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# Empowering the Public Health System and Civil Society to Fight the Tuberculosis Epidemic among Vulnerable Groups

Desk review and country profiles

# Desk Review

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TUBIDU 2011–2014

***Empowering the Public Health System and Civil Society to Fight the Tuberculosis Epidemic among Vulnerable Groups***

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## Abbreviations

ACC	anonymous AIDS counselling centre
AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
BSS	Behavioural Surveillance Survey
CDC	Centres for Disease Control and Prevention, USA
DOTS	directly observed treatment, short-course
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EHIF	Estonian Health Insurance Fund
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EU	European Union
GDP	gross domestic product
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
GP	general practitioner
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
MDR	multi-drug resistant
MoH	Ministry of Health
NEP	needle exchange program
NGO	non-governmental organisation
NIHD	National Institute for Health Development, Estonia
NTP	National Tuberculosis Programme
OST	opioid substitution therapy
PDU	problem drug users
PLHIV	people living with HIV
PWID	people who inject drugs
STI	sexually transmitted infection
SW	sex worker
TB	tuberculosis
TPF	Territorial Patient Fund
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
VCT	voluntary counselling and testing
WHO	World Health Organization
XDR	extremely drug resistant

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## Introduction

“Empowering public health system and civil society to fight tuberculosis epidemic among vulnerable groups” (also known as TUBIDU) is a European Union (EU) funded (Public Health Programme) project with seven participating organisations from the EU countries of Bulgaria, Estonia, Finland, Latvia, Lithuania and Romania (known as “associated partners”) and five collaborating partners from non-EU countries (Table 1)<sup>1</sup>.

**Table 1.** TUBIDU partner organizations and collaborating partners

No.	Organization	Country	Partner role
1	National Institute for Health Development	Estonia	Leading partner
2	Dose of Love Association	Bulgaria	Associated
3	Estonian Network of People Living with HIV	Estonia	Associated
4	Tuberculosis Foundation of Latvia	Latvia	Associated
5	Institute of Hygiene	Lithuania	Associated
6	Romanian Angel Appeal Foundation	Romania	Associated
7	Finnish Lung Health Association	Finland	Associated
8	Leningrad Oblast AIDS Centre	Russian Federation	Collaborating
9	International HIV/AIDS Alliance	Ukraine	Collaborating
10	National Centre for Tuberculosis and Lung Diseases	Georgia	Collaborating
11	World Vision	Albania	Collaborating
12	World Vision	Bosnia-Herzegovina	Collaborating

The general objective of the project is to contribute to the prevention of the tuberculosis (TB) epidemic among people who inject drugs (PWID) and the people living with HIV (PLHIV) in the participating countries. The strategic objectives include empowering the public health system and civil society, and enhancing collaboration between various stakeholders in the field in order to tackle TB.

One of the primary goals of the TUBIDU project is to **describe and define TB- and HIV-related knowledge and risk factors as well as the use of and barriers to access to TB and HIV services among PWID and PLHIV.**

As a step toward this goal, a **desk review** was drafted to summarize and analyse evidence about the state of the HIV and TB responses in Bulgaria, Romania and the three Baltic states (Estonia, Latvia and Lithuania), with a focus on the actions targeting PWID (PWID). The interest in the five countries (and the exclusion of Finland from the review) was informed mainly by two reasons: the countries experience a high prevalence of HIV among PWID

<sup>1</sup> International HIV/AIDS Alliance (Ukraine), Leningrad Oblast AIDS Centre (Russia), National Center for Tuberculosis and Lung Diseases (Georgia), World Vision (Albania), World Vision (Bosnia Herzegovina).

<sup>2</sup> The tool “Google translate text” was used for translating the documents available only in the national languages.

<sup>3</sup> National Statistical Institute of Bulgaria ([http://www.nsi.bg/Index\\_e.htm](http://www.nsi.bg/Index_e.htm)); Statistics Estonia (<http://www.stat.ee/>); Institutul National de Statistica Romania (<http://www.insse.ro/cms/>); Central Statistical Bureau of Latvia (<http://www.csb.gov.lv/en>); Statistics Lithuania (<http://www.stat.gov.lt/en/>).

(Estonia) or an increasing estimated prevalence (Bulgaria, Romania, Latvia and Lithuania); and, as opposed to Finland, they all share a history social and economic transition from communism. All the five partners had the responsibility of documenting and elaborating their own country profiles. The process was coordinated by the TUBIDU leading partner, the National Institute for Health Development, Estonia.

This desk review does not describe in detail the current situation of the HIV and TB responses in the five countries. It instead synthesises information that serves the goals of the TUBIDU project. Key topics addressed include: the epidemiology of HIV and TB in the five countries; characteristics of problem drug use and injecting drug use; characteristics of the public health response to HIV, TB and problem drug use; funding of the HIV and TB response; and facilitators and barriers to providing services. The desk review also discusses findings compared to the situation in the European Union and the European Economic Area countries.

The information from the desk review is meant to contribute to the elaboration of two types of TUBIDU deliverables. First, a guidance document for specialists in community based organizations - on how to best deliver HIV and TB prevention services. Second, a policy brief including recommendations for TB and HIV services and prevention strategies targeting PWID.

## Methodology

This desk review encompassed two stages of data collection, review and synthesis:

### **Stage 1 – development of country profiles.**

Country profiles were compiled by the TUBIDU partner organizations to provide an overview of their national HIV and TB responses with a focus on PWID. To develop the profiles, the country teams identified and summarized data describing the following topics: the countries' economic and social background; HIV and TB epidemiology; policy and financing of the HIV and TB response; the situation of problem drug use and harm reduction services; the situation of HIV and TB services; and HIV and TB surveillance. The data summarized was collected from official statistics, grey literature (program monitoring data, evaluation reports, research reports). The topics, as well as the structure of the country profile have been proposed by NIHD and agreed upon by the TUBIDU partners. To ensure that the country profiles present valid and relevant local data, each country team requested feedback (by e-mail) from relevant national stakeholders. The final versions of the country profiles elaborated by the TUBIDU partners are presented in Annexes 1-5.

### **Stage 2 – integration of additional resources.**

To address potential data gaps in the country profiles, we have reviewed reports and statistics issued by organizations and institutions working at the EU level, country-level or by international agencies, as well as academic literature. The resources have been identified by accessing Internet engines (Google, Google scholar) and searching for web pages that might provide references. Relevant publications have been identified in the electronic libraries of international organizations, such as the World Health Organization (WHO), the United Nations Office on Drugs and Crime (UNODC), European Monitoring Centre for Drugs and Drug Abuse (EMCDDA), the European Centre for Disease Control (ECDC) or the Eurostat. Data were also identified by going through the factsheets and reports published in English or the national languages<sup>2</sup> on the websites of the national institutes of statistics<sup>3</sup> or by accessing their online databases with health and demographic indicators. The search of literature was guided by the use of key words relevant to the topics set for the desk review, in relation to the EU/EEA region and the five countries included in the analysis. However, the literature search was not exhaustive; the main purpose was to identify recent (preferably after 2010) or the most recent publications addressing the topics analysed.

Also, we have used other TUBIDU deliverables aiming to assess the HIV and TB knowledge and the barriers related to access to care among vulnerable groups, including PWID. In 2012, as part of the TUBIDU project, each of the five countries conducted a qualitative and a quantitative study (behavioural surveillance survey) aiming at describing the TB- and HIV-related knowledge and behaviour, and at identifying the barriers limiting the access to TB

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<sup>2</sup> The tool "Google translate text" was used for translating the documents available only in the national languages.

<sup>3</sup> National Statistical Institute of Bulgaria ([http://www.nsi.bg/Index\\_e.htm](http://www.nsi.bg/Index_e.htm)); Statistics Estonia (<http://www.stat.ee/>); Institutul National de Statistica Romania (<http://www.insse.ro/cms/>); Central Statistical Bureau of Latvia (<http://www.csb.gov.lv/en>); Statistics Lithuania (<http://www.stat.gov.lt/en/>).

and HIV health care services among PWID. This desk review also analysed data from the 2012 report on the focus groups conducted among PWID and service providers [31], as well as on the draft report summarizing the findings of the five behavioural surveillance surveys [32].

## Socio-economic and health system background

Bulgaria, Romania, Estonia, Latvia and Lithuania are among the newest member states of the European Union. Bulgaria and Romania joined in 2007 and the latter three in 2004. In terms of population size, the Baltics are among the 9 European member states with less than 3 million inhabitants – almost 6 times smaller than the EU-28 average of 18 million [25]. However, in terms of Gross Domestic Product (GDP), the Baltics do better than Romania and Bulgaria, the latter being among the EU-28 members states with the lowest GDP (29.0-50.0) [23] In all five countries there are ethnic minorities of significant sizes (the Russians in the Baltics; the Roma and Turks in Bulgaria; and the Roma and Hungarians in Romania) that are at risk of social exclusion caused by discrimination and unequal access to and participation in political, economic, social and cultural life.[21]

Despite their geographic, economic and geopolitical disparities, Bulgaria, Romania and the Baltic states share the experience of about five decades of communist regimes. Established in 1940s, the regimes employed centralized planning and management of the health systems and were preoccupied with attaining quantitative targets of medical provision to their citizens. At the same time, they were entirely sustained from the state budget and health services were only provided by professionals paid by the state.

After the fall of the communist regimes in Eastern Europe and until today, the five countries went through a series of reforms that aimed, first at dismantling the centralized management style of the health sector and then at developing alternative, efficient and effective health systems. To achieve these goals, the countries engaged in a series of measures such as privatizing all the hospitals (the Baltics) or some of them (Romania, Bulgaria), introducing compulsory payroll contributions as part of the financing of the health system (Bulgaria, Romania), delegating ownership of health facilities from a central to a local level and introducing the cost-sharing for the public health care services (Romania, Bulgaria and the Baltics) [2][19][26][27][28][36][44].

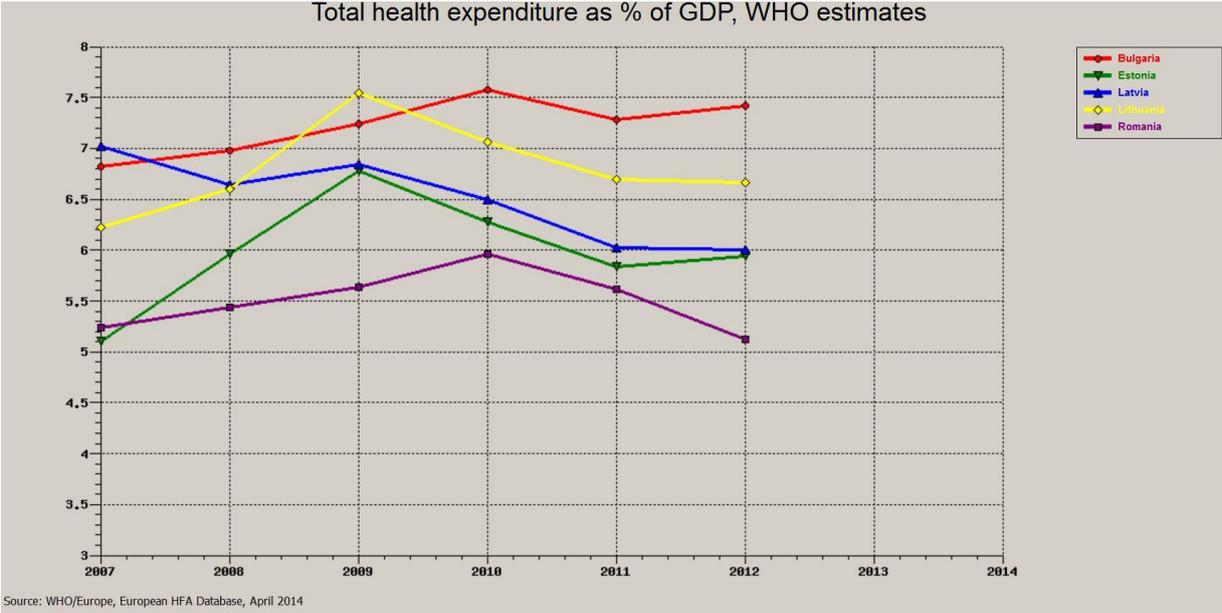
In terms of people's access to health care, all five countries are characterized by universal or almost-universal coverage with primary health care, regardless of the patient's health insurance status. As in the rest of the EU countries, general practitioners are the entry point for access to health care services (as full or partial gatekeepers).[36]

The general practitioners' referral is not needed to access the pulmonologist (the Baltics), the infectious diseases specialist (Estonia and Latvia) or the public drug and alcohol addiction services (Estonia, Latvia). Available in all five countries, low threshold clinics and/or outreach harm reduction services operated by NGOs have a great role in facilitating, through referral,

the PWID’s access to specialized services or to general practitioners (GP) (whenever direct access to specialized services is not an option).(Annex 1-5).

Since 2007 the Baltics, Romania and Bulgaria have been affected by the financial crisis that has altered many of the economic and social determinants of health in Europe, especially through increase in income inequalities, decreased living conditions and public funds allocations (Figure 1).

**Figure 1. Total health expenditure as % of gross domestic product (GDP), WHO estimates for the period 2007-2012**



As Table 2 reports, in 2013 unemployment rates in Romania and Bulgaria were around or below the EU/EAA average, as compared to the Baltics that experienced rates higher than the average. Moreover, the Baltics experienced major challenges since the onset of the financial crisis. For example, in 2009, Latvia was confronted with the sharpest decrease in GDP from the whole EU (17.7%, compared to 4.5% the EU mean GDP drop), while in 2008, Estonia (12%), Latvia (13%) and Lithuania (14%) experienced some of the highest unemployment rates in the EU [15]. These macro events have translated into mezzo and micro social changes, affecting even more the populations who have been always vulnerable to ill health, because of social and economic exclusion, stigma and/or a low quality of life (e.g. migrants, Roma, people who engage in HIV risk behaviours).

There are no definitive assessments on the actual impact of the economic crisis on the HIV and TB epidemics in Europe in general and the five countries in particular. However, concerns have been raised regarding the HIV outbreaks identified among PWID in Greece and Romania since 2010 [17][12] and at the risk of TB outbreaks, especially in the states from the former Eastern bloc, that had weak TB control programs even before the debut of the current economic crisis.[10][42]

**Table 2.** Demographic and economic statistics

Country	Bulgaria	Estonia	Latvia	Lithuania	Romania	Total EU/EEA
Population (millions) on January 1 <sup>st</sup> 2013[24] [25]	7.2 million	1.3 million	2.0 million	2.9 million	20.0 million	Average 18.1 mil (EU28)
Ethnic distribution	84.8% Bulgarians; 8.8% Turkish; 4.9% Roma; 1.5% other nationalities	68.7% Estonians; 24.8% Russians; 6.5% other nationalities [4]	61% Latvian; 27% Russian; 12% other nationalities	84% Lithuanians; 6% Poles; 5% Russians; 5% other nationalities	88.9% Romanians; 6.5% Hungarians; 3.3% Roma; 1.3% other nationalities [22]	-
Unemployment rate among people aged 15–64 years (2013) [22]	12.6% (June 2013)	8.0% (May 2013)	12.5% (first quarter of 2013)	11.7% (June 2013)	7.6% (June 2013)	10.9%/12.1% (June 2013)
Gross Domestic Product (GDP) per capita in PPS (purchasing power standards) [23](2013)	47	71	60	72	50	100 (EU28)

The strategies coordinating the implementation of the HIV and TB responses in the countries have been supported mainly from public funding (ministries, municipalities, special sectoral programs). Also, over the last 20 years international donors contributed at the consolidation of the HIV and TB programs. However, since the five countries became EU member states, the donors' support decreased significantly. For example, the Global Fund through its several rounds of funding was a significant international donor in the EEA region and contributed to the control of HIV and TB Bulgaria, Romania and Estonia. The total support received by Bulgaria, Romania and Estonia amounted to 84 mil USD for the HIV programs and to USD 46 million for the TB programmes. The Global Fund grants helped accelerate and sustain the implementation of national specific strategies (i.e. the Romanian AIDS strategy during the period 2004-2010; the Bulgarian TB prevention and control program during 2007-2011). They provided support for the treatment of resistant TB (in Romania and Bulgaria; Estonia and Latvia being the only countries where funding for MDR-TB control is provided by the state). Also, they contributed to the scaling up of the harm reduction services targeting PWID (in all three countries) (Annexes 1-5).

From 2006 until 2011, UNODC also contributed to the countries' responses to PDU. The agency sustained the development of harm reduction mainly by funding needle exchange

programs in the community, contributing to the initiation of harm reduction interventions in prisons and strengthening the active surveillance of HIV among prisoners and PWID. [38][41]

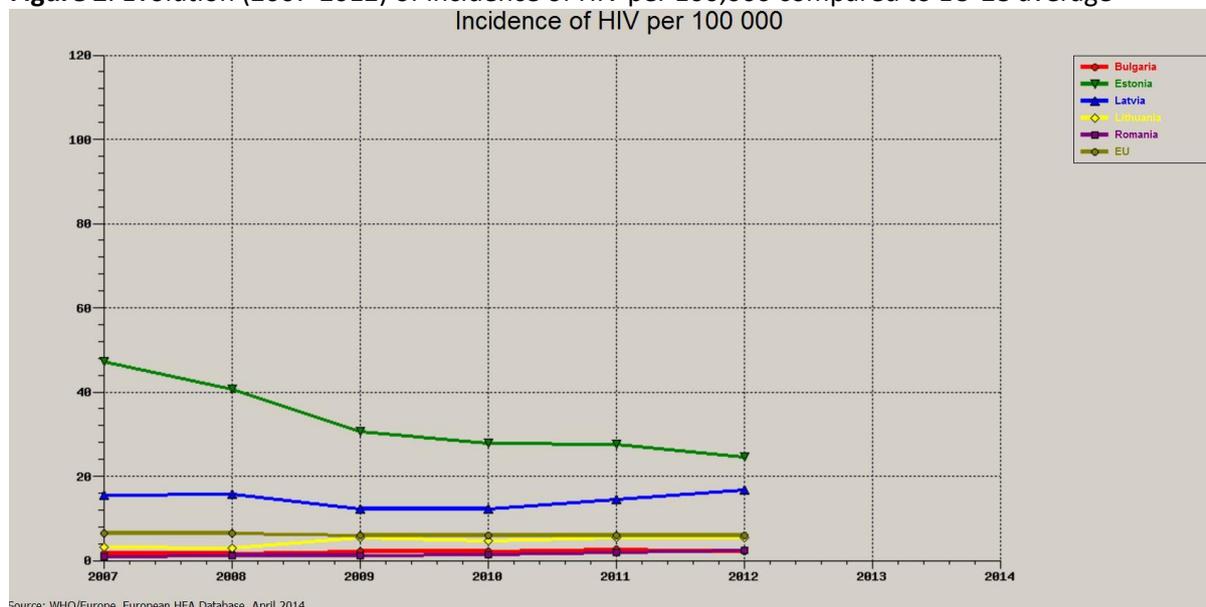
Starting with 2010, all the countries have been confronted with a series of funding difficulties. [5] First, the largest international donors for the HIV and TB interventions closed their programs: UNODC ended in 2011 for the Baltics and Romania, the Global Fund Round 6 in 2010 for the Romanian HIV program. Second, while facing the financial crisis, the governments of the countries applied a reduction of the national funding sustaining HIV or TB prevention and treatment programs, especially of the activities targeting PWID (Annexes 1-5). Last, but not least, some of the countries (Lithuania, Latvia) experienced an increasingly unsupportive political environment regarding the harm reduction services. The utility of the services has been regularly questioned by the media and most health initiatives regarding PWID have been opposed by politicians (Annex 4).

This situation affected not only the coverage of the services developed and scaled up by 2010, but also their quality and sustainability. Since 2010, the countries reported a series of problems to which they did not yet find satisfactory solutions. Romania, Bulgaria and Lithuania drew attention on: the decreased coverage of the harm reduction services; the treatment interruptions affecting the opioid substitution therapy (OST) and HIV programs and increasing the risk of drug resistant TB; the government's lack of commitment to sustain and strengthen the TB and harm reduction services built by 2010, mainly with international funding.[5] As indicated in the country profiles, Estonia and Latvia are the only countries that are sustaining the MDR-TB control actions from domestic sources. In the other three countries, these actions are supported mainly by the Global Fund grants, making them vulnerable to discontinuity once the donor program will end.

## HIV epidemiology

Estonia and Latvia have among the highest HIV incidences in EU/EEA, while the other three countries are placed below the region's average (Figure 2).

**Figure 2.** Evolution (2007-2012) of incidence of HIV per 100,000 compared to EU-28 average



However, as common denominator, all the five states are currently confronted with HIV epidemics concentrated in the group of PWID [13]. According to the latest data available (2011-2012), PWID represent the largest proportion among the new cases of HIV, with rates ranging from 5 until 10 times higher than the average rate in EU/EEA (Table 3). In terms of prevalence among PWID, Estonia reports the highest prevalence (70% in the city Narva).

This situation is the result of HIV outbreaks that first affected Estonia and Latvia (during the end of 1990s and the beginning of 2000) and more recently Romania.[14] During the last three years, the HIV transmission associated with drug use increased in Romania from 16% in 2010 to 30% in 2012. The cause of this steep increase is believed to be the spread of a new category of designer psychoactive substances (also known as “ethnobotanical drugs” or “legal highs”). The use of these new drugs requires more frequent injections than in the case of heroin, thus increasing the risk of HIV transmission. This hypothesis seems to be supported also by the data from the latest behavioural surveillance survey conducted under the TUBIDU project: a Romanian PWID of legal highs and heroin injects per day almost two times more than an only-heroin user (Bulgaria – 2.2 times) and two to three times more than an Estonian injector of fentanyl and amphetamines.[32]

**Table 3. HIV epidemiology** (latest data available)

Country	Bulgaria	Estonia	Latvia	Lithuania	Romania	Total EU/EEA
HIV rate per 100,000 population (2011) [13]	2.7	27.3	14.5	5.1	1.8 (2011) 2.51 (2012) [30]	5.7
% of PWID among new HIV cases	31% (2011)	Not available (2012)	~50% (2012)	Not available (2012)	30% (2012)	5.4% among PWID (2011)

## TB epidemiology

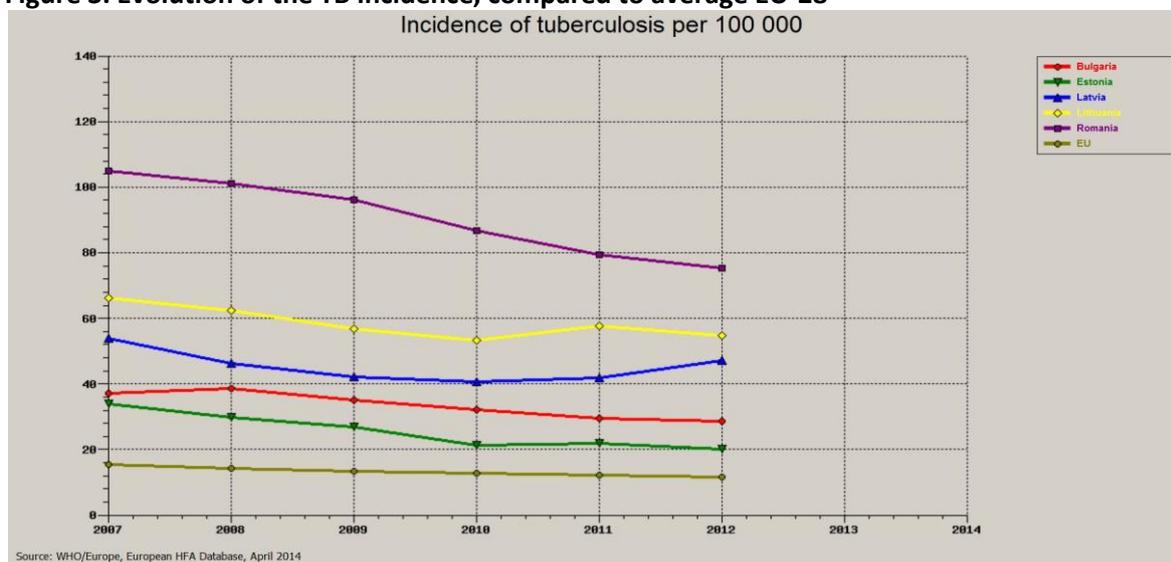
During most of the twentieth century, the countries in Europe (particularly the EU member states) achieved a significant decrease in their TB burden. Once TB was viewed as a disease from a time passed, many health systems across Europe regarded the prevention and control of the infection as lesser priorities. [15][20] During the last twenty years, TB has re-emerged as a significant health problem in Europe. First, TB has become an AIDS-defining disease. Second, there are significant risks of TB spread in the context of intensified human migration [51]. Last but not least, treatment success rates for TB are not on a steady rise [16]; they are dependent not only on the availability of funding for drugs, but also on individual and structural factors – such as the patient’s treatment literacy and socio-economic status or the quality of other connected health services (e.g. GP, HIV services, harm reduction etc.).

Illegal drug use is a risk factor for TB because of the overlap of epidemiological and social factors associated with both drug use and TB. Poor living conditions, homelessness, incarceration, poverty, tobacco use and alcohol abuse coupled with the physiological effects of drug use can put PWID at a higher risk for developing TB or being infectious from TB, and at an increased risk of mortality.[46]

The control of TB relies on the prompt detection of infectious cases and treatment according to international recommendations. Drug users often lack sufficient knowledge about TB; neither do they know where to turn to for treatment and care. It is common among PWID to put off seeking care, which increases the risk of TB transmission and increases the severity of the disease.[32][46] Given that HIV is the most potent risk factor for the progression of TB in adults, the spread of the HIV infection among PWID makes them a critical target for TB prevention, early diagnosis and treatment.[46]

Currently, the five countries reviewed have some of the highest TB incidences in the EU-28, despite an average drop of about 5% in incidence was reported at the European region between 2000 and 2011 (Figure 3).

**Figure 3. Evolution of the TB incidence, compared to average EU-28**



Romania, Lithuania and Latvia are among the five EU/EEA states with the highest number of registered MDR/-TB patients. However, the Baltics have the highest proportion in the region of MDR-TB among the new cases [9]. Nevertheless, according to the latest data available the TB and MDR-TB rates are declining in Estonia and Latvia and remain steady in Lithuania in the world. The prevalence of MDR-TB among new cases was 4% or less in all EU/EEA countries, except for the Baltic States, where this prevalence ranged from 11.1% in Lithuania to 22.9% in Estonia. Because of the limited drug susceptibility testing to second-line drugs, data on the extent of XDR-TB are limited [16].

