major life change and to have them prescribed for longer periods” (Ballymun Youth Action Project 2004, Poole and Dell 2005, cited in Women’s Health Council 2009). In Sweden, Tjaderborn et al. report studies which identify a 58% higher Tramadol prescription rate for women than for men and higher dependency rates among women (cited in Casati et al. 2012).

Age and career path

Age is a variable which has been considerably studied in relation to gender differences in NMUPD. According to Back et al. (2011) the age of first use differs significantly according to gender. Women were on average six years older than men when they first experienced NMUPD (in this case opioids), but this age difference fell to only around three years when they started to experience regular NMUPD. This has been seen as evidence for “accelerated disease progression” among women. In other words, while it takes women longer than men to begin prescription-drug abuse, when they do, the problem develops faster than among men. This suggests that “the window of opportunity for preventing progression is smaller for women” (p. 833). In Canada, no gender differences were observed in the non-medical use of prescription opioids among adults, however significant differences were found among high-school students, with rates of 23.5% for girls and 18% for boys (Fischer, Rehm and Gittins 2009: 11). In the United States, NMUPD rates were higher among girls aged 12 to 17 than boys, but higher among men aged 17 to 18 than women (Viana et al. 2012). In the 2011 ESPAD report, non-prescription use of tranquillisers or sedatives was reported more by girls (8%) than by boys (5%). A SAMSHA study found that females between the ages of 12 and 17 were significantly more likely than males to be non-medical users of painkillers: 3% as opposed to 2% (SAMHSA 2011: 19).

We have already discussed how the age of first use differs according to gender (Back et al. 2011) and how women progress faster in their NMUPD addictive “career”. While it takes longer for them to initiate the behaviour, when they do, the problem develops quicker than for men. Consistent with these findings, other studies have shown that men were more likely to develop prescription-drug abuse, while women were more likely to develop prescription-drug dependence. Women are more likely to become long-term drug users than men. Data from 1998 from the Drug Abuse Warning Network (DAWN) reinforce the gender patterns noted in this literature review. Therefore while few gender differences were noted in hospital emergency department visits involving drugs in 1997, the data show a type-of-drug variation

in drug-related deaths by gender. Women more frequently die from anti-depressant abuse. Men have higher death rates from taking illegal drugs rather than prescription drugs. There is plenty of evidence that women are prescribed psychotropic drugs more than men (Morash, Haarr and Rucker 1994), and may therefore be more likely to abuse them or use them to deal with a crisis.

Source

Gender differences have been found in the sources of prescription drugs. According to Back et al. (2010), men were more likely to buy prescription opioids from an illegal dealer, while women were more likely to obtain them from a relative. In addition, women were much more likely than men to hoard unused prescribed opioid medication (Back et al. 2009). These findings have implications for gender-specific prevention strategies which must target the sources of the prescription drugs. Back et al. (2010) suggest that men are more likely than women to obtain prescription drugs from friends or family members, and to purchase them from illegal dealers, in contrast to women, who usually obtain them from physicians, through legitimate prescriptions and then continue to use them after the medical need for them subsides (Back et al. 2010; McHugh et al. 2013).

Patterns of use

Research has shown that there are gender differences not only in prevalence rates, but also in individual experiences of the use of drugs. In Back et al. (2011), 24 non-treatment-seeking individuals (12 men and 12 women) with current prescription-opioid dependence were recruited via newspaper advertisements and flyers for one-to-one, in-depth interviews. Several gender differences were observed in patterns of, and reasons for, prescription-opioid use. First, men were more likely than women to consume prescription opioids using alternative methods, such as crushing and snorting pills. Second, when asked about the time of day when consumption was most likely to happen, women were more likely than men to report drug taking early in the morning, while men were more likely than women to report taking drugs in the evening. Third, in line with various other studies, women were more often motivated to abuse drugs by negative reinforcement processes, such as coping with relational stress and negative emotions, than men. A plethora of other studies indicate that the misuse of prescription drugs by women is closely related to psychological distress and stressful life experiences, while prescription drugs are misused by men who have social and behavioural problems. Women have been found to be much more likely than men to use opioids to cope with stress, pain and negative emotions (Back et al. 2011; McHugh et al. 2013). In addition, findings from a study exploring socio-demographic variations in motives for NMUPD suggest that the most common motives among men are to substitute for other drugs and social pressure, whereas pain relief and inducing sleep were the most common among women (Rigg and Ibanez 2010). The former finding was supported by Jamison et al. (2010) who found that men who misused opiates were much more likely than women to have peers with substance-abuse issues, which implies a link between NMUPD and social ties.

Risk factors and consequences of NMUPD

Gender differences have also been observed in the precursors and consequences of NMUPD. Physiological differences, such as variations in metabolism and hormones, predispose women to increased medical risks associated with substance use (Back et al. 2011) and may account for the faster escalation from regular to problematic substance use among women compared to men (Hernandez-Avila, Rounsaville and Kranzler 2004). The same phenomenon has been observed in prescription-opioid abuse (Back et al. 2011). Consistent with this “telescoping” pattern are findings that women report a shorter term of non-medical use of prescription opioids, compared to men (McHugh et al. 2013: 39; Tetrault et al. 2007).

Gender differences in risk factors for NMUPD highlight emotional issues for women, as opposed to behavioural issues for men (Back et al. 2011). Other variables which have been implicated in this regard are psychiatric conditions: both the extent to which psychiatric conditions predict NMUPD, as well as gender differences in psychiatric conditions as consequences of NMUPD. An example of the latter is the non-medical use of prescription opioids, which has been found to be significantly more prevalent among men than women (Back et al. 2010). However, according to McHugh et al. (2013), women are more likely to experience more severe psychiatric symptoms and functional impairment in multiple social spheres following opioid use than men.

Both epidemiological studies and studies of treatment-seeking patients indicate that, for women, the onset of a psychiatric disorder is more likely to ante-date the onset of the substance-use disorder. This suggests gender differences in the relationship between psychiatric and substance-use disorders (Grella et al. 2009; Loet et al. 2013)

Trauma, interpersonal violence and NMUPD

Back, Contini and Brady (2006) summarise the evidence that the relationship between trauma, post-traumatic stress disorder, and substance-use disorders may be important for women. They discuss how early-life difficulties, particularly sexual abuse, are more common among women than men and how this is associated with a risk of drug-abuse disorders. Women exposed to violence in adulthood also demonstrate a higher risk of drug and alcohol dependence. Moreover, alcohol and drug abuse place women at risk of repeated victimisation, thus perpetuating the cycle of victimisation and substance use (Clark 2011). Animal studies have demonstrated that uncontrollable stress increases drug self-administration and that neuro-biological correlates of stress appear to mediate this response (Stewart 2000).

Consistent with the findings that women tend to use prescription drugs more for self-medication, a paper by Jamison et al. (2010) reports that women with deviant drug-use behaviour were considerably more likely to have a history of physical or sexual abuse, or of psychiatric difficulties. Other investigations have underlined the importance of a history of sexual and physical abuse in forecasting opioid abuse (Webster and Dove 2007; Webster and Webster 2005).

The National Violence Against Women Survey assessed lifetime exposure to potentially traumatic events (including physical assault, stalking, sexual assault and

multiple forms of victimisation) and prescription-drug use in the previous month (limited to analgesics, sedatives and/or anti-depressants) in a sample of 8 000 men and 8 000 women aged 18 and older (Kubiak et al. 2006). Increases in all forms of prescription-drug use were associated with histories of increasingly severe assaults, with the victims of multiple assaults being the most likely to have used prescription drugs in the previous month. However, this study did not differentiate or specifically examine NMUPD, as distinct from medical (or appropriate) use. The experience of being raped has been associated with increased use of alcohol, cannabis and illegal drugs, as well as an increase in the medical use of prescription drugs (Kilpatrick et al. 1997; Resnick et al. 1997). The self-medication hypothesis has been posited as one mechanism which, at least partially, accounts for the relationship between traumatic events (such as rape) and subsequent substance use (Brady and Randall 1999; Stewart and Conrod 2003). According to this hypothesis, psychotropic drugs reduce the psychological distress often experienced post-rape (Levenson, Oyama and Meek 1987). Negative reinforcement also increases drug use (Miranda et al. 2002). Sturza and Campbell (2005) measured sedative and anti-depressant use among 102 women who had been sexually assaulted, and found that 44% of them had used sedatives and/or anti-depressants post-rape, with 14% of them having purchased the drugs illegally. The women also reported that the drugs had helped them to cope with their situations.

In an EMCDDA publication entitled “Women’s Voices”,⁹ qualitative data indicate that neglect and abuse in early life was a common characteristic of the personal histories of many female substance abusers and that the substances were used as a “coping mechanism”. The UNODC (2004) also documents how parental neglect and physical or sexual abuse are recurring issues that make women vulnerable to developing drug-abuse problems. A cross-sectional study of a nationally representative sample of women in Hungary aged 15 to 24 found that those who had been abused by a parent or relative were more likely to abuse sedatives (Csoboth et al. 2003 cited in Casati et al. 2012)

Entry into treatment

Research consistently indicates that women are less likely than men to access treatment (Greenfield et al. 2007). This may be attributed to a number of reasons, including: social and cultural factors, such as gender roles and stigma; socio-economic issues, such as not being able to afford child care; pregnancy; concerns about losing custody of children; and problems associated with dual diagnosis (Brady and Randall 1999). Women may also seek help from other sources than dedicated drug treatment centres. When they do enter treatment, however, the outcomes are similar to those for men, or better (Hser et al. 2001). Research is still inconclusive about whether or not gender-specific treatment is best, but what is clear is that treatment centres that allow women to take their children with them have higher retention rates, which is conducive to better outcomes (Hughes et al. 1995).

9. (available at: www.drugs.ie/resourcesfiles/ResearchDocs/Europe/Research/2009/EMCDDA-TP_womens_voices.pdf).

LGBT

In a 2013 study by Benotsch et al., of 155 trans-gender adults recruited from LGBT community venues in the Mid-Atlantic region of the USA, who completed anonymous, self-administered surveys assessing their demographics, NMUPD, other substance use, non-medical use of hormones, psycho-social factors, and psychiatric symptoms, 26.5% of the participants reported lifetime NMUPD, most commonly of painkillers (23.9%), tranquillisers (17.4%), stimulants (13.5%) and sedatives (8.4%). Non-medical use of hormones was also frequently reported (30.3%). Participants reporting NMUPD were also more likely to report the use of illegal drugs. NMUPD was associated with lower self-esteem, more gender-identity-based discrimination and more self-reported symptoms of anxiety, depression and somatic distress, but the non-medical use of hormones was not. Psychiatric symptoms remained statistically associated with NMUPD after taking into account demographic factors and other substance use. Prescription-drug misuse was relatively common in this sample and was strongly associated with emotional distress. Kelly and Parsons (2010) reported high rates of lifetime NMUPD among men who have sex with men (MSM) in New York City (49.2%). A somewhat lower lifetime rate (37.7%) was reported in a sample of MSM in Denver (Benotsch et al. 2011). Kecojevic et al. (2012) reported data from a sample of young people in New York City and Los Angeles who had a history of prescription-drug misuse, showing that LGBT young people initiated opioid and tranquilliser misuse at an earlier age than comparable heterosexual young people.

Earlier work suggests that trans-gender people have relatively high rates of both substance use (Herbst et al. 2008; Lawrence 2008) and psychiatric symptoms (Haas et al. 2011), possibly due to stigmatisation and gender-identity-related discrimination (Nemoto et al. 2011). Other research has reported high rates of the non-medical use of hormones in trans-gender populations (Crosby and Pitts 2007) but few studies have examined the misuse of drugs used to treat pain or psychiatric conditions in this group. Kecojevic et al. (2012) reported data on NMUPD from a mixed sample of LGBT young people that included 16 trans-gender participants, but which was not reported separately for these individuals. In regards to specific sexual orientations, trans-gender women and women who have sex with women (WSW) often have reduced access to healthcare from non-discriminatory providers, which limits their opportunities to obtain the information which could reduce their risks when negotiating safer sex or using injecting equipment. There is only limited research on WSW and trans-gender women who use drugs, but it suggests that the neglect of, and discrimination against, these women often puts them at high risk of HIV infection (IHRD 2007).

The impact on offspring and pregnancy

Addiction researchers and childrens'-rights organisations have explored how the children of parents who abuse substances are exposed to a number of family-related risks (Ashrafioun et al. 2011). They are more likely to be exposed to parental conflict and financial and legal problems and they are more likely to move house (Bernard and McKegany 2004). Much of this research has focused on children whose parents abuse illegal drugs, who have been found to be more likely to exhibit behavioural

difficulties, poor academic performance and childhood psychopathology (Cooke et al. 2004). The abuse of opioids has been identified as contributing to greater difficulties than those derived from the abuse of other illegal drugs and alcohol (Cooke et al. 2004). Little research has been conducted into the impact on children of the abuse of prescription drugs by their parents. Given the noted differences between prescription-drug users and illegal drug users, including lower levels of addiction, a higher degree of family cohesion and less involvement in crime (Fischer et al. 2009) the impact of NMUPD on offspring requires specific attention. An exploratory study by Ashrafioun et al. (2011), following a noted increase in prescription-drug abuse in the USA, found that “a number of characteristics among parents who abuse prescription opioids are associated with less impairment in their children” (p. 534). The authors conclude that the impairment in such children was similar to that in children of parents with mental health difficulties.

Prescription-drug misuse alone does not guarantee that parents will neglect their children or provide inadequate parenting. Paradoxically, a woman who seeks assistance for a substance-abuse problem may become involved with legal and child-welfare agencies, potentially leading to the loss of custody of her children. Drug-abuse treatment centres that support the family as a unit have been proven to be effective at maintaining maternal sobriety and the well-being of children. Women must not be unnecessarily separated from their children while receiving treatment.

Women who have recently given birth and who abused prescription drugs during pregnancy and who do not receive treatment for their drug abuse are particularly at risk of overdoses because their physiological drug requirement decreases as their blood volume and body mass decreases after childbirth. In addition, women who stopped abusing drugs during pregnancy often resume after childbirth, but have lost their tolerance of their pre-pregnancy doses, thus leaving them susceptible to overdoses. Various factors, such as the traditional role of a mother or cultural backgrounds, contribute to a stronger stigmatisation of women drug abusers than men. Identifying potential challenges and obstacles can ensure successful treatment engagement and outcomes. Drug abuse during pregnancy has been one of the core research activities of the PG. The general recommendation to the PG from its seminar on drug abuse in pregnancy in 1997 was to provide assistance in setting up training programmes for health professionals and other concerned groups.

Early onset

A study by McCabe et al. (2007) provides evidence that the early onset of NMUPD is an important predictor for the development of prescription-drug abuse and dependence. A one-year increase in the age of onset reduced the risk of developing a substance-use disorder. Among non-medical users of prescription drugs, men were more likely to develop prescription-drug abuse, while women were more likely to develop drug dependence.

Theoretical constructs and NMUPD

According to Hirschi’s social control theory “all individuals are equally enticed to commit deviance but the presence of conventional social bonds restrains these

behaviours" (as cited in Dollar and Ray 2013: 933). While this theory has been primarily applied to delinquency, it may also be used to explore NMUPD, and it suggests that pro-social bonds may reduce the likelihood of drug abuse. Social bonds were found to predict NMUPD; however the correlation between social bonds and gender was not significant. The quality of interpersonal relationships, rather than the mere presence of social bonds, is a better predictor of NMUPD. Dollar and Ray therefore maintain that more research is necessary to be able to clearly understand the gender effects of social bonds on NMUPD.

Social learning theory has been widely used to explain deviance: it maintains that social interactions influence behaviour. In 2008, Ford's study applied this theory to NMUPD, and found that NMUPD was more frequent among adolescents whose parents and peers abused drugs and had pro-drug-abuse attitudes. In this study, women reported more NMUPD than men, which is consistent with other similar studies (Simoni-Wastila et al. 2004; Sung et al. 2005).

Lookatch et al. (2014) investigated perceptions of the non-medical use of prescription stimulants. The Generalised Female Vulnerability Theory suggests that there is a double standard for female substance use, and that social norms and expectations of women's behaviour result in more negative perceptions than for men. However, despite these perceptions of the misuse of other substances (George, Gournic and McAfee 1988), the theory was not supported by Lookatch et al. for NMUPD. This lack of gender difference may be explained by a reduction in the use of double standards for women's behaviour over time (Keyes, Li and Hasin 2011), but more research into NMUPD is required in order to support this argument.

Additionally, masculine ideals may explain the variations described above: that men were more likely to non-medically use painkillers, but not tranquillisers and stimulants (Connell as cited in Dollar and Ray 2013: 943). Painkillers are used to treat physical pain, whereas tranquillisers and stimulants are used to treat anxiety and to improve concentration, respectively. The use of painkillers by men is more socially acceptable than by women, and therefore men may be more likely to use them (Brenton and Elliott 2013). On the other hand, the non-medical use of prescription tranquillisers and stimulants may be perceived as a weakness among men because they are perceived as being used to treat "feminine" problems (West and Zimmerman, as cited in Dollar and Ray 2013).

Conclusions and limitations in the literature

This review has highlighted gender differences in NMUPD. The "career path" of women prescription-drug abusers differs from that of men, with women typically beginning to abuse drugs later than men, but then progressing faster along their NMUPD "career path" than men. Women are likely to be influenced by their husbands or boyfriends to start using drugs, and report different motivations for continuing their drug use. Women are likely to enter treatment earlier in their addictive "career path" than men. Women also have a significantly higher prevalence of co-morbid psychiatric disorders, most notably depression and anxiety, which they may attempt to treat with NMUPD. They are likely to experience psychiatric and emotional difficulties before the onset of NMUPD. Men are less likely to self-medicate than women

(Brady and Randall 1999). Female gender roles make it more difficult for women to enter treatment but they tend to do as well as men if they can be retained through associated support networks. Gender differences and similarities have significant treatment implications. This is especially true for the “telescoping” phenomenon, in which the window for intervention between progressive landmarks is smaller for women than for men. This is also true for the gender differences in the experience of physical and sexual abuse, as well as other psychiatric co-morbidity that is evident in female drug abusers seeking treatment, and that is clearly related to NMUPD. The consequences of drug abuse are different for men and women. These research findings have important implications for policy and practice. First and foremost, gender-sensitive assessment instruments need to be developed. Policy needs to recognise that the changing role of women in society and societal attitudes towards women will influence female patterns of NMUPD. Writing in 1999, Brady and Randall, in their paper on gender differences in substance-use disorders, concluded that “some gender differences likely will remain, but other gender differences will probably also emerge. The comparison of male and female substance abusers promises to be a fruitful one for researchers” (p. 241). Despite the significant findings regarding gender differences in NMUPD described above, there are several limitations to the existing research (Ford 2008) and a number of inconsistencies have been noted (Garnier-Dykstra et al. 2012; McCabe et al. 2005; Teter et al. 2006). The inconsistencies in the literature may be accounted for by the wide variations in sample sizes, populations, timeframes and data-collection methods across different studies (Lainer and Farley 2011). An important way forward would be to examine monitoring practices in different countries and to establish more consistent reporting practices, which would permit a comparison of trends in different countries. At present, monitoring practices are so diverse that it is difficult to compare data from different countries. The complex phenomenon of NMUPD requires more study to uncover its patterns. These limitations could be addressed by using new analytical methods that would enhance our current understanding of gender differences in NMUPD (Simoni-Wastila et al. 2004). Moreover, from this review it is evident that the chain of events which lead to NMUPD must be taken into consideration, together with the contributions of gender and other variables to the process. Identifying these patterns is vital if we are to devise effective policies and practices for prevention and treatment which are sensitive to the groups at risk of drug addiction (Simoni-Wastila et al. 2004). This literature review provides a clear rationale for the current research, which we hope will contribute to achieving this important objective.

Chapter 1

Methodology

Introduction

This section of the study explores the methodological issues pertinent to a better interpretation and understanding of the analysis presented in the following chapter. It will revisit the research, it will discuss the research instrument and its development, it will explore procedural and data-analysis issues and, finally, it will discuss some important limitations to the research design that will have a significant impact on the interpretation of the findings.

The PG's core mission is to contribute to the development of multi-disciplinary, innovative, effective and evidence-based drugs policies in its member states. It seeks to link policy, practice and research and focuses in particular on the realities of local implementation of drugs programmes. The shifting, dynamic nature of drug-abuse has required the PG to adapt its role in order to deal with emerging problems and changes. Flexibility and innovation are two key attributes that have assisted the PG to meet this challenge. The emergence of NMUPD, and its clear gender dimension, has prompted the PG to attempt to map the current state of monitoring of NMUPD in Europe and the Mediterranean region. This initial exploratory study will allow the development of a clearer agenda on how to explore and deal with NMUPD in Europe and the Mediterranean region.

Research agenda

This study aims to explore the gender dimension of NMUPD in Europe and the Mediterranean region. The main attempts to monitor drug use and abuse have focused on illegal drugs, alcohol and tobacco: hence the scale of NMUPD is not properly known, leaving a number of gaps that require urgent attention. Advances in the pharmaceutical industry have resulted in the development of powerful psycho-active drugs that, when used appropriately, can contribute to increased health and well-being, but that, when used inappropriately can result in harm, dependence and addiction. According to the UNODC, only some of the countries in Europe monitor the prevalence and patterns of NMUPD (UNODC 2011: 6). The UNODC has stated that, in Europe, NMUPD has not been considered to be a major problem apart from for opioid substitution drugs (UNODC 2011: 8). Women are identified as a particularly vulnerable group for NMUPD.

The main aims of this study are:

1. to explore gender differences in NMUPD in Europe and the Mediterranean region by documenting, and performing a secondary analysis of, the data available;
2. to identify gaps in the NMUPD data available in Europe and the Mediterranean region;
3. to make recommendations for further research;
4. to make recommendations for policy development and practice.

Research questions

This research agenda has generated a number of research questions which are addressed through the research tool:¹

Firstly, addressing the availability and reliability of data:

1. Do the countries of Europe and the Mediterranean region have the requisite data-collection strategies in place to be able to come to conclusions on the gender differences in NMUPD?
2. What are the gaps in the data available in Europe and the Mediterranean region?

Secondly, addressing patterns of use and relationships between variables:

3. How does prescription-drug use differ according to gender in Europe and the Mediterranean region?
4. How does NMUPD differ according to gender in Europe and the Mediterranean region?
5. What are the patterns of use among women who engage in NMUPD?
6. How do age and gender intersect in NMUPD in Europe and the Mediterranean region?
7. What are the main sources of prescription drugs for non-medical use in Europe and the Mediterranean region and are there any gender differences in their use?
8. What are the rates of morbidity and mortality among populations that engage in NMUPD in Europe and the Mediterranean region and how are they influenced by gender?

Thirdly, addressing more theoretical concerns in relation to gender:

9. What classes of prescription drugs are preferred by men and women?
10. How do the addictive “career paths” of women prescription-drug misusers differ from those of men? (e.g. age of onset).

1. See appendix.

Fourthly, addressing the state of play in relation to policy and practice:

11. Is policy giving adequate attention to NMUPD and, in particular, to gender issues in relation to NMUPD in Europe and the Mediterranean region?
12. What specific prevention and harm-reduction interventions should be targeted towards women?

As we begin to address these research questions at the European and Mediterranean regional level, we will be able to gain a clearer understanding of the abuse of prescription drugs and its relationship to gender.

Data sources

In the USA, where the issue of NMUPD has been studied to a significant degree and extensive evidence has been collected, a number of secondary data sources have been identified. This study has used these data sources, which include:

1. prevalence surveys: General Population Surveys (GPSs) and youth surveys, e.g. ESPAD and the Mediterranean School Survey Project on Alcohol and Other Drugs (MedSPAD);
2. hospital emergency visits and admissions;
3. fatal and non-fatal overdoses;
4. treatment data, including general and specialist substance-use treatment services;
5. prescriptions for controlled drugs issued;
6. scientific studies on NMUPD;
7. national policy documents.

Research design

The study has used a quantitative approach. A survey questionnaire targeted experts nominated by the permanent correspondents of the PG member states and former member states and experts nominated through the MedNET correspondents for countries in the Mediterranean region. The main task of the expert respondents was to complete the survey, indicating the existing data that were accessible to them in their countries. The questionnaire also contained some open-ended questions, the answers to which were analysed qualitatively through a thematic analysis.

Instrumentation

The survey questionnaire was developed by the research co-ordinator in close collaboration with a working group (see title page for a list of working group members) selected from among experts identified by the PG secretariat. It was sub-divided into a number of sections, based on an extensive and systematic review which identified a number of potential sources for monitoring NMUPD.

A preamble provided a definition of NMUPD and asked for details of the expert respondents and a description of each country's legal framework. Section A asked for data from GPSs or any other prevalence surveys conducted in the last ten years, for data about both prescription-drug use and NMUPD and for information about sources of prescription drugs. Section B asked for details of national surveys of school children conducted in the last five years and information on both prescription-drug use and NMUPD. Section C asked for data about hospital emergency visits and admissions, while Section D asked for data on fatal and non-fatal overdoses. Section E asked for country treatment data and Section F asked for data on the number of prescriptions issued for controlled drugs. Section G asked for a reference list of studies conducted on NMUPD in their country and for the salient findings to be highlighted. Section H asked whether or not NMUPD was addressed in that country's national drugs policy and the final section asked for details of any difficulties encountered by the expert respondents in completing the questionnaire, and whether or not these difficulties had influenced the reliability and validity of the reported data. The questionnaire was uploaded onto www.surveymonkey.com. And is available in the appendix to this report.

Procedure

The PG is perceived as a pioneer in Europe of the integration of gender into drug policies. Through its working groups and expert fora, the PG has consistently called for a better understanding of gender differences in drug policies since the 1984 PG Ministerial Conference. The meeting of the PG's permanent correspondents in Athens on 26 and 27 November 2013 welcomed an Italian gender-specific project based on the Italian Voluntary Contribution, and planned a gender-specific project to analyse gender-related addiction problems and to collect data. A preparatory project meeting took place in Strasbourg on 16 January 2014, attended by Ms Elisabetta Simeoni, Gender Equality Rapporteur for the PG and the PG Secretariat. A call for the nomination of researchers for the project was sent to the permanent correspondents of the PG's member states and former member states, as well as the member states of the PG's MedNET, on 20 January 2014. The deadline for the nomination of experts was set at 1 March 2014. The profile of the researchers required was those with specialised social-sciences knowledge, with a special focus on quantitative analysis, prescription drugs and gender-related issues. A co-ordinating researcher was appointed by the PG secretariat, and a working group was established to contribute to the development of the research tool by the co-ordinating researcher. The draft research tool was discussed by the working group in Paris on 3 April 2014, and the final version was approved by the working group a week later. The research questionnaire was sent via www.SurveyMonkey.com to all the nominated expert respondents on 14 April 2014, and they were given two months to reply. The nominated experts were requested to complete the survey by reporting back on the relevant existing data in their countries, thus allowing the co-ordinating researcher to create a database of existing data and to identify gaps. The expert respondents were sent a PDF version of the questionnaire as well as the online version, and were advised to complete the PDF version first, leaving completion of the online version until they had collected all the relevant data.

