

**HA-REACT Joint Action on HIV and Co-infection Prevention and Harm Reduction**

**Report on PWID barriers to accessing HIV, HCV and TB services and on strategies for overcoming these barriers**

**August 2019**

**Work Package 8**

*Sustainability and long-term funding*



## **Funding**

This report was supported by the joint action '677085 / HA-REACT,' which received funding from the European Union's Health Programme (2014–2020).

## **Acknowledgements**

Parts of this document were written by HA-REACT partners Jeffrey Lazarus, Daniel Bromberg Denise Ocampo, Anne Raahauge, Monica Sane Schepisi, Irene Acinapura and Enrico Girardi. The three policy reviews were written based on a draft prepared by HA-REACT colleagues in Greece with input from HA-REACT colleagues in Hungary, Latvia and Lithuania. The first draft of the survey identifying barriers to accessing HIV, HCV, and TB prevention services by PWID was developed by Piotr Wysocki and Iwona Wawer from the National AIDS Centre (Poland). The literature review was led by Monica Sane Schepisi, Irene Acinapura and Enrico Girardi. The full report was kindly reviewed by Misha Hoekstra, Milan Solinc, and the HA-REACT Steering Committee, with further input from the Advisory Board. Parts of the results were published in *Harm Reduction Journal* (2019), which has a creative commons license, allowing us to reproduce in this report.

## **Suggested citation**

*HA-REACT - Joint Action on HIV and Co-infection Prevention and Harm Reduction. Report on PWID barriers to accessing HIV, HCV and TB services and on strategies for overcoming these barriers. HA-REACT, August 2019.*

**List of abbreviations:**

ART	Antiretroviral therapy
AIDS	Acquired Immune Deficiency Syndrome
DAA	Direct-Acting Antiviral
DBS	Dried Blood Spot
DOT	Directly Observed Therapy
ECDC	European Centre for Disease Prevention and Control
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EU	European Union
GP	General Practitioner (family doctor)
HA-REACT	Joint Action on HIV and Co-infection Prevention and Harm Reduction
HBV	Viral hepatitis B
HCV	Viral hepatitis C
HIV	Human Immunodeficiency Virus
HRS	Harm reduction service
MSM	Men who have sex with men
NBDP	National Bureau for Drug Prevention [Poland]
NGO	Non-Governmental Organization
NIHD	National Institute for Health Development [Estonia]
NSP	Needle and Syringe Program
OptTEST	Optimising testing and linkage to care for HIV across Europe
OST	Opioid Substitution Treatment
PEPFAR	President's Emergency Plan for AIDS Relief [USA]
PWID	People Who Inject Drugs
TB	Tuberculosis
UK	United Kingdom
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organisation
WUD	Women who Use Drugs

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## Executive Summary

People who inject drugs (PWID) have become one of the most vulnerable populations in Europe to not only get infected by Human Immunodeficiency Virus (HIV) and/or hepatitis C (HCV) but also to not be able to access testing, care and treatment services. In order to reach UNAIDS goals to end HIV and World Health Organisation (WHO) goals to eliminate HCV in Europe, we must better address this problem. In many cases harm reduction service (HRS) providers are the link between PWID and safe and easy access to testing, care and treatment services. Therefore, in 2017 the Joint Action on HIV and Co-infection Prevention and Harm Reduction (HA-REACT) conducted a literature review on barriers and facilitators followed by a survey to assess the knowledge of HRS providers about current policies and what they perceive to be the main barriers in their country.

The areas in which the main barriers were reported have been grouped into three categories: (1) Barriers for PWID to access prevention services; (2) Barriers for PWID to access Opioid Substitution Treatment (OST), HIV and hepatitis treatment services; (3) HRS provision staff and service quality. The report also presents results on (4) Identified strategies for overcoming barriers, and (5) Sustainable funding.

In the first category, barriers for PWID to access prevention services, the survey showed barriers in terms of user fees, restrictions in Needle and Syringe Program (NSP) supplies and paraphernalia. Also, HIV and HCV testing are not offered in all HRS nor are there enough testing services available in the communities. In the second category, barriers for PWID to access Opioid Substitution Treatment (OST), HIV and hepatitis treatment services, one barrier identified is that addiction specialists cannot prescribe HCV treatment in many cases, and secondly that respondents reported that the absence of referral systems with a hospital or clinic prevented many from getting the HCV treatment they would need. In some countries the complicated enrollment procedure with strict eligibility criteria created barriers for PWID to access HCV treatment. Another main barrier mentioned by the survey respondents was that some organizations that provide services to PWID do not provide antiretroviral therapy (ART). In the third category, HRS provision staff and service quality, the respondents identified lack of information materials for patients as well as lack of training on treatment and care for health care professionals as barriers affecting especially PWID. Additionally, the relationship with healthcare providers often provided a barrier as well as the absence of peer workers.

Key facilitators identified included point-of-care testing, such as the use of dried blood spots (DBS); simplified care pathways including through decentralised services and improved linkages between harm reduction services, primary care and specialised care; multidisciplinary approaches; targeted campaigns, the removal of treatment restrictions; and regular monitoring and evaluation. Finally, on sustainable funding, the survey showed that harm reduction service providers do not receive financial support from international donors.

Findings from the survey further showed discrepancies between stakeholders within the same country and an existing gap between the understandings among service providers on which policies that are in place nationally. Harm reduction service providers thus need a better insight into the policies in their country and importantly policy makers need to address the barriers which the service providers perceive to be in place. Additionally, this report gives an overview and analysis of the barriers in each country. We know that not all countries have the capacity to develop strategies to overcome these barriers and we therefore recommend them

to use existing knowledge on possible solutions while tailoring them to their specific national needs.

This report is an outcome of the Joint Action HA-REACT that addressed existing gaps in the prevention of HIV and other co-infections, especially tuberculosis (TB) and viral hepatitis, among people who inject drugs (PWID). The three-year project was launched in late 2015 with core funding from the European Union (EU) and was implemented by 22 partners representing 18 EU Member States. Fourteen collaborating partners contributed additional expertise, among them were: the European Centre for Disease Prevention and Control (ECDC) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

## **HA-REACT Report:**

# **An assessment of barriers to access HIV and co-infection prevention, harm-reduction and treatment services for people who inject drugs in Europe**

## **1. Introduction**

According to the United Nations' 2016 World Drug Report estimates, approximately 250 million people used at least one illicit drug in 2014. 12 million of these were people who inject drugs (PWID).<sup>1</sup> Unsafe injecting practices leads to the spread of pathogenic diseases and viral infections.<sup>2</sup> Hence, PWID are at a much greater risk of contracting blood-borne viruses and spreading them to the general population. In the eastern countries of the World Health Organisation (WHO) European Region, more than 80% of all HIV infections are contracted amongst PWID.<sup>3</sup> Injecting drugs has become one of the biggest risk factors for contracting hepatitis C (HCV) and human immunodeficiency virus (HIV) worldwide.

The international community has joint efforts to end HIV<sup>4</sup> and more recently HCV in Europe.<sup>5</sup> In 2016, WHO announced with the publication of their global health sector strategy<sup>5</sup> that their goal was to eliminate HCV in Europe by 2030. This will require every country to take action and for governments, NGOs, the private sector and the civil society to work together. It will also require special attention and tailored interventions and programmes for high risk groups, such as PWID.

Harm reduction services have shown to be an effective tool in reaching PWID, reduce negative health outcomes that occur during drug use, and prevent diseases from spreading. In addition to needle and syringe programmes (NSP); opioid substitution therapy (OST), other evidence-based drug dependence treatment the WHO also classifies diagnosis and treatment for viral hepatitis as a harm reduction service.<sup>6</sup> NSPs, for example, have shown to be effective in reducing the incidence of HCV and HIV infections in PWID.<sup>5</sup> Despite recommendations to target PWID with harm reduction services by WHO, Joint United Nations Programme on HIV/AIDS (UNAIDS), United Nations Office on Drugs and Crime (UNODC), ECDC, EMCDDA, the UN General Assembly, the Economic and Social Council, the United Nations (UN) Commission on Narcotic Drugs, the UNAIDS Programme Coordinating Board, Global Fund and the US President's Emergency Plan for AIDS Relief (PEPFAR),<sup>6</sup> barriers still remain. While evidence for NSP is generally weak, a recent Cochrane review demonstrated that OST is consistently associated with significant reductions in HCV transmission among PWID, especially when used in combination with NSPs. Moreover, recently developed interferon-free direct-acting antiviral (DAA) treatment regimens can achieve high rates of sustained virological response in HCV patients, effectively curing HCV.

This is a huge challenge for public health. The EU Joint Action on HIV and Co-infection Prevention and Harm Reduction (HA-REACT) is addressing existing gaps in the prevention of HIV and other co-infections, especially tuberculosis (TB) and viral hepatitis, among PWID. However, little research has been done on the barriers that PWID face in Europe when accessing harm reduction services. We know from the existing literature that PWID face barriers on an individual as well as a social and political level.<sup>7</sup> Therefore, in this report the aim

is to give stakeholders a clear picture of existing barriers in European harm reduction, HIV and HCV services.<sup>1</sup>

Harm reduction services providers are unique in the sense that they are the connecting point between health care providers and PWID. This report draws on data from several sources: (1) a survey to assess which barriers to harm-reduction services exist for PWID in the 28 EU Member States, from the perspective of harm reduction service providers and networks; (2) a scoping review on these barriers and facilitators that are being reported in the peer-reviewed literature; (3) County case HIV, hepatitis and TB policy overviews from the three focus countries in HA-REACT (Hungary, Latvia and Lithuania); (4) Overall HA-REACT findings and recommendations.

The conducted survey among PWID service providers and key stakeholders and the scoping review identified a series of barriers to prevention and treatment service as well as some strategies for overcoming these barriers. This report outlines barriers. The main recommendation from the project are described below focusing on possible replication. They cover scaling up harm reduction; testing and linkage to care; harm reduction and continuity of care in prison; integrated care and sustainability and long-term funding.

After a brief description of the data collection methods, the report presents results from the survey conducted among harm reduction service providers and networks and the scoping review on these barriers and facilitators. The results are grouped into four categories: (1) Barriers for PWID to access prevention services; (2) Barriers for PWID to access OST, HIV and hepatitis treatment services; (3) HRS provision staff and service quality; (4) Sustainable funding. After this follows a discussion and then a conclusion that draws out the main points.

## 2. Methods for data collection

### 2.1 Survey

The survey conducted among service providers and service provider networks to assess self-reported barriers was drafted by HA-REACT WP8 partners together with the Correlation Network, a network of service providers to “marginalized groups, such as drug users, sex workers, migrants, men who have sex with men (MSM) and young people in risk situations as well as people living with HIV and Acquired Immune Deficiency Syndrome (AIDS) and other communicable diseases.”<sup>8</sup> Correlation Network provided a list of service providers and service provider networks in the 28 EU Member States to which the survey was sent. 90 organisations received the survey and 38 replied. More info on survey Methodology in Annex 1.

During the same timeframe a similar survey was conducted by the EU funded project OptTEST (Optimising testing and linkage to care for HIV across Europe), with the main objective to help reduce the number of undiagnosed people with HIV infection in the European region and to promote timely treatment and care<sup>2</sup>. With the survey in HA-REACT we aimed to create a survey that combined both HIV and HCV to assess barriers and provide recommendation to

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<sup>1</sup> This report is Deliverable 1 of Work Package 8 in HA-REACT

<sup>2</sup> OptTEST Optimising testing and linkage to care for HIV. About OptTEST. [Internet] Available from: <http://www.opttest.eu/About> [Accessed 20 March, 2018].



create joint efforts and avoid duplication of services for HIV and HCV. The survey in OptTEST overlap with the current survey on two areas (1) are HIV tests being offered by harm reduction service providers; and (2) are NSP available for PWID? The results of the responses in the “Barring the Way to Health Survey” by OptTEST, for the three focus countries of this report Hungary, Latvia and Lithuania can be found here: <https://www.gnpplus.net/our-solutions/barring-the-way-to-health/>

## **2.2 Scoping review**

In addition to the survey, a scoping review was conducted to identify additional key barriers to hepatitis, HIV and TB diagnosis and treatment that PWID face as well as examples of how such barriers have been addressed. While reviews focusing on assessing barriers for patients with chronic HCV<sup>4,5</sup> previously have been conducted, none have focused on PWID in particular. This review aimed to fill this gap. Relevant scientific publications were searched in search engines and a grey literature search was also conducted (See Methodology in Annex 1, Search strings and list of engines and websites in Annexes 2 and 3, data extraction form in Annex 4 and list of articles in the references #9-56). For the grey literature search, partners in HA-REACT Joint Action were asked to report any relevant publications such as project reports written in English or for which an executive summary in English was available. Partners from the three focus countries in HA-REACT (Hungary, Latvia and Lithuania) were asked to report any relevant publication reporting data from their countries.

## **2.3 Country cases: Policy overviews**

To provide further context to the identification of existing barriers and ways to overcome these, partners from the three focus countries in HA-REACT (Hungary, Latvia and Lithuania) have developed country case HIV, hepatitis and TB policy overviews (See Annexes 5-7). It should be clarified that these country examples are focusing on national policies and not on specific barriers. Extracts from the policy overviews have been included throughout the results chapter of the report to highlight specific issues. In particular on access to TB testing and treatment as well as access and availability of harm reduction in prisons; two areas not covered by the other data collection methods.

## **2.4 Major HA-REACT findings**

The report also incorporates some of the major findings and recommendations from the other HA-REACT core work packages related to barriers for the access to HIV and HCV services that PWID face and possible ways to remediate these.

# **3. Results**

## **3.1 Survey respondents & scoping review**

Thirty-eight HRS service providers and networks of service provider from the 28 EU Member States responded to the survey. Some countries had multiple respondents. There were two respondents from Belgium, Bulgaria, the Czech Republic, France, Lithuania, Poland and the United Kingdom, and three respondents from Italy and Spain respectively. Five of the respondents were national service provider networks or advocacy organisations that do not provide direct services. The number of countries covered was 29 as England and Scotland are reported separately due to the differing healthcare systems. Three country responses stem from HRS networks.

The scoping review yield a large number of articles on barriers to accessing diagnostic or treatment services for HIV, TB, hepatitis or drug use. These were screened and a final number of 30 articles shortlisted for data extraction as well as some documents found in the grey literature search (listed in 8. References from #9-56). After compiling the list of barriers found in the literature, the list was sent to all HA-REACT WP8 partners for quality assurance.

The results have been grouped into five sections – three categories of barriers: (1) Barriers for PWID to access prevention services; (2) Barriers for PWID to access OST, HIV and hepatitis treatment services; (3) HRS provision staff and service quality; a section on (4) Identified strategies for overcoming barriers and finally a section on (5) Sustainable funding.

### **3.2 Barriers for PWID to access prevention services**

*Access to counselling and NSP:* Respondents from 26 out of 29 (93%) reported that counselling was generally available free of charge in their respective countries. Respondents from three countries (10%; Bulgaria, Denmark, Greece) reported that counselling is not available free of charge in those countries. As part of the quality assurance process some replies have been cross checked with EMCDDA drug reports, and for example the above reply from Denmark shows a disagreement between the knowledge of national policies among stakeholders and policies actually in place of free access to counselling for PWID.

In most European countries PWID can access counselling and harm reduction services anonymously (23/29); exceptions are Belgium, Estonia, Ireland, Netherlands, Romania and Sweden. 28 out of 29 respondents (97%) reported that needle exchange programmes (NSP) are generally available free of charge in their respective countries. Only the respondent from Bulgaria reported that NSP were not available free of charge. However, almost half of the survey respondents report that in the past year the number of needles provided had to be restricted due to lack of resources (13/29). Moreover, it is reported that the police regularly confiscate clean needles and syringes from PWID in five countries (5/29) (17%; Belgium, Greece, Hungary, Lithuania and Sweden), which obviously may constitute a barrier for PWID to access NSP services. Most HRS provide a wide assortment of injecting paraphernalia ranging from sterile water, cups or spoons to filter, foil and alcho pads for the injecting drug users; only harm reduction organization in six out of 26 countries report not providing paraphernalia (23%; Bulgaria, Ireland, Hungary, Lithuania, Malta, Romania) (Table 1).

Table 1 Survey responses on PWIDs' access to counselling and NSP

	Counselling is not available free of charge (3/29)	PWID cannot access counselling and harm reduction services anonymously (23/29)	PWID must pay for NSP (1/29)	Organisation has had to restrict the number of needles due to a lack of resources in the past year (13/29)	Police regularly confiscate clean needles and syringes from PWID (5/29)	Organization do not provide paraphernalia (6/26)
Austria						
Belgium		X			X	
Bulgaria	X		X	X		X
Croatia				X		
Cyprus						
Czech Republic				X		
Denmark	X					
England*				-		-
Estonia		X				
Finland				X		
France				X		
Germany				X		
Greece	X			X	X	
Hungary*				-	X	-
Ireland		X				X
Italy				X		
Latvia						
Lithuania				X	X	X
Luxembourg						
Malta						X
Netherlands		X				
Portugal						
Poland				X		
Romania		X		X		X
Scotland*				-		-
Slovakia				X		
Slovenia						
Spain						
Sweden		X		X	X	

\*Not a service provider organization, but an advocacy network

Access to testing: HIV testing is reported to be free of charge in all countries and only three out of 29 countries report that HIV tests are not offered by all harm-reduction services in the country (Austria, Croatia, Cyprus). For hepatitis C testing 23 out of 29 respondents reported that at least some HRS providers offer HCV testing in their respective countries; five countries (17%; Croatia, Cyprus, Lithuania, Poland and Slovakia) reported that HCV testing is not available at any HRS, and one (Slovenia) did not know. 26 out of 29 respondents reported that HCV testing is generally available free of charge in their respective countries or regions. Respondents from three countries (10%; Greece, Lithuania, Sweden) reported that HCV testing

is generally not available free of charge in those countries. Ten respondents indicated that there are not enough HCV/HIV testing services available in the community (34%) (Table 2).

