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# BELGIAN NATIONAL REPORT ON DRUGS 2014

NEW DEVELOPMENT AND TRENDS

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ON DRUGS 2014 (DATA 2013)

NEW DEVELOPMENT AND TRENDS



**Scientific Institute Public Health (WIV-ISP)**

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# CHAPTER 7.

## RESPONSES TO HEALTH CORRELATES AND CONSEQUENCES

*Blanckaert P. and Plettinckx E.*

- In 2013, 916 patients were admitted to the crisis intervention centres hosted by specialised drug treatment centres.
- MDMA concentration in ecstasy tablets have nearly doubled during the last few years.
- Despite the positive initiative of syringe exchange programmes, injecting drug users still engage in unsafe disposal of their injecting equipment.
- Belgian research encourages HCV treatment among currently injecting drug users, as antiviral therapy is approved to be safe and effective among this target group.

### 1. INTRODUCTION

Drug use is related to several health correlates and consequences, such as drug-related infectious diseases, drug-related emergencies, mental health problems, addiction, overdoses and drug-related deaths (for more information please refer to chapter 6). Accordingly, people who use drugs have multiple additional health needs. This chapter aims to understand some of the current practices in reducing direct and indirect harm associated with illegal drug use. In particular, four key interventions are addressed, namely crisis care services targeting drug users who are confronted with acute health concerns (section 2.1.), responses to drug-related deaths (section 2.2.), needle exchange programmes (section 3.1.) and HCV treatment among injecting drug users (IDUs) (section 3.2.).

### 2. PREVENTION OF DRUG-RELATED EMERGENCIES AND REDUCTION OF DRUG-RELATED DEATHS

#### 2.1. PREVENTION OF DRUG-RELATED EMERGENCIES THROUGH CRISIS CARE SERVICES

International studies have pointed out that some people who are using drugs are less able to address health concerns before they become acute (Jackson et

al., 2014). For this reason specific crisis care intervention units targeting drug users were implemented in Belgium. The aim of these crisis intervention units is to provide professional, but non-intrusive medical and psychological support immediately after the crisis event occurred (James et al., 2013; Roberts, 2005). These units are generally not restricted to drug-related disorders, but provide overall short-term care for people in a crisis situation (“a state of acute psycho-emotional disequilibrium” (Lewis and Roberts R., 2001)).

More than 20 psychiatric hospitals and psychiatric units (including emergency psychiatric units) in general hospitals are providing crisis interventions to drug users. Besides these services, specialised drug treatment centres are providing crisis interventions since 1980. These interventions offer immediate short-term help to persons in crisis, as well as support in seeking continued treatment. The so-called Crisis Intervention Centres (CICs), are accredited by the National Institute for Health and Disability Insurance (NIHDI). Currently eight CICs, with a total capacity of 81 patients per day, are geographically dispersed over Belgium (Koen Deraedt, NIHDI, Personal communication). In total, 916 patients were admitted to the CIC’s in 2013 because of illegal drug use. The majority were male (85%) and the mean age was 31 years. Most patients showed a frequent pattern of drug use: 73% were using daily and 91% were using more than one substance. Almost 21% of the patients currently injected drugs. Table 7.1 shows that opiate use was the main reason to be admitted to one of the eight CIC’s in Belgium. When compared to other drug users, people who were admitted because of opiate use were in average a little bit older (mean age is 33), tended to use more frequently and often used more than one substance.

**Table 7.1 | Demographic characteristics and patterns of use of persons admitted to CIC’s in 2013 by substance**

Variables	Opiates	Cocaine	Stimulants*	Cannabis	Total
<b>Admissions</b>					
Number of persons admitted	370	195	127	110	916
Proportion of persons admitted (%)	40.4	21.3	13.9	12.0	100
<b>Demographic characteristics</b>					
Men (%)	85.4	81.0	85.0	92.7	84.6
Mean age (Years)	33.3	30.8	29.9	26.2	31.4
<b>Patterns of use</b>					
Currently injecting (%)	34.3	10.6	25.2	3.5	20.8
Daily consumption (%)	74.7	54.5	72.0	86.4	72.9
More than one substance (%)	93.0	92.3	89.8	84.5	91.2
* Stimulants: defined in the TDI protocol as amphetamine, MDMA and derivatives and others					
Source: BTDI register, 2014					