Compared to the 3.6% estimated prevalence of the HIV co-infection among the incident TB patients in EU/EEA, in 2011 Estonia reported a significantly higher rate (15%), all the other four countries being in the range of the average European prevalence (Table 4). [16]

As of 2013, epidemiologic information about the TB spread among PWID is not available in any of the five countries that are subject of the desk review.

**Table 4. TB epidemiology (latest data available)**

Country	Bulgaria	Estonia	Latvia	Lithuania	Romania	Total EU/EEA
<b>TB incidence</b> per 100,000 population	27.9 (2011)	17.5 (2012)	43.3 (2012)	Not available	82.8 (2011) [47]	12.1 (2011)
<b>TB notification rate</b> per 100,000 population	29 (2011)	Not available	48.1 (2012)	Not available	Not available	14.2 (2011)[7]
<b>Treatment success rate</b> for new culture-confirmed pulmonary TB cases [7]	86.3% (2010)	67.2% (2010)	73.4% (2011)	68.4% (2010)	83.8% (2010)	76.8% (range: 0 – 91.4%) (2010)

### Problem drug use and injecting drug use

By 2013, all five countries had conducted at least one estimation study of the number and/or prevalence of PDU in the general population – with “problem drug use” defined by the EMCDDA as injecting drug use or long/regular use of opiates, cocaine and/or amphetamines. Available data indicate that prevalence of PDU in these countries (usually calculated per 1,000 persons aged 15-64) ranges from 2.4 to 20.1 (Table 5). However, the figures must be analysed with caution, since the estimations are as old as 2004 (Estonia) and as new as 2011 (Romania). They resulted from different estimation methods (capture-recapture and/or multiplier method). Also, they do not use the same reference age group in the general population (Romania uses the population aged 18 to 64 years old, for example). Bulgaria is the only country that conducted an estimation solely targeting PWID, as a sub-category of PDU.

Estimating the prevalence of PWID in the general population and determining the behavioural and socio-economic profile of PWID are important public health actions. First, because of their drug consumption patterns, involving use of non-sterile injecting equipment and sometimes frequent injections, PWID are at risk of contracting blood-borne and other

infectious diseases, thus becoming immunosuppressed. Second, because of the stigma, discrimination and the criminalisation of drug use in most countries, PWID have a higher chance of being exposed to TB risk environments (e.g. prison, crowded housing, poor communities) and also not reaching the services that could provide prevention, early disease detection and treatment.[32][40]

The qualitative and quantitative studies conducted within the TUBIDU project provide a description of the characteristics of injecting drug use in the five countries. The data indicates several commonalities, such as the PWID being mostly young male, experienced injectors (9-13 years), with a low labour market insertion, a history of imprisonment (at least 1/3 of PWID), less than 100% access to general health care, poor welfare and frequent injections. However, there are also differences between the countries. The patterns of injection vary and include heroin (Bulgaria, Lithuania), legal highs and heroin (Romania), heroin and amphetamines (Latvia), fentanyl and amphetamines (Estonia). The average injecting career ranged from 9.9 years (Bulgaria) to 13.1 years (Latvia) and the average number of injections per day going from 1.7 (Latvia) to 4.27 (Romania). [32]

**Table 5. Problem drug use statistics**

Country	Bulgaria	Estonia	Latvia	Lithuania	Romania**	Total EU/EEA
Estimated number of problem drug users*	32,000 (2010) 19,000 PWID (2011) [43]	NA	18,888 PDU (2010)	NA 184.1 (2011) 3,200 PWID; 4,300 PDU (2006)	19,265 PDU (2011)[29]	-
Estimated prevalence of problem drug use (rate per 1,000 aged 15–64) [18]	6.0 (range 4.4-8.2) (2009)	15.0 (2004)	12.3 (range 9.8-16.4) (2010)	2.4 (2007) [3]	20.1 per 1,000 persons aged 18-49 (2011)	-

\*Problem drug use is defined as “injecting drug use or long/regular use of opiates, cocaine and/or amphetamines”.

\*\*Romanian estimations use as reference group the population aged 18 to 49 years old, as compared to all other countries who use the age group 15 to 64.

## The HIV response

### Policy

The Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia (2004) was the first document signed by European states that committed to reach by 2010 citizens' universal access to HIV testing, HIV diagnosis, antiretroviral therapy (ART) and care. Among the actions needed to achieve the Declaration's goals, the countries promised to develop national AIDS strategies and/or strategies targeting vulnerable groups [11].

As of 2012, all five of the countries based their HIV response on a multisectoral strategy addressing AIDS (and in some cases other sexually transmitted infections) and on a national plan to prevent and control the drug demand and drug supply (see Table 6). Preventing the transmission of HIV in the vulnerable groups, especially among PWID is a priority in all the countries' strategic documents (Annexes 1-5). However, services targeting PWID are implemented in a context where injecting drug use is criminalized, thus raising concerns about PWID's access to HIV diagnosis, treatment and care.[37]

**Table 6. Strategic documents relevant for the countries' HIV response**

Strategy focus	Bulgaria	Estonia	Latvia	Lithuania	Romania
AIDS prevention, control and treatment strategy		✓	✓		✓
AIDS and STI prevention strategy	✓			✓	
Drug control and prevention strategy	✓	✓	✓	✓	✓

### HIV testing and diagnosis

Voluntary testing is available in all five countries. PWID in the community have access to rapid testing (usually provided by NGOs, private clinics, maternity wards) or to ELISA testing (in public health laboratories). Access is, however, hindered by the services' low coverage, by the fact that few services are free-of-charge or perform anonymous testing. In Romania, for example, the most accessible to PWID is the HIV rapid testing provided by NGOs, as part of outreach mobile units or low-threshold clinics (is both anonymous and free) (Annex 5). The services cover, however, only a part of the testing demand/need among PWID. Moreover, these services have been established and supported for years with funding from international donors, therefore, every time that funding shortages occur, their clients' access to testing decreases even more. In Lithuania, the main obstacle in delivering HIV services to drug users (including testing and treatment) is the requirement of them being officially registered (Annex 4). Latvia provides free testing in any health facility across the country, but provision of pre- and post-test counselling requires co-payment from the patient (Annex 3). As of 2012, Bulgaria was running high coverage voluntary counselling and testing program targeting not only the general population, but also the vulnerable groups; the program's detection rate was reported to be more effective than the one in a traditional HIV diagnostic centre (hospital, laboratory of the regional health directorate). However, the sustainability

of the program was in question since it has been established and sustained with funding from GFATM.

In all the five states reviewed, HIV testing (not anonymous) is available free-of-charge, upon request or upon referral to prisoners, as well as to TB patients.

### *HIV treatment and care*

As of 2012, in Bulgaria, Estonia, Romania and Lithuania the HIV treatment was free of charge for the patient (covered by the state) and available to >85% from those diagnosed with HIV/AIDS and known to need ART, that is having CD4 count <350mm<sup>3</sup>[6]. In Latvia, as part of a cost-efficiency savings policy, ART is administered to asymptomatic patients only when their CD4 count drops below 200/mm<sup>3</sup>[8], while all the other states align to the documents such as the European Guidelines for treatment of HIV-infected adults in Europe [6]. Access to treatment for opportunistic infections is free of charge for the HIV patients only in Romania.

According to the information from the country profiles (Annexes 1-5), the treatment is provided in public medical treatment sites (usually the national AIDS centres and/or the specialized wards from the local infectious disease hospitals). In prisons, ART is provided either through a contract with a hospital (Estonia) or through the systems own units and budget.

Efforts have been made to increase access to ART in the community by distributing treatment through local health facilities, public and even private (Lithuania) or by decentralizing the procurement of drugs (Romania, Latvia) (Annexes 3, 4, 5). These measures had challenges: the price of treatment in private facilities proved prohibitive for most patients; the decentralized procurement led to disparities in access to treatment between regions/health units (access was by difficulties in procurement and distribution of drugs or by staff insufficiently prepared to insure treatment scale-up).

Given the increasing prevalence of HIV among PWID and their co-morbidities, Estonia, Lithuania and Romania – countries with high ART coverage – report concern over the financial strain that the current evolution of the HIV epidemic puts on their national budgets (Annexes 2, 4, 5).

### *HIV surveillance*

In early 1990s, the countries established their *passive surveillance* systems, collecting epidemiologically-relevant data about HIV patients from the facilities where they have been diagnosed. Until these days, the data is gathered and analysed at a regional and/or central level (e.g. a unit in the Ministry of Health or at the national reference infectious disease hospital). The functioning of the passive system is entirely supported by the state.

About a decade later, with technical assistance from international organizations, the countries started developing also *active surveillance*, meaning behavioural and serological surveillance systems targeting groups vulnerable to HIV transmission. The active surveillance has been implemented different ways: funded and managed by governmental institutions

(e.g. public health institutes – the Baltics); implemented by NGOs in partnership with public institutions and funded mainly by international donors (Romania, Bulgaria).

The countries that developed their active surveillance system primarily on a non-governmental structure are currently facing the challenge of ensuring the system's sustainability. For example, Romania developed during 2007-2010 a system of behavioural and serological surveillance targeting populations vulnerable to the HIV infection (PWID, prisoners, sex workers, men having sex with men or PLHIV). Since international donor ended their programs in the country in 2010, only one behavioural and serological surveillance survey was conducted, as compared to the period 2007-2010 when about eight such studies have been implemented.

## The TB response

### *TB screening, testing and diagnosis*

The TB testing and diagnosis services can be accessed free of charge, following a referral from the general practitioner (Bulgaria, Romania, Estonia and Lithuania) or going directly to a pulmonologist (Latvia). In all the countries, in line with WHO guidance [45], TB screening is recommended to PLHIV (Annexes 1-5).

Access to these services is nevertheless limited for people who do not have a social security number and/or insurance or do not regularly access the general practitioner – such as the PWID.[32]

Bulgaria is the only one of the five countries that implemented TB screening interventions for vulnerable groups (prisoners, PWID, alcohol abusers, immigrants). The screening was conducted with the help of outreach workers from NGOs or medical staff (especially in prisons) and consisted of applying a questionnaire and, based on the answers, referring the person to specialized TB services for diagnosis. Specific TB control activities for PDU have been implemented in collaboration by regional DOTS and NGO teams, who started by providing information on TB risk factors, symptoms and testing methods. Active screening for TB risk is performed by means of a questionnaire (Annex 1).

In all the five countries, the time between the initial TB diagnosis and the MDR/XDR-TB diagnosis can be as long as 4-5 months. This is a serious barrier towards the timely detection of disease, including among PWID.

### *TB treatment and care*

The directly observed treatment, short course (DOTS) is available free-of-charge in all the countries, with coverage of 100% (including prison settings). The system works under different forms of implementation (relying on the network of pulmonologists, or on a network of pulmonologists and GPs). As described in Annexes 1-5, despite their formal and important role in the chain of the patients' referral to TB diagnosis, the GPs usually have limited involvement in the management of patients' TB treatment.

Although the cure rate in prisons is reported to be higher than among patients in the community, providing DOTS did not prove to be a guaranty for a ensuring a high treatment success rate in the general population. (Annexes 1-5). The treatment success rates (in all TB cases) vary in the five states from 59.5% in Estonia to 84.2% in Bulgaria in 2010, with only Estonia and Lithuania below the EU/EEA average (74.3%). However, in terms of treatment outcome in MDR-TB patients after 24 months only Latvia, Estonia and Lithuania reported rates that are (much) higher or very close to the EU/EEA average (31.6%). In Romania and Bulgaria on the other hand the MDT-TB treatment success rate is at about half of the EU/EEA rate.[16]

Alcohol abuse, besides injecting drug use is often an important barrier towards achieving TB treatment adherence and success.[31]

### *TB surveillance*

As in the case of HIV, TB surveillance is an important component in the prevention and control of the disease and is one of the main action areas mentioned in the “Framework Action Plan to Fight TB in the European Union”. [10]

The TB registry is the main surveillance instrument (passive surveillance) used by every country. In Estonia the system is as old as 20 years, while in Bulgaria it was established in 2008, with financial support from the Global Fund programme. The type of information collected about the patients differs from country to country – e.g. the patient’s drug use history is not recorder in the Romanian registry, but it is in the Estonian registry. (Annexes 1-5).

Following the international good practices and the regional EU-level commitments, the countries contribute to the annual TB surveillance report and participate in the treatment outcome monitoring conducted at the EU/EEA level. They also conducted national situation assessments of the TB infection control and implemented drug resistance surveys, for first line and second line drugs. Estonia, Latvia and Lithuania are among the 11 countries (from the 36 with high TB and/or MDR-TB burdens) that have completed at least two drug resistance surveys at least five years apart, allowing evaluation of trends over time.[50]

Estonia appears to be the only country among those analysed attempting to estimate the proportion of latent TB among PWID.[39]

## Harm reduction services

In all the five countries, the harm reduction interventions are designed jointly by a multisectoral AIDS strategy and a national plan to prevent and control the drug demand and supply. A mix of public-private actors is involved in funding and/or delivering harm reduction services in the community, as well as in prisons.

All the countries reported to have provided to PWID in the community combined interventions, consisting of needle and syringe exchange programmes, testing (at least for HIV), condom distribution, health education, OST, social and psychological support. At the level of prisons, needle exchange is available only in Romania, while OST can be accessed by prisoners only in Bulgaria, Estonia and Romania (Annexes 1–5). [31]

OST in community settings is provided at the level of public and private health facilities (for-profit as well as non-profit organizations), but the treatment slots available do not cover the need of the PWID [48]. Moreover, OST services are usually located only in large (or larger) cities. Methadone is the main treatment drug administered in all the five countries, being procured centrally (by the Ministry of Health in Estonia, Latvia, Lithuania and Bulgaria, by the National Antidrug Agency and Ministry of Health in Romania) and paid from the national insurance fund (Lithuania) or the national programs (the others). Even in public OST facilities, not all those who need the treatment can access it free-of-charge, some clients have to pay fees (Annexes 1-5). This generates “waiting lists” (Romania, Bulgaria) – a practice that along with the fee drives many clients away from the treatment services.[32]

Ever since 2008, international guidelines [46] recommend an integration of the TB services in the harm reduction package, by the implementation of collaborative TB/HIV policies and services. Despite the fact that collaborative approaches are promoted and recognised as good practice in all the five countries [31], the level of integration of TB and HIV services is limited to the existence of treatment guidelines and referral systems between the TB, HIV and harm reduction services. Recommended actions, such as the full co-location of HIV and TB interventions in harm reduction services points are not available. [49]

## Conclusions

The analysis reveals a series of barriers and factors that could facilitate the implementation of an effective HIV and TB response among PWID from the five countries reviewed.

Following years of experience, the countries have accumulated the know-how needed to implement a wide range of HIV and TB services targeting TB. Theoretically, they would have the capacity to provide PWID with a package of integrated HIV and TB services. However, if funds will not become available for the maintenance and scaling-up of services targeting PWID, the know-how will be lost, along with the interventions that fuelled it.

Theoretically, PWID have access to a complete range of services, providing both HIV and TB prevention and care, according to international best practice recommendations. However, PWID's access to services is limited because of various factors such as an insufficient coverage of the services, the precarious socio-economic status of PWID, stigma, discrimination and criminalization of drug use. To increase PWID's access to services, recommendations point at the need to improve the national legislation regarding drug use and to raise the community's awareness towards PWID. [40]This context could favour the development of effective and rights-based combination services (prevention, diagnosis, treatment, support) for PWID.

Overall, TB prevention and control among PWID is complicated primarily by factors such as: delayed diagnosis, lack of effective integration with harm reduction services and a low treatment adherence among PWID.

The countries' efforts to ensure continuity of HIV and TB surveillance facilitate the implementation of evidence-based epidemiological responses. However, the maintenance and upgrading of these systems cannot be ensured without appropriate funding.

The countries have taken international commitments to work towards the universal access to HIV and TB services for all their citizens, including PWID. However, the translation of the international guidelines and commitments into national policies is dependent on: the local budget constraints, the provisions of the laws regulating drug use, the level of stigma and discrimination associated to drug use and the structural characteristics of the national health systems.

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## Annex 1. Country profile, Bulgaria

### *General background*

Established in 681, Bulgaria is one of the oldest countries in Europe. It is located in Southeast Europe, in the heart of the Balkans. Bulgaria covers a geographical area of 111,994 square kilometres [1]. Bulgaria borders Romania to the north, Serbia and Macedonia (the Former Yugoslav Republic) to the west, Greece and Turkey to the south, and the Black Sea to the east.

The Republic of Bulgaria is divided into 28 administrative districts and 264 locally elected municipalities, which form the basis for administrative and territorial self-government. The capital city of Bulgaria is Sofia.

As of 31 December 2012, Bulgaria has a population of 7,284,552, of which 3,739,479 are women (51.3%) [22]. The latest population census (2011) indicated the following ethnic structure of the population: 84.8% Bulgarians; 8.8% Turkish; 4.9% Roma; 1.5% other nationalities [2].

### *Organisation and financing of health care*

Prior to the health reforms that were initiated in the 1990s, the health care system was fully centralised, including in the fields of health financing and decision-making. The main changes resulting from the reforms were the decentralisation of the management of the health care system through the Ministry of Health and its 28 Regional Health Inspectorates (RHI), which are currently responsible for the development and implementation of the National Health Strategy and disease-specific or determinant-specific national public health programmes. In 1991, the legislation allowed for private practices to be established. In 1992, the ownership of medical facilities was delegated from the central to the local level, i.e. to the municipalities [3].

The Health Insurance Act of 1998 [4] provides the framework for the organisation of mandatory health insurance using the “public contract” concept. Thus, in 1999, the National Health Insurance Fund (NHIF) was established to administer public revenues from compulsory payroll contributions through the distribution of financial resources and the management and control of health care providers. The operation of the NHIF was also decentralised through the operation of 28 regional health insurance funds. Furthermore, the Medical Treatment Facilities Act introduced the privatisation of state- and municipality-owned medical facilities [5].

At the moment, financing for the health care system is generated from compulsory and voluntary health insurance contributions and taxes, as well as formal and informal cost sharing, including out-of-pocket payments made by the patients and external resources allocated from donor organisations and national and international nongovernmental organisations (NGOs). The aim of health care reforms is to gradually reduce the share of funding from the state budget and transition to funding obtained from health insurance [3].

When it first began operating, the NHIF managed primary health care services and health care providers, but since 2001, hospitals also have entered into contractual relationships with the NHIF through clinical pathways or case-based payments. Hospitals generate additional revenue through compulsory patient co-payments. Specialised outpatient care and laboratory services are reimbursed from the fees fixed for the services provided to patients [3].

There is universal access to emergency health care regardless of the patient's health insurance status. Normally, general practitioners are the entry point for access to general health care services for people who have health insurance. General practitioners also issue referrals to specialised care. Therefore, access to general health care remains limited for those who do not have health insurance.

The diagnosis and treatment of HIV and tuberculosis (TB) is not included in the list of health care services reimbursed by the NHIF. At the moment, these expenses are only covered by direct subsidies from the state budget. Moreover, people belonging to groups identified as the most vulnerable to HIV and TB do not have any health insurance. The expenses related to HIV and TB diagnosis and treatment are covered from the budget of the Ministry of Health. Specific legislation regulates the central procurement of medicines for these diseases by the Ministry of Health, and the Annual Methodology for the Ministry of Health Subsidies to Medical Treatment Facilities regulates budget allocations for medical follow-up services and inpatient care. Thus, all who need it, including the groups at the greatest risk, have access to free of charge HIV and TB treatment, regardless of their and health or social insurance status [6].

### *Policy and financing*

In Bulgaria, HIV/AIDS, TB and PWIDs related interventions are implemented and coordinated through:

- 1) National Programme for Prevention and Control of HIV and Sexually Transmitted Infections (STIs) (2008-2015).** The goals of the national programme are to scale-up prevention coverage in order to prevent new HIV infections and improve the quality of life of people living with HIV. The Ministry of Health bears the overall responsibility for the implementation of national programme.

Significant annual allocations from the Ministry of Health budget for the implementation of the **National Programme for Prevention and Control of HIV and Sexually Transmitted Infections (STIs), 2001-2007 and 2008-2015**, ensure: safety of each donor blood unit; universal and free-of-charge HIV testing throughout the country; free-of-charge and universal provision of antiretroviral therapy to those in need; access to antiretroviral treatment in Bulgaria is universal, which means that all persons, who meet the criteria for initiation of antiretroviral treatment, are provided with most up-to-date antiretroviral (ARV) therapy regardless of their social and health insurance status; free-of-charge ARV prophylaxis to prevent mother-to-child transmission of the HIV infection; free-of-charge ARV prophylaxis for medical specialists after occupational exposure.

Since the beginning of 2004, Programme “Prevention and Control of HIV/AIDS” has been implemented with a grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFAMT). Thus, Bulgaria was successful in significantly scaling-up access to and coverage of services for HIV prevention among the groups most-at-risk (people who inject drugs; sex workers; young Roma people with risk behaviour; men, who have sex with men; and prisoners), as well as care and support for people living with HIV. This financial support is additional resources to domestic budget for achieving the goals of the National Programme.

In 2011, the expenditures for HIV/AIDS programmes in Bulgaria totalled approximately EUR9,884,390 (historical exchange rates used).

**Table a. Expenditure with HIV/AIDS programmes, 2011**

Year	State budget	The Gtlobal Fund to Fight AIDS, Tuberculosis and Malaria	Municipal budget and other bilateral or international organizations	Total
2011	US\$6,624,354	US\$6,382,691	US\$138,842	US\$13,145,887

*Data source: Republic of Bulgaria, Country progress report on monitoring the 2011 political declaration on HIV/AIDS, the Dublin declaration and the universal access in the health sector response, UNAIDS, 2012 [22]*

It is important to note that the implementation of harm reduction as a nationwide policy has been achieved since 2004 under Objective 4 “HIV prevention among injecting drug users (PWIDs)” of Program “Prevention and Control of HIV/AIDS”, implemented by the Ministry of Health with a grant by the Global Fund to Fight AIDS, Tuberculosis and Malaria. The program supports the operation of a network of non-governmental organizations (NGOs) in the 10 largest cities in Bulgaria, implementing community-based harm reduction programmes and providing a large spectrum of HIV prevention services as described below. Thus, significant part of harm reduction services as well as around 3% of the number of people in opioid substitution treatment (OST) programmes are supported with funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria.

**2) National Programme for Prevention and Control of Tuberculosis in the Republic of Bulgaria (2012-2015).** The goals of the national programme are to reduce the transmission of tuberculosis and the development of drug resistance in the country. The Ministry of Health bears the overall responsibility for the implementation of national programme.

For more than 15 years now, the Ministry of Health has been providing free-of-charge first-line anti-TB treatment to all who need it regardless of their health and social insurance status. Since 2007, the Bulgarian Government has been actively implementing a comprehensive national policy on tuberculosis, with a special focus on multi- and extensively drug-resistant tuberculosis, namely the National Program for Prevention and Control of Tuberculosis for the programmatic periods 2007-2011 and 2012-2015. Financial resources from the state budget are used to ensure: first-line anti-TB drugs; diagnostics and consumables for microscopy and culture testing for all microbiological laboratory networks in the country; subsidies for health facilities for inpatient care in the intensive phase and

prolonged treatment of TB and MDR- TB patients; drugs for prophylaxis of people with latent TB infection; BCG vaccination and PPD Tuberculine testing in the framework of the National Immunization Calendar.

Since 2007, the National TB Programme has received 65% domestic resources and additional 35% from two grants by the Global Fund to Fight AIDS, Tuberculosis and Malaria. Global Fund resources are used to largely scale-up intensified and active case finding, registration and management of TB suspects; scale-up and strengthening of TB control activities in prisons; scale-up of diagnostic drug susceptibility testing (DST) and care for MDR-TB patients as well as community-based DOT activities in close collaboration with NGOs working with risk groups. This made it possible to achieve the goals and objectives of the comprehensive national programme.

In 2011, the expenditures for TB programmes in Bulgaria totalled approximately EUR9.4 mln. (fixed exchange rate used).

**Table b. Expenditure with the TB program, 2011**

Year	State budget and municipal budgets	The Global Fund to Fight AIDS, Tuberculosis and Malaria	Total
2011	appr. EUR5.6 mln (appr. BGN11 mln)	EUR3,804,745	appr. EUR9.4 mln

*Data source: Ministry of Health, Programme „Improve the Tuberculosis Control in Bulgaria” [23]*

**3) National Anti-Drug Strategy and Action Plan (2009-2013).** The goals of the national strategy are to protect the health and the well being of citizens, safeguard a high level of security, and reduce the supply of drugs and precursors. Both documents cover illicit drugs, psychoactive medicines and precursors, and encompass two areas of action (demand reduction and supply reduction) as well as three transversal areas (public information system and scientific research, national coordination and international cooperation, improvement of the legislation). The main objectives and features of prevention policy are: the expansion of systematic health education in the field of secondary education; development and implementation of programmes for assistance of parents; establishment and training of multidisciplinary teams; organising and conducting media campaigns for combating drugs and drug addiction; elaboration of programmes for sport and tourism for children and young people; and development and implementation of programmes for work with high-risk groups. The National Centre of Addictions

Large part of drug use prevention, harm reduction and drug treatment activities are supported through state budget (central government), municipal budgets and out-of-pocket expenditures (for clients who receive services in private institutions). In 2011, the public expenditures for these activities were covered from the budget of the Ministry of Health (MoH) for the implementation of the Annual Action Plan of the National Anti-Drug Strategy (2010-2012) and the operation of the National Centre for Addictions (NCA). The operation and activities of by the Municipal Councils on Narcotic Substances (MCNS) and the

Prevention and Information Centres for prevention and combating drugs (PIC) were covered both by the state and municipal budgets as well as with additional resources for project implementation from the financial mechanism of the European Economic Area (EEA).

In 2011, the expenditures for the implementation of the national anti-drug policy, including salaries of central and municipal level administration staff at NCA and MCNS, totalled approximately EUR455,323 (fixed exchange rate used).