*Table 2 Survey response on access to HIV and HCV testing*

	HIV tests not offered at all harm reduction services (3/29)	HCV tests are not offered at all harm reduction services (5/29)	HCV testing is generally not free of charge to PWID (3/29)	There are not enough numbers of HCV/HIV testing services (of any type) in the community (10/29)
Austria	x			X
Belgium				X
Bulgaria				
Croatia	x	X		
Cyprus	x	X		X
Czech Republic				
Denmark				
England*				X
Estonia				
Finland				
France				
Germany				X
Greece			X	X
Hungary*				
Ireland				-
Italy				
Latvia				
Lithuania		X	X	
Luxembourg				X
Malta				X
Netherlands				
Poland		X		
Portugal				
Romania				
Scotland*				X
Slovakia		X		
Slovenia				X
Spain				
Sweden			X	

*\*Not a service provider organization, but an advocacy network*

Some respondents provided further details in the free text fields of the survey. The respondent from Cyprus clarified that it is expected that HRS will be able to provide HCV testing to Cypriot patients at some point between 2017 and 2020. The respondent from Germany clarified that even though HRS providers technically can provide HCV testing, in practice only very few providers offer this service. Finally, the respondent from Poland clarified that although HCV testing is generally not available, HRS providers may provide HCV tests in special circumstances.

The country case policy reviews (Annex 5-7) provide detailed descriptions of national systems and policies supplementing the presented survey and scoping results with regards to service provision in European countries that have high prevalence rates of tuberculosis (TB) among vulnerable groups including PWID and in specific settings such as prisons. One example is Latvia (Annex 7) where prisons have established mandatory TB screening and provide treatment options (See Box 1).

#### **Box 1 Policy case: Epidemiological surveillance and testing for TB in Latvia**

In Latvia the epidemiological surveillance of TB is the responsibility of the Centre for Disease Prevention and Control (CDPC). The main subgroups vulnerable to TB (beyond people living with HIV) are PWID, prisoners and homeless people. Outside of prisons, persons with possible TB-related symptoms are typically evaluated by general practitioners or pulmonologists, which are directly accessible specialists. There are seven inpatient TB hospitals in Latvia and outpatient ambulatory home care is available in the capital Riga. In prisons there is mandatory TB screening and treatment options. A national programme under the Ministry of Health finances TB prevention and treatment in prisons, while the Ministry of Justice is involved with TB case reporting within facilities.

Latvia's neighboring country Lithuania (Annex 6) is the EU-country with the second highest number of TB incidences and there is a great concern for multi-drug-resistant TB and extensively drug-resistant TB. PWID are among the vulnerable groups at high risk of acquiring TB (See Box 2).

#### **Box 2 Policy case: Vulnerable groups at risk of TB in Lithuania**

In Lithuania population groups at higher risk of acquiring TB infection are vulnerable due to factors like unemployment, homelessness, malnutrition, drug use, imprisonment and stigma. TB/HIV prevention and care services are integrated within the Lithuanian health care system, and the main responsibility for implementing yearly routine testing of vulnerable persons lies with family physicians and pulmonologists. For TB control in prisons this is an integrated part of the national TB control programme.

### **3.3 Barriers for PWID to access OST, HIV and hepatitis treatment services**

*Access to OST:* 26 out of 29 respondents reported that opioid substitution therapy (OST) was available free of charge in their respective countries. Respondents from three countries (10%; Bulgaria Czech Republic and Sweden) reported that OST was not available free of charge in that country. As part of the quality assurance process some replies have been cross checked with EMCDDA drug reports, and for example the above reply from Sweden shows a disagreement between the knowledge of national policies among stakeholders and policies actually in place of access to OST free of charge for PWID. In terms of geographic differences in access, OST or NSP are not generally available outside the main cities in 9 out of 29 countries (31%), and PWID face complicated enrollment procedures or restricted eligibility criteria for OST access in twelve countries (Table 3).

*Access to HIV & hepatitis treatment:* Of the countries where HIV testing is offered by HRS providers (n=26), 6 had not established a referral system with hospitals or clinics providing HIV treatment (23%). Of the countries where HCV testing is offered by HRS providers (n=24), nine

reported that their respective organisations had not established referral systems with hospitals or clinics that provide HCV treatment (38%).

In terms of treatment provision at the governmental and non-governmental HRS, ART is provided to HIV+ clients in 11 out of 29 countries (38%), two respondents did not know. Respondents from 26 of 29 (90%) countries reported that HRS providers are involved in at least one aspect of managing HCV care. Two of the 29 (7%; Slovakia and Sweden) reported that HRS providers are not involved in any aspect of managing HCV care, and one respondents (Slovenia) did not know.

8 out of 29 respondents (28%; Cyprus, the Czech Republic, Denmark, England, Germany, Luxembourg, Romania, and Slovenia) reported that addiction specialists can prescribe HCV treatment in those countries or regions. Respondents from 19 of 29 (66%) countries reported that addiction specialists cannot prescribe HCV treatment, and respondents from two countries (Ireland and Latvia) did not know (Table 3).

*Table 3 Survey responses on the accessibility of treatment services for PWIDs*

	OST is not free of charge for PWID (3/29)	HTS are not common outside main cities (9/29)	Complicated enrolment or restricted eligibility for OST (12/29)	Organisation has no referral system in place for HIV (6/26)	Organisation has no referral system in place for HCV (9/24)	HTS do not provide ART (11/29)	HTS not involved in HCV care (2/29)	Addiction specialists can prescribe HCV treatment (8/29)
Austria			x	na				
Belgium			x					
Bulgaria	X					X		
Croatia			x	na	na			
Cyprus			x	na	na			X
Czech Rep	X	X						X
Denmark					X			X
England*		X	x		X			X
Estonia		X						
Finland								
France								
Germany		X		X				X
Greece		X			X			
Hungary*					-	X		
Ireland								
Italy			x		X	X		
Latvia				X	X	X		
Lithuania		X		X	na	X		
Luxembo.								X
Malta		X	x			X		
Netherl.		X	x	X	X			
Portugal			x					
Poland					na	X		
Romania					X	X		X
Scotland*		X	x		-	-		
Slovakia				X	na	X	X	
Slovenia			x	X		X		X
Spain			x		X			
Sweden	X				X	X	X	

*\*Not a service provider organization, but an advocacy network*

In the free text fields of the survey the respondent from Belgium highlighted the pilot “HCV Buddy Project” launched to help guide patients through treatment and care and the respondent from Czech Republic explained that HRS providers offer case management to HCV patients.

Some of the challenges for PWID in accessing HCV treatment services are described in more detail in the country case policy review from Hungary (Annex 5). Here is active ongoing drug use listed as a factor for denying HCV treatment (Box 3).

### Box 3 Policy case: HCV treatment challenges in Hungary

In Hungary, all persons diagnosed with HCV infection do not receive treatment as this is subjected to professional decision that follows the national priority index system reflecting stages of liver disease as well as additional factors. Main factors influencing decisions to deny antiviral treatment were ongoing drug use in 43% of cases, including missing pre-treatment examinations due to drug use, and ongoing psychiatric disorders in a few cases. This is contrary to professional guidelines stressing that drug use should not be seen as a barrier for provision of treatment to HCV patients.

From the peer-reviewed literature scoping review 30 articles were included and reviewed for mentioned barriers and facilitators. The reviewed articles are referenced in the report by the country in focus and the numbering on the report reference list. Additional barriers identified in the scoping review that seem to affect the accessibility of HRS for PWID are listed in below table and range from long waiting lists to lack of awareness to social issues (Table 4).

**Table 4 Scoping review: Additional barriers identified on the accessibility of services for PWIDs**

Barrier	Country
Social issues, stigmatization and privacy	Portugal <sup>9</sup> , Ukraine <sup>10</sup> , Italy <sup>11</sup> , UK <sup>12,13, 14, 15,16, 17, 18</sup>
Relationship with healthcare providers	UK <sup>13, 18</sup> , Ireland <sup>19</sup> , Spain <sup>20</sup> , Estonia <sup>21</sup> , Europe <sup>22, 23</sup>
Patients need to be abstinent from alcohol and drugs in order to receive treatment	Portugal <sup>9</sup> , Spain <sup>20</sup> , Europe <sup>22</sup> , Hungary <sup>25</sup>
Reluctance of patients and health providers	UK <sup>14, 18, 26</sup>
Difficulties with treatment compliance	Europe <sup>22</sup> , UK <sup>26</sup> , France <sup>51</sup>
Restricting guidelines for the care and treatment of PWID	Germany <sup>24</sup>
Long waiting list to receive treatment	Europe <sup>22</sup>
Patients knowledge and perception of treatment	UK <sup>16</sup> , Europe <sup>22</sup> , Hungary <sup>25</sup>
Lack of awareness about HCV	UK <sup>13, 16, 58, 59</sup> Sweden <sup>60</sup>
Less access to testing and treatment in rural areas	France <sup>53</sup>

Another specific area where the country case policy reviews (Annex 5-7) provide additional details supplementing the presented survey and scoping results is in relation to service provision in prisons. The case example from Latvia (Annex 7) shows that while OST with methadone maintenance is free of charge for all - in principle - OST is in fact not provided in prisons (Box 4).

### Box 4 Policy case: Opioid substitution therapy (OST) in Latvia

OST with methadone maintenance is free of charge for all clients in Latvia. Inpatient OST is provided by specialized psychiatric or regional hospitals and include: emergency care for overdose cases detoxification and short-term psychotherapy programmes. These are either publicly or privately funded. Outpatient OST treatment is provided by narcology treatment centres and include psychosocial care, cognitive behavioral therapy, motivational interventions and long-term maintenance programmes. Currently, OST is not provided in prisons (despite ECDC reports that OST has been available in Latvian prisons since 2012 for those prisoners who initiated OST prior to incarceration) but collaboration is underway with the Riga Centre of Psychiatry and Addiction Disorders to start providing OST to prisoners.



The policy review from neighboring country Lithuania (Annex 6) reveals a similar situation on the ground where OST - in principle - is approved and available in Lithuanian prisons, but the provided harm reduction services are minimal suffering from lack of methadone supply and limited access to sterile injecting equipment (Box 5).

#### **Box 5 Policy case: Access and availability of prevention and care in Lithuanian prisons**

Lithuanian prisons and prison health services fall under the responsibility of the Ministry of Justice with limited involvement from the Ministry of Health. Infectious disease rates are considerably higher among prisoners than among populations outside prison. Due to an intensive testing policy reform in prisons, since 1988, HIV testing is offered to all upon admission and dismissal. There are no legal barriers for the implementation of prevention interventions, but prevention activities are limited to education and general prevention and not tailored to the need of high-risk groups such as PWID. In principle OST is approved and available in Lithuanian prisons, but the provided harm reduction services are minimal suffering from lack of methadone supply and limited access to sterile injecting equipment. HIV outbreaks have previously been reported in prisons.

### **3.4 HRS provision staff and service quality**

*Staff attitudes:* Seven respondents out of 29 knew that discouraging attitudes of health professionals towards PWID were a problem in their country (24%).

*Peer workers:* Respondents in ten out of 26 countries reported that their HRS organization does not hire peer workers to improve the access to services for PWID (38%).

*Monitoring and evaluation:* Survey respondents from three countries said that their organizations do not monitor and evaluate the provided services (Denmark, Luxembourg, Malta) (Table 5).

*Table 5 Survey responses on HRS staff and service quality*

	Discouraging attitude of health professionals towards PWID in this country (7/29)	Organization do not employ peer workers to improve access for PWID (10/26)	Organization does not monitor and evaluate provided services (3/29)
Austria		x	
Belgium			
Bulgaria			
Croatia		x	
Cyprus		x	
Czech Rep			
Denmark		x	x
England*		-	-
Estonia			
Finland	x		
France	x		
Germany		x	
Greece	x		
Hungary*	x	-	-
Ireland		x	
Italy			
Latvia			
Lithuania	x		
Luxembo.		x	x
Malta		x	x
Netherl.			
Poland	x		
Portugal			
Romania			
Scotland*		-	-
Slovakia		x	
Slovenia			
Spain			
Sweden	x		

*\*Not a service provider organization, but an advocacy network*

The scoping review identified barriers additional to the ones addressed in the survey related to the quality and professionalism of the offered services. These barriers range from inadequate services (lack of information for patients, lack of support and counselling) to knowledge gaps (lack of training of staff, outdated procedures, lack of guidelines) and missing infrastructure (no comprehensive database on patients) (Table 6).

**Table 6 Scoping review: Additional barriers identified on HRS staff and service quality**

Barriers – HRS staff and service quality	Country
Lack of information for patients	UK <sup>16, 17</sup> , Ireland <sup>19</sup> , Spain <sup>20</sup>
Lack of guidelines for physicians	UK <sup>13, 16</sup>
Lack of support and counseling for patients who test positive for HCV	UK <sup>17</sup> , Spain <sup>20</sup>
No comprehensive data base about patients	UK <sup>13</sup>
Inadequate cross-training between medical specialties	Ukraine <sup>10</sup>
Usage of outdated medical procedures	Ukraine <sup>10</sup>
Lack of training on treatment and care for health care professional	UK <sup>14, 15</sup> , Spain <sup>20</sup> , Germany <sup>24</sup>
Testing and treatment not tailored to the needs of PWID	UK <sup>13, 16, 18</sup>
Organization between medical staff and social workers, including internal organization	Portugal <sup>9</sup> , Ukraine <sup>10</sup> , UK <sup>18</sup> , Ireland <sup>19</sup> , Spain <sup>20</sup> , Germany <sup>24</sup>

The country case policy review from Hungary (Annex 5) describes inadequate services, lack of guidelines and missing infrastructure in relation to diagnosing and treating TB and HIV co-infection something which may have detrimental consequences for the patients’ disease prognosis (Box 6).

**Box 6 Policy case: Addressing TB and HIV co-infection in Hungary**

In Hungary there is no active routine screening for HIV in TB patients, but clinicians typically detect HIV in TB patients when the symptoms are very advanced. This poses a major challenge for the quality of care provided to these patients and there is urgent need to identify those with TB and HIV co-infection, initiate treatment, and continuously monitor disease progression. Currently, HIV and TB data are not managed on a case-based platform, primarily to ensure the confidentiality of clients – typically PLHIV. One step forward is to secure wide access to voluntary counselling and active HIV testing among TB patients as well as TB testing and prevention among PLHIV. TB patient receive outpatient directly observed treatment (DOT), but the distribution is inconsistent due to lack of human and financial resources. For PLHIV receiving treatment for TB the treatment success rate is low partly because there is no established linkage to care mechanism between the medical setting providing DOT and the social service facilities. This may contribute to failure of the treatment and the loss to treatment follow up.

**3.5 Identified strategies for overcoming barriers**

The facilitators identified in the peer-reviewed literature scoping review have been grouped here in relation to the three categories: (1) PWIDs’ access prevention services; (2) PWIDs’ access OST, HIV and hepatitis treatment services; (3) HRS provision staff and service quality. The fourth category, (4) Sustainable funding, is addressed in the following section. These findings are supplemented by some of the main recommendations formulated by the other workstreams in the HA-REACT project.

*(1) PWIDs’ access prevention services*

As facilitators for PWIDs’ to access prevention services the literature mention among other things dried blood spot testing, decentralization of services and general awareness (Table 7).

**Table 7 Scoping review: Facilitators for PWID to access prevention services**

Facilitators – PWID access to prevention	Country
Dried Blood Spot (DBS) testing with counselling increased uptake of HCV screening	UK <sup>27, 28, 29</sup> , Scotland <sup>30</sup>
Clear communication through counseling	UK <sup>27</sup> , Scotland <sup>30</sup>
Targeting patient groups that are more unlikely to agree to testing	Scotland <sup>30</sup>
Decentralized HIV testing in community services	Estonia <sup>39</sup>
Targeted campaigns in pharmacies to reach PWID	UK <sup>45</sup>
Active recruitment of PWID for NSPs	UK <sup>45</sup>
Awareness campaigns should target the general population as well as high prevalence groups and especially be facilitated by primary care physicians	France <sup>56</sup>

The HA-REACT work package focusing on Women who use drugs (WUD) have identified a series of barriers and risks that should be considered when organizing low threshold harm reduction services, including rapid testing of HIV and viral hepatitis. The specific recommendations for improving access to HTS for this group are:

- The services should be tailored to be women-friendly, e.g. by organizing women-only days or hours and baby care or children’s corner;
- Provide multidisciplinary case management for WUD and their children, including pregnant women;
- Provide free, low-threshold sexual and reproductive healthcare;
- Provide counselling in cases of violence and legal questions.

In another workstream of the HA REACT project, focus was on the introduction and expansion of opioid substitution treatment, needle and syringe exchange programmes and condom distribution in prisons. All these measures were successfully implemented and effectively operated in prisons. It is a strong recommendation to expand these models to other prisons in the EU.

*(2) PWIDs’ access OST, HIV and hepatitis treatment services*

When it comes to PWIDs’ access to OST, HIV and hepatitis treatment the facilitators mentioned in the literature range from decentralization of HCV treatment services to providing incentives to PWID to adhere to treatment (Table 8).

**Table 8 Scoping review: Facilitators for PWIDs’ access to OST, HIV, hepatitis Treatment**

Facilitators – Access to OST, HIV, hepatitis treatment	Country
Outreach clinics for HCV patients in drug treatment centers to improve access to treatment and increase clinic attendance	UK <sup>34</sup>
Decentralized HCV treatment in community services and general practitioners (GPs)	UK <sup>36, 37, 38</sup>
Incentives for PWID to test and adhere to treatment <sup>44</sup> and vaccination <sup>32</sup>	Estonia <sup>44</sup> , UK <sup>32</sup>
HCV treatment should be offered in addiction centers for PWID	Global <sup>55</sup>
Ensure treatment without requirements enabling all patients equal access to treatment	Portugal <sup>56</sup>

The HA-REACT work stream focusing on access to care and treatment in prisons identified barriers for access to harm reduction and continuity of care in prisons and strongly recommends that the same standards of HIV/HCV/HBV prevention, screening, testing and treatment that are applied in the community should be implemented in prisons (this includes opioid substitution treatment, needle and syringe exchange programmes, HIV and HCV treatment, condom provision).

