World Health Organization
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Compendium of good practices in the health sector response to HIV in the WHO European Region

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ABSTRACT

In response to the rapidly increasing number of new HIV infections in the WHO European Region, the action plan for the health sector response to HIV in WHO European Region was endorsed at the 66th session of the WHO Regional Committee for Europe in September 2016. From December 2017 to April 2018, the WHO Regional Office for Europe collected good practices in implementation of the action plan and compiled them in this compendium. National health authorities, national and international experts, and civil-society organizations involved in HIV prevention, treatment and care were solicited to share their practices. The practices exemplify efforts within five target areas: HIV prevention; HIV testing and treatment; reducing AIDS-related deaths; curbing discrimination; and increasing financial sustainability of the HIV/AIDS response. This first compendium of good HIV practices in the WHO European Region includes 52 practice examples from 32 Member States. The compendium is intended as a resource for relevant stakeholders in the HIV response.

Keywords
HIV Infections – Prevention and Control
Delivery of Health Care
Regional Health Planning
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ABBREVIATIONS

ART	antiretroviral therapy
ARV	antiretroviral
CBO	community-based organization
CBVCT	community-based voluntary counselling and testing
CCM	Country Coordinating Mechanism
CDC	United States Centers for Disease Control and Prevention
CSO	civil society organization
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EECA	eastern Europe and central Asia
ELISA	enzyme-linked immunosorbent assay
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EU	European Union
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HBV	hepatitis B virus
HCV	hepatitis C virus
HTC	HIV testing and counselling
IBBS	integrated bio-behavioural study/studies
IDU	injecting drug use
IPT	isoniazid preventive therapy
MoH	Ministry of Health
MoJ	Ministry of Justice
MSM	men who have sex with men
MTCT	mother-to-child transmission
NGO	nongovernmental organization
NSP	needle and syringes programme(s)
OST	opioid substitution therapy
PEPFAR	The United States President's Emergency Plan for AIDS Relief
PEP	post-exposure prophylaxis
PMTCT	prevention of mother-to-child transmission
PrEP	pre-exposure prophylaxis
SDG	Sustainable Development Goal(s)
STI	sexually transmitted infection
SW	sex worker(s)
TB	tuberculosis
VCT	voluntary counselling and testing
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme

FOREWORD

The United Nations 2030 Agenda for Sustainable Development calls for leaving no one behind. The WHO European Region is the only WHO Region in which the number of new HIV infections is increasing rapidly; therefore, a vigorous response to the epidemic has never been so crucial. An estimated one quarter of all people living with HIV in the Region are unaware of their status, while half are diagnosed at a late stage of infection. In addition, treatment coverage with life-saving antiretrovirals is as low as 28% in the eastern European and central Asian part of the Region.

As we accelerate progress towards ending AIDS as a public health threat by 2030, it is vital to sustain and continuously scale up good practices aligned with the action plan for the health sector response to HIV in the WHO European Region. Endorsed by the WHO Regional Committee for Europe at its 66th session in September 2016, the plan embodies three organizing frameworks: (i) universal health coverage; (ii) a continuum of HIV services; and (iii) the promotion of a public health approach. Each are to be reinforced by strong political leadership and working in partnership.

To document and disseminate successful interventions aligned with the action plan, I am pleased to present this first Compendium of good practices in the health sector response to HIV in the WHO European Region. The practices are examples of the progress of Member States towards the targets of World Health Organization and Joint United Nations Programme on HIV/AIDS on HIV prevention, treatment and care, preventing discrimination, and ensuring financial sustainability. Coupled with the fast-tracked actions for 2020, we encourage Member States and partners to sustain, replicate and scale up these and other similar good practices.

Dr Zsuzsanna Jakab

WHO Regional Director for Europe

EXECUTIVE SUMMARY

At the 66th session WHO Regional Committee for Europe in September 2016, all 53 Member States endorsed resolution EUR/RC66/R9, the action plan for the health sector response to HIV in the WHO European Region. The action plan guides Member States in accelerating their response to the HIV epidemic. Its goals and targets are in line with the United Nations (UN) 2030 Agenda for Sustainable Development, the multisectoral strategy for 2016–2021 of the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the WHO Global Health Sector Strategy on HIV, 2016–2021.

In line with implementation of the action plan, the WHO Regional Office for Europe launched an official call for good HIV practices in December 2017. National health authorities, intraregional programmes, national HIV technical focal points and programmes, civil society organizations (CSOs), and nongovernmental organizations (NGOs) responding to the HIV epidemic were invited to submit exemplary practices. The narratives were collected over five months from December to April 2018; compiled and evaluated against pre-defined criteria by a selection committee composed of colleagues from AIDS Action Europe, AIDS Foundation East–West (AFEW), CHIP – Centre of Excellence for Health, Immunity and Infections, Rigshospitalet, University of Copenhagen, Denmark, the European Centre for Disease Prevention and Control (ECDC), and UNAIDS and WHO; and then technically reviewed by WHO experts in the Regional Office.

The compendium includes 52 practice examples from 32 Member States of the WHO European Region: 29 from national HIV programmes and public health institutes/research institutes; 11 from NGOs and CSOs; eight from ministries of health (MoHs) and/or ministries of justice (MoJs); and four from intraregional initiatives. The proportions of Member States contributing to the practice examples by parts of the Region were: 80% in eastern Europe; 47% in central Europe ; and 52% in western Europe.

The submissions are categorized according to the strategic directions of the action plan as: (i) information for focused action; (ii) interventions for impact; (iii) delivering for equity; (iv) financing for sustainability; and (v) innovation for acceleration. This compendium is the first WHO Regional Office for Europe project to consolidate good HIV practices in the Region.

INTRODUCTION

Background

In line with the action plan for the health sector response to HIV in the WHO European Region and in collaboration with WHO country offices, the WHO Regional Office for Europe has provided HIV technical assistance and guidance towards reaching targets in the following areas: HIV prevention, testing and treatment; AIDS-related deaths; reduction of discrimination; and reaching financial sustainability of the HIV response.

Primary areas of technical assistance have included: (i) implementing WHO and UNAIDS guidelines and tools related to the joint WHO/ECDC surveillance protocols to strengthen national HIV strategic information systems; (ii) providing regular updates on evidence-based guidelines and tools for combination prevention, testing, antiretroviral therapy (ART) delivery and scale-up, and comorbidity management; (iii) strengthening national capacities and national strategic plans; (iv) developing differentiated care models to serve key populations in the HIV response; (v) facilitating partnerships and multisectoral collaboration efforts, including the engagement of civil society and people living with HIV; and (vi) building the investment case and transition plan to nationally funded country response efforts.

Specifically, for low- and middle-income countries in the Region, ensuring donor funding in addition to domestic resources is crucial to sustain efforts to end HIV and tuberculosis (TB). The Regional Office has provided support to improve the quality of funding applications from low- and middle-income countries, particularly to the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) on addressing HIV and TB effectively. In July 2017, WHO issued new guidelines and updates on the management of advanced HIV infection, HIV drug resistance and transitioning to new antiretrovirals (ARVs). The Regional Office additionally organized a master training course on these guidelines for senior clinicians in 14 HIV priority countries in the Region.

Back to back with the 22nd International AIDS Conference, the Regional Office, in collaboration with the Government of the Netherlands, is convening a Ministerial policy dialogue on HIV and related comorbidities in eastern Europe and central Asia (EECA) on 23 July 2018 in Amsterdam. The aim of the policy dialogue is to fast-track and share good practices related to implementation of the action plan within EECA and Baltic countries.

During the high-level meeting, ministers of health and HIV technical focal points from EECA and Baltic countries will promulgate innovative and financially sustainable approaches for the HIV response in their respective countries. The aims of this compendium are to share good practices among Member States and advise on the action points and next steps for scaling up the HIV response within the Region. The compendium of good HIV practices also functions to support the monitoring and evaluation of Member States' commitment to implementing the action plan.

HIV in the WHO European Region

The WHO European Region is the only WHO Region in which HIV is rapidly increasing, so there is an urgent need to scale up HIV prevention, testing and treatment; reduce discrimination; and increase sustainable financing options for a consolidated HIV response. In 2016, an estimated 221 000 people were newly infected with HIV in the Region and more than 160 000 were newly diagnosed with HIV (corresponding to a rate of 18.2 diagnoses per 100 000 population), thereby continuing the increasing trend of new HIV infections that has persisted for for the past decade in the Region. Of these 160 000 newly diagnosed cases, 80% were diagnosed in the eastern part of the Region, contributing to the 95% increase in the rate of new diagnoses in this area between 2007 and 2016 (Figs 1 and 2) *(1)*.[1]

Regional patterns

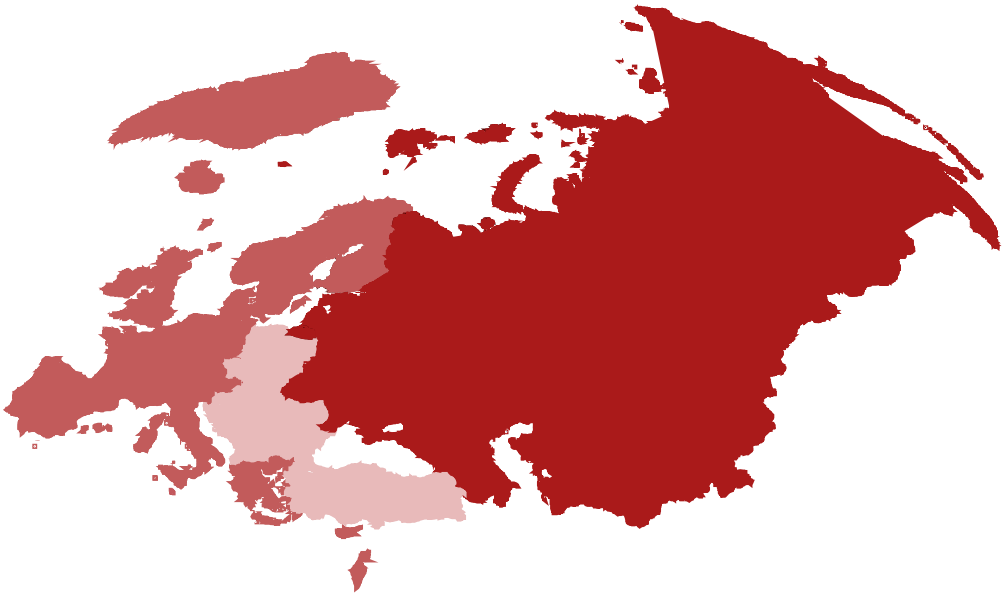
The WHO European Region is comprised of 53 Member States. It is socially, politically and economically diverse and so are the needs of people living with HIV and the health systems that support them. Some governments in the Region also face the withdrawal of international funding from HIV programmes, which creates further challenges.

HIV remains concentrated in key populations with sub regional variation. In line with the UNAIDS 2016-2021

[1] The grouping of countries into the West (23 countries), Centre (15 countries) and East (15 countries) of the WHO European Region is based on epidemiological considerations and follows the division of countries used in the joint ECDC/WHO HIV/AIDS surveillance in Europe reports. See the 2017 report for details *(1)*.

Fig. 1. Numbers and rates of new HIV diagnoses, WHO European Region, 2016

A total of **160 453** people were diagnosed in 2016
Overall rate for the WHO European Region: 18.2 per 100 000



West
26 602
6.2 per 100 000

Centre
5 772
2.9 per 100 000

East
128 079
50.2 per 100 000

Source: ECDC, WHO Regional Office for Europe, 2017 *(1)*.

Strategy *(2)* and the WHO Global Health Sector Strategy on HIV for 2016–2021 *(3)*, key populations at higher risk of HIV (hereafter referred to as key populations) are defined as those groups of people most likely to be exposed to or to transmit HIV and whose engagement is critical for a successful response. In the European Region, key populations include people living with HIV, people who inject drugs, men who have sex with men (MSM), transgender people, sex workers (SW), prisoners and migrants *(4)*.

Although recent data suggest decreasing trends in a handful of European Union (EU)/European Economic Area (EEA) countries, transmission due to sex between men remains high or is increasing in many western and central European countries, while heterosexual and transmission related to injecting drug use (IDU) predominates in eastern European countries *(1)*. Just over half (51%) of people newly diagnosed with HIV in the WHO European Region in 2016 were diagnosed late,[2] and an estimated one quarter of HIV-positive people remain undiagnosed across the Region. WHO recommends that all those diagnosed with HIV initiate ART immediately regardless of their CD4 cell count *(5)*. However, in 2016 only two thirds of countries in the Region had policies which provide treatment irrespective of this measurement. The interregional variability of the HIV epidemic in eastern, central and western Europe is described in the following sections *(1)*.

[2] Defined as a CD4 count of below 350 cells/mL at the time of HIV diagnosis.

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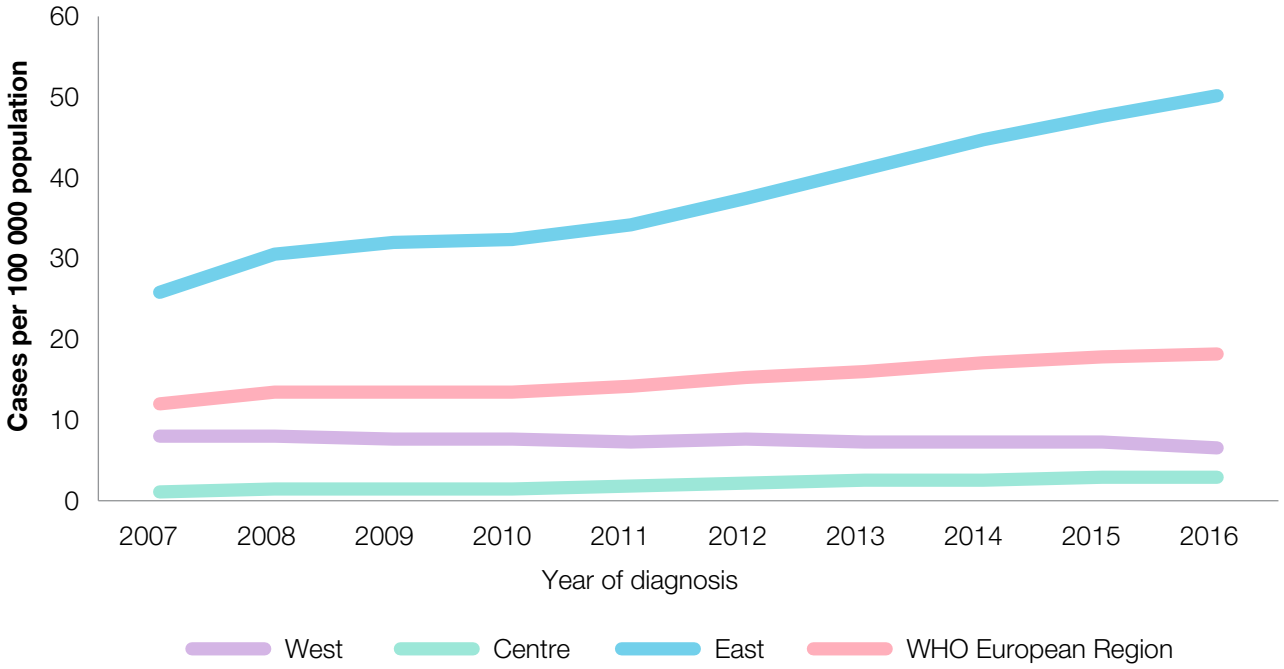
Fig. 2. Rate of new HIV diagnoses, WHO European Region, 2007–2016[a]



[a] Based on data from 51 countries (Turkmenistan and Uzbekistan were excluded because of inconsistent reporting during the period).
Source: ECDC, WHO Regional Office for Europe (2017).[3]

The east

In 2016, 128 079 persons from 13 eastern European countries were newly diagnosed (out of 160 453 for the whole Region). In this part of the region, heterosexual contacts and injecting drug use remain the main reported modes of HIV transmission. High numbers of AIDS cases confirm that late HIV diagnosis, delayed initiation of ART and low treatment coverage remain major challenges. Data also suggest that most of the new diagnoses originated from within the reporting countries and that those infected abroad are infected in neighbouring countries within central and eastern Europe. Scaled-up efforts are urgently required to provide the full range of packages of HIV prevention, testing and treatment services, including bolstered efforts to reduce discrimination and stigma for all key populations and the general population. This depends on political commitment in the Region, as well as a comprehensive shift from international to domestic funding for the HIV response.

The centre

Although lowest in terms of the absolute numbers of people diagnosed with HIV, this part of the region experienced the largest relative increase in new HIV diagnoses over the last decade, with increases reported in all countries (142% increase from 2007-2016 *(1)*). Transmission is predominantly through sexual contact between men; far more men are affected than women in this sub region than in any other (four out of every five person newly diagnosed are men).

The west

26 602 people were newly diagnosed in the 23 countries of western Europe.[4] For countries in the EU/EEA and in western Europe, sexual transmission between men remained the predominant transmission mode in 2016, followed by heterosexual transmission (among whom 61% were migrants), together accounting for 74% of all new diagnoses for infections where the transmission route is known. Emerging data from western Europe suggest that, in addition to MSM, a significant proportion of migrants, even those originating from high HIV-endemic areas, acquire HIV after arrival in the EU/EEA portion of the West *(6–8)*.

Action plan for the health sector response to HIV in the WHO European Region

The action plan for the health sector response to HIV in the WHO European Region is an implementation plan

[3] The grouping of countries into the West (23 countries), Centre (15 countries) and East (15 countries) of the WHO European Region is based on epidemiological considerations and follows the division of countries used in the joint ECDC/WHO HIV/AIDS surveillance in Europe reports. See the 2017 report for details *(1)*.

[4] A total of 6.2 per 100 000 population (not adjusted for reporting delay); 6.5 per 100 000 population (adjusted).

for adapting the WHO Global Health Sector Strategy on HIV, 2016–2021, to the epidemiological, social and political contexts of the Region (Table 1) *(4)*. It ensures that the Region can achieve the global goal to end AIDS as a public health threat by 2030, which the orld Health Assembly adopted by consensus in May 2016. The action plan continues the momentum generated through both the 2030 Agenda for Sustainable Development and Health 2020, the Region's policy for health and well-being. It builds on the lessons learned from the first European action plan for HIV/AIDS 2012–2015 by providing a roadmap for the next phase of the HIV response and suggesting fast-tracked actions to reverse the HIV epidemic in the Region *(4)*. Region-specific fast-track targets for 2020 are broken down into those focused on (i) prevention, (ii) testing and treatment; (iii) AIDS-related deaths; (iv) discrimination; and (v) financial sustainability.

Both the action plan and this compendium of good HIV practices are structured around the following five strategic directions:

1. **Information for focused action:** know your HIV epidemic to implement a tailored response.
2. **Interventions for impact:** all people should receive the full range of HIV services that they need.
3. **Delivering for equity:** all people should receive the services they need, which should be of sufficient quality to sustain an impact.
4. **Financing for sustainability:** all people should receive the services they need without experiencing financial hardship.
5. **Innovation for acceleration:** change the course of the response to achieve ambitious targets.

Table 1. Outline of the action plan for the health sector response to HIV in the WHO European Region

Items	Description
Vision (2030)	Zero new HIV infections, zero AIDS-related deaths, and zero HIV-related discrimination
Goal (2030)	To end AIDS as a public health threat in the European Region by 2030
Targets (to be achieved by 2020)	**Prevention:** ● reduce new HIV infections by 75% (or an appropriate numerical target for low-prevalence countries) ● reduce MTCT to <2% in non-breastfeeding populations and <5% in breastfeeding populations ● reduce the rate of congenital syphilis and the rate of child HIV cases due to MTCT to ≤50 per 100 000 live births **Testing and treatment:** ● 90% of people living with HIV know their HIV status ● 90% of people diagnosed with HIV receive ART ● 90% of people living with HIV who are on ART achieve viral load suppression **AIDS-related deaths:** ● reduce to below 30 000 (contributing towards reducing global AIDS-related deaths to below 500 000) ● reduce TB deaths among people living with HIV by 75% (or an appropriate numerical target for low-prevalence countries)

MTCT: mother-to-child transmission. *Source:* ECDC, WHO Regional Office for Europe, 2017.[5]

[5] The grouping of countries into the West (23 countries), Centre (15 countries) and East (15 countries) of the WHO European Region is based on epidemiological considerations and follows the division of countries used in the joint ECDC/WHO HIV/AIDS surveillance in Europe reports. See the 2017 report for details *(1)*.

Intersectoral collaboration for a comprehensive response

The burden of HIV and its risk factors primarily fall on society's most vulnerable and marginalized people; this is often due to a common range of social and economic determinants *(9)*. Factors such as lack of a supportive legal environment, stigma and social exclusion, poverty, homelessness, violence, addiction, food insecurity, low education, mental health complications, unemployment, and lack of access to social support can dramatically impede HIV response efforts. The social determinants of health are outside the direct control of the health sector but play a vital role in HIV infection and the ability of people living with HIV to seek treatment and care. These factors also affect the exposure and vulnerability of people to other communicable diseases, such as TB and viral hepatitis, thus highlighting the advantage of addressing coinfections in an integrated manner.