**Table c. Expenditure with the implementation of the national antidrug policy, 2011**

Year	MoH (state budget)	NCA (state budget)	MCNS and PIC (state budget, municipal budgets, EEA)	Total
2011	BGN92,420	BGN263,301	BGN534, 814	BGN890,535 <b>(EUR455,323)</b>

*Data source: Ministry of Health, Programme „Improve the Tuberculosis Control in Bulgaria”, ([http://www.tbprogram.bg/index.php?option=com\\_content&view=article&id=90%3A2012-03-26-04-49-39&Itemid=92&lang=bg](http://www.tbprogram.bg/index.php?option=com_content&view=article&id=90%3A2012-03-26-04-49-39&Itemid=92&lang=bg), accessed 7 September 2013)*

## *Tuberculosis situation*

### **TB surveillance**

Since 2007, the implementation of the Bulgarian National Tuberculosis Programme, which includes strengthening the TB surveillance, monitoring and evaluation system, has been coordinated by the Directorate for the Prevention and Control of AIDS, TB and STIs of the Ministry of Health, currently named the Directorate for the Management of Specialised Donor-Funded Programmes. This Directorate is also responsible for maintaining the National TB Register.

The National TB Register was established in 2008 with support from the Programme for the Improvement of Tuberculosis Control in Bulgaria, which was financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Round 6 Call for Proposals). The National TB Register began its activities with the retrospective collection of case-based data for the 2007 cohort of TB patients following the recommendations of the ECDC and the World Health Organisation Regional Office for Europe (WHO/Europe).

Over the period 2008–2009, the system for routine TB surveillance, including the recording and reporting of TB case data to the National TB Register, was structured around the public health institutions providing TB diagnosis and treatment: 29 Regional TB Health Care Facilities responsible for TB control at the regional level, created with a regulation of the Minister of Health; 28 Regional Public Health Inspectorates (RPHI); 13 prisons and 2 prison hospitals under the Ministry of Justice; the Military Medical Academy under the Ministry of Defence; the National TB Reference Laboratory under the National Centre for Infectious and Parasitic Diseases, and 35 public health laboratories throughout the country [7].

Since 2011, Regulation No. 21 of the Ministry of Health from 2005 on the order and procedure for the registration, notification and reporting of communicable diseases, last amended in the State Gazette issue No. 52 from 8 July 2011, has been regulating the

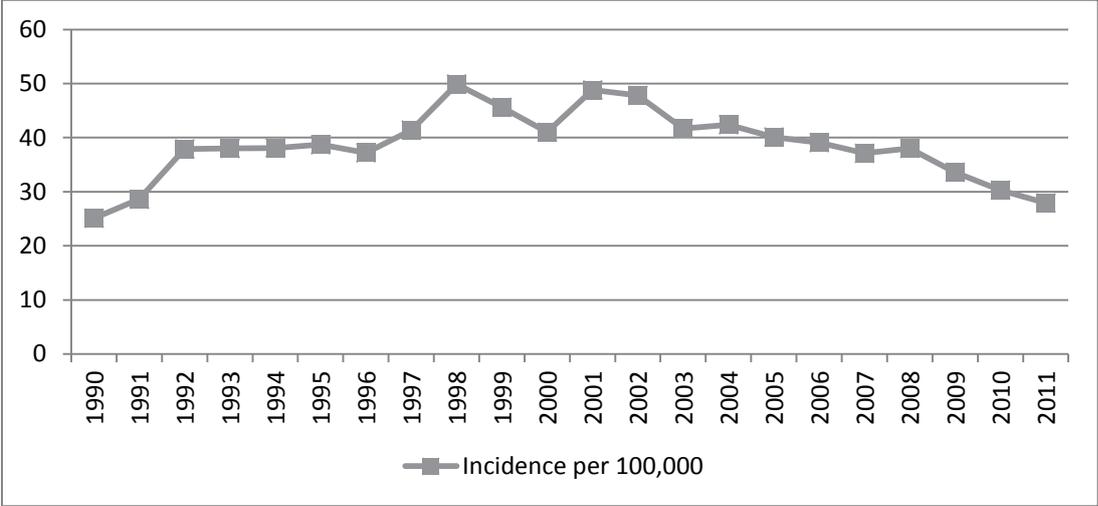
operation of a specialised electronic TB patient information system in support of the National TB Register and routine TB and MDR-TB surveillance, which was established under the Global Fund programmes carried out in Bulgaria.

**TB epidemiology**

In 1990, TB incidence in Bulgaria was 25.9 per 100,000 population. Influenced by various economic and social factors and the deterioration of the health care infrastructure during the transitional period, TB incidence almost doubled, reaching 49.9 per 100,000 in 1998 and 48.8 per 100,000 in 2001. Since 2002, a continued slight decrease in incidence has been observed – in 2005, the incidence rate fell to 40.1 per 100,000 [8].

Thanks to the effective implementation of the National Programme for the Prevention and Control of Tuberculosis in the Republic of Bulgaria (2007–2011 and 2012-2015), and two tuberculosis grants from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Round 6 and Round 8), TB incidence has been decreasing steadily (Fig. 1) – from 39.1 per 100,000 population in 2006 to 27.9 per 100,000 in 2011. For the last few years, TB incidence has been higher than average in some regions of the country in North-western, Western and Central Bulgaria. In 2010 and 2011, the male-to-female ratio was 2:1. The most affected age groups were those over 64 (19%) and those 35–44 years of age (17%). Male cases were prevalent in all age groups during both years [9, 24].

**Figure a. TB incidence per 100,000 population in Bulgaria, 1991–2011**



Source: National Centre of Health Informatics, 2011

However, TB notification rates for new and relapse TB cases in Bulgaria (31.9 in 2010 and 29 in 2011) remain much higher than the average of EU/EEA countries – 12.2 in 2010 and 12.1 in 2011 [10,24]. Bulgaria has been identified by WHO/Europe as one of the 18 high-priority countries for action in the European Region [11].

In 2010, there were 1,174 culture-confirmed TB cases, with valid drug susceptibility test (DST) results for at least isoniazid and rifampicin in 966 of those cases (82.3%). A total of 56 (5.8%) multidrug-resistant TB (MDR-TB) cases were confirmed by the National TB Reference Laboratory. An increase in the number and proportion of confirmed MDR-TB cases was

observed in comparison with 2009 and 2008: 43 (5%) and 30 (3.2%), respectively. The first four XDR-TB cases were registered in 2010 [9, 10]. Bulgaria was previously identified among the 27 countries that have a high burden of MDR-TB with an estimated 13% of new TB cases and 42% of retreatment TB cases according to the modelled data from 2008 [12]. In 2011, the estimated proportion of MDR-TB cases was 2% among new TB cases and 26% among retreatment cases [24].

In 2010, a total of 59 TB cases were registered among prisoners: 39 (66%) new TB cases, 12 (20%) relapse cases and eight (14%) retreatment cases. A decrease in the number of registered TB cases can be seen in comparison with 2009, when 80 cases were registered. In 2010, all cases were male; the most affected age groups were 25–29-year-olds (41%) and 35–44-year-olds (31%). In 2010, 51 TB cases were pulmonary and eight were extrapulmonary [15]. TB notification rates in prisons appear to be several times higher than among the general population (418 new cases per 100,000 prison population compared to 30.3 for the general population in 2010). In 2011, a total of 42 new TB cases were registered in prisons with TB notification rate of 450.5 per 100,000 prison population [24].

Programme data from the implementation of the Programme for the Improvement of Tuberculosis Control in Bulgaria, which was financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria, indicate that the coverage of HIV testing provided to TB patients by the staff of TB treatment facilities has increased from less than 7% in 2007 to 67% in 2010. In 2010, a total of 1,773 TB patients received targeted HIV testing and counselling; of these patients, two were HIV-positive [9, 10].

Treatment success for the 2010 cohort of patients was 86% among new laboratory-confirmed TB cases and 52% among previously treated laboratory-confirmed TB cases. The estimated death rate among all TB cases was 4.1 (2.8–6.2) [10].

### **TB diagnosis and treatment services**

The directly observed treatment, short-course (DOTS) received a full rollout in Bulgaria in 2003 and has 100% coverage at the moment. Prior to 2010, health services related to TB diagnosis and treatment were covered from the state budget and municipal budgets. As a result of the 2010 amendment of the Medical Treatment Facilities Act introducing the restructuring of the former dispensaries, TB diagnosis and treatment services are now only covered from the state budget through the budget of the Ministry of Health and are free of charge for all who need them, regardless of their health and social insurance status.

The DOTS strategy has been implemented in Bulgaria mainly in collaboration with pulmonologists and psychiatrists. In 2008, with a regulation of the Minister of Health, 28 regional lung disease and TB health facilities were assigned responsibility for TB control in the 28 regions of the country. Currently, by virtue of a new regulation of the Minister of Health, these 29 regional lung disease and TB health facilities are responsible for the implementation of the National TB Programme and the programmes financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria. They include 16 specialised hospitals for the active treatment of lung and psychiatric diseases, the Medical Centre for Psychiatric Diseases in Sofia, and 12 multi-profile hospitals for active treatment. The regulation of the Ministry of

Health also defines a network of 36 public health laboratories, including the National TB Reference Laboratory at the National Centre for Infectious and Parasitic Diseases, which performs quality-assured TB diagnosis in laboratory conditions [9].

The role of primary health care (i.e. general practitioners) in TB diagnosis and treatment remains limited. They can serve as an entry point for early diagnosis and timely treatment through their referrals to specialised TB diagnosis and treatment services. They also participate in the reimmunisation of children.

With the implementation of the Programme for the Improvement of Tuberculosis Control in Bulgaria financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria, TB control at the regional level was improved thanks to the appointment of 28 Regional DOTS Managers to coordinate and supervise activities, and over 100 patronage nurses actively involved in finding TB cases among high-risk groups. The duties of the nurses also include contact tracing and the scaled-up provision of directly observed treatment in the follow-up and preventive treatment of people with a latent TB infection. In 2009, the first MDR-TB treatment sector was established at the Specialised Hospital for the Active Treatment of Lung Diseases in Gabrovo. In 2010, the first cohort of 50 MDR-TB patients was successfully enrolled in second-line treatment; in 2011, a second cohort of 55 MDR-TB patients was involved, and in 2012, the enrolment of a third cohort of 60 patients was initiated. At the moment, second-line TB medication for the treatment of MDR-TB and XDR-TB patients are provided thanks to the resources of the Global Fund [7].

### **TB services for high-risk groups**

The National Programme for the Prevention and Control of Tuberculosis in the Republic of Bulgaria (NTP) identifies the following groups as being at the greatest risk of contracting TB: the Roma community, alcohol-dependent people and problem drug users, refugees and asylum seekers, migrants, street children, and PLHIV. Therefore, the NTP envisages the implementation of specific intervention activities for the prevention and control of TB among these groups [9].

Currently, targeted intervention activities among high-risk groups are primarily financed through two programmes implemented by the Ministry of Health with grants from the Global Fund to Fight AIDS, Tuberculosis and Malaria: the Programme for the Improvement of Tuberculosis Control in Bulgaria (November 2007–October 2012) and the Programme for the Strengthening of the National Tuberculosis Programme in Bulgaria (March 2010–September 2012, Phase 2 application for the period October 2012–February 2015 has been submitted).

Specific TB control activities implemented in all 13 Bulgarian prisons and two prison hospitals begin with the active screening for TB risk. This is done by means of questionnaires filled in at entry through the medical centres of the prisons. People identified as at risk for TB undergo a chest X-ray, tuberculin skin testing (TST) and a sputum smear examination. In case of TB symptoms or at the request of the prisoner, passive screening during the patient's prison stay is performed by the prison's medical centre. Treatment for the intensive stages of TB is provided in the Lung Disease Ward of the Specialised Hospital for Prisoners in Lovech. Treatment in the continuation phase as well as preventive treatment for latent TB

infection (LTBI) is performed by the medical centres of prisons in collaboration with Regional DOTS Managers.

Specific TB control activities for problem drug users and alcohol users, the Roma community, refugees and asylum seekers, migrants and street children are implemented in collaboration by regional DOTS and NGO teams, who start by giving information on TB risk factors, symptoms and testing methods. Active screening for TB risk is performed by means of a questionnaire. Those evaluated as being at a higher risk are referred and accompanied to the regional TB treatment facilities for diagnostic testing. NGO teams support the patronage nurses of TB medical facilities throughout the process of testing, contact tracing, hospitalisation and follow-up in the continuation phase, as well as preventive LTBI treatment.

The network of NGOs implementing the activities of the programmes funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria cover the problem drug and alcohol users of the country's ten regions with the largest target population and several risk factors – Blagoevgrad, Bourgas, Varna, Kyustendil, Pazardzhik, Pernik, Pleven, Plovdiv, Rousse and Sofia.

Results from the implementation of specific TB control activities among PWIDs, alcohol-dependent people, street children, refugees and asylum seekers, as implemented by the 13 NGOs in ten regions in 2010, include:

- 5,119 people were screened for TB risk. 75% (3,848) of them were evaluated to be at risk of contracting TB. They were encouraged to undergo testing and advised on the need for medical examination.
- 3,068 people at a higher risk were referred and/or accompanied to TB treatment facilities and underwent medical examination (PWIDs made up approximately 68% of them).
- 20 (0.6%) of the examined people were diagnosed with active TB and 109 (3.6%) with a latent TB infection.
- All the people with active TB and LTBI were offered free treatment with first-line TB medication or preventive treatment with isoniazid, respectively.

### *HIV situation*

#### **HIV surveillance**

The implementation of the National Programme for the Prevention and Control of HIV and STIs in Bulgaria, including the Strengthening of the HIV/AIDS Surveillance, Monitoring and Evaluation System, has been coordinated by the Ministry of Health since 2001. Currently, the main roles and responsibilities related to the monitoring and evaluation of the situation and the national response to HIV/AIDS are being carried out by the Directorate for the Management of Specialised Donor-Funded Programmes. This Directorate is also responsible for collecting, summarising and analysing data obtained through routine HIV/AIDS surveillance.

The system for routine HIV surveillance in Bulgaria is organised around major public health institutions that provide HIV testing for diagnostic and screening purposes: five Centres for Haematology and Blood Transfusion (blood banks); 28 Regional Public Health Inspectorates; 14 STI Diagnosis and Treatment Centres, including STI Clinics at Medical Universities, the National Centre of Infectious and Parasitic Diseases, and the National Centre for Addictions. The AIDS surveillance system is based on data obtained from the Infectious Disease Hospitals with wards for the treatment and monitoring of HIV/AIDS patients [13]. According to the Ministry of Health Regulation No. 47 from 2009, HIV case reporting is based on confirmed positive results. Only the National HIV Reference Laboratory under the National Centre for Infectious and Parasitic Diseases confirms positive results by using the western blot method. Therefore, samples from persons with reactive results obtained from an ELISA test or rapid test in all testing sites throughout the country are sent to the National HIV Reference Laboratory for confirmation. This is the only laboratory that, upon reaching a diagnosis for each HIV case, forwards a notification to the National HIV Register maintained by the Directorate for the Management of Specialised Donor-Funded Programmes under the Ministry of Health.

Routine AIDS surveillance is organised around the antiretroviral (ARV) treatment wards of Infectious Disease Hospitals all over the country. Since 2011, the 2005 Regulation No. 21 of the Ministry of Health on the order and procedure for the registration, notification and reporting of communicable diseases, last amended in the State Gazette issue No. 52 from 8 July 2011, has been regulating the operation of a specialised HIV/AIDS patient information system, which was established under the Global Fund programmes in Bulgaria.

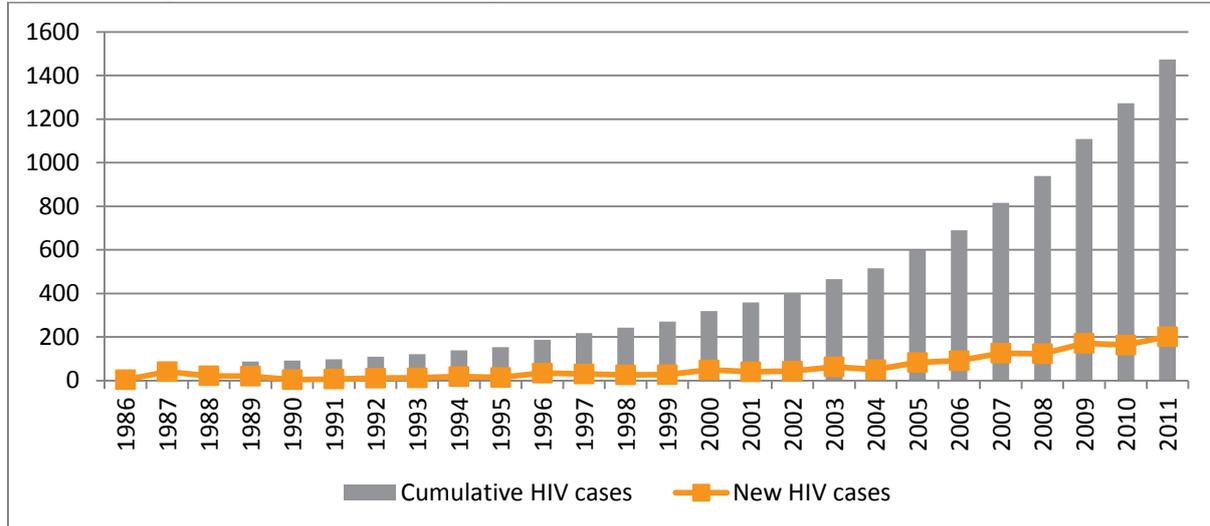
The National Voluntary HIV Counselling and Testing (VCT) Database is currently being maintained under the Programme for the Prevention and Control of HIV/AIDS, financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria. The programme supports the operation of a network of 19 VCT Centres, 12 mobile medical units (MMUs), seven low-threshold centres (LTC) for PWIDs, and seven health and social centres based in Roma communities. HIV testing is provided anonymously. The detection rate of HIV cases in VCT centres is five or six times more efficient than at diagnostic testing sites [13].

The system for Integrated Biological and Behavioural Surveillance (IBBS) among high-risk groups was established in 2004 under the Programme for the Prevention and Control of HIV/AIDS financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria. The system aims at tracking the biological and behavioural trends among groups at the greatest risk of contracting HIV (as defined in the National Strategy and the National Action Plan for the Prevention and Control of HIV/AIDS and STIs (2001–2007)): injecting drug users (PWIDs); men who have sex with men (MSM); sex workers (SW); prisoners; young Roma men [14].

### HIV epidemiology

By the end of 2012 a cumulative number of 1,630 HIV cases have been registered in Bulgaria since 1986. The annual number of newly registered HIV cases grew from 50 in 2004 to 201 in 2011 and 157 in 2012. A total of 139 cases have been registered only by mid-August 2013. (Fig. 2).

**Figure b. Registered HIV cases in Bulgaria, 1986–2011**



Source: Ministry of Health, Directorate for the Management of Specialised Donor-Funded Programmes, 2011

The distribution of newly registered HIV cases in 2010 by age groups indicates that more than half of the cases (52%) occurred among young people aged 15–29, while in 2011 the largest share of cases (54%) was in the age groups 30–49. In 2011, male cases were 163 or 81%. The geographical distribution of registered HIV cases indicates that the majority are concentrated in large urban areas such as Sofia, Plovdiv, Pazardzhik, Bourgas and Varna. Since 2004, there has been an increase in the number of HIV cases among injecting drug users (PWIDs). In 2010 only, they made up 34% of the annual number of cases, and in 2011 – 31% (Table 2). The annual share of newly registered HIV cases among men who have sex with men also rose to 20% of the total number of cases in 2010 and to 27% in 2011. In 2010, new 32 AIDS cases were reported and in 2011 - 40 [14,15,21,25]. Data on the HIV/TB co-infection from the National AIDS Register indicates that tuberculosis was the AIDS-indicator disease in 33 (29%) out of the 115 newly diagnosed AIDS cases in the period 2007–2010 [9].

**Table d. Number and percentage of newly diagnosed HIV infections among injecting drug users by year of diagnosis in Bulgaria, 2004–2011**

Indicator	Reporting year							
	2004*	2005*	2006*	2007*	2008*	2009*	2010*	2011**
Number of newly diagnosed HIV infections	50	83	91	126	123	171	163	201
Number of newly diagnosed HIV infections among injecting drug users	7	12	34	43	54	74	56	63
Percentage of newly diagnosed HIV infections among injecting drug users	14%	14%	37%	34%	44%	43%	34%	31%

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe: \*HIV/AIDS surveillance in Europe 2010; \*\* HIV/AIDS surveillance in Europe 2011

The implementation of the GFATM Programme for the Prevention and Control of HIV/AIDS in Bulgaria since 2004 has brought about several major improvements in terms of surveillance data concerning the stage, type and dynamics of HIV infection. These efforts made it possible to intensify the detection of HIV cases, resulting in increased case detection rates, particularly through the active motivation of risk groups to use VCT services (and referring them to these services), the rapid scale-up of the provision of VCT services through a network of VCT centres, mobile medical units, drop-in centres for PWIDs and health and social centres based in Roma communities [14].

#### **HIV treatment, care and support services**

The National Programme for the Prevention and Control of HIV and STIs in Bulgaria has been actively implemented since 2001 through significant allocations from the budget of the Ministry of Health. The aim of the programme is to ensure the safety of each donor blood unit, free and universal HIV testing in Regional Public Health Inspectorates and public STI Diagnosis and Treatment Centres, free and universal provision of ARV therapy and monitoring of the therapy of all needy people living with HIV, free ARV prophylaxis to prevent the mother-to-child transmission of HIV, and post-exposure prophylaxis for medical specialists. Access to ARV treatment in Bulgaria is universal, which means that everyone who meets the criteria for the initiation of ARV treatment is provided with the most up-to-date therapy regardless of his or her social and health insurance status [14]. The National ARV Treatment Guidelines are based on the European Guidelines for the Clinical Management and Treatment of HIV-Infected Adults, the Department of Health and Human Statistics (DHHS)/USA Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents, and the recommendations of the International AIDS Society.

Since 2005, the provision of ARV treatment has been decentralised from the only HIV department in the capital Sofia to five ARV treatment sectors at Infectious Disease Hospitals in the largest regions of the country – Sofia, Plovdiv, Varna, Stara Zagora and Pleven. At the end of 2010, a total of 640 people living with HIV were registered for follow-up care and 383 patients were receiving ARV treatment. The survival rates among people living with HIV, who began treatment and were still receiving treatment 12 months later, were 92% for the new patients registered in 2009. At the moment, the Programme for the Prevention and Control of HIV/AIDS, implemented by the Ministry of Health with a grant from the Global Fund to

Fight AIDS, Tuberculosis and Malaria, is supporting four NGOs that provide psychosocial support to the people living with HIV. Their activities include specific counselling that helps to cope with the disease, training patients and supporting them to ensure their adherence to treatment. People living with HIV in Bulgaria participate in national advisory and decision-making bodies through two representatives in the country's Coordinating Mechanism to Fight AIDS and Tuberculosis and one representative in the Expert Board on HIV and STIs at the Ministry of Health [13, 14].

### **HIV prevention programmes reaching PWIDs in prisons**

Activities aimed at HIV prevention in Bulgarian prisons were launched in 2004 with a situation and response analysis focussing on two prisons under the framework of the project BUL/98/005 i.e. the National HIV/AIDS Strategy, jointly implemented by the Ministry of Health and the United Nations Development Programme (UNDP) [16]. In the period 2005–2006, as a result of the successful cooperation between the Programme for the Prevention and Control of HIV/AIDS at the Ministry of Health and the Chief Directorate Execution of Judgment at the Ministry of Justice, pilot HIV VCT services were launched in five prisons. Pursuant to a joint regulation of the Minister of Health and the Minister of Justice, the HIV VCT counsellor teams of public health institutions and NGOs have been providing regular services in all 13 prisons and two pre-trial detention centres since 2007. As of 2009, the services provided in prisons have included anonymous HIV, hepatitis B (HBV), hepatitis C (HCV), and syphilis testing and counselling, individual counselling on safe sex and injection practices, distribution of informational and educational materials and condoms, and group health education sessions. In 2011, a pilot project on peer education was launched in Sofia Central Prison and ten prisoners were certified to provide basic HIV prevention services and counselling [13].

This approach to HIV service provision has proved to be very effective in scaling-up access and active HIV case finding in prisons, among PWIDs in particular. In 2009, anonymous voluntary HIV testing and counselling was provided to 4,141 prisoners, 805 of whom (around 9% of the total prison population) reported a history of injecting drug use. A total of 27 new HIV-positive cases were diagnosed among PWIDs. Data triangulation indicates that between 75% and 90% of imprisoned PWIDs have received HIV testing and counselling while in prison [17].

### ***Injecting drug use and harm reduction services***

#### **Overview of the situation of PWID**

In 2004–2005, there were estimated 20,000–30,000 problem heroin users in Bulgaria. The latest estimates, based on the capture-recapture method, indicate 32,000 problem drug users (2010), 19,000 injecting drug users at a national level (2011) and 11,000 PWIDs in Sofia. Since the 1990s, heroin has maintained the highest level of problem use among illegal drugs (defined by the European Monitoring Centre for Drugs and Drug Addictions as injecting drug use or long-term/regular use of opiates, cocaine and/or amphetamines).

According to the available data (2011) almost 10% of all prisoners in Bulgaria are reported problematic drug users (975 out of the 9,885 prisoners registered in 2011) [19].