Since October 2002, a national pilot project is implemented for crisis and case management of patients with joint substance use and mental health crisis (Federal Public Service Health, Food Chain Safety and Environment). In this project, nine units in the proximity of the emergency departments of general hospitals in the cities of Antwerp, Brussels, Ghent, Genk, Leuven, Bruges, Liège, Namur and Mons are participating. These units offer in total 40 crisis beds with a maximum stay of five days.

Within these five days, special attention is given to the continuation of health care and referral to treatment. From 2011 onwards, the centres register the number of admissions and the length of stay for every admission on a monthly basis. In 2013, a total of 4,252 admissions were registered of which approximately 1,750 (41.2%) were related to illegal drugs. The average length of stay was 3.7 days. The average occupation degree was 90.7% for the short interventions (< 4 hours) and 72% for night shelters (Katia Huard, FPS Health, Food Chain Safety and Environment, personal communication). These data confirm a stable trend in the average length of stay (3.4 days in 2011).

## **2.2. PREVENTION AND REDUCTION OF NON-FATAL OVERDOSES AND DRUG-RELATED DEATHS**

### **2.2.1 Collaboration in the framework of the Belgian Early Warning System on Drugs**

The Belgian Early Warning System on Drugs (BEWSD) contributes to the prevention of drug-related deaths (DRD) caused by dangerous mixtures of drugs or new psychoactive substances (NPS) circulating in Belgium. The BEWSD is coordinated by the Belgian Monitoring Centre for Drugs and Drug Addiction (BMCCDA), hosted by the Scientific Institute for Public Health (WIV-ISP) and partner of the European EWS REITOX network authorized by the EMCDDA and Europol.

For the collection of reliable information at the Belgian level, the BEWSD relies on a multi-disciplinary network of organizations that work professionally in the domain of illegal substances. Most of the information collected by the BEWSD results from the analysis of drug samples seized by Belgian law enforcement authorities or from the reporting of clinical or post-mortem samples from hospital settings.

It is difficult to obtain a detailed up-to-date overview of the circulating street drugs in Belgium. However, one small-scale drug-testing project is currently active and coordinated by Modus Vivendi in Brussels. People have the opportunity to anonymously hand in a drug sample at Modus Vivendi. These samples are then analysed at the Scientific Institute of Public Health (WIV-ISP, Medicines department) to obtain information on the constitution of the

sample. In some cases, Modus Vivendi is also contacted when drug users have experienced bad effects after consumption of an unknown drug. Through this project, the BEWSD receives additional valuable information on contaminated or highly dosed drugs. Sometimes, NPS are analysed as well.

The BEWSD initiated some research projects in 2013 that aim at screening for the drugs used in a certain setting, e.g. a festival or large-scale dance event. The analysis of drug samples seized at these settings provides a better overview of the drugs that are currently circulating. In contrast, analysis of drugs, seized from dealers by police services, provides an overview of the drug market on the supply side (for more information about drug seizures please refer to chapter 10). For example, a lot of information regarding NPS detected in Belgium is acquired through the analysis of substances seized by the customs. This can explain the discrepancy between the high number of NPS found each year on Belgium territory, and the lack of corresponding clinical samples (from potential intoxications) or reports of NPS use.

By combining all obtained information (based on consumer experiences, law enforcement intelligence and clinical data), the BEWSD manages a unique and extensive database about the composition and effects of illegal substances and NPS in Belgium. On the basis of the results included in this database, the BEWSD is in close interaction with the partners of the network. Whenever a high-risk substance or a NPS is reported in Belgium, the BEWSD distributes an EWS message (alert) to inform prevention and harm reduction organizations.