The nominated experts were also given the contact details of the co-ordinating researcher, with instructions to contact her if they encountered any difficulties in completing the questionnaire. Access to the online research tool was uniquely tied to each nominated expert's email address to ensure that only they could complete the questionnaire.

Geographical scope

Diagram 1: Map of countries covered by the survey



The project was based on a geographically representative sample of PG member states, MedNET participating countries and some former PG member states: Cyprus, Czech Republic, Egypt, France, Germany, Greece, Ireland, Israel, Italy, Lebanon, Lithuania, Malta, Morocco, Serbia, the Netherlands, Tunisia and the UK (Wales only).

Data-analysis strategy

The co-ordinating researcher used SurveyMonkey to export the submitted data into Excel spreadsheets for easier analysis. The data were analysed with two objectives in mind: providing a snapshot of the state of play regarding monitoring of NMUPD in Europe and the Mediterranean region (published in Part 1 of Chapter 2 of this study), and providing a more detailed descriptive analysis of the submitted data to gain a clearer picture on NMUPD in Europe and the Mediterranean region with a specific focus on the gender dimension (published in Part 2 of Chapter 2 of this study). The submitted data were summarised into tables and graphs for greater ease of comprehension. The experts' answers to the open-ended questions were coded using a thematic analysis.

Validation of submitted data and reporting

In an attempt to validate data submitted by the experts, the data were exported into a PDF-format document for each country. The expert respondents were asked to explain why they had omitted to answer particular questions, and these explanations were coded into one of the following four categories, based on the answers to question 66 of the questionnaire:

1. Data unavailable because not collected in that country.
2. Although collected in that country, data not available in the required format.
3. Although collected in that country, data not available in the required timeframe, or data required additional analysis, for which time was not available to the expert.
4. Data unavailable because the expert respondent did not have the level of access to it required.

The permanent correspondents and the contacts of the PG in the non-PG member states were also asked to comment on the experts' answers submitted for their countries, to ensure that this study could present a true reflection of the situation in each participating country. A meeting was held on 22 September 2014 to which all participating experts (or their delegates) were invited. A draft of the report was forwarded to all participants prior to the meeting and participants were asked to submit via email any required changes to the country data during an ensuing three week period.

Limitations

This study has a number of limitations:

It is the first of its kind and is therefore exploratory in nature.

The statistics derived from the submitted data can only be taken as descriptive, because all the submitted data are secondary statistics.

The countries are not completely representative of all of Europe and the Mediterranean region.

The analysis reflects the data submitted by the expert respondents nominated by the permanent correspondents of the PG member states and of the MedNET countries or through direct contacts by the PG secretariat in the case of Germany and the Netherlands.

The extensive audits by the EMCDDA of the GPS findings which form much of the submitted data show that the national data on the use and misuse of prescription drugs by general populations are often not comparable and should, therefore, be interpreted very cautiously.

The data presented are limited because a number of the experts did not answer all the questionnaire questions. The tables below show the reasons for these omissions, classified into the four categories listed in Section above. The questions from the questionnaires are attached to this study in the appendix.

Cyprus

	Data not collected	Not in required format	Not accessible within study timeframe	Not accessible by expert respondent
All skipped questions	X			

Czech Republic

	Data not collected	Not in required format	Not accessible within study timeframe	Not accessible by expert respondent
Question 8	X			
Questions 19 to 24	X			
Question 25			X	
Question 27			X	
Question 28			X	
Questions 34 to 37	X			
Questions 40 to 42	X			
Question 43			X	
Question 44	X			
Questions 46 to 48		X		
Question 49		X	X	
Question 50		X		
Questions 56 to 57		X	X	
Questions 59 to 61	X			

Egypt

	Data not collected	Not in required format	Not accessible within study timeframe	Not accessible by expert respondent
All skipped questions		X		

France

	Data not collected	Not in required format	Not accessible within study timeframe	Not accessible by expert respondent
Question 14	X			
Questions 19 to 24	X			

	Data not collected	Not in required format	Not accessible within study timeframe	Not accessible by expert respondent
Question 26	X			
Question 27	X			
Questions 34 to 42		X		
Question 44				X
Questions 46 to 50			X	
Question 51			X	
Question 52			X	
Question 56			X	
Question 57			X	
Questions 58 to 61			X	

Germany

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
All skipped questions	X			

Ireland

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
Questions 8 to 10		X		
Questions 14 to 16		X		
Question 17		X		
Questions 19 to 25		X		
Question 27		X		
Question 28		X		
Questions 34 to 37	X			
Questions 40 to 41	X			
Question 42		X		
Questions 48 to 50			X	
Questions 59 to 61	X		X	

Note: Data collected on public prescriptions only (not on private prescriptions).

Israel

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
Question 22	X			
All other skipped questions	X	X*		

* "Inflexible web interface"

Italy

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
Questions 11 to 13		X		
Questions 15 to 17			X	
Questions 19 to 25	X			
Question 27	X			
Question 28	X			
Questions 34 to 37	X			
Question 38			X	
Question 43			X	
Question 45			X	
Questions 47 to 50	X			
Questions 53 to 57				X
Questions 60 to 63				X
Question 65				X
Question 67				X

Lebanon

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
All skipped questions	X			

Lithuania

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
All skipped questions	X			

Malta

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
All skipped questions	X	X		

Netherlands

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
All skipped questions		X		

Serbia

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
Questions 19 to 21	X			
Question 23	X			
Question 24	X			
Question 27		X		
Question 28		X		
Questions 34 to 37			X	
Question 41	X			
Question 52			X	
Question 55			X	
Question 60			X	
Question 61			X	

Tunisia

	Data not collected	Not in required format	Not accessible within study time frame	Not accessible by expert respondent
All skipped questions	X			X

Chapter 2

Results and data analysis

Introduction

This chapter presents the results of an analysis of the data submitted by the expert respondents in response to the questionnaire developed by the working group.

Below is a table summarising the type of data available for submission by country.

Tables 1a and 1b: Data submitted by experts, by country

Table 1a: Prevalence data from general population surveys (GPSs)

	Rates of prescription drug use available	Rates of NMUPD available	Reports on source of prescription drugs available
Cyprus			X
Czech Republic	X	X	
Egypt		X	X
France	X		
Germany	X		
Greece		X	
Israel	X	X	
Italy	X		
Lebanon		X	X
Lithuania	X	X	X
Malta	X		X
Morocco			
Serbia	X		
The Netherlands	X		
Tunisia			
UK (Wales only)			

Table 1b: Other data

	Emergency hospital visits related to NMUPD	Emergency hospital admissions related to NMUPD	Fatal overdoses related to NMUPD	Non-fatal overdoses related to NMUPD	General treatment data (e.g. from hospitals and general practitioners) related to NMUPD	Specialist substance-abuse treatment data related to NMUPD	Registration of prescriptions for controlled drugs	Report data on published studies on NMUPD	Issue of NMUPD addressed in country's national policy documents
Cyprus									X
Czech Republic			X	X		X			X
Egypt	X		X	X		X	X	X	X
France		X	X			X	X	X	
Germany			X			X	X	X	X
Greece						X	X	X	
Ireland		X	X	X		X		X	X
Israel		X	X					X	
Italy		X	X	X			X		
Lebanon	X					X			X
Lithuania			X			X			X
Malta				X		X		X	X
Morocco					X	X		X	X
Serbia	X		X		X	X		X	X
Netherlands		X	X		X	X		X	
Tunisia									
UK (Wales only)			X		X	X	X		X

This chapter is divided into two parts: Part 1 provides a snapshot of the state of play regarding the monitoring of NMUPD in Europe and the Mediterranean region, while Part 2 provides a more detailed analysis of the available data on NMUPD in Europe and the Mediterranean region with a special focus on gender differences.

Part 1: Prescription-drug use and NMUPD in Europe and the Mediterranean region – A snapshot

Profile of expert respondents

The participating experts were nominated by the permanent correspondents of the PG member states and former member states, and representatives of the PG's MedNET member states. The nominated experts included: research consultants, researchers, university professors, assistant professors, national drug commission and national drug policy officials, national ministry of health officials and psychiatrists. Altogether the data collected comes from 17 countries in Europe and the Mediterranean region.

Table 2: Expert respondents

COUNTRY	DESIGNATION	EXPERTS
Cyprus	Official at Cyprus Focal Point	Maria SAVVIDOU
Czech Republic	Officials at Drug Policy Department (Office of the Government)	Viktor MRAVCIK; Barbora ORLIKOVA; Pavla CHOMYNOVA
Egypt	Professor of Psychiatry at Ain Shams University, Cairo	Haroun EL RASHEED
France	Researchers and Consultant at INSERM	Marie JAUFFRET-ROUSTIDE; Philippe LE MOIGNE; Thérèse BENOIT
Germany	Head of the Epidemiology and Diagnostics working group at the Institut Für Therapy Forschung	Daniela PIONTEK
Greece	Associate Professors of Psychiatry	Minerva Melpomeni MALLIORI; Ana KOKKEVI
Ireland	Researcher	Brigid PIKE
Israel	Official at Israeli Anti-Drug Authority, Israeli Society of Addiction Medicine and the Ministry of Health	Anat FLEISCHMAN

COUNTRY	DESIGNATION	EXPERTS
Italy	Officials at the Italian National Focal Point (Department for Anti-Drug Policies)	Bruno GENETTI; Elisabetta SIMEONI
Lebanon	Psychiatrist	Michel SOUFIA
Lithuania	Head of the Monitoring and Analysis unit at the Drug, Tobacco and Alcohol Control Department	Ernestas JASAITIS
Malta	Manager at the National Co-ordinating Unit for Drugs and Alcohol	Manuel GELLEL
Morocco	Assistant Professor of Psychiatry	Maria SABIR
Serbia	Psychiatrist and Head of the National Commission for Drugs	Mirjana JOVANOVIC
The Netherlands	Researcher	Dike VAN DE MHEEN
Tunisia	Professor	Haifa ZALILA
UK (Wales only)	Head of Secretariat at the Welsh Advisory Panel on Substance Misuse	Gareth HEWITT

Legal framework

The expert respondents were asked to report on the legal frameworks that control prescription drugs in their countries. A content analysis of the responses indicates that all the participating countries have legislation in place to control psychotropic prescription drugs. This legislation regulates the manufacture, exporting, importing, possession, distribution, sale and improper use of specific psychotropic drugs. In addition, regulations exist for the issuing of prescriptions by medical professionals and their dispensing by pharmacists. Regulations also cover the recording of information and its reporting by companies which manufacture, export, import, sell or distribute these drugs.

A number of common themes emerged from the analysis, most notably:

1. In some countries, prescriptions include quantity and duration of treatment.
2. Most of the participating countries have a system for classifying types of drugs according to the risk of their abuse.
3. Most of the national legislation in the participating countries complies with international agreements.
4. Some of the participating countries appear to have adopted evidence-based legislation which is amended regularly to recognise changes in the drug market. Some of them have, or are considering the introduction of, specific legislation to further control the psychotropic drugs that have been shown by research to be abused in those countries.

5. The advertising of prescription drugs is regulated in most of the participating countries.
6. Some of the participating countries have specifically banned the sale of prescription drugs by mail order or online.
7. Many of the participating countries have specific regulations covering the duration of treatment, maximum prescribable doses and first and repeat prescriptions.

In most of the participating countries, legislation covers prescription practices, including:

1. Date-stamping of the prescription form to avoid repeat dispensing of the drugs.
2. Restricting the issuing of prescriptions for particular drugs to specially trained professionals – this was most common for opiate-substitution-therapy drugs.
3. Requiring prescriptions to be hand-written.

General population surveys (GPSs)

Table 3 documents the state of play with regard to the existence of GPSs in Europe and the Mediterranean region. GPSs are an important source of information on the use and abuse of prescription drugs.

It is clear at the outset that EU member states conduct regular GPSs. Since 1996, the EMCDDA has been developing and testing a number of epidemiological indicators to assess the extent and patterns of drug use and abuse, and its determinants and consequences. The purpose of the indicator “Extent and pattern of drug use in the general population” is to obtain comparable and reliable measures of the extent and patterns of the consumption of different drugs in the general population, the characteristics and use patterns of drug users, and the attitudes and perceptions of different population groups. This information is obtained through national representative household GPSs. Ideally surveys would use the same questionnaires and methodology, but this is not the case: Israel, Tunisia and Lebanon do not conduct any GPSs and Morocco’s GPS is more specifically focused on mental illnesses and drug addiction.

Table 3: Details of surveys in countries reporting existence of GPSs

	GPS yes/no	Name	Year	Age range	Sample size	Response rate	Data collection	Regional representation
Cyprus	Yes	Pan-Cyprian GPS on tobacco, alcohol and other psychoactive substances	2012	15-64	3 500	62%	Face-to-face interviews	
Czech Republic	Yes	National Survey on Substance Abuse	2012	15-64	6 210	62%	Face-to-face interviews PAPI	National
Egypt	Yes	Lifetime Prevalence of Alcohol and Substance use in Egypt: a Community Survey	2005-2006	15+	44 000	91.1%		Non-representative
France	Yes	Baromètre santé	2010	15-85	27 653	61%	Computer-assisted telephone interviewing	
Germany	Yes	Epidemiological Survey of Substance Abuse	2012	18-64	9 084	53.6%	Paper and pencil questionnaires Telephone Online	Whole country
Greece	Yes	Greek Nationwide GPS on Psychosocial Health and Substance Use	2004	15-64	4 769	48.1%	Household face-to-face interviews Paper and pencil questionnaires	Nationwide
Ireland	Yes	Drug Use in Ireland and Northern Ireland: 2010/11 Drug Prevalence Survey	2010-2011	15-64	5 128	60%	Face-to-face interviews	Nationwide
Israel	No							

	GPS yes/no	Name	Year	Age range	Sample size	Response rate	Data collection	Regional representation
Italy	Yes	GPS 18-64	2012	18-64	18 898	33.4%	Self-administered postal questionnaire	
Lebanon	No							
Lithuania	Yes	Prevalence of Psychoactive substance use among the general population	2012	15-64	4 831	30.8%	Face-to-face interviews Self-completed questionnaires	National
Malta	Yes	Use of Licit and Illicit Drugs in Malta 2013: A GPS of 18-65 year-olds	2013	18-65	3 000	62.3%	Face-to-face interviews	National
Morocco	Yes	National Survey on The Prevalence of Mental Disorders and Drug Addiction	2003-2006	15+	5 498		Mini International Neuropsychiatric Interviews	Representative
Netherlands	Yes	National Prevalence Study	2009	15-64	5 769		Computer-assisted self-administered interviews	North 11.6%, East 20.9%, South 24.2%, West 43.3%
Serbia	Yes	National survey on lifestyles of citizens in Serbia 2014	2014	18-64	5 385	66.7%	Face-to-face interviews	4 official economic strata
Tunisia	No							
UK (Wales only)	Yes	Welsh National Database for Substance Misuse	2013-2014	All	?	100%	Online data-collection system	Yes (Wales)

Table 4: Categories of prescription drugs addressed in GPSs

	Opioids	CNS Depressants	CNS Stimulants	Other
Cyprus		X		
Czech Republic	X	X		
Egypt	X	X		X
France		X		
Germany	X	X	X	X
Greece	X	X	X	X
Ireland	X	X		X
Israel		X	X	
Italy		X		
Lebanon				
Lithuania	X	X	X	
Malta		X		
Morocco	X	X	X	X
Netherlands		X		
Serbia	X	X	X	X
Tunisia				
UK (Wales only)	X	X	X	X

Note: Data for Israel are not representative. The source is a 2009 survey conducted by the Israeli anti-drug authority of adults aged 18-40.

Table 3 clearly indicates that there is disparity in the type of drug use surveyed in relation to prescription-drug use and NMUPD. This makes comparison of prevalence rates particularly problematic. The inclusion of requests for information on CNS-depressant use is more common than requests for information on the use of opioids, CNS stimulants and other categories of prescription drugs. This does not permit a clear documentation of the full extent of NMUPD, nor does it allow researchers to highlight the differing rates of use of various psychotropic drugs by gender, evidence for which exists in the USA as clearly documented in the review in Chapter 1 of this study. Gender differences cannot be predicted across different categories of drugs, therefore the gender variations in prescription-drug abuse must be evaluated for specific types of drugs (Dollar and Ray 2013). In this study, the definition of “prescription drugs” might not correspond to the operational definitions used in the national GPSs. For example, in the German submission the data cannot distinguish between opioid and non-opioid painkillers, so the total numbers for all painkillers were reported instead. Another example is the Maltese GPS, where only the use of sedatives and tranquillisers is reported. This underscores the need to standardise the monitoring of NMUPD to allow data from different countries to be compared.

Participating countries reporting on rates of prescription-drug use

The country submissions indicate that the following countries collect data that allow the extrapolation of national rates of prescription-drug use: Czech Republic, France, Germany, Italy, Lithuania, Malta, the Netherlands, and Serbia.

The country submissions indicate that the following countries do not collect data that allow for such an extrapolation: Cyprus, Egypt, Greece, Israel, Lebanon, Morocco, Tunisia, and UK (Wales only).

Participating countries reporting on rates of NMUPD

The country submissions indicate that the following countries collect data that allow the extrapolation of rates of NMUPD: Czech Republic, Egypt, Israel, Lithuania, Lebanon and Greece.

Those countries which report on the sources of prescription drugs are: Egypt, Cyprus, Malta, Lithuania and Lebanon.

Table 5: Reported data availability – countries reporting on prescription-drug use, NMUPD and source

	Rates of prescription-drug use available	Rates of NMUPD Available	Reports on source available
Cyprus			X
Czech Republic	X	X	
Egypt		X	X
France	X		
Germany	X		
Greece		X	
Israel	X	X	
Italy	X		
Lebanon		X	X
Lithuania	X	X	X
Malta	X		X
Morocco			
Serbia	X		
The Netherlands	X		
Tunisia			
UK (Wales only)			

Surveys of young people

Table 6 documents the state of play with regard to the existence of surveys of drug use among young people in Europe and the Mediterranean region. Such surveys are an important source of information on the use and abuse of prescription drugs among young people and allow researchers to identify the influence of gender on such use and abuse.

Table 6: List of countries reporting they have a survey of young people (with survey details)

	Youth survey yes/no	Name	Year	Age range	Sample size	Response rate	Data collection	Regional rep.
Cyprus	Yes	ESPAD	2011	15-16	4 243	83%	Self-completed questionnaire	Government- controlled areas only
Czech Republic	Yes	ESPAD	2011	15-16	3 913	99%	Self-completed questionnaire	National
Egypt	No							
France	Yes	ESCAPAD	2011	17	27 402	99.3%	Questionnaire	Metropolitan France only
Germany	Yes	ESPAD	2011	13-19	6 192	31.7%	Questionnaire	Bavaria, Berlin, Brandenburg, Mecklenburg-Western Pomerania, Thuringia
Greece	Yes	Greek National School Population Survey on Substance Use / ESPAD survey	2011	16	5 908	90%	Self-administered questionnaire	Nationwide
Ireland	Yes	ESPAD	2011	15-16	2 207	78%	Group- administered questionnaire	Nationwide
Israel	Yes	Schneider Children's Medical Center and Clalit HMO	2011	6-18	121 000			Sharon-Shomron and Dan-Petah Tikva

	Youth survey yes/no	Name	Year	Age range	Sample size	Response rate	Data collection	Regional rep.
Italy	Yes	School Population Survey 15-19 (SPS-ITA)	2013	15-19	35 719	77.2%	C.A.P.I.	
Lebanon	Yes	NA	NA	NA	NA	NA	NA	NA
Lithuania	Yes	ESPAD	2011	15-19	2 476		Self-administered questionnaire	Nationwide
Malta	Yes	ESPAD	2011	15-16	4 330	78%	Self-completed questionnaire	National
Morocco	Yes	Drug use in Moroccan Schools. MedSPAD 2013	2013	15-17	5 786	100%		41 cities
Netherlands	Yes	ESPAD	2011	15-16	2 044			National
Serbia	Yes	ESPAD	2011	15 -17	6 084	86%	Computerised questionnaire	Yes
Tunisia	Yes	MedSPAD – The preliminary study	2013	15-17	825		Self-administered questionnaire	Tunisia
UK (Wales only)	No							

Table 6 indicates that only Egypt and Wales report not having conducted surveys on drug use and abuse among young people that would allow extrapolation about the impact of gender. Considerable progress has been achieved in the field of measuring the prevalence of drug use and abuse among young people using primarily self-reporting measures since the 1990s.

Table 7: Countries reporting on categories of prescription drugs addressed in surveys of young people

	Opioids	CNS Depressants	CNS Stimulants	Other
Cyprus		X		
Czech Republic		X		
Egypt				
France		X	X	X
Germany		X		
Greece		X		
Ireland		X		
Israel	X			
Italy		X		
Lebanon				
Lithuania				
Malta		X		
Morocco	X	X	X	X
Netherlands		X		
Serbia	X	X	X	X
Tunisia	X	X	X	X
UK (Wales only)				

As with GPSs, it is clear that monitoring the use of CNS depressants is more common than of any other category of prescription drugs. The literature from the USA and elsewhere indicates that use of painkillers and use of stimulants are equally popular among young people. Rates of legitimate prescription-drug use among young people are not available (in most countries) since the ESPAD survey only examines NMUPD. The monitoring of prescribing practices for young people is an important area of research that allows researchers to determine:

- ▶ whether or not prescription of drugs is influenced by gender (as it is for adults);
- ▶ how young people may begin NMUPD and the impact of gender on this;
- ▶ how prescription drugs may become diverted for NMUPD.

The use of consistent definitions is essential if comparable data are to be collected in Europe and the Mediterranean region. A content analysis of the definitions of “prescription drugs” in the region’s GPSs indicates that these definitions differ greatly from country to country, making a comparison of the data increasingly tenuous.

Countries reporting on rates of NMUPD among young people

Rates for lifetime and last-year NMUPD among young people are available for the following countries: Serbia, Morocco, Czech Republic, Ireland, Germany, Israel, Italy, Cyprus, Malta, Lithuania, Greece and the Netherlands.

Table 8: Countries reporting on rates of NMUPD among young people

	Lifetime	Last 12 months	Last 30 days
Cyprus	X		
Czech Republic	X		
Egypt			
France	x		
Germany	X		
Greece	X		
Ireland	X		
Israel		X	X
Italy	X	X	X
Lebanon			
Lithuania	X		
Malta	X		
Morocco	X	X	X
Serbia	X	X	
The Netherlands	X		
Tunisia			
UK (Wales only)			

The ESPAD survey reports on drug use without a doctor’s prescription and does not allow the extrapolation of prescription-drug use and how this differs among young men and women. The phenomenon of NMUPD among young people has been influenced by an increase in the prescription of psychotropic drugs (Manchikanti 2007). Perhaps the escalating abuse of prescription drugs is a reflection of the increased prescribing of them to the general public. The increase in the availability of prescription drugs is now recognised as having led to their increased diversion into the hands of abusers and illegal suppliers. Further research is needed to explore this phenomenon.

Hospital emergency visits and admissions

The country submissions indicate that the following countries report collecting data on emergency hospital visits due to NMUPD: Serbia, Egypt, and Lebanon.

The country submissions indicate that the following countries report collecting data on emergency hospital admissions due to NMUPD: France, Ireland, Israel, and Italy.

Table 9: Countries reporting on emergency hospital visits/admissions due to NMUPD

	Emergency hospital visits	Emergency hospital admissions
Cyprus		
Czech Republic		
Egypt	X	
France		X
Germany		
Greece		
Ireland		X
Israel		
Italy		X
Lebanon	X	
Lithuania		
Malta		
Morocco		
Serbia	X	
The Netherlands		X
Tunisia		
UK (Wales only)		

According to SAMHSA,¹ NMUPD is associated with an increased number of emergency hospital visits. A review of DAWN data from 2004 to 2008 estimated that the number of emergency hospital visits due to the non-medical use of opioid painkillers increased by 111% and by 89% for benzodiazepines. Table 9 shows how it is not customary in Europe and the Mediterranean region to collect data on the number of emergency hospital visits due to NMUPD. This is an area of monitoring that clearly needs to be developed. Data could also be collected on road traffic accidents or accidents at work specific to NMUPD.

Fatal and non-fatal overdoses

Table 10: Countries reporting on fatal and non-fatal overdoses and NMUPD

	Fatal overdoses	Non-fatal overdoses
Cyprus		
Czech Republic	X	X
Egypt	X	X

1. [http://masstapp.edc.org/sites/masstapp.edc.org/files/NMUPD%20Conseq_v%202012_12%2012%20\(2\).pdf](http://masstapp.edc.org/sites/masstapp.edc.org/files/NMUPD%20Conseq_v%202012_12%2012%20(2).pdf).

	Fatal overdoses	Non-fatal overdoses
France	X	
Germany	X	
Greece		
Ireland	X	X
Israel	X	
Italy	X	X
Lebanon		
Lithuania	X	
Malta		X
Morocco		
Serbia	X	
The Netherlands	X	
Tunisia		
UK (Wales only)	X	

The monitoring of fatal and non-fatal overdoses related to NMUPD allows policy-makers to determine the impact of this problem and to enact policies that prevent such deaths. In the USA, data are routinely collected on this subject: they indicate that the number of deaths involving overdoses of prescription drugs increased rapidly between 1999 and 2006. This increase was mostly caused by a sharp increase in deaths involving prescription opioid painkillers and coincided with an almost four-fold increase in the use of prescription opioids in the USA (Warner, Chen and Makuc 2009).

Treatment data, including general and specialist drug abuse treatment services

The following countries were able to report on treatment data for patients presenting with NMUPD.

General treatment data (e.g. by hospitals and general practitioners): Serbia, Morocco, Netherlands and UK (Wales only).

Specialist drug-abuse treatment data: Serbia, Morocco, France, Czech Republic, Ireland, Germany, Egypt, Malta, Lithuania, Lebanon, Greece, Netherlands and the UK (Wales only).

Treatment data provide important information about the abuse of prescription drugs. Studies in the USA and elsewhere indicate that an increasing number of individuals are presenting with drug-abuse disorders as a result of the abuse of prescription drugs.

Table 11: Countries reporting on treatment data and NMUPD

	General treatment data (e.g. hospitals, general practitioners)	Specialist drug-abuse treatment data
Cyprus		
Czech Republic		X
Egypt		X
France		X
Germany		X
Greece		X
Ireland		X
Israel		
Italy		
Lebanon		X
Lithuania		X
Malta		X
Morocco	X	X
Serbia	X	X
The Netherlands	X	X
Tunisia		
UK (Wales only)	X	X

Data collected regularly and consistently, over a period of time, about patients being treated for drug abuse form an important evidence base for policy-makers. A treatment-reporting system is a simple but powerful instrument for tracking the changing patterns of NMUPD and is a valuable epidemiological tool. A limitation of such reporting systems is that some report the number of episodes of treatment, rather than the number of individuals receiving treatment.

