SERVICE SURVEYS, LIFESTYLE AND CHRONIC DISEASES

BELGIAN NATIONAL REPORT ON DRUGS 2014
NEW DEVELOPMENT AND TRENDS
BELGIAN NATIONAL REPORT
ON DRUGS 2014 (DATA 2013)

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CHAPTER 4.
HIGH RISK DRUG USERS

De Ridder K.

- The prevalence of estimated ever-injecting drug use in Belgium has remained stable between 2002-2012 (3.4 per 1000 inhabitants).
- More than half of the injecting drug users was initiated to injecting drug use before the age of 21 and 14% was even younger than 15 years of age at the time of first injection.

1. INTRODUCTION

In this chapter, aspects of high risk drug use are presented following EMCDDA’s current definition being ‘recurrent drug use that is causing actual harm to the person or is placing the person at a high probability/risk of suffering such harms’ (Thanki and Vincente, 2013).

Hence, high risk drug use (defined by EMCDDA) can be measured as the use of psychoactive substances by high risk patterns and/or by high risk routes of administration in the last 12 months. As consequence, prevalence data of daily substance use, polydrug use (patterns) and injecting drug use (route of administration) can be considered as an indication of high risk drug use. Polydrug use in particular is increasing the risk of overdose due to the synergistic effects of the different types of drugs combined. For the description of frequent or daily substance use please refer to chapter 2.

As the prevalence of injecting drug use (IDU) in Belgium is currently estimated by the use of the HIV multiplier method (combining data from the national HIV/AIDS register with estimates of the HIV-prevalence rate among injecting drug users), the presented prevalence is related to ever-injecting drug use.

The policies on prevention and harm reductions are competences of the Communities in Belgium. Activities in this framework are supported by the competent administrations and our regional focal points. As results are therefore not comparable, they are reported separately. Characteristics of the injecting population are investigated through a yearly survey by the needle exchange programme in the Flemish Community. Indications of high risk drug use, of which some do not strictly follow the EMCDDA case definition of high risk drug
use, among persons visiting recreational settings within the French Community were obtained through the survey ‘Drugs risk less’ (‘Drogues Risquer Moins’ of Modus Vivendi).

2. PREVALENCE OF AND TRENDS IN HIGH RISK DRUG USERS

2.1. ESTIMATION OF HIGH RISK DRUG USE PREVALENCE

2.1.1. National prevalence estimation of injecting drug use

*Research strategy: HIV-multiplier method*

The benchmark-multiplier method was applied to estimate the prevalence of ever-injecting drug users (aged 18-64 years) in Belgium using data from the national HIV/AIDS register and from a sero-behavioural study among injecting drug users (IDUs) (Plaschaert et al., 2005). However, the national HIV/AIDS register suffers from missing risk factor information and lacks follow-up of the non-AIDS cases, hampering its use as a benchmark. To overcome these limitations, statistical corrections were required, which allow avoiding seriously biased estimates of the size of the injecting drug using population. In particular, imputation by chained equations (van Buuren et al., 1999) was used to correct for the missing risk factor information whereas stochastic mortality modelling was applied to account for the non-AIDS mortality. Monte Carlo confidence intervals were obtained properly reflecting the uncertainty resulting from the statistical corrections. For a thorough overview on the methodology, the reader is referred to Bollaerts et al. (Bollaerts et al., 2013).