Messages distributed by the BEWSD are divided into 4 categories according to severity or perceived threat. A distinction can be made between informative messages (level 0) and alert messages (level 1 to 3). Alerts are related to analytically confirmed information and reported intoxications or deaths, while informative messages are less urgent communications containing information about the appearance of NPS in Belgium, neighbouring countries or Europe.

In 2013, the BEWSD sent out around 20 informative messages to its network of toxicological and clinical forensic laboratories. These were mostly notifications of new substances or updates to the mass spectrometry spectral databases of the participating laboratories in Belgium. Analysis methods for certain specific compounds (e.g., the synthetic cannabinoid XLR-11) were shared as well. The main objective of these informative messages is to ensure that labs are capable of detecting the latest psychoactive substances.

The alerts are relayed further to workers in-the-field by the regional focal points (VAD and Eurotox) in order to prevent (additional) casualties. VAD and Eurotox also maintain internet fora, where drug field workers can post messages regarding developments or dangerous trends observed among drug users. Harm reduction organizations and prevention projects such as Quality Nights,

Vitalsounds and Breakline further tailor these messages to their specific target audience (for more information about these projects please refer to chapter 3). After removing the potentially sensitive or privacy-related medical information, these alerts are made available to the general public through the BEWSD website. Cases with a substantial risk to national public health are shared with the media.

### 2.2.2. Current trends and observations

A worrying trend in 2013 is the continuing presence of highly dosed MDMA tablets on the Belgian drug market (see also chapter 10). The first alert with regard to highly dosed MDMA tablets was sent to the network in February 2013. Two deaths related to the consumption of MDMA were confirmed to the BEWSD.

It seems that, after several years of decline, the MDMA market has recovered. A standard clinical dose of MDMA is about 125mg, expressed as the HCl salt. Keeping this in mind, alarming high dosages of MDMA are frequently encountered in ecstasy tablets. In 2013, tablets that easily contained twice the standard dose were seized; in some cases even up to 360mg MDMA.HCl. The increased availability of precursor material is thought to be the leading cause of this 'revival', although it does not explain the extremely high dosages that are observed in MDMA tablets. This phenomenon is not confined to Belgium, but is reported by our neighbouring country the Netherlands as well.

MDMA was also found in combination with other substances. In July 2013, a death case was reported. Extremely high concentrations of MDMA and lower quantities of PMMA were found in *post mortem* toxicology blood and urine work-up.

Besides MDMA, the BEWSD urged the network to warn for blotters that were sold as LSD. Nevertheless, these blotters contained the NPS 25I-NBOMe which is a potent hallucinogenic 5-HT<sub>2A</sub> agonist. In total, 5 intoxications with 25I-NBOMe were reported in 2013. One of the blotters contained 2,5-dimethoxy-4-chloroamphetamine (DOC) as well. One patient died even after arrival at the hospital, although it is not clear to what extent the consumption of 25I-NBOMe might have contributed to the exact cause of death of this patient.

Additionally, a PMA warning was released in January 2013 after being informed of a fatal incident. Toxicology work-up of blood and urine revealed the presence of amphetamine, PMA, alcohol and THC.

At the end of the year, an intoxication with methoxetamine and the detection of 6-APB and methylene (two new synthetic stimulants) were also reported.