*(3) HRS staff and quality of services*

Finally, the literature mentions several facilitators related to HTS staff and improvement of the quality of services. Some facilitators mentioned are: Strengthening the involvement of different professional groups and of multidisciplinary and cross-sectorial collaboration is a topic, as well as putting monitoring systems in place (Table 9).

**Table 9 Scoping review: Facilitators for HRS staff and quality of services**

<b>Facilitators – HRS staff and quality of services</b>	<b>Country</b>
<b>Legal reforms to create supportive environments</b>	Europe <sup>35</sup>
<b>Clinical guidelines backed by managerial and organizational support</b>	UK <sup>31</sup>
<b>Evidence-based guidelines must be designed for the specific setting, tested and evaluated and actively integrate GPs and other primary care health care providers</b>	Scotland <sup>30</sup> , UK <sup>31</sup> , Netherlands <sup>33</sup>
<b>Better cooperation between primary and secondary health care services</b>	UK <sup>34</sup>
<b>Reassess and strengthen the roles of GPs through education and training</b>	UK <sup>45</sup>
<b>Reassess and strengthen the roles of pharmacists through education and training</b>	Switzerland <sup>46</sup> , Portugal <sup>47</sup>
<b>Coordinate the different players within the care cascade to ensure health professionals work together</b>	Scotland <sup>56</sup>
<b>Monitoring system to constantly assess barriers</b>	Europe <sup>35</sup>
<b>Multidisciplinary approach</b>	UK <sup>40</sup> , France <sup>41</sup> , Switzerland <sup>42</sup> , Italy <sup>43</sup>
<b>Create a comprehensive database which tracks patient data and treatment, is used for national monitoring and can also be linked to other databases</b>	Scotland <sup>56</sup>

The importance of strengthening integrated care as a facilitator for improved quality in the HRS services is a main finding from the HA-REACT project which formulated the following recommendations:

- Provide point-of-care services where practical, and strong linkages to other parts of the care system.
- Coordinate the care of individual PWID so that they do not get lost trying to navigate complicated health systems.
- Overcome bureaucratic barriers and utilize new kind of care providers and technologies – such as non-medical organisations, non-healthcare workers and non-hospital-based technologies.
- Take advantage of peer expertise and encourage PWID to take responsibility for their own care.

### 3.6 Sustainable funding

How to secure sustainable funding for prevention and treatment services for PWID has been a key topic addressed by HA-REACT across the Joint Action activities. The topic was also addressed in the survey to HRS providers and networks where funding sources for harm reduction were identified.

*Funding for harm reduction:* Survey respondents indicate that funding for HRS provision stems from a broad array of sources including national budgets from Ministry of Health or Ministry of Social (28/29), municipalities in 17 out of 29 countries (59%) and external donors, EU-funds and pharmaceutical companies in 10 out of 29 countries (35%). The only exception is Romania that exclusively relies on external donors.

*Other funding sources:* 19 out of 29 respondents state that their organization does have the capacity to apply for new funding for harm reduction services (66%) while seven answer that they do not (24%) and three do not know (Table 10).

Table 10 Survey responses on sustainable funding

	Harm reduction funded by MoH or other ministry (28/29)	Harm reduction funded by municipalities (17/29)	Harm reduction funded by external donors or others (EU-funds, pharma companies) (10/29)	Organization does not have the capacity to apply for new funding for harm reduction services (7/29)
Austria	x	X		x
Belgium	x	X	x	
Bulgaria	x			
Croatia	x	X		
Cyprus	x			
Czech Rep.	x		x	
Denmark	x			x
England*	x	x	x	
Estonia	x			
Finland	x	x		x
France	x	x		
Germany	x	x	x	
Greece	x			
Hungary*	x			x
Ireland	x			
Italy	x	x		
Latvia	x	x		
Lithuania	x	x	x	
Luxembourg	x			
Malta	x			
Netherlands	x	x		
Poland	x	x	x	x
Portugal	x	x	x	
Romania			x	
Scotland*	x			x
Slovakia	x	x	x	
Slovenia	x	x		
Spain	x	x	x	x
Sweden	x	x		

\* Not a service provider organization, but an advocacy network

In relation to sustainable funding, the scoping review did identify a few references to financial incentives and increased funding as facilitators to overcome current barriers (Table 11).

*Table 11 Scoping review: Facilitators – sustainable funding*

Facilitators - Sustainable funding	Country
Increased resources and financial incentives for primary care	UK <sup>31,32</sup>
Increase funding	Romania <sup>51</sup>
Fund HCV testing and treatment at a national level to ensure access across the country	Portugal <sup>56</sup>
Incentives for health care providers to participate in training and offer harm reduction services and treatment to PWID	UK <sup>14</sup>

The survey asked HTS providers (n=26) what would be needed for them to scale up hepatitis C services and how extra funding would be spent in the organization. The three networks did not answer these questions.

Scale up HCV services: To provide more HCV related services to PWID the national HRS providers report a need for more funding for equipment and services (20/26), more education and training materials for staff (16/26) and more educational materials for the clients (19/26) as the three most important areas. Two service providers reply that HCV services are outside of their formal purpose/objectives (2/26).

Extra funding for service organisations: The HRS providers identify the following areas as the top priorities for spending extra funding: employment of peer support workers (20/26), employment of additional medical staff (18/26), and development of educational materials for clients (17/26) (Table 12).



*Table 12 Survey respondents: Services needed to scale up HCV services & top priorities*

	HCV services are not within our purpose / objectives (2/26)	HCV educational and training materials for staff (16/26)	HCV educational materials for clients (18/26)	HCV funding for equipment and services (20/26)	Employment of additional medical staff (18/26)	Employment of peer support workers (20/26)	Development of educational material for clients (17/26)
Austria					x	x	
Belgium		x	x	x	x	x	x
Bulgaria						x	x
Croatia	x	x	x	x	x		x
Cyprus						x	
Czech Republic	x				x		
Denmark		x	x		x		x
England*	-	-	-	-	-	-	-
Estonia		x	x			x	
Finland		x	x	x		x	x
France		x	x	x		x	x
Germany					x		
Greece		x	x	x		x	x
Hungary*	-	-	-	-	-	-	-
Italy				x	x	x	x
Ireland				x	x	x	x
Latvia				x	x	x	
Lithuania		x	x	x	x		x
Luxembourg		x	x		x		x
Malta		x	x	x	x	x	x
Netherlands		x	x				x
Poland		x	x	x	x	x	x
Portugal		x	x	x	x	x	x
Romania			x	x	x		
Scotland*	-	-	-	-	-	-	-
Slovakia		x		x			
Slovenia			x	x			
Spain		x	x	x	x	x	x
Sweden		x	x	x		x	x

*\*Not a service provider organization, but an advocacy network*

Specifically, on sustainable funding it is worth mentioning here that as part of the deliverables in HA-REACT, [a guidance on EU funding mechanisms for harm reduction services](#) has been developed (61). The report provides guidance on the utilisation of EU funding mechanisms for actions on HIV, viral hepatitis and TB, addressing resource allocation and mobilisation and the

use of diversified funding approaches to reach PWIDs. These are the main recommendations from the HA-REACT work on sustainable funding:

- Harm reduction funding should be sustainable and where needed rely on multiple national funding sources.
- Joint public procurement, when two or more contracting authorities agree to perform certain specific procurements jointly, should be increasingly considered for EU member states facing cost challenges related to hepatitis C care.

## 4. Discussion

This report identifies barriers to accessing HIV, HCV and TB services for PWID and strategies for overcoming these barriers and contributes to the overall focus area of HA-REACT. A limitation in the report is the unbalanced coverage of the three disease areas HIV, HCV and TB in HRS provision across Europe. TB is not covered by the survey nor the literature scoping review, but only in the three country policy cases that describe how TB detection is part of HRS as well as referral to specialist treatment.

The conducted survey has given an insight into the experience among service providers about the barriers they perceive exist in practice, but it should be noted, that the experience among service providers do not necessarily reflects the policies and practises actually in place nationally. In some cases where responses from a country did not align, we sought out to resolve the discrepancy through consulting additional sources. Answers from three of the 29 countries came from service provider networks who did not answer survey questions specifically related to service provision at organisational level.

We complemented the responses from the survey with barriers and facilitators identified in the reviewed literature. The main limitation of the literature findings is that it is not representative for the whole European Union. Nor does it necessarily reflect all barriers in the respective countries as not all countries monitor or evaluate barriers to hepatitis, HIV and TB diagnosis and treatment for PWIDs at the national level. Therefore, there is a bias in the list of barriers and it does not necessarily give a full picture of barriers. This however highlights the need for countries to provide guidelines and encourage harm reduction service providers to monitor and evaluate accordingly. Furthermore, the scoping review was not systematic and despite experts being asked to weigh in on the list it may be incomplete.

Further research could include matching the identified barriers with the current policies in place and analyse implementation issues. We also want to highlight the importance of further studies re-evaluating and assessing these barriers in this rapidly changing environment. Barriers need to be identified and considered regardless of the policies in place.

## 5. Conclusion

The aim of this report was to provide an overview of the barriers, that PWID face when accessing HIV, HCV and TB services as perceived by HRS providers and provider networks and identified by the scoping review of literature from the different EU Member States – as well as describe facilitators to overcome such barriers. Country cases and HA-REACT overall results and recommendations have been incorporated to support the findings.

The report presented results in 5 sections - three outlining categories of barriers: (1) Barriers for PWID to access prevention services; (2) Barriers for PWID to access OST, HIV and hepatitis treatment services; and (3) HRS provision staff and service quality, one on (4) Identified strategies for overcoming barriers and finally one on (5) Sustainable funding.

In the first category, barriers for PWID to access prevention services, the survey showed barriers in terms of user fees, restrictions in NSP supplies and paraphernalia. Also, HIV and HCV testing are not offered in all HRS nor are there enough testing services available in the communities. In the second category, barriers for PWID to access OST, HIV and hepatitis treatment services, one barrier identified is that addiction specialists cannot prescribe HCV treatment in many cases, and secondly that respondents reported that the absence of referral systems with a hospital or clinic prevented many from getting the HCV treatment they would need. In some countries the complicated enrollment procedure with strict eligibility criteria created barriers for PWID to access HCV treatment. Another main barrier mentioned by the survey respondents was that some organizations that provide services to PWID do not provide antiretroviral therapy (ART). In the third category, HRS provision staff and service quality, the respondents identified lack of information materials for patients as well as lack of training on treatment and care for health care professionals as barriers affecting especially PWID. Additionally, the relationship with healthcare providers often provided a barrier as well as the absence of peer workers.

The survey shows that access to HIV testing and treatment is wider implemented than hepatitis C testing and treatment. A main explanation to this difference in service provision for HIV and HCV may be found in the policies restricting access to hepatitis C treatment. In several countries HCV treatment is restricted based on the severity of the disease (Belgium, Hungary, Italy, Malta) or only available for people who can prove 6 months abstinence from injecting drug use (Slovakia). These restrictions lead to less engagement by HRS providers in hepatitis testing and linkage to care compared to HIV for which ART therapy is almost universally available and free of charge (exceptions may apply to people without health insurance or with depth on their health insurance card – Cyprus).

The report shows that funding sources for harm reduction services are multiple, however the level of funding and sustainability of the funding is not addressed. A barrier for availability such as the described stock-out of clean needles is obviously related to insufficient funding. On the other hand, the responding HRS providers are positive that with adequate funding and staff training in place there is a clear potential for scaling up HCV services to PWID in HRS settings.

This study shows that at harm reduction services, the HCV cascade of care for PWID, from testing, to linkage to care to treatment, is severely constrained by a number of barriers in EU Member States. This worrisome situation puts at risk the achievement of the WHO HCV elimination goals in the EU and entails a high burden of disease and financial consequences for the EU population as a whole (e.g. direct medical costs, often with highly expensive procedures such as liver transplantation, but also indirect costs as those due to decreased work productivity). Health authorities at the EU and country levels should therefore take measures to overcome the challenges of eliminating HCV among PWID in a way that preserves human rights and mitigates health inequalities.

Key facilitators included point-of-care testing, such as the use of dried blood spots; simplified care pathways including through decentralised services and improved linkages between harm

reduction services, primary care and specialised care; multidisciplinary approaches; targeted campaigns, the removal of treatment restrictions; and regular monitoring and evaluation.

It is important to note that the barriers presented from the survey are barriers perceived by the harm reduction service providers and do not necessarily fully reflect the policy of the country or region. As other studies have also found,<sup>57</sup> discrepancies were observed between stakeholders within the same country and there was a lack of consensus among respondents about their countries' policies within HIV, HCV and TB. Nevertheless, it is important to consider these barriers when developing and implementing policies for PWID, and countries need to consider these barriers and target them accordingly, drawing on the facilitators presented above, in order to ensure efficient use of resources and a sustainable solution for PWID accessing harm reduction services.

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## Annex 1 - Methodology

### A) Survey

A survey was conducted in order to assess which barriers are currently being self-reported by service providers. The survey was drafted by HA-REACT WP8 partners together with the Correlation Network, a network of service providers to “marginalized groups, such as drug users, sex workers, migrants, MSM and young people in risk situations as well as people living with HIV and AIDS and other communicable diseases.”<sup>8</sup> Furthermore, Correlation Network provided a list of service providers and service provider networks in the 28 EU Member States. The survey was sent out to these organizations on 29 March 2017, and follow-up emails were sent – 90 organisations received the survey and 47 replied. The survey was closed on 17 May 2017 after at least one response had been submitted from each EU Member State.

Results tables were created for each question reflecting the responses from each of the EU Member States (See Annex 1). In cases where more than one organisation had responded and discrepancies were found in the answers, respondents were contacted again to re-answer the questions and provide a reference if possible. For the discrepancies that could not be clarified in this way, WP8 partners were consulted to provide the accurate answer to the question. In cases where discrepant responses could not be resolved; the response from the harm reduction service provider was accepted as the overall response, as this was the main respondent for the survey. Where both parties were direct harm reduction service providers, both responses were left in the table. An additional table was created to show all the countries that gave discrepant answers and shows whether and how they were resolved. These criteria were not applied to the United Kingdom or Spain, as the unique health system structure of those countries necessitates that the responses from different regions be reported separately.

### B) Scoping review

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines were followed for reporting. Before starting the review, the review protocol was registered in the PROSPERO registry (International prospective registry of systematic reviews, at <http://www.crd.york.ac.uk/prospero/prospero.asp>) in 2016.

#### Study selection

To be eligible, articles needed to meet the following criteria: be either original research or systematic review articles from one of the 28 EU member states<sup>3</sup> (published in English, French, Italian, Portuguese or Spanish); published after 1 January 2006 and present major findings on potential barriers to and facilitators of accessing diagnostic or treatment services for HIV, TB and hepatitis or on harm reduction services (including NSP programmes, OST services and other drug dependence treatment programmes).

Studies based on surveys, interviews, case studies, ethnographic research and intervention research were all eligible for inclusion, while comments, editorials, letters and narrative reviews were excluded. Original research or systematic review articles addressing the epidemiology, diagnosis and treatment of HIV, TB, hepatitis or drug use without making reference to services were excluded.

All records from the searches were uploaded into the “Covidence” database (available at <https://www.covidence.org>) in order to clean the search for duplicates. Initially records were

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<sup>3</sup> Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden or the UK).

screened by title and abstract by two reviewers independently, and any differences were resolved by discussion and reference to a third reviewer (a co-PI) when necessary. A random quality check at the initial screening stage was conducted by the Rigshospitalet-University of Copenhagen team, on 10% of the abstracts retrieved to ensure that the inclusion/exclusion criteria were being adhered to. The full texts of abstracts meeting the inclusion criteria, or for which it was unclear whether they meet the criteria, were retrieved. The full-text papers were e-screened by two reviewers independently and any differences were resolved by discussion and reference to a third reviewer (a co-PI) when necessary.

### **Data extraction**

Forms for data extraction were developed by one reviewer and checked by a second reviewer (see form in Annex 8). In case of disagreement a third reviewer (co-PI) were involved. The data extraction process was checked by the Rigshospitalet-University of Copenhagen team providing input on how to strengthen the process. Each barrier/facilitator in a study was extracted and categorized according to the stage (testing, linkage to care and treatment uptake) where the barrier is experienced and according to the levels: barriers/facilitators at institutional/policy level were defined as structural and contextual factors whereas barriers/facilitators at provider and client/patient level were considered to be individual.

### **Quality assessment**

The quality and the risk of bias of all the included studies was assessed by using the modified “NICE Quality Assessment Tools for Quantitative Intervention Studies, Quantitative Studies Reporting Correlations and Associations, and Qualitative Studies”<sup>4</sup>. In addition to the quality assessment for every study, the overall strength of the evidence extracted from the studies included in the review, was assessed.

### **Data synthesis**

The data extracted from the studies were read and coded by two reviewers according to thematic headings for barriers and facilitators. For quantitative studies, the data were also synthesized narratively. All data were disaggregated by age group, nationality, and sex to the extent that these details were reported.