The latest behavioural surveillance survey (conducted between June and August 2012) shows that the heroin use is still prevalent (81.2% used heroin last year; 67.7% used heroin last 4 weeks), followed by the use of amphetamines (42.4% last year; 28.7% last 4 weeks), cocaine (10.8% used cocaine last year; 4.3% used cocaine last 4 weeks) and other stimulants (3.8% last year; 1.1% last 4 weeks). Almost half of the BSS respondents reported to inject daily (44%) and almost 1 in 2 injected with an used needle/syringe during the last 4 weeks. The PWIDs are mostly men (77.9%), have 29.44 years on average, few of them are homeless (4%) and a little more than 1/3 have completed only primary education [20]

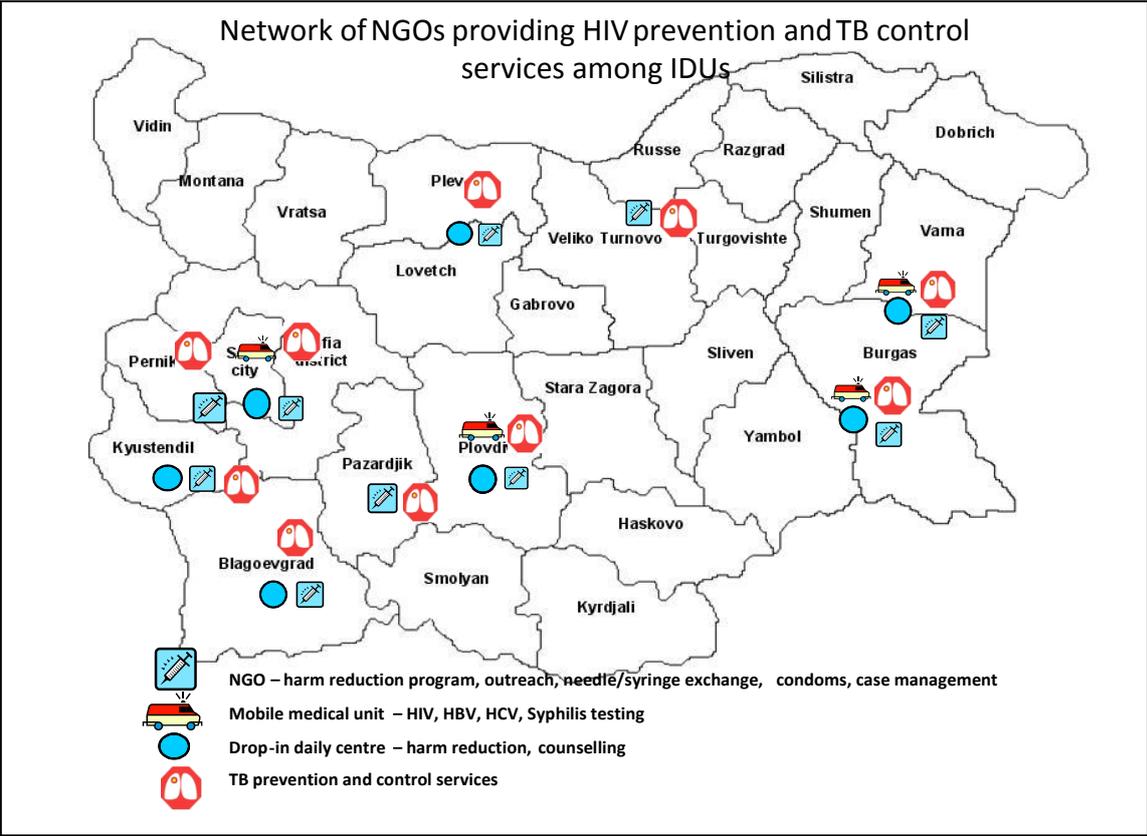
An increase over time (2004-2009) in the HIV prevalence among PWIDs is indicated by the results of the Integrated Biological and Behavioural Survey conducted under the Programme for the Prevention and Control of HIV/AIDS, financed by the GFATM: from 0.6% in 2004 to 7.0% in 2009 [21]. Although the diagnostic testing data also indicates an increase of the HIV prevalence among PWIDs living in Sofia, this source indicates a significantly different range of results: 2.15% prevalence in 2010, 2.8% prevalence in 2011 [20].

### **Harm reduction and HIV prevention programmes for PWID**

Harm reduction activities for injecting drug users in Bulgaria were launched in the late 1990s in the capital Sofia by the Initiative for Health Foundation. In 2000, they were expanded to three other large cities – Plovdiv, Bourgas and Pleven – with the financial support of international donors. However, the scale-up of harm reduction services throughout the country has been achieved since 2004 thanks to the Programme for the Prevention and Control of HIV/AIDS, implemented by the Ministry of Health with a grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria. A network of NGOs was established in the ten largest regions of Bulgaria to provide a comprehensive package of HIV prevention services for PWIDs: needle and syringe exchange and the distribution of sterile injecting equipment among PWIDs, outreach work to provide health education, social and psychological support through individual and group counselling, distribution of condoms and informational materials on the reduction of high-risk sexual and injection behaviour and the promotion of healthy lifestyles, referral and accompaniment (when needed) to drug treatment programmes and other health and social services, active motivation and provision of HIV, hepatitis B and C, and syphilis testing, including pre- and post-testing counselling. Access to HIV services is facilitated through low-threshold drop-in centres in seven cities: Sofia, Plovdiv, Varna, Bourgas, Pleven, Blagoevgrad and Kyustendil. In three cities (Sofia, Plovdiv, Varna), NGOs were also provided with mobile medical units (MMUs) to support the provision of HIV, hepatitis B and C, and syphilis testing and the provision of other services to hidden and hard-to-reach PWID populations in large cities. The NGOs operating in other regions share the mobile medical units with the NGOs working with various target groups [13, 14].

Through the implementation of the programmes funded by the GFATM, all ten NGOs were able to provide integrated HIV and TB services for PWIDs (Fig. 3)

**Figure c. Mapping of HIV and TB services for PWIDs, Bulgaria, 2011**



In the figure: network of NGOs providing TB prevention services to PWIDs; NGO; mobile medical unit; drop-in centre; harm reduction programme, outreach, needle/syringe/condom distribution; counselling; TB prevention and control; case management

Source: Ministry of Health, Programme Management Unit for programmes funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria, 2011

The results of targeted HIV prevention activities among PWIDs, implemented by the NGOs of ten regions in 2010, include:

- 8,090 individual PWIDs reached with the HIV prevention programmes implemented by the NGOs; of them, 1,918 people were reached for the first time.
- 80,106 personal contacts for service provision were achieved.
- 6,117 PWIDs received voluntary HIV testing and counselling (through NGOs, VCT centres and the National Centre of Addictions).
- 676,898 safe injecting packages (one syringe, two needles and other injection equipment) distributed by the HIV prevention programmes implemented by NGOs.
- 180,847 condoms distributed through HIV prevention programmes.
- 183 PWIDs in extreme need or living with HIV were reached with HIV prevention and case management services.

### **Drug dependence treatment for PWIDs**

Drug dependence treatment in Bulgaria is provided both by public and private health facilities. Public drug treatment programmes, which are covered from state and municipal funds, are provided by 12 state psychiatric hospitals, 12 regional psychiatric centres, 14 psychiatric wards of multi-profiled hospitals, and five psychiatric clinics in university hospitals. Since 1996, substitution therapy with methadone has been the most common form of drug-related treatment in Bulgaria. Methadone is procured centrally and its cost is covered from the budget of the Ministry of Health for state and municipal programmes. In 2012, the National Centre of Addictions reported the operation of 30 opioid substitution programmes and 12 rehabilitation programmes throughout the country. In 2011 in the country were still functioning 32 substitution maintenance programmes, with a total capacity of 5,196 treatment positions out of which 4,736 were for treatment with Methadone hydrochloride and 460 – for treatment with Morphine sulfate pentahydrate (Substitol). By 31.12.2011 the total number of the occupied positions was 3,452, out of which 3, 269 were for treatment with Methadone hydrochloride and 183 – for treatment with Morphine sulfate pentahydrate (Substitol). The programmes are located on the territory of 14 towns in the country [18].

With the 2007 amendment of Regulation No. 24 from 2000 on the Terms and Conditions for the Operation of Substitution and Maintenance Programmes for Harm Reduction among Drug Users, a minimum package of services to be provided by OST programmes was defined, including the referral of patients to HIV, hepatitis B, hepatitis C, syphilis and tuberculosis testing. Thus, drug treatment programmes serve as an entry point for harm reduction and HIV and TB prevention services. These services are provided either by the NGOs working with PWIDs or by a regional health facility, depending on the service needed and the capacity of the respective service provider.

Prisoners with addiction problems have access, while serving their time, to regular medical and psychological services, but not to specialized services such as drug dependence treatment and rehabilitation services.

The passive surveillance of the PWID cases accessing drug treatment/rehabilitation services in Bulgaria is ensured by the National Monitoring System for Drug-Related Treatment Demand. In 2011 the system registered 2,490 individuals, representing less than 10% of the number of problem drug users estimated in the country [19].

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## Annex 2. Country profile, Estonia

### *General background*

Estonia is situated in Northern Europe in the Baltic region. In the north, it is bordered by the Gulf of Finland, in the west by the Baltic Sea, in the south by Latvia, and in the east by Lake Peipus and the Russian Federation. The territory of Estonia covers 45,227 km<sup>2</sup> and it has a population of 1.286 million (as of January 1<sup>st</sup> 2013). The official language is Estonian. The country is divided into 15 counties. The capital and the largest city is Tallinn with a population of 400,000. The second-most populous county is Ida-Virumaa (in the north-east) with 168,000 inhabitants [1].

### *Financing and organisation of health care*

In Estonia, health care and social affairs are coordinated by the Ministry of Social Affairs (MoSA). The core purchaser of health care services is the Estonian Health Insurance Fund (EHIF), which operates under the MoSA and purchases most of the services for insured people (94% of the total population). The main exceptions are emergency care, which is covered directly by the MoSA (from the state budget), and health care in prisons, which is coordinated and financed by the Ministry of Justice (from the state budget).

The EHIF pools funds transferred from the Estonian Tax and Customs Board (earmarked payroll social tax). Estonian health insurance is a social insurance, which relies on the principle of solidarity: the EHIF covers the cost of health services required in case of illness, regardless of the amount of social tax paid by the person concerned. The vast majority of the population, including children and the elderly, are covered by the compulsory health insurance scheme. Uninsured people, who represent about 6% of the population, mainly include low-income men who have either been unemployed for a long time or work in the informal sector. Private health insurance is very limited in Estonia.

Primary care services are provided through general practitioners to everyone insured by EHIF. Specialist care is provided by local and regional hospitals, which offer both inpatient and outpatient specialist services. A family physician's referral is required to visit a medical specialist. However, a referral is not needed to visit a psychiatrist, gynaecologist, dermatovenerologist, ophthalmologist, dentist, pulmonologist (for TB treatment), infectious disease specialist (for HIV treatment) or in case of trauma.

Civil society organizations, including patient groups, such as organization of PLHIV, are involved in the provision of HIV and harm reduction services, but not in that of TB services (there are no TB-specific CSOs in the country).. The work of the civil society organizations in the field of HIV and harm reduction is supported mainly through national funding and only limited support is provided by international donor and local private partners.

Health services related to TB and HIV treatment are financed from the EHIF and the state budget (National Health Plan 2009-2020) and are free of charge for all patients, including those who do not have health insurance. For example, ARV and TB medication is procured and purchased directly by the Ministry of Social Affairs (see more below) [2].

From 2003 to 2007, the HIV/AIDS interventions in Estonia have benefited from one GFATM approved grant amounting to USD\$ 10,483,275. After the end of the program, the expenditure for the services developed has been taken over by the Estonian government. Until 2013 services were financed from the budgets allocated to National HIV and AIDS Strategy, National TB Control Programme and National Drug Prevention Strategy. Starting from January 1<sup>st</sup> 2013 national funds are planned and allocated based on the National Health Plan 2009-2020 (that includes separate measures on HIV, Tb and illicit drug use).

The total national funding for HIV prevention in Estonia including harm reduction services was 12 332 844 Euros in 2010, 12 520 617 Euros in 2011 and 19 037 440,68 Euros in 2012. These numbers include also the cost of ARV treatment and ARV medication.

In previous years Estonian initiatives have also been supported by other international organisations like UNODC and WHO. They have provided in-kind technical assistance and helped to strengthen the capacity of HIV, TB and drug abuse prevention in Estonia by allocating funds to train the specialists, update national guidelines etc. However they have not provided financial support for service provision. During 2010-2013 Estonia has received funding for counselling services for people who live with HIV and people who use drugs from European Social Fund, but the programme will most likely end in December 2013.

The funding for TB (including MDR-TB) control is ensured through domestic funds. The expenditure of the National TB Control Programme was 281 963,24 Euros in 2010, 332 177,34 Euros in 2011 and 307 751,31 Euros in 2012. These numbers do not include the budget for TB medication nor for health care services other than out-patient directly observed treatment. The decrease in funding in 2012 (as compared to 2011) is due to the decrease in number of patients who required out-patient DOT.

The drug addiction treatment is not specifically covered by the EHIF, but mainly from National Health Plan 2009-2020 and from out-of-pocket fees paid by the patients themselves. At the debut of the recent economic crisis (2009-2010) the public expenditures for drug addiction treatment decreased. However, a small increase in the budget has been reported during the last couple of years.

The methadone substitution treatment is supported mainly from the national HIV measure of the National Health Plan 2009-2020 (coordinated by the Ministry of Social Affairs), the funding increasing steadily since 2010 (2010 - 587,026 Euros; 2011 – 729,436 Euros; 2012 – 842 996 Euros.). The City of Tallin (Tallinn Social and Health Care Board) contributed to the methadone substitution treatment (2010 – 134,615 Euros, 2011 – 159,779 Euros). For other drug services (treatment other than OST, residential and outpatient rehabilitation services, psychosocial support and counselling) 704 697,40 Euros was allotted in 2010, 835 675,38 Euros in 2011 and 1 018 620,20 Euros in 2012.

## *Policy*

In Estonia, HIV/AIDS, TB and PWID related interventions are coordinated through National Health Plan 2009-2020 that has from 2013 integrated all activities previously divided between:

- 4) National HIV and AIDS prevention strategy 2006-2015 – the first multisectoral strategy adopted in Estonia, aiming at: decreasing and/or halting the transmission of HIV and associated infections (STIs) among PWID, youth, sexworkers, prisoners, MSM, the general population (including pregnant women) and the staff working in the health area; increasing the quality of life for PLHIV. Though strategy as policy document is still in force no separate yearly action plans are elaborated from 2013, yearly activities and funds are reflected in the yearly action plan of the National Health Plan 2009-2020.
- 5) National Strategy for Prevention of Drug Addiction 2005-2012 – implemented by the Ministry of Social Affairs, National Institute for Health Development (prevention, treatment and rehabilitation, monitoring and evaluation), the MER (primary prevention in schools), the Ministry of Justice (drug prevention and combating drug related crime in prisons), the Ministry of Interior and the Police and Border Guard Board (PBGB) in its area of government (combating drug related crime), and the Estonian Tax and Customs Board in the area of government of the Ministry of Finances (cross-border detection and combating of drug related crime). Strategy ended in 2012 and has been replaced by National Health Plan 2009-2020.
- 6) National TB Control Programme 2012. Programme ended in 2012 and has been replaced by National Health Plan 2009-2020.

## *Tuberculosis situation*

### **TB epidemiology**

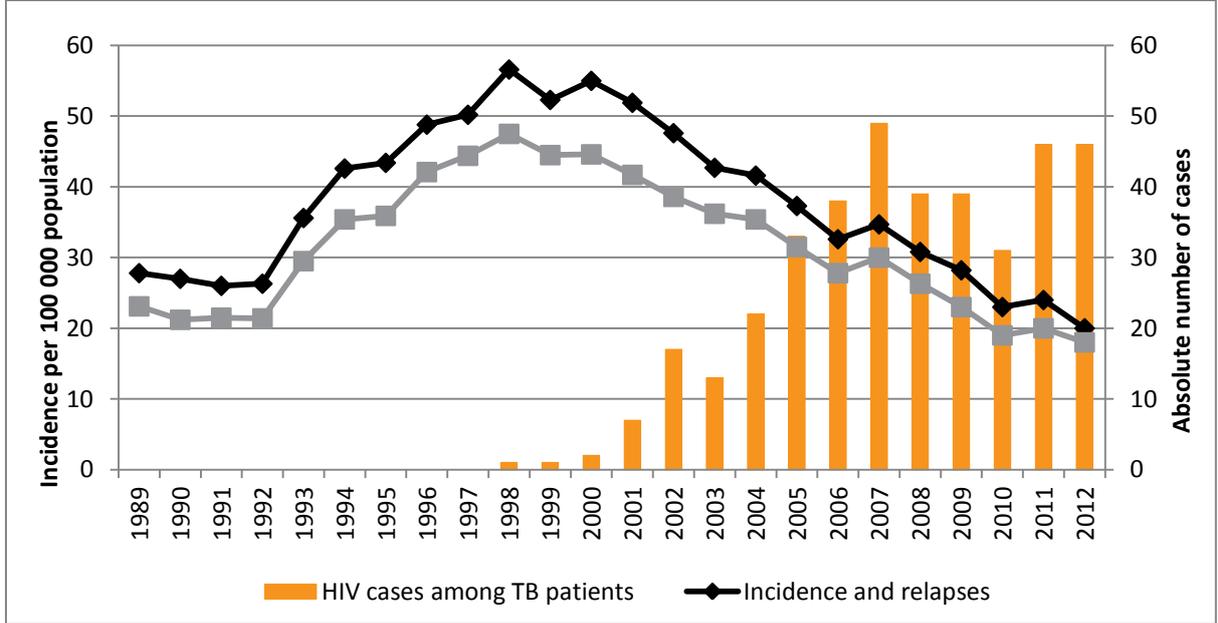
The incidence of TB in Estonia started to increase in the 1990s, rising rapidly from 21 per 100,000 in 1992 to 48 in 1998. Since 1999, incidence has decreased to 19.7 per 100,000 in 2011 (264 new cases) and 17.5 per 100,000 in 2012 (235 new cases) (Fig. 4). In recent years, the notification rate has been the highest in the northeast region (37 per 100,000 in 2009). Over a quarter of all TB cases in Estonia are resistant to at least one medication. The percentage of MDR-TB cases among all TB cases is quite high and has risen even more over the recent years – from 11% in 2006 to 21% in 2012. Almost 10% of MDR-TB cases are XDR-TB. In 2001–2009, there were 94 cases of XDR-TB (among both new cases and relapses), six in 2008 (four new cases and two relapses) and one in 2009 (relapse). The mean age of TB patients was 48.9 years in 2008, 47.7 in 2009 and 47.8 in 2010. The proportion of male TB patients was 72% in 2008, 70% in 2009 and 72% in 2010 [3].

TB rates have traditionally been higher in prisons than among the general population. Thus, the TB notification rate (new cases and relapses) was 774 per 100,000 prisoners in 2007, 301 in 2008 and 770 in 2009 (at the end of the year). The corresponding rates for the general population were 35, 31 and 28 cases per 100,000, respectively. Omitting the cases diagnosed during imprisonment (and those who were already ill, but diagnosed upon entry), the TB notification rate was 54 per 100,000 prisoners in 2008. TB screening is mandatory for all

prisoners. In 2009, 7% of all TB cases (30 out of 410) were diagnosed in prisons – most of them at entry – and six out of 39 HIV-infected TB patients (15%) were diagnosed at entry to prison [3].

There are no population-wide data on the prevalence of LTBI in Estonia. Prophylactic treatment is not provided universally due to the high rates of primary resistance to isoniazide and other first-line TB drugs. The need for such treatment is decided case by case. BCG vaccination is part of the required immunisation schedule and is usually performed within three days since birth. There is no revaccination programme [2].

**Figure d. TB notification rate, incidence per 100,000 population and HIV-infected TB cases by year, 1989–2012**



Source: National TB Registry, Health Board

**TB surveillance**

For 20 years, the National Tuberculosis Registry – administered by the NIHD - is the the main TB surveillance instrument in Estonia, collecting data on individual TB cases and treatment from doctors and mycobacteriology laboratories, via a compulsory notification system. Also, Estonia conducts surveillance to determine resistance to both first and second-line TB drugs.

**TB diagnosis and treatment services**

DOTS has been implemented in Estonia since 2000, offering 100% coverage. Health services related to TB diagnostics and treatment are financed from the EHIF and the state budget (National TB Control Programme, operated by NIHD) and are free of charge for all patients, including those who do not have health insurance. Pulmonologists see patients with suspected TB in outpatient settings in 11 cities. A general practitioner’s referral is not needed if a person suspects he or she has TB. TB treatment (inpatient) services are provided in five cities. One site also has a special department for involuntary treatment. DOTS is mostly provided in collaboration with county pulmonologists and general practitioners under a programme coordinated by the National TB Control Programme, and is financed from the state budget.

In 2008, the treatment success rate at 12 months was 64%, lower than the average of EU/EEA countries. The reasons for that were the large percentage of MDR cases, whose treatment generally lasted longer (up to 36 months), and the high default rate (9% of all patients). In 2009, the TB death rate was four per 100,000 among men and two per 100,000 among women. In prisons, the cure rate is up to 100% for those who finish DOTS while incarcerated. In some cases, DOTS is disrupted after release from prison, especially among the patients who do not have a permanent residence and/or are not on probation. For example, in 2009, 30 patients started treatment in prison (24 new, four relapses, two after default). Of them, 14 were cured in prison, two are still undergoing treatment and 14 continued treatment after release (eight cured, four defaulted, two still undergoing treatment) [3].

### **Tuberculosis among people with HIV and injecting drug users**

The number of HIV-infected TB patients increased from one case in 1997 to 43 cases in 2012. Throughout these years, a total of 376 HIV-infected TB cases have been diagnosed (both new cases and relapses). The percentage of HIV-positive patients among all TB cases increased from 7% in 2005 to 15% in 2012 (Fig. 4). MDR-TB prevalence among HIV-infected TB cases is higher than among other TB cases (22% in 2007), compared to 13% among all new TB cases and 29% among all relapses (National TB Registry). The mean age of HIV-infected TB patients was 32.4 years in 2008, 33.7 in 2009 and 35.5 in 2010. Males comprised 78% of HIV-TB patients in 2008, 75% in 2009 and 87% in 2010 [3].

In a 2005 cross-sectional study of 450 PLHIV in outpatient care (54% men, mean age: 25.8 years) in the three largest infectious disease hospitals, ten people had previously had TB (data from clinical records); four of them reported their injecting drug use as the possible HIV transmission mode, three were older than 29 and eight were male [4]. In the 2008 follow-up study of the same hospitals (n=450), 15 reported having had TB, ten of those 15 reported having injected drugs, ten were male and ten were older than 29 [5].

TB diagnosis and treatment services for PLHIV are provided similarly to the services intended for all other patients. PLHIV are recommended to undergo TB screening (chest X-ray) once a year, in case of symptoms indicating TB, or contact with a person known to have TB. No data are routinely collected on the TB screening of PLHIV. Based on data from EHIF, a total of 2,115 PLHIV had at least one chest X-ray in 2007–2009 (average age 30.7 years, range: 0–81; 12% did not have health insurance). The total number of X-rays performed on PLHIV during this period was 6,043. The stratification of data based on the reason for the X-ray (prophylactic or diagnostic) is not possible [2].

All TB patients are routinely offered HIV testing (opt-out approach, recommendations from the professional society of pulmonologists) [6]. HIV tests are often performed early in the diagnostic process, even before a TB diagnosis has been confirmed. Data from the TB Registry reveal a high coverage of HIV testing for TB patients: in 2007–2009, the HIV test result was known for 90% of the patients [3].

Data on TB patients reporting injecting drug use are limited; in 2009, the number was 30 (7% of all TB cases), while the number of HIV-TB cases reporting injecting drug use was 24

(67% of all HIV-infected TB cases) [3]. In a 2008 study, 68% of the PWID recruited from a Tallinn SEP thought that TB could be contracted during sexual intercourse; 71% believed one could contract TB by drinking from the same glass with a TB carrier; 57% thought the infection could be transmitted through water and food; 60% did not know that TB diagnostics and treatment are free of charge for everybody and 42% were not aware of the places they could turn to in case of a TB suspicion. More than 95% knew that condoms protect against HIV, that needle-sharing can transmit HIV and that HIV-infected people can look healthy. No correlations were found among TB- and HIV-related knowledge scores. TB transmission knowledge was higher among those who had been in prison and among those who visited SEPs more frequently (in the four weeks prior to the study). Knowledge about the importance to adhere to TB treatment was higher among those who had received ARV treatment [7].

A few studies have tried to estimate LTBI prevalence and other TB-related issues among PWID. In the 2007 RDS study, LTBI prevalence (based on *M. tuberculosis*-specific interferon-gamma release assay – IGRA) was 10.1% in Tallinn and 4.8% in Kohtla-Järve. The factors independently associated with *M. tuberculosis*-specific interferon-gamma positivity were age ( $\geq 30$  years), nationality (Estonian) and having been diagnosed with TB in the past [8]. In a study among PWID on substitution therapy (n=112), 8% of the participants were IGRA-positive. 16% showed a positive result in the Mantoux tuberculin skin test (TST) ( $\geq 5$  mm) and 35% of them were also IGRA-positive [9].

### *HIV situation*

#### **HIV surveillance**

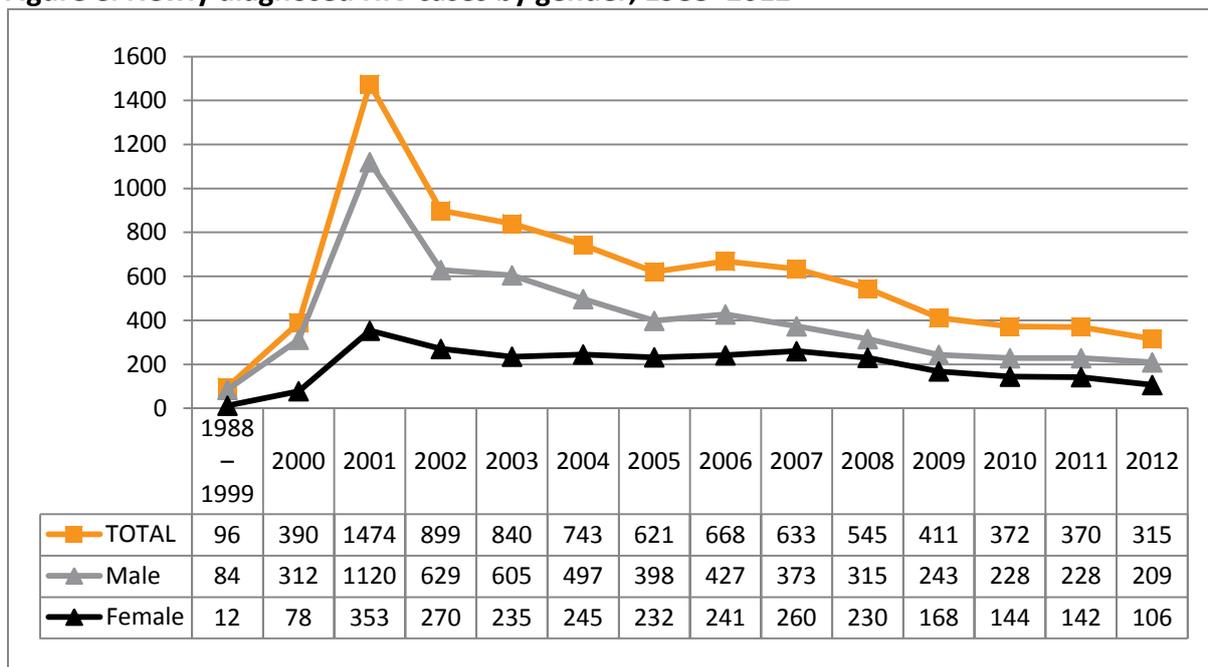
In Estonia, HIV case data are collected through a passive surveillance system (communicable disease information system) operated by the Health Board. Laboratories and doctors who diagnose infections are required to report directly to the Health Board, either through a web-based system or on paper. HIV is the only infection for which web-based reporting is mandatory. Other institutions responsible for data collection and analysis include the National HIV Reference Laboratory (HIV testing), the National Institute for Health Development NIHD (HIV surveillance among vulnerable populations, monitoring the activities of the National Strategy, national TB and mortality registries, etc.), the EHIF and the Ministry of Social Affairs (health services for PLHIV), and the Ministry of Justice (HIV prevention and care in prisons).