*Data sources*

- National HIV/AIDS register

In Belgium, HIV-screening is widely used with an average of 56 screening tests per 1,000 inhabitants per year during the period 2000-2010 (National Institute for Health and Disability Insurance (NIHDI)). All serums for which the screening test results were positive, are submitted for confirmation to one of the seven AIDS Reference Laboratories (ARLs) in Belgium. The registration results of the seven ARLs are validated for duplicate recording and included in the national HIV/AIDS register which exists since 1985-86 and is hosted by the Scientific Institute of Public Health (WIV-ISP). The register is deemed to be exhaustive as the seven ARLs are the only laboratories subsidized for performing HIV confirmation tests.
For each confirmed HIV-positive test, a standardized form is sent to the patient’s clinician to collect additional information on nationality, residence, sexual orientation, probable mode of HIV transmission and CD4 count at time of HIV diagnosis. The response categories for probable mode of HIV transmission are homo- and heterosexual transmission, transmission through blood transfusion, through IDU and mother-to-child transmission. Unfortunately, the standardized forms are not always fully completed returned to the WIV-ISP, resulting in missing risk factor information. Cases which developed AIDS are subjects for follow-up; each year, data is collected on last consultation and possible death. The non-AIDS cases are no subject for further follow-up.

- Sero-behavioral prevalence study
In Belgium, a sero-behavioural study was carried out in 2004-05 among drug users in contact with drug treatment facilities or users who were imprisoned (Plasschaert et al., 2005). In total, 1,005 drug users in treatment and 117 incarcerated drug users (15-40 years) enrolled at 65 different drug treatment facilities and 15 different prisons geographically dispersed over Belgium. 57% (n=573) and 68% (n=80) of the drug users in treatment and in prison respectively, declared to have injected drugs at least once during their life. Intravenous blood samples were taken to determine the HIV- as well as the Hepatitis B (HBV) and -C (HCV) status of the participants. The HIV-seroprevalence among IDUs in treatment and in prison was estimated to be 2.8% (95%CI: [1.8;4.6]) and 5% (95%CI:[2.0;12.2]), respectively. These prevalence’s were not significantly different (p-value=0.30), yielding an overall estimated prevalence of 3.1% (95%CI: [1.8;4.8]).

In addition to serological studies, the HIV prevalence rate among IDUs can be obtained from routine diagnostic testing. As these results are yearly available, this allows for the investigation of time trends. However, concerns remain regarding the (geographical) representativeness of the data. Similar to other observed (Western) European trends (EMCDDA, 2010), no significant time trends in HIV prevalence rates among IDUs were observed during the past 10 years in Belgium based on the results from routine diagnostic testing (Deprez et al., 2012). Therefore, the HIV prevalence rate from the sero-behavioural study conducted in 2004-2005 is assumed to apply to the entire period 2002-2012.

Results

Because of an update of the file from the national HIV/AIDS register, the estimates before 2012 are slightly different from the estimates in the previous editions of the Belgian Annual Report on Drugs (Table 4.1).

In 2012, the prevalence of ever-IDU (per 1000 inhabitants, aged 15-64 years) was estimated to be 3.5 (95% CI: [2.4;4.7]) and the total number of ever-IDUs in Belgium to be 25,132 (95% CI: [17,352;33,959]). The estimated prevalence for 2013 was 3.5/1,000 inhabitants (95% CI: [2.5;4.8]) and the estimated total
The number of ever-IDUs was 25,673 (95% CI: [18,135;34,987]). No significant time trends were recorded. Complementary information related to IDU is described in chapter 5.