The number of TB/HIV coinfections emerging in the WHO European Region increased from 13 000 to 34 000 from 2007 to 2016 (a 260% increase) *(10)*. In the eastern and central parts of the Region of the Region, approximately 40% of people living with HIV are coinfected with hepatitis C virus (HCV), while in western and central Europe, approximately 10.5% are coinfected *(11)*. For these reasons, the epidemics cannot be addressed by the health sector alone. Hence, deliberate action to address the multisectoral nature of the social, economic and environmental determinants of health is crucial to (i) strengthen the response to HIV and end AIDS by 2030; and (ii) put people at the centre of HIV prevention, treatment and care, in line with the call for leaving no one behind and the Sustainable Development Agenda. To this end, within the framework of the Regional 'UN SDG Issue-based Coalition on health and wellbeing for all at all ages', the Regional Office led a multi-stakeholder consultation with 14 Regional UN partners to build a shared consensus on intersectoral collaboration to end HIV, TB and viral hepatitis. As a result, the 'UN Common Position Paper on Ending HIV, TB and Viral Hepatitis Through Intersectoral Collaboration', endorsed at the Regional UN System Meeting on 9 May 2018, calls upon all agencies within the regional UN system to address the epidemics determinants, with bolstered collaboration within and across sectors. The common position aims to accelerate implementation of evidence-based technical assistance tailored to the local context of Member States, ensuring that those especially at risk are not left behind and preventing the epidemic from affecting the resilience of individuals and communities. By embedding multisectoral considerations within all five strategic directions, the action plan for the health sector response to HIV in the WHO European Region builds on the indivisible nature of the SDGs and on the multisectoral UNAIDS 2016–2021 strategy on the fast-track to end AIDS. These recognize that to end the epidemics we must pursue progress across the entire spectrum of human rights (civil, cultural, economic, political, social, sexual and reproductive) for all.

Selection criteria for good HIV practices in the WHO European Region

The examples presented are the joint work of the authors listed for each practice.[6] This compendium is not intended to highlight every strong practice in each Member State: a selection committee made up of key partners reviewed the submissions to ensure that the quality and conditions of the shared practices meet pre-defined criteria (Table 2).

Good practices in the response to HIV in the WHO European Region may include comprehensive combination prevention strategies for people at risk of acquiring HIV infection with a priority focus on key populations, including harm reduction interventions such as opioid substitution therapy (OST), needle and syringe programmes (NSPs); comprehensive condom and lubricant programmes; diversified HIV testing services, including testing by lay providers, HIV self-testing and assisted partner notification; pre-exposure prophylaxis (PrEP); prevention and management of coinfections; a "treat all" approach[7]; and other evidence-informed interventions. Reducing stigma and discrimination and eliminating laws and policies that hamper access to, and uptake of, crucial HIV prevention and treatment services for key populations will help to facilitate further progress in the HIV response. National health authorities, including national HIV programmes, MoHs, MoJs or any other relevant responsible government organization, partner organizations, and NGOs responding to HIV in the Region were invited to submit examples of good practices through an open call and submission form available in both English and Russian.

[6] Submissions were received from Regional partners and research conglomerates; national governments (e.g. ministries of health, ministries of justice); national HIV programmes (public health institutes, HIV/AIDS centres); implementing partners; NGOs; and CSOs.

[7] The "treat all" approach means that ART should be initiated in all children, adolescents, pregnant and breastfeeding women, and adults living with HIV, regardless of WHO clinical stage and with any CD4 cell count. WHO introduced the "treat all" approach in its consolidated guidelines (5).

Table 2. Selection criteria for good practices for the prevention and control of HIV in the WHO European Region

Criterion	Description
Relevance[a]	Must address one of the targets or areas of intervention of the action plan for the health sector response to HIV in the WHO European Region, as outlined above
Sustainability[a]	Must be implementable or able to be maintained over an extended period of time
Efficiency[a]	Must produce results with a reasonable level of resources and time
Ethical appropriateness[a]	Must respect the current rules of ethics for dealing with human populations
Equity/gender	Addresses the needs of vulnerable populations and/or gender (identity) in an equitable manner
Effectiveness	Must work, and achieve results that have been measured
Possibility of scale-up	Can be scaled up to a larger population
Partnership	Involves satisfactory collaboration between several stakeholders
Community involvement	Involves participation from the affected communities
Political commitment	Has support from the relevant national or local authorities

[a] Required.

Know your epidemic

STRATEGIC DIRECTION 1. Knowledge for focused action

The COBATEST Network

Submitted by: Fernàndez-López, Laura[1,2] | Conway, Anna[1] | Reyes-Urueña, Juliana[1] | Klavs, Irena[3] | Kustec, Tanja[3] | Serdt, Mojca[3] | Casabona, Jordi[1,2] | COBATEST Network Group

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Background

In 2016, 29 444 people were newly diagnosed with HIV in the EU/EEA part of the WHO European Region, corresponding to a rate of 5.9 per 100 000 population *(1)*. To measure the continuum of HIV care in Europe, it has been recommended to measure four stages according to the 90–90–90 targets advocated by UNAIDS: (i) the estimated number of people living with HIV (ii) the number/proportion of these who are diagnosed; (iii) the number/proportion of these who on ART; and (iv) the number/proportion who are virally suppressed. In order to reach the 90–90–90 targets, the first step is critical (i.e. by 2020, 90% of all people living with HIV will know their HIV status). Nevertheless, testing rates among key populations are below 50% in many EU/EEA countries. New strategies are required to expand targeted HIV testing services, focusing on reaching the most affected population groups in local and national epidemic context(s). Community-based voluntary counselling and testing (CBVCT) services have been recognized as a good model to expand access to HIV testing, especially for key populations.

Description of the good practice

COBATEST is a network of CBVCT services created in the context of the HIV-COBATEST (HIV Community-Based testing practices in Europe) project *(12)*. This network was established in 2009 by scaling up the Catalan DEVO network with the purpose of sharing similar procedures for monitoring the activity of CBVCT services across Europe to promote HIV testing, early diagnosis, and care for hard-to-reach groups. The CBVCT services in the COBATEST Network were heterogeneous in terms of size and capacity, and of the key populations they treat. Some were targeting MSM, people who inject drugs or SW, while others were treating the general population or a mixture of key populations.

A standardized protocol to monitor HIV testing activities in the network has been defined, including standard data collection instruments and procedures to homogenize the monitoring and evaluation of HIV testing activities at the community level (Guidelines for data collection for monitoring and evaluation of CBVCT for HIV in the COBATEST Network) *(13)*. The Core Indicators to Monitor Community-Based Voluntary Counselling and testing (CBVCT) for HIV: guidelines for CBVCT services, developed by HIV-COBATEST and aligned with ECDC, UNAIDS and WHO recommendations, are being used to monitor and evaluate CBVCT screening activity in the network *(14)*. Members of the CBVCT services network share a common data collection tool and a database enabling the comparative analysis of global data. Alternatively, participating CBVCT services unable to use the common data collection form may collect data through their own data entry system and then submit a minimum dataset or return aggregated COBATEST core indicators.

Evidence of impact/efficacy

Geographical scope

Currently the network comprises 48 CBVCT services from 21 different countries (Austria, Bulgaria, Croatia, Cyprus, Czechia, Denmark, France, Germany, Hungary, Italy, Latvia, Lithuania, Poland, Portugal, Republic of Moldova, Serbia, Slovenia, Spain, Switzerland, the former Yugoslav Republic of Macedonia and Ukraine). Efforts are being made to include other eastern European countries and the Russian Federation.

Analysis of HIV testing data

According to the data submitted in the different formats, the total number of people tested for HIV with a screening test in 38 CBVCT services/networks in 2016 was 72 916. A high proportion of

the individuals tested were MSM (44.7%, including male SW), compared with heterosexual men (23.8%) and heterosexual women (22.3%). Of the total number of individuals tested, about 35% were first-time testers. Repeat testers had a higher percentage of reactive tests (2.0%) compared with first-time testers (1.1%).
For 2016, the proportion of clients with reactive screening HIV test results varied from 0% to 8.4% (mean 1.8%; median 1.3%) among individual CBVCT services/networks. The percentage of reactive screening tests was particularly high among transgender people, with an overall rate of 8.4% (the rate decreased from 9.6% in 2014 to 6.8% in 2016). Those considered foreigners have a higher percentage of reactive screening tests (2.3%) compared with non-foreign-born people (1.4%). Regarding the transmission group, the highest percentage of reactive screening tests is for male SW (at 6.4% overall; decreased from 7.8% in 2014 to 5.7% in 2016), followed by people who inject drugs (3.3% overall; increased from 0.7% in 2014 to 9.1% in 2016) and MSM (2.8% overall; ranging between 2.6% to 2.9% during 2014–2016).

The standardized data collection and data entry system allowed more detailed analysis of the data collected by CBVCT services using the COBATEST common tools (i.e. data collection and data entry tools). In 2014, 20 CBVCT centres from the COBATEST Network used the common data collection tools; the number of sites increased to 25 in 2015 and to 29 in 2016. The total number of tests performed during the 2014–2016 period increased by roughly a quarter, and data from more CBVCT sites were included in the analyses as they began to use the common tools. Over this period, the percentage of confirmatory tests improved from 63.0% to 90.0% and percentage of reactive screening tests that were linked to care increased from 43.0% to 79.9%.

Rapid tests were used in 98.1% of cases (rapid blood tests, 73.9%; rapid oral tests, 24.2%), with most performed in CBVCT offices (88.3%). HIV testing in outreach activities represents just 11.7% of the total number of tests performed but reaches a higher proportion of key populations (20.1% of people who inject drugs, 13.3% of female SW, 11.9% of MSM and 7.5% of male SW).

It is crucial to know the number of tests performed and the HIV prevalence among those tested to assess progress towards achieving the first objective of the 90–90–90 target (i.e. by 2020, 90% of all people living with HIV will know their HIV status). The indicators are also important to enable CBVCT services to evaluate the effectiveness of their model. The results indicate that CBVCT services are successful in diagnosing previously undiagnosed HIV-infected individuals in key populations, especially among MSM and male SW, transgender people and people who inject drugs.

The analyses found a high percentage of first-time testers (35.4%), showing increased potential for CBVCT services to reach people who have never been tested. Those first-time testers are mainly men, young, heterosexual and non-foreign born, although a non-negligible percentage are MSM (24.4%) and foreign born (29.6%). Once a CBVCT service has reached those first-time testers, it is important to use the opportunity to encourage regular HIV testing.

Data impact

The information collected through CBVCT services strengthens the case for integrating community-based service delivery models into HIV strategic investments. The data are an important source of information to ensure quality services along the HIV care cascade. The monitoring and evaluation results from the COBATEST Network prove the feasibility of collecting standardized data from CBVCT services in different countries across Europe, as well as demonstrating the usefulness of such data *(15–17)*.

Within Europe, the COBATEST Network has stimulated the process of developing indicators to monitor HIV testing at the community level, which are being incorporated into various ECDC documents and guides *(18)*.

Sustainability

The COBATEST Network and analysis of the data collected on monitoring and evaluation indicators will be essential for selecting which CBVCT indicators should be included in the Dublin Declaration monitoring process, which measures the progress of the HIV response of each country, thus allowing better assessment of the HIV care cascade and improving the effectiveness of CBVCT services across Europe.

The COBATEST Network was implemented within the framework of the European HIV-COBATEST project, with co-funding from the Executive Agency for Health and Consumers under the EU Public Health Programme (Grant Agreement no. 2009-12-11) and grew and

continued to operate within the Operational knowledge to improve HIV early diagnosis and treatment among vulnerable groups in Europe project (Euro HIV EDAT) *(19)*, with co-funding from the Consumers, Health and Food Executive Agency, acting under the powers delegated by the European Commission (Grant Agreement no. 2013-11-01). The Network also receives a grant from the pharmaceutical industry to increase the Network, develop a specific website and logo, improve the data entry system, and organize a strategic meeting. The Network has now also been included in AIDS Action Europe's Operating Grant, thus providing additional ongoing finances.

GERMANY. From pills to patients: an evaluation of data sources to determine the number of people living with HIV who are receiving ART

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Background

This practice describes a study aimed to determine the number of people living with HIV and receiving ART between 2006 and 2013 in Germany. Antiretroviral drug prescription data (APD) reported by billing centres for pharmacies were used, along with treatment data from a long-term observational multicentre cohort study with HIV-positive patients (ClinSurv HIV cohort). The APD are reported by billing centres for pharmacies covering around 99% of nationwide pharmacy sales of all individuals with statutory health insurance in Germany (~85%) *(20)*. Exactly one thiacytidine-containing medication (TCM) with either emtricitabine or lamivudine is present in all antiretroviral fixed-dose combinations. Emtricitabine is only approved for the treatment of HIV and lamivudine is approved for the treatment of HIV at a dose of 300 mg once daily or 150 mg twice a day.[8] Thus, each daily dose of TCM documented in the APD represents one person per day receiving ART. ART has been documented for an average of 86% of ClinSurv HIV cohort patients; the medication history of this cohort is well documented. The observed study population (i.e. the ClinSurv HIV cohort) represents more than 20% of all HIV patients treated in Germany *(21)*. In this study, the ClinSurv HIV cohort was only used to determine the corresponding proportion of non-TCM (7%) and treatment interruptions (2%). The proportion of non-TCM ART regimen days in the ClinSurv HIV cohort was used to determine the corresponding number of individuals in the APD.

[8] Lamivudine is also approved for the treatment of hepatitis B (although no longer recommended by WHO),, but with a daily dose of 100 mg for persons not infected with HIV.

Description of the good practice

This surveillance method represents the first comprehensive approach to estimating the number of people living with HIV who receive ART using the different existing and available data sources in Germany, with APD as the main source.

The steps used to calculate of the number of people living with HIV and with experience of ART are as follows.

1. Identify a data source (e.g. nationwide, regional or local prescription data or cohort data) containing the prescribed or administered drugs against HIV (or another infection).

2. Determine the representativeness of the source data to determine the proportion of those not covered by the source data (important for subsequent extrapolation).

3. Classify each drug combination according to whether it includes marker substances (i.e. substances typically used for treatment of a particular disease) or a drug that should not be not given simultaneously. Regarding ART, marker substances for TCM are emtricitabine or lamivudine, representing one person treated per day (or the relevant period). Determine the number of (standard-) units – generally pills, but can also be an injection pen or packages.

4. Determine the defined daily dose (DDD) for the drugs and apply a drug/unit factor, if necessary. For the two TCM marker substances administered as pills, the DDD for adults is 300 mg for lamivudine and 200 mg for emtricitabine. On the European market, lamivudine is also available in a dose of 150 mg, which is given twice daily and is therefore half a DDD; thus, a factor of 0.5 must be included. If other dosages are available in other countries, they must be converted according to the DDD.

5. Choose the smallest or most useful unit of time to observe a period. Observation over time does not mean tracking the same population over time: new people will initiate treatment and others will leave due to death or migration (denominator problem).

6. Calculate the DDD for the TCM marker substances (or the respective marker substances) over time (each DDD of TCM represents one person per day receiving ART). This gives the number of people living with HIV receiving TCM (Fig. 3, red line).

7. The proportion of persons not covered by the data source should be added to the total and extrapolated to obtain the number of people living with HIV and treated with TCM in the whole country (Fig. 3, blue line). As most (~95%) ART regimens and all ARV fixed-dose combinations contain TCM, with the ongoing use of fixed-dose combinations this will provide a close estimate of the number of treated people living with HIV in the country. This is true for industrialized countries, as well as for developing countries, where there could be less drug variety.

8. If a factor for the proportion of ART regimens that do not contain TCM can be determined, then this proportion should be added to the total and extrapolated to provide the number of people living with HIV and receiving ART (including TCM and non-TCM ART regimens) in the country (Fig. 3, green line). Data from cohorts or similar sources can be used for this step.

9. If the proportion of persons who are interrupting treatment can be determined (e.g. from cohort data), this proportion should be added to the total and extrapolated to give the number of people living with HIV and with experience of ART in the country (Fig. 3, green line).

10. Owing to the observed seasonal variation in our data, the trend line was smoothed by negative binomial regression with a quadratic time trend (Fig. 3, purple line) *(22)*. This is assumed to be unnecessary in most settings.

This surveillance method can also be applied to other infections treated with a variety of drugs or combination therapies. It is important to identify the marker substances or regimens on which to base calculations of the DDD for a treated person per day or packages for a treated person per month/quarter. The approach may lead to overestimation of the number of people receiving continuous ART by including patients receiving only short-term ART. This might be relevant in cases where therapy was discontinued early in a quarter or where patients have received post-exposure prophylaxis (PEP); however, PEP would only contribute to a potential overestimation of approximately 200–233 patients in total.

Evidence of impact/efficacy

The methodological approach of calculating the number of individuals based mainly on unambiguous TCM drug treatment provides a simple and appropriate surveillance method for assessing the second 90–90–90 target of the continuum of HIV care (Fig. 4; column 3, people on ART).

The analyses indicate that the number of people living with HIV in Germany and receiving ART has increased over time at an average rate of around 2900 persons per year. Most ART regimens (93%) in the cohort included TCMs with ongoing use of fixed-dose combinations. Based on these results, the future number of people receiving ART could be estimated based on TCM prescription data alone, assuming that treatment guidelines will not change with respect to TCM use in ART regimens.

This surveillance method can also be useful to estimate the number of people living with HIV and those receiving ART in other countries and settings. In other settings with fewer available ARVs, the proportion of ART containing TCM is even higher and the estimation would therefore be more accurate. The main data source was APD for patients with statutory health insurance, which covers ~85% of German residents.

Fig. 3. Step-by-step calculation of the number of people living with HIV with experience of ART

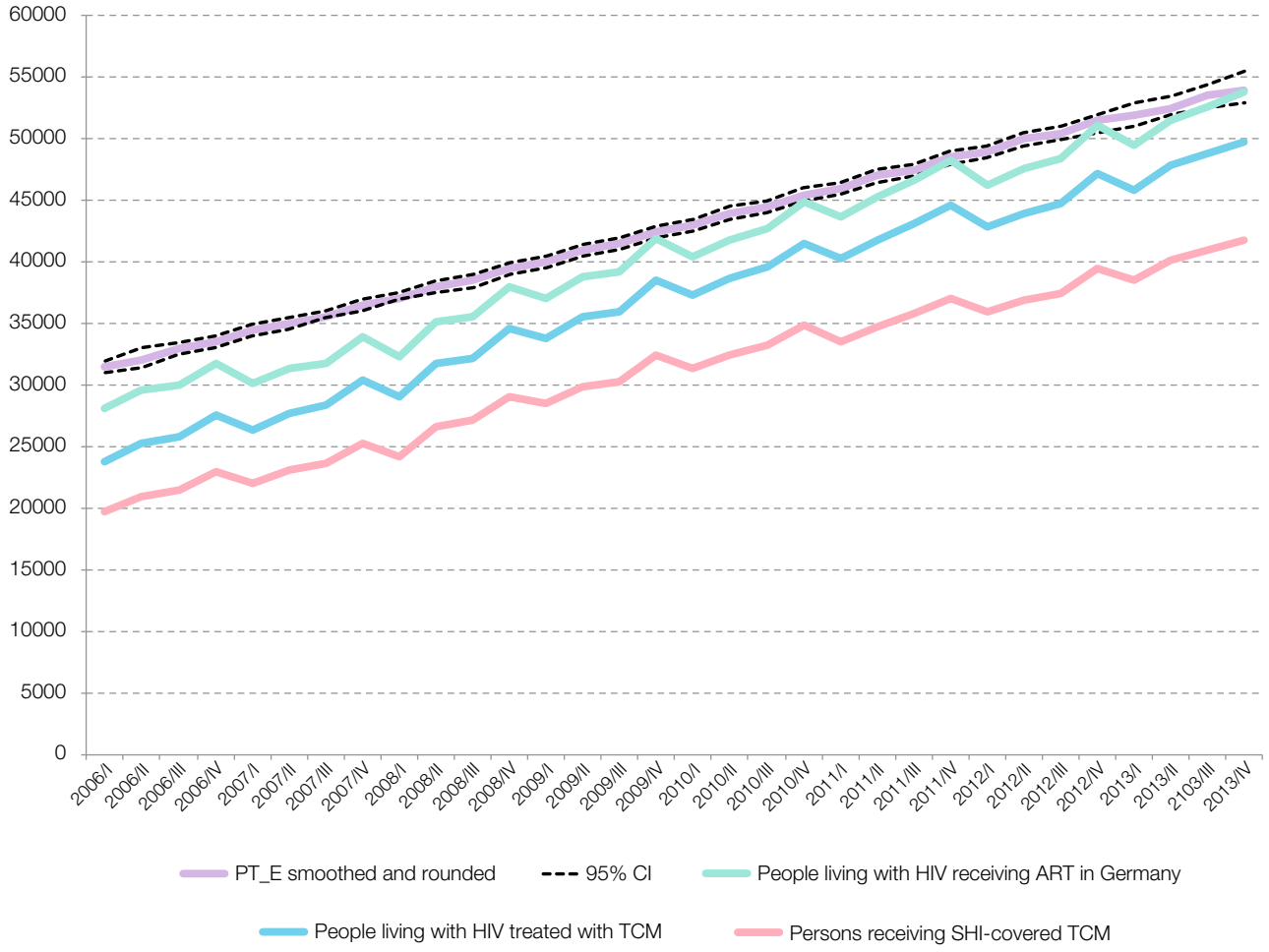
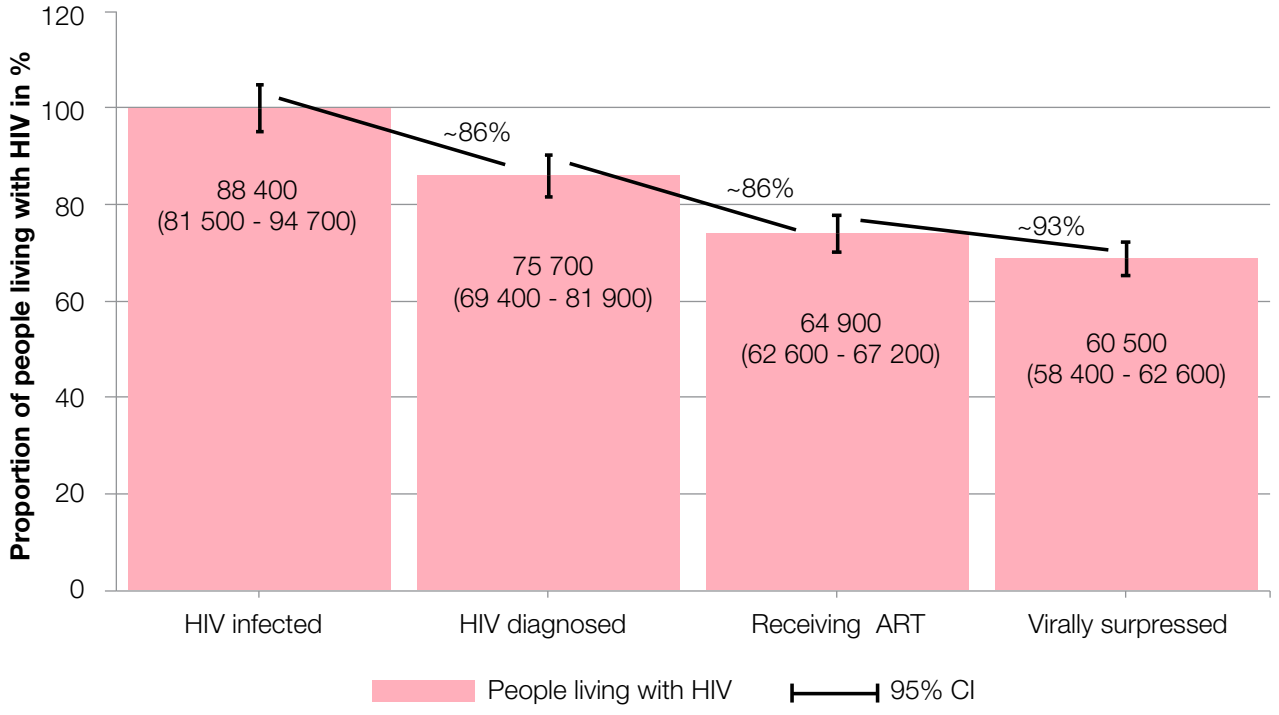


Fig. 4. Estimated number of people on ART via the continuum of HIV care, Germany



In other countries or settings with a different structure of the health care system, other sources can be used such as: national surveillance data; drug prescription data of national registries, where available; data from special HIV prescription programmes; or private health insurance data for countries with a lower proportion of statutory health coverage. The methodology can be adapted for different investigations or medications. For example, it was recently assessed and is now used for the surveillance of hepatitis C treatment in Germany *(23)*. By expanding this approach, the authors also successfully determined treatment levels for those receiving OST or treatment for HCV infection, HIV, or TB in German prisons *(24)*.