Registration of prescriptions for controlled drugs

The country submissions indicate that the following countries report collecting data on the registration of prescriptions for controlled drugs: France, Germany, Egypt, Italy, Greece, the Netherlands and the UK (Wales only).

Scientific studies on NMUPD

Countries which report having conducted scientific studies on NMUPD are: Serbia, the Netherlands, Ireland, Germany, Egypt, Israel, Malta, Morocco, France and Greece.

Policy

Table 12: Issue of NMUPD addressed in country's national policy documents

	Issue of NMUPD addressed in country's national policy documents
Cyprus	X
Czech Republic	X
Egypt	X
France	
Germany	X
Greece	
Ireland	X
Israel	
Italy	
Lebanon	X
Lithuania	X
Malta	X
Morocco	X
Serbia	X
The Netherlands	
Tunisia	
UK (Wales only)	X

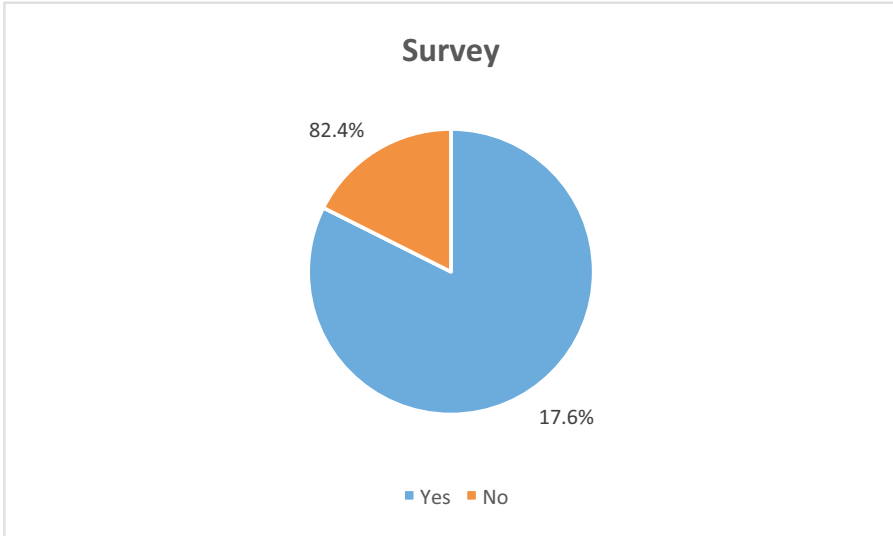
Part 2: Data analysis

Introduction

This section presents the results of an analysis of the data submitted by the experts in response to the questionnaire developed by the working group for the purpose of this study. It is descriptive data, since the use of secondary sources does not permit any inferential analysis to be conducted. It is important to note that the data were submitted through experts nominated by the PG's permanent correspondents who represent their national governments. For Germany and the Netherlands, the experts were chosen through long-standing contacts of the PG and were not nominated directly by a government representative. Each country report was also submitted to the permanent correspondents and/or government representatives for comments. A table of the designation of the researchers is available on pages 45-6.

GPSs on drug prevalence

Diagram 2: Percentage of countries reporting having a GPS including prescription drugs



Fourteen (82.4%) of the expert respondents reported that a GPS had been conducted in their country in the last ten years and had included questions on the use of prescription drugs, and three (17.6%) reported that no such GPS had been conducted in the same period in their countries.

Table 13: Countries reporting existence of GPSs

GPS including questions on use of prescription drugs	No such GPS
Cyprus	Israel
Czech Republic	Lebanon
Egypt	Tunisia
France	
Germany	
Greece	
Ireland	
Italy	
Lithuania	
Malta	
Morocco	
Serbia	
The Netherlands	
UK (Wales only)	

Expert respondents were asked to report on what categories of psychotropic prescription drugs were included in the respective GPS questionnaires.

Nine countries included opioids, 15 included CNS depressants, seven included CNS stimulants, and seven included other psychotropic drugs. The data clearly indicate that CNS depressants are the most commonly researched drugs.

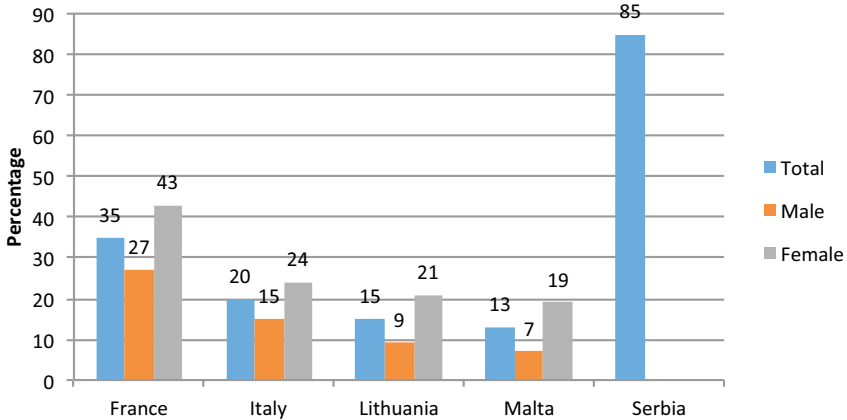
Table 14: Categories of psychotropic prescription drugs included in the survey questionnaires by country

	Opioids	CNS Depressants	CNS Stimulants	Other
Cyprus		X		
Czech Republic	X	X		
Egypt	X	X		X
France		X		
Germany	X	X	X	X
Greece	X	X	X	X
Ireland	X	X		X
Israel		X	X	
Italy		X		
Lebanon				
Lithuania	X	X	X	
Malta		X		
Morocco	X	X	X	X
Netherlands		X		
Serbia	X	X	X	X
Tunisia				
UK (Wales only)	X	X	X	X

Rates of use of prescription drugs

The survey questionnaires requested data on prescription-drug use at three intervals: over the respondent's lifetime, in the last 12 months and in the last 30 days.

Diagram 3: Reported rates of lifetime use of psychotropic prescription drugs in the population by gender



Note: Data not available for all participating countries.

In those countries reporting on the lifetime use of prescription drugs, it is immediately apparent that use by women surpasses that by men in all countries. Serbia reports lifetime use of prescription medication at 85% but was unable to provide a breakdown by gender. France reports high rates of prescription-drug use by women (over 40%).

Country focus box 1: France

Rates of lifetime use of psychotropic prescription drugs by gender in France

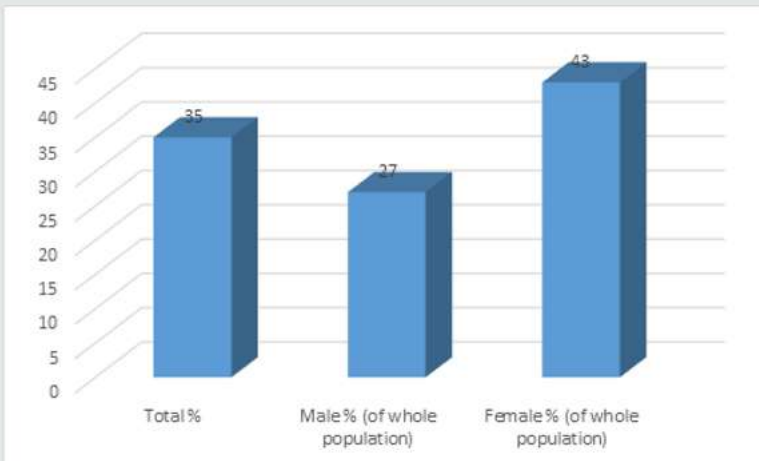
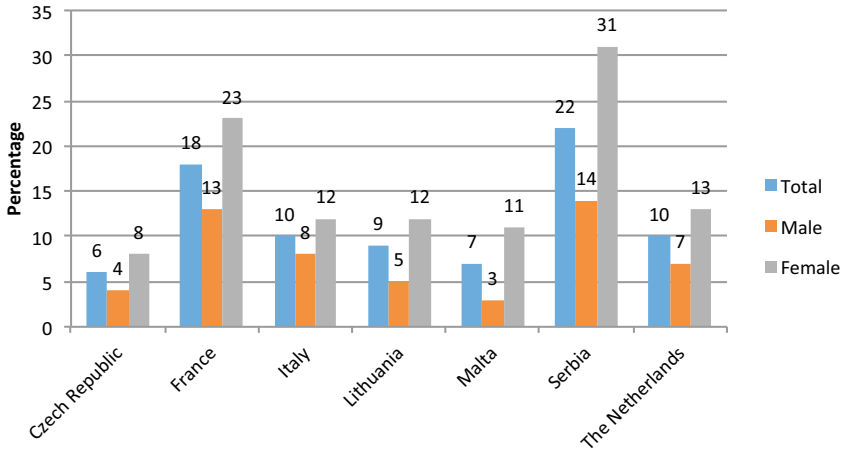


Diagram 4: Reported rates of use of psychotropic prescription drugs in the last 12 months by gender



Note: Data not available for all participating countries.

In those countries which reported on the use of prescription drugs in the last 12 months, it is again apparent that use by women surpasses that by men. Serbia and France report higher rates of prescription-drug use over the last year by women, with Serbia reporting the highest rate of prescription-drug use in the last 12 months among women.

Country focus box 2: Serbia

The National Survey on Lifestyles of Citizens in Serbia (2014)

- ▶ Sedatives and hypnotics had been used by **22.4%** of respondents in the last year (**13.9%** of men and **21.2%** of women) with a remarkably higher prevalence among older people.
- ▶ Opioid-based medication (mostly painkillers) had been used by **5.1%** of respondents in the last 12 months (**4.1%** of men and **6.1%** of women).
- ▶ The majority of respondents reported that they had obtained the drugs from the pharmacy on prescription.
- ▶ The prevalence estimates of intensive and problematic use of sedatives and hypnotics in absolute numbers after extrapolation to the population size were:

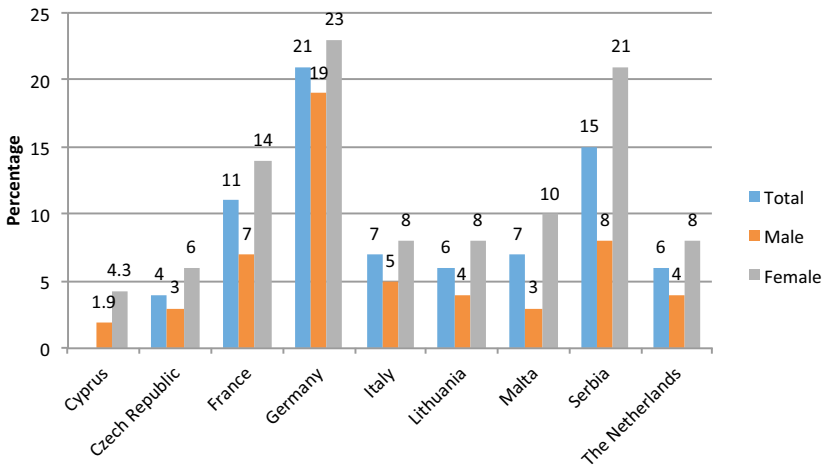
Daily use of sedatives, hypnotics in the last 30 days:

- ▶ Males (2 676 respondents): **51 100**
- ▶ Females (2 709 respondents): **155 200**
- ▶ Young adults (aged 18-34, 1 819 respondents): **14 200**
- ▶ Total population (aged 18-64, 5 385 respondents): **205 600** (182 300 to 233 700)

Prevalence of intensive and problematic use in percentages were:

- ▶ Males: 2.2%
- ▶ Females: 6.6%
- ▶ Young adults: 0.9%
- ▶ Total population: 4.4% (3.9% to 5.0%)

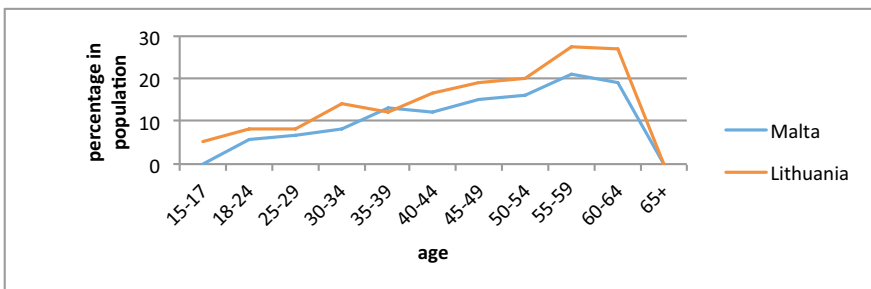
Diagram 5: Reported use of psychotropic prescription drugs in the last 30 days by gender



Note: Data not available for all participating countries.

Data submitted by the expert respondents for prescription-drug use in the last 30 days show some consistency among European countries, with higher rates for Germany and Serbia. These higher rates may be the result of more inclusive definitions of “prescription-drugs use” and/or the inclusion of a number of categories in the GPSs in these countries. So, for example, Germany and Serbia measure all three major categories of prescription drugs (opioids, CNS depressants and CNS stimulants), while Malta only reports the use of CNS depressants. This highlights the importance of consistent monitoring by using the same categories for prescription drugs across Europe to permit data to be compared. Despite this limitation, the data submitted clearly indicate that, in all countries, use of prescription drugs by women surpasses that by men.

Diagram 6: Reported age of users for “lifetime use” category, Malta and Lithuania

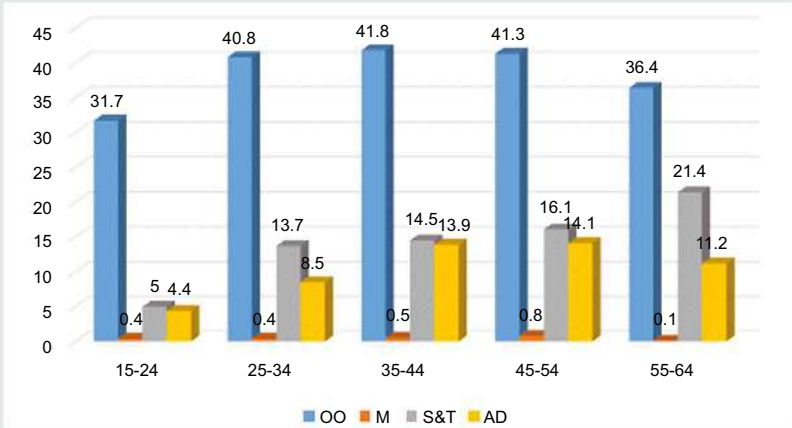


Note: Data not available for all participating countries.

The only available data on this question are for Malta and Lithuania. The trend is similar for both countries, with older people being more likely to have ever used a prescription drug. Ireland presented some interesting insights on age categories and they are analysed separately, since different age ranges were used. The reports on the 2010 and 2011 general population drug-use prevalence survey provide data by age and by socio-economic status but they do not cross-tabulate these with data on gender.

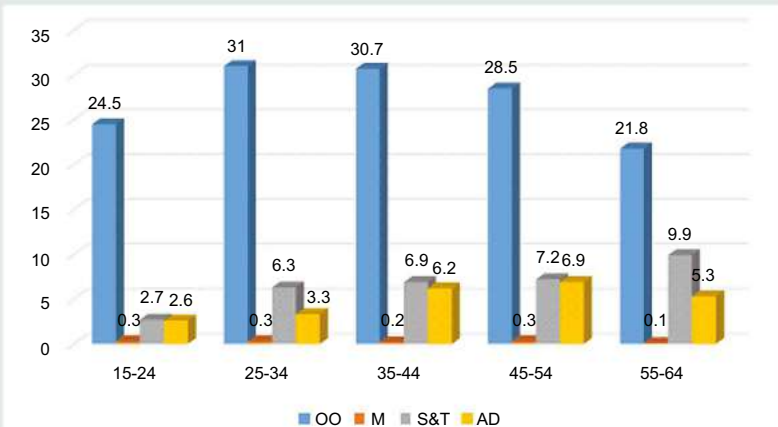
Country focus box 3: Ireland

Reported age of users for "lifetime use" in %



Country focus box 4: Ireland

Reported age of users for "use in last 12 months" in %



Legends for Country focus boxes 3 and 4:

- Blue (OO) = Other Opioids
- Orange (M) = Methadone and physeptone
- Grey (S and T) = Sedatives and Tranquillisers
- Yellow (AD) = Anti-Depressants

Diagram 7: Reported age of users for “last 12 months” category

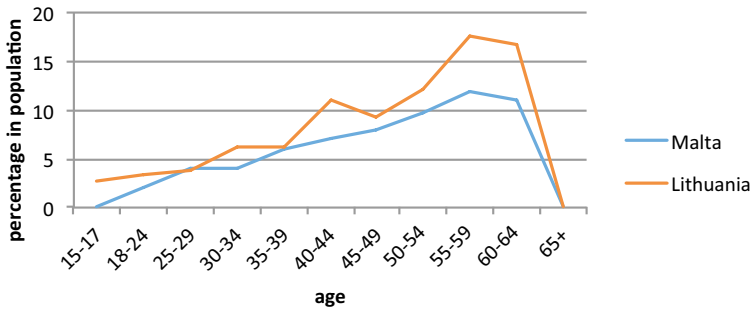
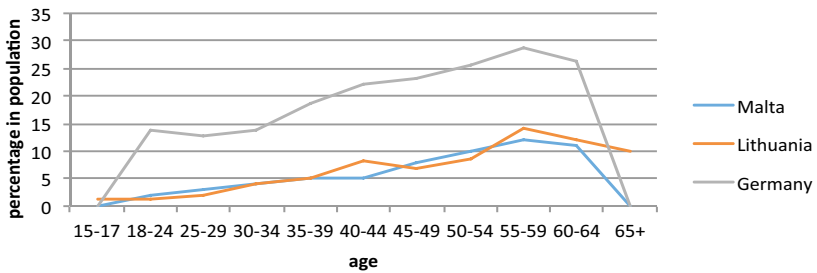


Diagram 8: Reported age of users for “last 30 days” category



Note: Data not available for all participating countries.

The same trend is evident for use in last 12 months and last 30 days. Those in the 50 to 64 age group are more likely to have reported use in the last year.

The data for the Czech Republic (which uses different age brackets) show a similar trend.

Country focus box 5: Czech Republic

Reported age of users for “last 30 days” category, Czech Republic

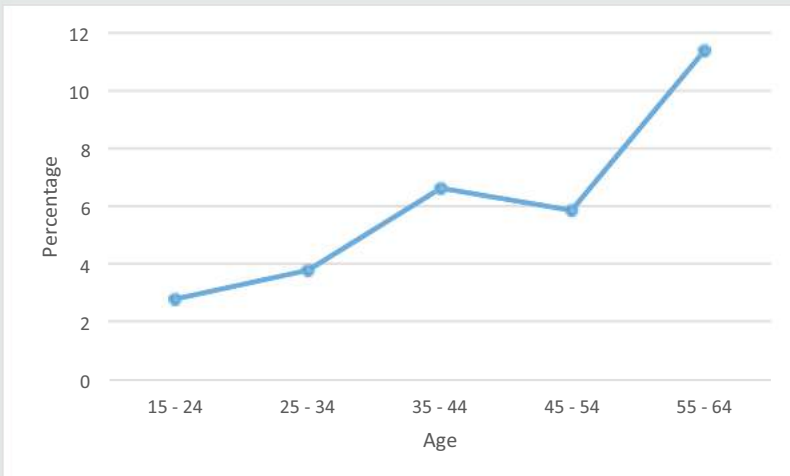
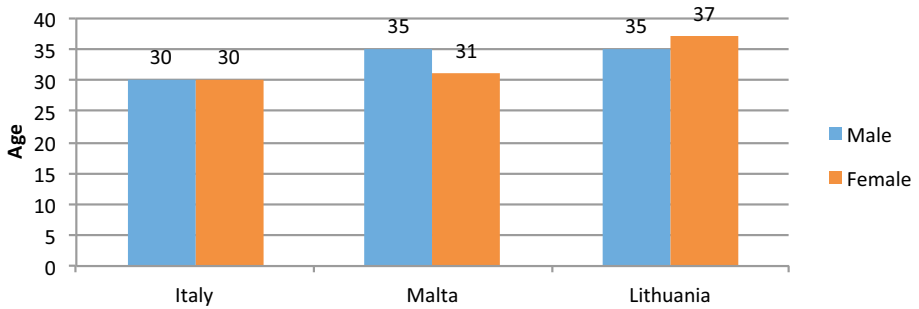


Diagram 9: Median age of first use of any psychotropic prescription drug by gender

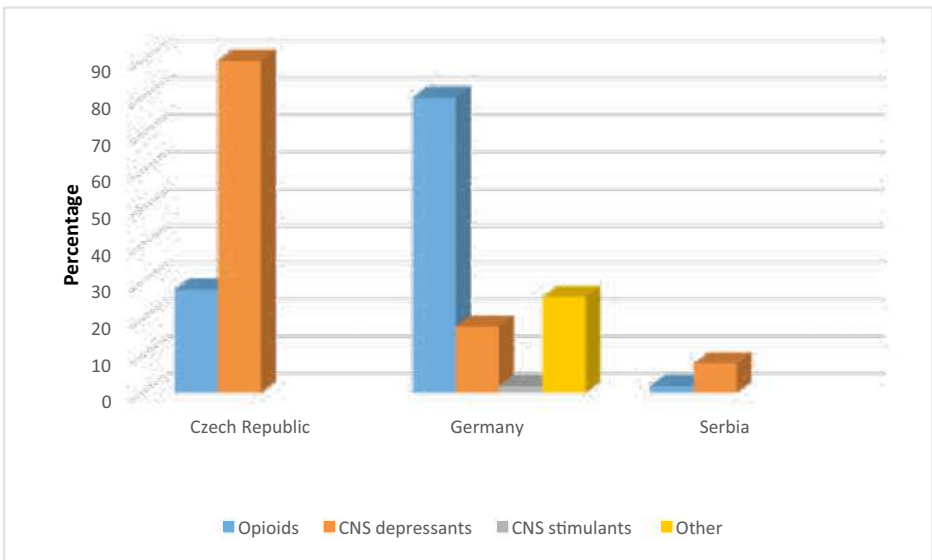


Note: Data not available for all participating countries.

The identification of the age of first prescription-drug use has important implications for prevention. The diagram clearly indicates that most people are first prescribed psychotropic drugs in their thirties, and that there is no significant gender difference in this.

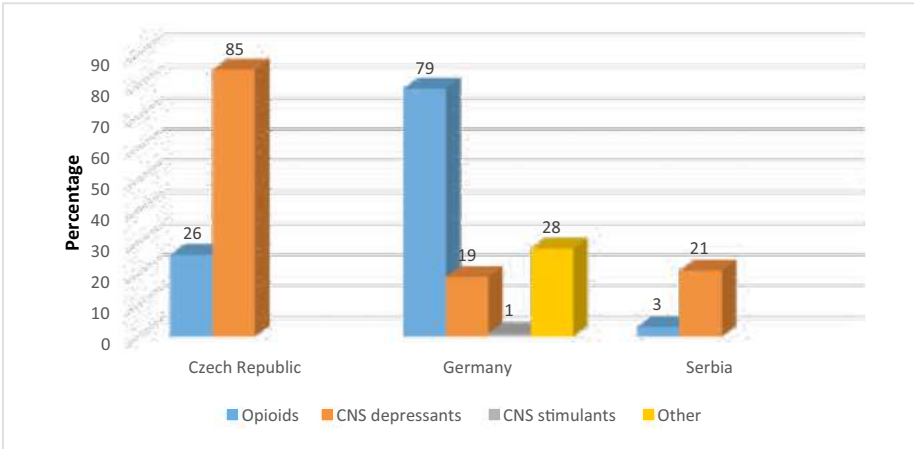
Diagram 10: Type of drug used by gender

Diagram 10a: Among men who report using psychotropic prescription drugs in the last 30 days, percentage reporting using categories of drugs



Note: Data not available for all participating countries.

Diagram 10b: Among females who report using psychotropic prescription drugs in the last 30 days, percentage reporting using categories of drugs



Note: Data not available for all participating countries.

For the few countries who were able to report on this important issue (because their GPSs ask for information about more than one category of prescription drugs), we can see that there are few significant gender differences. The literature review has highlighted how gender is not predictive in the same direction across different categories of drugs; therefore the variation in prescription-drug abuse must be evaluated by specific types of drugs (Dollar and Ray 2013).

The expert respondents were asked to document gender-specific associations of prescription-drug use with a number of variables, such as age, employment and socio-economic status, and to document perceived trends over time. This detailed analysis was provided for 11 of the participating countries, and a content analysis of these responses provides some interesting insights into gender differences related to the use of prescription drugs.

In the **Czech Republic**, the National Survey on Substance Abuse in 2012 indicated that use of both opioid painkillers and sedatives, anxiolytics and hypnotics was much more prevalent among women than men in all age groups.

In **France**, data from the *Baromètre Santé* in 2010 showed an increase in the number of people using psychotropic prescription drugs with age, then a stabilisation, and even a decrease for people over 75. Over a lifetime, this increase is very significant among women aged between 26 and 44, then it stabilises among women aged between 55 and 64, while the increase among men is continuous and slower. The 2010 data can also be compared with data from the same survey performed in 2005. This comparison shows that, whereas use over lifetime seems to be stable, use in the last 12 months increased from 15.1% in 2005 to 18.3% in 2010. This significant increase is common to both men and women (10.4% to 13.4% for men and 19.7% to 22.9% for women). However, in relation to age groups, there is only a significant increase in use among women aged between 55 and 75. The lack of a similar increase

among men in this age group may be due to the very small sample size of men in this age group in the surveys. In **France**, women use more psychotropic drugs than men: (42.8% in a lifetime, compared with 26.9%; and 21.4% in the last 12 months, compared with 13.3%, irrespective of the age group). Experimentation with psychotropic drugs comes third among women (after alcohol and tobacco) and fourth among men (after alcohol, tobacco and cannabis). Use during the last 12 months is relatively high, in particular for tranquillisers (10.4%), followed by sleeping pills (6.3%), anti-depressants (6.2%), neuroleptics (0.9%) and mood stabilisers (0.7%). Use of all groups of psychotropic drugs (anti-depressants, tranquillisers and hypnotics) is higher among females, particularly anti-depressants and tranquillisers; this use increases with age then reduces and stabilises among women aged between 55 and 64 (Beck et al. 2009).

The statistics from **the Netherlands** can be used to compare trends over time in relation to the use of prescription drugs. For both men and woman, use of tranquillisers and sedatives in the last year and in the last month decreased between 2001 and 2005. In 2001, 9% of men had used tranquillisers and/or sedatives in the last year and 5.2% in the last month. In 2005, these percentages had fallen to 6.1% and 3.7% respectively. In 2001, 13.1% of women had used tranquillisers and/or sedatives in the last year and 7.4% in the last month. In 2005, these percentages had fallen to 12.4% and 6.3% respectively. In 2009, 2.9% of the overall Dutch population had started to use tranquillisers and/or sedatives; by gender the percentages were 2.4% of men and 3.3% of women (Van Rooij et al. 2011).