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<sup>4</sup> Available at: <https://www.nice.org.uk/article/pmg4/chapter/5-Reviewing-the-scientific-evidence#assessing-the-quality-of-the-evidence>)

## Annex 2 - Search strings by database

### PUBMED

- 1 ("delivery of health care"[MeSH Terms] OR "delivery of health care" OR "Health Services Accessibility" [MeSH Terms] OR "Health Services Accessibility" OR "Availability of Health Services" OR "Patient Acceptance of Health Care" [MeSH Terms] OR "health care seeking behaviour")
- 2 ("Substance Abuse, Intravenous"[MeSH Terms] OR "IDU" OR "IDUs" OR "PWID" OR "IVDU" OR "IVDUs" OR "intravenous drug" OR "injecting drug" OR "intravenous substance" OR "Injection drug" OR "inject drugs")
- 3 (tuberculosis OR "TB" OR hiv OR aids OR (hiv infection\*) OR (human immunodeficiency virus) OR (human immunodeficiency virus) OR (human immuno-deficiency virus) OR (acquired immun\*) OR (deficiency syndrome) OR "Hepatitis C"[Mesh] OR "hepatitis C" OR "HCV") OR ("harm reduction" [MeSH Terms] OR "harm reduction" [All Fields] OR "drug treatment services" OR "substance abuse treatment centers" [MeSH Terms] OR "Opiate Substitution Treatment" [MeSH Terms] OR "Opioid substitution treatment" [All Fields] OR "OST" [All Fields] OR "syringe provision" [All Fields])
- 4 1 and 2 and 3
- 5 (((("hepatitis b"[tiab] OR "hepatitis c"[tiab] OR "Hepatitis B"[mh] OR "Hepatitis C"[mh] OR "Hepatitis B Vaccines"[mh] OR "Hepacivirus"[mh]) AND (" testing"[tiab] OR "screening"[tiab] OR "linkage to care"[tiab] OR "Mass Screening"[mh:noexp] OR "Anonymous Testing"[mh] OR "Late presentation"[tiab] OR late diagnosis[tiab] OR undiagnosed[tiab] OR "Delayed Diagnosis"[mh])) NOT ("Geographic Locations"[mh] NOT ("Europe"[mh] OR "Asia, Central"[mh])))

### EMBASE

- 1 health care delivery.sh. or health services accessibility.af. or health services availability.af. or health care seeking behaviour.af. or health care acceptance.af. or health care seeking behaviour.af
- 2 "drug use".sh. or drug users.af. or intravenous drug abuse.sh. or intravenous drug user.af. or people who inject drugs.af. or substance abuse.sh.
- 3 tuberculosis.sh. or TB.af. or human immunodeficiency virus.sh. or HIV.af. or hepatitis C virus.sh. or HCV.af. or harm reduction.af. or drug treatment services.af. or drug dependence treatment.sh. or substance abuse treatment centers.af. or opioid substitution treatment.sh. or opiate substitution treatment.af. or OST.af. or syringe provision.sh. or syringe provision.af.
- 4 1 and 2 and 3

### PSYCHINFO

- 1 health care delivery.sh. or health services accessibility.af. or health services availability.af. or health care seeking behaviour.af. or health care acceptance.af. or health care seeking behaviour.af
- 2 "drug use".sh. or drug users.af. or intravenous drug abuse.sh. or intravenous drug user.af. or people who inject drugs.af. or substance abuse.sh.
- 3 tuberculosis.sh. or TB.af. or human immunodeficiency virus.sh. or HIV.af. or hepatitis C virus.sh. or HCV.af. or harm reduction.af. or drug treatment services.af. or drug dependence treatment.sh. or substance abuse treatment centers.af. or opioid substitution treatment.sh. or opiate substitution treatment.af. or OST.af. or syringe provision.sh. or syringe provision.af.

4 1 and 2 and 3

#### **COCHRANE DATABASE**

1 delivery of health care OR health services accessibility OR availability of health services OR patient acceptance of health care OR health care seeking behaviour

2 substance abuse intravenous OR IDU OR PWID OR IVDU OR intravenous drug OR injecting drug OR intravenous substance OR injection drug OR inject drugs

3 tuberculosis OR TB OR HIV OR AIDS OR hiv infection OR human immunodeficiency virus OR acquired immunodeficiency OR deficiency syndrome OR hepatitis C OR hepatitis C OR HCV OR harm reduction OR drug treatment services OR substance abuse treatment centers OR opiate substitution treatment OR opioid substitution treatment OR OST OR syringe provision

4 1 and 2 and 3

#### **CINHAL**

1 delivery of health care OR health services accessibility OR Health Services Accessibility OR Availability of Health Services OR Patient Acceptance of Health Care OR health care seeking behaviour

2 drug user\* OR drug abuser\* OR Substance Abuse OR "IDU" OR "IDUs" OR "PWID\*" OR "IVDU\*" OR "IVDUs" OR intravenous drug\* OR injecting drug\* OR intravenous substance OR Injection drug\* OR inject drug\*

3 tuberculosis OR "TB" OR hiv OR aids OR hiv infection\* OR human immunodeficiency virus OR human immuno-deficiency virus OR acquired immun\* OR deficiency syndrome OR "Hepatitis C" OR "hepatitis C" OR "HCV" OR harm reduction OR harm reduction OR drug treatment services OR substance abuse treatment center\* OR Opiate Substitution Treatment\* OR Opioid substitution treatment\* OR "OST" OR syringe provision

4 1 and 2 and 3

### Annex 3 - Grey Literature Search String

ID search	Site	Link	Where	Key words	String	Temporal criteria	Geographic criteria	Other filters (advanced search)
1	WHO	<a href="http://www.who.int">www.who.int</a>	general search box	drug addiction/HIV/TB/Hepatitis/HARM REDUCTION	drug addiction AND (hiv OR tuberculosis OR hepatitis OR harm reduction)	not applicable	not applicable	not applicable
2	Harm reduction international	<a href="http://www.ihra.net/">http://www.ihra.net/</a>	general search box	drug addiction/HIV/TB/Hepatitis/	tuberculosis OR HIV OR hepatitis	after 31/03/2011	not applicable	drug users
3	EMCDDA	<a href="http://www.emcdda.europa.eu/">http://www.emcdda.europa.eu/</a>	general search box	drug addiction/HIV/TB/Hepatitis/	tuberculosis OR hiv OR hepatitis OR access to services	not applicable	Europe	not applicable
3 BIS	EMCDDA	<a href="http://www.emcdda.europa.eu/">http://www.emcdda.europa.eu/</a>	general search box	drug addiction/HIV/TB/Hepatitis/	tuberculosis OR hiv OR hepatitis OR access to services	not applicable	Europe	not applicable
4	ECDC	<a href="http://ecdc.europa.eu/en/Pages/home.aspx">http://ecdc.europa.eu/en/Pages/home.aspx</a>	general search box	drug addiction/HIV/TB/Hepatitis/	drug users AND (tuberculosis OR hiv OR hepatitis)	not applicable	Europe	not applicable
5	CORDIS	<a href="http://cordis.europa.eu/projects/home_en.html">http://cordis.europa.eu/projects/home_en.html</a>	general search box	drug addiction/HIV/TB/Hepatitis/	(drug users OR drug addiction OR IDU) AND (tuberculosis OR HCV OR HBV OR hepatitis)	not applicable	Europe	project; subject:medicine and health;
6	HA REACT	<a href="http://www.hareact.eu/en/publications">http://www.hareact.eu/en/publications</a>	general search box	not applicable	not applicable	not applicable	Europe	not applicable
	IMPACT	<a href="http://www.villamaraini.it/it/attivita-internazionali/progetti-internazionali">http://www.villamaraini.it/it/attivita-internazionali/progetti-internazionali</a>	not applicable	not applicable	not applicable	not applicable	Europe	not applicable

## Annex 4 - Extraction Form Data

### Section A- Article General Information

- Progressive number N
- Access number ID
- Covidence number ID
- Published Year
- Authors
- Funding source
- INCLUSION /EXCLUSION - reason for exclusion specified

### Section B- Study General Information

- Setting
  - setting country/region
  - setting service
  - setting service specified
- Reporting results on BARRIERS/FACILITATORS
- Methods
- Participants
  - participants characteristics
  - specific age groups considered (specified range, mean age in years)
  - females %

### Section C- QUALITATIVE RESULTS

- BARRIERS
  - BARRIERS\_classified 1/BARRIERS\_classified 2/ BARRIERS\_classified 3
- FACILITATORS
  - FACILITATORS\_classified 1/ FACILITATORS\_classified 2/ FACILITATORS\_classified 3

### Section D- QUANTITATIVE RESULTS

- D1 Study population/Setting
  - Eligible population
  - Selected population
  - Excluded population
- D2 Intervention/Comparator
  - Intervention/Control population characteristics
  - Intervention\_description
  - Control\_description
  - Intervention size
  - Control size
- D3 Outcomes
  - OUTCOMES\_Primary

OUTCOMES\_Secondary

D4 Results

Methods of analysis

RESULTS\_Primary

RESULTS\_Secondary

Intervention\_classified

Section E- QUALITY EVALUATION

Section F- CONCLUSIONS



## Annex 5 - Hungary policy review

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## List of abbreviations

DAA	Direct-acting antiviral
DOT	Directly observed therapy
ECDC	European Centre for Disease Prevention and Control
HBV	Hepatitis B virus
HCV	Hepatitis C virus
NGO	Non-governmental organisation
NSP	Needle syringe exchange programme
OST	Opioid substitution therapy
PLHIV	People living with HIV
PWID	People who inject drugs
TB	Tuberculosis
TDI	Treatment demand indicators

## **1. Health system overview**

In Hungary, the Ministry of Human Capacities administers and *supervises* the provision of public health services. These are provided through the National Public Health Centre, which oversees: public health entities, the provision of health services, the monitoring and evaluation of sanitation services, epidemiological surveillance, and health promotion and prevention. Municipalities' primary healthcare service delivery includes: family medicine services, dental care, out-of-hours surgery services, maternal and child health services; and school health services.

### **1.1 Background of health system**

The health system of Hungary offers almost universal coverage for its population. Hungary's healthcare system has been decentralised by integrating the Semashko-style health care system into a new model with an output-based payment method since 1989 (1). Thus, the system is now based on a social insurance scheme rather than a tax-based funding system. This transition coincided with an increase in life expectancy (from 72.2 years in 1970 to 79.1 years in 2015 for women, and from 66.4 years in 1970 to 72.3 years in 2015 for men).

Later reforms led to increased cooperation between healthcare entities to implement the National Public Health Programme. This cooperation led to the transition of the National Health Insurance Fund Administration/Health Insurance Fund with multiple health insurers to a new scheme with partial private ownership and the development of the Health Insurance Supervisory Authority. Despite these reforms, however, challenges remain and include access to services for groups with low socio-economic status, out-of-pocket and under-the-table payments, and organisational issues. A possible solution would be the empowerment of a primary care-based health system, acting as a gatekeeper (1).

### **1.2 Political context**

Drug-related issues in Hungary are under the supervision of the Ministry of Human Capacities in cooperation with the Inter-Ministerial Coordination Committee on Drug Affairs and of the Council on Drug Affairs, as well as the expertise of several professionals from various institutions.

The first strategy to combat drug use in Hungary was developed in 2000. In 2013, the country adopted its National Anti-Drug Strategy 2013–2020 (3), "Clear consciousness, sobriety, and fight against drug crime" (3), which aligns with the National Security Strategy. Although the anti-drug strategy is considered adequate by national stakeholders, there is concern regarding the prioritisation of activities and the translation of the plan's main elements into specific and measurable interventions and outcomes (ECDC, 2016). Evaluation of the first strategy revealed low achievement of the treatment and care-related goals. However, the prevention goals were achieved.

The National Anti-Drug Strategy 2013–2020 emphasises a "societal" dimension of drug use and addiction. It suggests three main factors to help explain the growing use of illicit drugs in Hungary: lifestyle changes, values and identity-related crises, and the suggested "deterioration" of the family unit. Illicit drug use in Hungary has increased in the last five years. In order to reduce these figures, more targeted prevention programmes are recommended.

Thus, the strategy focuses on these factors as well as on adolescents and youth who may be at increased risk for experimenting with tobacco and alcohol use or developing abusive substance behaviours. The core values of the strategy are: respect the right to health and a drug-free life, self-responsibility, stakeholder cooperation, and input from experts and other professionals. To achieve these values, the strategy includes predetermined performance indicators with associated targets.

### **1.3 Current status of health system**

Two healthcare quality-related initiatives of national importance were launched in recent years. The project entitled, *“Improvement of organisational efficiency in the healthcare delivery system – Establishment of a single external supervision system in the inpatient and outpatient specialised care and the pharmaceutical care”*, developed operational standards and an external supervisory system for Hungarian healthcare providers. The project’s framework included the opportunity to receive free preparation to become an accredited supervisor and was open to 45 inpatient care institutions and outpatient clinics operating in the convergence regions (outside Budapest and Pest County). In November 2015, the training of the supervisors ended, and the preparation for accreditation continued at the 45 institutions. The other project aimed to implement a Hungarian health system performance assessment.

## **2. Organisational structure**

### **2.1 Economic context of health and programmatic resources**

In 2014, Hungary’s total expenditure on healthcare was 7.4% of its GDP. In the same year, public spending on health was 64.6% of the total current expenditure. According to the Health Insurance Fund’s 2013 budget generated HUF 1,848.2 billion in revenue; expenditures of HUF 1,848.6 billion; and a deficit of HUF 513 million, which was the lowest deficit since 2008. In 2014, the Health Insurance Fund had revenues of HUF 1,907.6 billion and expenditures of HUF 1,907.2 billion, so the budget of the Fund had a surplus. For 2015, the parliament set the budget for the Fund at HUF 1,910.8 billion. The total expenditures of the Health Insurance Fund increased by HUF 62.2 billion between 2013 and 2015, which means a 1.9% real terms increase. Most of this increase (HUF 51.7 billion) took place in provisions in-kind (4). Low threshold services (LTS) for people who inject drugs (PWID) are covered by the National Office for Rehabilitation and Social Affairs through a three-year contract based on tendering procedures.

### **2.2 Legal environment**

The 2010 UN General Assembly Special Session on Drugs report stated that confidentiality and discrimination remained major concerns among PWID in Hungary. There is an urgent need for the implementation of anti-stigma training programmes as well as the implementation of anti-stigma laws and regulations.

### **2.3 National drug laws**

A revised Criminal Code approved by the National Assembly on 25 June 2012 and implemented on 1 July 2013 includes a chapter specific to “criminal offences against health”. Chapter XVII of the Criminal Code provides regulations related to illicit drugs in six statutory definitions: drug trafficking, possession of narcotic drugs, inciting substance abuse, aiding in the manufacture or

production of narcotic drugs, criminal offences with drug precursors, and misuse of new psychoactive substances.

The Criminal Code contains the cases and conditions of alternatives to criminal procedure, including quasi-compulsory treatment (Art. 180.) which are given as grounds for exemption from culpability. The text of the law states that if a person who produces, manufactures, acquires, or possesses a small amount of illicit drug for own consumption or who consumes illicit drugs “is able to present a document before being sentenced in the first instance to verify that he/she has participated in treatment for drug addiction, treatment of other conditions with drug use or a preventive-consulting service” then he/she may not be punished. The quasi compulsory treatment may be initiated either in the prosecution or the court phase of the criminal proceedings. The possibility of quasi compulsory treatment is not available for those persons who undertook the treatment in the two years before the perpetration of the offence or whose criminal liability has been determined in a drug trafficking or drug possession case.

The rapid appearance of new substances forced Hungarian decision-makers to elaborate a new monitoring and risk-assessment system, which can be used to provide the appropriate information to make responsible decisions regarding the control of designer drugs. Act XCV of 2005 lays down the framework of the new legislation, while Government Decree 66/2012 (IV. 2.) determines the processes and the responsible institutions about the reporting of new psychoactive substances, their preliminary assessment, their scheduling, and risk assessment.

#### **2.4 Civil society organisations**

The annual budget allocated to non-governmental organisations (NGO) by the National AIDS Committee is around US \$50,000. NGOs provide health services, social care, and counselling. In Hungary, Altalap Foundation offers HIV and hepatitis C (HCV) rapid testing services for targeted populations in the most at-risk district in Budapest with funding from EEA grants.

### **3. Epidemiological surveillance**

Epidemiological and microbiological surveillance of infectious diseases is conducted by the National Public Health Center (Nemzeti Népegészségügyi Központ) which coordinates the control and prevention of infectious diseases, the prevention of vaccine preventable diseases, the training of health professionals and postgraduate students in public health, epidemiological preparedness issues, the control of vectors and pests, tropical medicine, and quality control of immunobiologicals. It manages the registry for healthcare associated infections and investigates nosocomial outbreaks. It is also the focal point for the reporting of infectious diseases to the European Centre for Disease Prevention and Control (ECDC) and is a member of the Epidemiological Surveillance Component of the Community Network.

#### **3.1 Health status**

The population of Hungary, in decline since the early 1980s, was 9,855,000 in 2015. The health status of the Hungarian population is relatively poor compared to that of the other countries in the European Region. In 2015, the life expectancy of both genders was 75.9 years old. Mortality in Hungary is higher compared to other EU countries and half of the annual deaths are attributed to cardiovascular diseases. Mortality rates for trachea, bronchial, lung and colon cancers higher in Hungary than any other European Union country (4).

### **3.2 HIV and viral hepatitis prevalence among people who inject drugs**

In 2014 the prevalence of HIV among PWID who were tested through a national seroprevalence survey was 0.2%, while the prevalence of hepatitis B virus (HBV) was 2.2%, and 49.7% for hepatitis C virus (HCV). There was an increase in HCV prevalence among PWID in the last 8 years (from 25% in 2011, to 48.7% in 2014, and 49.7% in 2015) (5). The prevalence of HCV was higher among PWID who had 5-9+ years of injection drug use history as opposed to those who had been injecting for less than 4 years. Between 2008 and 2014, Hungary had an increasing trend of HCV-antibody prevalence among PWID. The prevalence of HIV, HBV and HCV is higher among prisoners than in the general population (5).

### **3.3 Tuberculosis**

The percentage of HIV infections among tuberculosis (TB) cases was estimated to be 1% (range 0.6–1.6%), or 15 (range 9–24) cases. Of these cases, only one was confirmed. According to the World Health Organization (WHO), TB surveillance data is not integrated in the communicable disease information system. HIV and TB data are not managed on a case-based platform, primarily to ensure the confidentiality of PLHIV (6). Therefore, access to voluntary counselling and active HIV testing among TB patients, as well as TB testing and prevention among PLHIV was either limited or absent and thus, difficult to document. Instead, clinicians detect HIV in TB patients passively, when the symptoms are very advanced and indicate immunosuppression.

According to the ECDC (2016) the estimated TB-HIV co-infection incidence rate ranges from 1.1% (highest) to 0.8% (lowest). In 2014, among the 851 TB cases, 3.5% were cases with a known HIV status. The case fatality rate for PLHIV co-infected TB was 58% in 2012 (7). Also, there is currently no data available about the treatment outcome for the HIV patients with TB.