Sustainability

The Robert Koch Institute, including its work on developing this surveillance method, is funded by the Federal MoH. The study is repeated annually to estimate the number of people living with HIV receiving ART and the HIV prevalence and measure the continuum of HIV care in Germany.

IRELAND. An evaluation of HIV case-based surveillance and change in the national surveillance case definition

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Background

From the early 1980s to the end of 2016, a total of 8341 people were diagnosed with HIV in Ireland *(25)*. Since 2000, the rate of HIV has varied between 7.0 per 100 000 population and 10.7 per 100 000 population, with approximately 10 new diagnoses per week in 2016. HIV case-based reporting was introduced in Ireland in mid-2002, thereby improving surveillance. HIV was made a notifiable disease (mandatory reporting) in the country in 2011 and was included in the national computerized infectious disease surveillance system in 2012. In 2013, the HIV surveillance focal point in the National Virus Reference Laboratory (University College Dublin) found that some people diagnosed with HIV were not notified because they did not have the required confirmatory testing for two separate samples (according to the nationally agreed laboratory protocol). These were either cases with an anti-HIV serological positive result and subsequent viral load tests with undetectable viral loads or cases with only one antibody-positive result and no subsequent tests. Although the number of cases in these categories was small between 2009 and 2012, the number increased significantly in 2013 and action was needed. In addition, although it took time for the enhanced information to be collected and entered into the computerized infectious disease surveillance system, the length of the delays in notifying new HIV diagnoses and in providing enhanced surveillance data for HIV prior to the evaluation was unknown.

Description of the good practice

In an effort to assess national HIV reporting, an ECDC EPIET Fellow (on the field epidemiology path *(26)*) based at the Health Protection Surveillance Centre (HSPC) undertook a surveillance system evaluation, working closely with the HIV/sexually transmitted infection (STI) surveillance team at the HSPC and the surveillance focal point at the National Virus Reference Laboratory. The aims of the evaluation were to describe the surveillance system, focusing on the key attributes of sensitivity and timeliness. Prior to commencing the evaluation process, a protocol was reviewed and approved by key stakeholders involved in HIV surveillance. This included the national Public Health STI/HIV Special Interest Group and the HSPC national HIV/STI operational surveillance group, representing public health, surveillance scientists, laboratory and clinical specialties. The evaluation followed the United States Centers for Disease Control and Prevention (CDC) guidelines for evaluation of public health surveillance systems *(27)* and the ECDC handbook on data quality monitoring and surveillance system evaluation *(28)*, along with the WHO guideline on evaluating a national surveillance system developed by the UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance *(29)*.

Steps of the surveillance system evaluation

- Describe the national HIV surveillance system based on: (i) a review of documents at the HSPC

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(including surveillance reports, computerized infectious disease surveillance system database reports, the HIV surveillance form, standard operating procedures, surveillance guidelines and other strategic documents) and (ii) semi-structured interviews with National Virus Reference Laboratory staff in charge of surveillance. The evaluator visited the Department of Public Health in the East Region and met the staff in charge of HIV surveillance.

- Estimate sensitivity by analysing new HIV diagnoses that were not notified in 2013 by the National Virus Reference Laboratory because they did not fit nationally agreed laboratory criteria for reporting.

- Measure the median (and range) time intervals in HIV surveillance steps and identify possible ways of reducing or eliminating them.

Insights from the evaluation

- The sensitivity of the system (measured by comparing National Virus Reference Laboratory data with notification data) was 82%; underreporting of new HIV diagnoses was due to the two-sample notification threshold required by the nationally agreed reporting procedures. A total of 71 (18%) diagnoses in 2013 detected by the National Virus Reference Laboratory were not notified in the computerized infectious disease surveillance system because they did not fulfil the criteria for notification; in comparison, 334 cases were notified in the computerized infectious disease surveillance system in 2013. Twenty-three (32%) of the non-notified cases had only one sample with positive serology results. No additional information is available on the profile of these patients, but it is assumed that there may have been a delay in the second sample being sent; alternatively, some patients may not have accessed care or may have moved outside Ireland after their first diagnosis in the country. Forty-eight (68%) of the non-notified cases had one sample with positive serology results and an undetectable viral load. Most of these cases were persons who had transferred care from another country.

- Based on the available data, overall HIV surveillance in Ireland is timely for trend monitoring and fits within the CDC and national standards of timeliness *(28,30)*, although recent standards are not available. The system is able to identify new diagnoses within approximately 19 days overall (delay from first positive test to confirmation to notification in the computerized infectious disease surveillance system). Eighty-one per cent of enhanced surveillance forms were completed within six months of diagnosis confirmation. It was therefore concluded that a reliable trend analysis could be undertaken after six months and that the interval between testing of the first and second samples (median: 10 days) could be eliminated if the system moved to a one-sample threshold for notification.

- Formal surveillance objectives were not documented prior to the evaluation and the system lacked harmonized procedures across the country.

Actions subsequent to the evaluation

- The national HIV surveillance case definition was changed (in 2015 for one region and in 2016 for all other regions) to improve sensitivity: all new diagnoses were notified following confirmatory testing of a single sample.

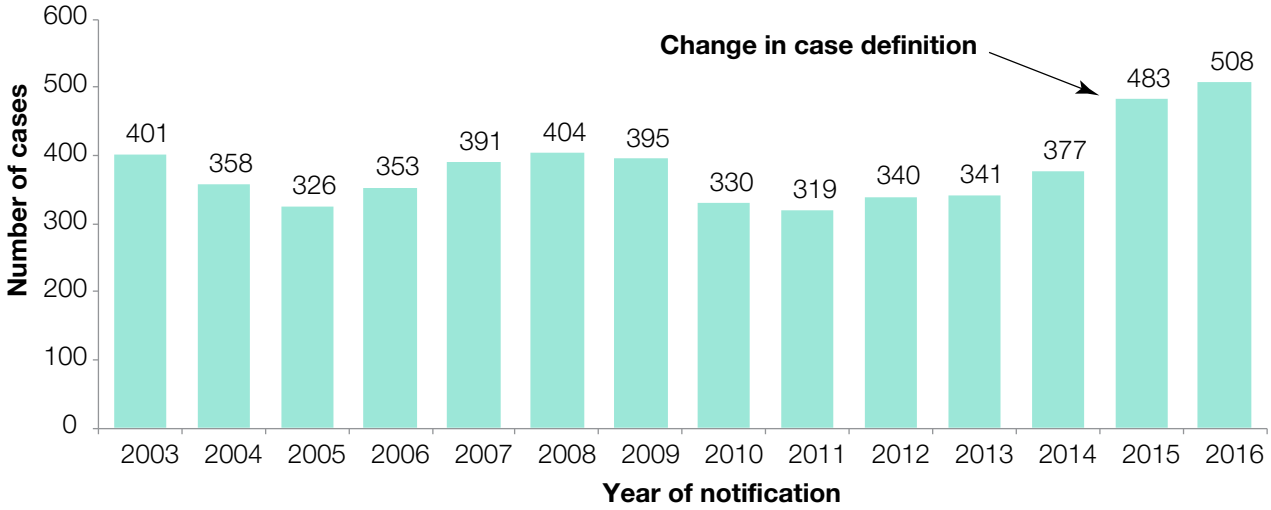
- To improve quality, the timing of national epidemiological reports was changed to account for the delay in receiving the majority of enhanced forms. As a result, annual epidemiological reports are now produced six months after the end of each calendar year.

- New surveillance objectives were agreed on with stakeholders.

Evidence of impact/efficacy

The purpose of the evaluation was to increase the sensitivity and timeliness of the national HIV surveillance system in Ireland via a change in the national surveillance case definition. This resulted in a large increase (28%) in notifications of HIV in 2015, followed by a smaller increase in 2016 (5%; Fig. 5). The change from the requirement for testing two separate samples to a single sample also eliminated the delay in waiting for the second sample. This change, undertaken in collaboration with the National Virus Reference Laboratory and other surveillance partners, resulted in more accurate and reliable information for action. The National Virus Reference Laboratory estimated that of the notifications in 2015 (n = 483), at least 50 (10%) were the direct result of this change to the case definition.

Fig. 5. Notifications of HIV, Ireland, 2003–2016



The evaluation resulted in better documentation of the national HIV surveillance system, including the preparation of formal objectives.[9]

Sustainability

The change of case definition will continue without the provision of any additional resources. The evaluation was undertaken by the EPIET Fellow as part of her training and the work of HSPC staff and the report were funded from existing resources by HSPC (Health Service Executive). The findings and recommendations of the evaluation also provided an impetus to proceed with plans for electronic reporting of HIV and STIs from clinics. Funding was secured for building an STI/HIV module within the computerized infectious disease surveillance system; this is due to be piloted later in 2018.

[9] The full report of the evaluation is available (31).

POLAND. Estimating the HIV viral suppression rate: a national study

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Background

In Poland, approximately 0.1% of population is infected with HIV, with more than 21 000 diagnosed cases as of January 2017. The country has seen a shift in transmission over the past decade: from transmission primarily from injecting drug use to sexual transmission between men, with high rates of HCV coinfection. Immediate initiation of ART irrespective of CD4 count leading to virological suppression is considered the most effective treatment option to preserve immune system function; it also decreases the risk of AIDS-related morbidity and mortality, may reduce the likelihood of onward transmission and limits drug resistance. Initiation of ART regardless of CD4 cell count is recommended by all major treatment guidelines worldwide, including those of the Polish Scientific AIDS Society *(32)*. Since 1996, unrestricted, free-of-charge coverage has been available for all EU-registered ART medications and combinations, as well as for genotypic

drug resistance, HIV viral load and CD4 cell assays. All ARVs and single-tablet ART regimens approved in the EU are purchased centrally based on orders from 16 local HIV treatment centres (and one primary centre for ART distribution for the prisoner population).

Description of the good practice

To assess the national rate of virological suppression in Poland, a study was undertaken of a random selection of 50% of all patients at treatment centres in the country. The study aimed to estimate the national virological suppression rate, defined as HIV-RNA viremia of <50 copies/ml or <200 copies/ml.

Cross-sectional data on ART efficacy were collected for 5152 patients (56.92% of total national number of treated cases from 14 of the 17 HIV treatment centres. The data were nationally representative: two smaller clinical centres did not participate but the largest centres randomly selected approximately 50% of their patients. Inclusion criteria were ART adherence for at least six months, with at least one virological measurement in 2016 *after* the period of ART adherence. Exclusion criteria were patients who did not report to the HIV clinic for at least six months, did not adhere to ART or did not have an HIV-RNA measurement at least once in 2016. The researchers estimate that approximately 15–20% of cases were excluded (1200 persons). Loss to follow-up resulted from loss of medical insurance,[10] migration or the patient's wish to stop treatment (<5% of cases). Fifteen HIV patients resulting from vertical transmission and four haemophilia patients were excluded from the final analysis owing to the small sample size. Data were disaggregated by age at HIV diagnosis, sex, date of HIV diagnosis, route of transmission, history of HCV coinfection based on anti-HCV serology results (anti-HCV positive/negative), history of AIDS (via medical records), baseline viral load (from entry to care), and the baseline, nadir and latest CD4 cell counts. The date of diagnosis was assumed to be the date of the positive recorded HIV test following western blotting, immunoblotting or positive serum HIV-RNA confirmation. As the time of seroconversion was often unavailable, acute HIV infection data were not collected. The latest CD4 cell count was taken from the last value recorded in the medical records and the transmission route was self-reported. Collected ART data included drug classes for the current (or last) treatment and their drug combinations. Data on ART history was not collected. Engagement of people living with HIV with loss of medical insurance, their decision to stop treatment and the motivation of patients for regular follow-up and viral load testing/monitoring were the primary bottlenecks to assessing the national virological suppression rate. In addition, data from the prison population were missing owing to lack of consent by the prison management. A lack of collected data on the number of people living with HIV emigrating from Poland also affected the ability to make conclusions regarding viral suppression for this section of the migrant population.

Evidence of impact/efficacy

Virological suppression at the viral load threshold of <50 copies/mL was observed in 4672 (90.68%) and of <200 copies/mL was observed in 4934 (95.77%) individuals. For the viral load threshold of 200 copies/mL, higher rates of viral suppression were only associated with a baseline CD4 cell count of at least 200 cells/µl. In this study of people who are highly adherent to ART, the proportion of virologically suppressed patients (90.68%) proved to be in line with the 90–90–90 target, and specifically the last viral suppression target of 90% in the nationally representative sample. Virological suppression rates depend on baseline patient characteristics, which should guide individualized ART decisions.

Sustainability

This study was funded by the Polish Government. However, some patients are becoming uninsured, and thereby losing the right to free ART and HIV-RNA monitoring. This needs to be considered a key risk when aiming for the UNAIDS 90–90–90 targets in the country. Member States choosing to adopt a similar nationally representative study may consider the limitations of this Polish experience in developing an adapted protocol that may also work closely with the prison population, the migrant population or those key populations where the burden of HIV is highest.

[10] Since 2018, Poland requires all those receiving ART to have access to health insurance (at a cost of approximately €80 per month) (33).

UNITED KINGDOM. HIV surveillance beyond viral suppression: monitoring of quality of life and patient experience with a national HIV patient survey

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[1]Public Health England; [2]Watipa

Background

The United Kingdom has an HIV population of around 100 000, concentrated in men who have acquired HIV through sex with other men, as well as in men and women originating from sub-Saharan Africa (46% and 24% of all persons living with HIV, respectively). HIV care and treatment are provided for all free of charge through the National Health Service. In 2016, 93% of persons living with diagnosed HIV were on ART and virally suppressed. The success of HIV treatment has reduced the HIV mortality rate; as a result, the United Kingdom has an ageing HIV cohort, with over one in three aged over 50 years.

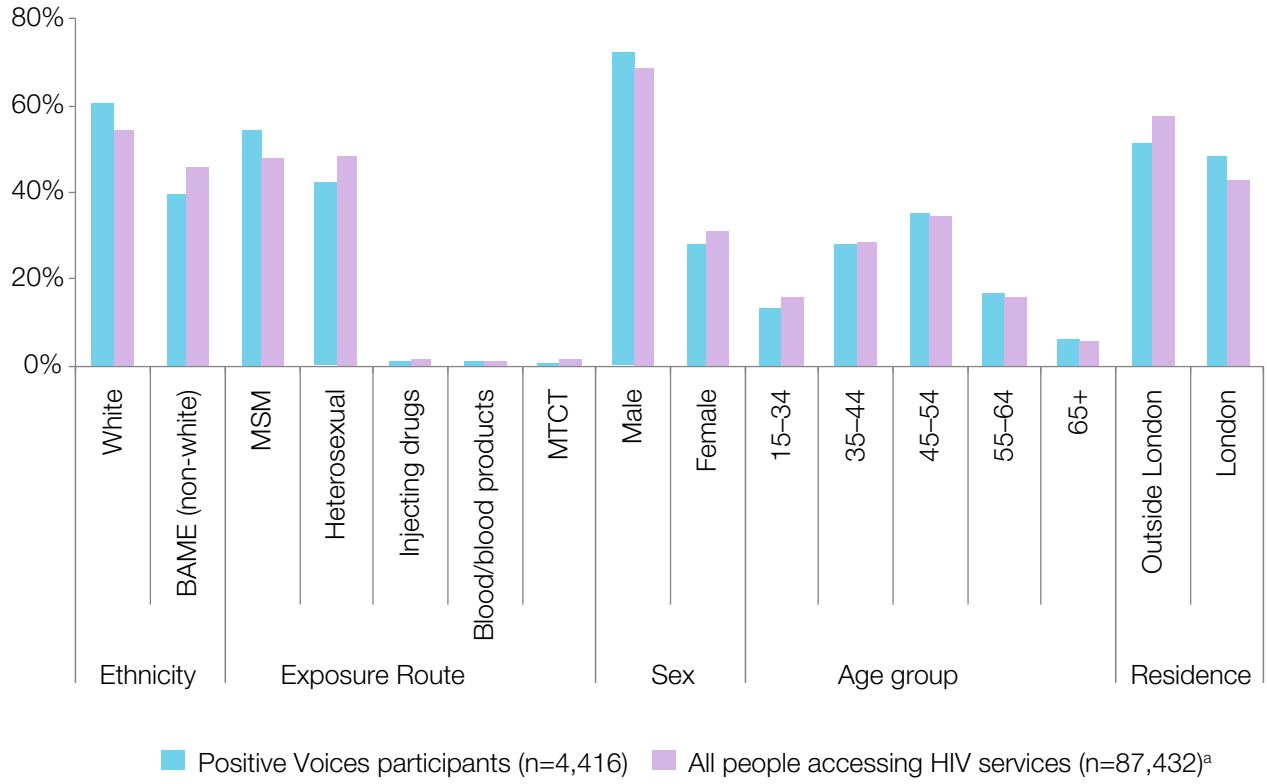
Description of the good practice

Public Health England, the national public health institute responsible for HIV surveillance, has developed and implemented a novel self-reporting tool to routinely monitor the quality of life and experiences of people living with HIV, the Positive Voices survey. A representative sample of people accessing HIV care was invited to partake in the survey to ensure that findings were generalizable and comparable with the general population aimed to invite a representative sample of people accessing HIV care to ensure that findings are generalizable and comparable with the general population. The pilot phase of the survey was conducted in 2014 using a National Institute for Health Research grant. An advisory group of clinicians, social scientists, commissioners, survey experts and people living with HIV was established to guide the project. In the formative research phase, qualitative methods (i.e. focus groups, group interviews and structured observations) were used with HIV patients and health care staff to assess the acceptability and feasibility of various survey approaches, such as the use of incentives (a shopping voucher), survey formats (paper and electronic), survey length and recruitment approaches (face to face, text and email). To achieve a representative sample, the survey used an existing national HIV surveillance cohort (from the HIV and AIDS Reporting System) as a sampling frame to randomly select patients to invite to participate. Patient confidentiality and anonymity was of paramount importance; this approach ensured no other patient identifiers were collected. Pre-selected patients were assigned a unique six-letter survey identifier that had dual purpose: (i) as a logon to the online survey to avoid duplicate or fake responses; and (ii) as a means to link survey data to clinical and demographic data in the HIV and AIDS Reporting System. This linkage provides a unique opportunity to assess the relationship of patient experiences and needs with their clinical outcomes. The questionnaire was populated with validated survey questions and instruments, such a quality of life instrument (EQ-5D-5L) and a depression and anxiety scale (General Health Questionnaire (GHQ-12), generic patient-reported experience measures to allow comparison with the general population and pre-tested using cognitive interviews with HIV patients. Ethical approval was obtained.

Evaluation of the 2014 pilot (involving 777 participants from 30 clinics) of an electronic, clinic-based self-completion survey showed high acceptability and feasibility overall but disproportionately low response rates among women, younger people and people of non-white ethnicity. Through an iterative consultation with the advisory group review of the qualitative and quantitative data, a final protocol was developed; this included the choice of both paper and online response formats; the option of face-to-face, email or postal recruitment; a recruitment period of up to eight months; and a £5 unconditional shopping voucher incentive. Postage paid envelopes were provided for patients to complete and return the paper survey outside of the HIV clinic.

National scale-up of the survey was made possible by a further grant; recruitment for Positive Voices 2017 ran from January to September 2017 in 73 HIV clinics in England and Wales (serving half of all people with HIV in care). Overall, 4422 responses were obtained (51% response rate), resulting in a highly representative sample of people living with diagnosed HIV (Fig. 6). Data quality was high, with good internal and external validity, high item-response rates and over 97% of respondents submitting a fully completed survey. Weighting has been applied to further improve the reliability of the population estimates.