The statistics from **Germany** from the 2012 Epidemiological Survey of Substance Abuse demonstrates some relationships between variables. Among all age groups women were more likely to have used psychotropic prescription drugs than men. Blue-collar workers were more likely to have used psychotropic prescription drugs in the last month than white-collar workers, and, again, women outnumbered men in both groups. Both men and women who drank alcohol were more likely to have used prescription drugs in the last month (27.9% of women and 25.4% of men who drank alcohol, compared to 20% of women and 17% of men who did not drink alcohol). Similar trends are apparent for prescription-drug use by people who use cannabis by gender and for prescription-drug use among cigarette smokers by gender. In the German Health Interview and Examination Survey for adults (*Studie zur Gesundheit Erwachsener in Deutschland*) among people aged between 18 and 79, 74.4% of all men and women state that they had used at least one prescription drug. This use was highest among people in their seventies (94.9% for men and 96.3% for women). Overall, women were significantly more likely to have used prescription drugs (85.4%) than men (63.8%). In this study, 71.8% of all the drugs used were prescribed by a medical doctor. Gender differences in prevalence of prescription-drug use in the last 7 days were most pronounced among young and middle-aged adults and were roughly equal among adults over 70. Women had higher prevalence of poly-pharmaceutical use, except in the oldest age group. Prevalence of poly-pharmaceutical use in all age groups was 9.9% for men and 13.6% for women. However, when considering use of prescription drugs only, women only outnumbered men in the age group 40 to 49 (Knopf and Grams 2013).

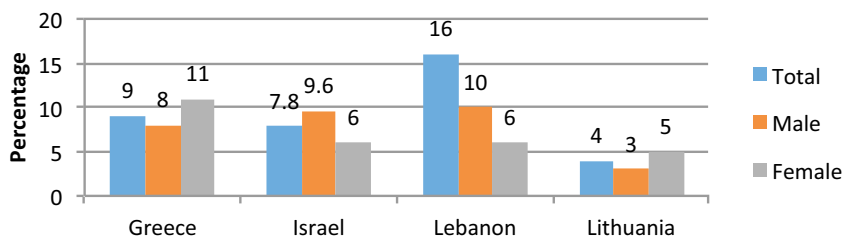
In Lithuania, sedatives and tranquillisers obtained with a doctor’s prescription are likely to be used more by older women divorced or widowed people, those with a higher-education qualification, pensioners and people on lower incomes. A comparison of the results of the 2008 and 2012 GPSs shows that the prevalence of lifetime use and use in the last year of prescription sedatives and tranquillisers increased significantly among women and did not change among men. Prevalence of last month use of sedatives and tranquillisers among both men and women had not changed.

In Cyprus, 4.3% of women reported using sedatives and/or tranquillisers during the last month in 2012, compared to 1.9% of men. This compares with higher percentages for both sexes in 2009 (5.5% for women and 3.2% for men). The median age of women who were currently using sedatives and/or tranquillisers was 48 (minimum: 19, maximum: 64).

In Malta, 7% of men reported ever having used prescription drugs in 2013, a decrease of 3.4% compared to 2001. A slight decrease was also reported by women (18.7% in 2013 compared to 19.5% in 2001). Use of sedatives and tranquillisers appeared to drastically increase with age, with people aged between 55 and 59 being most likely to have ever used these drugs (21% in 2013 and 25.5% in 2001). Among lifetime users of sedatives, 35.6% were unemployed and not seeking work, 6.2% were unemployed and seeking work, 38% were employed, 2.5% were self-employed and 4.5% were unable to work due to disability or illness. Lifetime use of tranquillisers reported in the ESPAD surveys decreased from 5% in 2007 to 3% in 2011. In the 2013 GPS, lifetime use was reported by almost 5% of those aged between 18 and 24. These figures show consistency between the data reported by school students and that reported in the GPSs, which is not surprising, given that the school students who responded to the 2007 and 2011 ESPAD surveys would have been over 18 in 2013 and may thus have probably also responded to the 2013 GPS in the cohort aged between 18 and 24.

Rates of NMUPD

Diagram 11: Rates of lifetime NMUPD (psychotropic drugs) by gender



Note: Data not available for all participating countries. Data from Israel on non-medical use do not apply to the general population. All such data are from a 2009 survey by the Israeli anti-drug authority in adults aged 18-40.

Diagram 12: Rates of NMUPD (psychotropic drugs) in the last 12 months by gender

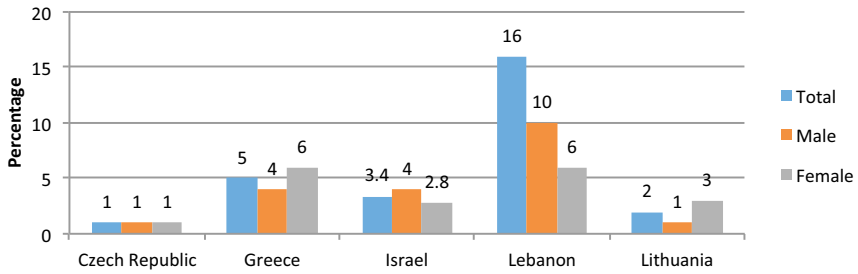
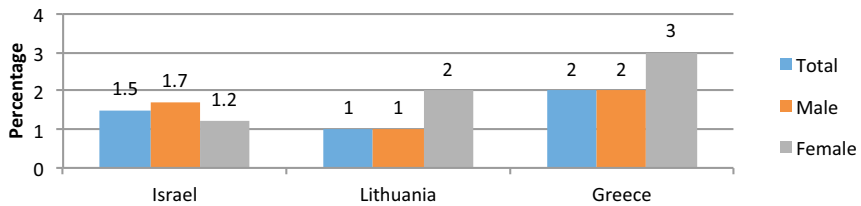


Diagram 13: Rates of NMUPD (psychotropic drugs) in the last 30 days by gender



Note: Data not available for all participating countries.

While rates for medical use of prescription drugs have been shown to be significantly higher for women in most age groups and use periods, the picture for NMUPD is somewhat less clear. While not many countries reported on NMUPD, the data in the diagram above show that Greece and Lithuania registered higher levels of NMUPD among women than men, while the opposite is true for Lebanon and Israel. This difference could be due to more traditional gender roles in Mediterranean countries, linked to codes of honour and shame (Clark 2012).

Country focus box 6: Israel

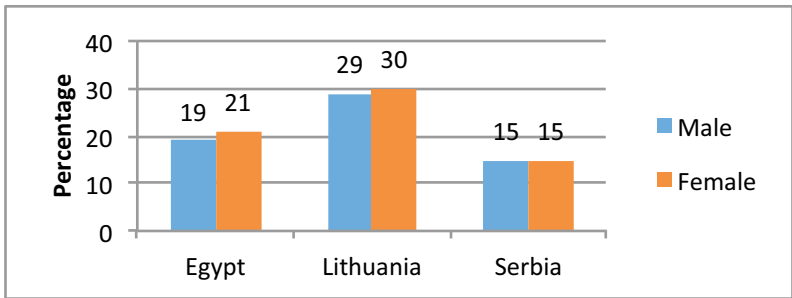
Rates of non-medical use of prescription drugs, Israel

Rates of NMUPD	lifetime			last 12 months			last 30 days		
	male	female	total	male	female	total	male	female	total
Stimulants	5.3	1.2	3.1	1.6	0.3	2.9	0.7	0.1	0.5
Depressants	6.6	5.6	6.1	3.2	2.9	2.9	1.6	1.2	1.3
All	9.6	6	7.8	4	3	3.4	1.7	1.2	1.5

The Egyptian data only cover NMUPD, not medical use of prescription drugs. In **Egypt**, the *Lifetime Prevalence of Alcohol and Substance Use* survey (2006) reported that lifetime NMUPD among men was 12 times higher than among women. However, as 70% of the survey respondents were men, this figure needs to be corrected to more accurately reflect the percentage of men in the general population, giving a revised figure of 13.2% for men and 1.1% for women. The Egyptian expert added

that NMUPD is uncommon among Egyptian women. The use of so-called “entry-level drugs”, such as tobacco, among women is associated with social stigma. In addition, there is a significant degree of restriction on the movement of women in Egypt. Despite the apparently low percentage reported, NMUPD is increasing among women in Egypt. In 2006, 3.4% of female respondents reported NMUPD in contrast to 2.3% in a study done in 1996. The average age for first NMUPD was between 15 and 19; the peak age for drug addiction was between 25 and 45. NMUPD was most common among respondents with little or no formal education. With the exception of respondents who were literate but who had no formal education, there was a clear inverse relationship between the amount of formal education and the likelihood of NMUPD. There was also significantly more NMUPD among tradesmen, skilled and unskilled workers than among professional and clerical workers. Drug abuse and addiction was more common among those whose father (17%) or mother (12.5%) was frequently absent from home or whose father (21.5%) or mother (23%) had left home. NMUPD was more common among separated, widowed or divorced individuals (18.46%) than single or married people. There was also more psychiatric co-morbidity among those who practised NMUPD (35.9%).

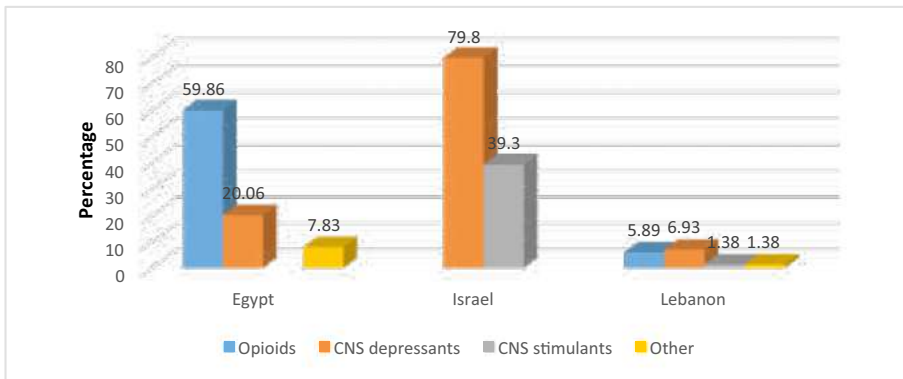
Diagram 14: Median age of first NMUPD (psychotropic drugs) by gender



Note: Data not available for all participating countries.

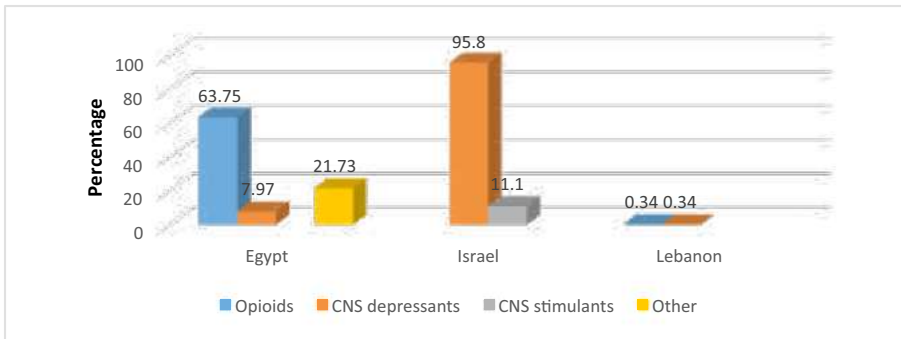
These statistics agree with the abundant literature on this subject, and show that women begin NMUPD marginally later than men.

Diagram 15: Type of drug reported among men for NMUPD (psychotropic drugs)



Note: Data not available for all participating countries.

Diagram 16: Type of drug reported among females for NMUPD (psychotropic drugs)



Note: Data not available for all participating countries.

The data do not allow us to extrapolate differences in type of drug by gender. The literature review has indicated that this is an important area of research and should be given further attention.

The experts were asked to document any associations of the NMUPD (psychotropic drugs) with a number of variables, such as education, age, leisure patterns, other drug use, unexplained pain, mental health difficulties, family dynamics, etc. observed in the surveys cited or in any other relevant studies, while also noting any perceived trends over time.

In **Serbia**, results from the National Health Survey (2006) show that sedatives had been taken without being prescribed by a medical doctor by 4.6% of the population. More women often used prescription drugs on their own initiative (33.5%) than men (25.1%). NMUPD was more common in urban areas. Respondents aged between 45 and 54 reported taking sedatives significantly more often than the average. Also, sedatives were more likely to be used by wealthier respondents and overall sedative use had risen slightly between 2000 and 2006 (from 13.4% to 13.7% of respondents).

In **Egypt**, 457 patients who attended an outpatient clinic for drug abusers in the Neuro-psychiatry Department of Tanta University Hospital between June 2006 and June 2009 were divided by gender and then assessed using DSM-IV semi-structured interviews and compared regarding: age, age of onset of drug abuse, duration of abuse, education, occupation, marital status, first drug abused, number of drugs abused, route of administration, risk factors, motivation for asking for help and co-morbid psychiatric conditions. The duration of addiction was found to be significantly higher among men (8.67 years, ± 3.15 years) compared to women (5.6 years, ± 1.74 years). The duration of addiction was found to decrease as levels of education increased, with no significant gender difference. Addicts who were, or had been married were found to have significantly higher durations of drug use (13.05 years, ± 6.63 years) than single addicts (7.37 years ± 4.53 years). For men, drug addiction was highest among skilled workers (36.05%), the unemployed (22.25%) and professionals (18.18%), and lowest among manual workers (5.95%), employees (8.46%) and students (9.09%). For women, most addicts were students (50.75%)

followed by the unemployed (36.23%) and manual workers (10.77%), while the lowest percentages of addiction were among skilled workers (1.44%), employees (5.07%) and professionals (5.79%). The majority of the addicts smoked (96.86% of men and 92.75% of women). Most of the women smokers smoked only cigarettes, while 5.18 % were shisha smokers and only 14.82% smoked both cigarettes and shisha. Among men, bhang and hashish were the most popular drugs (64.89%), followed by opiates (cough syrups 35.10% and other opiates, 25.39%), painkillers (24.76%) and alcohol (24.45%). The most popular drugs for women were painkillers (52.89%), followed by anticholinergics (21.73%), cannabis (16.66%) and cough syrups (10.86%). Women used more painkillers (mostly Tramadol 52.89%) followed by anticholinergics (21.73%) then volatile substances (2.89%). Other drugs were used less by women than men. Among men, the most common motive for starting drug abuse was peer pressure (36.67%), followed by seeking pleasure (20.06%), improving mood (19.12%) and improving sex and showing masculinity (18.18%). Among women, the most common motive for starting drug abuse was coping with family troubles and sexual abuse (31%), followed by improving mood (29%), seeking pleasure (13%) and curiosity (13%). The majority of the addicts were abusing more than one drug (84.6%) and more than one half were abusing three or more drugs (53.2%). Among women, 53% were abusing more than one drug, which was significantly less than among men. The most common place for the addicts to take drugs was at home (87%) followed by at gatherings of friends (61%). Men were significantly more likely to seek treatment than women. The main motives for seeking treatment trial among men were to prevent family problems (17.24%), dissatisfaction with being an addict (16.3%), financial problems (15.98%), work problems (12.53%) and health problems (11.28%). For women, the main motives for seeking treatment were family problems (23.1%), health problems (18.11%), behavioural and psychological disturbances (15.94%) and financial problems (15.21%). Depressive symptoms were common in both men (31.03%) and women (39.85%). Personality disorders were the most common co-morbid psychiatric disorders for women (26.81%) followed by major depression (26.08%), anxiety disorders (13.76%), psychotic disorders (4%) and bipolar disorder (2.17%). For men, personality disorders were the most common co-morbid disorder (35.10%) followed by anxiety disorders (31.03%), major depression (15.04%) and psychotic disorders (6.58%). Major depression was more common among women than men, while anxiety disorders were more common among men than women.

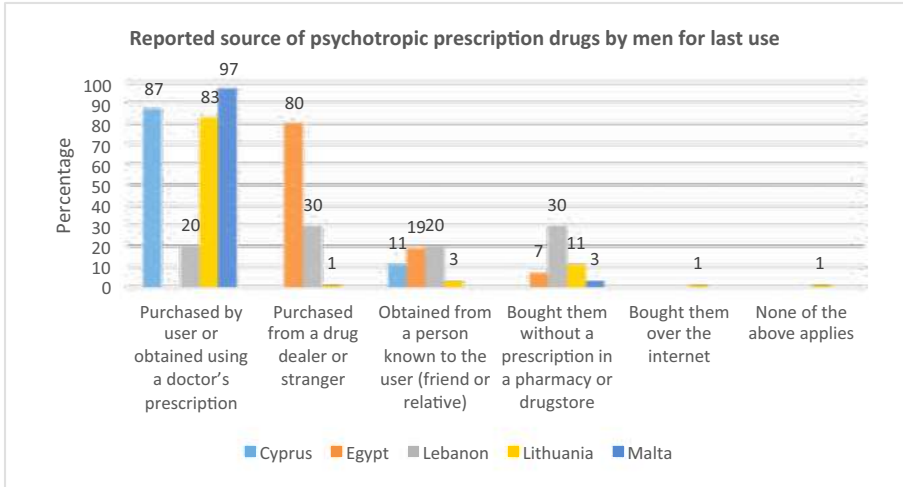
In **Lithuania**, sedatives and tranquillisers obtained without a doctor's prescription are more likely to be used:

- ▶ at least once by older women (aged between 45 and 64), people with a higher educational qualification, divorced or widowed people and the unemployed;
- ▶ in the last year by older women (aged between 55 and 64), divorced or widowed people and the unemployed;
- ▶ in the last month by unemployed women aged between 45 and 50.

In **Wales** an online survey on NMUPD among the staff and students of a university was conducted in 2009 to determine the prevalence and nature of NMUPD among this population in the UK. Altogether, 1 614 responses were received from

students and 489 from staff. NMUPD was reported by 33% of the students and 24% of the staff, with painkillers being the most commonly used, followed by sedatives and sleeping pills. The motives for NMUPD were therapeutic and “to get high”.

Diagram 17: Reported source of psychotropic prescription drugs by men at last occasion of use

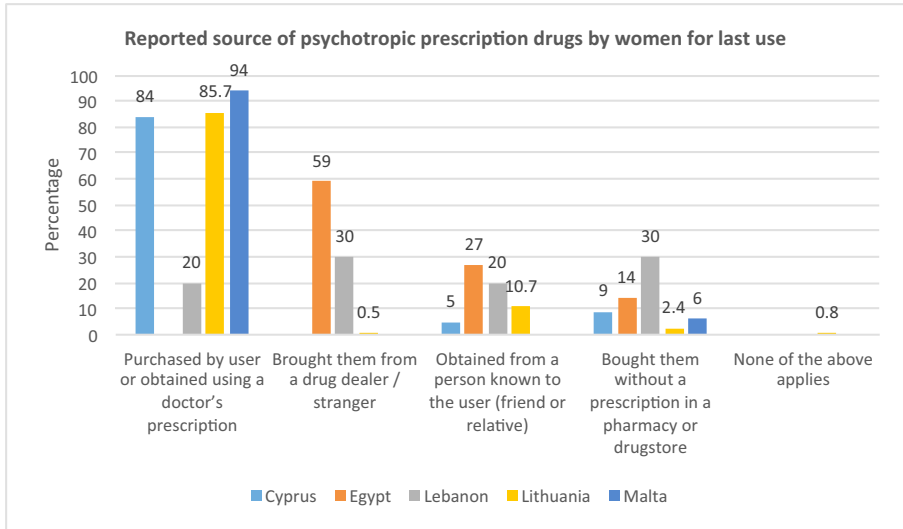


Note: Data not available for all participating countries.

	Cyprus	Egypt	Lebanon	Lithuania	Malta
Purchased by user or obtained using a doctor's prescription	87	83	97	20	83
Purchased from a drug dealer / stranger	1	80	30	1	1
Obtained from a person known to user (friend or relative)	11	19	20	3	3
Purchased from a pharmacy without a prescription	7	30	11	3	3
Purchased over the internet	1	1	1	1	1
Other source	1	1	1	1	1

The diagram above clearly shows that, in the countries reporting sources, the most common source of prescription drugs for men is a legal one (on prescription from a doctor), followed by “from a friend or a relative”, indicating the relative ease of diversion. The Egyptian data, which are exclusively about NMUPD, indicate that, in Egypt, those engaging in NMUPD are most likely to get the drugs from a drug dealer. The trends are similar for women.

Diagram 18: Reported source of psychotropic prescription drugs by women at last occasion of use



	Cyprus	Egypt	Lebanon	Lithuania	Malta
Purchased by user with a doctor's prescription	84		20	85.7	94
Purchased from a drug dealer / stranger		59	30	0.5	
Obtained from somebody known to user (friend or relative)	5	27	20	10.7	
Purchased from a pharmacy without a prescription	9	14	30	2.4	6
Other source				0.8	

Surveys of young people

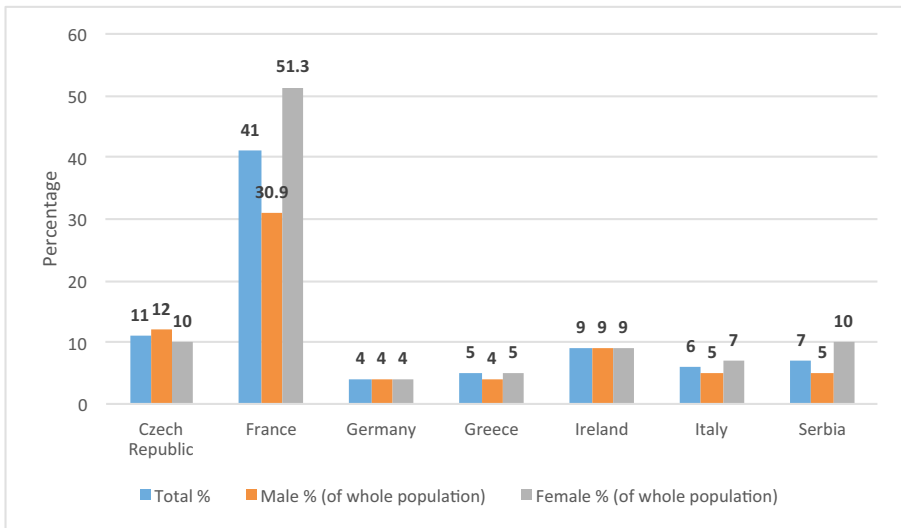
Table 15: Categories of psychotropic prescription drugs included in the survey questionnaire

	Opioids	CNS Depressants	CNS Stimulants	Other
Cyprus		X		
Czech Republic		X		
Egypt				
France		X	X	X herbal medicines
Germany		X		
Greece		X		

	Opioids	CNS Depressants	CNS Stimulants	Other
Ireland		X		
Israel			X	
Italy		X		
Lebanon				
Lithuania				
Malta		X		
Morocco	X	X	X	X
Netherlands		X		
Serbia	X	X	X	X
Tunisia	X	X	X	X

As with GPSs of adults, surveys of young people are more likely to include questions about CNS depressants than any other category of prescription drugs. The literature review has highlighted how the use of CNS stimulants and opioids is becoming increasingly popular among young people in the USA. This has important implications for the future monitoring of NMUPD among young people in Europe and the Mediterranean region.

Diagram 19: Rates of lifetime use of prescription drugs (psychotropic drugs) among young people, by gender



Note: Data not available for all participating countries.

There are no clear gender differences for lifetime use of psychotropics with a doctor's prescription (not NMUPD) by young people in the countries which report data, with the exception of France, where women are more likely than men to have ever used a prescription drug.

Country focus box 7: France

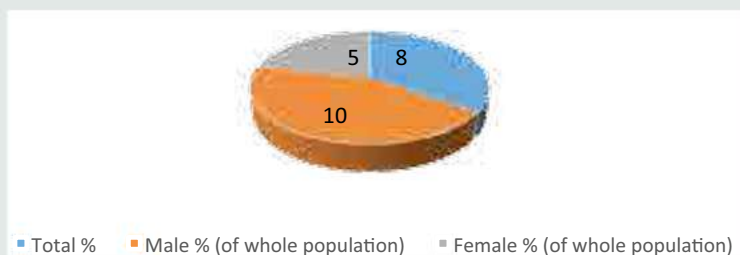
Since 2008, the questions in the ESPAD surveys have been changed to identify precisely the prescription drugs used: tranquillisers, anti-depressants, sleeping pills, neuroleptics, mood stabilisers, stimulants and herbal remedies. By the age of 17, 44.6% of respondents reported having used at least one of these drugs in lifetime, distributed as follows:

- ▶ herbal remedies (30.3%)
- ▶ tranquillisers (15%)
- ▶ sleeping pills (10.7%)
- ▶ anti-depressants (5.6%)
- ▶ mood stabilisers (2.2%)
- ▶ neuroleptics (1.7%)
- ▶ psycho-stimulants (1.3%).

Girls use prescription drugs more often than boys: 23.1% use tranquillisers (compared to 13.9% for boys), 17.1% use sleeping pills (compared to 12.1%) and 9.6% use anti-depressants (compared to 4.8%). The only drug category used more often by boys than girls is psycho-stimulants such as Ritalin (used by 1.7% of boys, in contrast to 1% of girls).

Country focus box 8: Israel

Rates of use of psychotropic prescription drugs by young people in the last 12 months, by gender



Israel was the only country with data available for this question

Country focus box 9: Lebanon

The MEDSPAD 2008 survey is entitled "Awareness and Practices Related to Addictive Substances among School children in Lebanon".

Relevant findings from this study include:

Sample size: 1 097 school-aged children

Girls: 54%, Boys: 46%

Age range: 12 to 19

Mean age: 14.6 years

9.8% of the sample (97 respondents) reported that they knew someone who uses tranquillisers without a medical prescription.

8% of the sample reported having friends who mixed alcohol and tranquillisers in various combinations.