### 3. PREVENTION AND TREATMENT OF DRUG-RELATED INFECTIOUS DISEASES

#### 3.1. NEEDLE EXCHANGE PROGRAMMES

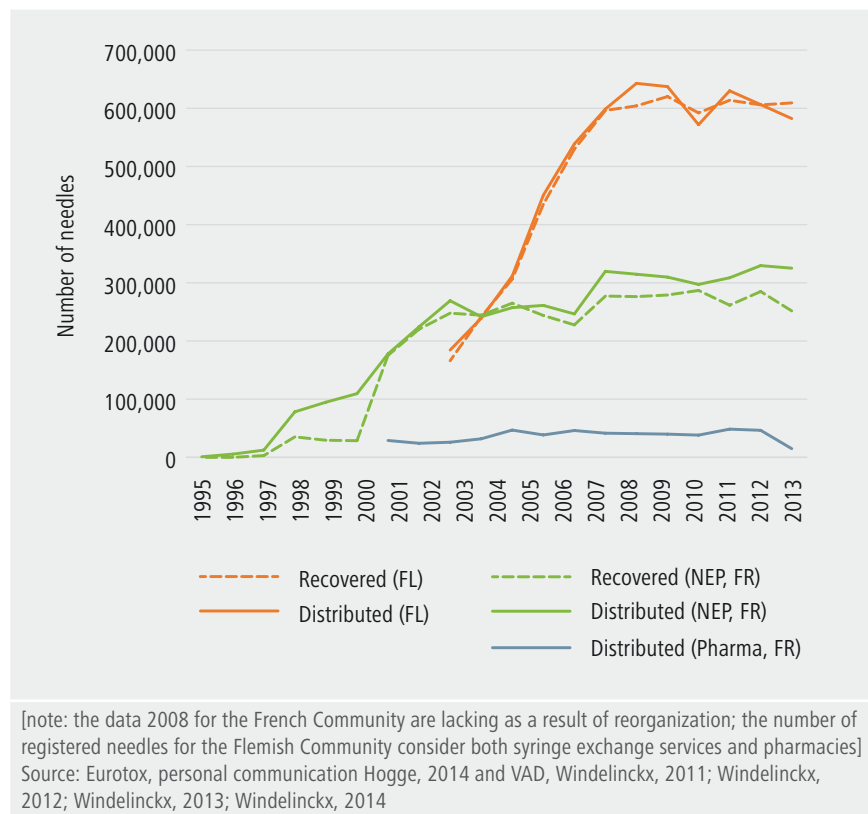
Needle exchange programmes (NEP) distribute sterile injecting material and additional prevention material among IDUs and recuperate used needles. In this way, these programmes aim to prevent the spread of infectious diseases and other health risks, such as overdoses and abscesses. Moreover, NEP can facilitate the referral of IDUs to prevention services or treatment options (Windelinckx, 2014). These NEP are coordinated by Free Clinic for the Flemish Community and by Modus Vivendi for the French Community.

Free Clinic is one of the Medical and Social Care Centres (MSCC) of Belgium and is located in Antwerp. In cooperation with five other coordinators of the MSCC in the Flemish Community (one per province), Free clinic has implemented the NEP in 2001. The provincial coordinator creates a network of health care professionals and pharmacists helping in the distribution of sterile injecting material, including syringes, filters, ascorbic acid, spoons (Exchange©), alcohol swabs, flasks of injectable sterile water, foil, bicarbonate, and containers to recover used syringes. In 2013, sterile injecting material within the Flemish Community was distributed by 49 needle exchange services, dispersed over 28 cities and villages. In addition, 28 pharmacies, dispersed over 8 cities and villages, contributed in the NEP in the Flemish Community. This suggests an increase of 8 new syringe exchange services in 2013, although 3 pharmacies ceased distributing sterile equipment material. In total 582,357 syringes were distributed (see also ST10\_2014\_BE\_02) through NEP and pharmacies, 609,235 were recuperated. This brings the recuperation rate to about 105% (see Figure 7.1 and 7.2).

In the French Community, NEP are coordinated by Modus Vivendi since 1994. In 2008, the organization of the NEP was rearranged, which caused a lack of data for that year. Since 2008, sterile injecting equipment has been offered through 15 official fixed-site and mobile services (with accreditation) located in Brussels, Charleroi, Dinant, Arlon, Namur, Liège, Ciney and Mons. In total, 325,147 sterile syringes were distributed by NEP in 2013 (see also ST10) and 251,685 were returned, resulting in a recuperation rate of 77.4%. On top, more than 10 other services distributed sterile injection equipment. However, the number of sterile syringes distributed within these services is not registered. A network of pharmacists participate in the "Stérifix" project. This project involves pharmacists to distribute "Stérifix" kits to IDUs at the cost of 0.5 euro. These kits include two syringes, two alcohol swabs, two dry post-injecting swabs, two spoons, two flasks of injectable sterile water and harm reduction information. In total, 14,905 Stérifix kits were dispatched in the pharmacies participating to the

Stérifix project. As each kit contains 2 syringes, 29,810 syringes were dispatched to IDUs. Besides sterile syringes, also 161,934 sterile spoons, 152,256 plastic flasks of water and 271,781 alcohol pads were distributed. Unfortunately, the exact number of sterile injecting equipment effectively sold through the whole network was not registered.