Fig. 6. Representativeness of the Positive Voices survey sample compared with the national United Kingdom cohort



[a] Aged over 18 years in England and Wales.

The Positive Voices pilot and 2017 surveys provide proof of concept that high-quality patient-reported information can be collected at a national level to create a powerful bio-behavioural dataset that can be securely linked to surveillance and clinical data (e.g. ART uptake and viral suppression). Employing robust formative research methods and a flexible, iterative approach and ensuring community and expert involvement was crucial to the success of the survey.

An example of the outputs is given in Fig. 7, showing the met and unmet needs of participants in the previous 12 months. Despite excellent clinical outcomes for HIV care, a high level of need for social and welfare services was reported, with help in dealing with loneliness or isolation being the single greatest unmet need among people living with HIV (80% of people reported that this had not been met).These findings have important implications for future service provision and planning.

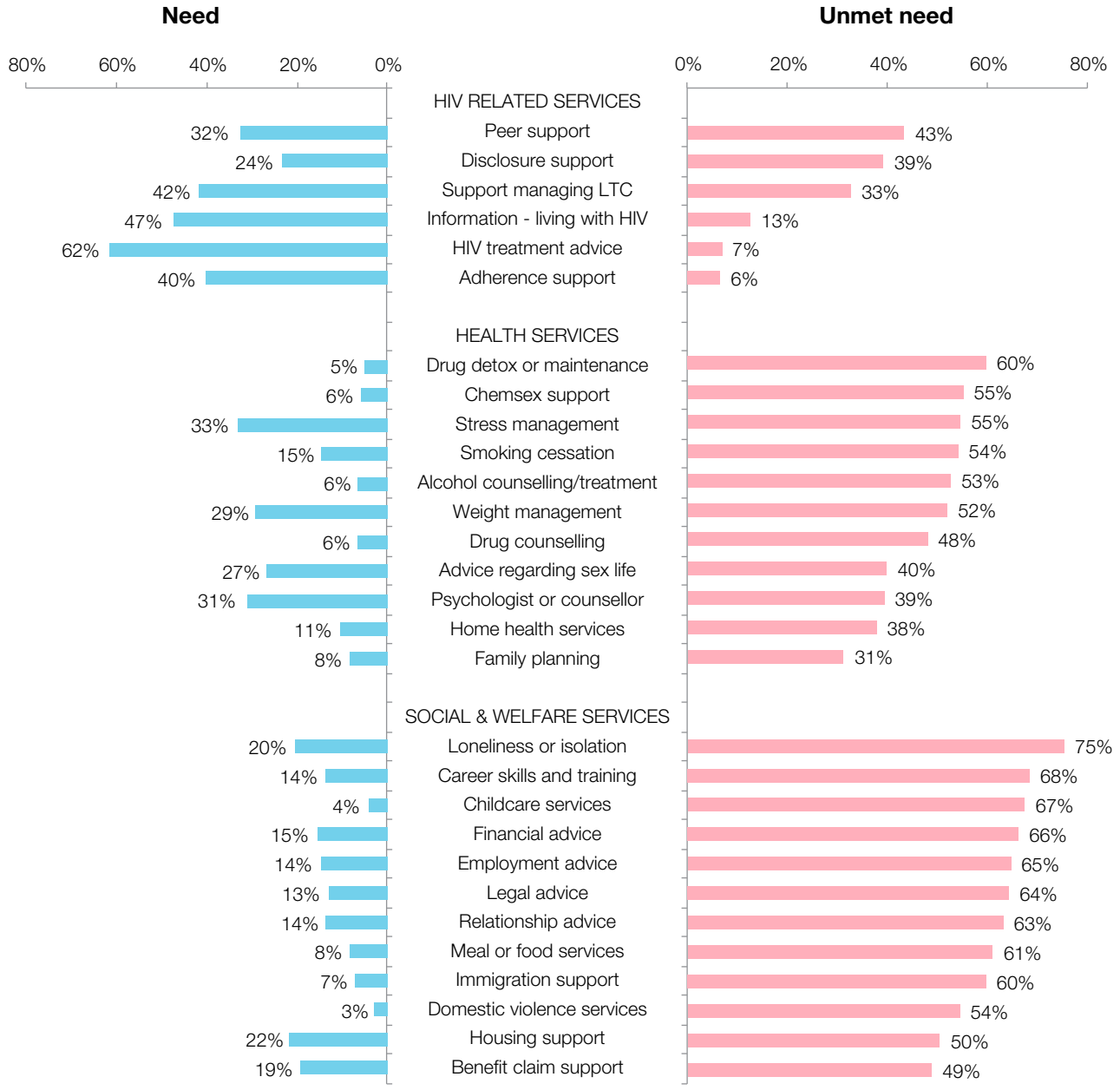
Evidence of impact/efficacy

For the first time in the United Kingdom, the Positive Voices 2017 survey data has provided an understanding of the overall well-being of people living with HIV and their experiences of the NHS during a time of significant changes in the delivery of health and social care services. While the initial aim was to provide knowledge to inform patient-centred care and the inclusion of patient experience measures in local and national quality standards, the survey has attracted much wider interest and the data are used by a broad range of stakeholders. For instance, the data have been used at the local and regional levels for HIV service evaluations and strategic needs assessments, and civil society for government policy briefing advocacy reports. The findings have been presented at national meetings and call for greater integration of HIV care with other health services, as well as greater support from peers and third sector organizations. Several manuscripts are planned for publication, including quality of life among people living with HIV compared with the general population, mental health and depression and the prevalence of comorbidities among people living with HIV. These will also form the basis of modelling and health economics work to assess future health needs and costs. Finally, a community-led co-analysis of the survey data informed by workshops with people with HIV who took part in the survey is under way.

Sustainability

The Positive Voices programme costs around £100 000 per year, including costs for three staff members, survey consumables and incentives (the per response cost is £67, very low for a probability survey). The success of the survey was possible owing to significant up-front investment for the formative research and pilot study; however, subsequent running costs are kept low by using the HIV and AIDS Reporting System as a sampling frame and automating the process. The novel design approach and methodology have been adapted and applied to a survey of attendees of sexual health clinics in the United Kingdom. The European Commission has provided funding through the INTEGRATE Joint Action *(34)* to adapt the Positive Voices method to survey HIV and HCV-infected patients across Europe. Public Health England aims to repeat the survey every three years.

Fig. 7. Positive Voices 2017: population prevalence of the need and unmet need for specific services[a,b]



[a] n = 4416.

[b] Percentage need: the proportion of persons who stated that they had needed a specific service in last year; percentage unmet need; of those who had a need, the proportion who could not access the specific service in the last year.

LTC: long-term condition.

STRATEGIC DIRECTION 2. Interventions for impact

ARMENIA. From prevention to Elimination of Mother-to-Child transmission of HIV: the EMTCT project

Submitted by: Grigoryan, Samvel[1] | Papoyan, Arshak[1] | Ghukasyan, Gayane[2]

[1]National Centre for AIDS Prevention (NCAP); [2]WHO Country Office Armenia

Background

Before 2001, no prevention of mother-to-child transmission (PMTCT) of HIV (PMTCT) services were provided in Armenia. Pregnant women had low access to provider-initiated HIV testing and counselling and to ART, and prophylaxis for HIV-positive mothers and newborns was not available. Prenatal services for pregnant women and during childbirth required out-of-pocket payment due to weak regulatory frameworks, lack of trained personnel, tests and ARV drugs, and low state and donor investment. Before 2005, less than 10% of pregnant women were tested for HIV.

Description of the good practice

Under the Armenian Elimination of Mother-to-Child Transmission of HIV (EMTCT) project, the new comprehensive PTMCT system provides women with a free-of-charge package of medical services, including HIV testing and counselling; ARVs for pregnant women, mothers and children; free delivery of milk formula; and perinatal and child health protection services until age 7 years. Starting from 2016, HIV test kits for pregnant women and milk formula for infants born to HIV-positive mothers have been purchased from state budget allocations. Laboratory infrastructures, laboratory equipment and information technology requirements were established with support from the GFATM. Furthermore, personnel were trained and a countrywide PMTCT network was established. The training programme covers HIV testing strategies and algorithms; HIV laboratory diagnostics; HIV confirmatory testing; laboratory diagnostics for opportunistic infections; CD4 cell count, viral load monitoring; and qualitative and quantitative polymerase chain reaction-based laboratory quality assurance. Supply chain management was also established at the national level, including forecasting, procurement and distribution of ARVs, HIV test kits, formula and consumables needed for early HIV detection among children. Annual external audits/quality control by the National Centre for AIDS Prevention were instituted in all HIV testing laboratories, with on-site technical assistance. This allowed Armenia to pass the external laboratory assessment, as part of WHO/UNAIDS validation of elimination of MTCT of HIV.

From 2010, training and retraining of health care workers on HIV/AIDS has been institutionalized via introduction of a HIV training course into the National Institute of Health platform. This course became part of the credit system of advanced training for health care workers. In addition, the National Monitoring and Evaluation Framework was established to coordinate the effective collection, analysis, aggregation and use of data and indicators (in alignment with WHO guidelines) related to prevention and treatment activities, including PMTCT services.

Evidence of impact/efficacy

The number of HIV tests performed among pregnant women has sharply increased since 2004 (Fig. 8). Since 2012, testing sites have been available in all antenatal clinics and more than 95% of pregnant women (over 40 000 women) have been tested. More than 200 women benefited from the PMTCT services and gave birth to HIV-free children. Since 2007, no HIV cases have been registered among children born to HIV-positive mothers who received PMTCT; since 2014, the MTCT transmission rate has remained below 2% (Fig. 9).[11] The practice additionally led to a revision of the Law of the Republic of Armenia on HIV/AIDS Prevention in 2009, in which mandatory HIV testing for pregnant women was replaced with health care provider-initiated HIV testing and counselling (including for children born to HIV-positive mothers). The National Institute of Health training programme

[11] The MTCT rate for HIV in non-breastfeeding populations in Armenia were 1.78 per 100 000 population in 2014, 1.25 per 100 000 population in 2015 and 1.36 per 100 000 population in 2016.

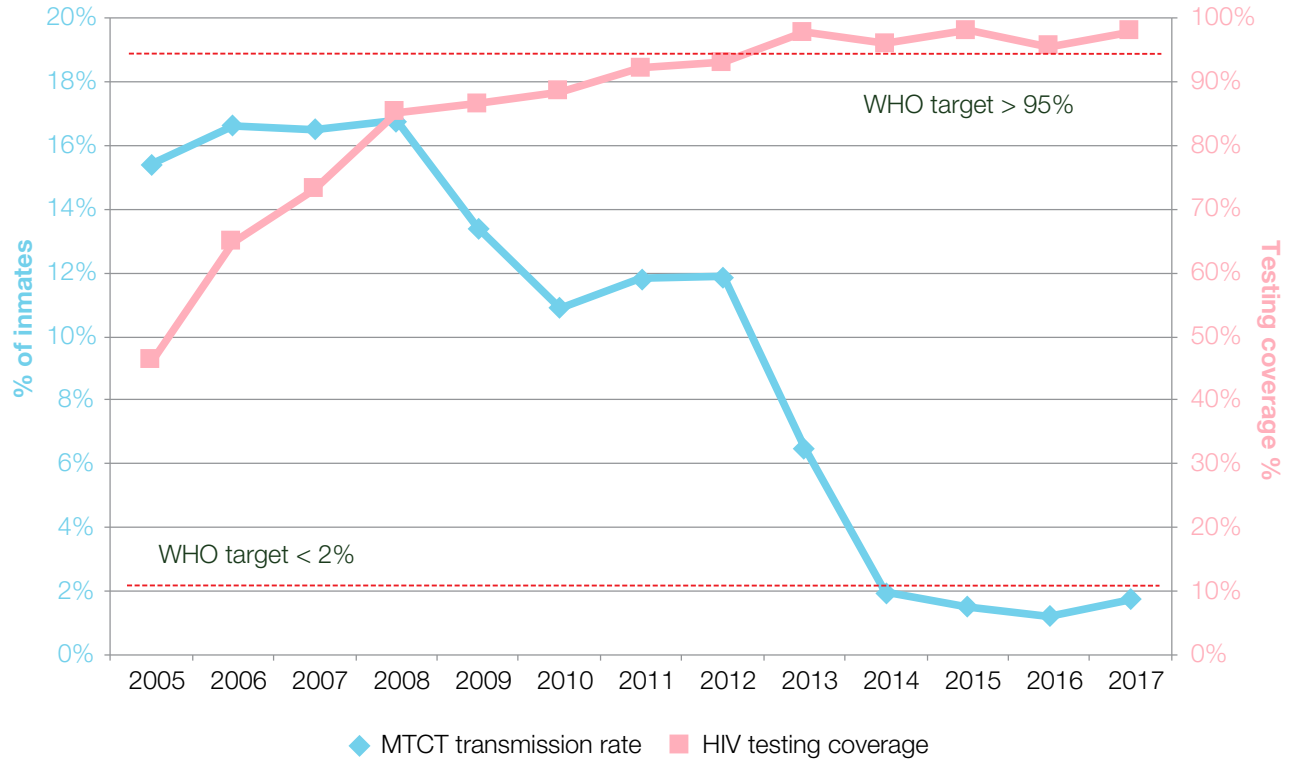
has resulted in the provision of trained personnel in all antenatal clinics and laboratories countrywide, including obstetrician–gynaecologists, nurses and assistants, focused on strengthening PMTCT capacity, counselling and testing, patient management, and laboratory diagnostics. These trained personnel also understand legislative issues and the need to reduce stigma and discrimination for people living with HIV. In April 2016, WHO and UNAIDS experts performed a validation mission for the elimination of MTCT to the country; the certificate for validation was awarded on 7 June 2016 (Fig. 8).

Figure 8. Armenia's certificate of validation. ©UNAIDS

Sustainability

The EMTCT project is sustained by collaboration between the Department of Maternal and Child Health Care of the MoH, the National Centre for AIDS Prevention and the Institute of Reproductive Health, Perinatology, Obstetrics and Gynaecology. The programme is fully funded by the Republic of Armenia, except for procurement of some ARVs under the GFATM grant. Complete coverage with ARVs for PMTCT is expected after implementation of the current National AIDS Programme. Technical assistance is provided by UNAIDS, the United Nations Children's Fund (UNICEF) and WHO.

Fig. 9. Testing coverage and vertical transmission rates, Armenia, 2005–2017



AZERBAIJAN. The influence of harm reduction programmes in prisons

Submitted by: Rafael İbrahim Oğlu, Mehtiev | Elnur Rovshan Oğlu, Mamedov | Natavan Faig gizi, Alikhanova

Main Medical Department of the Ministry of Justice

Background

The spread of HIV infection in prisons is a particular concern in Azerbaijan. In 2007 and 2011, a range of integrated bio-behavioural studies (IBBS) were conducted to assess HIV prevalence among key populations, including surveys among inmates. Comparative analysis of the survey results shows an increase in the prevalence of HIV infection among inmates from 2.9% (n = 1000) in 2007 to 5.8% (n = 400) in 2011. In 2011, the Knowledge, Attitudes and Practices (KAP) survey on HIV/AIDS was conducted in 12 correctional institutions. The survey found that only half of respondents knew that HIV is transmitted both sexually and through contaminated needles and syringes. NSP and OST were not implemented among inmates because the necessary regulatory framework was lacking. Strengthening the expansion and improvement of HIV prevention interventions was the main task of the Main Medical Department (MMD) of the MoJ of Azerbaijan.

Description of the good practice

The types of activities included educational activities on HIV prevention and harm reduction; theatre performances; an educational documentary; the establishment of "health rooms" in selected penitentiary settings; condom distribution programming; improving laboratory capacities for HIV testing (including HIV testing in parallel with screening for TB); and continued policy-related debate towards implementation of those NSP and OST programmes agreed by all stakeholders. With the participation of WHO experts, cycles of HIV prevention training and harm reduction programmes in prisons were provided to 180 medical and 440 nonmedical staff of penitentiary institutions throughout the country. Additional training on VCT for HIV and sessions on treatment and ART have also been conducted since 2011 by leading staff of the Republican HIV/AIDS Centre. To increase HIV awareness among inmates, a documentary film was produced by leading specialists in the MoH and MoJ on HIV transmission, prevention and treatment. An annual theatrical performance was used to highlight issues of drug use, HIV transmission and alcohol use. Related health information materials including brochures and booklets have also been prepared, published and distributed.

Health rooms were set up in all 23 of the country's penitentiary institutions, where inmates, including people living with HIV, can receive qualified assistance from psychologists and other multidisciplinary psychosocial support from specialized NGO staff. These health information and support sessions help in raising awareness on HIV transmission and care and in promoting healthier lifestyles among inmates. In 2012, a condom distribution programming was launched in all Azerbaijani penitentiary institutions. To further identify HIV-positive inmates, a special HIV laboratory facility was set up in 2013 in the penitentiary treatment institution to perform all necessary tests (including enzyme-linked immunosorbent assays (ELISAs), CD4 cell counting and viral load monitoring), with the aim of bringing testing and treatment monitoring services closer to the needs of people living with HIV and of reducing delays in confirming test results. Provider-initiated VCT for HIV is offered when inmates apply for health care assistance, during hospital treatment and periodically among at people who inject drugs. This includes annual voluntary HIV testing and an information campaign in parallel with TB screening. Furthermore, a medical consultative commission has been established to link those diagnosed with HIV to ART and care, in line with WHO recommendations.

Evidence of impact/efficacy

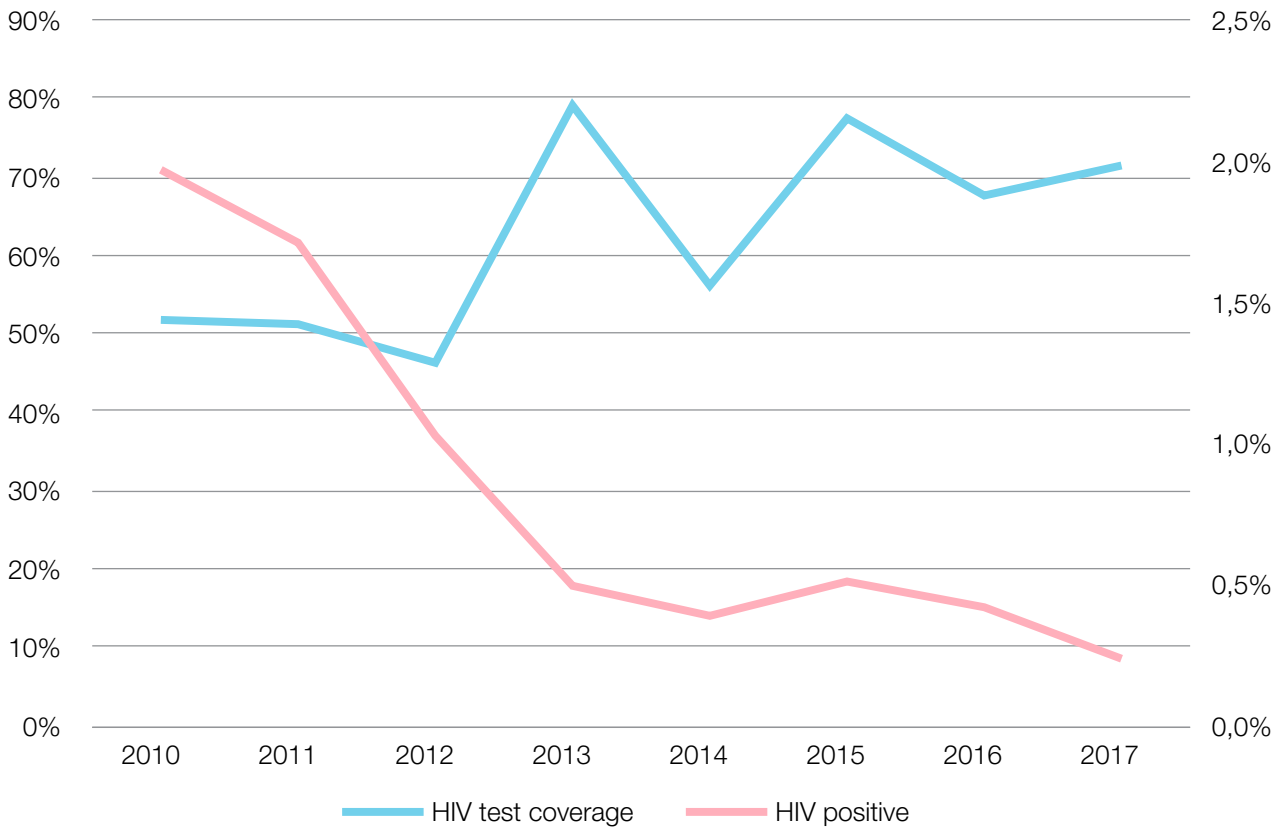
The rate of new HIV infections among inmates in Azerbaijan showed a decreasing tendency between 2010 and 2017, despite increasing HIV testing rates (Fig. 10). The decrease coincides with the implemented health interventions and improved access to HIV testing and ART coverage. The IBBS and KAP surveys will be repeated in 2018 to monitor the achievements.

Sustainability

Costs related to laboratory testing, ART and the publication of health information materials are covered by the MMD of the MoJ in Azerbaijan. The support provided by NGOs, the provision of multidisciplinary psychosocial services through health rooms in penitentiaries, other health information and educational activities, including theatrical performances on health issues, along with condom distribution programmes require financial support from the national HIV programme and existing

donors. The plan for 2018–2021 is to support the work of NGOs and other preventive activities in penitentiary institutions using the national GFATM grant funds. Despite this, increased national allocations to cover HIV prevention programmes in penitentiaries will be needed to support this model of care.