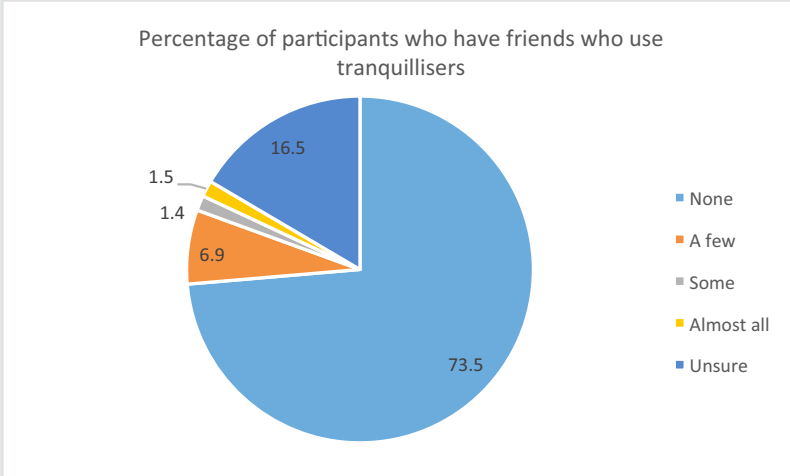
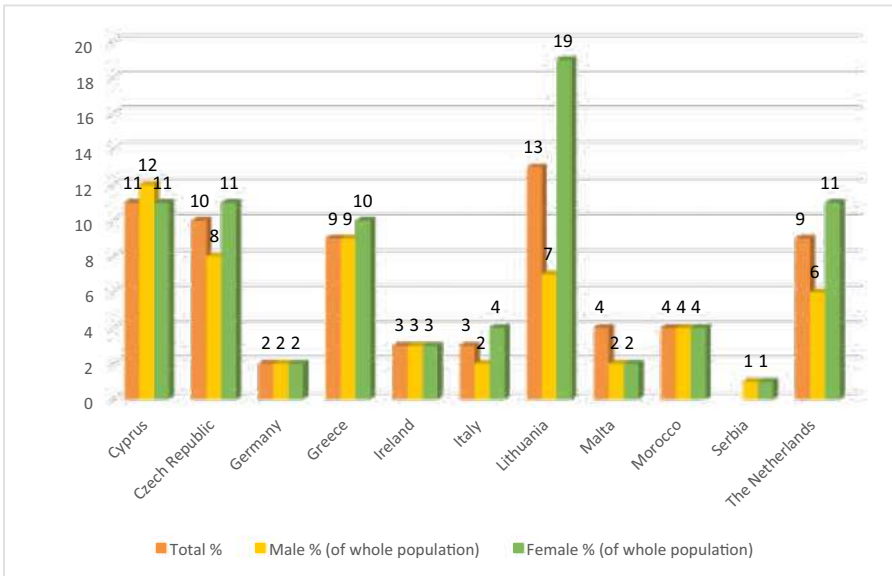


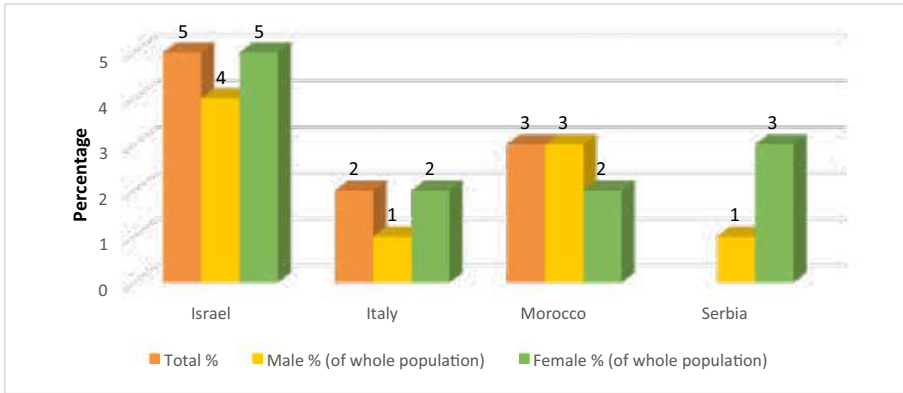
Diagram 20: Lifetime rates of NMUPD (psychotropic drugs) among young people, by gender



Note: Data not available for all participating countries.

Rates of lifetime NMUPD are higher for young women than young men in a number of countries, most notably the Czech Republic, France, Italy, Lithuania and the Netherlands.

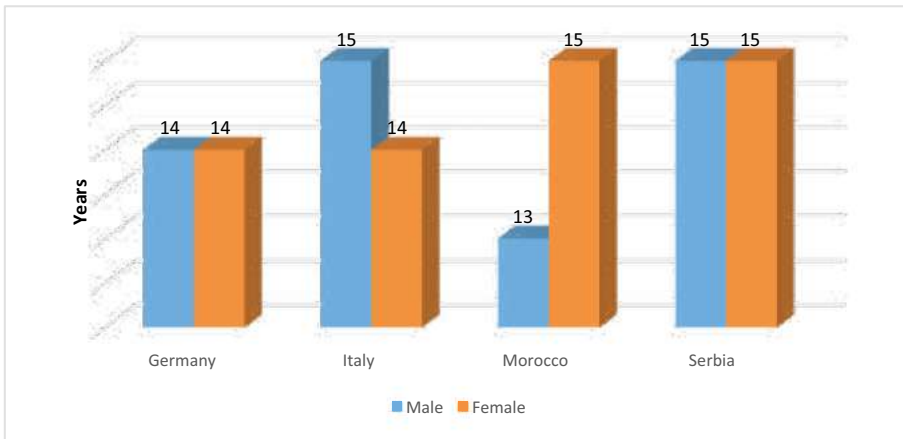
Diagram 21: Rates of NMUPD (psychotropic drugs) in the last 12 months among young people by gender



Note: Data not available for all participating countries.

NMUPD rates are also higher for young women than young men in Israel, Italy and Serbia.

Diagram 22: Age of first NMUPD (psychotropics)

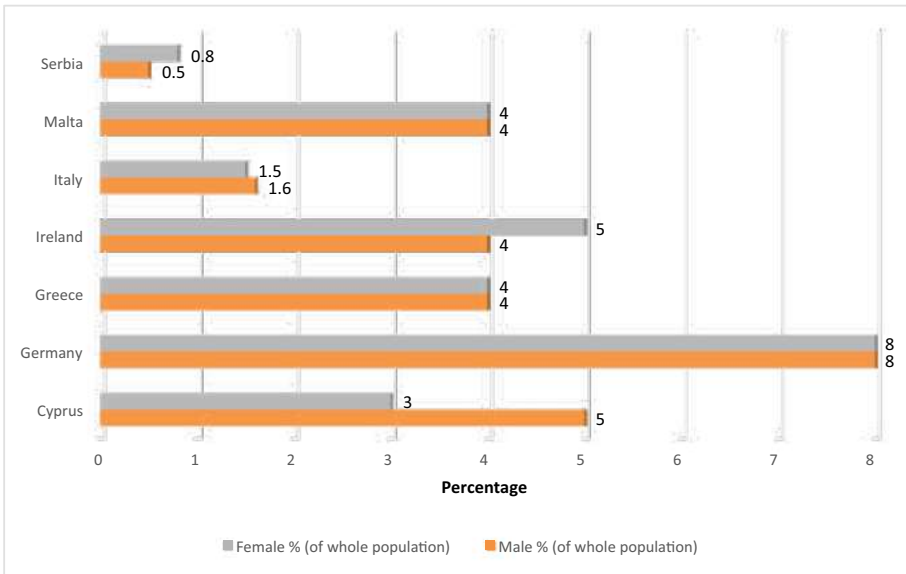


Note: Data not available for all participating countries.

The age of first NMUPD appears to coincide with middle adolescence, a period when peer groups and the school environment take on increased significance for individuals. While in early adolescence there may have been some experimentation with new forms of behaviour, middle adolescence is a time of increased risk-taking before the acquisition of realistic risk-assessment skills (Santrock 2013). Separation from the family increases and there is less reliance on parental guidance, and the desire to be accepted by one’s peers can exert a strong influence on behaviour. In middle adolescence, cognitive abilities increase rapidly and abstract thinking skills improve. However, conflict may occur when an adolescent’s physical development is more advanced than his or her ability to think abstractly. The need to become psychologically independent from parents continues to grow. According to Muisener (1994), even if an adolescent successfully negotiates early adolescence, the developmental

stresses of middle adolescence can pose enough of a psychological threat to place individuals at high risk of developing problems with drugs in an attempt to gain control of their lives. As middle adolescence is a period of moving from the chaotic inner self of early adolescence to a calmer self, adolescents often experience increased self-confidence with this growth in self-control. Some young people may try to build self-control by abusing drugs, which may appear to help for a while. Thus they may attempt to deal with normal anxieties about relationships, schoolwork and pleasing their parents through drug abuse. This period of middle adolescence has been identified as the period at peak risk of deviant behaviour (Santrock 2011).

Diagram 23: Use of prescription (psychotropic drugs) drugs with alcohol by young people



Note: Data not available for all participating countries.

The expert respondents were also asked to report on any associations of psychotropic prescription-drug use with a number of variables, such as education, age, leisure patterns, other drug use, family dynamics, chronic pain, mental health difficulties, etc. observed in the surveys of young people.

In **Morocco**, there is a statistically significant relationship between the use of psychotropic prescription drugs and absenteeism from school, low educational attainment, sleeping away from home, having a family member or friend who uses the same drug, ignorance of the laws against drug abuse, ease of procurement of drugs and a lack of perception of the dangers of drug abuse.

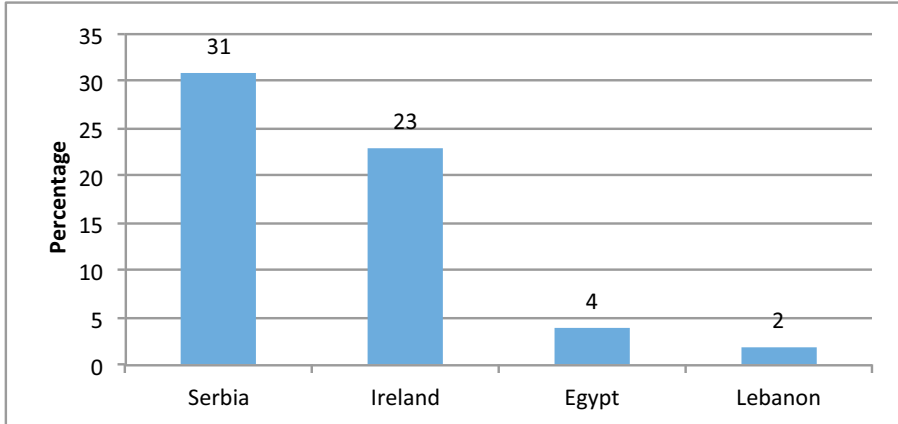
In **Lithuania** between 2007 and 2011, lifetime use of tranquillisers and sedatives without a doctor's prescription among teenagers declined slightly from 15.6% to 13%.

In the **Netherlands**, results from a survey (Ganpad 2009) of 2 385 Dutch teenagers (aged between 14 and 17) found no significant differences, in gender, age, education, ethnicity and region, between those who practised NMUPD and those who said that they never used (any) drugs inappropriately. Of those who practised NMUPD, 64%

were female and 86% were native Dutch. The average age of those reporting drug abuse was 16.1 years (no distinction was made by gender).

Emergency hospital visits and admissions

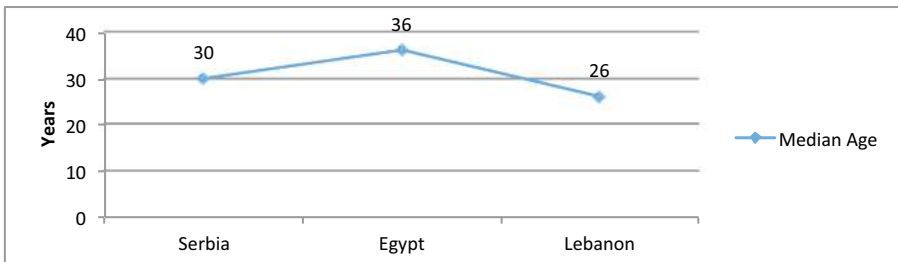
Diagram 24: Percentage of emergency hospital visits / admissions recorded as being related to the use of a prescription drug (psychotropic drugs) in the last 12 months



Note: The data for Ireland relate only to emergency hospital admissions and not visits. Data not available for all participating countries.

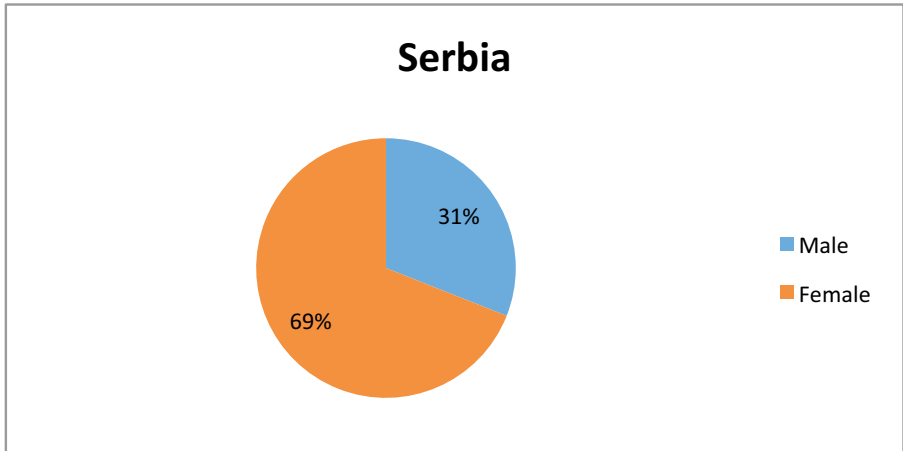
Unfortunately, few countries were able to report on this important indicator. Mortality data do not portray the morbidity associated with prescription-drug overdoses or accidents related to prescription-drug use. Data from emergency hospital visits may represent this morbidity and can be accessed more quickly than mortality data in order to better understand recent national trends in drug-related morbidity. In a US study by SAMHSA’s DAWN (available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm5923a1.htm), the number of emergency hospital visits involving NMUPD or over-the-counter drugs increased rapidly between 2004 and 2008, so that by 2008 it equalled the number of emergency hospital visits involving illegal drugs. Emergency hospital visits involving such drugs accounted for all of the growth in overall drug-abuse rates between 2004 and 2008. Emergency hospital visits involving opioids or benzodiazepines were the largest contributors to the increase in emergency hospital visits involving NMUPD or over-the-counter drugs.

Diagram 25: Median age of patients in emergency hospital admissions related to the use of psychotropic prescription drugs in the last year



Note: Data not available for all participating countries.

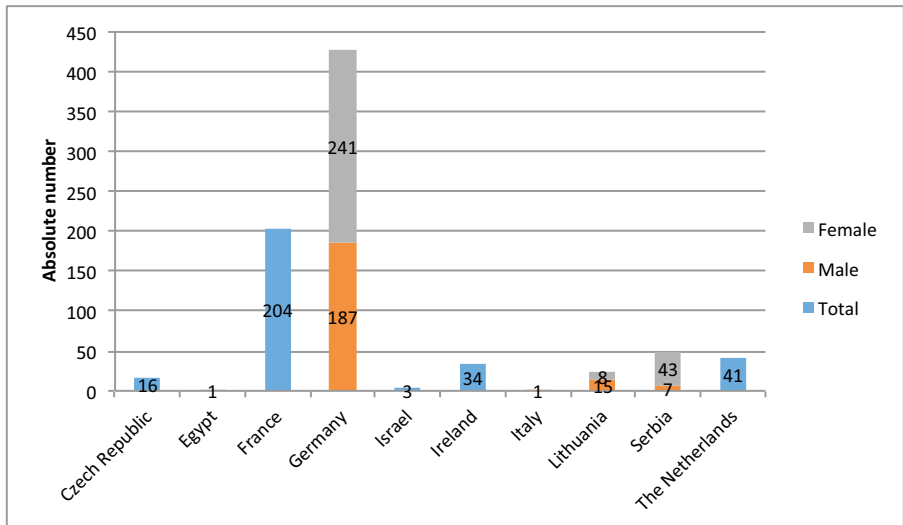
Diagram 26: Gender of patient at emergency hospital visit / admission related to the use of psychotropic prescription drugs in the last 12 months



Serbia was the only country to provide data on this.

Fatal and non-fatal overdoses

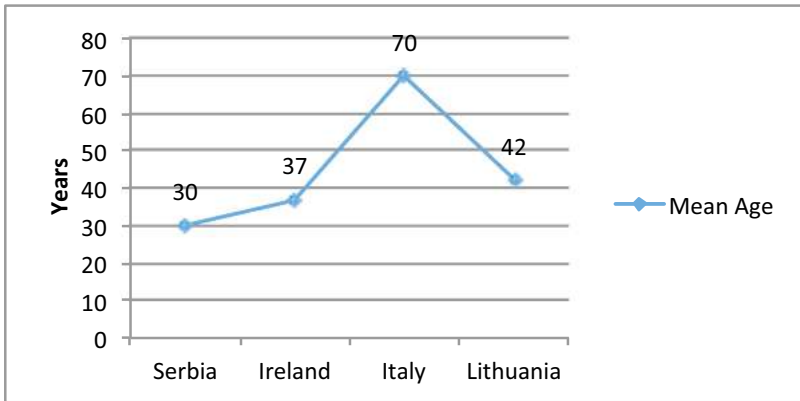
Diagram 27: Number of fatal overdoses (per million population) from the use of prescription drugs (psychotropic drugs) in the last year (by ICD-10 codes X41 and X61 – primary cause of death), by gender



Note: Data not available for all participating countries.

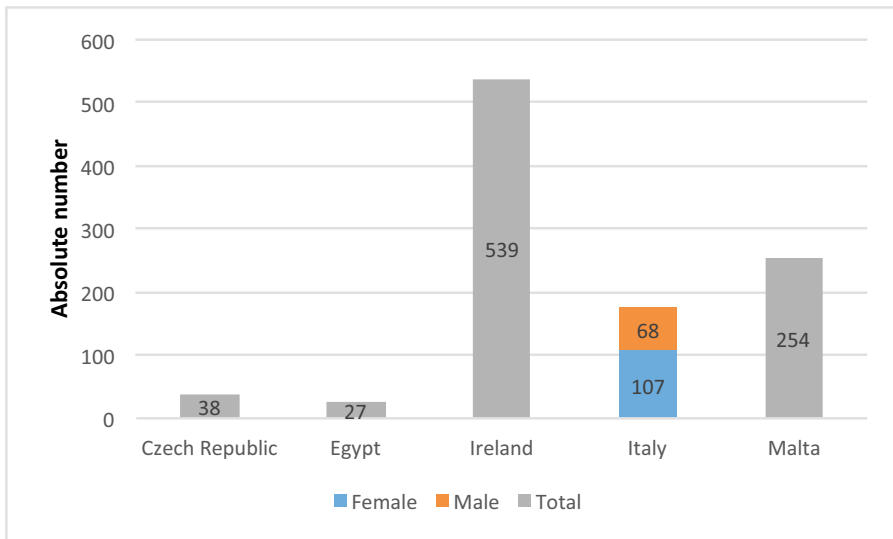
In Germany and Serbia, the number of fatal overdoses related to the use of psychotropics is higher for women than men. This, together with the number of emergency hospital visits, is an important, but under-reported, indicator.

Diagram 28: Mean age of fatal overdoses by NMUPD



Note: Data not available for all participating countries.

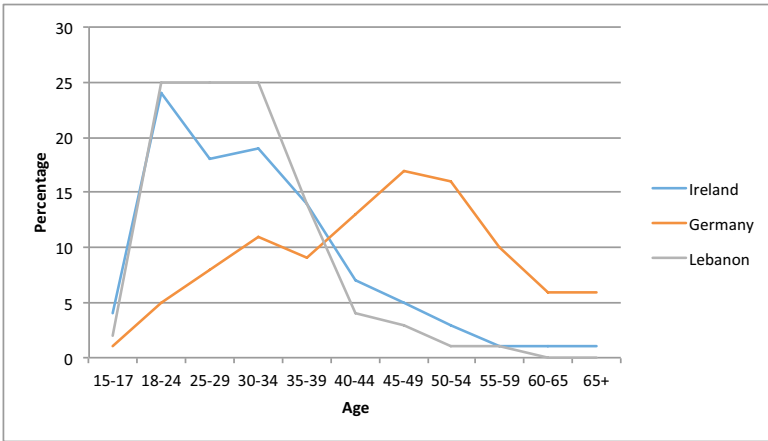
Diagram 29: Number of non-fatal overdoses (per million population) from the use of psychotropic prescription drugs in the last year by gender



Note: Only Italy was able to provide a breakdown of the data by gender. Data not available for all participating countries.

Treatment data

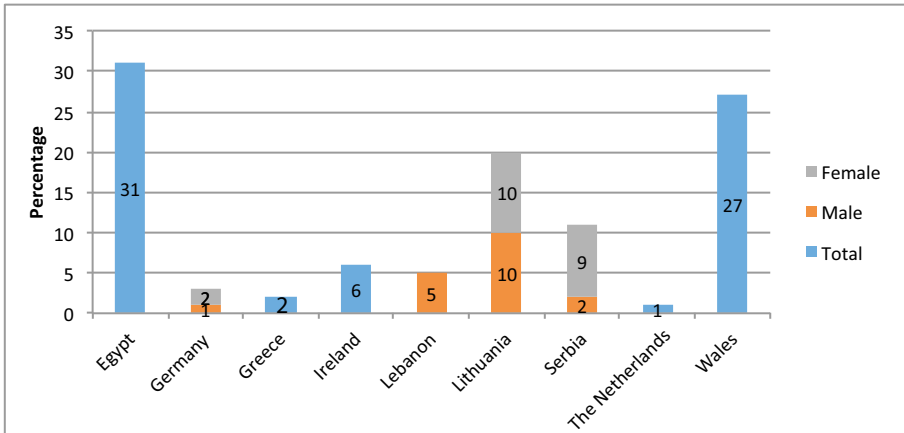
Diagram 30: At assessment, percentage of clients presenting for treatment with NMUPD by age



Note: Data not available for all participating countries.

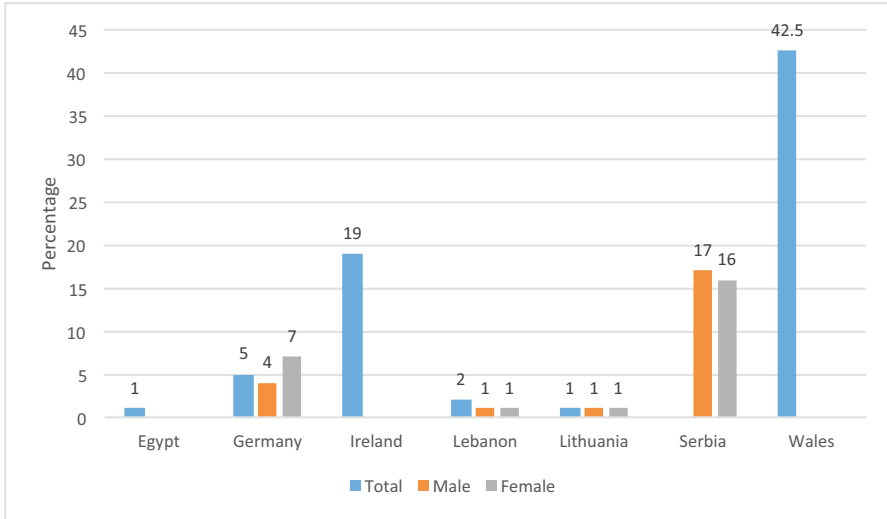
France, the Czech Republic and Egypt reported using different age ranges so their data cannot be included in Diagram 30.

Diagram 31: At assessment, percentage of clients presenting for treatment with psychotropic prescription drugs as a primary drug by gender



Note: Data not available for all participating countries.

Diagram 32: At assessment, percentage of clients presenting for treatment with psychotropic prescription drugs in conjunction with the use of other substances, including alcohol, by gender



Note: Data not available for all participating countries.

The PG was the first international group to define a common protocol for collecting data on people entering treatment for drug abuse, known as the Treatment Demand Indicator (TDI). The TDI is widely recognised as an instrument for collecting and reporting data on patients entering treatment for their drug abuse across Europe and as an indirect indicator of the sort of individuals that are potentially in need of treatment for drug abuse. The TDI protocol prescribes which clients should be reported at European level, and the minimum common set of data each national monitoring system must record and report to the EMCDDA for each patient. National drug treatment monitoring systems may include more data than those defined in the TDI protocol, according to national and local requirements.

Treatment data are an important source of information on NMUPD. Studies in the USA and elsewhere have shown that an increasing number of individuals are presenting with drug-abuse disorders as a result of NMUPD.

Registration of prescriptions

Table 16: Countries with a system in place to register the number of prescriptions for psychotropic drugs

Yes	No
Egypt	Cyprus
France	Czech Republic
Germany	Israel
Greece	Lebanon
Italy	Lithuania

Yes	No
Ireland	Malta
UK (Wales only)	Morocco
	Serbia
	The Netherlands

Note: In Ireland only public prescriptions are registered.

Studies of NMUPD

The expert respondents were asked to provide a reference list of key published studies of NMUPD in their countries and to highlight the most salient findings. This has resulted in an impressive reference list on this subject which is an important resource for further research. The works listed below are not listed again in the reference list at the end of this report.

Czech Republic

Běláčková V. et al. (2012), *General Population Survey on Substance Use in the Czech Republic*, Úřad vlády České republiky, Prague.

Csémy L., Chomynová P. and Sadílek P. (2009), *Evropská školní studie o alkoholu a jiných drogách (ESPAD) Výsledky průzkumu v České republice v r. 2007*, Úřad vlády České republiky, Prague.

Miovský M. (2007), "Changing patterns of drug use in the Czech Republic during the post-communist era: a qualitative study", *Journal of Drug Issues*, 37(1), pp. 73-102.

Mravčík V., Nechanská B. and St'astná L. (2011), "Residential care for substance users and addicts in the Czech Republic according to the health statistics since 1959", *Epidemiol Mikrobiol Imunol*, 60(1), pp. 21-31.

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Nechanská B., Mravčík V. and Popov P. (2012), *Misuse of psychoactive medicines in the Czech Republic – identification and analysis of data sources*, Úřad vlády ČR, ISBN 978-80-7440-073-5.

Egypt

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El-Sawy H., Hay M. A. and Badawy, A. (2010), "Gender differences in risks and pattern of drug abuse in Egypt", *Egyptian Journal of Neurology, Psychiatry and Neurosurgery*, 47(3), pp. 413-8.

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Mohy K. et al. (2011), "2011 Annual Report of the Poison Control Centre of Ain Shams University Hospital, Cairo, Egypt", *Ain Shams Journal of Forensic Medicine and Clinical Toxicology*, 20, pp. 10-7.

SouEIF, M. (1994), *The Extent and Pattern of Drug Use among Students and Working-Class Men in Egypt*, The National Center for Social and Criminological Research, Cairo.

France

Anon (2010), *Social determinants of health and well-being among young people*, Health Behaviour in School-aged Children study: international report from the 2009/2010 survey, available at: www.euro.who.int.

Anon (2011), *The 2011 ESPAD Report: Substance Use Among Students in 36 European Countries*, available at: www.espad.org, p. 366.

Anon (2012), "Les drogues à 17 ans, premiers résultats de l'enquête ESCAPAD2011", *Tendances*, no. 79, OFDT, Paris.

Beck F. et al. (2014), "Les consommations de médicaments psychotropes en France", *La Santé en action*, Mars 2014, nos. 427, 47-9 (Baromètre santé 2010).

Chan-Chee C. et al. (2011), "Hospitalisations pour tentatives de suicide entre 2004 et 2007 en France métropolitaine", *Bulletin Épidémiologique Hebdomadaire*, nos. 47-48 (2).

INSERM (2012), *Médicaments psychotropes, consommation et pharmacodépendance*, Editions INSERM, Paris.