### Table 4.1  
Estimated number and prevalence of ever-injecting drug use (15-64 years) between 2002 and 2012

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>95% CI</th>
<th>n/1,000</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>21,200</td>
<td>[15,165;29,933]</td>
<td>3.1</td>
<td>[2.2;4.4]</td>
</tr>
<tr>
<td>2003</td>
<td>21,866</td>
<td>[15,539;30,101]</td>
<td>3.2</td>
<td>[2.3;4.4]</td>
</tr>
<tr>
<td>2004</td>
<td>23,175</td>
<td>[16,352;32,345]</td>
<td>3.4</td>
<td>[2.4;4.7]</td>
</tr>
<tr>
<td>2005</td>
<td>23,189</td>
<td>[16,067;32,886]</td>
<td>3.4</td>
<td>[2.3;4.8]</td>
</tr>
<tr>
<td>2006</td>
<td>23,237</td>
<td>[16,453;31,904]</td>
<td>3.4</td>
<td>[2.4;4.6]</td>
</tr>
<tr>
<td>2007</td>
<td>24,044</td>
<td>[17,146;33,603]</td>
<td>3.4</td>
<td>[2.5;4.8]</td>
</tr>
<tr>
<td>2008</td>
<td>24,525</td>
<td>[17,453;34,409]</td>
<td>3.5</td>
<td>[2.5;4.9]</td>
</tr>
<tr>
<td>2009</td>
<td>24,743</td>
<td>[16,975;34,026]</td>
<td>3.5</td>
<td>[2.4;4.8]</td>
</tr>
<tr>
<td>2010</td>
<td>24,869</td>
<td>[17,398;34,251]</td>
<td>3.5</td>
<td>[2.4;4.8]</td>
</tr>
<tr>
<td>2011</td>
<td>25,160</td>
<td>[17,577;34,528]</td>
<td>3.5</td>
<td>[2.4;4.8]</td>
</tr>
<tr>
<td>2012</td>
<td>25,132</td>
<td>[17,352;33,959]</td>
<td>3.5</td>
<td>[2.4;4.7]</td>
</tr>
<tr>
<td>2013</td>
<td>25,673</td>
<td>[18,135;34,987]</td>
<td>3.5</td>
<td>[2.5;4.8]</td>
</tr>
</tbody>
</table>

CI: Confidence Interval  
Source: national HIV/AIDS register, WIV-ISP

#### 2.1.2. High risk substance use among students

The 2011-2012 VAD School Survey assessed polydrug use among Flemish students in secondary education (Melis, 2013). Although an interesting aspect of multiple drug use, note that this report does not put a focus on concomitant use with tobacco or alcohol as they are not defined as illicit drugs and not part of our surveillance tasks (EMCDDA). Of the Flemish school students who had ever used cannabis, 20.6% had also used another illicit psychoactive substance (Melis, 2013). 45.1% of the regular cannabis users had ever used another illicit drug.

Problematic use of cannabis and other psychoactive substances among Flemish students in higher education was assessed in the third wave of “Head in the clouds?” survey (Rosiers et al., 2014). Problematic cannabis use was examined through six questions which were based on criteria for cannabis dependency of the diagnostic and statistical manual on mental health (DSM-IV) (Decorte et al., 2003). The questions were related to
- the use of cannabis longer than planned,
- feeling the need to reduce or stop cannabis use,
not being able to keep up work or study obligations,
• the reduction or suspension of social activities because of cannabis use,
• sustained use of cannabis despite relational problems, psychological or somatic problems caused or worsened by cannabis use.

Only respondents with reported cannabis use the last 12 months were requested to answer the yes/no-questions. 15.8% did use cannabis more or longer than planned and 10.0% did feel the need to reduce or stop cannabis use. Three-quarter of the last 12 months users had never experienced one of the six expressions of problematic cannabis use. A higher risk for problematic use is correlated with more frequent use and a younger starting age of use. 90.6% of the female students reported no expressions of problematic cannabis use compared to 70.2% of the male students.

Problematic use of amphetamines, ecstasy and cocaine was assessed with the DAST-10 screening instrument (McCabe et al., 2006). The questionnaire is based on ten yes/no-questions related to possible experienced negative consequences of substance use the past year and breaks users down into three different categories: limited risk, increased risk and strongly increased risk of problematic drug use. In the survey, the number of respondents for DAST-10 was limited (N=138), so cautious interpretation of the results is required. Less than half of the respondents reported increased risk (34.1%) and strongly increased risk (11.6%) for problematic substance use. Certain symptoms were more frequently reported: using substances for non-medical reasons, polydrug use, involvement in illegal activity to obtain the substances, feeling bad or guilty about substance use, and having blackouts or flashbacks because of substance use. At the same time, nine in ten respondents of this user group reported that they expect to be able to stop using these substances if wanted. The report postulates that this observation could suggest two things: either it could confirm a difference between problematic drug use and dependency, or perhaps these substance users underestimate the difficulty to stop their substance use. Similar as the results on cannabis use, male students reported more problems related to these substances than female students.