Fig. 10. Testing coverage and HIV diagnoses among inmates (% of total inmates), 2010–2017



AZERBAIJAN. Isoniazid preventive therapy among prisoners living with HIV

Submitted by: Mamedov, Rafael oğlu, Mehtiev | Elnur Rovshan Oğlu, Mamedov | Alikhnova, Natavan Faig gizi

Main Medical Department of the Ministry of Justice, Azerbaijan

Background

WHO estimates the risk of TB among HIV-infected people is to be 16–27 times greater in people living with HIV than in those without HIV infection *(10)*. For HIV-infected inmates, this risk is much higher owing to additional factors associated with living in a closed setting. The benefits of isoniazid preventive therapy (IPT) among HIV-infected persons with latent TB infection have been known since 1998. In 2012, WHO re-examined the body of evidence on IPT initiation and recommended that HIV-infected people with latent TB infection should receive a six-month course of IPT every five years as an effective method of preventing active TB. Evidence for the benefits and harms of 36 months versus six months of IPT was reassessed by WHO in 2015 and the following recommendation was made:

> *In resource-constrained settings with high TB incidence and transmission, adults and adolescents living with HIV, who have an unknown or positive tuberculin skin test status and among whom active TB disease has been safely ruled out, should receive at least 36 months of IPT. IPT should be given to such individuals regardless of whether or not they are receiving ART. IPT should also be given irrespective of the degree of immunosuppression, history of previous TB treatment, and pregnancy (35).*

The penitentiary institutions of Azerbaijan comprise 19 correctional institutions, three pre-trial detention centres and two medical institutions, one of which is specialized for treating TB patients. In 2012, an agreement was reached between the MMD and the Republican AIDS Centre to fully transfer authority for the diagnosis, registration, treatment and monitoring of HIV-positive inmates to the MMD. All medical documentation for HIV-infected individuals was transferred to the institutions of the penitentiary sector; this allowed the registration of HIV-positive inmates and preparation of special health care cards. Health care unit personnel received special training in the Republican AIDS Centre on the national algorithms for diagnosis and treatment and monitoring of HIV infection. In addition, a laboratory facility was established at the Medical Facility of the MMD by the end of 2013 to bring HIV diagnosis and infection monitoring closer to the needs of people within the penitentiary institution. One of the first actions was the introduction of IPT as the most effective method of preventing the development of active TB in people living with HIV.

Description of the good practice

The Order on the prevention of TB among HIV-infected persons from the inmate contingent was issued in 2013. Training courses have been conducted for health care staff in the penitentiary sector, based on the latest WHO recommendations. Two mobile medical teams were created: each included a TB specialist, an HIV/AIDS specialist and an inspector from the MMD. In accordance with internal protocol, all HIV-infected persons who do not receive IPT are screened for TB using the an MTB/RIF assay twice per year. Results are recorded in health care cards and are available to the doctors of the mobile teams. In autumn and spring each year, these teams of doctors visit all penitentiary institutions and conduct a clinical examination of people living with HIV using a condensed screening algorithm based on identification of the four main symptoms of TB: persistent cough, fever, weight loss and night sweats. If any one of these symptoms is detected, sputum samples are taken and sent for diagnostic testing. In the absence of clinical and laboratory confirmation of active TB, the medical team prescribes IPT to the HIV-infected person and recommends further supervision by the medical staff of the relevant health care unit. Administration of a daily dose of isoniazid plus pyridoxine is documented on the prescription sheet. An electronic database of HIV-positive persons was created in the MMD, enabling the frequency of viral load testing and linkage to ART and IPT to be tracked.

Evidence of impact/efficacy

The number of patients with TB/HIV coinfection decreased by half (from 71 to 30 patients) from 2012 to 2017, coincident with implementation of an integrated approach that includes a wide range of activities for the early detection and treatment of active TB and for the diagnosis and treatment of HIV-positive persons to prevent TB among people living with HIV. In addition, from the end of 2013 to 2017, 763 HIV-infected persons were linked to IPT.[12] Furthermore, a decrease in the number of new HIV infections was observed, despite an increase in coverage with HIV testing among inmates from 46% in 2012 to 71% in 2017. The proportion of patients in whom latent TB infection progressed to active TB was lower compared with WHO data on the probability of developing TB among people living with HIV (Table 3). WHO estimates that the risk of TB in individuals infected with both *Mycobacterium tuberculosis* and HIV is much higher than for those without HIV infection (at 5–10% risk per year and 5–10% lifetime risk, respectively) *(36)*.

Sustainability

This practice is based on the necessary legislative framework and is fully implemented without donor support: it is fully funded from the budget of the MMD of the MoJ. The practice has demonstrated its effectiveness and will continue following updates by WHO on recommendations for TB screening and TB preventive treatment for people living with HIV.

[12] Breakdown by year: 261 in 2013, 160 in 2014, 132 in 2015, 130 in 2016 and 89 in 2017.

Table 3. Annual risk of TB among people living with HIV receiving IPT in Azerbaijani prisons, 2013–2016

Year of IPT	First year after IPT	Second year after IPT	Third year after IPT	Fourth year after IPT
2013	3.7%	5.6%	2.9%	3%
2014	3.7%	5.6%	2.9%	–
2015	3.6%	4.2%	–	–
2016	4.1%	–	–	–

BELARUS. Introduction of HIV self-testing

Submitted by: Grankov, Viatcheslav[1] | Hlinskaya, Iryna[2] | Rusanovich, Anna[2]

[1]WHO Country Office Belarus; [2]National Centre of Hygiene, Epidemiology and Public Health

Background

Although the annual number of new HIV cases has been increasing in Belarus, the annual rate of increase in HIV diagnoses declined significantly from 23.6% in 2013–2015 to 3.3% in 2016–2017. According to the National Centre of Hygiene, Epidemiology and Public Health, HIV incidence in 2017 was 25.9 per 100 000 population, prompting the urgent need to increase early detection through testing and diagnostics. Although the country offers universal HIV testing and counselling in health care facilities and through social organizations working with key populations, one-third of the estimated number of people living with HIV in Belarus are unaware of their status.

Description of the good practice

Active discussion on introducing self-testing for HIV began immediately after the release of the WHO Guidelines on self-testing for HIV and partner notification in December 2016 *(37)*. Participants in the discussion included representatives of the MoH, patient organizations, NGOs, doctors, international partners [UNAIDS, UNICEF, the United Nations Population Fund (UNFPA), the United Nations Development Programme (UNDP)]. After making the decision to implement this practice, the preparatory work was launched, including an information campaign in the media. Since 1 May 2017, Belarus has implemented self-testing for HIV via rapid saliva tests sold in pharmacies. A pilot programme was initiated in the Homiel region, which has the highest HIV prevalence in the country (Homiel, 521.4 per 100 000; Belarus, 202.3 per 100 000). The self-test was introduced in the capital city, Minsk, on 9 September 2017. Currently, this practice has been introduced country-wide. As of 1 February 2018, the test costs 5.75 rubles (less than US$ 3).

The MoH of the Republic of Belarus, with support from UNAIDS and UNICEF, conducted a national information campaign, entitled “Concerns even those who are not concerned”, in an attempt to reach those who may be infected but may have little personal concern about HIV. The main objectives of the information campaign were to facilitate voluntary rapid HIV testing among different age groups of the population; attract the attention of central and regional media; ensure the support and participation of the heads of executive authorities; and change stereotypes in different target groups. The most effective PR activities included talk shows, press conferences, touring the country accompanied by mass media representatives, participation in local events organized by executive power bodies, and regular coverage of the information campaign. An important component in achieving the goals and objectives of the campaign was the involvement of Belarusian and foreign celebrities and artists.

Evidence of impact/efficacy

The self-test for HIV has proven to be popular. By 1 February 2018, pharmacies had sold about 2000 rapid tests and 20 people had sought further medical assistance after self-testing. Those with positive self-test results are further tested by rapid blood test or ELISA followed (for those with a positive result) by a second ELISA and immunoblotting, in accordance with current HIV testing policy in the country. Those with a confirmed positive result for HIV were linked to the dispensary registration system for further medical attention and initiation of ART. A hotline telephone

number is also provided for those who need further help, including psychological support.

Sustainability

No additional funds from the state budget are required for this practice. Self-tests are affordable at the price set by the local manufacturer. Support from the MoH of the Republic of Belarus, NGOs, doctors and various UN agencies facilitated the launch of this practice. As an area for improvement, the full media campaign may be continued by Belarus and adapted for key populations following expansion of the self-test to the entire country after 2018.

CROATIA. Integration of community HIV and HCV testing through a comprehensive sexual health approach: HUHIV – CheckPoint Zagreb

Submitted by: Nemeth Blažić, Tatjana[1] | Delaš Aždajić, Marija[2] | Beganović, Tomislav[3] | Dišković, Arian[3]| Erceg, Maja[3,4]| Kosanović Ličina, Mirjana Lana[5] | Vince, Adriana[4]

[1]Croatian Institute of Public Health; [2]Sestre Milosrdnice University Hospital Centre; [3]Croatian Association for HIV and Viral Hepatitis (CAHIV); [4]University Hospital for Infectious Disease "Dr Fran Mihaljević"; [5]Andrija Štampar Teaching Institute of Public Health

Background

In the period from 1985 to 2017, 1540 cases of HIV infection were documented in Croatia, 500 of which progressed to AIDS, resulting in 265 deaths. Most HIV/AIDS patients are male (88%). Almost 90% of people living with HIV in Croatia have been infected as a result of sexual contact and 5% as a result of injecting drug use. Since 2013, the average annual number of reported HIV/AIDS cases has been 100 (range 77–116), an increase of around 150% since before 2004. This may be partly explained by a genuine increase in the number of infections, along with an increase in HIV testing following the introduction of voluntary, free and anonymous counselling and testing for HIV in eight Croatian cities in 2004. The predominant mode of transmission is sexual contact between men, representing 64% of all registered cases. In 2016 alone, 84% of all newly diagnosed cases were MSM. Although Croatia has a low incidence rate of two cases per 100 000 population, the large increases in transmission via MSM are worrying. The number of registered cases of hepatitis C rose steadily during the 1990s, remained relatively stable at about 400 per year from 2000 to 2007 and has been gradually decreasing since 2008. The overall prevalence of HBV and HCV infection is less than 1% in the general population; thus, Croatia is a low-prevalence country for these infections. However, estimates of HBV and HCV infection prevalence in high-risk populations are higher: 3% for prevalence of HBV infection in people who inject drugs and 40% for HCV infection (ranging from 30% to 65%, depending on the study design) *(38)*.

Description of the good practice

In response to the HIV epidemic, decentralized access to VCT centres provides an excellent solution of HIV prevention, especially for youth and adolescents. Operating within the Croatian Association for HIV and Viral Hepatitis (CAHIV), CheckPoint Zagreb provides health education to young people, counselling, and psychosocial support, along with voluntary, anonymous, confidential and free testing for HIV and HCV. The centre provides health care for youth, counselling and education (e.g. on HBV, HCV, HIV and HPV vaccination and on STIs), testing and early detection of HIV and HCV, and linkage to care and early treatment. CheckPoint Zagreb is a valuable addition to the existing network of 10 VCT centres in Croatia that collaborates with the National Institute of Public Health and the University Hospital for Infectious Disease "Dr Fran Mihaljević ". Half of the CheckPoint users in Zagreb are aged under 29 years *(39)*. Risk factors for youth may include having multiple partners and unprotected sexual intercourse and data show that young men and women in Croatia are increasingly becoming vulnerable to STIs. In addition to youth, CheckPoint Zagreb attracts older age groups with a sexual risk history such as previously untested MSM, including those who may be hard to reach or conceal their sexual orientation.

Those with a positive test result are referred to the University Hospital for Infectious Disease "Dr Fran Mihaljević" for diagnostic confirmation, linked to care and given information on the benefit of partner notification (including anonymous options) by counsellors and two licensed psychologists specialized in psychosocial

support for people with HIV and STI. These trained personnel also offer further psychological education, psychological counselling and other types of support for people living with these infections and their close contacts. Quality assurance is of the utmost importance within CheckPoint Zagreb. Operational protocols for testing and counselling services have been designed in collaboration with experts from the University Hospital for Infectious Disease "Dr Fran Mihaljević " in Zagreb. Standard operating procedures are implemented in accordance with Croatian legislation and CDC, ECDC and WHO guidelines. Testing in accordance with protocols is conducted externally by doctors and experts from the University Hospital for Infectious Disease "Dr Fran Mihaljević ", the Croatian Institute of Public Health and the Croatian Red Cross. The organization and coordination of activities, implementation of pre- and post-test counselling and education, recruitment and motivation of targeted users, quality control (internal quality control for all working processes of the services), and results management and monthly/annual reporting are performed by the Croatian Association for HIV and Viral Hepatitis (HUHIV) with additional oversight from the Zagreb City Office for Health. Biannual meetings are organized for counselling service members to share their experiences and discuss quality improvement. Counselling protocols and testing activities are regularly reviewed and updated in accordance with new developments in the field. Finally, users are routinely invited to answer a standardized customer satisfaction survey, which is then incorporated into programmatic development efforts.

Evidence of impact/efficacy

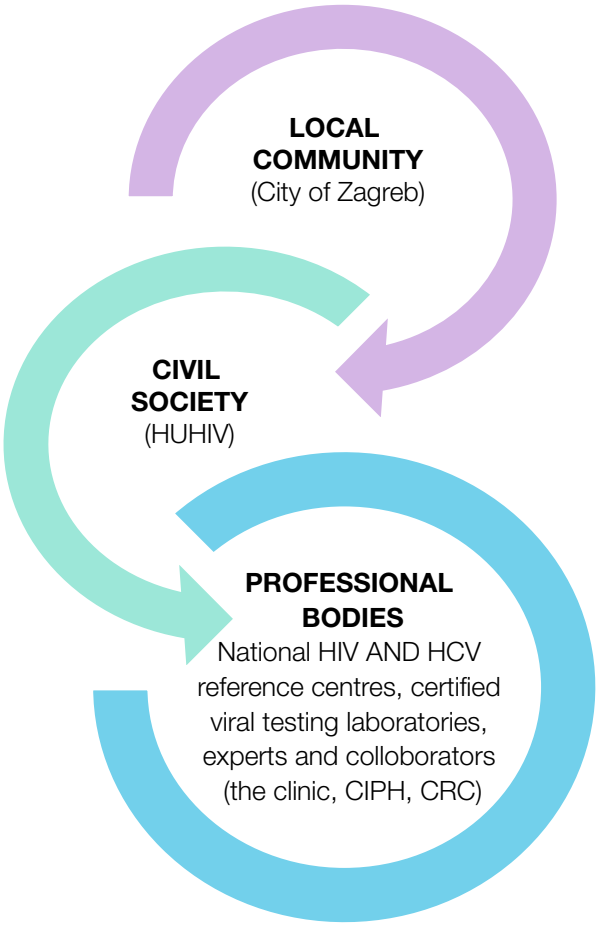
Since its establishment in 2013 until the end of 2017, just over 7000 individuals have received individual counselling at CheckPoint (Zagreb centre) and over 5500 people have been tested (for HIV and/or HCV), an average of 150–200 persons per month (Table 4). Data show that 80% of CheckPoint users were recommended for testing based on a risk assessment (high-quality coverage and screening) and 20% of all users have had a history of STIs when presenting for testing. More than 50% were informed about their health status and also directed to specialized health care services (STI screening, mental health and psychosocial support, and addiction prevention support). For those seropositive for HIV and HCV, a team of doctors specialized in HIV and viral hepatitis together with CheckPoint counsellors informs users about further diagnostics and treatment. They also offer to arrange the first appointment after receiving patient consent. A paper copy of the test result is also provided for linking to the hospital system. This approach provides comprehensive access to health care for those with positive results, including a high percentage of individuals that were tested for the first time (reaching 60–70%).

The number of new cases of HIV and HCV infection discovered in users of Checkpoint represents about a fifth of all newly discovered cases in Croatia per year. Checkpoint Zagreb offers a safe environment where users feel respected and valued. Moreover, knowledge and experience gained through the work of the Zagreb centre (e.g. implementing the system, creating indicators for HBV/HCV infection modelled on HIV, access to the users, recognition and screening) have been included in the draft National Strategy for the Prevention of Viral Hepatitis in the Republic of Croatia. Fig. 11 shows the levels of collaboration in CheckPoint and Fig. 12 shows the interior of CheckPoint Zagreb.

Fig. 11. CheckPoint collaboration levels

Table 4. Checkpoint Zagreb Report, 2013–2017

	EDUCATION		TESTING	HIV TESTING			HCV TESTING		
	Total number of pre-counselling services provided	Total number of post-counselling services provided	Total number of tests provided	Total number of people tested for HIV infection	Total number of HIV-positive people	Proportion of HIV-positive people	Total number of people tested for HCV infection	Total number of HCV-positive people	Proportion of HCV-positive people
2013	1319	1277	1277	1215	13	1.07%	1002	6	0.60%
2014	1461	1382	1382	1339	9	0.67%	1230	14	1.14%
2015	1338	1043	1043	998	9	0.90%	738	5	0.68%
2016	1507	975	975	921	17	1.85%	662	18	2.72%
2017	1483	981	981	923	13	1.41%	702	7	1.00%
TOTAL	7108	5658	5658	5396	61	1.13%	4334	50	1.15%



CIPH: Croatian Institute for Public Health.

Sustainability

Programmatic success is included in the objectives and activities of the Croatian National HIV/AIDS Prevention programme and in the draft National Strategy for the Prevention of Viral Hepatitis. Moreover, CheckPoint is included as key priority in network health services development in the City of Zagreb as part of the Social Plan for the City of Zagreb 2014–2020. CheckPoint is also recognized as part of the registry of valorized programmes of the Croatian Healthy Cities Network, which aims to systematically evaluate the effectiveness of current national programmes and develop recommendations and guidelines for further improvements in policy and public health activity. CheckPoint Zagreb is a HUHIV project conducted in partnership with the City of Zagreb (i.e. the City Office for Health, the University Hospital for Infectious Disease "Dr Fran Mihaljević", the MoH and numerous partners and health professionals). Collaborators include the University Hospital for Infectious Disease "Dr Fran Mihaljević", the Croatian Institute of Public Health, the Croatian Red Cross and the School of Public Health "Dr Andrija Štampar", underscoring the strong intersectoral and political commitment.

CheckPoint Zagreb has the following funding sources: City of Zagreb through developing services in health care and other public health grants, 50%; MoH through national cooperation programmes with NGOs, 30%; and additional funding from national and international

Fig. 12. Inside CheckPoint Zagreb

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public and private sector organizations, 20%. National and local stakeholders have also recognized the importance of the Zagreb centre in helping to overturn stigmatization, and thus provide additional annual funding to support the centre's activities. The annual financial plan ensures continuous funding and ongoing funding applications to European structural and investment funds. Media coverage, including press conferences, is popular with the interested public. These conferences are strongly supported by the City of Zagreb, resulting in enhanced visibility for the project. Structured interviews and focus groups for users, ongoing reduction of stigma through enhanced community-based programmes and outreach, and implementation of programme-designed/derived partner notification tools may also benefit the practice.

ESTONIA. Providing quality harm reduction services for people who inject drugs

Submitted by: Kurbatova, Aljona | Abel-Ollo, Katri | Ojalo, Jürgen[2]

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Background

Estonia is the only country in eastern Europe that has seen a sustained decrease in new HIV diagnoses over the last decade: following the 2001 peak, the rate continued a steady decline throughout 2016 *(1)*. There are an estimated 3906–9837 people who inject drugs in Estonia. Injecting drug use is primarily confined to the capital city, Tallinn (in Harjumaa County), and north-east Estonia (Ida-Virumaa County). According to cross-sectional studies conducted between 2013 and 2016, approximately 48–66% of people who inject drugs are also living with HIV. Among those with new HIV infections, approximately 20% were also injecting drugs in 2015; the proportion has been stable in recent years around 17–23% in 2010–2014).

Description of the good practice

A NSP was launched in Estonia in 1997 and now forms part of the essential harm reduction package. The package includes needle and syringe exchange; a take-home naloxone programme to reduce the number of fatal overdoses; referral to HIV, STI and TB testing and linkage to care; referral to drug addiction treatment, HIV and TB treatment; and social support and counselling services. These services are mostly provided in areas with the largest burden of HIV (Tallinn and surrounding areas and north-eastern Estonia). The number of service provision sites (both stationary units and mobile outreach units (MOUs), increased from 13 in 2002 to 34 in 2017 in 17 cities and settlements; this was the work of nine organizations, mostly NGOs. In 2017, about 5500 clients visited harm reduction services. In the same year, the NSP distributed almost 2 million free syringes and needles, exceeding the recommended 200 syringes per person who injects drugs per year. Although HIV testing is not routinely offered at all harm reduction sites, point-of-care rapid HIV testing is provided at larger centres and clients are referred to VCT sites.

Evidence of impact/efficacy

Estonian cross-sectional studies show that sharing of used needles and syringes has recently decreased in some regions but in others has remained stable over the years (Table 5). HIV prevalence is still high among people who inject drugs but knowledge of HIV status has increased over the study period. The Estonian population of people who inject drugs is ageing and the average injecting history (i.e. number of years of injecting drug use) is increasing; thus, the population seems to have stabilized or be stabilizing (Table 5). In 2011, Uusküla et al. (2011) concluded that the decrease in the number of new HIV cases among new injectors coincided with a large scale up of the NSP in Estonia *(40)*. The estimated HIV incidence among new injectors decreased significantly from 18 per 100 person-years in 2005 and 21 per 100 person-years in 2007 to 9 per 100 person-years in 2009 ($p = 0.026$).