Jauffret-Roustide M. et al. (2013), "Estimation de la séroprévalence du VIH et de l'hépatite C chez les usagers de drogues en France – Premiers résultats de l'enquête ANRS-Coquelicot 2011", *Bulletin Épidémiologique Hebdomadaire* nos. 39-40, available at: www.invs.sante.fr/beh/2013.

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Germany

Bacha J., Reast S. and Pearlstone A. (2010), "Treatment practices and perceived challenges for European physicians treating opioid dependence". *Heroin Addict Rel Clin Probl* 2010, 12, pp. 9-19.

Casati A., Piontek D. and Pfeiffer-Gerschel T. (2014), "Patterns of non-compliant buprenorphine, levomethadone, and methadone use among opioid dependent persons in treatment", *Substance Abuse Treatment, Prevention, and Policy*, 9, p. 19.

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Stafford N. (2010), "At least 25% of elderly residents of German nursing homes are addicted to psychotropic drugs, report claims". *British Medical Journal* 2010, 340.

Greece

Fotiou A., Kanavou E., Richardson C., Ploumpidis D. and Kokkevi A. (in press), "Misuse of prescription opioid analgesics among adolescents in Greece: the importance of peer use and past prescriptions", *Drugs: Education, Prevention & Policy*.

Kokkevi A. et al. (2007), "Drug use in the general population of Greece over the last 20 years: results from nationwide household surveys" *European Addiction Research*, 13(3), pp. 167-76.

Ireland

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Flynn K. (2009), *Minor Tranquillisers and Sedatives Use and Misuse in the West of Ireland*. Galway: Western Region Drugs Task Force. Available at www.drugsandalcohol.ie/11506/

Griffin E. et al. (2013), *National Registry of Deliberate Self Harm Annual Report 2012*, National Suicide Research Foundation, Cork, available at: www.drugsandalcohol.ie/20507/

Martyn M. (2012), *Drug and alcohol misuse among adult offenders. Findings from the drugs and alcohol survey 2011*, Probation Service, Meath, available at: www.drugsandalcohol.ie/18746/

O’Gorman A. et al. (2013), *An analysis of current licit and illicit drug use patterns in the Finglas-Cabra local drugs task force area*. Finglas/Cabra Local Drugs Task Force, Dublin, available at: www.drugsandalcohol.ie/20723/

Quigley P. et al. (2006), “Socioeconomic influences on benzodiazepine consumption in an Irish region”. *European Addiction Research*, 12(3), 145-150. Available at www.drugsandalcohol.ie/6787/

Israel

Bentur Y. et al. (2010), “Pediatric poisonings in Israel: National Poison Center data”, *Israeli Medical Association Journal*, 12 (9), pp. 554-9.

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Ponizovsky A. M., Marom E. and Fitoussi I. (2014), “Trends in attention deficit hyperactivity disorder drugs consumption, Israel, 2005-2012”, *Pharmacoepidemiol Drug Safety*, 23(5), pp. 34-8.

Vinker S., Vinker R. and Elhayany A. (2006), “Prevalence of methylphenidate use among Israeli children: 1998-2004”, *Clinical Drug Investigation*, 26(3), pp. 161-7.

Malta

Ellul Darmanin R. et al. (2009), “An analysis of gender differences in self-reported health, use of medicines and access to information sources about medicines among adolescents”, *International Journal of Adolescent Medical Health*, vol. 4, pp. 591-600.

National Report on the Drug Situation in Malta 2012, Maltese National Focal Point.

Use of Licit and Illicit Drugs in Malta 2013, A GPS among 18-65 year-olds.

Morocco

Drug Misuse and Treatment in Morocco, available at: www.uom.ac.mu.

Usage de drogues en milieu scolaire Marocain Rapport MedSPAD 2009-2010, available at: www.coe.int.

Serbia

Institute of Public Health of Serbia (2000), *Health need, health status and use of health care in Serbia*.

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Institute of Public Health of Serbia (2010), Morbidity report from on specific request, unpublished.

Institute of Public Health of Serbia (2010). Report on IPH activities within National Program for Drug Prevention, unpublished.

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Molnar I. (2013), *Colored City: Recreational drug use in Belgrade*, available at: http://drogriporter.hu/en/serbian_party_scene_drug_use_Belgrade.

National Strategy for the Fight against Drug Abuse for 2009-2013, published in the Official Gazette of the Republic of Serbia No. 16/09. Professional Ethics Codex, published in the Official Gazette of the Republic of Serbia, No. 1/06.

Raketić D. et al. (2013), "Women and addiction (alcohol and opiates): comparative analysis of psychosocial aspects", *Srpski Arhiv za Celokupno Lekarstvo*, 141(9-10), pp. 648-52.

Ministry of Health (2008), Survey among population most at risk of HIV and among people living with HIV, Belgrade, available at: www.batut.org.rs/download/publikacije/istrazivanje2008.pdf.

Ministry of Health (2010), Survey among population most at risk of HIV and among people living with HIV, Belgrade, available at: www.batut.org.rs/download/publikacije/istrazivanje2010.pdf.

Ministry of Health (2012), Survey among the population most at risk of HIV, Belgrade, available at: www.batut.org.rs/download/publikacije/Istrazivanje%20medju%20populacijama%20pod%20povecanim%20rizikom%20od%20HIV-a.pdf National Health Survey, 2006.

The health of the population of Serbia – analytical study 1997-2007 (2008), Belgrade.

The Netherlands

Ganpad S., Kleinjan M. and Van de Mheen D. (2009), *Inappropriate medication use among Dutch youth: Nature and scope*. IVO: Rotterdam.

Hibell B. et al. (2012), *The 2011 ESPAD report: Substances use among students in 36 European countries*, CAN, Stockholm.

Nabben T., Benschop A. and Korf D. J. (2012), *Antenne 2011: Trends in alcohol, tobacco and drugs among young Amsterdam people*, Rozenberg Publishers, Amsterdam.

Stichting Farmaceutische Kengetallen [Foundation for Pharmaceutical Statistics] (2011), *Data and facts 2011: the year 2010 in statistics*, SFK, The Hague.

Stichting Farmaceutische Kengetallen [Foundation for Pharmaceutical Statistics] (2012), *Data and facts 2012: the year 2011 in statistics*, SFK, The Hague.

Van Rooij A. J., Schoenmakers T. M. and Van de Mheen D. (2011), *National Prevalence Study Substance Use 2009: Core Statistics 2009*, IVO, Rotterdam.

The studies listed above present some interesting insights:

In Egypt, there has been a reported alarming increase in the number of Tramadol overdoses: from 386 in 2009 to 760 in 2010, to 1 595 in 2011. There has been a fall in the average age of the first NMUPD among men, and the number of women reporting NMUPD has risen. There was an increase in the number of men with strenuous manual jobs abusing Tramadol. Many men who practise NMUPD say they were motivated to start by a desire to improve their sexual performance. More women than men start NMUPD to cope with pain, stress, marital problems and psychiatric disorders or symptoms.

In France, in the study by Beck et al. (2014), 59.3% of benzodiazepine users are women. The median age of male users is 47, compared to 49 for women. Almost 20% of women use benzodiazepine tranquillisers between the ages of 30 and 40 and almost 33% between the ages of 70 and 75. This increase is lower among men, with 10% of men using benzodiazepine tranquillisers between the ages of 30 and 40, and less than 15% between the ages of 70 and 75. An analysis of the hospital admissions database reveals that, in metropolitan France between 2004 and 2007, a total of 359 619 admissions were made for 279 843 different patients to medical and surgical wards following suicide attempts, which works out at approximately 90 000 admissions of 70 000 different patients per year. Over the four years studied, 84.1% of the patients were admitted once, and 15.9% were admitted several times following suicide attempts. Women represented a steady 65% of these admissions. The most frequent method used to attempt suicide was self-administration of drugs: this represented 79% of all the attempted suicides resulting in hospital admissions, which works out at between 67 000 and 79 000 hospital admissions per year. The number of hospital admissions following suicide attempts was 16.9 per 10 000 inhabitants (12.4 per 10 000 men and 21.2 per 10 000 women). Women aged between 15 and 19 were the group with the highest rate of attempted suicide (43 per 10 000). The rate for girls under 14 was around 14 per 10 000 and for women aged between 40 and 41 it was 31 per 10 000.

In Germany, Bacha et al. (2010) investigated opioid dependence treatment using an online questionnaire sent to 300 physicians and found that the mean methadone and

buprenorphine maintenance doses were markedly sub-therapeutic and that 72% of the physicians reported that buprenorphine and methadone abuse among their patients was a significant problem. Casati et al. (2014) explored the abuse of opioid-substitution treatment drugs among 595 opioid addicts in treatment and found differential patterns of non-compliant buprenorphine, levomethadone and methadone use compared with parallel consumption with other substances, intravenous use, procurement through prescriptions and reasons for use. Fach et al. (2007) screened 952 general hospital patients and found that 1.3% of them were addicted to painkillers. Kufner et al. (2008) investigated drug abuse among patients attending outpatient treatment facilities and found that 14.3% of alcoholics and 12.2% of sedative or hypnotic drug addicts also abused painkillers. Reimer et al. (2011) investigated the non-compliant use of opioid-substitution treatment drugs by opioid addicts in and out of treatment, and found that those in treatment used them in a more compliant manner and were less likely to use illegal drugs. Scherbaum et al. (2005) investigated 142 opioid addicts who had been admitted to a detoxification ward, and found that 53.5% of them abused medical opiates, especially methadone. Stafford (2010) found that approximately 25% of nursing-home residents over the age of 70 were addicted to psychotropic drugs. Between 1.7m and 2.8m Germans aged over 60 abuse psychotropic drugs or painkillers or are addicted to them. Glaeske (2012) summarised the distribution of prescription drugs in Germany and their associated costs. He also explored benzodiazepine, tilidine and Tramadol abuse and addiction in Germany.

In **Greece**, Kokkevi et al. (2008) examined the prevalence, patterns and correlates of non-medical use of tranquillisers and sedatives in 85 000 adolescent students from 31 European countries in 2003. Their results showed that lifetime non-medical tranquilliser or sedative use was reported by 5.6% of respondents overall. Medical tranquilliser or sedative use multiplied the chances of non-medical use by 10.7 for boys and by 7.2 for girls. Non-medical tranquilliser or sedative use was also associated with the use of tobacco, alcohol and illegal drugs. Further correlates were school absenteeism, tranquilliser or sedative use by friends and siblings, and dissatisfaction with relationships with parents. Medical tranquilliser or sedative use shared the same correlates to a large extent. Their findings indicated similarities in adolescent tranquilliser or sedative use in Europe and the USA. Kokkevi et al. (2007) in "Drug use in the general population of Greece over the last 20 years: results from nationwide household surveys" present the evolution of the drug-abuse epidemic in Greece over a 20-year period, taking into account the socio-cultural context and government policies. After a large increase in lifetime illegal drug use from 4% of the population in 1984 to 12.2% in 1998, the phenomenon seems to have taken a downward turn, falling to 8.6% in 2004. The incidence of illegal drug use remained unchanged between 1998 and 2004 among adolescents, it declined among young adults (aged between 18 and 24) and it dropped sharply among older people. Cannabis accounts for almost all the illegal drug use; other illegal drugs had lifetime use figures of below 1%. The large gender differences in illegal drug use had narrowed over the years, especially among younger people, although men remain far more heavily involved in illegal drug use than women. Lifetime NMUPD has decreased markedly over the last 20 years (from 13.5% to 9.1%) as a result of a stricter policy on prescribing. A narrowing of gender differences had also been observed in NMUPD, although women continued to outnumber men.

In Ireland, Apantaku-Olajide et al. (2013) examined the non-medical use of seven categories of psychotropic prescription drugs in a clinical sample of Irish adolescents with drug-abuse disorders, over a three-month period. The sample consisted largely (76%) of boys. There were no significant differences in age and gender between respondents and non-respondents. Among respondents, 68% reported lifetime NMUPD. The mean number of prescription drugs used non-medically was 2.3. The mean age of the lifetime non-medical users was 16.7 years, and the mean age of medical users and non-users was 15.4 years. No significant differences existed between the non-medical users and the other categories of user with respect to gender. The most commonly used prescription drugs by the “diverted user group” (those who used prescription drugs without a doctor’s prescription) were sedative and anti-anxiety drugs (62%), followed by sleeping pills (hypnotics) (43%), opioid painkillers (19%), anti-psychotics (13%), anti-depressants (11%), stimulants (8%) and anabolic steroids (2%). All the lifetime non-medical users gave more than one readily available source: friends (76%), street-level drug dealers (40%), theft (17%) and family members (7%). None reported buying prescription drugs online. The authors comment that, although general population samples of Irish teenagers indicate lower-than-average rates of prescription-drug abuse, these rates appear to be high among the subset of teenagers who abuse illegal drugs. The authors also report that they found “no gender or substance use differences among those who reported abuse of prescription drugs.” However, they acknowledge that their report had very “modest power” to detect gender differences in these rates. With regard to opioid painkillers, the authors suspect that most of the reported abuse related to over-the-counter drugs as opposed to more potent opioid painkillers only available on prescription. Corcoran et al. (2013) investigated patients who took intentional drug overdoses (IDOs) with current prescriptions and those that used their medicines to overdose. Most of the IDOs were by women (59.9%), and the most common category of drugs used in IDOs by women was tranquillisers (45%), followed by paracetamol (28.7%), selective serotonin re-uptake inhibitors and other painkillers (both 16.4%). The prescription of psychotropic drugs was associated with the use of these drugs in IDOs. Having a prescription for a tranquilliser increased the risk of using prescribed psychotropic drugs in IDOs, even when other factors were taken into account.

Griffin et al. (2013) conducted a study based on data collected from patients presenting as emergencies at hospitals as a result of deliberate self-harm in 2012 in the Republic of Ireland. Drug overdose was the most common type of self-harm, involved in 69% of all self-harm registered in 2012, and more frequent among women (75%) than men (62%). The peak rates for self-harm were among women aged between 15 and 19 and men aged between 20 and 24. Drug overdose also accounted for a higher proportion of self-harm in the older age groups, in particular for women. Of all overdoses, 41% involved a “minor tranquilliser” (defined by the National Suicide Research Foundation (NSRF) as “primarily drugs used to treat anxiety disorders, and mainly made up of benzodiazepines, the most common drug types in this group being Valium [Diazepam], Xanax, Zimovane, Dalmane and Stilnoct”) and these drugs were used significantly more often by men than by women. A “major tranquilliser” was involved in 10% of overdoses. Paracetamol was the most common painkiller taken, being involved in some form in 28% of drug overdoses. It was used significantly more often by women (32%) than by men (22%). More than one in five (22%) IDOs involved an anti-depressant

or mood stabiliser. The group of anti-depressant drugs known as selective serotonin re-uptake inhibitors were used in 13% of overdoses. Street drugs were involved in 9% of male and 3% of female IDOs. "Other prescribed drugs" were taken in more than one in four (27%) of all overdoses, which reflects the wide range of drugs taken in IDOs. O'Gorman et al. (2013) studied current patterns of legal and illegal drug use in an area of socio-economic deprivation with a pattern of drug use higher than the national average. According to the authors, two thirds of those encountered were male, reflecting the "gendered pattern of public space". With regard to the taking of prescription and over-the-counter drugs, the authors reported widespread availability and affordability of "tablets", which were used, along with alcohol, by all drug-user groups.

The Drugs and Alcohol Survey 2011, conducted by the Probation Service, was the first large-scale, nationwide survey among the adult offender population on probation supervision. The main objectives of the study were: to ascertain the number of adult offenders on probation supervision who abused drugs and/or alcohol; to examine the nature and frequency of drug and alcohol abuse; to establish if there was a correlation between drug and/or alcohol misuse and offending; and to identify the level and nature of engagement with drug and alcohol treatment services. Key findings include: 89% of the adult offender population on probation supervision had abused drugs or alcohol either "currently" (at the time of the survey) or "in the past". While women comprised only 12% of the adult offender population, both male and female adult offenders exhibited similar levels of drug and alcohol abuse. The Dublin probation region exhibited the highest level of overall abuse among its offender population (91%). The majority of abusers of prescribed drugs were men aged between 18 and 34 (72.6%). However, 10% of these abusers were women aged between 25 and 34. The Dublin region had the proportionally highest levels of current opiate misuse, current prescription-drug abuse and current stimulant abuse. Flynn (2009) focused on the abuse of benzodiazepines and non-benzodiazepine hypnotics. He found that 89 721 individuals were prescribed minor tranquillisers and sedatives between 2000 and 2007; 58% were women and 42% men, with 80% being holders of Health Service Executive medical cards. Over 54% of the individuals prescribed minor tranquillisers and sedatives were over the age of 65. Of that category, 62% were women and 38% men. In summary, the findings of the study indicated that women, older people and people on low incomes were over-represented in the averages, while men and people on higher incomes were correspondingly under-represented. Quigley et al. (2006) examined the prescribing of diazepam in disadvantaged Irish communities, and identified factors which may predict diazepam use in that population. Results showed that patients living in the most deprived areas were more likely to be prescribed diazepam than patients living in the least deprived areas. Female patients living in the most deprived areas were also more likely to be prescribed diazepam than those living in the least deprived areas. The study concluded that there was a pattern of higher diazepam prescribing in areas of greatest deprivation, where prescription sedatives play a complex role within troubled families. Ballymun Youth Action Project (2004) examined the problem of benzodiazepine use in Ballymun, an area of Dublin characterised by "significant socio-economic disadvantage". The findings suggested that benzodiazepine prescribing in Ballymun was notably higher than the national average. The research also identified elements of a relationship between socio-economic disadvantage and benzodiazepine use, and suggested a

clear gender bias in their prescribing: women were prescribed almost two thirds of all of this type of drug prescribed in the area. The authors found there was a significant supply of benzodiazepines, which appeared to originate from prescriptions.

In Israel, there was an increase in the prevalence of methylphenidate prescriptions from 4.2% in 2007 to 7.5% in 2011. Jewish children were four times more likely to be prescribed the drug than Arab children. Higher socio-economic status and the male gender were associated with greater use of the drug. General pediatric prescription rates of methylphenidate in all communities increased by 85% between 2007 and 2011. Consumption of all ADHD drugs covered by Israel’s national health-care system doubled between 2007 and 2011. The overall 1-year prevalence rate of methylphenidate use in children aged under 18 increased from 0.7% in 1998 to 2.5% in 2004. In 1998, the rate of methylphenidate prescription ranged from 0.2% among schoolgirls to 1.2% among schoolboys, a 6-fold gender difference. In 2004, the rate of methylphenidate prescription ranged from 1.1% among schoolgirls to 3.8% among schoolboys; the gender difference had narrowed to only 3.45. Except for kindergarten girls, methylphenidate use increased for all ages from kindergarten to high school, both among boys and girls. A total of 15 005 pediatric poison exposures were recorded in 2007. Among adolescents, most exposures were intentional (49.3%, of which 38.2% were suicides). The most common substances used were acetaminophen, methylphenidate, non-steroidal anti-inflammatory drugs, atropine and ethanol. Consumption of the five strong opioids (requiring a special prescription form) increased by 47% between 2000 and 2008. The consumption of anxiolytics in most Middle Eastern countries increased in this period, and the highest levels were reached in Cyprus and Israel. Consumption of benzodiazepines more than doubled in Israel between 1999 and 2009. Israel is the leading consumer of narcotics in the Middle East and the 23rd-largest consumer in the world. Between 1999 and 2009, oxycodone and methadone consumption levels increased moderately, and buprenorphine and dextropropoxyphene consumption rose drastically, whereas consumption of morphine, pethidine and codeine fell significantly.

National policy documents

Table 17: NMUPD and national policy documents

	Issue of NMUPD addressed in country's national policy documents
Cyprus	Yes
Czech Republic	Yes
Egypt	Yes
France	Yes
Germany	Yes
Greece	No
Ireland	Yes
Israel	No
Italy	No

	Issue of NMUPD addressed in country's national policy documents
Lebanon	Yes
Lithuania	Yes
Malta	Yes
Morocco	Yes
Serbia	Yes
The Netherlands	No
Tunisia	No
UK (Wales only)	Yes

Table 18 documents how NMUPD is addressed in the national policies of the participating countries and documents whether or not the policies make specific reference to gender issues.

Table 18: Policy document details

Cyprus	The National Strategy on Illicit Drugs and the Harmful Use of Alcohol 2013-2020 focuses on dealing with addiction and dependence in general, without mentioning specific substances. NMUPD is therefore a part of the strategy. Although there are no gender-specific actions to be implemented, the Cyprus Anti-drugs Council (CAC) established co-operation with the Pharmaceutical Services of the Ministry of Health to create a monitoring mechanism for prescription drugs and a mechanism for monitoring and improving prescribing practice. In addition, within the framework of this co-operation, a committee was established which is reviewing the UNODC and WHO suggestions with the aim of incorporating them in drug-prescription practice.
Czech Republic	National Drugs Action Plan 2013-2015 – the key objective is an integrated drug policy, which seeks to provide a comprehensive solution to the issue of both legal and illegal drugs. The activities mentioned in the chapters on prevention, treatment, monitoring and research with reference to legal drugs (including NMUPD) were incorporated into the individual intervention areas, in line with the principle of policy integration.
Egypt	Following the Anti-Narcotics General Administration (ANGA) 2004 report, and the provisions of Article 12 of the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, the Egyptian government nominated (1) The Ministry of Health and Population (Central Administration for Pharmaceutical Affairs – Narcotics Section) and (2) The Ministry of Interior (Anti-Narcotics General Administration) to create a national authority to implement national control on precursors and chemicals, to issue import and export permits, to control distribution and to prevent the supply of illegal drugs.

France	<p>There is no national policy document in France, but some reports have included recommendations for national policy. These reports are: “Le bon usage des médicaments psychotropes pour le compte de l’Office Parlementaire d’Evaluation des Politiques de Santé” by the National Assembly and Senate (2006) and “Médicaments psychotropes, consommation et pharmacodépendance” published by the Institut national de la santé et de la recherche médicale (INSERM) in 2012.</p> <p>The Government Plan to tackle addictive behaviour 2013-2017 mentions some policies on prescription drugs, and the Government Action Plan 2013-2015 includes some concrete measures to implement the 2013-2017 plan, but this issue is not at all a priority. For instance, female drug addicts are mentioned as a vulnerable and targeted group in the introduction to the plan, but without any further development.</p> <p>NMUPD is mentioned in the following topics, either very specifically or very broadly:</p> <ul style="list-style-type: none"> – Misuse of toxic prescription drugs (in part 1 of the government plan) – Trafficking and diversion of prescription drugs in prison (part 2) – Drug trafficking and co-dependence in French Overseas Territories (part 2). These geographical regions are targeted in action no. 59 of the action plan – Use of performance-enhancing” drugs in specific population groups: amateur athletes, school pupils, university students (part 3). Actions nos. 90, 91 and 92 deal with the issue of making the prescription and dispensing process more secure for these drugs. CNS stimulants are not mentioned here. – Develop observatories for the consumption and trafficking of prescription drugs (part 5)
Germany	<p>The current German national strategy on drugs and dependence policy (<i>Nationale Strategie zur Drogen- und Suchtpolitik</i>) addresses alcohol, tobacco, prescription-drug abuse, illegal drugs and gambling. It has four main goals regarding prescription-drug abuse and dependence: 1: To improve scientific knowledge and data on neuro-enhancement and to develop prevention measures against prescription-drug abuse that target specific groups. 2: To improve information available to pharmacists on prescription-drug abuse and dependence. 3: To improve the compliance of physicians with regulations for the prescription of psychotropic prescription drugs. 4: To strengthen early-warning and early-intervention efforts to reduce dependence on prescription drugs, especially among the elderly. The national strategy does not mention policies to address specific gender issues.</p>

Ireland	<p>1. The National Advisory Committee on Drugs and Alcohol (NACDA) is tasked with actions under the National Substance Misuse Strategy 2009-2016. Its function is to provide advice to government on the issue of substance misuse in Ireland based on research findings and other information available to it. NACDA carries out research into the use of a wide range of legal and illegal drug use in Ireland in its Drug Use in Ireland and Northern Ireland: Drug Prevalence Survey. This survey provides prevalence rates for key illegal drugs, prescription drugs (including sedatives or tranquillisers and anti-depressants), on a lifetime (ever used), last year (used in last 12 months) and last month (used in last 30 days) basis.</p> <p>2. The National Drugs Strategy 2009-2016 notes the statistics relating to deaths arising not only from illegal drugs but also from legal substances including prescription and over-the-counter drugs; the fact that work on a National Overdose Prevention Strategy has begun; that concerns continue with regard to the over-supply and over-use of benzodiazepines and that further action is needed with regard to regulation and monitoring, and the implementation of clinical guidelines; and finally that, while the monitoring of prescribing to patients under the HSE medical card scheme has been improved, the monitoring of private prescribing has proved more problematic and needs to be addressed. Furthermore in this document, there is a stated commitment to take actions which focus on reducing the number of drug-related deaths and near-fatal drug poisonings.</p> <p>In some jurisdictions, such as the UK, Patient Group Directions permit the supply or administration of prescription drugs to a category of unnamed individuals who meet specified requirements, in contrast to prescriptions, which require the patient's name. Irish medicines legislation contains a provision which has been used to allow Patient Group Directions within the Irish health service. However, in 2011, questions were raised about the legality of Patient Group Directions under Irish law. A review of the relevant legislation is currently under way to look at new arrangements for the supply and administration of certain emergency prescription drugs, including naloxone. The review will explore the feasibility of putting in place protocols similar to those in place for pre-hospital emergency-care personnel, for other categories of persons to supply and administer naloxone under certain conditions. The Department of Health hoped to complete this review, which will include a consultative process involving all the relevant stakeholders, by the end of 2014. The Misuse of Drugs Act is currently being reviewed with the intention of introducing additional possession, prescription and dispensing controls on benzodiazepines and "z-drugs", which are the main prescription drugs being sold illegally in Ireland and which are increasingly implicated in adverse events.</p>
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Lithuania	<p>Since 2011, the Lithuanian policy of prevention of drug addiction and drug control has been implemented, based on the National Programme on Drug Control and Prevention of Drug Addiction 2010-2016, which was adopted by the Parliament of the Republic of Lithuania on 4 November 2010. The goal of the programme is to impede and reduce demand for, and supply of, illegal drugs and psychotropic substances and their precursors and to prevent the spread of drug addiction through the strengthening of individual and public education, health and safety. The non-medical use of prescription drugs containing narcotic and psychotropic substances is therefore a part of the Lithuanian Health Programme 2014-2025, which was adopted by the Parliament of the Republic of Lithuania on 26 June 2014 and which focuses on dealing with addiction and dependence in general, without mentioning specific substances.</p>
Malta	<p>Action 21: (from the National Drug Policy 2008) "In order to actively involve civil society in the national efforts to reduce supply and demand for illegal drugs and prescription and non-prescription drugs for misuse, the Government shall, through its entities including Sedqa, the Health Promotion Department, Health Centres, together with Youth Organisations, Professional Bodies, Local Councils, employers and trade unions, voluntary and private organisations, Parishes and the media, ensure that effective education campaigns are conducted to further disseminate information, raise awareness and educate the public in general and vulnerable groups in particular about: (a) the misuse/abuse of prescription and non-prescription medication and the physical, social, psychological and emotional effect that such misuse/abuse has on users, their significant others and the community at large; (b) the various types of illicit drugs and their effect on users, on their significant others and on the community at large; (c) the availability of professional services designed to promote the prevention of illicit drug use and misuse/ abuse of prescription and non-prescription medication and to facilitate the rehabilitation and reintegration/integration of drug users; (d) the role that society should play to promote a healthy lifestyle, prevent the use of illicit drugs and misuse/abuse of prescription and non-prescription medication, facilitate the integration of rehabilitated drug misusers and help them avert relapse; and (e) the benefits of suppressing the supply of and demand for drugs with a view to ideally eliminate the use of illicit drugs and misuse/abuse of prescription and non-prescription medication".</p>
Morocco	<p><i>Programme National de Lutte contre la Toxicomanie</i> (National programme to Fight Drug Addiction) of the Ministry of Health, details available at: srvweb.sante.gov.ma</p>
Serbia	<p>National Strategy for Drugs, 2014-2021.</p>

UK (Wales only)	The Welsh government's substance-misuse strategy "Working Together to Reduce Harm" 2008-2018 makes references to: the increase in misuse of prescription medicines among women who are victims of domestic abuse; the misuse of prescription-only medicines, particularly anabolic steroids, primarily among males; and the misuse of benzodiazepines.
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Table 19 documents the difficulties the experts encountered in the completion of the questionnaire and is a good indicator of why some data may appear to be missing for some countries.