## **4. Healthcare for specific population subgroups**

According to the Hungarian National Anti-Drug Strategy, all healthcare service providers with a license for psychiatric services and addiction science are entitled to treat patients with medication. Although this represents a potential 500 treatment and care centres, only 85 report that they provide care to PWID. Drug users are mainly treated in specialised outpatient treatment settings. PWID are treated in emergency departments followed by inpatient hospitalisation if needed.

### **4.1 People who Inject drugs**

Hungary is a transit and destination country for illicit drugs in South-East Europe (8). Domestic production is low and mainly concentrated around marijuana. The distribution of new synthetic drugs is a more recent phenomenon and in response to this, an early warning system was developed (7). Its role is to investigate new synthetic drugs by experts in the field who are coordinated by the Hungarian National Focal Point, and inform stakeholders and the European Monitoring Centre for Drugs and Drug Addiction about their findings.

The National Anti-Drug Strategy 2013-2020 estimates that there are between 2,800 and 3,400 heroin users in Hungary. In 2007 and 2008, the estimated number of PWID was 5,000 to 5,200 individuals, respectively. Beginning in 2016, a study (9) was conducted to estimate the size of the PWID population (including both opioid and stimulants injecting drug users). Based on the study, the size of the PWID population was estimated to be 6,707 persons in 2015.

A decrease in the PWID population was observed in the national HIV, HBV and HCV seroprevalence survey. The use of injecting opioids decreased from 86.4% in 2006 to 38.3% in 2015. In 2015, 65 overdose deaths were documented (25 from direct drug use and 40 indirectly related to drug use deaths).

Based on needle syringe exchange programme (NSP) data (9)(10) the appearance of new psychoactive substances in 2010 transformed historical injecting drug use patterns observed in previous years. There was a significant decrease in heroin injecting between PWID attending a NSP from 2009 (56%) to 2015 (3%) as opposed to the percentage of those injecting other opioids, primarily methadone, which remained stable (from 7% in 2009 to 9% in 2015) (9). In 2009, fewer than 44% of NSP clients primarily injected stimulants -- a number that nearly doubled (87%) by 2015. The proportion of those injecting classical stimulants, mainly amphetamine, decreased during the same time. Between 2009 and 2012, the number of PWID injecting classical stimulants was approximately 40%, but by 2013, this figure dropped to 17% in 2014 and to 7% in 2015. The proportion of those injecting cocaine is negligible among PWID attending NSPs.

The increase of injecting new psychoactive substances (designer stimulants) nearly replaced heroin by 2010 and then amphetamine by 2013. While in 2010 fewer than 8% of NSP clients used designer stimulants, in 2015 this became the main injected substance for 80% of NSP users.

In 2015, 7% of NSP clients between the ages of 25 and 34 years primarily injected heroin or other opioids while for those aged 34 years and older this figure was 16%. Only a small proportion (3%) of clients below the age of 25 primarily injected opioids. Sixty-four percent of heroin and other opioid injectors were 34 years or older.

#### **4.2 National body for drug treatment**

The State Secretariat for Health Care coordinates the provision of care for PWID, while the State Secretariat for Social Affairs and Social Inclusion is responsible for their social care. Both secretariats are located at the Ministry of Human Capacities. Governmental and NGOs provide drug treatment services to PWID, which are divided as medical (financed by the National Health Insurance Fund, by the church and other entities) and social services (financed by a fixed financial model).

The Interministerial Coordination Committee on Drug Affairs is the national body for the coordination of the different responses to drug consumption in the country including supply and demand reduction, as well as research and policy planning.

The Hungarian Reitox National Focal Point coordinates the data collection of specialised addiction treatment demand indicators (TDI) according to EMCDDA standards in Hungary. Data analysis is also carried out by the Hungarian Reitox National Focal Point (10).

#### **4.3 HIV and AIDS**

Screening tests for HIV, HBV, HCV, and TB are available for PWID and anonymity and confidentiality of these voluntary screening tests are assured (11). Anonymous HIV testing opportunities are available nationwide at LTS providers. Free HIV testing is, in theory, also available in other various settings – family doctors, clinics providing sexually transmitted

infection services, gastroenterology clinics, etc. – funded by the national Health Insurance Fund. In the latter institutions, clients need to have health insurance.

Dél-pesti Centrumkórház - Országos Hematológiai és Infektológiai intézet (National Institute of Hematology and Infectology) in Budapest, Hungary's largest national HIV care centre, receives all HIV patient referrals, though treatment is available at regional centres as well.

#### **4.4 Hepatitis B and C treatment**

Since 2006, the Hepatology Outpatient Clinic of Dél-pesti centrumkórház hospital has provided care and treatment to HCV reactive PWID. In a study published in 2012, three case-finding programmes identified individuals positive for HCV between 2006 and 2008 and cooperated with a specialised outpatient clinic for antiviral treatment provision (12). Of the 234 PWID identified as HCV positive through the study, only 21 clients attended the Hepatology Outpatient Clinic of Dél-pesti centrumkórház Hospital and of these, only two started antiviral treatment (their HCV positive status had already been known at the time of screening). Out of the total 6,759 patients who attended the Hepatology Outpatient Clinic at Szent László Hospital between 1 January 2006 and 31 December 2008, 123 had a history of drug abuse but only 23 (18 men) participated in the HCV case-finding programmes.

Another study explored the barriers to access antiviral treatment among PWID with HCV (13). The most frequently reported barrier to cooperation with pre-treatment examinations and antiviral treatment was ongoing drug use and in 43% of cases, ongoing drug use was the main reason for missing medical examinations. Additionally, in 27% of HCV antibody positive individuals ongoing drug use was the main identified factor for terminating follow-up. Ongoing psychiatric disorders led to the cessation of the examination for two (10%) cases of individuals with HCV.

In the group of those infected with HCV and patients with advanced liver conditions, one case had a developmental disability that hampered pre-treatment examinations. From the group of those with positive HCV antibodies, two patients dropped-out before a liver biopsy was performed and one left before a Fibroscan examination. It could be speculated that anxiety triggered by these examinations is the cause for dropout. Providing information and counselling about the could have decreased the refusal of consent to the examination in these cases.

According to European guidelines, drug use should not be seen as a barrier for the provision of treatment to HCV patients (14). Although there is no evidence regarding the attitude of the Hungarian medical doctors towards these guidelines, it should be addressed, given the reluctance of colleagues in other countries, in terms of compliance with the therapy and potential reinfection due to patients' addiction with the intravenous drug use.

Pegylated interferon plus ribavirin dual therapy, which has been available in Hungary since 2003, effectively treats HCV in 40–45% of treatment-naïve patients, and in 5% to 21% of treatment-failure patients. The addition of two first generation direct-acting protease inhibitor drugs (boceprevir and telaprevir) to the dual therapy increased the chance of viral sustained clearance to 63–75% and 59–66%, respectively. These two direct-acting antiviral (DAA) agents have been available and financed for a segment of Hungarian patients since May 2013.



Accurate and timely molecular biology tests are mandatory for treatment initiation as well as for on-treatment decisions. Staging of liver damage (fibrosis) utilising non-invasive methods (transient elastography and biochemical methods) are acceptable alternatives to liver biopsy. Professional decision for treatment is balanced against budget limitations in Hungary, and priority is given to those with urgent need using a national priority index system reflecting stage of liver disease as well as additional factors (progression of liver disease, predictive factors and other special circumstances). All treatment-naïve patients are given a first chance with dual therapy. Those with HCV genotype 1 infection and with on-treatment or history to failure with dual therapy are eligible to receive protease inhibitor-based triple therapy provided they meet financial requirements, based on the Priority Index. Duration of therapy is usually 48 weeks for those with HCV genotype 1 with a response-guided potential to reduce duration for non-cirrhotic patients. Patients with other genotypes are treated with dual therapy (without protease inhibitors) for a genotype and response driven duration of 16, 24, 48, or 72 week (15).

DAA's are recognised by the Hungarian professional communities of gastroenterologists. These drugs are available for those non-responding to interferon-based therapies or in an advanced stage of cirrhosis, as well as in clinical trials. Measures are being taken to introduce DAAs as the first line of treatment. The the professional communities would prefer the DAAs as described in the consensus paper (16).

#### **4.5 Tuberculosis treatment**

Hungary has guidelines for the follow-up of TB cases in regions with elevated incidences. There is no active routine screening for HIV in TB patients which poses a major challenge for the quality of care provided to these patients. There is a need to identify those with TB and HIV co-infection, initiate treatment, and continuously monitor disease progression. The low success rate of treatment of TB cases is also an obstacle for PLHIV (17). In Hungary, directly observed therapy (DOT) is provided during patient hospitalisation at treatment initiation. The distribution of DOT at an outpatient level is inconsistent due to lack of human and financial resources. The lack of an established linkage to care mechanism between the medical setting, in which DOT is provided, and social services facilities may contribute to the failure of the treatment and the loss to treatment follow-up.

#### **4.6 Prisons**

There were 17,449 prisoners in Hungarian detention facilities at the end of 2015, 92.8% of which were men. According to national data published by the EMCDDA (2016), 30-40% of Hungarian prisoners were illicit drug users prior to their imprisonment and were mostly younger than 35 years of age.

In a study done by Tresó et al. (18) 4,894 inmates from 20 prisons were tested. They reported that 0.04% tested positive for HIV, 1.5% were positive for HBV surface antigen, and 4.9% were positive for HCV. HCV prevalence was significantly higher among inmates who had injected drugs (22.5%) than among inmates who reported to have never injected drugs (1.1%). This first prevalence study of viral infections among PWID in Hungarian prisons identified injection drug use as the main mode of HCV infection among inmates.

## **5. Harm reduction services**

A harm reduction approach has been promoted in Hungary for many years. The “Daath” community, established by a community of PWID in 2001, has a strong focus on harm reduction (19). In 2015, around 30 organisations provided harm reduction activities, including mobile and street outreach NSP in several districts in Budapest. Other services for drug users include harm reduction in recreational settings, opioid substitution therapy (OST) and some other specialised services such as interventions for drug-using pregnant women and their children or relapse and overdose prevention upon prison release in some penitentiary institutions.

### **5.1 Outpatient opioid substitution therapy services**

In 2015, a total of 79 specialised addiction care units reported providing treatment to people who use drugs. These service providers belong to the general mental healthcare outpatient treatment system. Outpatient services are provided by 63 entities covering 90% of all the clients reported by the TDI (5). Sixty-five percent are treated as an alternative to criminal procedure. Seventeen percent have started treatment at LTS providers. Opioid users mainly start treatment as a non-criminal procedure.

Two types of substitution medication are used in Hungary in OST programmes: methadone and buprenorphine/naloxone. Service providers participating in the national data collection on substitution treatment reported a total of 669 clients, which covers around 80% of all the clients according to expert estimates. Due to historical and financial reasons, methadone is more widely used and typically about three-fourths of the annual number of cases receives this substitution medication (533 (79.7%) persons in 2015), while the remaining clients receive buprenorphine/naloxone combination (136 (20.3%) persons in 2015). Buprenorphine/naloxone medication may be prescribed by any psychiatrist, whereas methadone is an “institution drug”, meaning its acquisition and provision is done by the health service provider. Thus, the buprenorphin/naloxone medication may appear in private health care settings, but no information is available (5).

The majority of OST was provided to outpatients, providing substitution treatment to 669 clients in 2015. Seventy-five percent of those clients received buprenorphine/naloxone combination. Almost 95% of clients in OST in 2015 were admitted for maintenance reasons as opposed to detoxification (4.8%). Methadone is the frequent substitution medication for those clients in maintenance (5).

### **5.2 Inpatient opioid substitution therapy services in clinic-based facilities**

A total of 8 hospital units and 5 therapeutic communities (under the management and supervision of churches, NGOs and municipalities) provided inpatient treatment services to drug users, 9.5% of all clients (408 out of 4308 persons), who started treatment in 2015 in the scope of inpatient treatment (hospital-based residential drug treatment n=242; therapeutic communities n=166). These services included: rehabilitation, social services, medical and nursing care, residential services, and accommodation for the psychiatric clients as well as those suffering from addiction. Ninety-seven percent of the inpatient clients are provided regular non-criminal procedure treatment as opposed to the outpatients, who mainly have clients undergoing criminal procedures. OST in inpatient settings, however, mostly covers short-term detoxification services and are considered sporadic in the country. According to

expert estimates, the total number of clients initiating OST in inpatient settings is less than 30 clients per year.

### **5.3 Needle and syringe programmes and other low threshold services**

In 2015, a total of 26 fixed NSPs, a mobile NSP in the capital city, and 16 street outreach programmes were operational. In four cities, PWID could purchase clean needles and syringes from vending machines. A total of 188,696 sterile syringes were distributed and 150,565 were returned and collected (EMCDDA, 2016). In Hungary, the number of syringes provided to PWID was lower than the coverage level in 2014 (20).

According to a study (5) surveying the integration of NSPs within the treatment/care system, in 2014, two-thirds (n=18) of the organisations operated as NGOs, seven organisations were operated by the state/local government, while four services belonged to faith-based organisations.

Among the 29 NSPs, nine of them were linked to outpatient drug treatment centres through their parent institutions, and four were linked to therapeutic communities. In the case of 16 service providers, besides needle exchange, the parent institution also operated other LTS/day care/community services. Apart from their parent institutions, the NSPs most frequently established regular collaborations with units providing psychiatric/addiction treatment, family care centres and with organisations operating residential treatment units and therapeutic communities in 2014. With respect to service providers, the organisations outside of their parent institutions, most frequently referred their clients to therapeutic communities (25 organisations), psychiatry/addiction units (24 organisations), self-help groups (23 organisations), homeless shelters (22 organisations) or outpatient DTCs (21 organisations).

## **6. Research and evaluations**

The Ministry of Human Capacities coordinates and finances drug-related studies in Hungary through an open tendering procedure. Exceptions are some high priority research studies that are directly funded by the Ministry. According to EMCDDA (2016) there are six main research institutions as well as three main research centres in various universities, and eight national scientific journals in which drug-related research findings are published. The results of the studies are also published on the websites of the individual institutions. In 2016, the Ministry of Human Capacities invited entries for a competition worth HUF 490 million for drug-related organisations in five categories: supporting prevention programmes, research, LTS, recovery processes, and professional forums.

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## List of abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy
CCDA	Centre for Communicable diseases and AIDS
ECDC	European Centre for Disease Prevention and Control
EU	European Union
GDP	Gross domestic product
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
IAP- PDTA	Interinstitutional Action Plan for Prevention of Drugs, Tobacco and Alcohol
LTS	Low-threshold services
MDR-TB	Multi-drug resistant TB
NFP	National focal point
NGO	Non-governmental organisation
NHIF	National Health Insurance Fund
OST	Opioid substitution therapy
PWID	People who inject drugs
TB	Tuberculosis
XDR TB	Extensively-drug-resistant TB



## **1. Introduction**

### **1.1 History of Lithuania's healthcare system**

In the period 1918-1940 the Lithuanian health system was developed based on the Bismarck model and later on the Semashko system. Lithuania gained independence from the USSR in March 1990, and since then, the health system has transformed massively. The country now has a mixed system, which is financed by the National Health Insurance Fund (NHIF) and the state budget. (1)

### **1.2 Current status of Lithuania's health system**

In the 1990s, the regional authorities became responsible for the provision of public health services at the local level. The private health sector was to be limited, particularly for inpatient care. In 1997 compulsory health insurance was introduced and administered by the NHIF. Although the majority of health-care institutions are non-profit organisations, since 2008, the NHIF has increasingly been contracting private providers for specialized outpatient care. (1)

In 1998 public health was introduced into the health programme and in 2002 the main law regulating public health was adopted. In 2007, infrastructure was established in municipalities to monitor the population status for public health issues. Later, ten regional public health centres converted into administrative authorities for public health and environmental safety as well as for the prevention and control of communicable diseases (1) (2).

## **2. Political Context**

Lithuania is a parliamentary republic, governed by a single-chamber parliament (Seimas) elected for four years and a president elected for five years. The parliament is the main legislative body and has 141 members. The country is administratively divided into 60 local municipalities (savivaldybė) that can set priorities in financing, education, cultural activities, and healthcare.