2.1.3. **High risk drug use within the party scene**

In the French Community, indications regarding IDU and polydrug use can be obtained based on the annual survey within the party scene (“Drug risk less “, Modus Vivendi, see also Chapter 2). The survey aims at verifying whether the harm reduction activities apply well to the targeted audience and is therefore not representative for the whole party scene. In 2013, the survey questions related to last month and lifetime drug use (in recreational settings and other) have been changed into the terminology “usual drug use in recreational settings”. Of all questioned visitors, 4.3% (n=61) reported lifetime IDU in recreational settings. The mean age of those reporting IDU was 24.9 years. Of the 1,418 visitors, 1.0% (n=14) reported IDU during the event (see Table 4.2). 1.5% and
1.0% of the visitors reported respectively ‘sometimes’ and ‘often’ injecting drugs in nightlife, while 1.6% reported IDU outside nightlife. Polydrug use was reported much more in 2013 than in previous years. However, it is uncertain whether this is a true increase or rather a selection bias.

**Table 4.2 | Prevalence (%) of injecting drug use and polydrug use within nightlife settings in the French Community between 2006 and 2013**

<table>
<thead>
<tr>
<th>Drug use pattern</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Injecting (N)</strong></td>
<td>2,402</td>
<td>2,618</td>
<td>3,917</td>
<td>2,969</td>
<td>2,111</td>
<td>2,778</td>
<td>3,155</td>
<td>1,418</td>
</tr>
<tr>
<td>Lifetime (%)</td>
<td>2.7</td>
<td>3.2</td>
<td>3.2</td>
<td>3.5</td>
<td>4.6</td>
<td>4.4</td>
<td>3.8</td>
<td>-</td>
</tr>
<tr>
<td>Last month (%)</td>
<td>1.7</td>
<td>1.3</td>
<td>1.1</td>
<td>1.5</td>
<td>2.1</td>
<td>1.7</td>
<td>1.8</td>
<td>-</td>
</tr>
<tr>
<td>During event (%)</td>
<td>-</td>
<td>0.6</td>
<td>0.7</td>
<td>1.1</td>
<td>1.2</td>
<td>0.9</td>
<td>0.9</td>
<td>1.0</td>
</tr>
<tr>
<td>*<em>Polydrug use</em> (N)**</td>
<td>2,402</td>
<td>2,618</td>
<td>3,917</td>
<td>2,969</td>
<td>2,111</td>
<td>2,778</td>
<td>3,155</td>
<td>1,653</td>
</tr>
<tr>
<td>2 products (%)</td>
<td>18.6</td>
<td>16.9</td>
<td>23.0</td>
<td>18.7</td>
<td>17.3</td>
<td>17.0</td>
<td>13.2</td>
<td>22.2</td>
</tr>
<tr>
<td>≥3 products (%)</td>
<td>13.2</td>
<td>11.5</td>
<td>12.9</td>
<td>10.1</td>
<td>12.7</td>
<td>9.3</td>
<td>7.2</td>
<td>19.7</td>
</tr>
</tbody>
</table>

* not part of problematic drug use definition by EMCDDA, alcohol is taken into account when used together with an illegal substance

Source: Drogues Risquer Moins, Modus Vivendi

**2.2. OBSERVED TRENDS**

The estimated prevalence of ever-IDU in Belgium for the period 2002-2013 (see Table 4.1) and the observed prevalence of IDU during events within nightlife settings in the French Community for the period 2006-2013 (see Table 4.2) suggest a stable trend in the area of injecting drug use.
3. CHARACTERISTICS OF HIGH RISK DRUG USERS