Since 2003, the NIHD has developed a data collection system consisting of regular studies measuring risk behaviours and HIV prevalence in different target groups and monitoring the efficiency of implemented activities. Behavioural and/or serological surveys have been conducted among respondents from: the general population, PWID, MSM, prisoners, female sex workers, PLHIV.

## HIV epidemiology

The first HIV case in Estonia was registered in 1988. At the end of 1999, a total of 96 HIV cases had been reported, most of them infected through homo- or heterosexual intercourse. In 2000, the number of newly diagnosed HIV cases began to increase sharply; there were 390 new cases in 2000 and 1,474 in 2001. The number of newly registered cases has been decreasing since 2002 – in 2011, 370 new cases were registered (Fig. 5). By the end of 2012, a total of 8,377 HIV cases had been reported (5,668 men and 2,716 women) [10]. According to the estimations of the Joint United Nations Programme on HIV/AIDS (UNAIDS), the number of PLHIV in Estonia could be 9,900 (8,200–12,000) and the respective prevalence rate among adults (15–49-year-olds) could be 1.3% (1.1–1.6%) [11].

**Figure e. Newly diagnosed HIV cases by gender, 1988–2012**



Source: Health Board

In 2000, the majority of newly diagnosed HIV cases (92%) were registered in Northeast Estonia. The percentage of HIV cases diagnosed in the capital Tallinn and its surrounding areas increased considerably in 2001–2002. Since then, the centre of the epidemic has remained in these two regions. In 2012, 42% of all new cases (n=131) were diagnosed in Northeast Estonia and 47% (n=148) in Tallinn (79 and 37 cases per 100,000 population, respectively). The rate of newly diagnosed cases in other regions of the country has remained lower than 12 per 100,000 throughout the years (4.7 in 2012) [10]. Almost 70% of all HIV cases in 2000–2012 were diagnosed among men. The percentage of men was especially high in 2000–2001, but in recent years, the percentage of women has increased in all age groups due to the decrease in the absolute number of infected men [10].

During the beginning of the epidemic spread of HIV (2000–2001), 78% of all new cases were diagnosed among the group aged 15–24 (n=1402). In 2002–2012, the number and percentage of cases in this group decreased greatly and accounted for 17% (n=53) of new HIV cases in 2012. In general, the percentage of newly diagnosed HIV patients older than 29 is steadily increasing [10].

In 1988–1999, HIV infection primarily spread through sexual transmission (both homosexual and heterosexual). Since 2000, sharing contaminated injecting equipment has been the main transmission route, although there have been some indications of a possible increase in the percentage of sexual transmission. There have only been a few cases among MSM (less than ten per year). Vertical transmission has been consistently low: at 0.5% of all newly diagnosed cases in 1988–2012 (0.7% in 2009, 0.5% in 2010 and 2011, 0.9% in 2012) [10].

## *HIV treatment, care and support services*

### **HIV testing**

Any doctor in Estonia (either a general practitioner or a specialist) can recommend HIV testing based on clinical indications, risk assessment or the patient's request. The MoSA has developed guidelines for PITC (2012). The main groups for whom HIV testing is recommended include pregnant women, prisoners and people with TB, STIs, hepatitis, occupational exposure or a history of injecting drugs or engaging in risky sexual behaviour (including having sex partners who have had multiple sex partners). The only groups for whom HIV screening is mandatory are blood and organ donors.

HTC is only provided in health care institutions (including family medical centres and prison health services). Non-medical personnel are not allowed to perform HIV testing, but they can be involved in counselling. Blood drawing and rapid testing can only be performed by medical personnel: nurses, midwives, laboratory specialists or doctors. HIV testing is confidential and the patient's oral informed consent is sufficient. Rapid tests are very rarely used in general health care institutions; they are available in the anonymous AIDS Counselling Centres (ACC) located in Tallinn.

In case of an indication for testing, a general practitioner or a specialist provides HTC to patients with health insurance without a fee. People who are not insured can take advantage of other free testing options. Those aged 19–24 years can take an HIV test at a youth counselling centre, and a network of ACCs operates in eight cities; in ACCs, anyone aged 16 or older can receive free and anonymous HIV, hepatitis B and C counselling and testing.

The number of people tested and the number of HIV tests has increased since the early 2000s in all regions as well as among routinely screened groups (e.g. pregnant women, TB patients, prisoners) and high-risk groups (injecting drug users, sex workers). In 2011, more than 147,000 people were tested for HIV (11% of the total population) and the total number of tests was more than 212,000 (156 tests per 1,000 population; 39 tests per 1,000 population excluding tests for blood donors and pregnant women). However, many people engaging in high-risk behaviour are still not accessing HCT. For example, 20% of PWID report no lifetime HCT and more than 30% of HIV-infected PWID are unaware of their HIV-positive status [2].

The barriers to testing have been addressed in several studies. In an HIV rapid testing pilot programme in 2008, participants in one SEP in Tallinn (n=200) cited the following reasons for not having undergone testing earlier: no time (21%), not had the opportunity (14%); not

thought about it (13%); afraid of losing anonymity (5%); and afraid of the results (5%) [12]. In a study among HIV-infected people who reported injecting drug use (n=52), participants thought that people avoided testing out of fear for potential social consequences (79%), fear of finding out they may have a serious disease (73%) and not being aware of HIV-related risks (60%) as the main reasons why people may not get tested. Only a few cited poor knowledge of testing sites (10%), while none of the respondents mentioned financial constraints as the reason that prevents testing [13].

### **HIV-related health care**

Health services related to HIV infection, including antiretroviral treatment (ART), are provided in the specialised departments of both inpatient and outpatient infectious disease (including HIV) facilities. TB and STI services are provided by separate specialists (pulmonologists and dermatovenerologists, respectively). Infectious disease departments are part of the general, central and regional hospitals located in five larger cities. All these services are also available in all prisons through cooperation with local hospitals.

Patients who test positive for HIV are referred to an infectious disease doctor for health monitoring, treatment, counselling and contact tracing. No official referral is required (as opposed to appointments with other specialists, for which a general practitioner's referral is necessary). HIV-related health care services including ARV treatment are free of charge for all patients. Patients on ART usually have to visit the hospital once a month to get a month's supply of ARV medication. Patients who are not receiving ART yet usually visit the hospital once or twice a year for regular medical check-ups. The Estonian Society for Infectious Diseases has developed guidelines for HIV patient management and antiretroviral treatment monitoring.

The number of people on ART has increased slowly but steadily over the years; nevertheless, a large number still await treatment. The reasons for this may be that people do not turn to an infectious disease doctor immediately after HIV diagnosis, are diagnosed late or refuse to start treatment. Another reason could be the relatively higher threshold for receiving HIV-related health services; people have to navigate the health care system and may not be motivated enough to seek treatment and care. There is evidence that the coverage of PWID by ART and HIV-related health services may be disproportionately low in general. Lack of health insurance, the need to pay fees, difficulties in navigating the health care system and other problems may all serve as barriers to access [3].

## ***Injecting drug use and harm reduction services***

### **Overview of the PWID situation**

Injecting drug use began to increase during the 1990s [14]. The first reports describing an outbreak and the size of the PWID population came from field reports and expert opinions. They described about 10,000–15,000 PWID in the country (N. Kalikova, personal communication). It is believed that the early stage and the intensive growth of the PWID epidemic occurred during the second half of the 1990s. In 2005, it was estimated (using the capture-recapture method in three different national databases) that there were 13,801 (95%, confidence interval (CI): 8,132–34,443) PWID in Estonia, with a prevalence of 2.4%

among 15–44-year-olds. PWID prevalence is mostly confined to two (out of 15) counties – Harjumaa, including Tallinn, and Ida-Virumaa (Northeast Estonia) [15].

According to cross-sectional RDS studies conducted in 2005, 2007 and 2009, most participating PWID in Tallinn and Kohtla-Järve were Russian-speaking men under 30 years of age. The percentage of PWID older than 30 has increased over the years. The mean duration of injecting drugs in Tallinn increased from six years in 2005 to ten years in 2009.

Based on the 2005, 2007 and 2009 RDS studies conducted in Tallinn, the high HIV prevalence among PWID remained stable. Prevalence rates among men and women were not statistically different in 2005 and 2007, and increased in correlation with the duration of injecting drug use [16–18].

### **Harm reduction and drug dependence treatment programmes for PWID**

Needle exchange programmes in Estonia were launched in 1997. In the early years, coverage was rather low. The number of syringe exchange points (NEP) increased from 13 in 2002 to 36 in 2012 (in 17 cities/settlements). Services are mostly provided in Tallinn and its surrounding areas and in Northeast Estonia (Ida- and Lääne-Virumaa counties). In cross-sectional studies, a high percentage of PWID report having visited NEPs or having been in contact with outreach workers [16–18]. In 2012, about 6,700 clients visited syringe exchange points. NEPs distributed a total of 2.2 million free syringes and close to 460,000 free condoms in 2012, as well as information materials [19].

In addition to syringe exchange, opioid substitution therapy (OST) based on methadone is provided to an even increasing number of PWID since 2004. In addition to OST, since 2011 short-term detoxification treatment related to both opiate and non-opiate pharmaceuticals has been provided to PWID (including to those from three prisons) and has been financed from the the national budget. The PWID have also access to rehabilitation services (psychosocial counselling and support for social integration). State funded rehabilitation services target not only adults, but they have been tailored also according to the needs of children and adolescents, both boys and girls.

In three Estonian prisons, PWID have access to rehabilitation interventions, non-opiate detoxification treatment, methadone detoxification treatment and methadone substitution treatment.

The PWID access to drug dependence treatment is monitored through the Estonian Drug treatment database, managed by NIHD.

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## Annex 3. Country profile, Latvia

### *General background*

The Republic of Latvia is situated in Northeast Europe on the eastern shore of the Baltic Sea. It is bordered by Estonia in the north, by Lithuania in the south and southwest, and shares a border with the Russian Federation in the east and with Belarus in the southeast. The area of the country is 64,000 square kilometres and the population nearly 2,017,000 people, 61% of whom are Latvian, 27% Russian, 3% Belorussian and 9% other nationalities (as of January 1<sup>st</sup> 2013). The results of the latest population census of Latvia show that during the last ten years, the population of Latvia has decreased by almost 300,000 (6%). Latvia is a unitary parliamentary republic, which is divided into 110 municipalities and nine **cities**. Before the administrative reform of 2008, Latvia had been divided into seven **cities** and 26 **districts**. The largest cities in Latvia are Riga (654,948 inhabitants), Daugavpils (92,533), Liepaja (76,141), and Jelgava (58,960). The official language is Latvian; the capital of Latvia is Riga [1].

### *Financing and organisation of health care*

In Latvia, the Ministry of Health coordinates health care. The Ministry of Health is the leading government authority in the health sector and it is responsible for public health, health care and pharmacy. The tasks of the Ministry include the development and implementation of a national policy to safeguard public health, the promotion of prevention by advocating healthy lifestyles, and the creation of possibilities for the citizens to receive cost-effective, easily accessible and high-quality health care services [2].

The state, local governments, private institutions and self-employed doctors, ensure outpatient and inpatient health care services in Latvia. The health care services expenditures are covered through the National Health Service, a direct administrative institution, which **administrates the funds of the state budget, analyses the financial and quantity-related indications of health care services, organises and carries out the centralised purchases of the state, develops health care financing models etc.** The health care system of Latvia is based on the residence principle. State-guaranteed medical services are provided from the state budget (3.5% from GDP in 2012) as well as the patients' contributions and co-payments.

The fee for a visit to an ambulatory specialist is 4.27 Euros and 1.42 Euros for a visit to a primary health care specialist, but there are exceptions for certain groups such as children under 18 and people on low income. In order to receive state-guaranteed medical services, people have to register to a general practitioner's list. Referrals to secondary and tertiary outpatient health services are needed. No referrals are needed to access certain specialists, for example a pulmonologist, if the patient is suffering from tuberculosis, a narcologist, if the patient is suffering from alcohol or drug addictions, or from an addiction to psychotropic and toxic substances, a dermatovenerologist, if the patient is suffering from sexually transmitted diseases. An infectologist is not a direct-access specialist and thus, for his/her first visit to an infectologist, a HIV/AIDS patient needs a referral from his/her GP. Without a referral, the patient has to pay the full cost of the visit. Further visits to the infectologist are free of charge for HIV/AIDS patients.

In order to receive state-funded medical treatment in hospital, a patient needs to have a referral or a recommendation from his/her general practitioner or a medical specialist, who in turn has a contractual relationship with the National Health Service. Medical treatment in hospitals, state agencies, hospitals and the health care departments of hospitals, including those providing treatment against alcohol and drug addiction, as well as psychotropic and toxic substance addiction and medical rehabilitation services, is a fee-paying service. However, patients who are undergoing medical treatment for tuberculosis and for certain contagious or infectious diseases are relieved from payment [3]. NGOs play an important role in addressing the HIV/AIDS and TB epidemics in Latvia although few in number. They provide mostly services targeting groups vulnerable to HIV and TB and their interventions are funded mostly by international donors.

As most countries in Europe, since 2009 Latvia has been experiencing an economic crisis that influenced negatively the budget allocations for the health sector in general, for the HIV and TB programs in particular. Besides the shrinking national health budget, the delivery of HIV & TB interventions – especially those provided by NGOs - has been affected by the end of several programs funded by international donors (i.e. the UNODC programme). According to an UNODC & WHO assessment of the HIV national program, in 2011 the domestic funds allocated to the national HIV programme only covered around one third of the need and the national stakeholders do not expect an improvement of the situation until around 2014 at earliest [18].

Detailed information on the public and donor expenditures for the HIV/AIDS response, the TB interventions and the harm reduction and drug treatment programs are not collected systematically. According to data, public expenditures for HIV/AIDS in 2010 was about 4.2 million Euros, while international organisations and private donors expenditure amounted to 136 000 Euros [16.]. Expenditures for the HIV/AIDS response and the harm reduction and drug treatment programs are not changed significantly in recent years. However, one of the priorities of Ministry of Health related to HIV response is to increase the availability of ART ensuring that ART is started with CD4 cell count of 350 cells or below (at the moment ART is started with CD4 cell count of 200 cells or below).

According to information from National Health Service budget of TB care, in 2011 total budget was 7 245000 Lats. This includes: Central procurement of pharmaceuticals (including prison) 549 000 Lats; Outpatient services (fee for episode of care) 698000 Lats; Laboratory, Diagnostics (Fee for services) 414000 Lats; Outpatient services Central procurement by National Health Service 34000 Lats; Hospital services Hospital and service-specific global budget 5 551000 Lats. Funding was not changed for 2012. There was no funding from international organisations.

In 2012, it was established the Centre for Disease Prevention and Control (CDPC), with the following responsibilities: epidemiological surveillance; the monitoring of diseases; the collection of statistical data on prevention of infectious diseases; implementation of disease control measures; national immunisation programmes; cooperation with international and national public health institutions/organizations.

## Policy

In Latvia, HIV/AIDS, TB and PWID related interventions are coordinated through:

### 1) Programme for Limiting the Spread of HIV for 2009–2013

Latvia's national response to HIV is based on an agreed national programme, adopted in 2009. The programme is short-term policy-planning document and it runs from 2009 to 2013. Prior to adopting the programme, it was reviewed by UNAIDS co-sponsors through the AIDS Strategy and Action Plan (ASAP) mechanism. The majority of funds for the national programme come from the state budget without extra financial allocations.

The overall goal of this Programme is to decrease the prevalence of HIV and to stop the growth in the number of new HIV positive cases. Targets of the Programme are prevention of new HIV positive cases in the target groups; implementation of large-scale HIV prevention measures; better availability of health care services for HIV positive persons and AIDS patients; promotion of evidence-based planning and management of HIV prevention measures; increased scale and better co-ordination of measures for reducing HIV prevalence.

The competent authority for the surveillance of the Programme outcomes and impact assessment is the Ministry of Health. Sectoral ministries, local governments and NGOs together with the Ministry of Health, CDPC and hospitals are mostly involved in the implementation of the measures of the Programme.

### 2) Drug Program for 2011-2017.

Latvia's national response to Drug use is based on an agreed national programme, adopted in 2011. The Drug Program for 2011- 2017 is a medium-term policy-planning document and it is aimed at reducing the availability of illicit drugs, acceptability of their use in society and reducing the harm suffered by the community, by improving the availability and effectiveness of health services offered to drug users. For achieving the objectives of the Programme, the main lines of action is prevention of drug addiction and drug use, health care of drug users and drug addicts and reduction of drug availability. The authorities stipulated as having responsibility for implementation of tasks set in the Program are the Ministry of Defence, the Ministry of Finance, the Ministry of Education and Science, Ministry of the Interior, the Ministry of Welfare, the Ministry of Justice and the Ministry of Health. The institution responsible for monitoring performance under the Drug Program is the Ministry of the Interior. The Program is funded from the annual State budget without extra financial allocations. If the responsible authorities are unable to complete a task from State budget funding, the issue of supplementary funding is to be reviewed in 2014 and in subsequent years, together with the budgetary priority submissions from all Ministries. However, financing is foreseen for some activities, namely capacity building of the Forensic Service of the State Police in order to improve identification of psychoactive substances.

### 3) Plan for limiting the spread of TB for 2013-2015.

Latvia's national response to TB is based on an agreed national plan, adopted in 2013. The plan is short-term policy-planning document and it is aimed to reduce the incidence of TB and **socioeconomic burden** associated with TB, **by providing** planned, coherent and coordinated prevention, treatment and anti-epidemic measures. For achieving the objectives of the Programme, the main lines of action of the plan is to pursue high-quality DOTS expansion and enhancement, to make targeted efforts for limit the spread of TB/HIV co-

infection, MDR-TB and XDR-TB, to contribute to health system strengthening, engage all health care providers, inform society about TB and involve NGOs and local governments in TB patient care, and to enable and promote research. The majority of funds for the nation plan come from the state budget without extra financial allocations for further years. Responsible institution for monitoring the implementation of measures of plan is National Coordinating Commission to limit the spread of HIV, TB and sexually-transmitted infections established by Ministry of Health of Latvia. The main involved institutions in the implementation of measures of the Plan are Ministry of Justice, Ministry of Education and Science, Ministry of Welfare, NGOs, CDPC, **Center for TB and Lung diseases of Riga East Clinical hospital** and other medical institutions.

In 2013 the Ministry of Health has established a working group to assess the current situation on the prevention and health care of HIV, STIs and viral hepatitis (hepatitis B and hepatitis C) and to develop The Plan for limiting the spread of HIV, STIs and VHB and VHC for 2014 - 2016.

### *Tuberculosis situation*

#### **TB surveillance**

The main institution responsible for TB surveillance, prevention and control is the Centre for Disease Prevention and Control (CDPC). In case of suspected TB, a member of the medical staff reports it to the CDPC within three days and informs the regional TB outpatient department of the patient's residence using the official report form for TB [4]. The pneumonologists of outpatient TB departments report detailed information about all TB patients to the National TB Registry (CDPC). The locations of outpatient TB departments are based on the previous administrative division of Latvia, when there was an outpatient TB department in each district. However, three regional outpatient TB departments were closed in 2012. More detailed information about regional outpatient departments is available below.

#### **TB epidemiology**

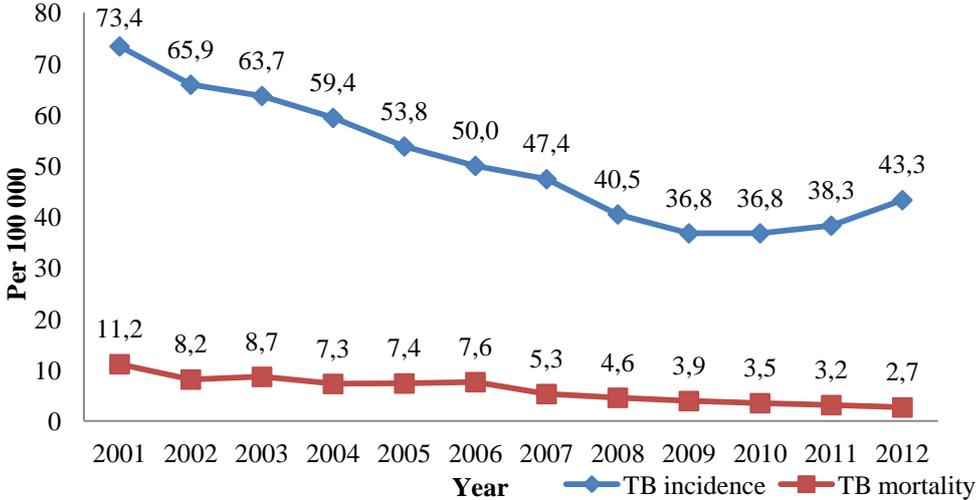
**Table e. TB indicators 2010-2012**

<b>Indicator</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
TB global notification rate (new cases and relapses) per 100 000	44.0 (934 per 2120504 population)	42.6 (884 per 2074605 population)	48.1 (979 per 2034319 population)
TB notification rate for new smear positive TB cases per 100 000	16.0 (339 per 2120504 population)	14.1 (293 per 2074605 population)	16.8 (342 per 2034319 population)
TB global notification rate (new cases and relapses) in prison per 100 000	577.9 (60 per 10383)	470.9 (48 per 10194)	549.3 (56 cases, total number of prison inmates in 2012 is NA, in calculation of rate we used number of prison inmates of previous year)

TB notification rate for new smear positive TB cases in prison per 100 000	105.9 (11 per 10383)	39.2 (4 per 10194)	107.9 (11 cases, total number of prison inmates in 2012 is NA, in calculation of rate we used number of prison inmates of previous year)
TB mortality rate per 100 000 population	3.5 (79 per 2120504 population)	3.1 (65 per 2074605 population)	2.7 (55 per 2034319 population)
Treatment success for bacteriologically confirmed cases		Cohort of 2010 (595 patients): cured and treatment completed -75 %; failed – 1%; Defaulted – 6%; Transferred out – 0%; died – 8%; MDR-TB - 10%.	Cohort of 2011 (591 patients): cured and treatment completed -73.4 %; failed – 0.3%; Defaulted – 5.3%; Transferred out – 0.5%; died – 10.2%; MDR-TB - 10.3%.
Treatment success for relapses		Cohort of 2010 (90 patients): cured and treatment completed -61 %; failed – 0%; Defaulted – 10%; Transferred out – 0%; died – 8%; MDR-TB - 21%.	Cohort of 2011 (77 patients): cured and treatment completed -45.5 %; failed – 1.3%; Defaulted – 9.1%; Transferred out – 0%; died – 13%; MDR-TB - 31.1%.
Percent of MDR TB cases among new TB cases	10.5% (87 per 825)	11.7% (92 per per bacteriologically confirmed cases)	10.5% (101 per bacteriologically confirmed cases)
Percent of MDR TB cases among relapses	-	-	32%
TB/HIV rate (among new cases)	8%	8%	10,5%

The incidence (without relapses) of TB in Latvia started to increase in the 1990s, rising rapidly from 29 per 100,000 in 1991 (768 new cases) to 75.5 per 100,000 in 1998 (1,820 new cases). Since then, TB incidence has decreased to 36.8 per 100,000 in 2009 (830 new cases) (Fig. 6). However, TB incidence rate has not decreased since 2009 and as the population of Latvia is decreasing, TB incidence increased slightly in 2011 (38.3 per 100,000, 788 new cases) and more rapidly in 2012 (43.3 per 100 000, 880 new cases). In some municipalities, the notification rate of TB has been almost twice as high as the average, but no specific region can be singled out for its higher notification rate. A steady decline in TB mortality has been observed – from 11.2 per 100,000 in 2001 to 2.7 per 100,000 in 2012.

**Figure f. TB incidence and mortality, 2001–2012\***

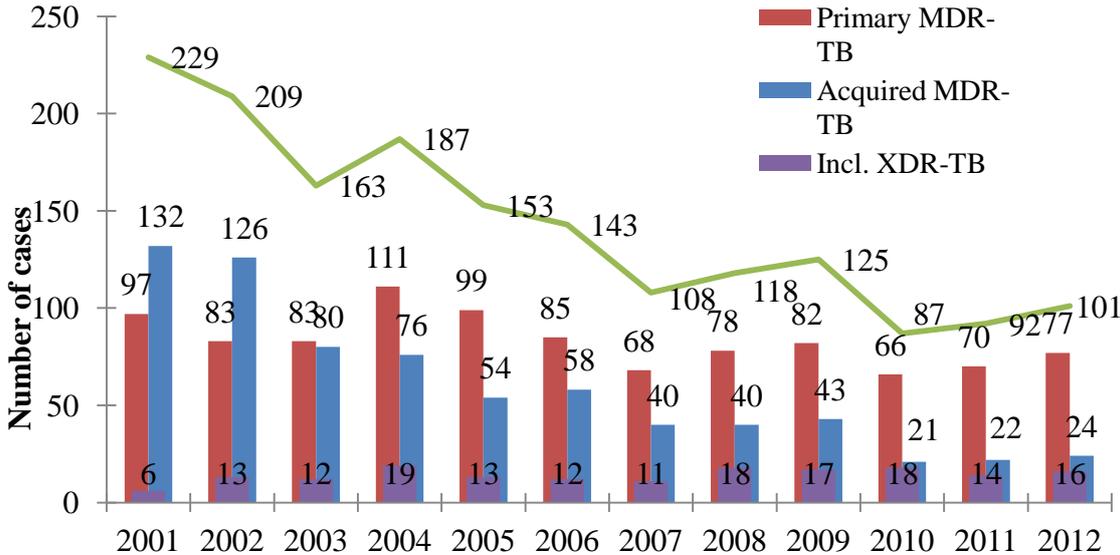


Source: National TB Registry, CDPC

\*In calculation of these measures, number of population available on April, 2012 was used. Number of population in last decade is has changed several times in the last year.