Table 19: Difficulties experts encountered in the completion of the questionnaire

Cyprus	In the GPSs, there is no separation between medical and non-medical use of prescription drugs, so we were unable to answer many questions referring to the prevalence of medical and non-medical use of prescription drugs.
Czech Republic	There was not enough space for additional comments and explanations, especially in sections C, D and E.
Egypt	There is a lack of studies on gender issues in NMUPD. Most of the drugs used in NMUPD are obtained illegally, so data from the register of drugs do not represent the scale of the problem.
France	<p>1) The data available in France often do not match the questions in the questionnaire: Section A: The main French healthcare GPS is only about the medical use of prescription drugs and not NMUPD. The studies of NMUPD were of specific groups, such as drug users, and focus on toxic prescription drugs. In these studies, gender-distribution data was often not available. Section B: Two main studies explored the use of psychotropics among young people: ESPAD (among schoolchildren) and ESCAPAD, among 17-year-old volunteers on National Defence Day. ESCAPAD asked about the use of psychotropics (taken with or without a prescription) and gives a distribution by class of narcotic drugs. ESPAD explores the non-medical use of psychotropics and does not give a distribution by class of narcotic drugs. For this reason, we chose to present ESCAPAD as the main study in France, and to add the available data from ESPAD in the second part of the section, as another study of the non-medical use of psychotropics. Section C: The treatment data come from the RECAP Study conducted by the <i>Observatoire Français des Drogues et des Toxicomanies</i> (OFDT) in treatment centres for drug users. The distribution between different classes of narcotic drugs does not allow us to distinguish prescription drugs. Thus the data available are on the opioid, cocaine and "other substance" group.</p> <p>2) Some data are not published and not available: Sections C and F: the data required in some sections are not yet published. There was not enough time available before the deadline to extract these data, so we were unable to provide answers in these sections.</p>

Germany	<p>In the GPS among adults, no distinction is made between opioid and non-opioid painkillers, nor between over-the-counter and prescription drugs. The question of whether drugs were prescribed by a medical doctor or not was only asked of those people who indicated having used substances within the past 30 days. There was no information available on NMUPD as defined in this survey, only information on the prevalence of misuse and dependence according to DSM-IV (for painkillers, hypnotics and sedatives), which we have not reported, but which we could report if requested. For adolescents, information was only available for sedatives or tranquillisers. For lifetime treatment, information was only available on sedatives and hypnotics. The figures reported for NMUPD are prevalences of ICD-10 diagnoses of “harmful use or dependence” (F13).</p>
Greece	<ol style="list-style-type: none"> 1. Data for several indicators (e.g. emergency departments, registered prescriptions) may not have been collected in a systematic way. 2. Other data are not readily available (e.g. in public databases or in scientific publications) and require the obtaining of special permission for access. 3. Other data (e.g. on prevalence of use) may be publicly available but do not match the response categories of the questionnaire (e.g. 36-37) and require additional analyses which are subject to the special rules and resource capacities of the research institutes that hold the data.
Ireland	<p>Section A: The data provided in response to questions 8-17 include both medical and non-medical use of prescription drugs. It is not possible to break down the published data in the general population drug-use prevalence survey in the manner requested by the questionnaire.</p> <p>Section C: The national Hospital In-Patient Enquiry (HIPE) database collects data on discharged hospital patients, recording each diagnosis and procedure, coded according to the ICD-10-AM. Unpublished HIPE data have been analysed to determine trends in non-fatal overdose patients discharged from Irish hospitals in 2011: in that year there were 4 254 overdose cases. Question 47: it has been possible to use HIPE data to answer this question in relation to benzodiazepine non-fatal overdoses (960/4254), but the data do not include the ICD codes F11, F13 or F19 with the relevant subdivisions (.0 to .9). This information is from the same source as used in our answer to Question 52. The HIPE database does not include data relevant to questions 48-50. Section D: Question 51: This analysis is based only on ICD codes X41 and X61.</p> <p>Section E: Question 53: while the National Drug Treatment Reporting System (NDTRS) gets information from general practitioners, it does not receive information from general or psychiatric hospitals.</p>

	<p>However, the majority of substance-misuse treatment is provided by specialist centres. Questions 54-57: The NDTRS is episode-based; duplication can only be controlled for within individual treatment centres. A case may be counted twice if treated more than once within one calendar year but in different centres. Question 55: The data are for cases where NMUPD is the primary drug. Questions 54 & 57: Only limited control for double-counting can be made when checking the percentage of patients presenting for treatment with NMUPD in conjunction with other substances. Therefore, a small number of patients who have problem with two or more prescription drugs, in addition to other substances, may be counted twice.</p> <p>Section F: No comprehensive registration system of prescriptions for controlled drugs is in place, so no answer has been given in this section.</p>
Israel	<p>National surveys on drug use are not conducted regularly. The last survey was conducted in 2009, and only covered people aged between 12 and 40. National health surveys do not include questions about the medical or non-medical use of prescription drugs. Data on prescriptions issued are collected, but are not analysed regularly. While collecting data for this study, we asked the national pharmaceutical administration for the number of prescriptions issued for the drugs in question, but no reply was received by the deadline. Health maintenance organisations collect the data on the number of prescriptions issued, as well as other relevant information, but were unable to share it with us. Private pharmacies are not linked to a central database.</p> <p>Cause of death is coded according to ICD-10, but there is under reporting of death from prescription-drug overdoses. Only in cases of suspicious deaths are routine toxicology tests performed. Emergency hospital visits are not recorded in a central database. Toxicology tests are not routinely performed in emergency wards. When toxicology tests are performed, it often takes several days for the results to become available, during which many patients are discharged, so the test results are not included in their discharge data. Treatment for drug addiction is not provided by a single authority. The Ministry of Social Services is not computerised. While collecting data for this survey I had to request manual counting of patients. The average number of patients seeking treatment for NMUPD where the prescription drug was the primary drug was about 1%. Patients using prescription and other drugs were about 10% of those seeking treatment. The Ministry of Health operates the de-toxication wards and the four dual-diagnosis wards inside psychiatric hospitals, but its information system is old and does not specify the type of drug used, nor does it differentiate between medical and non-medical use, nor is it connected to a central database. Since no ambulatory addiction treatment is provided by the Ministry of Health, and most patients with NMUPD do not see themselves as addicts and are reluctant to receive treatment with people who use illegal drugs, they turn to private psychiatrists instead.</p>

Italy	At the moment in Italy, no detailed studies on the abuse of drugs are carried out, and thus some data are not available.
Lebanon	The main difficulties reside in the fact that the data needed to answer this questionnaire are not always available. Not many surveys have been done about this subject, and some of the relevant data collected by the Ministry of Health have not yet been published.
Lithuania	The majority of the information requested in the questionnaire is not available as such data are not collected in this country. We also found it inconvenient to have to complete both the online and pdf versions of the questionnaire. There was a problem with the online questionnaire, which did not allow us to input the exact figures we had input in the pdf version.
Malta	As the online questionnaire would not allow me to input percentages after a decimal point (e.g. 0.3%), I was unable to answer questions 54 to 57.
Morocco	Lack of data concerning NMUPD.
Serbia	It is difficult to come up with precise data. There are several data-bases in different institutions that are not mutually compatible and connected (for instance Agency for Medicines and Medical Devices, Republic Fund for Health Insurance, Institute for Public Health "Milan Jovanovic Batut", etc). It is almost impossible to get the data by year of birth and specific diagnosis. Therefore, it is important to introduce a more appropriate way of recording data in this field of research.
The Netherlands	In many cases, the specifically requested information is not described in the studies in the same way. As a result, many questions could not be answered. Sometimes information is missing, sometimes it is described in other forms (e.g. percentages or absolute numbers), etc. The cited studies were (mostly) focused on the use of somnifacients and sedatives, not on prescription drugs in general.
Wales	Unable to save changes to the document while sourcing additional changes. Lack of consistency in the type of data required – eg. fatal overdose data specifies ICD-10 codes X41 and X61, but this omits some deaths relating to prescription drugs and, as a consequence, may lead to under-estimation of the impact of NMUPD. Also, the use of "prescription drugs" and "NMUPD" interchangeably perhaps did not ensure the best use of the available data where distinctions regarding "misuse" are unclear. Prescription data are not available by gender or age in the UK.

Table 20: Reported reliability and validity by experts

Czech Republic	We had some data from different registers and surveys, but not in the same categories as in the questionnaire. This is why we were unable to answer section C and why the data we provided in section E are only from one of our registers.
Egypt	It influenced our choice of the data available dramatically, i.e. it influenced the availability of data about the size of the problem, but not its reliability or validity.
France	It is difficult to compare the different classes of psychotropics, as toxic prescription drugs are not taken into account in GPSs, nor is the non-medical use of other narcotic drugs. The distinction between medical use and non-medical use is not given in most of the available studies. Some of the indicators do not include a breakdown between illegal substances and prescription drugs (e.g. Recap data).
Germany	In many cases, the reported numbers do not fully represent the definitions requested. Consequently, the comparability with other countries cannot really be evaluated,
Greece	The difficulties did not influence the reliability or validity of the data reported, but increased the lack of responses in several indicators.
Ireland	The difficulties described under Question 66 above imposed limitations on the conclusions that may be drawn from the available data, which are detailed in our answer to Question 66. In section F, an account is given of two studies where researchers used partial records on prescribing practices in Ireland to try to understand patterns of prescribing.
Israel	The data on medical and non-medical use are outdated. There is under-reporting and under-diagnosis of prescription-drug-use-related morbidity and mortality. There is no reliable way to estimate the number of patients seeking treatment.
Lebanon	I did not complete the sections where data were not available. For the other sections, the numbers can give us a pretty clear idea about the status in Lebanon.
Lithuania	Did not influence.
Malta	Due to the problem in the online questionnaire which would not allow us to submit percentages containing a decimal point (e.g. 0.3%), I was unable to respond to questions 54 to 57.
Morocco	No evidence-based policies.
Serbia	We used only selected data that appear in several sources (confirmed data). This is why some data are missing. Other reasons for our lack of response to certain sections were because the data were not very reliable or impossible to obtain at this moment.
The Netherlands	The focus on somnifacients and sedatives leads to an underestimation of the total (non-medical) use of prescription drugs.
Wales	Data supplied are reliable and valid but the difficulties have led to submission of a very limited dataset.

Chapter 3

Conclusions and recommendations

This chapter highlights the salient findings of this study, revisits its limitations and proposes recommendations for research, policy and practice.

Conclusions

A number of conclusions may be reached from the review of the literature and the data submitted, which clearly show an important gender dimension in relation to NMUPD.

1. The literature review

- ▶ identifies women as a high-risk category for NMUPD
- ▶ shows how gender is not predictive in the same direction across different use of categories of prescription drugs
- ▶ highlights how the telescoping phenomenon is evident for women in their NMUPD “career paths” and that they manifest different patterns of prescription-drug use to men
- ▶ highlights how trauma and interpersonal violence may be causal factors for NMUPD among women.

2. Indications from the submitted data

In the general population, the use of prescription drugs in lifetime, in the last 12 months and in the last 30 days is higher among women than men.

Prescription-drug use increases with age. People are most likely to be prescribed psychotropic prescription drugs in their thirties, and there is no significant difference between men and women in this regard.

This study is unable to come to any conclusions about gender influences on the use of a specific category of prescription drugs.

While rates for prescription-drug use have been shown to be clearly higher for women than men across most age groups and time periods, the picture for NMUPD is somewhat less clear. While not many countries reported on NMUPD, the data submitted by the expert respondents show that Greece and Lithuania recorded higher levels of NMUPD for women than men, while the opposite is true for Lebanon and Israel.

The age of first NMUPD is marginally later for women than men.

The most common source of prescription drugs for both men and women is a legal medical source (on prescription from a doctor), followed by “from a friend or a relative”, indicating the relative ease of diversion of prescription drugs.

Data from surveys of young people indicate that lifetime rates of NMUPD are higher for women than men in a number of countries and that first NMUPD appears to coincide with the period of middle adolescence.

In Germany and Serbia, the number of fatal overdoses related to the use of psychotropic prescription drugs is higher for women than men.

The data on treatment for drug abuse are too limited to make any reliable conclusions according to gender.

EU member states conduct regular GPSs that address the issue of prescription-drug use, while some of the Mediterranean region countries do not.

Disparity in the type of drug use surveyed in relation to prescription-drug use and NMUPD makes comparison of prevalence rates particularly problematic. Information on CNS-depressant use is more common than information on the use of opioids, CNS stimulants and other categories of prescription drugs. This does not allow for a clear documentation of the full extent of NMUPD and does not allow researchers to highlight the differing rates of use of various psychotropic drugs by gender.

GPSs contain questions about the use of prescription drugs, but do not necessarily enquire about whether or not that use is in accordance with medical practice.

Not all the countries which participated in this study reported on the source of the prescription drugs used in NMUPD. Without such data, differences in gender in relation to source cannot be extrapolated.

Surveys of young people, including questions on NMUPD, are widespread in Europe and the Mediterranean region. A number of conclusions can be reached from their results:

- The monitoring of the use of CNS depressants is more common than the monitoring of any other category of prescription drugs.
- While the monitoring of prescribing practices to young people is an important area of research, surveys of young people in Europe have mainly explored NMUPD. The literature highlights how prescription practices are influenced by gender, but this could not be investigated further using existing data.

All the countries which participated in this study have legislation in place to control psychotropic prescription drugs.

Not all the participating countries have systems in place to register the number of prescriptions for psychotropic prescription drugs and thus some were unable to provide data in this regard.

The participating countries reported on a number of scientific studies on NMUPD, which provide a resource for researchers and policy-makers.

Most participating countries reported that the issue of NMUPD was addressed in their national drugs policies.

Limitations

No standardised monitoring system for NMUPD currently exists in Europe and the Mediterranean region.

This study is the first of its kind, and is therefore exploratory in nature.

Only descriptive, secondary statistics were reported in the submitted data. This means that no inferential analysis could be performed, so they could only be interpreted in a limited way.

The 17 participating countries are not representative of all of Europe and the Mediterranean region, even if they represent several geographical areas.

The analysis reflects the data submitted by the expert respondents nominated by the permanent correspondents of the PG member states and of the MedNET countries or through direct contacts by the PG secretariat in the case of Germany and the Netherlands.

Extensive audits of the GPS questionnaires by the EMCDDA shows that the national data on the use and misuse of prescription drugs among general populations are not comparable and should, therefore, be interpreted very cautiously.

A number of incomplete questionnaires were returned by the expert respondents. The reasons for the lack of answers have been coded qualitatively into the following four categories:

1. The data were not available in the particular country because none was collected.
2. The data, although collected in the country, were not available in the format required by the questionnaire.
3. The data, although collected in that country, were not accessible to the researcher before the study's reporting deadline, or may have required additional analysis which was not possible at the time.
4. The expert respondent did not have access to the data required by the questionnaire.

Recommendations

For monitoring and research

This study recommends that the PG's permanent correspondents undertake the following actions:

Ask researchers in their respective countries to contribute to the development of monitoring systems for prescription-drug use in the general population in those

European and Mediterranean region countries where they do not currently exist (with technical advice from the EMCDDA).

Recommend to researchers in their countries that, in addition to the use of “sedatives and tranquillisers”, other categories of prescription drugs be included in GPSs.

Ask researchers in their countries to ensure that the source of prescription drugs is included in future GPSs as a core item.

Ask researchers in their countries to develop mechanisms for the monitoring of emergency hospital visits and admissions linked to NMUPD.

Ask the EMCDDA to include, as part of the common core of each GPS, questions about the medical and non-medical use of prescription drugs, and to make the defining and reporting on the extent of NMUPD a priority.

Ask the EMCDDA to develop a clear method of distinguishing the monitoring of both prescription practices and NMUPD.

Ask the ESPAD to expand the categories of prescription drugs monitored and to consider including “prescription-drug use”, not only “use without a prescription”.

For practice (prevention and treatment)

This study recommends that the PG’s permanent correspondents undertake the following actions:

Ask the PG member states to offer differentiated responses for women in relation to prevention, harm reduction and treatment.

Ask the PG member states to develop guidelines for prescription practices that, while ensuring that individuals who need psychotropic prescription drugs (for example for the relief of pain) have access to them, these do not result in unnecessary prescriptions for these drugs which might be diverted.

Ask the PG’s member states to develop public education programmes on how to safely use, store and dispose of prescription drugs.

Ask the PG’s member states to train medical practitioners to be able to screen and identify those individuals who are at risk of NMUPD, to hinder their movement along the path to addiction.

For policy

This study recommends that the PG’s permanent correspondents undertake the following actions:

Ask the PG member states to develop coherent policies that address the use and misuse of prescription drugs, with specific reference to gender differences.

Ask the PG member states to commission studies of NMUPD which address specific issues, such as the initiation, escalation, physical and psycho-social consequences for women as an “at risk” category.

Ask the PG member states to develop national prescription-drug monitoring programmes.

Ask the PG member states to develop public education programmes on how to safely use, store and dispose of prescription drugs.

After having been consulted by the PG secretariat, the Gender Equality Commission Secretariat suggests:

Asking PG member states to further explore the relationship between experiences of physical, sexual and psychological violence and NMUPD, based on the fact that:

■ **women may be more likely to use substances to medicate emotional distress which may be emanating from the presence of violence in their lives. Inter-cultural evidence exists to support the association between addiction and interpersonal violence (physical, sexual and emotional) in the lives of women around the world (UNODC 2004).**

Asking PG member states to hold a round-table meeting of international organisations active in the field to present examples of best practice on NMUPD.

Asking PG member states to commission studies of NMUPD and addressing specific issues, such as the initiation, escalation, physical and psycho-social consequences in relation to women as an “at risk category”.

Asking PG member states to commission a study on the relationship between violence against women and NMUPD.

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APPENDICES

Appendix 1: Survey

Preamble

The current study aims to explore the gender dimension of non-medical use of prescription drugs (NMUPD) in Europe. Reference is made specifically to psychotropic drugs.

This questionnaire adopts definitions documented by the Lithuanian Presidency of the Council of the EU in a document titled 'Misuse of Prescribed Medicines: a glossary of key terms'. The document is downloadable on the following link and should guide you in the completion of this questionnaire: <http://docs.cgs.lt/d/misuse/glossary/>

In this document Non Medical Use is defined as 'use of a prescription drug, whether obtained by prescription or otherwise, other than in the manner or for the time period prescribed, or by a person for whom the drug was not prescribed' (Lithuanian Presidency of the Council of the EU, 2013:14).

This questionnaire will be asking you to respond specifically in terms of classes of commonly misused prescription drugs (psychotropics).

The most commonly abused prescription medications (psychotropics) include:
Opioids; Central nervous system (CNS) depressants; Central nervous system (CNS) stimulants.

Opioids are most commonly prescribed to treat pain and include such substances as hydrocodone, oxycodone, fentanyl, tramadol, buprenorphine.

CNS depressants are most commonly used in the treatment of anxiety and sleep disorders and include both barbiturates and benzodiazepines.

CNS stimulants include amphetamines and amphetamine-like substances.

You will also find a class titled 'other' in the instances where you might wish to report on a substance that is not clearly subsumed under any of these three categories.

* 1. Please specify which country you are reporting for.

2. Respondent Details

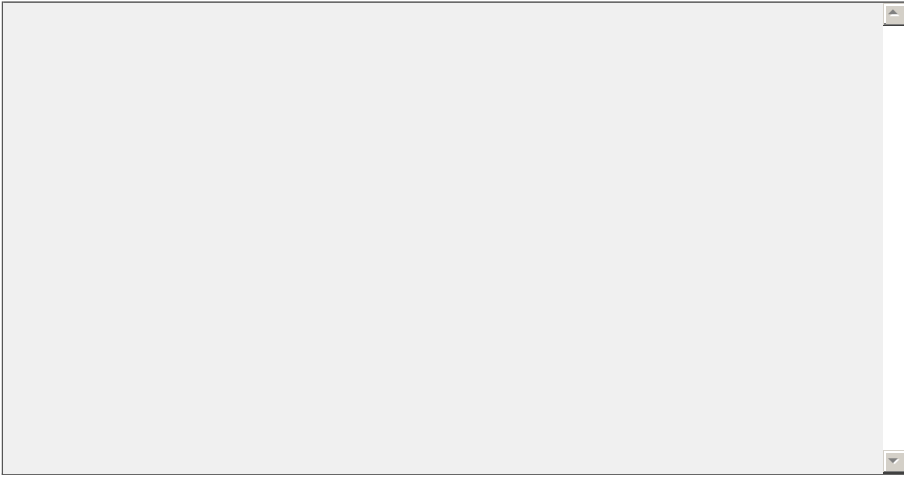
Name of contact person

Designation

Are you reporting for the whole country or a specific regional area

If regional - specify

3. Please describe the legal framework for the control of prescription drugs (psychotropics) in your country.



Section A: General Population Surveys / Prevalence Surveys

This section of the questionnaire is asking you to report on data from General Population Surveys or any other prevalence surveys conducted in your country in the last ten years. If there exists more than one survey, please report from the one you consider to be the most reliable, valid and informative. You will be given the opportunity, at the end of the section, to provide a summary of any other salient results from any other probabilistic study on the use of prescription drugs (psychotropics).

4. Has your country conducted a general population or any other survey amongst persons aged 15 and older that includes one or more questions on the use of prescription drugs (psychotropics) ?

Yes

No

Survey details

If there exists more than one survey, please report from the one you consider to be the most reliable, valid and informative.

5. Details of Survey

Name of Survey	<input type="text"/>
Year Undertaken	<input type="text"/>
Age range of respondents	<input type="text"/>
Sample Size	<input type="text"/>
Response Rate	<input type="text"/>
Mode of Data Collection	<input type="text"/>
Regional Representation	<input type="text"/>
Any other relevant details	<input type="text"/>

6. Which categories of prescription drugs (psychotropics) were included in the survey questionnaire ?

- Opioids: most commonly prescribed to treat pain and include such substances as hydrocodone, oxycodone, fentanyl, methadone, buprenorphine and tramadol
- CNS depressants: most commonly used in the treatment of anxiety and sleep disorders and include both barbiturates and benzodiazapines
- CNS stimulants: include amphetamines and amphetamine-like substances
- Other

7. Provide the definition/s for the prescription drug/s addressed in the survey?

Explanatory note

The following questions are about the USE of prescription drugs . USE is defined as:

Consumption with doctor's prescription and/or consumption as prescribed by a medical practitioner

8. Rates of use of prescription drugs (psychotropics) in lifetime in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

9. Rates of use of prescription drugs (psychotropics) in the last 12 months in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

10. Rates of use of prescription drugs (psychotropics) in the last 30 days in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

11. Reported age of users for 'lifetime use' category. Please answer in percentages %:

15-17

18-24

25-29

30-34

35-39

40-44

45-49

50-54

55-59

60-65

65 and older

12. Reported age of users for 'last 12 months' category. Please answer in percentages %:

15-17	<input type="text"/>
18-24	<input type="text"/>
25-29	<input type="text"/>
30-34	<input type="text"/>
35-39	<input type="text"/>
40-44	<input type="text"/>
45-49	<input type="text"/>
50-55	<input type="text"/>
56-60	<input type="text"/>
60-65	<input type="text"/>
65 or older	<input type="text"/>

13. reported age of users for 'last 30 days' category. Please answer in percentages %

15-17	<input type="text"/>
18-24	<input type="text"/>
25-29	<input type="text"/>
30-34	<input type="text"/>
35-39	<input type="text"/>
40-44	<input type="text"/>
45-49	<input type="text"/>
50-55	<input type="text"/>
56-60	<input type="text"/>
60-65	<input type="text"/>
65 and older	<input type="text"/>

14. Median age of first use of any prescription medication (psychotropics) by gender

Male	<input type="text"/>
Female	<input type="text"/>

15. Amongst males who report using prescription medication (psychotropics) in the last 30 days, what percentage report using

Opioids	<input type="text"/>
CNS depressants	<input type="text"/>
CNS stimulants	<input type="text"/>
Other	<input type="text"/>

16. Amongst females who report using prescription medication (psychotropics) in the last 30 days, what percentage report using

Opioids	<input type="text"/>
CNS depressants	<input type="text"/>
CNS stimulants	<input type="text"/>
Other	<input type="text"/>

17. Document any gender-specific associations of prescription drug use (psychotropics) with a number of variables such as age, employment, social economic status, other substance use, chronic illness, pain, mental health difficulties with somatic illness etc. observed in the survey. Kindly also document any perceived trends over time.

18. Has your country conducted any other probabilistic study on the use of prescription medication (psychotropics)? Document what you consider to be the most salient findings in this survey. Please be guided by the items included in this section.