Sustainability

Harm reduction interventions are funded entirely from the national budget within the framework of the National Health Plan, while the current National HIV and AIDS action plan and White Paper on drug policy provide wider strategic directions *(45)*. The White Paper for 2014–2018 sets out the government-approved set of evidence-based principles and policy recommendations for reducing drug use and the obligation to take these into account in planning actions for illicit drug prevention.

Table 5. Results of risk behaviour and HIV prevalence studies among people who inject drugs, 2012, 2013, 2014 and 2016

Measure	2012	2013	2014	2016
Area	Kohtla-Järve	Tallinn	Narva	Kohtla-Järve
Average age, years	30	32	34	35
History of IDU, years	11	12	14	16
Proportion sharing needles/syringes, last 4 weeks	6%	23%	10%	1%
Proportion sharing needles/syringes, lifetime	65%	67%	66%	60%

Sources: Institute for Health Development, 2012 *(41)*, 2013 *(42)*, 2014 *(43)* and 2015 *(44)*.

Reducing drug-related harm is a key target of drug policy and of public health policy in Estonia. Estonia included harm reduction services in the essential package during the GFATM HIV programme that began in 2003. This enabled the country to establish a more systematic harm reduction approach between 2003 and 2007 and to include harm reduction as one of the priority actions in the National HIV and AIDS strategy for 2005–2015. In 2007, the GFATM stopped financing harm reduction programmes, but the joint national and local government financing model that was put in place ensured that the country was ready to transition from international to national funding. Since 2007, Estonia has fully financed harm reduction programmes from domestic sources and assured good coverage with NSP across the country while continuing efforts to increase coverage with OST. Long-term financial planning and presenting evidence on the effectiveness and cost–effectiveness of harm reduction interventions were essential in ensuring political support.

FRANCE. Implementing PrEP for populations at a high risk of sexual acquisition of HIV

Submitted by: Molina, Jean-Michel[1] | Comboroure, Jean-Christophe[2] | Dabis, François[3]

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Background

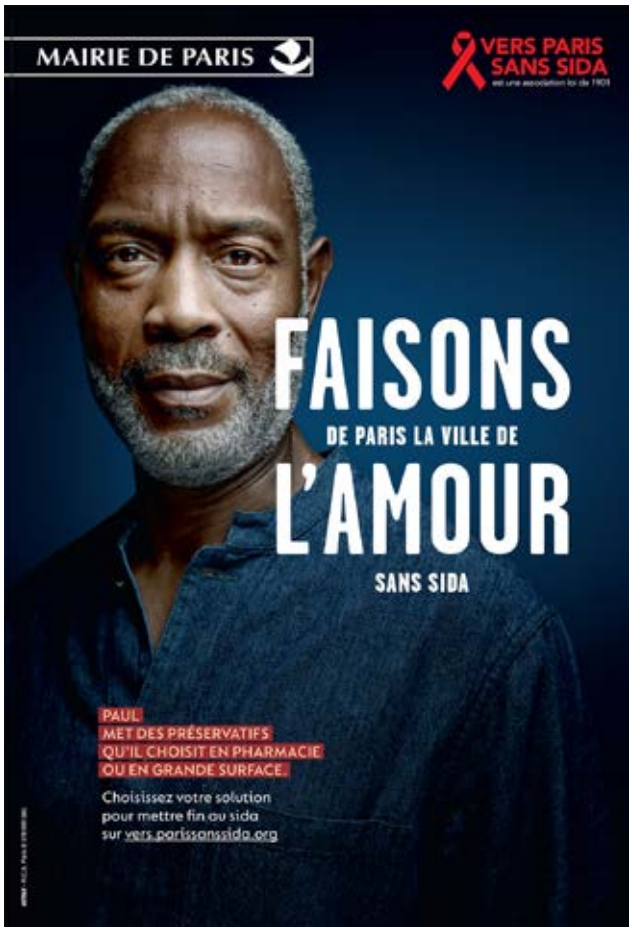
Since 2006, the annual number of newly diagnosed HIV infections in France has remained unchanged at approximately 6000 (in 2016), despite free access to HIV testing and ART and recommendations to start all HIV-infected patients on ART regardless of their CD4 cell count. MSM and heterosexuals born abroad (75% originating from sub-Saharan Africa) account for 44% and 39% of all new diagnoses, respectively. In February 2012, the French Agency for Research into HIV/AIDS (ANRS) decided to launch the Intervention Préventive de l'Exposition aux Risques avec et pour les Gays (IPERGAY) PrEP study of high-risk MSM using on-demand tenofovir disoproxil fumarate combined with emtricitabine. The results of a trial of MSM taking a daily dose of tenofovir disoproxil fumarate combined with emtricitabine (TDF/FTC) reported a reduction in HIV incidence of only 44% *(46)*. However, researchers thought that a less-demanding or more convenient ART regimen might be more sustainable (i.e. improve adherence) and have greater treatment efficacy. The results of the ANRS IPERGAY study released at the 2015 Conference on Retroviruses and Opportunistic Infections showed that provision of on-demand TDF/FTC led to a remarkable 86% relative reduction of HIV incidence compared with placebo *(47)*. Furthermore, the high efficacy was confirmed in an open-label extension of this trial, which reported a 97% relative reduction of HIV incidence with on-demand TDF/FTC *(48)*. In response to the study results and recommendations made by French groups of experts mandated by the French Drug Agency at the end of 2015, the French MoH granted TDF/FTC the status of "recommendation for temporary use" for HIV prevention in individuals at a high risk of sexual acquisition of HIV, with full reimbursement of costs by the National Health care system since January 2016.

Full approval was granted in February 2017 following the European Medicines Agency's (EMA) approval of TDF/FTC for preventing HIV acquisition.

Description of the good practice

Since January 2016, PrEP with TDF/FTC has been recommended in France for individuals at a high risk of sexual acquisition of HIV, defined as MSM or transgender people and have had unprotected/condomless anal sex with at least two partners during the last six months, have had episodes of STIs over the last 12 months, have received more than one PEP treatment in the last 12 months or use drugs during sexual intercourse [such as cocaine, GHB (gamma-hydroxybutyric acid) or MDMA (ecstasy)]. Other persons with a high risk of HIV infection were assessed on a case-by-case basis. These included SW exposed to condomless sex and persons exposed to condomless sex with people from a group with a high prevalence of HIV: people from areas/countries of high HIV prevalence, people with multiple sexual partners and people who inject drugs.
PrEP can be prescribed either daily (one pill a day) or on demand, as in the ANRS IPERGAY trial (a loading dose of two pills taken two to 24 hours before sex and then two pills after sex: one 24 hours after the first intake and one 48 hours after the first intake). The on-demand regimen is only recommended for MSM who plan to engage in sexual intercourse. The first PrEP prescription should be given by a hospital specialist in HIV medicine or in a sexual health clinic. Patients should provide the results of a recent HIV test using a fourth-generation combined ELISA and the results of testing for other STIs and for creatinine clearance to assess kidney function (since tenofovir disoproxil fumarate can cause renal toxicity). Patients are seen again after one month (to rule out a primary HIV infection and assess tolerability and adherence) and then every three months. General practitioners can renew prescriptions and monitor PrEP users, as stated in the 2018 Guidelines for PrEP implementation and monitoring (which were updated by a French group of experts) *(49)*. The cost of PrEP is fully reimbursed by the national health care system and TDF/FTC can be delivered by both hospital and private pharmacies. Generic versions of TDF/FTC have been available in France since July 2017 and are used for PrEP. A national awareness campaign for MSM (Fig. 14) was launched in all French cities in November 2016 and a website was created to provide information on HIV prevention, HIV testing and PrEP *(50)*.

Fig. 13. HIV awareness campaign, Municipality of Paris



Evidence of impact/efficacy

Data on PrEP use from 1 January 2016 to 31 July 2017 via reports from the National Health Insurance database showed that a total of 5352 people started PrEP (including daily and on-demand PrEP) during this period, with 300–400 new PrEP initiations per month. Of the people taking PrEP, 97.5% are men with a median age of 37 years (interquartile range: 30–45 years); and 49% live in the Ile de France region (Paris), 10% in Auvergne-Rhone-Alpes (Lyon) and 10% in Provence-Alpes-Cote d'Azur (Nice). Approximately 92.2% of initial prescriptions come from hospitals. The number of high-risk MSM in France is estimated to be around 32 000 (those with fewer than two receptive anal sex encounters). Data from the first year of PrEP use in France were reported at the International AIDS Conference in 2017 *(51)*. Among 2774 individuals (98% MSM), only four HIV seroconversions were reported: of these individuals, two had already been infected at the time of PrEP initiation and the other two reported poor adherence. The overall HIV incidence in this cohort was only 0.28 per 100 person-years of follow-up, similar to that reported in the open-labelled phase of the ANRS IPERGAY study. Impact data

Fig. 14. National awareness campaign for MSM

for PrEP in new HIV diagnoses are eagerly awaited, but data for 2017 will only be available at the end of 2018. Implementation of PrEP has enabled more frequent testing for STIs, including HIV, in PrEP users (every three months), leading to earlier diagnosis and treatment of (mostly) asymptomatic infections and has influenced French guidelines on STI testing for high-risk individuals (recommended every three months for chlamydia and gonorrhoea).

Sustainability

Cost–effectiveness analyses have shown that providing PrEP to high-risk individuals could be cost-saving if generic versions of TDF/FTC are used with on-demand dosing, which requires only half the number of pills compared with a daily dosing regimen. Based on data from the ANRS IPERGAY study, it was estimated that for each group of 17 high-risk MSM taking PrEP for one year, one HIV infection would be prevented. Although the cost of PrEP is fully covered, individuals still have out-of-pocket expenses for travelling to the clinic every three months and for laboratory tests and doctor visits (only 60% of which covered by the national health care system), unless they have private health insurance. In May 2017, ANRS also launched a three-year project to assess the impact of scaling up PrEP in MSM in the Ile de France (the region most affected by the HIV epidemic in France).

GEORGIA. Progress towards ART and viral suppression targets through implementation of a "treat all" policy

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Background

The first HIV-infected patient in Georgia was diagnosed in 1989. By the end of 2017, a total of 5090 diagnosed persons were living in the country. Similar to in other eastern European countries, the HIV epidemic in Georgia was driven by injecting drug use for many years, accounting for around 60% of new diagnoses annually. However, recent trends indicate a decrease in the proportion of IDU-related cases, with a corresponding increase in STIs both through heterosexual contact and in MSM. Heterosexual contact accounts for 48% of newly diagnosed infections, followed by injecting drug use (36%) and MSM (13%). Notably, there was a fivefold increase in new diagnoses among MSM between 2010 and 2017. IBBS conducted during the same period show that HIV prevalence is being maintained at below 5% among people who inject drugs *(52)* and has increased to 21% among MSM *(53)*.

ART was introduced in Georgia in the 1990s, but with very limited access. Since 2004, through support from the GFATM, Georgia has ensured universal access to ART in accordance with existing international guidelines, resulting in a dramatic reduction in AIDS-related mortality.

Description of the good practice

Georgia has made remarkable progress in HIV treatment and care. The National AIDS Treatment programme became operational in 1995 and was substantially strengthened by the arrival of GFATM support in 2004. The Georgian model of service delivery builds on the principles of equity and human rights towards ensuring universal access to HIV treatment and care for all.

Georgia has been moving towards earlier ART initiation, in line with WHO recommendations, by introducing a criterion for a CD4 cell count of <350 per mm3 criteria in 2011, followed by a criterion for a CD4 cell count of <500 per mm3 in 2013 and a "treat all" policy in September 2015. The country had been preparing for the "treat all" policy for several years, initially inspired by results of the landmark treatment-as-prevention trial, HPTN 052 *(54)*, and further supported by evidence from the TEMPRANO and START trials *(55,56)*. The early-release guideline on when to start ART published by WHO in September 2015 enabled the country to remove ART eligibility limitations and recommend or provide life-saving therapy to all persons living with HIV in Georgia, regardless of their CD4 cell count *(57)*. The new recommendations were rapidly disseminated and the countrywide policy was in place by the end of 2015. With implementation of the "treat all" policy, Georgia maintained its public health approach to ART. Standard first-line regimens for ART are provided and viral load is prioritized for treatment monitoring. The comprehensive package of care in Georgia also includes support services provided by both health care workers and lay professionals, including community-based organizations (CBOs). These support services include adherence monitoring and support, psychological counselling, and peer-driven interventions.

In 2011, Georgia launched National AIDS Health Information System (AIDS HIS), a secure web-based system connecting all HIV care providers in the country. The system ensures the real-time collection of case-based information, including detailed demographic, epidemiological, clinical and laboratory data. Each person is identified using a unique national identity number in the system, and this effectively prevents duplications. This unique system incorporates both surveillance and clinical information, thus enabling high-quality analysis of granular data to inform both public health actions and clinical practice. Equitable access to ART has been prioritized since the scale-up of ART in the country in 2004. All persons receive quality care regardless of their risk behaviour, sex or ethnicity. Moreover, special efforts are made to ensure greater engagement of key populations, such as people who inject drugs. There are strong links with addiction services that provide free harm reduction services to all eligible HIV-positive persons, including OST.

Strong collaboration between HIV and TB services ensures effective management of TB/HIV-coinfected patients; Georgia has one of the highest rates of coverage among persons with known TB/HIV status in the WHO European Region *(1)*. Hepatitis care has been fully integrated into HIV care. All persons are

also screened for viral hepatitis. HIV/HBV-coinfected persons are started on regimens for ART containing tenofovir. For HIV/HCV-coinfected persons, free hepatitis C treatment has been universally available since 2011. In 2015, with the support of CDC and a pharmaceutical manufacturer, Georgia launched the world's first hepatitis C elimination campaign; from that point onwards, all HIV/HCV-coinfected persons have received direct-acting antivirals free of charge.

Evidence of impact/efficacy

The current analysis focused on Georgia's progress towards reaching the ART and viral suppression targets of the 90–90–90 strategy. Indicator definitions were taken from the Guidance for Global AIDS Monitoring 2018 *(58)*.

By the end of 2017, 5090 HIV-positive persons had been diagnosed and were living in Georgia and 4144 of these (81%) were on ART. This falls short from 90% target, but overall progress is visible and commendable. The number of people on ART in Georgia more than doubled over the five years from 2013 to 2017 and the proportion of diagnosed persons on treatment increased from 57% to 81%, respectively (Fig. 15). There was also a respective increase in the number and proportion of persons with viral suppression: 71% of the total diagnosed population were virally suppressed in 2017. The 90% target of viral suppression was almost reached for persons on ART: overall, 87% (3598 out of 4144) had a viral load of less than 1000 copies/mL at the last measurement in 2017 (Table 6). Stratified analysis by transmission category showed that the 90% target for ART and viral suppression had already been reached for heterosexually infected women in the country. The lowest coverage with ART was seen among MSM, while viral suppression was lowest among people who inject drugs.

Although all persons are offered treatment, not all of them initiate treatment and some of those that do are lost from care. Experts conducted further analyses to explore the reasons for loss to follow-up between diagnosis and treatment initiation. For this, they constructed one additional stage in the HIV continuum between diagnosis and ART initiation – retention in care – defined for these data as at least one measurement of CD4 cell count or viral load in 2017. This analysis showed that among people who inject drugs and heterosexually infected men, loss from care occurs both

Fig. 15. HIV care cascade among diagnosed persons, Georgia, 2013–2017

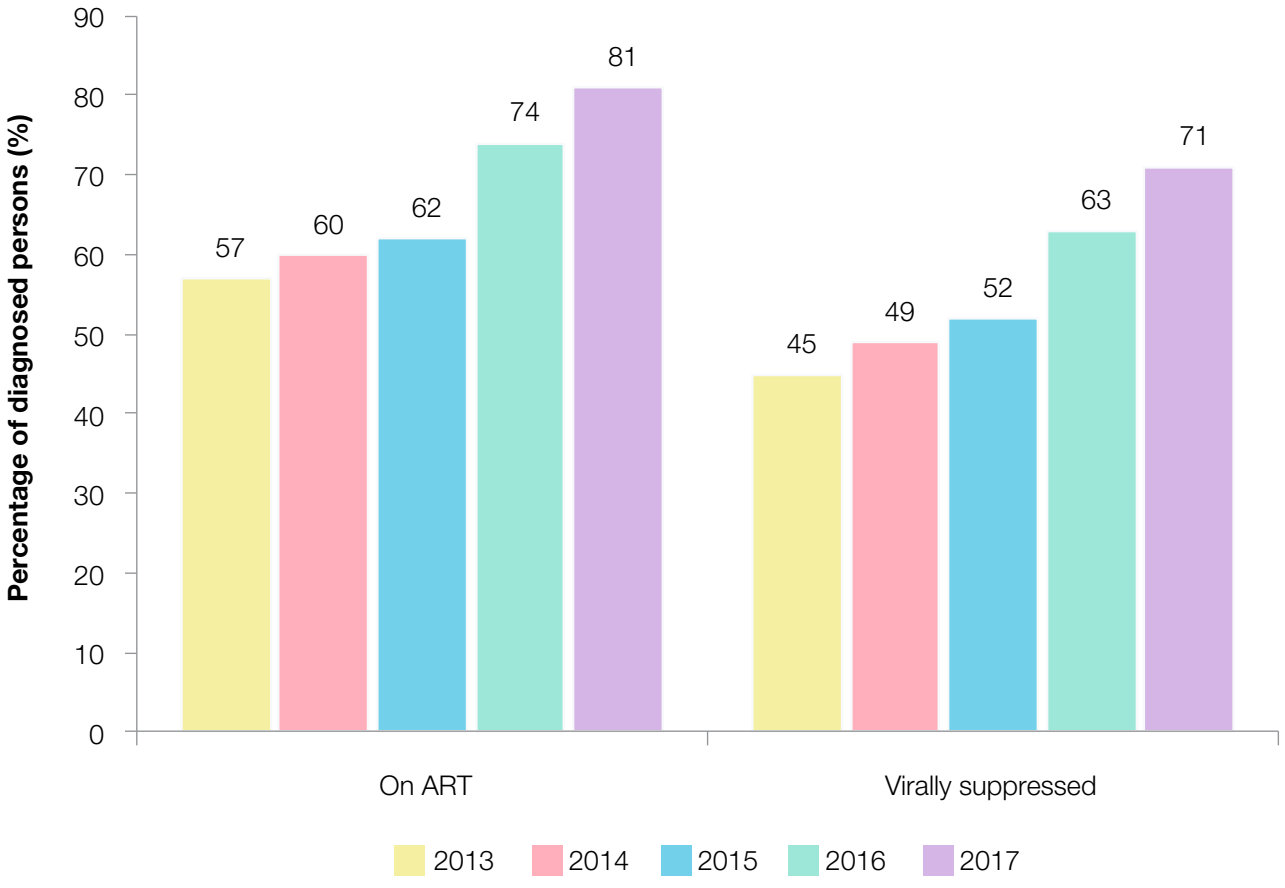


Table 6. Achievement of the 90–90–90 targets for ART and viral suppression

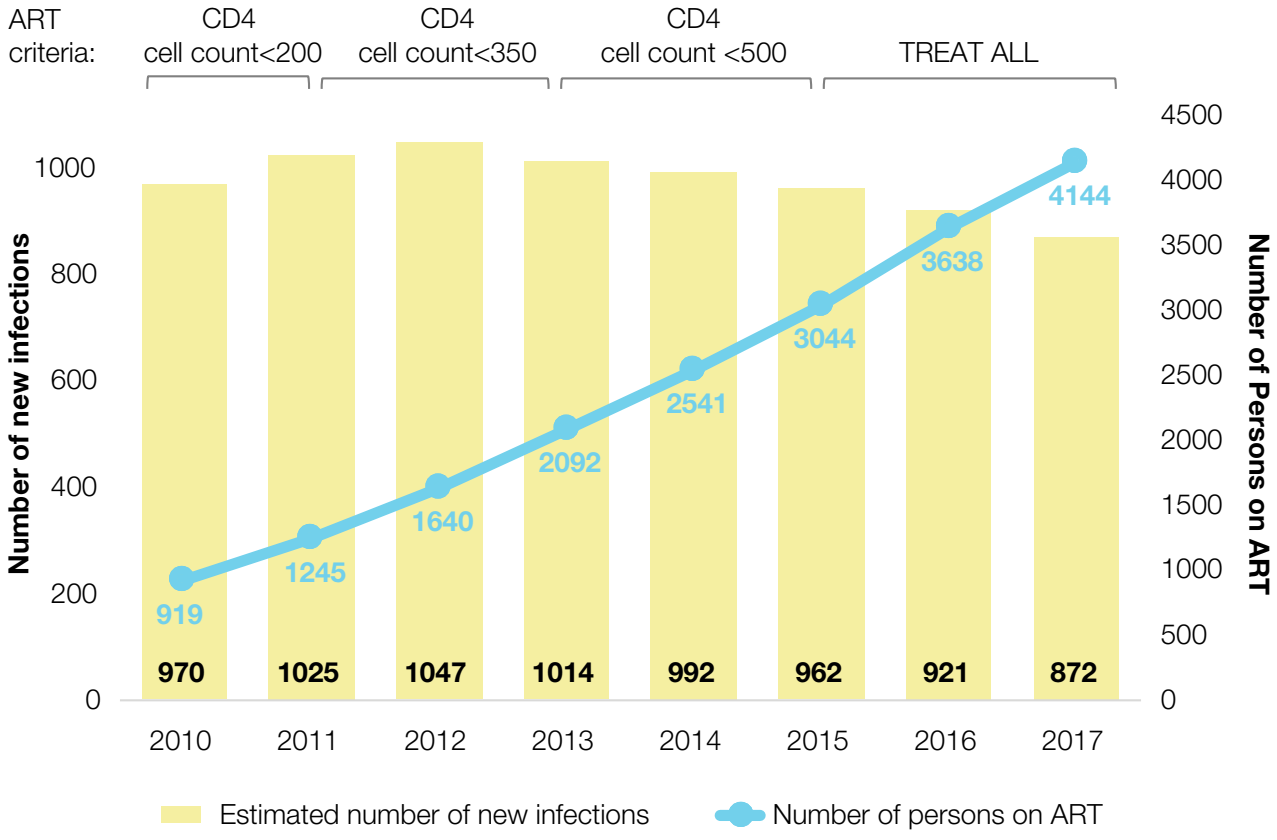
Category	Proportion of persons with diagnosed HIV on ART (%, n)	Proportion of persons on ART who are virally suppressed (%, n)
All people living with HIV	81 (4144/5090)	87 (3598/4144)
People who inject drugs	78 (1435/1843)	84 (1205/1435)
MSM	75 (479/640)	88 (422/479)
Heterosexually infected men	78 (894/1150)	87 (774/894)
Heterosexually infected women	92 (1219/1328)	90 (1102/1219)

between diagnosis and retention and between retention and ART initiation. Regarding MSM, 97% are retained and often test positive with high CD4 cell counts; the latter might decline therapy because of their perceived overall well-being.