The total number of MDR-TB has rapidly decreased from 229 cases in 2001 to 101 cases in 2012. Due to the successful introduction of the DOTS strategy in Latvia in 1995 and MDR-TB management in 1997, the proportion of acquired MDR-TB has decreased significantly (Fig.7). The total number of diagnosed MDR-TB cases has been decreasing for over a decade, which is not the case with the percentage of MDR-TB among new TB infections – the latter was 12% in 2011 and 10.5% in 2012. 16% (16 cases) of all MDR-TB cases were confirmed as XDR-TB in 2012. A total of 169 (9.9%) XDR-TB cases were registered between 2001 and 2012.

**Figure g. MDR-TB and XDR-TB in Latvia, 2001–2012**



Source: National TB Registry, CDPC

In 2012, the highest incidence of TB was observed in the 35–44 age group – 66.0 per 100,000 – and in the 25–34 age group – 62.5 per 100,000. In 2012, the incidence of TB among men was higher than in women and in the age group 35–44 reached 104.0 TB cases per 100,000. There are no population-wide data on the prevalence of latent TB infection in Latvia.

TB rates have usually been higher in prisons than among the general population – the global notification rate of TB was 549.3 per 100,000 prisoners in 2012, compared to 48.1 per 100 000 general population. In Latvia, on average 5.5% new TB cases were diagnosed in prison settings during 2008-2012.

Over the last years, treatment outcomes have been quite homogeneous. In 2011, the cure rate for new TB patients was 73.4%, but only 45.5% for relapse cases. 5.3% of new TB cases and 9.1% of TB relapses defaulted from treatment in 2011. For those MDR-TB patients registered in 2010, the cure rate was 72% (data from the National TB Registry).

### **TB diagnosis and treatment services**

The implementation of the TB diagnosis and treatment services is coordinated by the **Center for TB and Lung diseases of Riga East University Clinical hospital**. TB diagnostics for those with TB symptoms and TB treatment for TB patients, including first- and second-line TB medication, is free of charge. However, in order to monitor the treatment as well as the potential side effects and to perform blood tests for the patients receiving ambulatory care, patients must pay for the blood collection tubes themselves.

Finding TB cases is the responsibility of the primary health care sector. TB patients can visit a TB specialist free of charge without a referral from a general practitioner [3]. In prisons, TB is mainly diagnosed with the use of active screening, while diagnosis confirmation and treatment are similar to the public sector. Due to the financial crisis, TB screening services in prisons are limited. TB tests are not performed at least once a year, as required, but are only done in the case of serious symptoms. X-ray equipment is only available in 50% of Latvian prisons [5].

Contact tracing and contact investigation is primarily provided by tuberculosis specialists in collaboration with general practitioners [6].

Inpatient TB treatment is provided in six hospitals, including prison hospitals; there were 595 TB-profile beds (3.0 per 10,000) in 2012 [7]. Outpatient treatment is provided in regional outpatient TB departments (TB cabinets) in 23 cities in Latvia. However, in some of these TB cabinets, a specialist only works part-time. DOTS coverage in the country is 100%, including the prison system. DOTS are mostly provided by pneumonologists or in collaboration between specialists and general practitioners. In order to promote adherence to TB treatment, the patients of some municipalities receive incentives such as food coupons and transportation compensation such is Municipality of Riga.

The TB patients, who live in Riga, have concomitant diseases and are in poor health, can take advantage of the possibility to receive TB medication at home (home care). Pursuant to the Epidemiological Safety Act, mandatory isolation is imposed on infectious TB cases if they refuse treatment [8].

Voluntary and free of charge BCG vaccination of TB is recommended for all newborns [9]. Before 2010, more than 95% of all newborns were vaccinated, but in 2010 and 2011 the immunisation dropped to 94.4% 94.7% accordingly. However, immunisation rate reached 96.6% in 2012 [10, 11]. Isoniazid prophylaxis is only provided to infected children. TB screening using the tuberculin skin test is recommended to risk group children (i.e. children who are often ill, live in socially unacceptable conditions, suffer from immunosuppression, are HIV-positive).

The adult risk groups recommended for active screening using an X-ray scan and/or a sputum test are social risk groups (shelter attendants, soup kitchen visitors, people in nursing homes, etc.) and people who suffer from health conditions that make them predisposed to TB (HIV, diabetes, immunosuppression, chronic renal diseases etc.). According to regulations, a routine TB screening (once a year) is mandatory for those whose work (traineeship) is closely associated with the potential risk to the health of other people [12].

### **Tuberculosis among people with HIV and injecting drug users**

Since 1998, a total of 711 HIV/TB cases have been diagnosed. The number of HIV/TB cases was increasing until 2008, reaching 72 HIV/TB cases. However the number of these cases has been relatively stable during 2008 - 2011. The number of HIV/TB cases was 71 in 2010, and 74 in 2011. However there was increase in the number of HIV/TB cases in 2012 (110 cases). Among new TB cases registered in 2012 10.5% was HIV-positive patients. MDR-TB among HIV/TB cases was 23% in 2011 and 26% in 2012, making up 29% of all MDR-TB cases in 2012. About 11% of all new HIV/TB patients had defaulted from TB treatment between 2000 and 2010, and more than 45 TB patients with HIV had died since 2000.

The percentage of drug users among new TB cases has increased from 1% in 2001 to 7% in 2012. Over the last years, more than 40 drug users with TB have been registered each year (National TB Registry, CDPC).

Data from an injecting drug user (PWID) study in Riga showed that the prevalence of latent TB (based on interferon-gamma test results) was 17% among HIV-positive respondents and 23% among HIV-negative respondents in 2007. In the same study, 33 (8%) PWID in Riga reported that they had had TB at some point in their lives [13]. Latent TB among PWID in Latvia is associated with imprisonment (OR=2.1) [14].

PLHIV are certainly one of the risk groups recommended for active screening using an X-ray scan and/or a sputum test. Preventive isoniazid treatment is not provided to PLHIV. TB diagnostics and treatment for HIV-infected people are provided in the same TB departments (hospitals and ambulatory TB cabinets). According to regulations, all HIV patients have been tested for TB and all TB patients have been tested for HIV since September 2009 [8]. However, one major issue is that PLHIV are not screened for TB periodically.

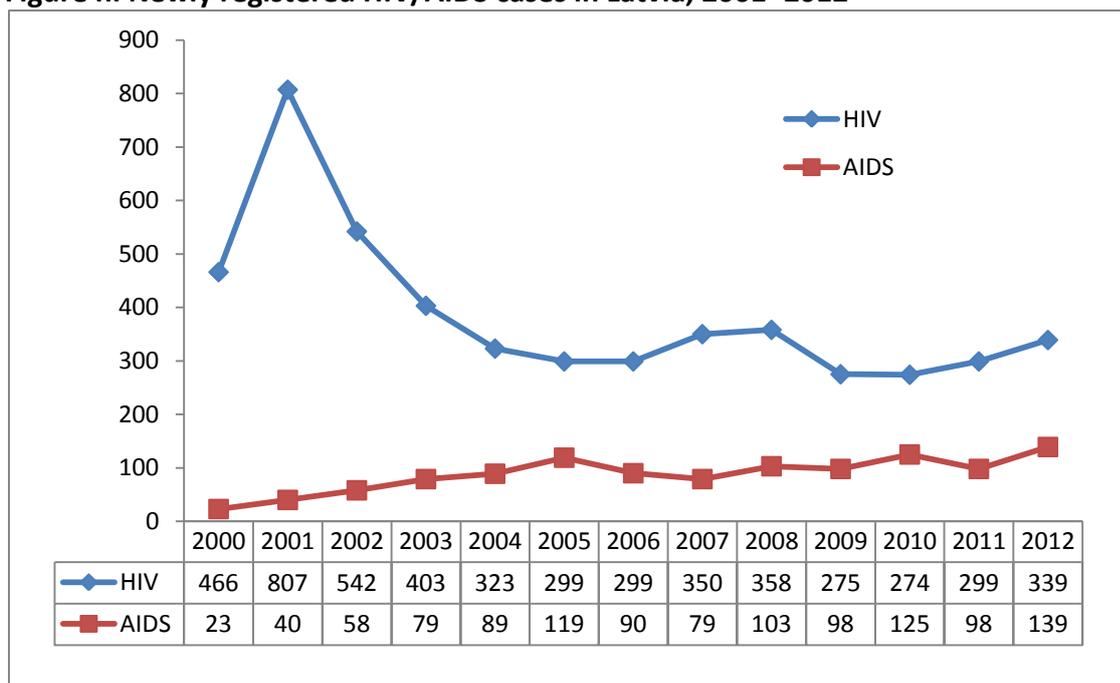
## HIV situation

### HIV epidemiology

Between 1987, when the first HIV case was reported in Latvia, and the end of 2012, 5527 HIV and 1216 AIDS cases were registered. Until 1997, new HIV cases were registered rarely, but the registered number of HIV cases began to increase gradually in 1998, reaching 807 newly registered cases (34.3 per 100,000) in 2001. Since 2001, HIV incidence has been decreasing, dropping to 299 newly registered cases (14.5 per 100,000) in 2011 (Fig. 8). However, increase of HIV cases was observed in 2012 again reaching 339 new cases (16.0 per 100 000).

In 2012, 139 individuals were diagnosed with AIDS in Latvia, which indicates an increase compared to 2000 (23 AIDS cases reported). Nevertheless, the number has been relatively stable since 2005. The total number of HIV-positive people who died before AIDS diagnosis in the period 1987–2012 was 442 (34 deaths in 2012), while the number of deaths among people with an AIDS diagnosis was 526 (80 deaths in 2012). Over the recent years, the notification rate has been the lowest in Eastern and Central Latvia with the exception of Riga and its surrounding areas, where the notification rate was twice as high as the average in Latvia.

**Figure h. Newly registered HIV/AIDS cases in Latvia, 2001–2012**



Source: National TB Registry, CDPC

From 1987 to 1993, HIV cases were only registered among men. Since 1994, a gradual increase has been observed in the proportion of women among newly registered HIV cases. Thus, by the end of 2012, one third of all HIV cases had occurred among women. In 2001, most HIV cases were registered in the age group 20–24 (33% of all 807 cases). However, in 2006–2010, more HIV cases were registered among 25–29-year-old HIV patients (22% in 2006). Since 2010, however, the majority of the cases have been found among 30–34-year-old HIV patients.

The main risk groups in Latvia are PWID, prison inmates, sex workers and men who have sex with men (MSM). By the end of 2012, more than half of all HIV cases had occurred among PWID, 25% were associated with the heterosexual transmission route, and 5% of HIV cases occurred among MSM. However, since 2008, the most common transmission route has been heterosexual, making up 48% of all 299 newly registered HIV cases in 2011 and 33% of all 339 newly registered HIV cases in 2012. Decrease in proportion of the heterosexual transmission route is associated with increase of proportion of cases where transmission route is unknown (14% in 2011 and 32% in 2012) (HIV Case Register, CDPC).

The number of inmates with an HIV diagnosis in Latvian prisons was 652, while 47 of them had been newly diagnosed in 2010. Therefore, the prevalence of HIV among inmates was around 9% in 2010 [15].

### HIV treatment, care and support services

Currently, the HIV/AIDS prevention and control actions in Latvia are provided according to the national public health strategy and the “Programme for Limiting the Spread of HIV for 2009–2013”.

Any medical institution in Latvia can provide HIV testing. The services financed and sustained by the state’s health budget include HIV tests for the laboratories in the surveillance network (free of charge for patients); however, the patients must make a contribution payment when it comes to pre- and post-test counselling. Diagnostics and treatment for HIV/AIDS patients is free of charge. HIV testing services are included at the national level in the antenatal health service package (free of charge, recommended by gynaecologists) [3].

The guidelines established in Latvia allow for antiretroviral treatment (ART) for asymptomatic patients with a CD4 count of  $< 200/\text{mm}^3$ . All antiretroviral medication qualifies for 100% reimbursement; patients on ART can seek treatment from local infectious disease specialists in seven Latvian cities and the Infectology Centre of the **Riga Eastern University Hospital**. It is possible to get ART from any pharmacy that has a valid contract with the National Health Service [16]. The coverage of ART is unknown, since the Infectology Centre of Latvia does not collect information on the total number of people who are eligible for the treatment. Among all 560 PLHIV who were receiving ART in 2011, 248 were PWID and 59 were MSM [16].

In 2007, 3,562 prison inmates were tested for HIV; 70 (2.1%) of them were newly diagnosed with HIV. Since then, the number of prisoners tested for HIV has declined, so that only 2,506 prison inmates were tested in 2010, although the results remained constant – 1.9% (47 newly infected people, 40 men and 7 women) [17].

Since April 2012, epidemiological surveillance and monitoring, data collection, prevention and limiting the spread of infectious diseases (including TB and HIV/AIDS) have been the responsibility of the CDPC. All health care providers are obliged to report HIV/AIDS cases to the CDPC within 72 hours at the latest [4].

In 2010, in a report by the International Treatment Preparedness Coalition (ITPC) concern was expressed towards the country's risk of 'backtracking' on HIV treatment, because the drastic decrease in the public expenditure allocated to the ARV treatment [18]. Some improvements were made already in 2011, when states expenditures for ART reached 3.5 million Euros, which was 2 times more than initial funding for ART for 2010. Overall, compared to expenditures for ART in 2010, there was 21% big increase of funding for ART in 2011 and it allowed to expand availability to ART – the number of patients receiving ART increased by 10% of 52 patients in 2011 [21.].

### *Injecting drug use and harm reduction services*

#### **Overview of the PWID situation**

The estimates show that in 2010, there were about 18,888 problem drug users (PDUs) in Latvia, 10,169 of them users of heroin or other opioids and 6,540 problem users of amphetamine. The majority (41%) of PDUs are aged between 15–24, slightly fewer (37%) are aged 25–34, and even fewer (22%) are 35 years or older; most PDUs are men. The main drugs preferred by problematic drug users in 2010 were amphetamines and heroin [5].

According to official data [19], about 14% of the about 6,500 people imprisoned in 2011 have been also reported as problem drug users.

In 2012, 28% of the newly diagnosed HIV cases occurred among PWID, as did 26% of all acute hepatitis B and 15% of all acute hepatitis C cases in 2011. 7% of first-time TB patients in 2012 were drug users (HIV Case Register, National TB registry, CDPC).

A study among PWID in Riga showed that in 2007, the seroprevalence of HIV was 22.6%, while the seroprevalence of hepatitis B and hepatitis C was 55.7% and 74.2%, respectively [13].

#### **Harm reduction and drug dependence treatment programmes for PWID**

By the end of 2012, 18 LTCs for PWID had been providing services in the 15 municipalities more affected by drug use and HIV prevalence. A network of LTCs provide free and confidential rapid testing and counselling for HIV, hepatitis B, hepatitis C and syphilis, distribute syringes, needles and condoms, offer outreach, social and psychological support and other services [16]. The personnel of LTCs include social workers, psychologists, doctors and former drug users – outreach workers who provide syringe exchange services and give information to clients outside the LTCs.

In 2011, the LTCs performed 1,261 HIV rapid tests (reactivity – 6.7%) and distributed around 87,000 condoms and 340,000 syringes, which is no more than 19 syringes per PWID per year. The network of LTCs is coordinated by the Centre for Disease Prevention and Control, with its activities financed and organised by local municipalities or NGOs [16].

PWID receive a range of HIV services in LTCs, HIV/AIDS treatment in the Eastern Clinical University Hospital Infectology Centre (ART can be provided by local infectious disease specialists), TB services in the Tuberculosis and Lung Clinic, the TB departments of other

hospitals or regional outpatient TB departments. All services are free of charge (except HIV pre- and post-test counselling outside LTCs and prophylactic TB testing without a referral or without TB symptoms) [3]. However, no integrated TB, HIV and drug treatment services are available for PWID in Latvia.

At the moment, two opioid substitution therapy (OST) programmes are operating in Latvia: a methadone programme (since 1996) and a buprenorphine programme (since 2005), which are now available in nine cities. Unlike the buprenorphine programme, the methadone programme is free of charge (supported by the government). A fee of 3 Lati (4.3 Euros) is required only for a first consultation with a doctor-narcologist (substance abuse professional), who is a directly accessible specialist. At the end of 2010, 44 clients were receiving buprenorphine treatment and 193 were receiving methadone treatment [17]. Despite the increase in the number of clients in the methadone programme over the last years, and the expansion of the geographical coverage of new programmes, the number of patients being treated with OST in Latvia is still the lowest among EU Member States. Since 2011, favourable legislative changes made methadone treatment available, free of charge, also to prisoners. For those who have been treated with buprenorphine, the prison is bound to facilitate continuation of treatment, by providing the health workforce needed to administer the treatment (the substitution drug should be paid out-of-the-pocket by the drug user).

According to data from the Latvian Prison Administration, 14 prison inmates received methadone treatment in 2012 [22].

In 2010, the average number of drug profile beds in the country was 277 (including detoxification, Minnesota, motivation, medical rehabilitation beds); a decrease of 73 beds can be observed compared to 2009, when the average number of beds was 350. Ten treatment institutions provided the drug profile bed service. There were 245 state-funded beds, while the remaining 32 were in private treatment institutions.

Medical rehabilitation for drug addicts is provided in two specialised psychiatric centres. The number of places in these programmes is limited – a total of eight beds. The medical rehabilitation process is provided in accordance with the therapeutic community principle [17].

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## Annex 4. Country profile, Lithuania

### *General background*

The Republic of Lithuania is one of the three Baltic States. Situated along the southeast shore of the Baltic Sea, it shares borders with Latvia in the north, Belarus in the southeast, Poland and the Russian exclave of the Kaliningrad Oblast in the southwest. As of January 1<sup>st</sup> 2013, the estimated population of Lithuania was of 2 971 905 inhabitants. Its capital and largest city is Vilnius. The ethnic composition of Lithuania in 2011 was: 83.9 % Lithuanians, 6.6% Poles, 5.4 % Russians and 4.1 % others [1, 2].

### *Financing and organisation of health care*

The Ministry of Health in Lithuania is responsible for creating, implementing and regulating health care policies. It also oversees the licensing of medical and pharmaceutical institutions.

Universal access to basic medical services is granted to the whole population. Basic medical services are mainly free of charge for the consumer and mostly financed according to a solidarity-based scheme of statutory health insurance operational since 1997. Ever since the introduction of the health care system, funding had been raised according to a mixed model: about 50% of health insurance funds came from the general income tax (30% of the tax was allocated to health insurance), 3% was obtained from the payroll tax, and contributions from the state budget for pensioners, the unemployed and children contributed for the rest [3].

As of 1 January 2009, a modified model has been used: special health insurance contributions in the amount of 6% of the payroll replaced allocations from the general income tax. The change meant that about 75% of statutory health insurance revenues would be generated by health insurance contributions (HIC) and 25% by contributions from the state budget and other sources of marginal importance [3].

According to HIV/AIDS and TB care, the Law on Health system [4] among other groups of patients that are entitled for the state guaranteed free health care services indicates: persons with TB, sexually transmittable diseases, HIV/AIDS, communicable diseases, alcohol and drug addiction and other diseases from the list determined by the Ministry of Health care; and persons suspended by the court or juridical institutions, persons being in the places of custody, sentenced persons.

The Law on Health insurance [5] lists groups of persons who are insured with the state finances. Among those are: persons having dangerous for society communicable illnesses, being included into the list [6] determined by the Ministry of Health care; and persons suspended by the court or juridical institutions, persons being in the places of custody, sentenced with an imprisonment persons.

The medicaments for post-exposure HIV prophylactics are compensated from the Compulsory Health Insurance Fund budget, if the exposure occurred during working, performing professional duties and/or for persons having suffered at the hands of violence or being assaulted, when in such cases those are registered there is a procedure established by law. In other cases persons have to pay for the medication themselves [4].

Compulsory Health Insurance Fund is administrated by National Health Insurance Fund (NHIF) under the Ministry of Health care and Territorial Health Insurance Funds. NHIF is a management institution of the Republic of Lithuania. The essential purpose of the NHIF is to ensure warranty. The NHIF do not provide health care services, but ensure reimbursement of provided health services [7]. According to this, NHIF reimburses diagnosis and treatment of HIV by the order of the Minister of Health [8].

According to the requirements specified in the Order of the Minister of Health Care On approval of the standards for the treatment and rehabilitation of the addiction diseases [9] all the establishments must be provided with the technical equipments to test for the substances having affect on the persons mind in the ones organism (Alco tester, prompt testing for the narcotic substances and other).

Furthermore, harm reduction and drug treatment intervention in Lithuania have been covered from the national budget, the national health insurance fund, the municipality budgets and contributions from international donors (UNODC, European Social Fund Agency). The access to these services is free to all clients who need them; however, capacity of these services is still insufficient compared to the demand. Otherwise drug treatment is available in private settings, with patients paying out-of-the pocket.

The contribution of the UNODC programme "HIV/AIDS prevention and care among injecting drug users and in prison settings in Lithuania, Latvia and Estonia (2007-2011)" was of EUR 51,119.38 in 2010 and EUR 81,113.3 in 2011 (with an overall contribution of 537,601.9 EUR since 2007).

According to Program of Human immunodeficiency virus disease monitoring laboratory funding for 2011-2013, there were 370 919 EUR preliminary need for funds in 2013, 309 099.3 EUR in 2012 and 268 781.9 EUR in 2011 [10]. In 2010, TB treatment was financed from Mandatory Health Insurance Fund by 8 737 836 EUR [11].

As for the Order of the Minister of Health On the Approval For tuberculosis prevention and control Programme 2011–2014, there were preliminary need for funds 1 527 746 EUR in 2011, 1 962 755 EUR in 2012, 1 676 031 EUR in 2013 and 1 730 769 EUR in 2014. All 6 891 301 EUR is necessary to control TB in Lithuania in 2011-2014 [12].

Another plans on HIV/AIDS and sexually transmitted infections prevention and Control implementation, in 2011-2012 to finance from State budget (1 888 323 EUR) and from Mandatory Health Insurance Fund (868 860.1 EUR) [13, 14].

Moreover, Lithuania got 486 405.07 EUR funding from United Nations Office on Drugs and Crime (UNODC) for project "HIV/AIDS prevention and care among injecting drug users and in prison settings" implementation in 2007-2010 [15].

## Policy

In Lithuania, HIV/AIDS, TB and PWID related interventions are coordinated through:

### 1) National HIV/AIDS and STI Prevention and Control Programme (2010-2012).

This program is a key strategic document of the Health Policy enlisting the aims of national HIV response. The implementation of program was coordinated by the Ministry of Health and the duration was three years.

Programme priority is to reduce the spread of HIV and STIs in Lithuania. Program goals are better inform the public, especially young people, and a high risk of HIV infection and STI groups about HIV/AIDS and STI prevention, foster social tolerance for people living with HIV; to strengthen HIV and STI prevention among risk groups, to strengthen the prevention of prenatal transmission; to improve the health and other sectors of specialist knowledge and expertise in HIV/AIDS and STD prevention; to enhance affordable and acceptable to HIV and other sexually transmitted infections, early detection; to improve HIV/AIDS and STI epidemiological surveillance and control of a laboratory which tested for HIV and other STI testing, quality control system; to ensure blood and blood products, transplanted organs and tissue safety - to strengthen the blood, organ and tissue donation for research on HIV, syphilis, viral hepatitis quality control [14].

### 2) National Programme on Drug Control and Prevention of Drug Addiction (2010–2016).

Aim of the program - to stop and reduce the supply and demand of illegal drugs, psychotropic substances and their precursors, the spread of drugs, by strengthening of personal and public education, health and security.

Priorities of this program are:

- Reduction of supply;
- Reduction of demand, especially among children and young people;
- strengthening of international and national, state and municipal institutions, associations, businesses, civil society cooperation and coordination of drug control and prevention;
- Development of scientific research and information systems.

The duration of this program is seven years. Seimas of the Republic of Lithuania perform parliamentary control of this program implementation. The implementation of program is organized and coordinated by the Government of the Republic of Lithuania [16].

Prior to April 1, 2011, the Drug Control Department under the Government of the Republic of Lithuania was delegated the responsibility to effect the drug prevention and drug control policy, to organize the implementation of drug prevention and control measures, to set the scope of the drug prevention and control policy, and to coordinate the drug prevention and drug control activities on the national and local levels. Since April 1, 2011, the responsibilities and functions related with the implementation and coordination of the drug control and prevention policy was moved to the newly established government agency – The Drug, Tobacco and Alcohol Control Department. The Lithuanian strategy priorities are prevention of drug use in the family, among children and youths. Drug prevention projects executed in

Lithuania are focused mainly on universal prevention in local communities and schools, aiming at protecting young people against drug use. Selective and indicated prevention projects in Lithuania were targeted mainly at recreational settings, such as nightclubs, at-risk groups and families [17].

### **3) National Tuberculosis prophylaxes and control programme (2011-2014).**

National tuberculosis programme for prevention and control was approved 1998. DOTS strategy is implemented from 1998 years, 2005 year DOTS had been expanded to cover whole country. And now this strategy covered over 95 percentage all population of Lithuania. The ministry of Health has the overall responsibility for TB control, for the organization and management of TB services throughout the country and is in charge of policy decisions concerning the health and medical care in overall and TB in particular. The National Tuberculosis prophylaxes and control programme was approved for the years 2007-2010, 2011-2014 [12, 18, 19].

Aim of the last version of program – Till 2014, to reduce morbidity and mortality from TB, to stop prevalence of drug-resistant TB, including multidrug-resistant tuberculosis, to reduce TB consequences for individual and society, in order to TB epidemic indicators of Lithuania aligned with the European Union countries by appropriate indicators in 2020.