In 2008 the Seimas formed a Parliamentary Commission for the prevention of drug and alcohol addiction, which is tasked with formulating national policies and strategies for drug and alcohol prevention and control and drafting drug control laws. The National Health Council is one of several bodies that coordinates, formulates and implements drug control policies. Each Municipality Drug Control Commission consists of local representatives (police, education institutions, doctors, social workers, etc.) and coordinates actions for prevention, treatment and harm reduction. (3)

Between 2013 and 2014 several methodological materials and guidelines on HIV and STI prevention for national health promotion and protection were developed and included recommendations for specific target groups (i.e. MSM, youth, PWID, pregnant women). (4)

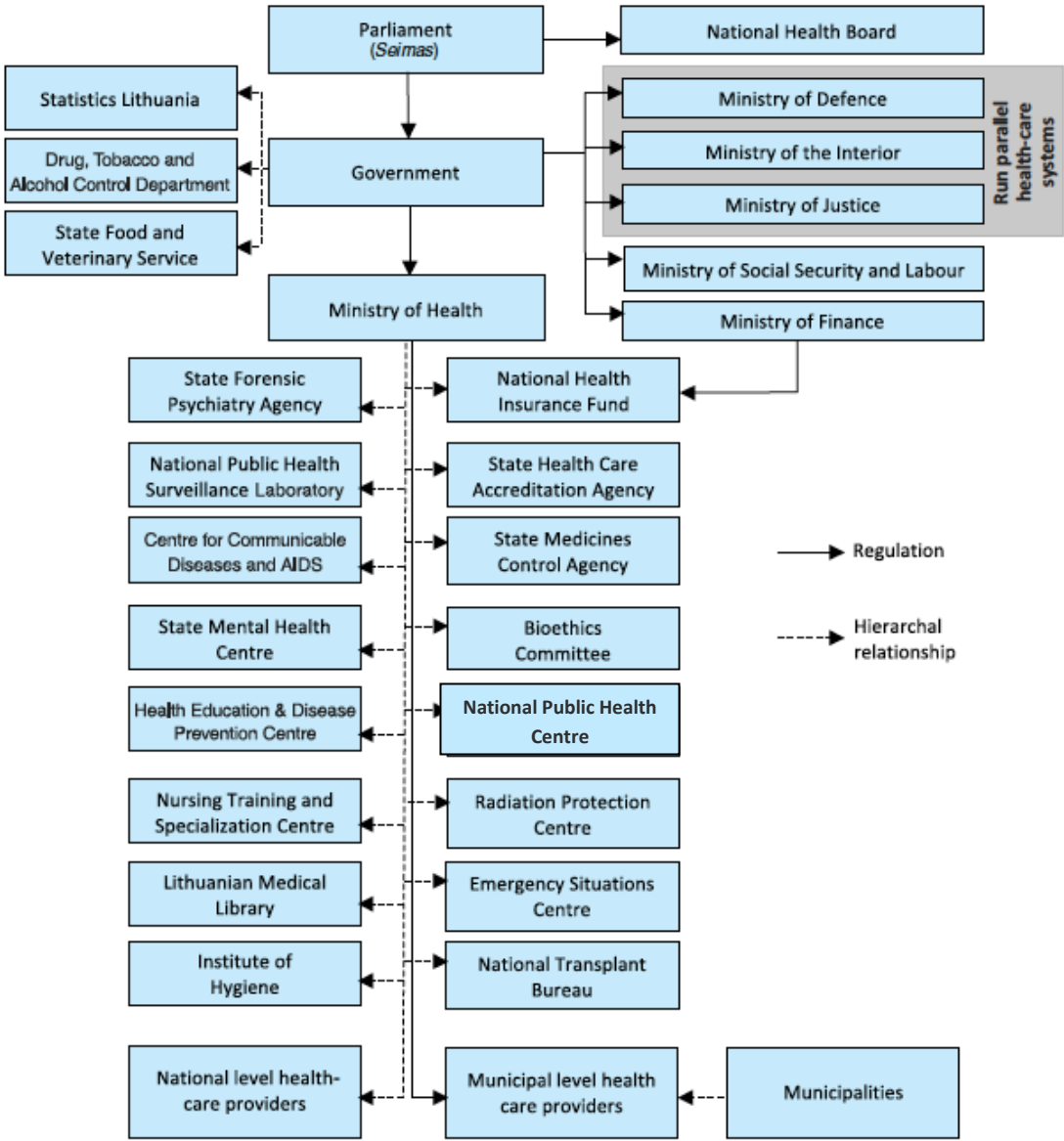


### 3. Organizational Structure

#### 3.1 Health System

The structure and the main principles of the national health system are described by the 1994 Health System Law. The Healthcare Institutions law and Health Insurance Law were also adopted in 1996 and in addition, other, more specific, health regulations were introduced. (1)

Figure 1. Overview of the Lithuanian health system



The National Health Insurance Fund (NHIF) based on compulsory participation of the health insurance system funds the Lithuanian healthcare system. However, the state provides for the economically inactive population.

Although the Ministry of Health (MOH) is responsible for developing, organizing, and implementing health care policies, the provision of healthcare services in Lithuanian prisons, on the other hand, is the responsibility of the Ministry of Justice with limited involvement from the Ministry of Health. (5) However, some experts recommend that the Ministry of Health take over the responsibility for health services in prisons. In fact, as of January 2019, the National Health Insurance Fund instead of the Ministry of Justice will fund the treatment of HIV in prisons.

In order to develop a more efficient and competitive system, Lithuania adopted the Health System Development Dimensions 2011–2020. The document defines the main directions for the health system until 2020, with a particular focus on improvement of service quality and disease prevention.

### **3.2 Epidemiological Surveillance**

The Republic of Lithuania has a population of 3 million. (1) The HIV/AIDS/STI and Hepatitis Surveillance Unit of the Lithuanian Centre for Communicable diseases and AIDS (CCDA), which operates under the Ministry of Health, is responsible for collecting and analysing national data on human immunodeficiency virus (HIV); acquired immune deficiency syndrome (AIDS); acute hepatitis B virus (HBV); and hepatitis C virus (HCV) infections. The CCDA uploads annual reports on HIV/AIDS/STI incidence and prevalence on its website. (1) Liver cancer cases are also registered nationally, but not cases of co-infection with HIV/hepatitis. Hepatitis disease reports are not published.

In 2007, the Minister of Health established a monitoring information system for mental/behavioural disorders and the use of narcotic and psychotropic substances. Since 2013, data are collected according to the EMCDDA Guidelines TDI Protocol v. 2.0n. (7) Health service providers are required to complete a statistical form and submit data electronically to the State Mental Health Centre, which is responsible for data analysis and for providing information. (7)

Data are collected from 74 treatment centres which are licenced to provide treatment to drug users. (8) The existing system cannot track which people living with HIV (PLHIV) receive on going healthcare. (6) The most recent bio-behavioural seroprevalence study of HIV, HBV and HCV among people who inject drugs (PWID) was carried out in 2007–08. (7)

### **3.3 National Body for Drug treatment**

The Drug, Tobacco and Alcohol Control Department of the Republic of Lithuania, under the Prime Minister, is responsible for relations with international organizations where the national focal point (NFP) in Lithuania has been situated. (7) The main responsibilities of the department include the implementation of national alcohol, tobacco and drug control policies, coordination, prevention, EMCDDA reporting, data collection, and monitoring infectious diseases among drug users. (6)

The National Program on Drug Control and Prevention of Drug Addiction, 2010–16 aims to prevent drug dependency and increase drug control by strengthening individual and public education, health, and safety according to EU Drugs Strategy and the EU Drugs Action Plan. (7)

### **3.4 HIV**

Communicable disease prevention and control in Lithuania is regulated by the law on Prevention and Control of communicable diseases (1996). Since 2009, the CCDA is responsible for HIV/AIDS related public health issues. The surveillance system is based on HIV and AIDS case reporting, which is confirmed at the National Public Health Surveillance Laboratory. The HIV/AIDS response is decentralized to the municipalities meaning that prevention activities for risk groups are coordinated and funded at the local level by the municipalities. (4) In September 2015 the Ministry of Health approved the Action Plan on the Prevention and Control of HIV and STI for the years of 2015-2017. The Action Plan included institution activities under the MOH, as well as other governmental and non-governmental organizations. Indicators were included in different areas in order to measure outcomes.

## **4. Economic Context of Health**

Lithuania's economy has been affected by numerous political and economic factors. Despite EU funds that aimed to strengthen the financial stability of the country since 2004, the financial crisis has influenced the economy negatively, with a 15% decrease of the GDP in 2009.

Until 2009, health insurance contributions were integrated in personal income tax and social insurance tax. However, in 2009 the health insurance contribution became a separate tax. (1)

### **4.1 Economic Context of drug treatment and harm reduction services**

The main funding bodies of the different treatment services are the national budget and the national health insurance. Individuals with epidemiologically dangerous infectious diseases (a list of these was approved by the MOH) are insured by the state. The costs of healthcare services for the incarcerated and convicted, however, are covered by the Ministry of Justice through the prison department's budget. The limited budget and other factors most likely contribute to the lower healthcare standards in prisons. (6)

Lithuania's State Medicines Control Agency is responsible for the registration of pharmaceuticals in the country and for monitoring their consumption. ARVs are reimbursed by the NHIF.

The Dependence Disease programme within the NHIF established in 2004 ensures free pharmacotherapy with methadone for everyone who needs it. Since the year 2000, the Ministry of Health has financed four specialized treatment centres (Centres for Addictive Disorders) that increased to 5 financed centres in 2014. In January 2016 the Ministry of Health changed their funding scheme for methadone maintenance. Methadone maintenance, in addition to the rest of outpatient treatments for substance dependence, is funded by the NHIF as a primary mental healthcare service through the funding of primary mental healthcare centres. Methadone maintenance is reimbursed though with small additional funding by OST patients per month. The NHIF funds methadone maintenance treatment for those people with multiple or severe morbidities and also those who may be socially excluded as a secondary level specialized addiction psychiatry service. This service usually includes case management by a social worker.

Needle and syringe programmes and low threshold centres are funded through the state budget

(as in Vilnius, for example), and as projects by local municipalities. Project funding is much more likely to be affected by socioeconomic factors than funding embedded within a system. The NHIF is not legally allowed to fund low threshold services (LTS) as funds can only be used for insured persons and in emergency scenarios. Consequently, uninsured people living permanently in Lithuania can only get emergency care. Social workers at addiction centres help address this barrier and register people who inject drugs (PWID) as unemployed so they are able receive health insurance paid by the state. (6)

## **4.2 Programme Resources**

Between 1990 and 2011, the total number of hospitals decreased from 197 to 145. There was also a decrease in the health workforce, mostly in nursing personnel, by approximately 18%. Currently, there are 66 general hospitals, 49 nursing hospitals, 26 specialized hospitals and 4 rehabilitation hospitals. There is an unequal distribution of medical personnel throughout the country with practicing physicians ranging from 54 per 100.000 inhabitants to 906 per 100 000 inhabitants. (1)

On 16 July 2014, an Action Plan was adopted for the Reduction of Health Inequalities in the perspective of EU Structural Funding for the years 2014-2020. The Plan contained the provision of funding from EU structural funds to establish new sites for opioid substitution therapy and LTS in the municipalities.

## **5. Non-Governmental Organisations (NGOs)**

NGOs play a vital role in the response to HIV. In Lithuania, the national network of people living with HIV (PLHIV) has its headquarters in Vilnius and three branches in other locations. (6) Its members also reach out to Lithuanians who live abroad, are involved in national HIV programmes, and provide counselling services.

Some 19 NGOs were providing drug free community social services with funding from the EU. Since 1 January 2015, NGO rehabilitation centres have to be licensed by the Ministry of Social Affairs and Labour in order to operate.

The lack of reliable and consistent funding from the government for harm reduction services through standard mechanisms is a major concern for NGOs. (6) Funding is project based and often difficult to cover every project in its totality. However, alternative, albeit limited, government funding for HIV activities for NGOs has been available through the Ministry of Health and from individual municipalities' harm reduction services budgets. (6) Other funding for NGOs comes from international foundations, particular foreign embassies, and the European Commission. NGOs have reported that there has been no funding from the Drug Control Department for harm reduction services since 2011.

NGOs are not always allowed access to prisons. However, it is more likely for NGOs offering drug-free rehabilitation activities to have access. (6) NGOs report stigma to be a problem in Lithuanian society for ex-prisoners and consequently NGOs take over a supportive role when prisoners are released.

## 6. Epidemiology of HIV, HBV, HCV, TB in Lithuania

PWID are at a higher risk of HIV, HCV and TB infection because they are often made vulnerable by factors like homelessness, imprisonment, malnutrition and stigma. With adequate support, however, PWID can have comparable clinical outcomes to those who do not use drugs. (9)

Infectious disease rates are considerably higher among prisoners than among the population outside prison. This population has higher rates of viral hepatitis, HIV/AIDS and tuberculosis (TB) with increased risk of HIV co-infection with hepatitis or TB.

### 6.1 HIV

The first HIV case in Lithuania was described in 1988. The first case of HIV infection in a prison was reported in 1992 and the mode of transmission was through sexual intercourse. In the period between 1997 and 2009, the majority of new HIV infections were acquired through injecting drug use. In 2002 the first outbreak in Alytus Prison was reported. (10)

Lithuania has a significant HIV epidemic concentrated among PWID. The response to tackle the HIV epidemic in this population has not been as strong as in other European countries.. According to EMCDDA data, it has the fourth highest rate of new HIV infections among PWID per million people. (6)

Between 2004 and 2014, the HIV epidemic in Lithuania was characterized by the spread of HIV both through heterosexual intercourse and through injecting drug use. In 2010, Lithuania's HIV epidemic was concentrated among key populations, particularly PWID. This can mainly be attributed to unsafe injecting drug use. The number of HIV cases per 1000 people was higher in prisons compared to the general population. (10) Stonienė et al. conducted a respondent driven sampling (RDS) study in the EU Joint Action Project TUBIDU framework and found an HIV prevalence of 8% among PWID. There is concern, however, that due to the general late diagnosis of HIV as a result of limited access to testing facilities, this study underestimates the magnitude of the epidemic. (6) Based on official figures reported by the European Centre for Disease Prevention and Control (ECDC), late diagnosis (CD4 count  $<350$  cells/mm<sup>3</sup>) of HIV infection is common. Those who are at most risk of becoming infected with HIV experience significant barriers in accessing HIV testing in Lithuania. This is because most people, including PWID, must pay for an HIV diagnostic test. (6) There is a broad testing initiative by the local NGO, Demetra, to make HIV rapid tests more accessible.

HIV cases began being reported and recorded in 1988. (Figure 1) By 31 December 2014 a total of 2,378 HIV cases were reported in Lithuania with a population of 2.9 million. In 2017, the Centre for Communicable Diseases and AIDS reported 3,012 cumulative HIV cases in the country and 263 new HIV diagnoses that same year. (Figure 2)

Figure 1. HIV/AIDS trends in Lithuania 1988–2017

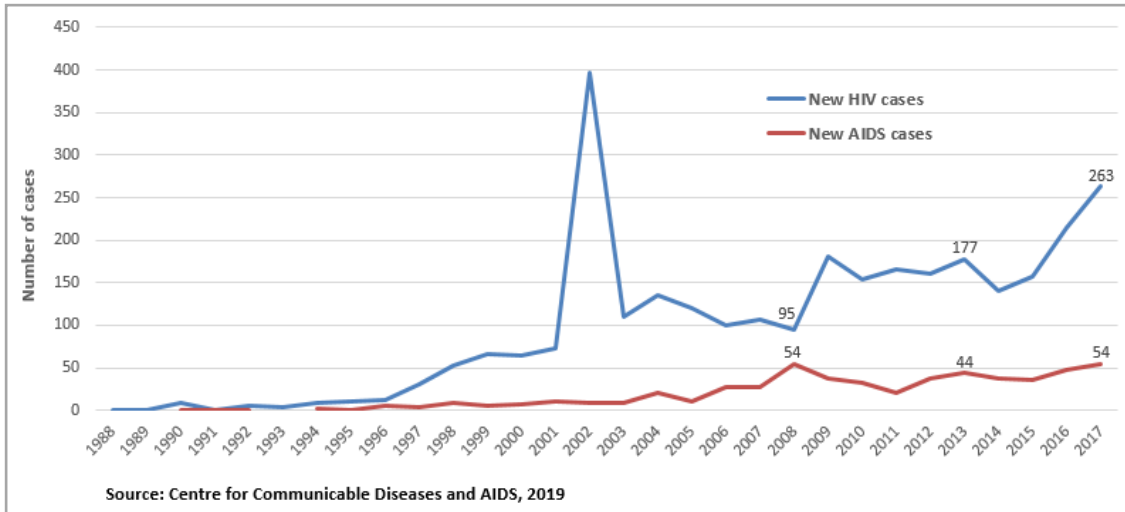
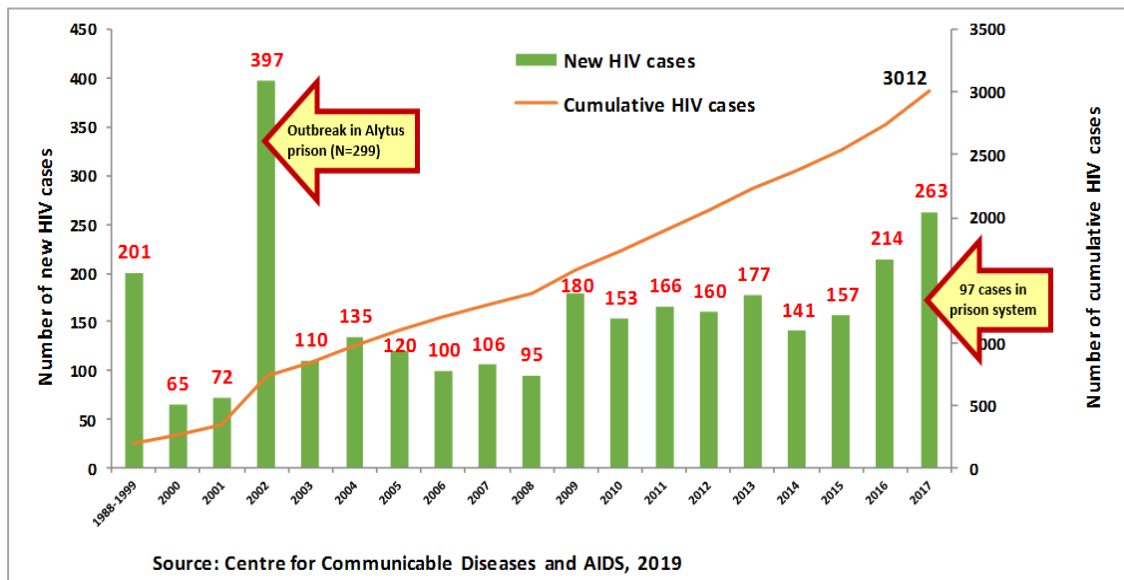
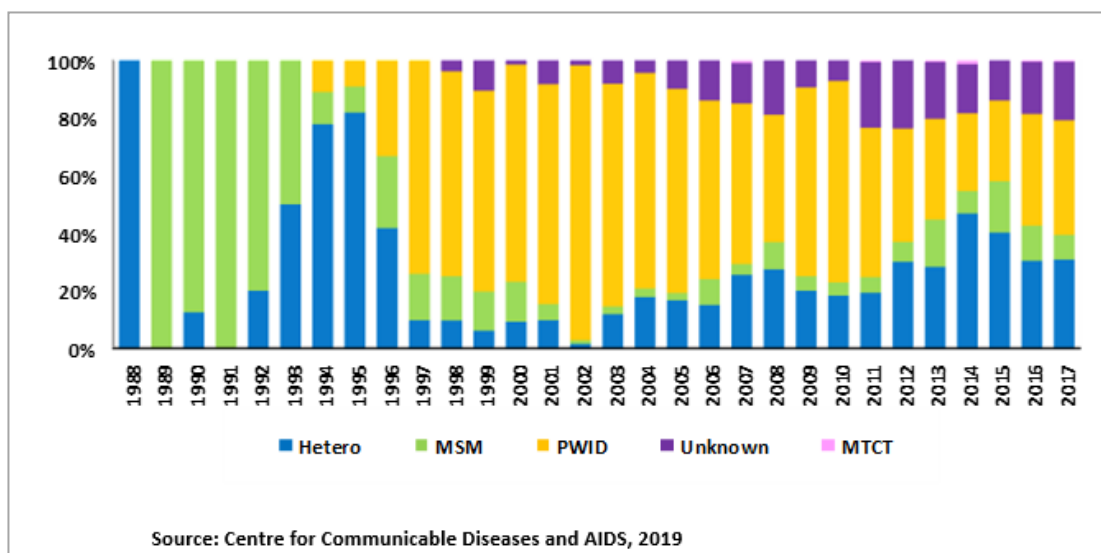


Figure 2. Number of cumulative and incident HIV cases in Lithuania, 1998-2017.