After two years of implementing the "treat all" policy, Georgia has shown that achieving the 90% targets for coverage with ART and viral suppression are feasible (see Fig. 16). The country has made substantial progress in scaling up ART and the 90% targets are within sight. The targets of 90% coverage with ART and viral suppression have already been reached for heterosexually infected women, and this can also be achieved for other populations as the gaps are clearly identified and filled. The implementation of ART since 2004 has already resulted in a significant decline in AIDS-related mortality. Further expansion of ART is expected to save more lives and improve quality of life. Spectrum projection models suggest that the estimated number of new infections in Georgia have been declining for several years, coincident with the implementation of earlier ART initiation recommendations.

Success of the ART programme in Georgia stimulated a movement to end the epidemic in the country by 2030.

Fig. 16. Estimated number of new HIV infections, ART initiation criteria and number of persons on ART, Georgia, 2010–2017



On 1 December 2017, the National AIDS Conference adopted the declaration to Test all, treat all, end the AIDS epidemic in Georgia.

Although the country is steadily moving towards meeting the global targets for coverage with ART and viral suppression, achieving the target of diagnosing 90% of people living with HIV remains a serious challenge. Currently, only 48% of the estimated 10 500 people living with HIV in Georgia are aware of their status; this significant gap prevents the country from deriving the maximum individual and public health benefits of ART. Improving HIV diagnosis will place the country on the path to achieving the goal of ending the epidemic.

Sustainability

Georgia's commitment to universal health coverage ensures equitable access to basic health services for all people living in the country. In 2013, the MoH launched a universal health care programme that, among others, prioritizes the response to communicable diseases such as HIV, HCV and TB. This commitment, along with a public health approach to HIV prevention, testing and treatment, provides the basis for ensuring sustainability of the practice. The national ART programme procures WHO-prequalified generic drugs, thus ensuring a low cost of treatment. In 2017, Georgia started procuring a generic formulation of a new integrase inhibitor which, along with its low cost, has benefits such as high potency, a high genetic barrier to HIV drug resistance and low toxicity. Given these circumstances, the 2018 revision of national guidelines recommends a combination of tenofovir/emtricitabine plus dolutegravir as the preferred first-line regimen for ART; the cost of less than US$ 120 per person per year will help to reduce the financial burden for the country's health system.[13]

Initially supported by the GFATM, the national ART programme is now in the process of transitioning to domestic funding. The Government of Georgia has been strictly fulfilling its obligations through increasing the budget of the National AIDS Programme. The Government already covers 100% of costs related to first-line drugs and 50% of costs associated with second-line treatment. By 2020, funding is expected to be fully transitioned to the domestic source (i.e. covering all aspects of treatment and care). Transition to domestic funding for HIV has been an integral part of the national policy towards universal health coverage. The Government of Georgia has substantially increased public spending on health, which more than doubled between 2012 and 2015 (according to the national health accounts for 2011–2015) after implementation of the universal health programme, and the national health budget continues to increase annually. AIDS-related spending increased from US$ 4.5 million to 8.6 million over the last few years, with national funding now accounting for 70% of the total expenditure on AIDS.

[13] In May 2018, WHO issued a statement concerning a potential risk of neural tube defects in infants born to women taking dolutegravir at the time of conception (59). As more countries have scaled up ART optimization efforts and include or plan to include dolutegravir-containing regimens in their national protocols as the preferred first-line option, WHO issued a briefing note in April 2018 on the clinical advantages of and programmatic information about the new fixed-dose combination tenofovir/lamivudine/dolutegravir (60). Additional and diverse analyses are planned for July 2018 to expand on the original data, which originated from a single country.

GREECE. A seek–test–treat–retain intervention to decrease HIV transmission among people who inject drugs in the Athens metropolitan area: the Aristotle Programme

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Background

Until 2010, Greece had a low-level HIV epidemic, mainly among MSM. From 2002 to 2010, 10–20 cases were reported annually among people who inject drugs, representing 2–4% of newly diagnosed HIV infections per year. In 2011, the number of reported HIV cases among people who inject drugs increased sharply to 260, more than 16 times the number in 2010. In early 2010 in Athens, the coverage of harm reduction programmes was considerably lower than the level recommended by WHO and other organizations: more than 5500 opioid dependent individuals were waiting to receive OST for an average of 7.6 years and NSPs distributed approximately 16 syringes per person who inject drugs per year. Thus, the 2011 HIV outbreak occurred in the context of low levels of harm reduction service provision and a severe economic recession: these contexts have been proposed as macro-level causes for this increase.

Description of the good practice

ARISTOTLE was a community-based combination prevention programme implemented in response to the HIV outbreak in 2011 *(61,62)*. Its objective was to rapidly identify as many people who inject drugs residing in Athens as possible, offer testing for HIV infection, inform them about how to prevent HIV infection and transmission, and link those found to be HIV positive to treatment. The programme provided multiple services: HIV testing; linkage to care; linkage to OST; counselling with the programme's psychologist, doctor and social workers; syringes and injecting paraphernalia; condoms; light snacks in the waiting room; information leaflets; and linkage to the Addicts Care Facility of the Organization Against Drugs, where people who inject drugs have access to meals and shower, laundry and other amenities. The National and Kapodistrian University of Athens, the Greek Organization Against Drugs and the Hellenic Scientific Society for the Study of AIDS and STDs implemented the programme. There was collaboration with two NGOs: an experienced volunteer from the Positive Voice NGO was located at the programme site to assist in counselling seropositive people who inject drugs; and seropositive migrants without documents were referred to Praxis NGO.

ARISTOTLE was a peer-driven intervention: respondent-driven sampling with monetary incentives was employed to reach the target population of people who inject drugs (€5 for participating plus €3 per recruit for up to three recruits). Formative research (interviews with a small number of people who inject drugs, discussions with key informants) were used to decide on the appropriate amount to avoid offering monetary incentives that were too high or too low. From August 2012 to December 2013, five rounds of respondent-driven sampling were conducted, with approximately 1400 people who inject drugs recruited per round. These participants were informed about the programme and told that they were free to withdraw their consent at any point in the process. After obtaining written informed consent from the participants, blood samples were collected for HIV testing and personal interviews were performed using a questionnaire that included sections on injecting drug use and sexual behaviour. Non-Greek nationals were encouraged to participate through cultural mediators and interviewing in multiple languages (in addition to Greek and Farsi, languages included Arabic, English, French, and Kurdish). Over a 16-month period, there were 7100 visits from 3320 individuals who inject drugs, representing coverage of 88% of the target population based on the capture–recapture estimate of the number of people who inject drugs in Athens, as reported by the Greek Documentation and Monitoring Centre for Drugs *(61,62)*. Of those, 1533 people who inject drugs participated only once and the remainder (n = 1787; 53.8%) participated in multiple rounds: 681 (20.5%) participated in two rounds, 469 (14.1%) in three rounds, 374 (11.3%) in four rounds and 263 (7.9%) in all five rounds.

Evidence of impact/efficacy

ARISTOTLE provided services for people who inject drugs inside and outside the formal health system. It promoted equity in service delivery because it reached most people who inject drugs, including more vulnerable people such as those without documents. It enabled HIV testing to be scaled up among people who inject drugs, linkage to HIV care after testing and coverage with ART for people living with HIV. It also included implementation of NSP and linkage of participants to OST. In addition, it enabled data collection on risk behaviours and HIV from the population of active people who inject drugs.

The programme was highly efficient: it was possible to quickly reach a large proportion of the target population and test them for HIV. During the period from August 2012 to December 2013, the programme recorded a strong decline in HIV incidence (from 7.8 per 100 person-years to 1.7 per 100 person-years, a decrease of 78%) *(61,62)*. There were remarkable changes in risk behaviours over time, including a decline in the proportion of people who inject drugs reporting injecting drug use at least once per day in the past 12 months (from 45.2% in August – October 2012 to 18.8% in September – December 2013; $P < 0.001$) and in those sharing syringes in the past 12 months (from 36.8% to 26.0%, respectively; $p = 0.007$) *(61,62)*. The proportion of undiagnosed HIV-positive participants declined from 84.3% in August – October 2012 to 15.0% in September – December 2013 (Fig. 17). There was an increase in the proportion of people who inject drugs reporting being currently on OST: from 12.2% in August – October 2012 to 27.7% in September – December 2013 ($P < 0.001$; Fig. 17). Regarding linkage to HIV care, almost half (48.4%) of seropositive people who inject drugs had visited an infectious disease unit and a quarter (24.5%) had initiated ART after participation by the end of programme (Fig. 18). Repeat ARISTOTLE participants reported higher rates of adequate syringe coverage, linkage to HIV care and OST.

The reduction in the number of new HIV diagnoses among people who inject drugs, as reported to the Hellenic Centre for Diseases Control and Prevention, has been maintained to the present day. As a result of the high coverage of ARISTOTLE, a large proportion of HIV-infected people who inject drugs were diagnosed, became aware of their infection and were linked to HIV care and OST programmes. Respondent-driven sampling based on monetary incentives enabled effective recruitment and high coverage of the target

Fig. 17. HIV prevention results among of people who inject drugs, ARISTOTLE programme, August 2012 – December 2013

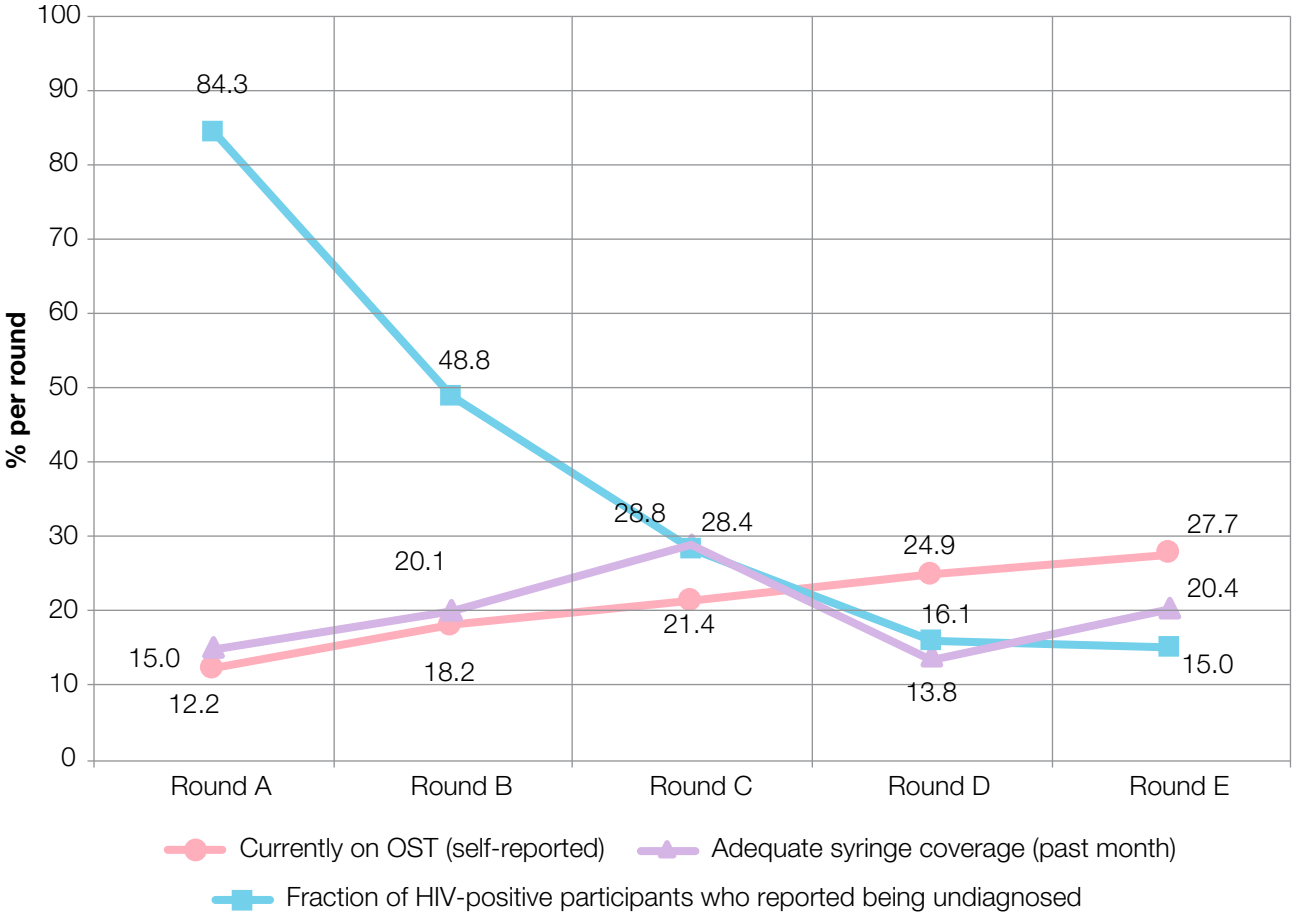
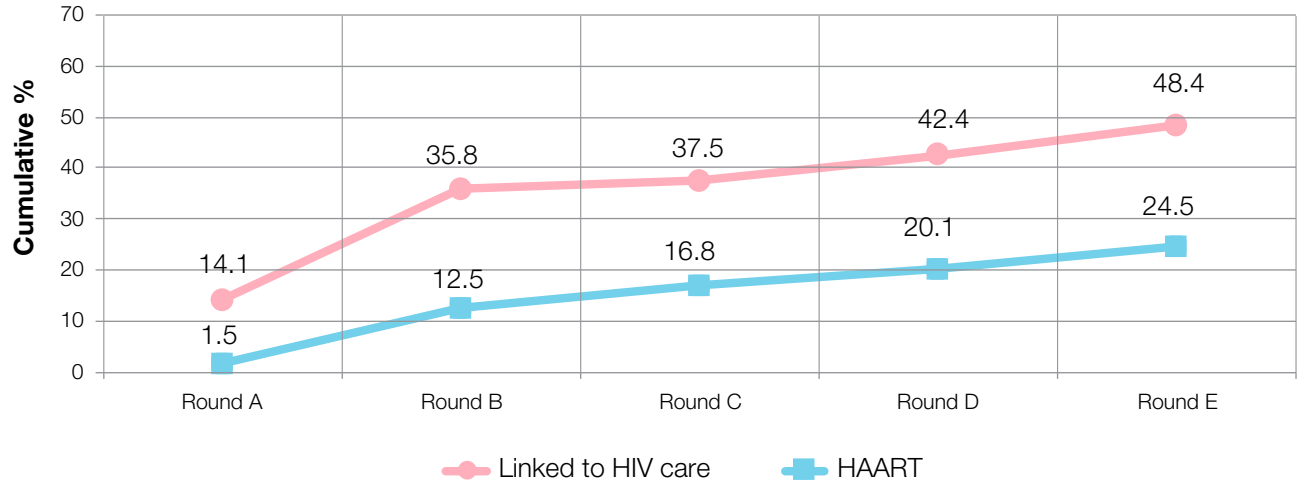


Fig. 18. Cumulative proportion of previously unlinked HIV-positive people who inject drugs who were linked to HIV care and initiated ART by the end of each round during the ARISTOTLE programme, August 2012 – December 2013



population. The fact that respondent-driven sampling was implemented in multiple successive rounds also enabled prevalence, incidence and risk behaviours to be monitored. The programme was implemented in a site in the centre of Athens and people who inject drugs could participate multiple times (up to five times over a 16-month period). This engendered trust between the participants and investigators and is likely to ease the implementation and reduce the cost of similar programmes in the future. Finally, the programme also promoted teamwork between academia, NGOs and the Organization Against Drugs, which proved helpful in implementing additional programmes in this population in recent years.

ARISTOTLE was an intensive programme implemented during an ongoing epidemic with the aim of controlling transmission. This type of intervention may be useful in epidemic settings for the timely and effective implementation of structural approaches for HIV prevention, as well as in non-epidemic settings, to provide HIV prevention, screening and linkage to care; to assess treatment retention and community viral load; and for the early recognition of an outbreak risk. Organizations providing low-threshold substance use services could implement similar programmes without many additional resources to enable people who inject drugs to access testing/counselling/linkage to care services once or twice per year.

Sustainability

ARISTOTLE was implemented under the National Strategic Reference Framework for 2007–2013 with European Social Fund and national resources, additional funding by the Hellenic Scientific Society for the Study of AIDS and STDs and a grant from the United States National Institutes of Health – National Institute of Drug Abuse.

KYRGYZSTAN. Universal health coverage and better-quality medical services for women who use drugs during pregnancy, childbirth and the postpartum period

Submitted by: van Dam, Anke[1] | Imankulova, Chinara[1] | Stakeeva, Cholpon[2]

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Background

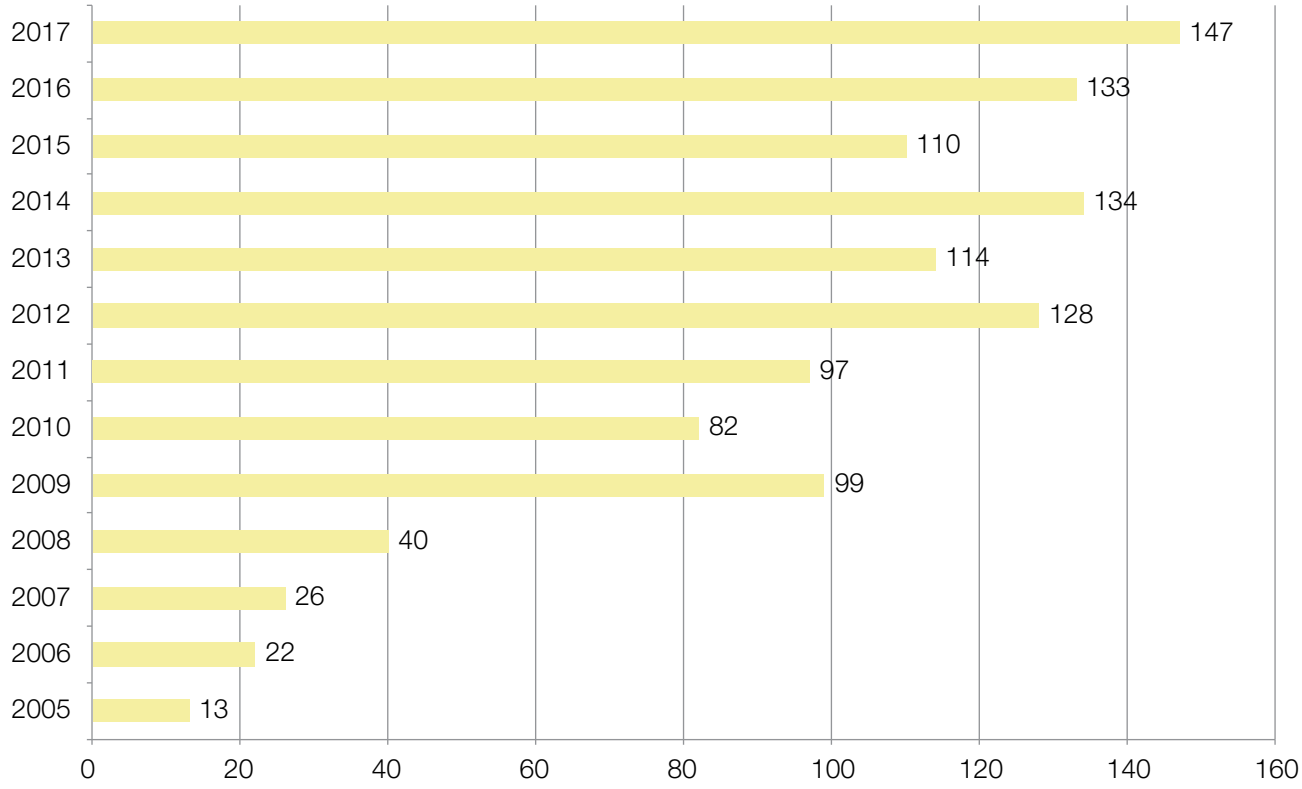
Despite significant efforts by government agencies, NGOs and international organizations, the HIV epidemic is continuing to grow in Kyrgyzstan. Over a five-year period from 2011 to 2016, the number of HIV cases in the country more than doubled from 3270 to 7108. Moreover, according to national epidemiological reports, the number of pregnant women diagnosed with HIV increased from 97 in 2011 to 147 in 2017 (Fig. 19).

In Kyrgyzstan, as in other EECA countries, the HIV epidemic is at a concentrated stage. This is mainly due to spread of the epidemic among key populations who are at increased risk of infection. The number of cases among people who inject drugs is continuing to increase, as is sexual transmission of HIV. According to the 2014 estimation study conducted under the GFATM project in the country, the number of people who inject drugs in Kyrgyzstan was 25 000, of whom around 12% were women. Approximately 47.4% of all people who inject drugs live in the two largest cities, Bishkek and Osh. Women who use drugs are a hidden subpopulation who are less likely to access medical support because of their fear of being condemned by society, violence from family members, stigma and discrimination, and losing custody of their children. Pregnant women who use drugs are especially vulnerable in this regard and comprehensive and timely medical support is vital for well-being of this group. According to the most recent IBBS in Kyrgyzstan (in 2016) conducted by AFEW jointly with the Republican AIDS Centre in Kyrgyzstan, HIV prevalence among women who inject drugs was 9% (16% of respondents were women who inject drugs) *(63)*.