The duration of program is five years. The program is coordinated by the Ministry of Health care and executed by The Communicable Diseases and CCD AIDS (hereinafter - ULAC). There are some institutions, which participate in this program implementation:

- Ministry of Health care;
- Prison Department under the Ministry of Justice of the Republic of Lithuania;
- Lithuanian University of Health Sciences;
- Vilnius University;
- Public Institution of Tuberculosis and Infectious Diseases University Hospital;
- ULAC;
- National Health Insurance Fund under the Ministry of Health care and Territorial Health Insurance Funds [12].

### **4) Resistant tuberculosis control strategy (from 2004 till now).**

The aim of this strategy is to reduce the prevalence of resistant tuberculosis, to improve TB epidemiological indicators and to protect the public from the spread of infection-resistant tuberculosis, to use tuberculosis control measures. This strategy is implemented almost 10 years, from 2004 till today. This strategy is always added in order to achieve the best result on resistant TB control [20].

This strategy is in successful implementation process. Rapid and effective tests are applied (Mycobacterium Tuberculosis (MT) for sensitivity to first-and second-line drugs. Individual treatment regimens are implemented, according to the results of sensitivity tests. Patients with multidrug-resistant tuberculosis and resistance tuberculosis are treated in specialized departments [21].

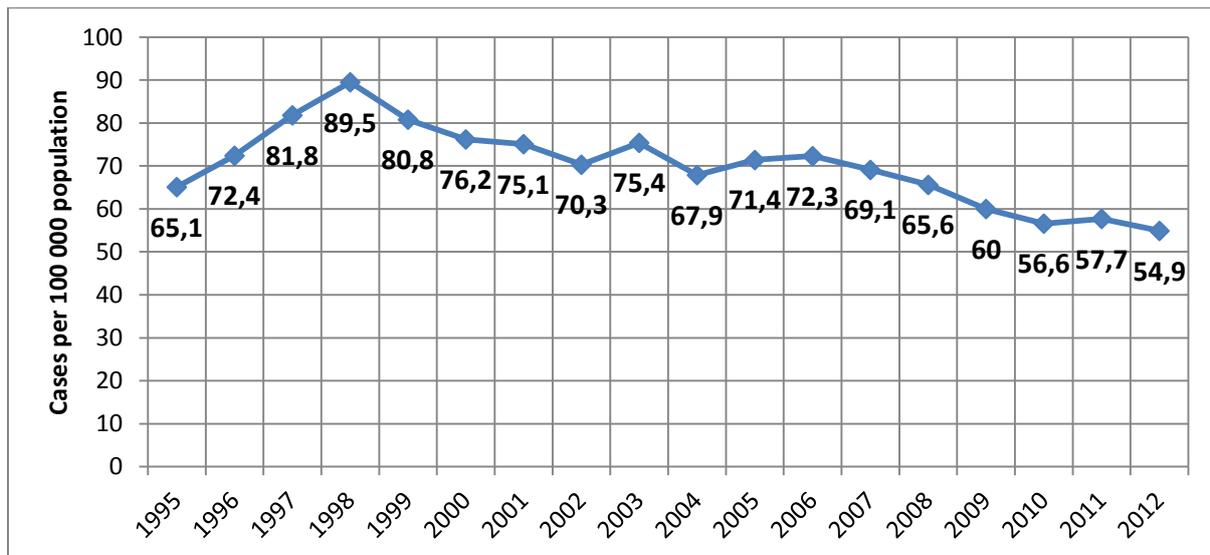
## Tuberculosis situation

### TB epidemiology

The current epidemiological situation of TB in Lithuania remains complicated and dangerous for the society of Lithuania.

According to Health Information Centre of Institute of Hygiene, there were 54.9 patients with active TB and cases with relapses per 100 000 population in 2012. Although, mentioned indicator is the smallest in 1995-2012 period, but TB is still a problem in Lithuania because of its infectiveness and relapses (Fig. 9).

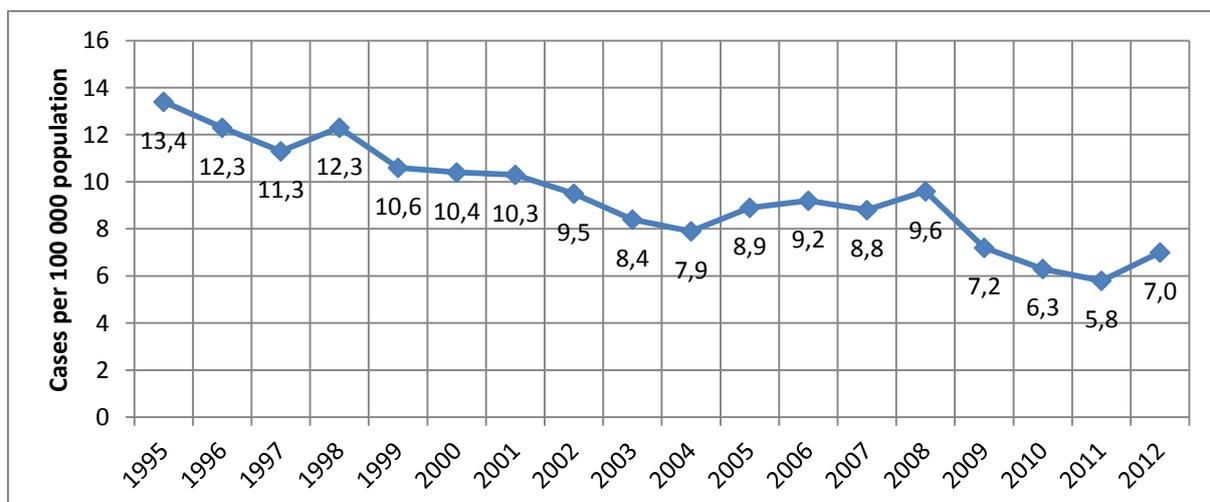
**Figure i. Active TB with relapses cases in Lithuania 1995 – 2012**



Source: Institute of Hygiene, Lithuania, 2012.

TB mortality rate were decreasing all over the time from 1995 till 2004 and from 2008 till 2011 in Lithuania. In the last year, TB mortality rate (7 cases per 100 000 population) was 1.2 case per 100 000 population more than in 2011 (5.8 cases per 100 000 population) (Fig. 10).

**Figure j. TB mortality rate in Lithuania 1995-2012**



Source: Institute of Hygiene, Lithuania, 2012.

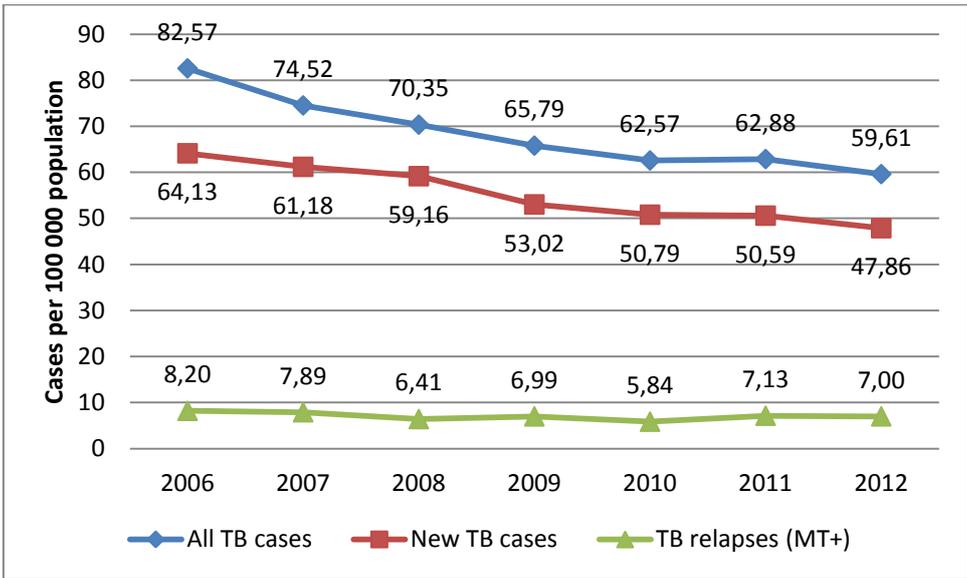
According to National University Hospital of Infectious Diseases and Tuberculosis data, there were 1,781 TB cases at all (1,269 male and 512 female), 1,430 new cases of TB and 209 TB relapses with positive tuberculin sample (TS+) in 2012 (Table 6.). Fortunately, there were less TB cases than in the earlier years. The number of children (0–17-year-old) infected with TB decreased from 212 (1998) to 120 (2010), 110 (2011) and 78 (2012).

**Table f. TB situation in Lithuania 2010-2012**

	2010		2011		2012	
	Cases	Cases/100 000 population	Cases	Cases/100 000 population	Cases	Cases/100 000 population
<b>All TB cases</b>	1938	62.57	1904	62.88	1781	59.61
<b>New TB cases</b>	1573	50.79	1532	50.59	1430	47.86
<b>TB relapses (TS+)</b>	181	5.84	216	7.13	209	7.00

In Lithuania, new smear positive TB cases were 855 in 2010, 862 in 2011 and 910 in 2012. Generally, TB rates slowly decreasing from 2006. Only TB relapses with TS+ is stable rate in 8 year period (Fig. 11).

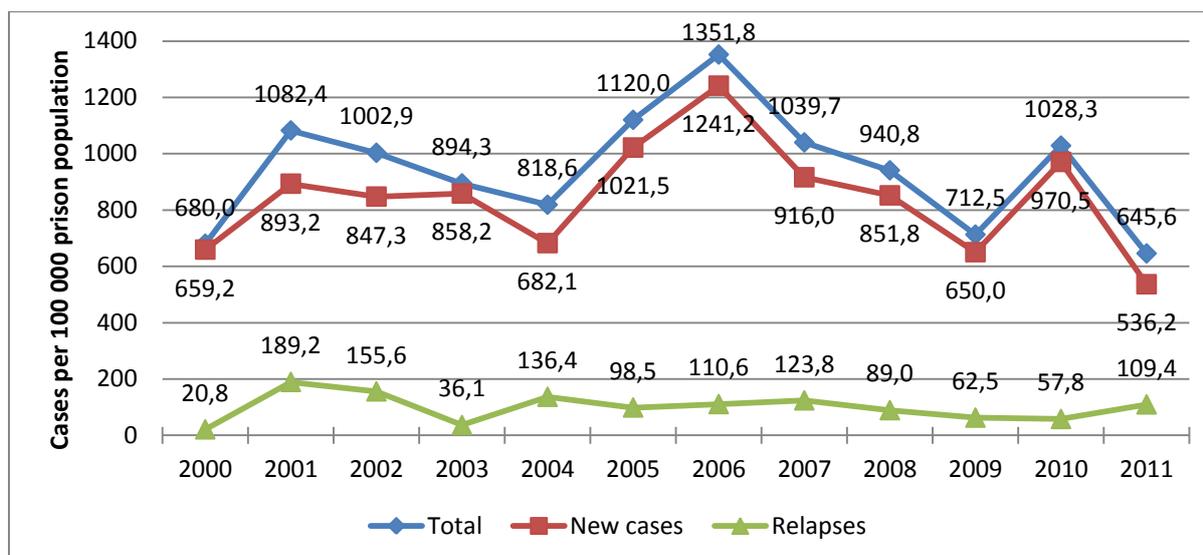
**Figure k. TB situation in Lithuania 2006-2012**



Source: Institute of Hygiene, Lithuania, 2012.

Unfortunately, TB situation is very complicated in prisons of Lithuania. In comparison with situation of all Lithuania in 2011, there were about 16 times more TB cases in prison sector than in all Lithuanian population (Fig. 12). In fact, the situation didn't change extremely in 2000-2011 period.

**Figure I. TB in the Lithuanian prison sector (new cases and relapses, total number) 2000-2011**



Source: Institute of Hygiene, Lithuania, 2012.

Furthermore, treatment success for TB cases was quite good in 1998-2012. In 1998, 77.1% of new cases were successfully treated, in 2012 – 79.9%. The suspended treatment percentage decreased from 13.4% in 1998 to 7.4% in 2012. According to TB relapses, treatment success differs from new cases treatment. The percent of relapses successful treatment (34.4%) was two times smaller than percent of new cases successful treatment (79.9%) in 2012, but suspended treatment was a little bit bigger: percent of relapses suspended treatment was 10.5% and new cases – 7.4% (Table 7). The similar proportions of treatment were in 2010 and 2011.

**Table g. Treatment success for new smear positive TB cases and relapses in Lithuania 2010-2012**

	2010		2011		2012	
	New cases	Relapses	New cases	Relapses	New cases	Relapses
Successful treatment	82.0%	44.8%	68.6%	37.0%	79.9%	34.4%
Completed treatment	3.2%	3.3%	11.3%	2.3%	2.1%	10.0%
Suspended treatment	6.6%	11.6%	8.8%	7.9%	7.4%	10.5%
Unsuccessful treatment	1.4%	2.2%	1.3%	0.5%	0.7%	1.0%

The number of HIV-infected TB patients increased from two cases in 1998 to 20 cases in 2010. In 2011, 19 HIV-positive people were diagnosed as having TB. In Lithuania the prevalence of MDR-TB among new cases were 114 (13.3%) in 2010, 128 (14.8%) in 2011 and 114 (12.5%) 2012. According to MDR-TB among relapses, there were 85 (47.0%) in 2010, 57 (26.4%) in 2011 and 80 (38.3 %) in 2012 [22, 23].

### TB diagnosis and treatment services

The National Reference Laboratory (NRL) is situated in Vilnius. The laboratory network of the country consists of:

- 12 laboratories that perform smear microscopy examinations.
- Six culture and five drug sensitivity testing (DST) centres, which only perform DST for first-line TB medication.
- DST (drug sensitivity testing) for SLD (second-line drugs) is performed in two university laboratories. Drug resistance is tested in relation to the following SLD: capreomycin, amikacin, kanamycin, ethionamide, ofloxacin, moxifloxacin, cycloserine. The rapid test for MDR (multidrugresistance) is performed using molecular testing and the MGIT960 system [24, 25].

According to Miskinis K., there is a necessity to legitimize the National TB Reference Laboratory (NTBRL), which would enhance the quality of bacteriological tests and reliability, would coordinate and manage laboratory services across Lithuania. The NTBRL first of all should instal modern light-emitting diode (LED) microscopy for diagnosis of MT detection and secondly should implement the Xpert MTB/RIF diagnostic tests for early detection of TB sensitivity to key anti-tuberculosis drugs. These measures will enable to diagnose faster and to treat earlier all TB patients. It follows, that NTBRL will increase the opportunity for patients to recover [11].

The current tendencies suggest that the main problem related to TB in Lithuania is the patients' resistance to the medication used to treat the specific form of TB. A survey on TB drug resistance has been carried out to estimate the burden of drug resistance and MDR-TB (multidrug-resistant TB) in Lithuania. Following collaboration with the Centres for Disease Control and Prevention or CDC (USA, Atlanta) in 2002 was evaluated the TB drug resistance and MDR-TB in the previously untreated cases of pulmonary TB. The 2002 drug resistance survey showed a high prevalence of resistance to second-line TB medication.

The current model of care for MDR-TB is based on inpatient treatment during the intensive phase, followed by outpatient care during the continuation phase of treatment. The patients treated are hospitalised for six months or longer. Patients are discharged from hospital after the intensive phase of treatment or after bacteriological conversion. The National Patient Fund and the National Health Insurance Fund are the main sources of funding for TB services. TB care is generally free of charge for patients. At times, patients need to cover part of the cost of their TB medication. Funding for the provision of social support to the patients is very limited [26].

Since 1998, Lithuania implemented the DOTS strategy (directly observed treatment, short-course). By 2005, DOTS had come to cover the whole country and after the revision (including attention to bacteriological diagnosis), the strategy covered more than 95% of the entire population of Lithuania. Currently the national program is pursuing the DOTS Plus project. The priorities of the TB program in the countries are: prompt diagnosis, effective treatment, registration of all cases of TB in the TB Register and contract tracing (including in the prison sector) [26, 27].

DOT is implemented in case of all doses are provided during a patient's hospital stay. However, DOT is not implemented in all cases of outpatient treatment. At the time of launching the DOTS strategy, all efforts were made to establish close cooperation between the providers of TB and primary health care services in order to improve case finding and follow-up care for TB patients. Unfortunately, due to limited funding for training, supervision and monitoring, as well as social support for the patients, the system is not functioning very well. As a result, the National Tuberculosis Programme is facing high default rates, particularly among MDR-TB patients. This means that in order to control TB infection, the medical personnel needs equipment (respirators with HEPA filters, ultraviolet lamps) to prevent them from contracting the disease. The goal is to control the epidemic of MDR-TB by scaling up diagnosis and treatment so that 80% of the estimated cases would be diagnosed and treated by 2015 [26, 28].

TB diagnosis and treatment in the prison sector is similar to the procedures put into practice among the general public (according to the Health System Act and the principles of TB control). Thus, TB recording and registration in prisons does not differ from the recording and registration done all over the country, as approved by the relevant authorities (Ministry of Health). The diagnosis and treatment in the prison setting is covered from the budget of the Ministry of Justice [12].

### *HIV situation*

#### **HIV surveillance**

The objectives of the National HIV/AIDS Prevention and Control Programme 2003–2008 foresee ensuring that the responsible institutions collect, accumulate, analyse, and supply statistical data about sexually transmitted infections, HIV/AIDS, and tuberculosis and, on the basis of WHO recommendations, use a second-generation HIV monitoring system [29]. Narcological patients were registered and data about the prevalence of mental disorders among inhabitants were collected and analysed by the State Mental Health Centre. The State Mental Health Centre is the institution responsible for implementing the description of the procedure (approved in 2007) for monitoring individuals who have contacted a personal health care establishment due to mental and behavioural disorders while using narcotic or psychotropic substances. The dynamics of the incidence, second contact, and prevalence indicators are analysed by implementing this procedure, as are the infectious disease and mental health services provided [30].

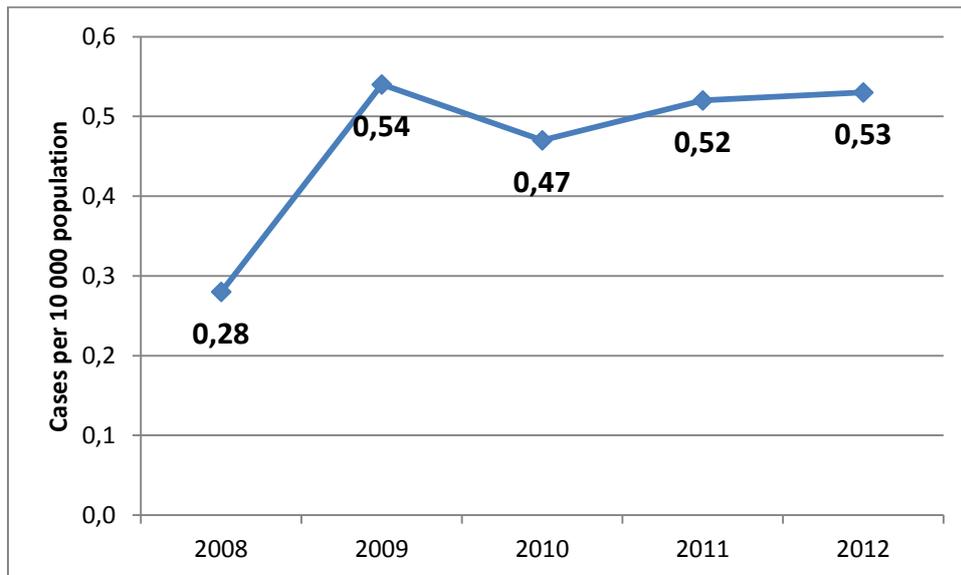
Lithuanian health specialists collect data on HIV incidence and prevalence in Lithuania, and compile the biological markers of HIV, hepatitis B, and hepatitis C obtained from drug users, patients with sexually transmitted infections, partners of PLHIV, blood and organ donors, all pregnant women, people in military training, anonymously tested people, prisoners, health care personnel and people tested for prophylactic purposes. The Lithuanian Centre for Communicable Diseases and AIDS (CCD AIDS) is the main prevention and clinical diagnostic centre for HIV to which people with a suspected infection are referred. HIV testing is voluntary, except in case of the mandatory tests performed on donor blood, organs and tissue. Epidemiological data were obtained from the Lithuanian CCD AIDS database, which contains coded and protected epidemiological, diagnostic, and clinical information on all identified HIV cases in Lithuania [31]. Behavioral surveillance survey systems aren't available in Lithuania .

### HIV epidemiology

In Lithuania in 2012, there were 160 new HIV cases registered (114 male and 46 female). 62 out of them infected through injection drug use (38.7%), 46 through heterosexual intercourse (28.8%) and 11 through homosexual intercourse (6.9%). For 25.6%, the transmission route is unknown [32].

In 2011, 166 new HIV cases were diagnosed (153 in 2010, 180 in 2009, 95 in 2008, 106 in 2007, 100 in 2006, 120 in 2005) (Fig. 13).

**Figure m. HIV situation in Lithuania 2008-2012**



Source: Institute of Hygiene, Lithuania, 2012.

The total HIV infection prevalence indicator in 2010 was 0.36 cases per 10,000 population, excluding the members of the Ministry of Justice and foreigners (0.49 cases in 2009, 0.27 cases in 2008). According to Health Information Centre of Institute of Hygiene, HIV prevalence were 5.9 cases per 10 000 population in 2011, 4.7 in 2010, 4.2 in 2009 and 3.7 in 2008 [33].

The calculated HIV morbidity rate in 2010, including 61 members of the Ministry of Justice and foreigners, was 0.45 cases per 10 000 population (0.54 in 2009). In 2011, 166 new HIV cases were registered in Lithuania (134 HIV-positive men and 32 women). According to the data valid as of 1 January, during the entire HIV infection registration period (1988–2012), 2,060 people were diagnosed with HIV [31, 34].

A significant HIV epidemic, concentrated among particular key populations, such as injecting drug users, can be observed in Lithuania. The HIV transmission among injecting drug users is continuing, including within the prison system. Although some cases of HIV infection have occurred due to sexual contacts between injecting drug users and their sex partners and among men who have sex with men, the epidemic is nevertheless largely driven by unsafe injecting practices among drug users [35]. According to national HIV surveillance data, HIV prevalence among PWID was 4.2% in 2010 [36].

### **HIV testing and treatment**

In October 2009, HIV/AIDS services were reorganised with the aim to decentralise treatment and care, making them more available at the primary health care level. Instead of being largely concentrated in the Lithuanian CCD AIDS in Vilnius, treatment is now available in five treatment sites across the largest cities of Lithuania. ART is also available in prisons thanks to financing by the Ministry of Justice, and in the private sector. However, the costs of services in the private sector are high and thus affordable to a limited number of patients [37].

All patients diagnosed with HIV/AIDS are covered by the Compulsory Health Insurance Fund. Starting from 1998, Highly Active Anti-Retroviral Therapy (HAART) is accessible for all who need it. There are no exclusion criteria for HAART treatment. No co-payment for ARV medication is requested from the patients. In 2004, an order for the compensatory HIV diagnosis and treatment methodology from the Compulsory Health Insurance Fund was endorsed by the Ministry of Health of the Republic of Lithuania – not only for individuals suffering from AIDS but also for those at a high risk for the progression of diseases (Act No. V 313/2004). The treatment of opportunistic infections is not fully covered by the State Patient Fund. HIV-infected patients may choose a health care centre according to their place of residence. Private health care is also available, but the service costs are rather high and thus only affordable to a limited number of patients [37].

In 2011 the Order from the Ministry of Health further amended Order No 702, clarifying criteria and procedure for the application of opioid substitution treatment (OST) and proposed a procedure for an annual assessment of OST's effectiveness for clients. As of 1 January 2012, there were 19 health care institutions in 12 cities providing the treatment [37].

### ***Injecting drug use and harm reduction services***

#### **Overview of the PWID situation**

The first national general population survey on drug use in Lithuania was carried out in 2004 and the second in 2008. The survey was conducted in line with the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) guidelines among persons aged 15–64 years. According to the results, lifetime use of cannabis was reported by 11.9%; among younger adults (15–34 years), the prevalence was 21.2%. Last year, the prevalence of cannabis use for the whole sample was reported to be 5.6% [38].

Data from the European School Survey Project on Alcohol and Other Drugs (ESPAD) conducted in 2007 indicated the lifetime experience for cannabis, the most frequently used illicit drug experimented with among students; in 2007, 18% of the respondents reported having used cannabis at least once during their lifetime (13% in 2003 and 12% in 1999). With regard to amphetamines, ecstasy and inhalants, the results of the survey indicated a lifetime prevalence of 3%. The results also showed a 12% prevalence of cannabis use over the last year (11% in 2003, 10% in 1999) and 5% over the last month (6% in 2003, 4% in 1999). In addition, the reported lifetime prevalence of cannabis use was 24% among men and 13% among women. The new ESPAD survey was conducted in 2011, but its results have not been published yet. Using the capture-recapture method, it was estimated that there were ca. 2,167 problem drug users (1,663–2,934) in Vilnius in 2007 (a rate of 4.1–7.3 per 1,000

residents aged 15–64 years). A provisional estimate of around 4,300 problem drug users and around 3,200 injecting drug users was constructed for the whole country [38].

Data from a cross-sectional survey conducted in 2010 among PWID from the whole country (N=720) showed that 77.4% of PWID reported having used sterile injecting equipment the last time they injected drugs; 64.4% of PWID reported having been tested for HIV during the last 12 months and being aware of the results and 11.9% reported HIV positive status [36].

15% of all the prisoners registered in 2011 (a total of 9,920 persons) have been reported as having mental and behavioural problems related to the use of psychoactive substances [36].

### **Harm reduction and drug dependence treatment for PWID**

In 1997, the Vilnius Centre for Dependence Diseases and the Open Society Foundation in Lithuania were the first to commence joint low-threshold programmes for injecting drug users. A special regulation of the Ministry of Health adopted in 2006 provided a background for the expansion of the programmes and also set out the minimum criteria for the services to be provided. In 2009, 12 low-threshold units operated in ten Lithuanian cities. Their number dropped to 9 in 7 cities by 2011, because of the economic constraints. Three mobile outreach needle/syringe exchange points operate in the country. Injecting drug users can go there to exchange used needles and syringes for new ones, receive condoms, disinfectant tissues, bandages, educational and informational materials, as well as a short consultation by a social worker and information about the availability of health care services and social assistance. However, because of the budget shortages, the information and counselling remain the primary focus of the services and the number of needles and syringes distributed registered a steep decline (238745 in 2008 to 188 000 in 2010 and 181000 in 2011) [39]. NEPs are not available in prisons.