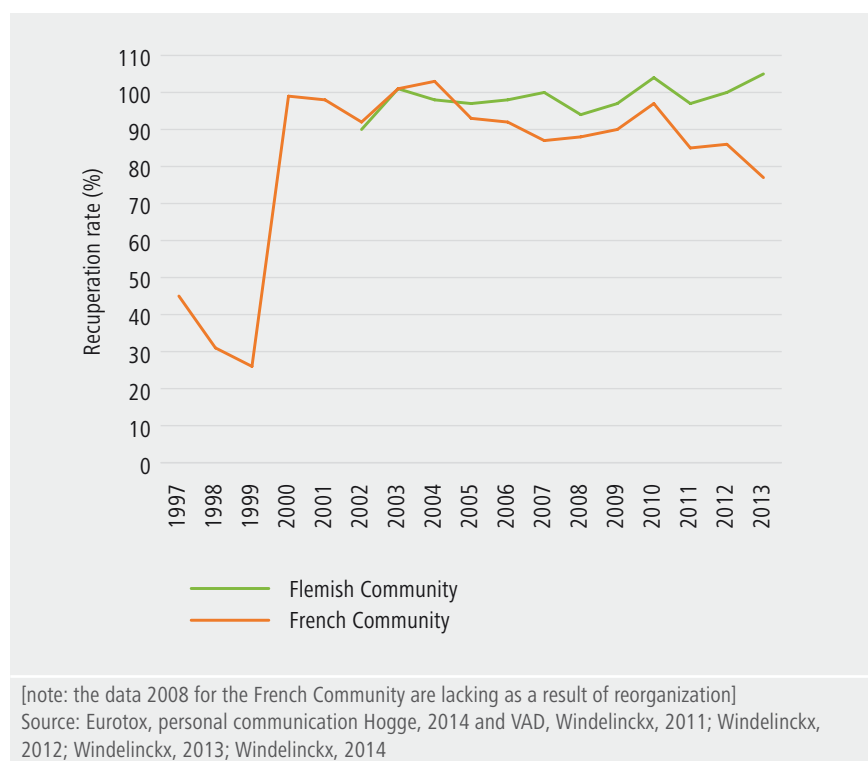
**Figure 7.1 |** Number of syringes distributed and recuperated in the Flemish (FL) and French Community (FR) by needle exchange programmes and by pharmacists between 1994 and 2013



The fact that the number of needles distributed by pharmacies outside the Stérifix project is not registered in the French Community, may explain the lower number of registered distributed sterile syringes in comparison with the Flemish Community. Moreover, the needle exchange services in the Flemish Community are dispersed among more cities and villages which can influence the number of distributed sterile syringes in a positive way as this increases the accessibility of the needle exchange services.

Compared to the past years, the number of distributed needles remains stable in the French Community whereas the number is declining again since two years in the Flemish Community (Figure 7.1). The recuperation rate (Figure 7.2) however, is increasing in the Flemish Community and decreasing in the French Community. The proven success of the NEP endorses the possibility of syringe recuperation in reducing the risks (e.g. needle-stick injury and consequent infection) for the general population.

**Figure 7.2 |** Recuperation rate of the syringes distributed by Needle Exchange Programmes (NEP) in the Flemish and French Community between 1997 and 2013



Based on an annually anonymous survey of the Flemish NEP, it is possible to weight the usefulness of the programme as well as to form an image on the people who are reached. In 2013, 264 valid questionnaires were filled out (Windelinckx, 2014). For a detailed description of the used methodology, we refer to chapter 4 (section 3.1) of this report.