3.1. INJECTING DRUG USERS IN CONTACT WITH NEEDLES EXCHANGE PROGRAMMES IN THE FLEMISH COMMUNITY

Data on IDUs frequenting the needles exchange programmes (NEP) located in the Flemish Community are collected through a structured, voluntary, anonymous questionnaire since 2001 (Windelinckx, 2013; Windelinckx, 2014). Yearly, a sample of IDUs contacting one of the NEP is asked to fill out a questionnaire, based on the Injecting Risk Questionnaire (IRQ) (Stimson et al., 1998) and additionally containing items on health status, drug use and access to health care. From 2006 onwards, a revised questionnaire is used. In 2009, 2010 and 2013, additional questions such as recent and ever used injection places, injection site abscesses, first product injected were added to the questionnaire. The results described below are self-reported and are not considered to be representative for all IDUs in the Flemish Community, as the number of IDUs not in contact with these programmes is believed to be substantial. 64% of the participants (N=264) to the study in 2013 indicated to know at least one injecting drug user not in contact with the syringe exchange programmes.

The age of the participants ranged from <20 to 50 years, with an average age of 35.2 years. The majority of the participants were male (79.6%). About 50% of the IDUs lived in an unstable environment (homeless or living with others). The vast majority of the participants reported non-concurrent polydrug use (on average 2.4 different types of drugs injected, on average 4 different types of drugs used). Opiates (80.8%) were the primary injected drug of choice, a substantial increase compared to last year (2012: 67.9%). Injecting opiates are followed by injecting cocaine (58.9%) and amphetamines (39.2%) which remained stable compared to 2012 (respectively 58.0% and 40.1% in 2012). Drug cocktails were more frequently injected (2013: 37.5%, 2012: 26.9%), and similar to previous year, injecting methadone has also again increased (2013: 11.7%, 2012: 8.0%, 2011: 8.7%, 2010: 4.6%).

Up to 54% of the participants reported to be initiated into IDU before the age of 21 years, which is an increase of 3.5% in comparison with last year. The mean age for starting with IDU is 21.8 years. 65% reported to be injected by someone else during first injection. Similar as previous years, the main concern of the researchers was the young age at initiation into IDU, with 14.3% of the participants being even younger than 15 years when injecting the first time. The age of the IDUs frequenting the NEP was much higher, indicating that the majority of the IDUs is already (unsafely) injecting for several years before getting in contact with risk and harm reduction programmes. Of the respondents, 76.6% is currently in treatment, but 18.7% (compared to 15.7% in 2012) reported never to have been in treatment.
3.2. DRUG USERS RECRUITED AT THE STREET IN THE FRENCH COMMUNITY

Data on risk behaviour among IDU in the French Community is collected by the use of ‘snowball operations’ ("Opérations Boule de Neige"), which have been organised by Modus Vivendi since 1993. The primary objective of these snowball operations is peer prevention and targeting hard-to-reach subpopulations. To this end, volunteering IDUs ("jobistes") receive a 15-hours training and are paid to disseminate information on AIDS and hepatitis prevention as well as other information on harm reduction among their peers. These results are not fully representative for IDUs on the street in the French Community, as the results are not corrected for dependence on the social network of the jobistes. Additionally, the questionnaire is mainly used as a contact tool, for which the completion is not truly standardized. Moreover, the geographic coverage of snowball operations may vary from year to year depending on the supply and demand of harm reduction activities at local level.

Of the 313 contacted drug users on the street in the 2013 survey, 279 persons (89.1%) reported to be a “current” drug user (defined as “having used drugs during the last month”) (Hogge and Denoiseux, 2014). In total, 166 respondents reported lifetime IDU, which was 53% of all drug users or 59.5% of the “current” drug users (Table 4.3). Of the lifetime IDUs, 65.7% reported current IDU. Of the “current” drug users, 15.1% (n=42) reported current use of more than two products and 81.7% (n=228) reported the current use of three products or more. Among the current IDUs, the most popular injection drugs were heroin and cocaine, respectively 76.1% (n=83) and 73.4% (n=80). 11.9% reported the injection of methadone.