Pharmacies are significant sources for sterile injecting equipment, although the 2008 study showed a high rate of intolerance among pharmacy staff towards PWID. Since then, no special harm reduction programmes have been launched in cooperation with them. Lithuania is also participating in transnational projects aiming at the reduction of the spread of HIV/AIDS, STIs, hepatitis and tuberculosis across the Baltic states [14, 38].

Most low-threshold centres are apparently not allowed to draw blood for HIV testing. They can perform rapid tests but mostly lack the funds for the purpose. It has also been reported that some centres are prevented from conducting rapid tests because of local regulations, which require a doctor to perform such tests. Some centres do not provide HIV testing at all. Due to funding constraints, HIV tests are not available in several pharmacotherapy sites [38]. Moreover, pharmacotherapy is not available in prison settings.

Inpatient treatment is provided by five specialized Centres for Addictive Disorders in Vilnius, Klaipeda, Siauliai, Panevezys and Kaunas. These five centres also provide outpatient treatment services, offer treatment for one to three months in the form of group psychotherapy, acupuncture and counselling, and also provide methadone therapy. Inpatient treatment such as withdrawal treatment and residential treatment is delivered by the specialized Centres for Addictive Disorders. Residential programs (including withdrawal management, social and psychological support services) are available in 5 Dependence

Treatment Centres (DTC) located in the largest Lithuanian cities (Vilnius, Kaunas, Klaipeda, Siauliai and Panevezys). Two long-term psychosocial treatment programs based Vilnius and Kaunas DTC and 15 therapeutic (rehabilitation) communities (TC), most of which were organized by private nonprofit or non-governmental organizations (NGO) offer individual and group psychological support, 12 step program, training of social and vocational skills, etc. Three short-term residential psychosocial treatment programs based Vilnius, Kaunas and Klaipeda DTC offer the Minnesota type programs/12 step approach [36].

Substitution therapy with methadone was implemented in 1995, and treatment commenced in three cities in 1996. Buprenorphine treatment has been available since late 2002 through specialised mental health care institutions. According to Regulation No. 702 of the Ministry of Health, only treatment centres can initiate methadone and buprenorphine therapy. As of January 1<sup>st</sup> 2012, substitution therapy is available in Lithuania in 19 health care institutions located in twelve cities. Methadone maintenance therapy is not available in prisons; once imprisoned, OST patients have to discontinue their treatment. However, since 2008, the therapy can be accessed by patients while they are in detention (while they are investigated). In 2011, 798 patients enrolled in an OST programme, representing about 25% of the available estimate of the number of PWID (3,200 PWID as of 2006). Nevertheless, the scaling up of the OST programs is not expected to happen very soon, as these initiatives have a limited support from the general population and the decision makers [38].

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## Annex 5. Country profile, Romania

### *General background*

Romania is a country located at the crossroads of Central and Southeast Europe, on the Lower Danube, within and outside the Carpathian Arch, bordering on the Black Sea. Romania shares a border with Hungary and Serbia to the west, Ukraine and Moldova to the northeast and east, and Bulgaria to the south. At 238,400 sq km (92,000 sq mi), Romania is the ninth largest country of the European Union by area, and has the seventh largest population among the European Union Member States with approximately 19 million people. Its capital and largest city is Bucharest, the tenth largest city in the EU with about two million people.

The demographic trends of Romania observed since 1989 show a constant population decline: the population diminished by 15% between 1989 and 2011, from 22.81 million residents to 19.04 million. The reduction was mainly caused by emigration, a fall in birth rate and a rise in mortality. According to the provisional results of the national 2011 census, the ethnic composition of the total resident population is as follows: out of 19,042,936 people, 88.6% identified themselves as Romanian, 6.5% as Hungarian and 3.2% as Roma. The other ethnic groups present in the country are Ukrainian (51,700), German (36,900), Turkish (28,200), and Russian (23,900).[6]

### *Financing and organisation of health care*

The government represents the highest authority within the Romanian health system, performing its stewardship role through the Ministry of Health (MoH). At the national level, cross-sector approaches in health policy are ensured through collaboration between the Ministry of Health, the Ministry of Labour, Family and Social Protection, the Ministry of Administration and the Interior, the Ministry of Education, Research, Youth and Sports, the Ministry of Public Finance, the College of Physicians, the College of Pharmacists.

At the district level, cross-sector interventions are ensured through the district public health authorities (DPHAs), district councils, district public finance departments and district departments of the Ministry of Labour, Family and Social Protection, district school inspectorates, and district government prefects.

Romania employs a mix of compulsory and voluntary funding elements, but social insurance has been the dominant contribution mechanism since 1998. Health care sector funds are primarily collected from the population, the largest part through the third-party payment mechanism, but also through out-of-pocket payments. Informal payments are estimated to account for over 40% of total out-of-pocket expenditure.[8]

Health insurance covers preventive health care services, ambulatory health care, hospital care, dentistry, medical emergency services, complementary medical rehabilitation services, pre-, intra- and post-birth medical assistance, home care nursing, medication, health care materials, and orthopaedic devices. Modest expenditure on maintenance, repairs and nonmedical materials are covered from local budgets.

Until 2004, private health insurance was only provided to the employees of certain foreign or partially foreign companies operating in Romania. Since 2004, private insurance companies have been allowed to offer two types of voluntary health insurance: supplementary and complementary.

In terms of funding, by 2013 Romania has benefited from three GFATM approved grants amounting to US\$ 69,038,447 (US\$ 37,844,967 for the HIV/AIDS program, US\$ 31,193,480 for the TB program). The total value disbursed to date is US\$ 67,828,840.[2]

### Tuberculosis situation

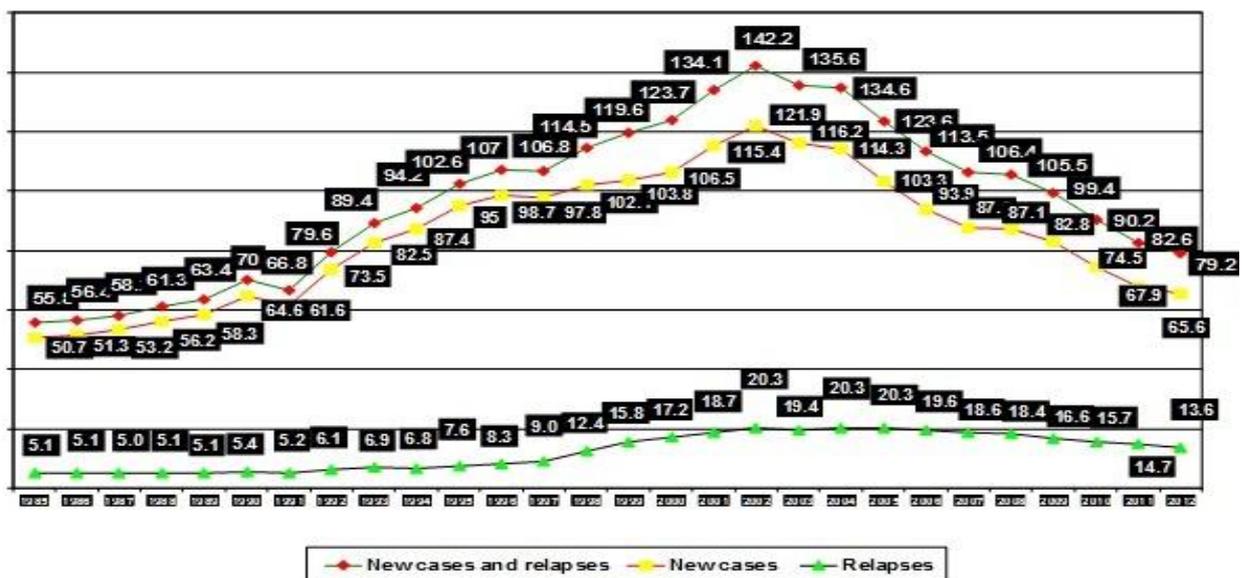
#### TB surveillance and epidemiology

Romania has one of the highest rates of TB incidence in the WHO European Region (sixth place in 2010 after Kazakhstan, the Republic of Moldova, Georgia, Kyrgyzstan and Tajikistan), being the first among the European Union Member States since its accession in 2007. Thus, out of the data collected by the National TB Programme for the Central Management Unit, the number of new cases and relapses reported in 2012 was 16,908 with 14,077 fewer cases compared to the peak year 2002 and 774 fewer cases compared to the previous year the corresponding global notification rate was 79.2 per 100,000 population, being 44% lower than the rate registered in 2002, which was 142.2 per 100,000 population. [7]

Based on the analysis of existing data, it appeared that TB risk was 2.2 times higher among men (114.4% TB notification rate) than among women (52.9% TB notification rate) and 25.3% higher in rural areas (96.2%) than in urban regions (71.9%). The most affected age groups were 40–59-year-olds, while the least affected group was that of 5–14-year-olds.

TB incidence among 0–14-year-old children has slowly decreased during the past years: from the peak value of 48.2% reached in 2002 (1,843 TB infection cases) to 23.8% reached in 2012 (764 cases).

Figure n. Evolution of TB notification rate in Romania, 1985–2012



Source: National Tuberculosis Program, 2013.

The TB notification rate (number of new cases and relapses per 100,000 prisoners/year) in Romanian prisons, while showing a steady decline, continues to exceed that of the general population by almost 6 times (Table 8).[7]

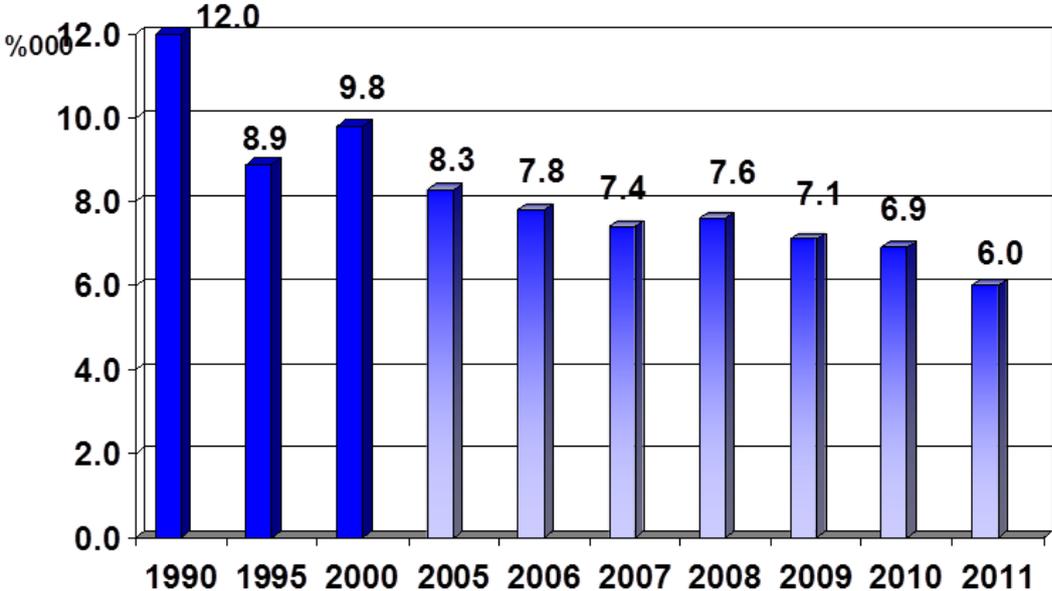
**Table h. TB notification rates among the general population and among prisoners, 2008–2010**

	2008	2009	2010	2011
TB notification rate among prisoners (per 100,000)	864	810	642	485.3
TB notification rate among the general population (per 100,000)	107.8	99.4	90.5	82.8
TB notification rate among prisoners/TB notification rate among the general population (ratio)	8.0	8.2	7.1	5.8

Source: National Tuberculosis Program, 2013.

TB mortality increased somewhat in 2001 and 2002, followed by a downward trend similar to the incidence rate (Fig. 15).

**Figure o. Evolution of TB mortality in Romania, 1985–2011**



Source: National Tuberculosis Program, 2013.

The favourable evolution of the TB endemic in Romania has been achieved since 1995 with the regular maintenance of the case detection rate at more than 70% (70% in 2010 compared to 73% in Europe) and the therapeutic success rate of new smear-positive TB cases at more than 82.1% in 2011. According to WHO estimates, if Romania meets the

objectives set out in the DOTS strategy, i.e. reaches a case detection rate of more than 70% and a therapeutic success rate of more than 85%, the TB incidence in Romania should decrease by 2% each year. Although the present trend of the TB endemic seems favourable, the most major concerns currently related to the field of TB control in Romania as well as in the rest of the world are HIV co-infection and drug resistance.

In Romania, the TB-HIV co-infection cases registered annually have indicated a slight increase over the past years: 160 in 2005, 202 in 2008, 214 in 2009, 229 in 2010, 243 in 2011 and 225 in 2012 (provisional data) . This increase was due to HIV testing conducted among an increasing percent of TB patients, as well as the increasing number of annually detected HIV cases. The diagnosis, treatment and management of these cases is provided by two specialty networks –pneumology and infectious diseases – that collaborate according to the common protocol for the national TB and HIV/AIDS programmes.

The cases of drug-resistant and especially those of multidrug-resistant and extensively drug-resistant TB – MDR-TB and XDR-TB – are a very worrisome phenomenon. In 2011, 530 MDR-TB and 30 XDR-TB cases were reported in Romania (Table 9); in 2011, among smear-positive patients, DST was only performed for 44.4% of new cases and for 55.9% relapse cases.

**Table i. MDR-TB and XDR-TB cases reported in Romania, 2005–2009**

Year	MDR	XDR
2005	854	9
2006	673	4
2007	707	56
2008	816	52
2009	668	27
2010	574	27
2011	530	30

*Source:* National Tuberculosis Program, 2013.

The success rate of cured TB patients registered in 2011 was 82.1% among new smear-positive cases and 85% for new culture positive cases. For all retreated cases, the overall success rate in 2010 was only 52.4%, while it was 64.5% among relapse cases (9.3% failure rate), and 29.1% among other retreatment cases (21.2% failure rate). The default rate was 5.5% in new cases, 12.3% in relapse cases and 25.7% in other retreatment cases. The preliminary treatment results for all MDR patients enrolled in 2009 were: 19.7% success, 38.8% failure, 20.4% default and 20% mortality rate.

The low success rate of curing MDR-TB cases is caused by an inadequate treatment regimen (two key second-line drugs are not available and there are major stock-outs due to decentralised procurement), the lack of DOT and social support to ensure the completion of therapy, and delays in receiving DST results for second-line drugs so that resistance to additional drugs develops during treatment. All this the result of the insufficient funding allocated for the NTP program during last years (Table 10).

**Table j. The national budget for the NTP 2011-2013**

Year	Budget (LEI)	Budget (EURO)
2011	<b>15 003 000</b>	3,409,772.73
2012	<b>11 068 978</b>	2,515,676.82
2013	17 000 000	3,863,636.36

### **TB diagnosis and treatment services**

The MoH is the central public health authority responsible for establishing organisational and functional standards, developing and financing national public health programmes, collecting data and analysing the health status of the population.

TB diagnostic and treatment services are provided to the population through a network of specialised TB institutions: each county has three to six TB and other lung disease dispensaries (a total of 184) and at least one TB hospital or TB ward in a general hospital (a total of 94 medical facilities with beds for TB patients). TB dispensaries perform TB diagnosis and treatment and are also responsible for preventive activities and the surveillance and supervision of the TB activities of general practitioners.

General practitioners are involved in NTP activities through the identification of TB suspects and their referral to TB dispensaries. They also participate in epidemiological surveys, provide or supervise directly observed treatment (DOT) for ambulatory patients (especially in rural areas), participate in health education activities etc.

TB medication is free of charge to all TB patients. Treatment for TB cases is provided in specialised TB service institutions. Two excellent MDR-TB inpatient units operate in Romania: the MDR-TB unit of the Marius Nasta Institute in Bucharest with 53 beds, and the MDR-TB unit in Bisericani with 70 beds.

The current model of care is based on hospital and outpatient treatment; however, about 90% of TB patients are hospitalised and almost all DR-TB patients start second-line treatment in a hospital and continue in an outpatient setting.

Health care in prisons is coordinated by a special service of the National Administration of Penitentiaries (NAP) and under the supervision of the MoJ. All the medical and epidemiological aspects of TB activities are integrated into the NTP. Prisoners who are TB suspects are usually referred to the nearest public TB dispensary. If they are found to have TB, they are sent to the prison's TB hospital.

## HIV situation

### HIV surveillance

All data related to HIV/AIDS are collected at the HIV/AIDS Monitoring and Evaluation Department of the Matei Bals Institute and then presented in biannual reports, for the use of national stakeholders and international organisations. Up-to-date epidemiological information regarding the HIV/AIDS situation in Romania is always available on the website [www.cnlas.ro](http://www.cnlas.ro).

All diagnosed HIV/AIDS cases are referred to infectious disease hospitals around the country (one hospital in every district, 41 districts). HIV monitoring and evaluation is conducted in nine regional centres (hosted by university clinic hospitals); among them, the National Matei Bals Institute for Infectious Diseases is the leading organisation in the prevention, treatment and control of HIV/AIDS infection in Romania.

### HIV epidemiology

According to the latest report of the National Commission to Fight AIDS, a total of 18,323 cases of HIV and AIDS have been recorded in Romania since 1985. Of all the cases ever recorded, 54% were diagnosed when they were still children (< 14 years old) and 33% had died by the end of 2012. As of 31 December 2012, 11,581 people were living with HIV/AIDS in the country.[5][4]

Of the PLHIV, 47.3% were aged 20–24 years, representing the cohort of young people infected through the nosocomial route in the end of the 80s and in the beginning of the 90s. The next most numerous category of PLHIV is represented by 40–49-year-olds (12.3%). In 2012, five newborns were reported to be infected with HIV. Children, as a more general category (14 years of age or younger), make up 1.5% of the PLHIV in Romania. The number of HIV/AIDS new cases discovered annually) was stable between 2004 and 2010 (around 400 cases per year). The number increased to 720 in 2011 and to 754 in 2012 (CNLAS, Dec 2012, 21).

**Table k. HIV/AIDS incidence and prevalence between 2010 and 2012**

Indicator	2010	2011	2012
AIDS prevalence (per 100,000)	56.0	58.4	-
HIV prevalence (per 100,000)	21.49		-
AIDS incidence rate among children (per 100,000)	0.23	0.30	0.28
AIDS incidence rate among adults (per 100,000)	1.05	1.35	1.54
HIV incidence rate among children (per 100,000)	0.43	0.27	0.31
HIV incidence rate among adults (per 100,000)	1.24	1.93	2.51
Total number of HIV/AIDS new cases (children and adults)	428	720	754

Source: National AIDS Commission, 2012.

Almost 26.6% of the new HIV/AIDS cases detected in 2012 were persons aged 15–24 years, 78% were men and > 35% of all were “late presenters”. Among adults, sexual transmission is prevalent in terms of transmission routes, accounting for more than 60% of newly discovered HIV/AIDS cases. Transmission associated with injecting drug use increased from 0.8% in 2007 to 18.4% in 2011 and to 30% in 2012. The proportion of new cases of HIV among MSM doubled from 7.5% in 2008 to 14% in 2011 and registered a small decrease in 2012 (11%). Among children, vertical transmission was responsible for 18 new cases of HIV/AIDS in 2012. In conclusion, the sexual transmission of HIV continues to lead the epidemic among adults, followed by HIV transmission among injecting drug users and men who have sex with men.

### **HIV treatment, care and support services**

HIV testing for vulnerable groups is available in hospitals, private and state laboratories, mobile or low-threshold clinics. Free HIV testing (Elisa or rapid) can be provided to the following groups free of charge: pregnant women (in state laboratories or maternity wards as a part of the antenatal care package), people from vulnerable groups who access the low-threshold HIV prevention services provided by NGOs (only rapid testing), individuals from the general population who receive a referral from their GP for examination in an infectious disease hospital (Elisa testing). The cost of HIV testing in state medical units is covered from the National Health Programme, while the rapid HIV testing provided by NGOs is usually financed through international funding (such as GFATM, UNODC etc.).

ARV treatment in Romania is universal and is administered for free to all HIV patients who meet the medical criteria specified in the national treatment guidelines. Treatment is available in every infectious disease hospital of the 41 units operating in the country. However, monitoring of the viral load and the immunological evaluation of the patients is only performed in nine hospitals – the regional centres known as HIV/AIDS Monitoring and Evaluation Regional Centres. The cost of ARV treatment and the associated monitoring fees are covered by the National Health Programme.[9]

In prisons, HIV testing with Elisa can be performed upon request, and the blood samples are analysed in prison laboratories. ARV treatment is administered in prison hospitals.

Universal access to HAART is regarded as the main factor preventing a great surge in the HIV epidemic in Romania and establishing the category of long-term HIV/AIDS survivors –young people in their 20s who became infected with HIV through the nosocomial route in their childhood. An evaluation conducted in 2009 by the World Health Organisation and UNAIDS concluded that the ARV treatment coverage in Romania is 81%, a ratio that is much higher compared to other countries from the EECA region.

Access to HAART has however been affected by the economic crisis that arose in 2008. During 2009 and especially during 2010, many NGOs reported interruptions in the antiretroviral therapy in various counties of the country. The data presented by the Department for the Monitoring and Evaluation of HIV/AIDS Data under the Matei Bals Institute of Infectious Diseases also include cases of individuals who had stopped treatment.

A study carried out by the University of Bucharest and UNOPA with support from UNICEF (2011) reported that 65.2% of the respondents had interrupted treatment, while only 34.8% claimed to have received treatment regularly. There were no significant differences in access to treatment in terms of the demographic criteria (age, sex, ethnicity, education or occupation).[1]

The same study report expressed concerns about treatment adherence, since more than 40% of PLHIV from the long-term survivor cohort interrupted treatment for a certain period of time. The Ministry of Health responded to the treatment adherence issues in the end of 2011 with the revision of the treatment guidelines for PLHIV, which led to the improved monitoring and evaluation of the resources allocated for the national HIV programme.

### *Injecting drug use and harm reduction services*

All the data presented in this section has been obtained from the latest National Report on Drugs issued in November 2012 by the National Antidrug Agency (ANA).

### **Overview of the PWID situation**

In 2011 19,265 problematic drug users were living in Bucharest, representing 20.1% of the city's population aged 18–49.<sup>4</sup> The estimated number had increased compared to the previous years.[3]

**Table I. Evolution of the estimated number of problem drug users in Bucharest**

Year	Estimated number of problem drug users in Bucharest	Proportion (%) of problem drug users among the general Bucharest population aged 18–49
2007	16,867	17.4
2008	17,387	17.5
2009	17,767	18.0
2010	18,316	19.2
2011	19,265	20.1

*Source:* National Antidrug Agency, 2012.

The majority of problem drug users accessing drug treatment services in 2011 were men of the average age of 29.5 years (28.3 among those who had enrolled in a drug treatment programme for the first time). More than 1/3 of them were unemployed, 55.1% had graduated from the 8<sup>th</sup> grade and only 30% from upper secondary school. 30% of all the clients of treatment services were opiate users.

A small survey conducted in 2012 by the Romanian Anti-AIDS Association (ARAS) among PWID participating in needle exchange programmes indicated that 67% of the respondents

<sup>4</sup> The estimate was calculated (for a confidence level of 95%) using the multiplier method and the benchmark of the number of drug users (injecting and non-injecting) who accessed drug treatment services in 2011.

were using heroin, 31% ethnobotanical drugs and 64% of had never registered for a treatment programme.

The national drug report (ANA 2012) reported the following in relation to injecting drug users:<sup>5</sup>

- A small increase in the prevalence of HBV (15% compared to 13.1% in 2010).
- A small increase in the prevalence of HCV; however, the indicators remained higher than the European average (68.5% compared to 63.9% in 2010).
- A substantial increase in the prevalence of HIV, with indicator values higher than the European average (11.6% compared to 4.1% in 2010).

The progression of prevalence is thought to be related to two main factors [10]:

- Increase in the use of ethnobotanical drugs (the use of these drugs is associated with the need for more frequent injections during the day and the altered cognitive capacity of the user, which makes assessing injection-related risks more difficult).
- Decrease in the coverage of harm reduction services caused by the decreased amount of available funding.<sup>6</sup>

### **Harm reduction and HIV prevention programmes for PWID**

Access to harm reduction/prevention programmes for groups vulnerable to HIV infection became more limited in 2010. In 2011, more than half of the service providers stopped operating due to lack of funding. Despite constant pleas targeted at the MoH, no funds were allocated for the prevention programmes for the vulnerable groups among PWID and MSM, who are at risk of contracting HIV.[3]

### **Drug dependence treatment for PWID**

In 2011 2,355 problem drug users accessed treatment services, 30% of them for opiate use. Among those, only 369 had enrolled in a substitution therapy programme (with methadone, buprenorphine, suboxone or naloxone as the replacement drug). In Romania, 64 centres provide drug dependence treatment to drug users; three of them are private (for-profit) institutions and the other two are run by NGOs. In 24 institutions reporting to the Ministry of Health, drug users are hospitalised; in all others, services are provided in an outpatient setting. Most of the clients treated in 2011 were men aged 15–34, who mainly used ethnobotanical drugs. The women admitted into treatment were mostly using hypnotics and sedatives.

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<sup>5</sup> The data reflects the prevalence among PWID to access drug dependence treatment services in 2011 and 2010.

<sup>6</sup> The main funding bodies of the Romanian harm reduction intervention activities since 2004 (the Global Fund and UNODC) closed their programmes in 2010. Since then, the organisations implementing HR services have relied on small international grants and co-funding from the European Social Fund. To access ESF funding, HR services have to be integrated in a broader framework of social inclusion services; in this framework, HR services have to be promoted as means to the end of social inclusion; they are not the main pillar of the programme.

Types of drug dependence interventions provided in 2011:

- Drug detoxification assistance (inpatient or outpatient care) (3.8%)
- Symptomatic detoxification assistance (inpatient or outpatient) (11.3%)
- Non-drug detoxification assistance (8%)
- Opiate substitution therapy (33%)
- Psychological assistance (20.7%)
- Evaluation (25.5%)
- Referral to social services (4.7%)[3].

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