Explanatory note

The following questions are about the Non Medical Use of Prescription Drugs (NMUPD). Non Medical Use is defined as 'use of a prescription drug, whether obtained by prescription or otherwise, other than in the manner or for the time period prescribed, or by a person for whom the drug was not prescribed' (Lithuanian Presidency of the Council of the EU, 2013:14)

19. Rates of non medical use of prescription drugs (psychotropics) in lifetime in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

20. Rates of non medical use of prescription drugs (psychotropics) in the last 12 months in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

21. Rates of non medical use of prescription drugs (psychotropics) in the last 30 days in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

22. Median age of first non medical use of prescription drugs (psychotropics) by Gender

male

female

23. Amongst males who report non medical use of prescription drugs (psychotropics), what percentage report using

Opioids

CNS depressants

CNS stimulants

Other

24. Amongst females who report non medical use of prescription drugs (psychotropics), what percentage report using

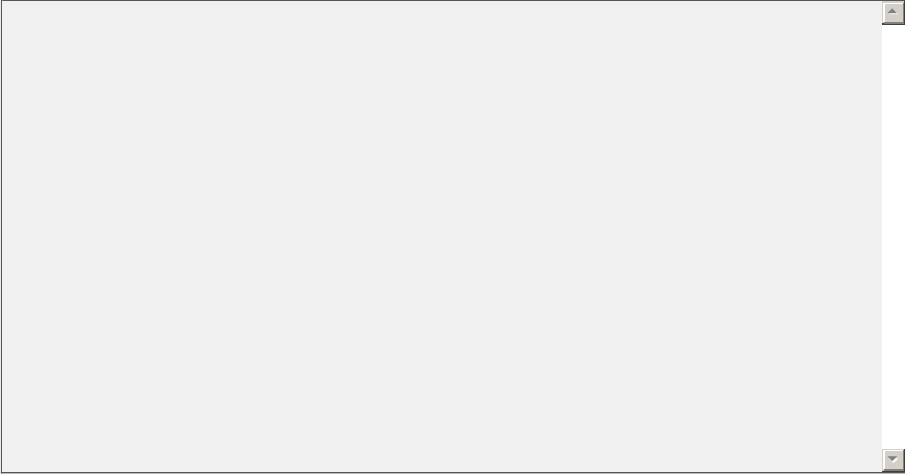
Opioids

CNS depressants

CNS stimulants

Other

25. Document any associations of the non medical use of prescription drugs (psychotropics) with a number of variables such as educational attainment, age, leisure patterns, other substance use, unexplained pain, mental health difficulties, family dynamics etc. observed in the survey. Kindly also document any perceived trends over time.



26. Has your country conducted any other probabilistic study on the non medical use of prescription drugs (psychotropics)? Document what you consider to be the most salient findings in this survey. Please be guided by the items included in this section.



Source of prescription drugs (psychotropics)

27. Reported source of prescription drugs (psychotropics) by males at last occasion of use (answer in percentages please).

Stole them from Doctor's Office / Clinic / Hospital / Pharmacy

Fake prescription

Bought or got them on a prescription by a doctor for oneself

Brought them from a drug dealer / stranger

Got them from somebody else user knows : friend / relative

Bought them without a prescription in a pharmacy or drugstore

Bought them over the internet

None of the above applies

28. Reported source of prescription drugs (psychotropics) by females at last occasion of use (answer in percentages please).

Stole them from Doctor's Office / Clinic / Hospital / Pharmacy

Fake prescription

Bought or got them on a prescription by a doctor for oneself

Brought them from a drug dealer / stranger

Got them from somebody else user knows : friend / relative

Bought them without a prescription in a pharmacy or drugstore

Bought them over the internet

None of the above applies

Section B : National surveys with school aged children

This section of the questionnaire is asking you to report on national surveys with school aged children conducted in your country in the last five years, for example, ESPAD/MEDSPAD

29. Has your country conducted a survey amongst young people in the last 5 years that addresses the use of any prescription drugs (psychotropics) ?

- Yes
 No

30. Detail of Survey

Name of Survey	<input type="text"/>
Year Undertaken	<input type="text"/>
Sample Size	<input type="text"/>
Response Rate	<input type="text"/>
Mode of Data Collection	<input type="text"/>
Age Range of Respondents	<input type="text"/>
Regional representation	<input type="text"/>
Any other relevant details	<input type="text"/>

31. Which categories of prescription drugs (psychotropics) were included in the survey questionnaire ?

- Opioids: most commonly prescribed to treat pain and include such substances as hydrocodone, oxycodone, fentanyl, methadone, buprenorphine and tramadol
- CNS depressants: most commonly used in the treatment of anxiety and sleep disorders and include both barbiturates and benzodiazapines
- CNS stimulants: include amphetamines and amphetamine like substances
- Other

32. Provide the definition/s for the prescription drug/s addressed in the survey?

Explanatory note

The following questions are about the USE of prescription drugs (psychotropics) by school aged children. USE is defined as:

Consumption with doctor's prescription and/or consumption as prescribed by medical practitioner

33. Rates of use of prescription drugs (psychotropics) in lifetime in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

34. Rates of use of prescription drugs (psychotropics) in the last 12 months in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

35. Rates of use of prescription drugs (psychotropics) in the last 30 days in the population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

36. Amongst males who report using prescription drugs (psychotropics) in the last 30 days, how often did they use?

1-2 times

3-5 times

6-9 times

10-19 times

20-30 times

37. Amongst females who report using prescription drugs (psychotropics) in the last 30 days, how often did they use?

1-2 times

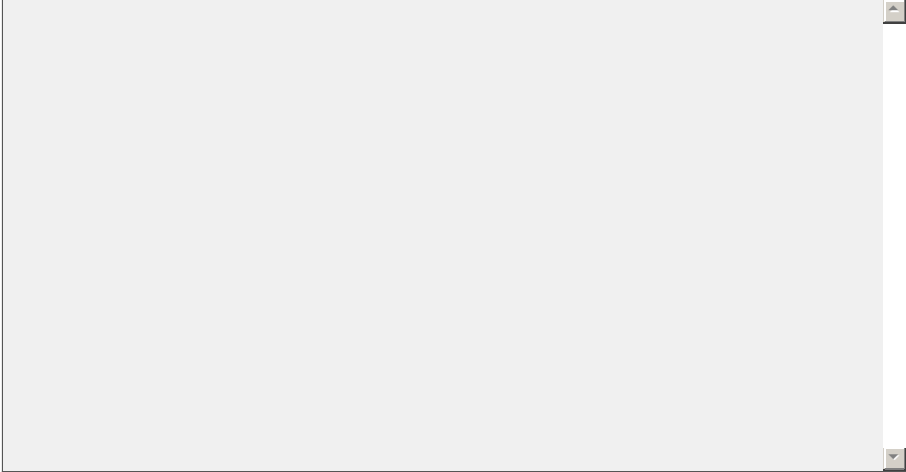
3-5 times

6-9 times

10-19 times

20-30 times

38. Has your country conducted any other probabilistic study on the use of prescription drugs (psychotropics) among school aged children? Document what you consider to be the most salient findings in this survey. Please be guided by the items included in this section.

A large, empty rectangular text input field with a vertical scrollbar on the right side. The field is currently blank, intended for the user to document findings from a survey.

Explanatory note

The following questions are about the Non Medical Use of Prescription Drugs (NMUPD) by school age children. Non Medical Use is defined as 'use of a prescription drug, whether obtained by prescription or otherwise, other than in the manner or for the time period prescribed, or by a person for whom the drug was not prescribed' (Lithuanian Presidency of the Council of the EU, 2013:14)

39. Rates of non medical use of prescription drugs (psychotropics) in lifetime in the youth population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

40. Rates of non medical use of prescription drugs (psychotropics) in the last 12 months in the youth population by gender ?

Total %

Male % (of whole population)

Female % (of whole population)

41. Rates of non medical use of prescription drugs (psychotropics) in the last 30 days in the youth population by gender ?

Total %

Male % (of whole population)

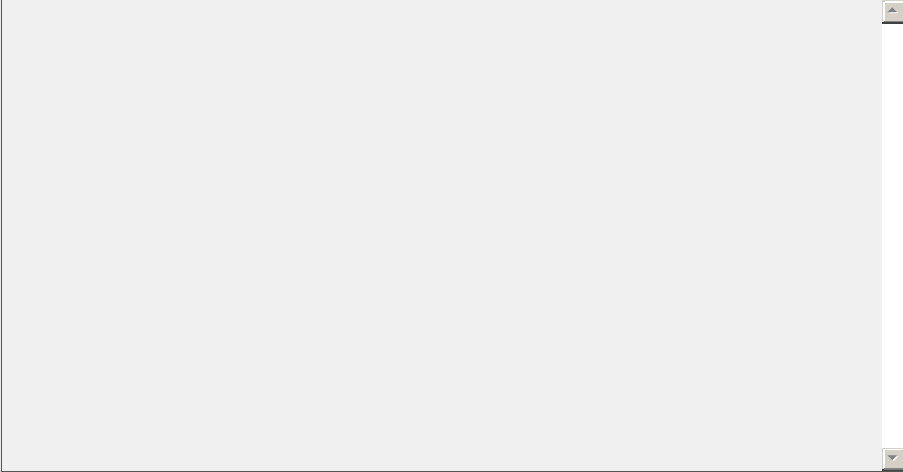
Female % (of whole population)

42. Age of first non medical use of prescription drugs (psychotropics)

Male

Female

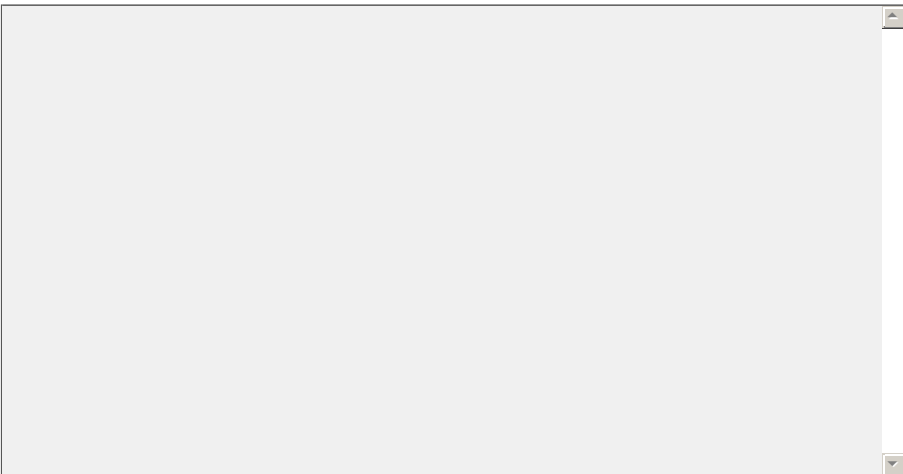
43. Document any associations of prescription drug use (psychotropics) with a number of variables such as educational attainment, age, leisure patterns, other substance use, family dynamics, chronic pain, mental health difficulties etc. observed in the survey. Kindly also document any perceived trends over time.



44. Use of prescription drugs (psychotropics) with alcohol. Answer in % please

Total %	<input type="text"/>
Male % (of whole population)	<input type="text"/>
Female % (of whole population)	<input type="text"/>

45. Has your country conducted any other probabilistic study on the use of prescription drugs (psychotropics) among school aged children? Document what you consider to be the most salient findings in this survey. Please be guided by the items included in this section.



Section C : Emergency department visits/emergency hospital admissions

46. Please specify whether you are reporting emergency department visits OR emergency hospital admissions.

- emergency department visits
 emergency hospital admissions

47. In the last 12 months what percentage of emergency department visits/emergency hospital admissions in your country were recorded as being related to the use of a prescription drug/s (psychotropics).

answer in percentage please

48. In the last 12 months, what percentage of emergency department visits/emergency hospital admissions were related to the use of a prescription drug/s (psychotropics)

Opioids

CNS depressants

CNS stimulants

Other

49. Median age of emergency hospital admissions related to the use of prescription drugs (psychotropics) in the last year

Median Age

50. Gender of patient at emergency department visit/emergency hospital admission related to the use of a prescription drugs (psychotherapeutics) in the last 12 months

Male % (of whole population)

Female % (of whole population)

Section D : fatal and non fatal overdoses

51. Number of fatal overdoses (per million population) from the use of prescription drugs (psychotropics) in the last year (by ICD-10 codes X41 and X61 - primary cause of the death)

number

mean age

gender number male

gender number female

52. Number of non fatal overdoses (per million population) from the use of prescription drugs (psychotropics) in the last year

number

mean age

gender number male

gender number female

Section E : treatment data

53. Does your country report on treatment data from: (you may tick more than one answer)

- general treatment e.g. hospitals, general practitioners
- specialist substance misuse treatment

54. At assessment, percentage of clients presenting for treatment with NMUPD by gender

Total %	<input type="text"/>
Male % (of treated population)	<input type="text"/>
Female % (of treated population)	<input type="text"/>

55. At assessment, percentage of clients presenting for treatment with NMUPD by age

15-17	<input type="text"/>
18-24	<input type="text"/>
25-29	<input type="text"/>
30-34	<input type="text"/>
35-39	<input type="text"/>
40-44	<input type="text"/>
45-49	<input type="text"/>
50-54	<input type="text"/>
55-59	<input type="text"/>
60-65	<input type="text"/>
65 and more	<input type="text"/>

56. At assessment, percentage of clients presenting for treatment with psychotropics as a primary drug

Total %	<input type="text"/>
Male % (of treated population)	<input type="text"/>
Female % (of treated population)	<input type="text"/>

57. At assessment, percentage of clients presenting for treatment with psychotropics in conjunction with the use of other substances, including alcohol.

Total %	<input type="text"/>
Male % (of treated population)	<input type="text"/>
Female % (of treated population)	<input type="text"/>

Section F : Registration of prescriptions of controlled substances

58. Does your country have a system in place to register the number of prescriptions for psychotropic substances

- yes
- no

59. In the last year the number of prescriptions for psychotropic substances registered : total number

Opioids	<input type="text"/>
CNS depressants	<input type="text"/>
CNS stimulants	<input type="text"/>
Other	<input type="text"/>

60. In the last year the number of prescriptions for psychotropic substances registered : total male number

Opioids	<input type="text"/>
CNS depressants	<input type="text"/>
CNS stimulants	<input type="text"/>
Other	<input type="text"/>

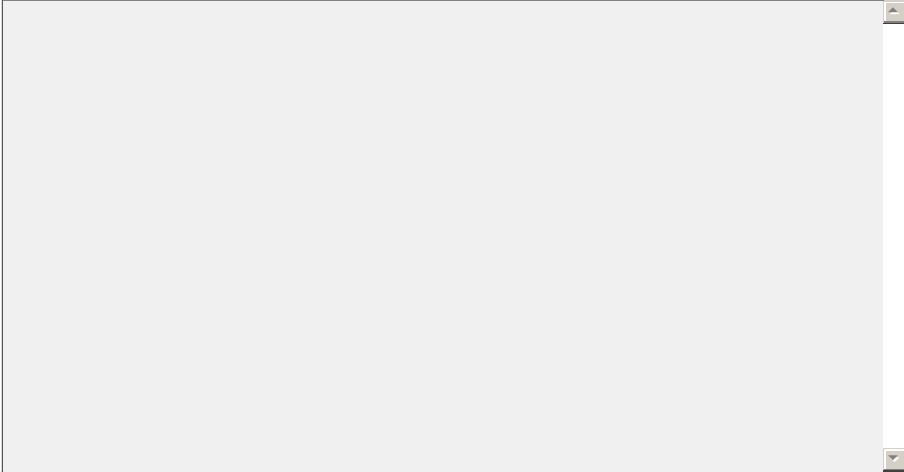
61. In the last year the number of prescriptions for psychotropic substances registered : total female number

Opioids	<input type="text"/>
CNS depressants	<input type="text"/>
CNS stimulants	<input type="text"/>
Other	<input type="text"/>

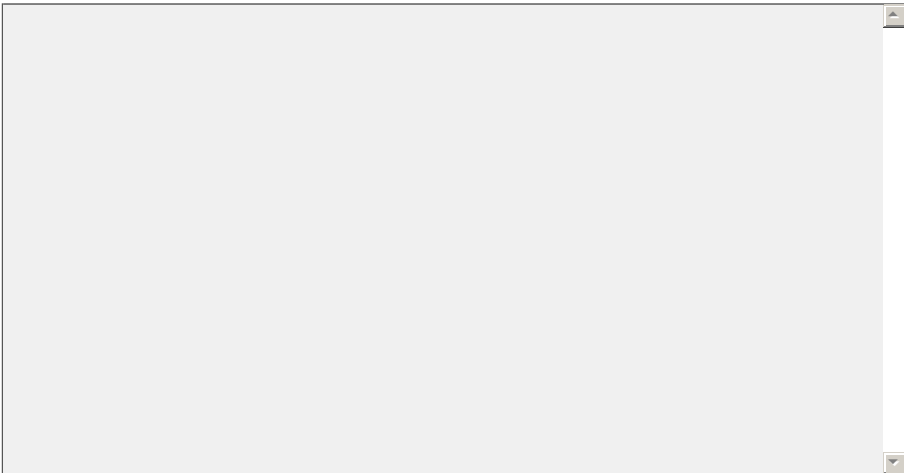
Section G : Scientific Studies

This section requires you to report on scientific studies on NMUPD in your country.

62. Reference list of key published studies on NMUPD



63. Salient findings noted.



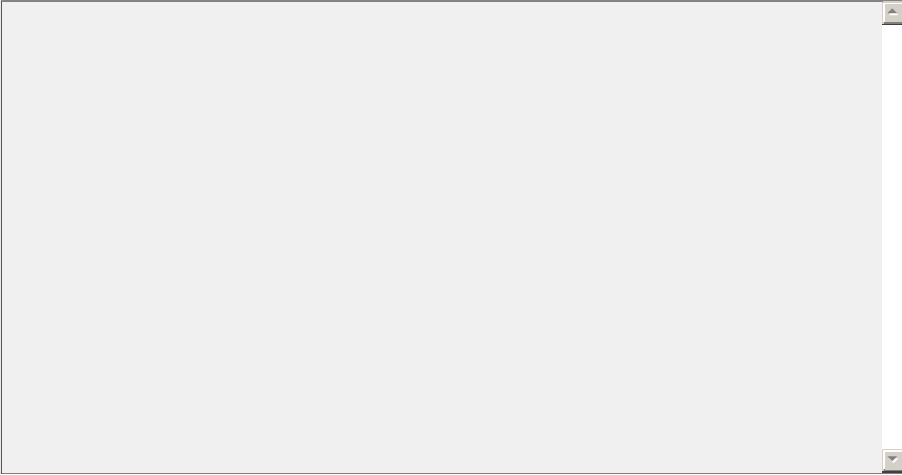
Section H : Policy

64. Is the issue of NMUPD addressed in your country's National Policy Documents

yes

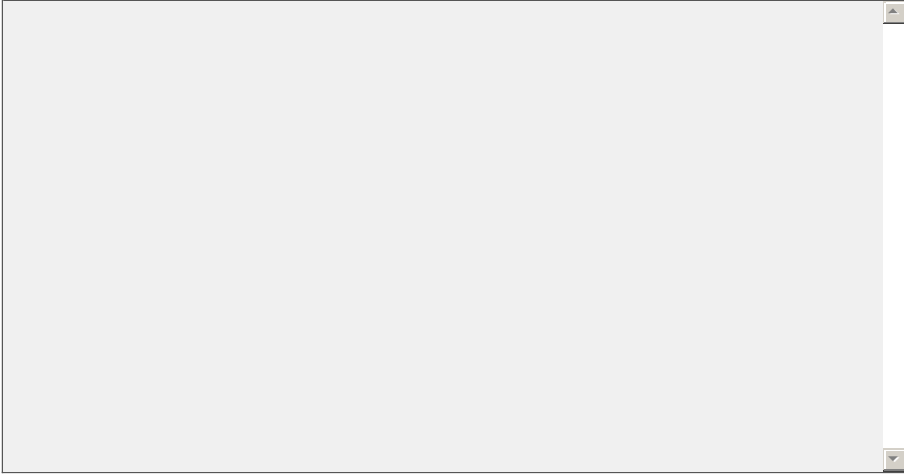
no

65. Document and amplify with special reference to policy addressing gender issues in NMUPD

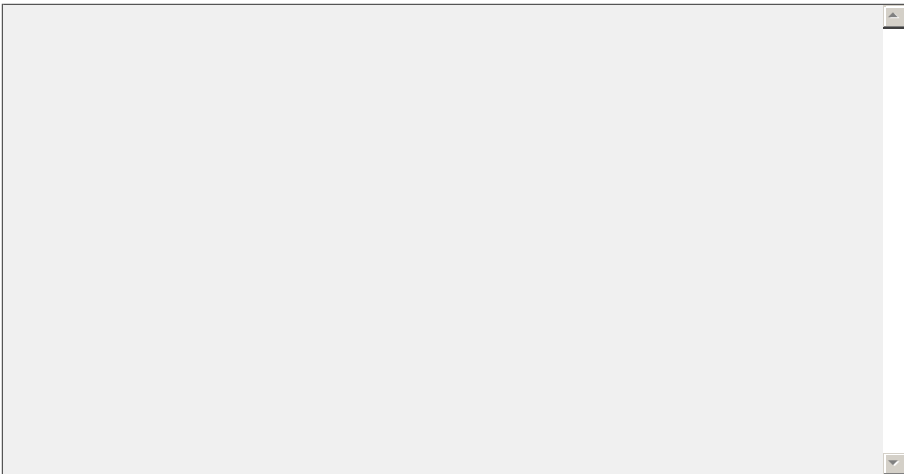


Survey Difficulties

66. Please document any difficulties you may have had in completing this questionnaire

A large, empty text input area with a light gray background and a vertical scrollbar on the right side, intended for documenting difficulties.

67. How may these difficulties have influenced the reliability and validity of the data reported?

A large, empty text input area with a light gray background and a vertical scrollbar on the right side, intended for discussing the influence of difficulties on data reliability and validity.

Appendix 2: Pompidou Group publications from the Council of Europe Co-operation Group to Combat drug abuse and illicit trafficking in drugs

Coherence policy markers for psychoactive substances by Richard Muscat, Brigid Pike and the members of the Coherent Policy Expert Group (ISBN 978-92-871-7928-9), October 2014

Snapshots of Social Drug Research in Europe by Jane Fountain, Marije Wouters and Dirk J Korf (eds) and the European Society for Social Drug Research (ESDD) (ISBN 978-3-89967-911-3), 2013

Reflections on the concept of coherency for a policy on psychoactive substances and beyond by Richard Muscat, Brigid Pike and members of the Coherent Policy Expert Group (ISBN 978-92-871-7345-4), March 2012

The 2011 ESPAD Report: Substance use among students in 36 European countries by Björn Hibell, Ulf Guttormsson, Salme Ahlström, Olga Balakireva, Thoroddur Bjarnason, Anna Kokkevi, Ludwig Kraus, The Swedish Council for Information on Alcohol and other Drugs (CAN), The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Council of Europe, (ISBN 978-91-7278-233-4), May 2012

The meaning of high, variations according to drug, set, setting and time by Marije Wouters, Jane Fountain, Dirk J Korf (eds) and the European Society for Social Drug Research (ESDD) (ISBN 978-3-89967-831-4), 2012

Market, methods and messages, Dynamics in European drug research by Jane Fountain, Vibeke Asmussen Franck, Dirk J Korf (eds) (ISBN 978-3-89967-741-6), 2011

Treatment systems overview by Richard Muscat and members of the Treatment Platform of the Pompidou Group (ISBN 978-92-871-6930-3), October 2010

Pleasure, Pain and Profit. European Perspectives on Drugs by Tom Decorte and Jane Fountain (eds) and the European Society for Social Drug Research (ESDD) (ISBN 978-3-89967-654-9), 2010

Towards an integrated policy on psychoactive substances: a theoretical and empirical analysis by Richard Muscat, Dike Van De Mheen and Cas Barendregt (ISBN 978-92-871-6295-9), October 2010

Signals from drug research by Richard Muscat, Dirk J. Korf, Jorge Negreiros and Dominique Vuillaume (ISBN 978-92-871-6694-4), December 2009

Old and New Policies, Theories, Research Methods and Drug Users across Europe by Zsolt Demetrovics, Jane Fountain, Ludwig Kraus (eds) and the European Society for Social Drug Research (ESDD) (ISBN 978-3-89967-583-2), 2009

The 2007 ESPAD Report: Substance use among students in 35 European countries by Björn Hibell, Ulf Guttormsson, Salme Ahlström, Olga Balakireva, Thoroddur Bjarnason, Anna Kokkevi, Ludwig Kraus, The Swedish Council for Information on Alcohol and other Drugs (CAN), The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Council of Europe (ISBN 978-91-7278-219-8), February 2009

From a policy on illegal drugs to a policy on psychoactive substances by Richard Muscat and members of the Pompidou Group Research Platform (ISBN 978-92-871-6480-3), January 2009

Old and New Policies, Theories, Research Methods and Drug Users across Europe by Zsolt Demetrovics, Jane Fountain, Ludwig Kraus (eds) and the European Society for Social Drug Research (ESDD) (ISBN 978-3-89967-583-2), 2009

Cannabis in Europe: Dynamics in Perception, Policy and Markets by Dirk Korf (ed.) and the European Society for Social Drug Research (ESDD) (ISBN 978-3-89967-512-2), 2008

Risk factors in adolescent drug use: evidence from school surveys and application in policy by Richard Muscat, Thóroddur Bjarnasson, François Beck and Patrick Peretti-Watel (ISBN 978-92-871-6196-3), February 2007

Drug treatment demand data – influence on policy and practice by Hamish Sinclair (ISBN 10: 92-871-6086-4/ISBN 13: 978-92-871-6086-7), October 2006

Psychological drug research: current themes and future developments by Jorge Negreiros (ISBN 10: 92-871-6032-5/ISBN 13: 978-6032-4), September 2006

Biomedical research in the drugs field by Richard Muscat (ISBN 10: 92-871-6017-1/ISBN 13: 978-92-871-6017-1), July 2006

Drug addiction, Ethical Eye Series, Council of Europe Publishing (ISBN 92-871-5639-5), July 2005

Research on Drugs and Drug Policy from a European Perspective by Ludwig Kraus and Dirk Korf (eds) and the European Society for Social Drug Research (ESDD) (ISBN 978-3-89967-270-4), 2005

Connecting research, policy and practice – lessons learned, challenges ahead, Proceedings, Strategic conference, Strasbourg, 6-7 April 2004, (ISBN 92-871-5535-6)

Drugs and drug dependence: linking research, policy and practice – lessons learned, challenges ahead, background paper by Richard Hartnoll, Strategic conference, Strasbourg, 6-7 April 2004 (ISBN 92-871-5490-2)

Road traffic and psychoactive substances, Proceedings, Seminar, Strasbourg, 18-20 June 2003 (ISBN 92-871-5503-8), July 2004

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In recent years, the non-medical use of prescription drugs (NMUPD) has caused increasing public concern around the globe. Women constitute a special risk category for NMUPD and understanding gender as it relates to this phenomenon is now a critical requirement for effective policy and practice. Intended primarily for policy makers and researchers, this Pompidou Group publication aims to explore gender specificities in terms of the use and misuse of prescription drugs in Europe and the Mediterranean region. Using secondary sources, it also seeks to identify gaps in the data available in the area covered and to make recommendations for further research, coherent policy development and effective, gender-sensitive practice.

This publication is an initial attempt to map this emerging phenomenon and to identify lacunae and avenues for further investigation. It constitutes an important resource for those interested in the interaction between gender and drug use.

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