Most participants of the survey are men (80%). Half of the respondents (52%) rent or own a house and the average age is 35. As most clients of the NEP start to inject at a young age, the mean age shows that people are injecting

several years before they get in touch with risk and harm reduction initiatives. Moreover, the results indicate regular injecting drug use and polydrug use among the target group.

It seems that IDUs receive information about syringe exchange programmes mostly through low threshold drug treatment (63%) and through acquaintances (53%). Besides, results pointed out that friends are really important to disperse sterile injecting equipment. Most people obtain sterile injecting equipment through drug treatment or separate syringe exchange services. Nevertheless, pharmacists play a permanent role in the distribution of injecting materials, as 66% of the IDUs making use of NEP are buying regularly injecting materials in pharmacies.

In 2013, the NEP in the Flemish Community reached 27% new clients, meaning this proportion (almost 1 in 3 of NEP users) only used these programmes for less than one year. Although 12% of the respondents claimed to know minor injecting drug users, the latter group is not reached. Also, despite the large amount of properly returned used needles, 19% of the IDUs indicated to engage in unsafe disposal of their injecting equipment, e.g. throwing uncapped needles into garbage bins or on the street (Windelinckx, 2014). For further discussion of the results about risk behaviour, we refer to chapter 6 (section 2.3.1) of this report.

### 3.2. HEPATITIS C VIRUS TREATMENT AMONG INJECTING DRUG USERS

Chronic hepatitis C is a disease with an impact for public health that should not be underestimated. Injecting drug users are at increased risk of Hepatitis C Virus (HCV) infections mostly because of injecting equipment sharing practices (WHO, 2012). Approximately 65% of IDUs are infected within one year of needle use. HCV typically progresses slowly over a period of many years. The symptoms of HCV are non-specific until the liver disease is already advanced. Consequently, HCV is the most common cause for liver transplantation among adults (Sylvestre, 2002).

Despite that IDUs are the most important risk group for new HCV infections, this group is often excluded from antiviral therapy. Treatment uptake in this group remains low due to concerns about poor compliance, adverse events and reinfection (Backmund et al., 2001; Robaey et al., 2013). Contacts between IDUs and healthcare workers have been characterised with mistrust and discrimination (Crawford and Bath, 2013).

Practitioners claim that current IDUs have a poor compliance with HCV treatment because it is time-consuming and expensive (Backmund et al., 2001; Sylvestre, 2002). A typical treatment regimen comprises 6 to 12 months of Interferon/Ribavirin combination therapy (Robaey et al., 2013). As 45 to 73% of former IDUs know

a drug relapse within half a year, HCV treatment was until recently only recommended if former IDUs have lived drug-free for a period of 6 to 12 months. Nevertheless, patients who continue to inject illegal drugs showed a sustained response to the antiviral therapy. This proves that HCV treatment of current IDUs is feasible on the basis of their compliance rate (Backmund et al., 2001).

In addition, based on recently published Belgian research, cessation of injecting drugs is not required to limit the progression of the HCV disease (Robaey et al., 2013). Recent and occasional drug use during treatment seemed to have only a little impact on the treatment completion. Daily drug use, on the other hand, lowers the level of the treatment completion. Moreover, reported reinfection rates after a successful HCV treatment are also low.

This means that IDUs don't have to be excluded from HCV treatment immediately, as it is not only feasible but also proved to be safe and effective (Robaey et al., 2013). Therefore, the option of treatment has to be assessed individually. Taken this into account, there is a need for a multidisciplinary approach for the evaluation of the educational level, housing situation, social setting and clinical factors (both physical and psychological) of the patient in order to provide HCV treatment successfully. In the context of the treatment, pre-therapeutic education about the course of the disease, the risk factors, the treatment (agreement to maintain regular appointments) and harm reduction strategies are required. Considering the complex health needs of the patient, access to peer support and social support services is also of great importance (Robaey et al., 2013). These services may increase treatment knowledge, treatment uptake and improve service provision (Crawford and Bath, 2013).