In 2014, the most common mode of transmission reported was sexual contact (Figure 3). The regions with the highest HIV prevalence by the end of 2014 were Klaipeda (seaport) and Vilnius (capital).

Figure 3. Reported HIV cases and transmission modes in Lithuania 1988-2017



There is no centralized functional registry for PWID accessing addiction services. Anonymous healthcare services for drug dependence are available at a cost from state and private services since 2010. A person with dependence may have difficulty receiving a health certificate from their family physician or health centre to apply for a job or obtain a driver's license, for example. In order to receive a health certificate, adherence to treatment or stability post-rehabilitation must be clearly documented.

Tailored prevention, care, and treatment services could contribute to the control of the HIV infection among key populations, such as PWID, in addition to the general population. (6)

## 6.2 Hepatitis

Vaccinations against HBV have been provided for infants and 12-year-old children since 2004. Special HBV immunization programmes for PWID do not exist. (7) The incidence of acute viral hepatitis in prisons is about 10 times higher than the rate of 1,3 cases per 10 000 in the general population. In particular, the incidence of acute viral hepatitis B and C is 27,5 cases per 10 000 among the prison population. (10)

In 2014, according to the ECDC, none of the 26 people who were documented to have acute HBV infection were linked to injecting drug use. In contrast, five out of 34 people with acute HCV reported injecting drug use. Furthermore, among 200 tested clients in harm reduction programmes from three different settings reported a HCV and HBV prevalence of 77% and 10.5%, respectively. However, data on HBV and HCV infections among PWID in Lithuania should be interpreted with caution due to a high proportion of undetermined routes of transmission. (11)

## 6.3 TB

TB control in prisons is integrated as part of the national TB control programme in Lithuania. Currently, the greatest concern is multi drug-resistant TB (MDR) and extensively drug-resistant TB (XDR) for the general population and in the penitentiary system. (10)

In 2011, Lithuania was the country with the second highest number of TB incidences (54 per 100 000) compared to the EU average of 12 per 100 000. The mortality rate was 5.9 per 100 000 population (0.8 in the EU). It is estimated that about half of new patients with TB in Lithuania are unemployed; about 30% of those have an abusive alcohol consumption. (1) In 2013, the HIV prevalence among new TB cases was 3.4% (compared to 0.89% in 2010). HIV testing among new TB cases decreased to 67.1% (83.7% in 2012). However, the number of HIV positive patients that received treatment for both TB and HIV increased compared to the two previous years. (4)

## 7. Healthcare for specific populations- Healthcare for HIV, Hepatitis and TB

### 7.1 HIV/AIDS

There is no formal policy on HIV testing in Lithuania. This raises serious concerns among activists and the effects of this are experienced daily. For example, voluntary HIV testing is not free of charge and anyone who wishes to know his or her HIV status must pay, making this inaccessible to many. Antiretroviral (ART) guidelines have been adopted but they should be revised and modified to be in line with international best practices for improved monitoring, treatment and achieving lower costs. The referral procedure from a family physician in primary healthcare to an infectious disease specialist in the secondary level of the health system may be an additional challenge. Many people who are diagnosed with HIV are lost during follow up visits and do not receive on going care. Furthermore, access to care is also limited to the working hours of infectious disease specialists. (6)

Since 1998 antiretroviral treatment (ART) has been accessible for everyone who meets the treatment criteria (clinical, immunological, virological) and it is reimbursed in full by the public budget of the NHIF, as all HIV patients are provided with compulsory health insurance (Health system Law of the Republic Lithuania, art. 47-7, 1994). (6) Regular laboratory monitoring is needed, including CD4+ T-cell count and viral load. Expenses for monitoring and other medical needs of PLHIV are covered by NHIF as part of their treatment. (6) Decentralizing treatment and care made HIV/AIDS services more accessible to PLHIV. Therefore, treatment is now available in the five biggest cities of Lithuania, instead of being concentrated at the Lithuanian AIDS Centre in Vilnius, where HIV monitoring is performed. (4)

HIV disease diagnosis, treatment and surveillance are regulated by the Order of the Minister of Health of the Republic of Lithuania No. V-384, 3/05/2010. According to changes made in the order in 2018, ART is initiated once the HIV diagnosis is confirmed. (12) PLHIV may choose an HIV care institution at their convenience. Even though ART is accessible for all, there are concerns about the ability of PWID to access ART. (6)



PWID make up three quarters of all PLHIV in Lithuania. ART became accessible for PWID in 2004. Even though PWID have access to ART, the proportion is significantly lower than other key populations living with HIV. This may be due to barriers such as: missed opportunities for HIV testing; stigmatizing attitudes from health staff; the cost of some services; and limited access to pharmacotherapy. Also of concern is the fact that there is no practice to ensure that all STI patients are offered free HIV testing. (6) However, in 2011 the MOH passed an act that required all OST patients be tested for HIV, HCV and syphilis once a year, and the cost of these tests are to be covered by the NHIF.

HIV testing, including rapid HIV tests, is allowed to be performed at low threshold centres, according to an order by the Ministry of Health (November 16 2010 V-991). Licensed medical personnel must perform HIV diagnostic tests. National funding for HIV testing is limited to LTS but some LTS centres do not provide HIV testing at all. (6) The MOH HIV and STI Epidemiological Surveillance and Public Health Institution (February 2003) regulates the guidelines for confirmation of a reactive HIV test. Extensive HIV testing is provided by local NGOs like Demetra.

Between 1988 and 2009, almost two thirds (62%) of new HIV diagnoses were made in prisons. Due to an intensive testing policy reform in prisons, since 1988, HIV testing is offered when entering and leaving the prison. This has made it possible to detect outbreaks in prisons, (e.g. Alytus in 2002). A daily-observed strategy is used for ART and TB treatment in prisons. (6)

## **7.2 Hepatitis B & C treatment**

There is no national strategy that focuses on the prevention and control of viral hepatitis, except for mother-to-child transmission of hepatitis B. There are national guidelines for the clinical management of viral hepatitis, including recommendations for co-infection with HIV, but there are no national policies related to screening or referral to care for hepatitis B or C patients. Additionally, testing for hepatitis B and hepatitis C is not free of charge and is not compulsory for any specific group, (6) except for OST patients, for which HCV testing has been compulsory since 2011. Treatment is covered by NHIF. (13)

## **7.3 TB treatment**

TB/HIV care services are integrated within the Lithuanian health care system. TB surveillance is based on Order No.V-525 of May 17, 2013, of the MOH and screening of TB patients for HIV is based on Order No.V-374 of April 30, 2008, of the MOH. (4) Early identification of TB among risk groups was regulated by order of the Ministry of Health on June 23, 2016. According to the description of this procedure, risk groups for TB include PLHIV who are dependent on drugs and should be tested once per year. The responsibility of the implementation for this procedure is mainly with family physicians and pulmonologists.

## **8. Harm reduction services**

Harm reduction services are regulated by the legal act of the MoH (2006). Substitution treatment with methadone was implemented in 1995. Buprenorphine treatment has been available since

late 2002 through specialized mental healthcare institutions and Suboxone is registered like in other EU countries. Since 1 January 2013 there are 19 health care institutions in 12 cities providing opioid substitution treatment. Clients that are in police custody do not get methadone treatment when transferred to prison. OST is not available in Lithuanian prisons. (3)

There are some 10 harm reduction programmes of which 4 provide outreach services. Municipalities continuously finance only 5 programmes and the remaining rely on different sources of funding that include charity donations. (1)

### **8.1 OST services for outpatients**

Drug treatment services are formally available and are offered as a primary level service to outpatients in 107 public primary mental health centres and licensed private medical institutions. Additionally, there are 5 regional public specialized centres for Addictive Disorders (Vilnius, Kaunas, Klaipeda, Siauliai and Panevezys) as a secondary level service, offered as outpatient and inpatient treatment including detoxification and psychosocial treatment. They also provide methadone treatment, except in Siauliai. (3) Primary and secondary level services for OST are funded by NHIF (MOH, 2015). Pharmacotherapy is provided as a primary health care level service in centres in Vilnius, Vilnius district, Druskininkai, Telsiai (from 2007), Alytus (2007), Kedainiai (from 2007), Mazeikiai (from 2008), Silute (from 2008), Siauliai (from 2009), and Svencionys (2010).

### **8.2 OST in clinic based facilities for inpatients**

As previously mentioned, inpatient treatment, such as withdrawal and psychosocial treatment, is available through specialized centres for Addictive Disorders. Toxicological units in general hospitals and private toxicology centres provide detoxification services. (3) Inpatient services are provided through addiction centres in: Vilnius, Klaipeda, Siauliai, Panevezys, and Kaunas. Methadone and buprenorphine are available in inpatient units for detoxification. Methadone can be provided to people admitted to other hospitals by addiction centres.

### **8.3 Needle and syringe programmes and other low threshold services**

Over the years a decline in the number of distributed needles and syringes has been observed. (3) A published global study by Mathers et al in 2010 reported a relatively high proportion [68% (52-97%)] of PWID. However, the number of needles and syringes distributed per IDU per year [37 (29-54)] was relatively low. (6) In 2014, there were 11 low threshold sites (LTS) operating in Lithuania of which 2 are run by NGOs. LTS services include: the exchange of needles and syringes; condom distribution; disinfectant tissues; bandages; health educational/informational material; voluntary counselling; testing for HIV; and social support referrals to the dependency treatment services and other health care settings. Injecting drug users may also have a short consultation with a social worker. The LTS are financed and organized by government, local municipalities, or NGOs. (4)

There are outpatient drug-free programmes in Vilnius, Panevezys and Kaunas as well as in 19 long-term rehabilitation centres, and seven-day centres which operate across the country. In

addition, special treatment programmes are available for children dependent on psychoactive substances, including two long-term rehabilitation communities. (3)

## **9. Prisoners**

Lithuania places importance on protecting the population from the spread of HIV/AIDS. (2) The Ministry of Justice, through the Prison Department, is responsible for HIV/AIDS/TB/STI treatment, care and prevention in prison settings. Due to the limited access prisoners have to sterile injecting equipment, HIV outbreaks have previously been reported. (14)

The Ministry of Justice purchases ART through a public tender to use in prison settings. ART is prescribed to incarcerated PLHIV according to the guidelines on diagnosis and treatment of HIV/AIDS (Order of the Ministry of Health No. V-384). The cost is covered by the budget of the prison hospital (budget of the Ministry of Justice). In 2014, 56 HIV infected prisoners were on ART. (4) As of January 2019, the Ministry of Health will cover the treatment of HIV in prisoners through the National Insurance Fund.

Although screening for infectious diseases in prisons exists, prevention activities are limited to education and general prevention and not tailored to the need of high-risk groups such as PWID. While treatment and care is provided for infectious diseases and for PLHIV in prisons, the continuity of care and treatment is not ensured if a person is transferred to another prison setting. (5)

There are no legal barriers for the implementation of prevention interventions in prisons as recommended by WHO/UNODC/UNAID, As of April 2018 prisons offer OST. [15] While it cannot be initiated in a prison setting, it can be continued. Harm reduction activities such as needle and syringe exchange programmes are minimal services offered. PWID are only offered some clinic-based services by psychiatrists and long-term rehabilitation services. (5).

There are significant differences between health services, particularly between those available to PWID in communities and those in prisons. One particular issue is the lack of methadone in prisons for pharmacotherapy. In addition, the mid-term review of the National AIDS Program (16) raised concerns about the lack of clean needles in prisons. (6) The difficulties in the communication between prison and community health services is also of concern, as there is no shared electronic system of patient records. Therefore, the continuity of services for those discharged from prison relies on the transfers of hard copies of medical records by the ex-prisoner. (11) There are also concerns about rehabilitation as ex-prisoners face stigma and discrimination, especially those who have used drugs. With no continuation of care the spread of HIV is more likely in social networks. (6)

## **10. National drug laws**

The national drug policy was developed in response to international requirements and standards for drug control and drug prevention. A legal framework for PWID services is included in the drug control strategy. Legal regulation for pharmacotherapy with buprenorphine and methadone were

set through an order of the Minister of Health in 1995, an executive act of the Minister of Health in 2007 and later amendments (2011, 2014). (6)

The National Program on Drug Control and Prevention of Drug Addiction 2010–2016 set goals, priorities, and objectives for the policy concerning drug control, and prevention of drug addiction. Since 2011, the Lithuanian policy of prevention of drug addiction and drug control is implemented based on the *National Program on Drug Control and Prevention of Drug Addiction 2010–2016* approved by Resolution No XI-1078, of November 4, 2010, of the Parliament of the Republic of Lithuania (Official Gazette, No 132-6720, 2010). (7)

The Drug, Tobacco and Alcohol Control Department coordinated the Interinstitutional Action Plan. All achievements are included in its annual report. Since 2015, the Interinstitutional Action Plan of the National Program on Drug Control and Prevention of Drug Addiction 2010–2016, and the Program on Alcohol and Tobacco Control (Interinstitutional Action Plan) were consolidated into a single planning document – the Interinstitutional Action Plan for Prevention of Drugs, Tobacco and Alcohol (IAP-PDTA) and approved by Resolution No 217 of 25 February, 2015. Currently, 12 public institutions are implementing the measures from 2015.

## 11. Research and evaluation

Relevant ministries and public authorities mainly fund research in Lithuania. The Lithuanian national focal point conducts population surveys and collects information from drug related sources in order to develop methodological recommendations. The results are published in an annual national report which is available online. According to the 2013 national report, studies were conducted on the prevalence, incidence and patterns of drug use, responses to the drug situation, and the consequences of drug use. (3)

Three national general population surveys on drug use were conducted in the years 2004, 2008 and 2012. The two last ones were conducted according to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) guidelines. (11) In 2012, methodological recommendations for the development of municipality-based prevention programmes were issued. (11)

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## Annex 7 - Latvia policy review

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## List of abbreviations

ART	Antiretroviral therapy
CDPC	Centre for Disease Prevention and Control
ECDC	European Centre for Disease Prevention and Control
GDP	Gross domestic product
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HPP	HIV prevention point
LTS	Low-threshold services
MSM	Men who have sex with men
NGO	Non-governmental organisation
NHS	National Health Service
NRL	National reference laboratory
OST	Opioid substitution therapy
PLHIV	People living with HIV
PWID	People who inject drugs
STI	Sexually transmitted infection
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization

## **1. Overview of the healthcare system**

The healthcare system of the Republic of Latvia has evolved through government-implemented reforms since the country's independence was restored in 1990. These included a social insurance scheme, which was eventually reversed. In 2011, a tax-based health system and the independent National Health Service (NHS) were established. These modifications reflect changes prompted by post-communist transformation and the global financial crisis. [1] The country's Public Health Strategy (2011–2017) addresses the following issues for strategic action: elimination of inequities in the field of health; improvements in health indicators of infectious and non-infectious diseases, as well as sexual and reproductive health; and promotion of a healthy work environment. [2] National guidelines for tuberculosis (TB) control were first published in 1997 and updated guidelines are awaiting official approval [3] at the time of writing this report.

## **2. Organisational structure**

The main pillars of the public health system in Latvia include: the Parliament, Ministry of Health, the NHS, Centre for Disease Prevention and Control (CDPC), Riga Centre of Psychiatry and Addiction Disorders (the national coordination body for drug treatment), and the network of HIV prevention points (HPPs).

The Parliament plays a crucial role in the development of national health policy and is responsible for approval of the NHS budget. Several committees and subcommittees working in parallel constitute the work of the Parliament. The health subcommittee reviews all vital health-related issues, retains legislative initiative, as well as reviews public health-related project applications and proposals from various organisations. [1]

The Ministry of Health is the national authority responsible for assigning, regulating and supervising the responsibilities of stakeholders involved in implementation of the National Public Health Strategy, monitoring the pattern of healthcare utilisation, managing contractual relationships and preparing policy interventions. [1]

The NHS is the entity responsible for all data related to the use of all health services paid for by the NHS. It is also responsible for the implementation of health policies, monitoring of resource allocation across the country, and administration of healthcare resources from the national budget. Healthcare services in Latvia are provided by national, municipal and private healthcare institutions, and are financed by the State budget, if in agreement with the NHS. [1]

The CDPC functions under the auspices of the Ministry of Health, as the government agency authorised to conduct epidemiological surveillance of HIV and AIDS. As the national centre for diseases, the CDPC is also responsible for the epidemiological surveillance of TB, surveillance of non-infectious diseases and State health statistics. Moreover, it is responsible for methodological support, management, coordination and supervision at the national level of all prevention interventions. The agency collaborates closely with the World Health Organization (WHO), European Commission, and European Centre for Disease Prevention and Control (ECDC). The CDPC implements health promotion programmes for addiction control as well as mental health,



conducts public health surveys and prepares the annual epidemiological bulletin for infectious diseases. [1] [4]

The Centre of Psychiatry and Addiction Disorders is the entity authorised to provide, accredit, monitor and evaluate drug addiction and treatment services. [5]

The HIV prevention point (HPP) network was created in 1997 and plays a crucial role in HIV prevention. The CDPC supports the network by providing medical supplies (e.g. HIV testing materials, condoms, and syringes) and coordinating HPP activities. In 2016, there were 19 HPPs in 16 municipalities across Latvia. The HPP network and local NGO partners provide testing and counselling services for HIV, hepatitis B virus (HBV), hepatitis C virus (HCV) and syphilis infections. Low-threshold services (LTS) are provided by a special team of outreach workers and target groups, such as drug users, former prison inmates, sex workers, ethnic minorities, and men who have sex with men (MSM). HPP services are available on working days at fixed locations or centres. Some HPPs, such as those in Kuldīga and Jūrmala, operate on a part-time basis, while the Latvian Red Cross in Riga provides services three working days a week. The HPP in Liepāja provides services on holidays as well as the second Saturday of each month.