<table>
<thead>
<tr>
<th>Table 4.3</th>
<th>Lifetime injecting drug use and polydrug use among people recruited at the street in the French Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption profile</td>
<td>All drug users (N=313)</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Lifetime IDUs</td>
<td>53.0</td>
</tr>
<tr>
<td>Current IDUs</td>
<td>34.8</td>
</tr>
<tr>
<td>Polydrug use</td>
<td></td>
</tr>
<tr>
<td>2 products</td>
<td>15.1</td>
</tr>
<tr>
<td>3 products or more</td>
<td>81.7</td>
</tr>
</tbody>
</table>

Source: Opérations Boule de Neige, Modus Vivendi, 2013
4. CONCLUSIONS

The current available national data on high risk drug use is limited and therefore only an estimated prevalence of ever-IDUs in Belgium can be reported instead of last 12 months users. The additional reported results are geographically or situational limited (school populations, recreational settings and NEP in either Flemish or French Community) and are rather indicative than conclusive.

In general, the key indicator ‘high risk drug use’ has been revised during the last years. In an effort to support the development of theoretical definitions of subcategories in the revised key indicator, a literature study on the patterns of use and their relation to harm in users of opioids, cocaine and amphetamines was performed (Skafupova et al., 2014). The literature study pointed out some patterns that were more strongly associated with harms:

1. Route of administration: injecting drug use was the most risky route of administration, followed by smoking and inhaling. Although snorting and oral use were less risky routes, they could not be considered to be risk-free behaviours.

2. Polydrug use was an extremely significant confounding factor of any harm, as it indicates a particular level of compulsivity and is associated with higher levels of dependence and overdose risk.

3. Frequency: for cocaine and amphetamines, it appeared that weekly and higher frequency of use, and patterns of heavy periods of continuous use (bingeing) were related to higher risks of harm. It was less clear to define a cut off for opioid use as most studies were only based on heavy, dependent, daily users. Based on clinical experience that opioid use is not less harmful than the use of stimulants, a cut off on weekly (and more frequent) use of opioids seems reasonable.

Trends in injecting drug use both on a national level and in recreational settings suggest that the prevalence of IDUs has been stable during the last decade. The most alarming observation is the young age at which current IDUs were initiated to injecting drug use; more than half of the users were initiated under the age of 21 and even 15% was initiated under the age of 15 years. Additionally, the time lapse between initiating injecting drug use and frequenting needle exchange programmes is probably several years, which increases the risk of developing unsafely injecting habits and the associated risk for infectious diseases and other health problems. This young age of onset certainly supports the further development of selective prevention measures (EMCDDA, 2014).

Among the students in higher education, about one in five ‘last 12 months’ users of cannabis reported expressions of problematic cannabis use (DSM-IV), while more than half of the ‘last 12 months’ users of other psychoactive substances expressed (strongly) increased risk for problematic use (DAST-10).
Because of the low prevalence of illicit substances other than cannabis, these problems related to illicit drug use occur rather exceptional. Although clear indications of problematic use in the latter group, most of them assume that they would be able to stop using without any problems. Further longitudinal research with comprehensive questionnaires and interviews is needed to define whether these findings reflect the difference between dependency and drug abuse, or whether a part of the drug users underestimates the difficulty of ending the use of illicit substances. Although the prevalence of high frequent use of stimulants is rather rare in the examined school and student populations, any health care, pedagogic or judicial contact revealing this pattern of drug use should be handled with care. The assessment of relevance of a sudden increase in prevalence of polydrug use in recreational settings (French Community) requires follow-up data during the next years.

Another noticeable fact is that about one in ten IDUs in the NEP of the Flemish Community and on the streets in the French Community (‘snowball operations’) reported injection of methadone. In Belgium, heroin is still the most common opioid used for injection, but the gradual increase in prevalence of methadone injection should be followed carefully as is already the case in some other European countries (e.g. Estonia, Finland) alternatives such as illegal fentanyl or buprenorphine have become the most common injected opioids (EMCDDA, 2014).

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