### 3.3. PREVENTION AND TREATMENT OF DRUG-RELATED INFECTIOUS DISEASES IN PRISON

Prevention projects and treatment initiatives, aiming to reduce drug-related infectious diseases in prison, are discussed in section 6 of chapter 9 of this report.



## 4. CONCLUSIONS

Several initiatives in Belgium are implemented to get a better grip on drug-related harms. Among those, various services are available to treat acute drug-related health concerns. The information about the occupation degree of these services indicates a sufficiently large offer. Most of the patients experiencing a crisis are regular polydrug users and 40% are admitted because of opiate use. In 2013 several research projects were initiated by the BEWSD, with the goal of screening drugs used in recreational settings. Contrary to drugs seized by police services, analysis of drugs found on drug users might provide better information regarding the composition of drugs circulating on the streets. Drugs seized by police services are frequently large-scale seizures and are better suited to provide an overview of the supply side of the drug market. This can explain the discrepancy between the high numbers of NPS seized every year in Belgium and the lack of clinical intoxications with these substances.

The raising MDMA content detected in ecstasy tablets in 2013 remains a big concern. This phenomenon has been closely monitored by the BEWSD for the last years. Compared to 2009, the standard amount of 125mg MDMA processed in ecstasy tablets has nearly doubled, leading to potential dangerous and even lethal situations. Users that are unaware of a tablet's high MDMA content, can easily overdose. Moreover, several substances other than MDMA were found in ecstasy tablets. These other substances include an additional danger to the user. Raising awareness about the possible dangerous composition of illegal drugs and NPS through drug prevention and harm reduction services, is of great importance.

Additionally, attention for targeted overdose fatality prevention training is needed. An American study suggests that individuals who have witnessed overdoses more frequently, are more likely to intervene inappropriately compared to people who have had only a few opportunities to intervene. As such, overdose prevention training is recommended for individuals who are more likely to witness overdoses more often. Homeless people, polydrug users and individuals who have had a prior non-fatal overdose may be potential target groups for these initiatives (Bohnert et al., 2012). Nevertheless, as this study is not representative for other geographical regions, scientific research is needed at national level to assess the situation in Belgium.

Next to the prevention of overdoses, continuing attention to the efficiency of NEP is needed. The general decrease of the number of distributed syringes may be due to a lack of financial means caused by budget cuts in the sector. In 2013, a reduction of three pharmacies participating in the programme was observed in the Flemish Community. Unfortunately, pharmacies are not always willing to participate in NEP and require repeated convincing to be involved in

these harm reduction initiatives. The stable or decreasing number of recovered syringes underlines the fact that syringes may be still disposed in an unsafe way. Consequently, highlighting the value of syringe recuperation to reduce the risks (e.g. needle-stick injury and consequent infection) for the general public is recommended.

IDUs that are already in contact with syringe exchange programmes can be encouraged for further oral advertising in their environment. In that way, familiar IDUs may be triggered to reach the provided programmes. It is known that IDUs are already using for a few years before coming into contact with syringe exchange programmes. As the first year of injecting drugs is the most risky year to be infected with communicable diseases, efforts to particularly reach more young IDUs may be forced up as well, e.g. through targeted outreach street corner work or mobile services. These services have the advantage to target (suburban and rural) areas where community-based prevention and harm reduction organizations probably don't exist. Social mapping can improve the knowledge about when, where and how to reach this target group. In addition, social media may be a key channel to disseminate information about drugs and injecting practices among this population (Valdiserri et al., 2014).

The treatment uptake of IDUs concerning infectious diseases remains low as there are still concerns about poor compliance, adverse events and reinfection remain. Recent research, however, indicated the effectiveness and safety of the treatment in these patients and stresses the importance of also applying antiretroviral therapy of HCV in infected IDUs. In these cases, an integrated and individual approach is required and attention must be given not only to the clinical factors, but also to other life domains such as education and housing. Furthermore, it is important to refer patients to peer support and social support organizations as well (Crawford and Bath, 2013). Consequently, a multidisciplinary strategy lies at the base of further progress in HCV treatment of injecting drug users.

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