Other mechanisms established to provide HIV prevention services are run by governmental coordination committees, including the National HIV, TB and STI Prevention Coordination Committee, which operates within the Ministry of Health as a governmental advisory authority for the implementation and coordination of the national response to HIV and AIDS. The Committee comprises governmental institutions, NGOs and the WHO Country Office. [4] Another coordination mechanism is the Drug Control and Drug Addiction Restriction Coordination Council, which is under the Prime Minister. This Council includes seven ministers and several national experts, and is divided into thematic working groups. The primary duties include the coordination of different actors responsible for implementation of the national drug strategy, as well as the monitoring and evaluation of the national HIV response. [6] The Council Secretariat, whose members are appointed by the Minister of the Interior, monitors the daily operations of the National Drug Programme. The head of the Council operates as the National Drug Coordinator and coordinates the work of the Council Secretariat and the Council's working groups. The national focal point in the European Information Network on Drugs and Drug Addiction, known as the Reitox network, operates within the CDPC. [6]

Some ministries outside the Ministry of Health are responsible for supporting the implementation of HBV, HCV, HIV and TB prevention policies. For example, the Ministry of Justice is involved with TB case reporting within prison facilities. [5] Additionally, the Ministry of Health, Ministry of Education and Science, and Ministry of the Interior are responsible for implementing drug prevention and awareness campaigns in educational settings. [6]

## **2.1 Economic context of health**

Public health services in Latvia are funded by the State or by municipalities; however, the public health budget is limited. [6]

All approved medications are classified into three reimbursement categories (100%, 75% or 50%) depending on the condition for which they have been approved. Co-payments are collected for

medical services from individuals registered with the Latvian healthcare system, with exceptions for some specific populations including pregnant women and children under 18 years of age.

### 3. Epidemiology of HIV, hepatitis B, hepatitis C and tuberculosis

Between 1987 and 1993, sexual transmission (both among MSM and heterosexual persons) was the primary mode of HIV transmission reported in Latvia. However, between 1998 and 2007, injecting drug use surpassed them. In 2014, 347 newly reported HIV cases (17.3 cases per 100,000 population) and 173 newly reported AIDS cases (7.9 cases per 100,000 population) were recorded (Table 1). In the same year, 132 (38%) of new HIV cases occurred through heterosexual contact, while 77 (21.3%) occurred through injecting drug use. At the end of 2014, there were a total of 6214 HIV cases diagnosed and 1521 cases of AIDS diagnosed in Latvia. [4] In 2015, 393 new HIV cases were reported with 264 (67.2%) cases among men and 129 (32.8%) among women. Of these cases, 150 (38%) acquired infection through heterosexual contact and 88 cases (22.4%) because of injecting drug use. In the same year, 130 AIDS cases were diagnosed (Tables 1 and 2). Also in 2015, the mode of transmission remained unknown for 119 individuals, constituting 30.3% of new cases (Table 3). The first case of mother-to-child transmission of HIV in Latvia occurred in 1999 and, between then and 2015, 66 cases were recorded (Table 3).

**Table 1. Newly reported cases of HIV and AIDS with corresponding incidence rate, 2011–2015**

Type of case	2011	2012	2013	2014	2015
Newly reported HIV cases	299	339	340	347	393
Incidence per 100,000 population	14.4	16.6	16.8	17.3	19.8
Newly reported AIDS cases	114	145	140	173	130
Incidence per 100,000 population	5.5	7.1	6.9	8.6	6.5

*Source:* Centre for Disease Prevention and Control, State register of HIV/AIDS cases

**Table 2. Distribution of HIV cases by gender, 2011–2015 (per 100,000 population)**

Sex	2011	2012	2013	2014	2015
Male	196	218	203	236	264
Female	103	121	137	111	129

*Source:* Centre for Disease Prevention and Control, State register of HIV/AIDS cases

**Table 3. Modes of HIV transmission in Latvia, 2011–2015 (per 100,000 population)**

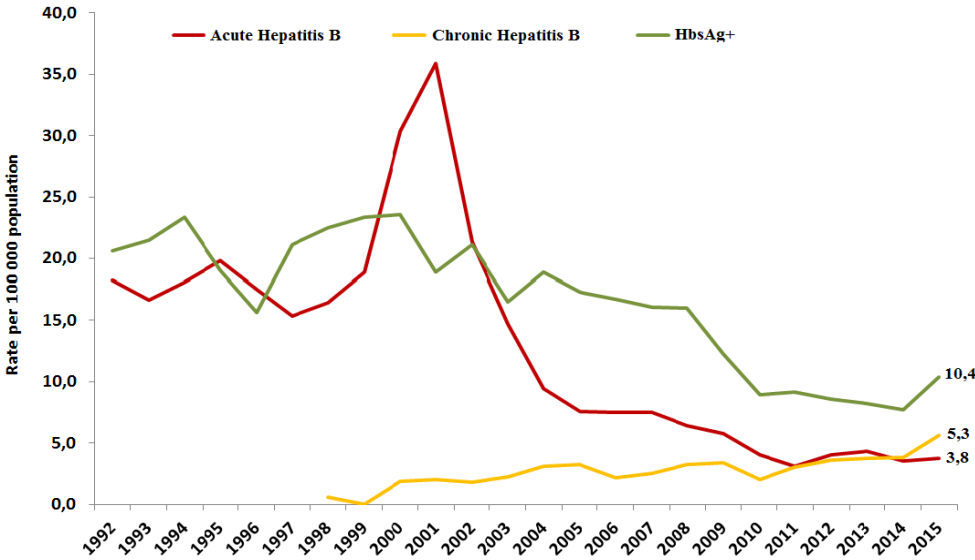
Mode of transmission	2011	2012	2013	2014	2015
Heterosexual	144	112	125	132	150
Unknown	43	108	101	109	119
Injecting drug use	90	94	77	74	88
Homosexual	20	18	27	28	33
Mother-to-child	2	7	10	4	3

*Source:* Centre for Disease Prevention and Control, State register of HIV/AIDS cases

In 2015, the rate of newly reported hepatitis B cases was 5.3 per 100,000 population (Figure 1), with the majority of these cases occurring among individuals aged 30–39 years. Between 2010 and 2015, the most commonly reported modes of transmission for acute cases were sexual transmission (30%), injecting drug use (23%) and nosocomial transmission (16%). [5] Since 2002,

the number of acute HBV cases reported has declined; however, reporting is inconsistent and therefore disease trends cannot be accurately observed over time, and the data should be interpreted with caution (Figure 1).

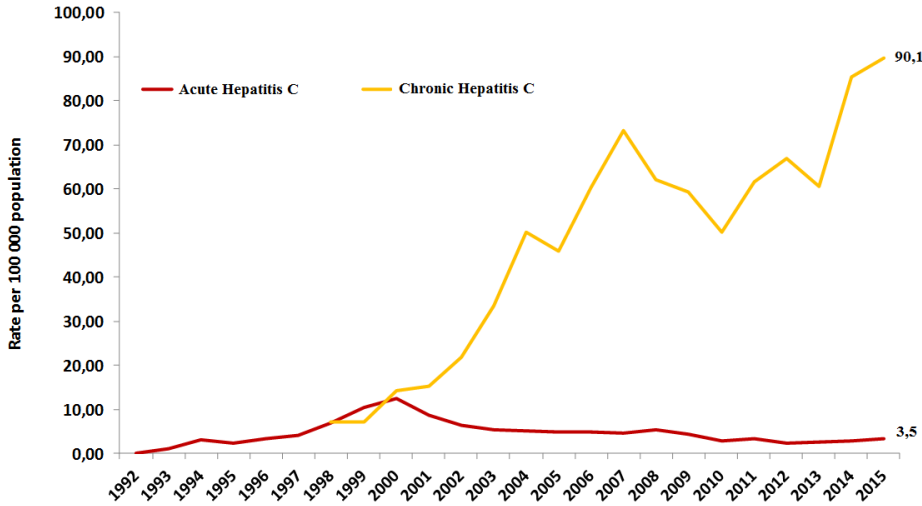
**Figure 1. Reported cases of hepatitis B, 1992–2015**



**Source:** Centre for Disease Prevention and Control

Between 2013 and 2015, the incidence of chronic HCV increased; from 60.7 cases per 100,000 population to 90.1 cases per 100,000 population (Figure 2). In 2015, 3.5 cases of acute HCV per 100,000 population were reported (Figure 2). As with HBV, most HCV cases occurred in individuals aged 30–39 years. From 2010 to 2015, the most commonly reported routes of transmission for acute HCV cases were nosocomial transmission followed by drug use. [5] A total of 1859 HCV cases were reported in 2015 (70 acute and 1789 chronic).

**Figure 2. Reported cases of hepatitis C, 1992–2015**



**Source:** Centre for Disease Prevention and Control

In the 2017 TB surveillance and monitoring in Europe report from the ECDC, a total of 721 TB cases were reported in 2015 (621 new cases, 76 relapses (unsuccessful treatment) and 24 previously treated cases). This corresponds to a TB case notification rate of 36.3 per 100,000 population. Of all notified cases, 93.2% had pulmonary TB, while 25.8% of cases had extrapulmonary TB (XDR TB). [6] From 2005 to 2015, the TB case notification rate per 100,000 population decreased by 41.5%. The TB control system in Latvia has identified population subgroups vulnerable to TB (beyond people living with HIV [PLHIV]), including prisoners and the homeless. According to the Latvian Prison Administration within the Ministry of Justice, 33 new and relapse TB cases were reported among 4409 prisoners in 2015. The prevalence of HIV among people with TB remains one of the highest in the European Union (10.3%)

### **3.1. Problematic drug use among young individuals and the general population**

According to a CDC report, [7] Latvia has the highest prevalence of heroin use and other high-risk drug use among European Union countries. In 2014, there were an estimated 6151 high-risk opioid users in the country. [8] According to 2015 data from a national representative, the prevalence of drug use among the general population was 2.5% for Ecstasy (2.7% in 2011), 2% for amphetamines (2.2% in 2011, 3.3% in 2007 and 2.6% in 2003) and 1.5% for cocaine (1.5% in 2011, 2.3% in 2007 and 1.2% in 2003). [7] Young men were more likely to use traditional illicit substances and new psychoactive substances compared to those aged 35 years and older. Heroin was reported as the primary drug used by the majority of clients entering a treatment programme. [7]

## **4. Healthcare for specific populations**

### **4.1 HIV and AIDS testing practises and care**

Hospitals, private laboratories and HPPs all provide HIV screening services, while confirmatory testing is performed at the national HIV reference laboratory (NRL). In order to perform State-covered laboratory tests, patients need a referral from a general practitioner or other specialist (e.g. infectious disease specialist or paediatrician) who has a contract with the NHS. Every individual screened for HIV is provided with pre- and post-test counselling by the medical practitioner. Private laboratories provide HIV testing for a fee, while HPPs provide free, anonymous testing services for HIV, HBV, HCV and syphilis. In the case of a confirmed positive HIV test result, the NRL informs the general practitioner or other service provider, and simultaneously reports the newly detected case to the CDPC. An individual with a positive HIV diagnosis is linked to the Riga East University Hospital/Latvian Centre of Infectious Diseases, the leading national centre providing HIV diagnosis and treatment, outpatient and inpatient services for PLHIV, HIV treatment for pregnant women, paediatric treatment and care, as well as prevention and care for HIV-exposed new-borns. The centre manages the work of the reference laboratories for all infectious diseases, including the HIV NRL. Additionally, the centre provides methodological guidance for the case management of PLHIV, post-exposure prophylaxis, and consultations to populations as needed.

Antiretroviral therapy (ART) and care are provided centrally through the Infectious Disease Centre of Latvia and locally in five regions outside Riga. However, viral load testing and CD4+ T-

cell counts are analysed in Riga. As infectious disease specialists are not evenly distributed throughout the country, many PLHIV must travel to Riga for treatment. [5] The national recommendations for ART initiation were revised in 2015 and currently treatment is recommended for any person living with HIV whose CD4 count is below 350 cells/mm<sup>3</sup>. The cost of ART is fully reimbursable by the State. [5]

#### **4.2 Hepatitis B and C testing practices and care**

HBV and HCV testing is conducted by general practitioners and in blood donor centres. Positive testing results follow similar mandatory reporting procedures as positive results for HIV, and all confirmatory testing is performed by the NRL. HPPs and outreach services provide rapid blood tests with hepatitis express test kits for vulnerable groups. Individuals infected with HBV and/or HCV are treated in Riga East University Hospital/Latvian Centre of Infectious Diseases, which currently employs 10 hepatologists. Since 2016, 100% of treatment-related costs associated with HBV and HCV are reimbursable. Latvia is not equipped with proper facilities to perform liver transplants. [5]

#### **4.3 Tuberculosis testing practices, care and treatment**

Pulmonologists or general practitioners may evaluate those with possible TB-related symptoms. Pulmonologists are directly accessible specialists, meaning there is no need for a referral from a general practitioner. There are seven inpatient TB hospitals in Latvia. Home care is available in Riga if a patient cannot attend a health clinic. [3]

#### **4.4 Prisons**

Latvia has 12 prisons, each with its own medical unit. Every prisoner undergoes an initial health examination upon entrance into a correctional facility. Approximately five new prisoners are seen by healthcare staff every week and undergo a medical examination, mandatory TB screening, and a voluntary HIV test. HBV and HCV testing are offered to prisoners with an already known HIV status or upon request. [5] Screening for HIV, HBV and HCV is performed centrally in Riga. HIV and TB prevention and treatment in prisons is financed through the health budget as part of a national programme under the Ministry of Health. [1] In recent years, HCV treatment has been covered by the national budget.

Medical providers within a prison hospital oversee the HIV-related care and treatment of prisoners, in coordination with the Infectious Disease Centre of Latvia in Riga. Prison medical doctors consult with infectious disease specialists in Riga on a weekly basis to discuss the care of prisoners with HIV. If a prisoner with HIV is transferred from one facility to another, medication is given to the prison officers responsible for transporting the prisoner. [5]

Opioid substitution therapy (OST) is not provided in prisons, although 66.1% of the prison population reported that they had injected drugs and 31.8% had continued to use drugs while in prison. [4] [9] However, an ECDC report states that OST has been available in Latvian prisons since 2012 for those prisoners who initiated OST prior to incarceration. [3] There is an established collaboration with the Riga Centre of Psychiatry and Addiction Disorders in order to provide OST to prisoners. Methadone is not available through the prison pharmacies and needs to be

purchased from external providers. [4] According to an ECDC report, condoms, sterile syringes and other injecting equipment are not distributed in prisons. [10]

## **5. Harm reduction services**

Two major harm reduction services are in place – OST programmes and other LTS.

### **5.1 Inpatient and outpatient opioid substitution treatment services**

Currently, inpatient OST is provided by specialised psychiatric or regional hospitals, which are either publicly or privately funded, while narcology treatment centres provide outpatient OST. [5] In 2012, outpatient treatment was offered in 42 treatment centres. [5] Outpatient services include psychosocial care, cognitive behavioural therapy, motivational interventions and long-term maintenance programmes. Inpatient facilities offer emergency care for overdose cases, detoxification and short-term psychotherapy programmes.

The Riga Centre of Psychiatry and Addiction Disorders is the largest centre in Riga that provides OST, including methadone and buprenorphine for all people who inject drugs (PWID). Methadone treatment is free of charge for all clients and is funded by the State budget, at an average dosage of 80 mg per patient. Substitution medication therapy is available for a fee. Generic buprenorphine is not available in Latvia. [5] The Centre also provides multidisciplinary support as part of a standard treatment regimen, [5] with a medical team composed of narcology specialists, nurses, psychologists and social workers. [5] In 2012, ten OST outpatient facilities existed and provided methadone treatment and eight of these programmes provided buprenorphine. Treatment was also prescribed at inpatient clinics.

In 2012, new regulations allowed for the expanded provision of OST through general practitioners who have completed a special training programme. [6] Once a client enters an OST programme, clinical decisions are made by a panel of at least two narcology specialists. An individual is responsible for medical follow-ups conducted outside the centre. [6] Furthermore, two specialised psychiatric centres provide long-term medical rehabilitation services based on a “therapeutic communities” approach. [6]

### **5.2 Low-threshold services**

HPPs are responsible for providing low-threshold services (LTS), including the provision of sterile injecting equipment, distribution of condoms, as well as the availability of counselling by medical workers, social workers or psychologists. Two of the four HPPs that provide LTS are located in Olaine and in Liepaja, and offer methadone maintenance treatment. They also provide syringe distribution, consultations and rapid testing. The HPP in Bauska municipality distributes needles and syringes to drug users on the streets. [5] Rapid testing for HIV, HBV, HCV and syphilis are available at 15 sites. At the largest facility, most syringes are distributed through outreach workers and through secondary exchange. [5] All services provided by HPPs are free of charge but it is also possible to buy syringes at pharmacies, which stock them sufficiently across the country.

## **6. Research and evaluation**

The CDPC collects, analyses and synthesises HIV and AIDS, HBV, HCV and TB data. Clinicians and laboratories send reports to regional surveillance sites, which are then forwarded to

epidemiologists at the CDPC. There is no routine behavioural surveillance mechanism in Latvia. [2] However, the 2015 country report from the Joint United Nations Programme on HIV/AIDS (UNAIDS) [11] mentions three large biobehavioural studies that were conducted in Latvia. Two of these studies were conducted among women who use drugs and a third was a cohort study of PWID, carried out by the CDPC and the NGO DIA+LOGS. [4]

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