Description of the good practice

In 2016, the public foundation, AFEW in the Kyrgyz Republic (AFEW-Kyrgyzstan), within the Bridging the Gaps: Health and rights for key populations project *(64)*, supported the Kyrgyz MoH in creating a working group that included an expert in narcology, an obstetrician–gynaecologist, an expert in evidence-based medicine and a representative of the community of women who use drugs. In January 2017, the clinical guideline, Care in pregnancy, childbirth and the puerperium for

Fig. 19. Number of pregnant women living with HIV in Kyrgyzstan, 2005–2017



women who use psychoactive substances, was approved by the order of the MoH and became mandatory for doctors' use. The country's leading medical specialists in gynaecology and narcology worked closely with community leaders to learn about the specific needs and concerns of people who use drugs during pregnancy. At this point, OST was not included in the support package for pregnant women who use drugs. Gynaecologists had little knowledge about OST during pregnancy and were reluctant to prescribe it. The clinical guideline includes criteria and checklists for OST. Information on OST in the Kyrgyz guideline includes advice about which NGOs doctors can refer women to for low-threshold services and other medical, legal and social support, and recommendations on consultations with pregnant women using drugs.

To integrate the guideline into the curriculum of Kyrgyz State Medical Institute for Post-Graduates (KSMI), modules were developed for KSMI teaching staff and gynaecologists from two the large cities where most people who use drugs live. Women from community organizations also delivered some of these courses. In August 2017, training was offered to 100 obstetrician–gynaecologists from family medical centres and obstetric institutions. At these courses, specialists became familiar with the latest research in this field and studied specific issues related to pregnancy and the pre- and postnatal periods for women who use drugs, as well as ways to avoid or minimize the risk of drug exposure for both women and children.

Evidence of impact/efficacy

AFEW brought together the Kyrgyz MoH, KSMI and community leaders to make changes for female drug users. The guideline is the first official document to sensitize general practitioners and gynaecologists to the needs of women who use drugs; they are intended to avoid or minimize the risks and consequences associated with drug use for women and their children through building strong therapeutic relationships with each pregnant woman based on trust and non-discrimination. This approach is designed to help women to overcome their fears and obtain adequate medical support during pregnancy while continuing care.

After the training sessions, 80% of participants report changing their attitude to women who use drugs. In total, 100 people received training.

An obstetrician–gynaecologist who attended the training course said:

"Before the training course, I met several pregnant women who use drugs. To be honest, I was not sure that they could give birth to healthy children. Having received the clinical protocol, and with the knowledge I obtained in training, I realize that these women should not be discriminated against. I learned about the scientific recommendations for planning pregnancy in situations that cannot harm either the mother or child. This helped me a lot."

The first results, based on feedback from pregnant women who use drugs, show improved counselling and prenatal care. While writing up this good practice, AFEW-Kyrgyzstan decided to create focus groups to further assess the impact of introducing the clinical standards.

AFEW does not have access to any more evidence-based data for Kyrgyzstan because no studies of women using drugs have been done and disaggregation by sex is uncommon in the country. The organization plans to address this gap in the future through continued engagement of local authorities and CSOs.

All regions of Kyrgyzstan have received the new clinical guideline. Doctors who have received training share their experiences with colleagues and help women who use drugs to safely plan their pregnancies and give birth to healthy children. AFEW-Kyrgyzstan continues to monitor the work of specialists who have been trained and monitors whether all health specialists have access to the guideline. In the future, AFEW-Kyrgyzstan will continue to work on improving the quality of life of people who use drugs and will monitor usage of this protocol by doctors.

Sustainability

The clinical guideline has been approved by the MoH of the Kyrgyz Republic for compulsory use by relevant medical workers. Sections of this guideline have been integrated into existing KSMI courses for training relevant medical workers, starting from the next academic year.

LATVIA. Formula feeding for infants born to HIV-positive mothers

Submitted by: Feldmane, Jana[1] | Veikenieks, Andris[2] | Azina, Inga[3] | Freimane, Agnese[4]

[1]Ministry of Health of the Republic of Latvia; [2]AGIHAS – Support Group for People Living with HIV/AIDS; [3]Riga Easter Clinical University Hospital; [4]Center for Disease Prevention and Control

Background

Since 2010, the number of new HIV cases in Latvia has increased (from 14.4 per 100 000 in 2011 to 16.8 per 100 000 in 2017) and is now one of the highest rates in Europe. In the country, rates for different types of transmission among people newly diagnosed with HIV infection in 2017 were: heterosexual transmission, 35%; IDU, 21%, between MSM, 6%; and vertical transmission, less than 1%. Of all new cases of HIV, the rate with unknown transmission is 36%.

The first case of MTCT of HIV was reported in 1999. Between 1999 and 2015, 75 cases of MTCT of HIV were recorded. According to the current procedure, virological testing[14] and erythrocyte counts are performed for all newborns of HIV-positive mothers. The percentage of infants born to HIV-positive women who undergo an HIV RNA test for HIV infection within two months of birth increased from 68% in 2012 to 84% in 2017. During 2011–2017, a total of 147 new HIV cases in pregnant women were registered. Most of these women (91 out of 147) were infected through heterosexual HIV transmission, 13 were people who inject drugs and the remaining 43 women had an undetermined/unknown mode of HIV transmission. Over the same seven-year period, 34 HIV-positive children were born to HIV-positive mothers in Latvia. The highest annual number of cases of MTCT over these seven years was 10 (in 2013). Since 2013, the number of cases of MTCT has fluctuated, reaching six cases in 2016 and three in 2017. The target for MTCT of HIV of under 2% for non-breastfeeding population must be reached for Latvia to move towards elimination validation *(66)*.

Recent missions found that possible reasons for continued vertical transmission include: low adherence to ART for those who present to antenatal care; and late or lack of antenatal care visits (especially for SW and people who inject drugs). Some women refuse treatment because they do not believe that ART is effective. Others

[14] HIV RNA testing is described in Cabinet Regulation No. 611 (65).

refuse medication because they believe it is unhealthy for themselves and the children, while yet others noted that accepting treatment is against their religious beliefs *(67)*. Low coverage rates are probably a result of women who give birth abroad: there is a lack of proper reporting to the infectologist when HIV-positive mothers give birth outside Riga's largest maternity hospitals/units.

The number of cases of MTCT due to breastfeeding in Latvia is unknown. WHO recommendations on HIV and infant feeding state that national or subnational health authorities should decide whether health services will mainly counsel and support mothers known to be living with HIV to either (i) breastfeed and receive ARV drug interventions or (ii) avoid all breastfeeding *(5,68)*. Latvia has decided to support the latter approach in their attempt to eliminate MTCT of HIV. Other interventions supporting the PMTCT of HIV in Latvia include: HIV screening of pregnant women at 8–12 weeks of pregnancy, early ART for all infected pregnant women, HIV testing of newborns with an HIV-positive mother and early ART for newborns with an HIV-positive mother.

Description of the good practice

Support for HIV-positive pregnant women in formula feeding for infants was introduced by an NGO, AGIHAS (Support Group for People Living with HIV/AIDS), in 2015. The decision to use this strategy in Latvia was based on considerations related to: the socioeconomic and cultural contexts of the populations served by maternal and child health services; the availability and quality of health services; the local epidemiological context; and the absence of malnutrition/undernutrition or increased risk of serious infections as the main causes of maternal, infant and child mortality. Thanks to the financial support of the Latvian State Forestry Agency and in collaboration with Ziedot.lv (Donate; an NGO), Riga's Maternity Hospital and Riga Eastern Clinical University Hospital in collaboration with AGIHAS started to provide assistance for newborn babies whose mothers are HIV-positive or have AIDS.

In 2017, approximately 2844 packs of free formula milk for the children of HIV-positive mothers were provided through the state budget. The National Health Service provides centralized procurement of formula milk, which is disseminated to maternity hospitals and to Riga Eastern Clinical University Hospital. In the 2017 reporting year, 48 of the 74 babies born to HIV-infected mothers received the formula milk: the other 26 babies were living in social institutions and received full state care. The formula feeding programme also offers social support for HIV-positive mothers, including counselling on child care and additional information materials. The 48 babies whose mothers participated in the programme underwent regular health monitoring.

Evidence of impact/efficacy

The annual number of cases of MTCT has fluctuated since peaking in 2013 but shows a decreasing tendency over 2016–2017. None of the 48 infants who received formula feeding within this programme were infected with HIV. The actual contribution of free formula provision to the decreasing tendency of new MTCT cases in 2016–2017 is, however, yet to be documented.

Sustainability

Special funds are allocated for distributing free formula milk for infants born to HIV-positive mothers. An NGO for people living with HIV began distributing free formula for infants born to HIV-positive mothers as a pilot project financed by donations. However, in 2017 the MoH took over this intervention within a state-financed programme. Although considered the standard of care in many countries, this practice is example of good collaboration among the MoH, NGOs and patient organizations to implement a sustainable HIV prevention intervention that navigates various social, sexual and, even, religious barriers within the target population in Latvia.

NETHERLANDS. The Amsterdam Pre-exposure Prophylaxis (AMPrEP) project

Submitted by: Hoornenborg, Elske[1] | Achterbergh, Roel C.A.[1] | van der Loeff, Maarten F. Schim[1,2] | Davidovich, Udi[1] | Matser, Amy[1] | Hogewoning, Arjan[1,2] | van Duijnhoven, Yvonne T.H.P.[1] | Sonder, Gerard J.B.[1] | de Vries, Henry J.C.[1,2] | Prins, Maria[1,2] (on behalf of AMPrEP in the HIV transmission Elimination Amsterdam (H-TEAM) initiative)

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Background

In the Netherlands, MSM accounted for 65% of new HIV diagnoses in 2015 and HIV incidence has not declined in this population. These findings indicate an urgent need for new methods of HIV prevention. The use of oral tenofovir disoproxil fumarate combined with emtricitabine as PrEP effectively protects MSM against HIV infection. Issues that impede PrEP implementation in high-income countries include uncertainty about the number and characteristics of PrEP users and the costs related to its use. More information is needed on the uptake of both daily and event-driven dosing regimens in real-life settings and on the determinants for choosing between these regimens.

Description of the good practice

In 2015, the Amsterdam Pre-exposure Prophylaxis (AMPrEP) demonstration project was initiated with the aim of assessing uptake of daily and event-driven PrEP, at the participant's discretion, among HIV-negative MSM and transgender persons at an increased risk for HIV infection. This project was part of a comprehensive HIV-reduction package, including quarterly counselling on sexual health, risk reduction strategies and STI testing, offered at a large STI clinic.

A press release announced the start of the project and the number of available places (n = 370). This was followed by large-scale media attention at the local and national levels. In addition, HIV-negative MSM and transgender people who visited the STI clinic of the Public Health Service of Amsterdam were informed about the demonstration project. Those interested in participating applied via an online application form during a fixed application period. HIV-negative MSM and transgender (both male-to-female and female-to-male) persons who have sex with men were eligible if they were aged at least 18 years of age with one or more of the following risk factors for HIV infection within six months prior to the screening visit: condomless anal sex with casual partners; at least one bacterial STI (i.e. syphilis, rectal or urethral chlamydia or gonorrhoea); use of PEP after a sexual risk incident; or an HIV-positive sexual partner with a detectable viral load. In addition to providing participants with PrEP, an effective way of HIV prevention was offered (quarterly testing for STIs other than HIV, including HCV infection), in line with international guidelines *(69)*. An unexpected finding was that 18 (4.8%, 95% confidence interval 2.9–7.5%) of participants were anti-HCV antibody and/or HCV RNA positive at baseline *(70)*. This was substantially higher than among the 370 non-PrEP-using HIV-negative MSM who visited the STI clinic in November 2015 (anti-HCV antibody prevalence, 1.4%) and 584 HIV-negative MSM participating in the Amsterdam Cohort Studies between January and June 2016 (anti-HCV antibody prevalence, 0.34%).

Evidence of impact/efficacy

About 870 persons submitted online applications to take part in the PrEP project, of whom 587 were invited for a screening visit; 283 were not invited because of limited capacity. Of those 587, 415 were screened for eligibility and 376 initiated PrEP; 172 cancelled or did not respond and 27 people were excluded (one because they tested HIV positive, three because of exclusion criteria and 23 because they failed to meet the eligibility criteria). A quarter (103/376; 27%) chose event-driven PrEP: two pills between 24 hours and two hours before sex, followed by one tablet after 24 hours and again after 48 hours. The prevalence of bacterial STI was 19% and the median number of condomless anal sex episodes in the preceding three months was 11, indicating that this group is indeed at considerable risk for HIV infection *(71)*. Overall effectiveness data for PrEP use in this project are not yet available; however, one person acquired wild-type HIV infection despite good adherence *(72)*.

Sustainability

In the Netherlands, PrEP is not yet implemented nationwide at the time of this publication. The Minister of Health will advise on its implementation in 2018 following advice from the National Health Council *(73)*. From the second half of 2018, continuation of PrEP provision through the AMPrEP project is dependent on national policy-making and/or additional funding. The Public Health Service of Amsterdam is advocating for PrEP for all of those who can benefit from it. This project one of many implemented in Amsterdam through the HIV Transmission Elimination Amsterdam (H-TEAM) initiative *(74)*.

POLAND. Implementation of OST through partnership between the Central Board of the Prison Service and the National AIDS Centre

Submitted by: Wysocki, Piotr | Marzec-Boguslawska, Anna

National AIDS Centre, Poland

Background

Poland is a low-prevalence country for HIV with a stable HIV epidemiological situation of approximately 1000 new infections diagnosed each year. In 2017, 1526 new HIV cases were registered in Poland, the vast majority (86%) of them male. Poland has a well-established and constantly expanding national system of early HIV detection, as well as treatment and support for people living with HIV. It was one of the first countries in the EECA region to offer a diversified package comprising free-of-charge access to diagnostics, ART and care for people living with HIV/AIDS. The Polish framework for HIV prevention and control is built around a sustainable national policy, the National HIV/AIDS Programme, a strong network of 31 VCT centres, and particularly robust partnerships between NGOs/CSOs and the national government. The National AIDS Centre, from the MoH budget, subsidizes and monitors HIV prevention and health promotion activities implemented by Polish NGOs and CSOs, based on the Schedule for implementation of the national programme for preventing HIV infections and combating AIDS. These activities aim to address the needs of the general population, people living with HIV and key populations, including people who inject drugs, prisoners and MSM, along with their relatives. HIV infection has been reported in the Polish penitentiary system since 1989. As of 31 December 2017, the total population of incarcerated persons in Poland was 73 822. At the end of 2017, 265 inmates had received ART. Available data from the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) on drug use among prisoners (from the 2007 prison survey) show that around half of prisoners in Poland have a lifetime experience of drug use before imprisonment. At present, among incarcerated persons who are HIV positive, 70% report being people who inject drugs; thus, treatment efforts are being directed towards this group.

Description of the good practice

Since 2001, the Penitentiary Service implements the Antiretroviral treatment of persons living with HIV in Poland programme, financed by the MoH. In alignment with WHO guidelines, this programme allows prisoners full access to free-of-charge ART and provides same services those as offered to people living with HIV outside the penitentiary system. Each year, the MoH allocates funding to ensure the procurement of ARVs, tests and vaccines for children (totalling more than €90 million in 2017). The National AIDS Centre developed the system of purchasing ARVs and monitoring drug management optimize the use of funds and streamline drug distribution in the country, including among key populations. As of 1 July 2015, OST has been made available to all those in need in all 155 penitentiary units in the country, in alignment with the national Strategy on dedication to treatment of persons living with HIV in Poland, 2017–2021. This good practice is the direct result of a strong relationship between the National AIDS Centre (a MoH agency) and the Central Board of Prison Service (MoJ). Both entities actively participate in the European Joint Action on HIV and Co-infection Prevention and Harm Reduction (HA-REACT *(75)*) programme, which addresses existing gaps in the prevention of HIV and related comorbidities such as TB and viral hepatitis among people who inject drugs. OST and ART are administered by medical staff in the penitentiary system.

Evidence of impact/efficacy

In 2008, OST was only an option for inmates who had been receiving OST prior to incarceration. In 2008, 87 inmates were receiving OST and OST programmes were running in 19 penitentiary units in five cities in Poland. As a national strategy on OST was lacking, it was difficult to provide continuous OST during referral from one institution to another or between the penal system and re-entry to the community. As of 1 July 2015, OST has been made available to all those in need in all 155 penitentiary units in the country. ART and OST programmes are available to all inmates who need and want to join them. On 31 December 2017, 135 patients/prisoners were on the methadone programme in Poland. To strengthen implementation, close partnership was established between the National AIDS Centre and the Central Board of Prison Service in Poland through the EU HA-REACT Project with the intention of providing international seminars and training on harm reduction, OST, and continuity of care in prison based on the country's needs and on EU

and WHO recommendations. After the partnership was established, the National AIDS Centre and Central Board of Prison Service designed a curriculum and organized international seminars and training on the effective implementation of harm reduction programmes in prison and the criminal justice system. These were designed for medical personnel and social workers who interact with members of the prison population who are living with HIV. The first seminar took place in March 2017 and was attended by technical experts from 12 European countries (Czech Republic, Finland, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxemburg, Poland, Portugal and Slovenia). At the seminar, barriers to OST and the needs of Member States were discussed and targets were operationalized. During seminars and in working groups, participants decided on the topics and content of the training session and the materials used to educate the medical and social staff in prisons. The training session was held in November 2017, attended by participants of the seminar in March. It consisted of practice-based training modules such as health and social care responses to drug problems; and harm reduction services in prisons and the criminal justice system, including needle and syringe exchange, condom distribution and OST. One of the training modules was aimed at adapting the publication, Opioid substitution treatment in custodial settings – a practical guide *(76)*, to the specific context of the Polish prison service.

Sustainability

ART and OST programmes in Poland are fully funded by the MoH and MoJ, respectively. Both programmes are implemented by medical and social staff working in the prison service. A large emphasis is placed on involving inmates in educational programmes organized in prisons, including for health. For example, through the EU HA-REACT programme and during development of the Polish adaptation of the publication, Opioid substitution treatment in custodial settings. A practical guide, the National AIDS Centre and Central Board of Prison Service organized a drawing competition to supplement the publication with hand-drawn images (and testimonials) from the prisoners. A small prize (a watch) was given to the inmate who won the competition. The ongoing partnership between the National AIDS Centre (of the MoH) and the Central Board of Prison Service (of the MoJ) bolsters intersectoral collaboration and political commitment to reducing the burden of HIV in the prison population. In accordance with the national regulations, health care programmes run in prisons are subject to annual monitoring.

PORTUGAL. Ares do Pinhal: a mobile outreach programme promoting harm reduction

Submitted by: Belo, Elsa | Faria, Hugo A | Main, Lula

Ares Do Pinhal, Portugal

Background

In the 1990s, over 6000 people who use drugs visited the Casal Ventoso (the neighbourhood in Lisbon where this intervention first started) to buy and use a range of illicit substances – mainly heroin. Over 400 people who use drugs lived in vacant lots in the neighbourhood in improvised shelters. Sharing of drug paraphernalia was very common; during the initial intervention (1998–2000), 61% of individuals were found to be HIV positive, 14% were positive for TB, 79% were HCV positive, 80% took drugs by injection and 90% had never sought treatment.

Description of the good practice

Ares do Pinhal is a mobile outreach programme promoting harm reduction focused on people who use drugs. The targeted populations are people who use drugs (in particular, people who inject drugs), homeless individuals and SW; the programme specifically aims to reach those people who use drugs who are unable to engage in conventional drug treatment services. Individuals who use the services of Ares do Pinhal usually engage in very high-risk behaviours, have physical impairments and/or diseases, have psychological illness and vulnerability and are socially marginalised. The programme is run using mobile vans (two methadone mobile units, one mobile office for medical support and one support car for patient transport and as back up for the three other vans). The vans have been specifically adapted for clinical use. The mobile vans operate daily, 365 days of the year; they stop daily at five locations throughout the city of Lisbon (Fig. 20).

Fig. 20. Mobile unit, Ares do Pinhal

When first starting the programme, all patients are interviewed with psychological professionals and nurses and undergo blood testing for HBV, HCV and HIV infection, syphilis and TB. Blood samples are collected in mobile vans by the nursing team. For individuals that do not have a national health number (such as migrants), a rapid test for HIV may be offered. Blood samples are analysed at the National Health Institute. Patients are informed of the services provided and methadone substitution is initiated if indicated and wanted, in individualized doses and through directly observed treatment at mobile outreach units.

If HIV test results are positive, patients are referred to a specialist hospital consultation. For those who have difficulty (due to mobility issues and/or financial issues), a service car with a psychologist to help with mediation can transport the individual to their appointments and also for complementary diagnostic testing. The programme collaborates with every major hospital in Lisbon. Ongoing collaboration with the hospital teams is ensured during the patient's hospitalization or for conflict management or problem solving (e.g. the patient may be a migrant or emotionally unbalanced). Help in managing of appointments for follow-up consultations in hospitals includes giving the patient a timely reminder of the dates of follow-up consultations and providing transport, if necessary. The harm reduction approach is based on: getting closer to the drug users, addressing all drug users, and leveraging the safer use of drugs.

The main aspects of the mobile outreach programme are ease of access (close proximity to problem neighbourhoods and transport links); prompt response to a request for admission; and simplified admission procedures. The main concerns are symptoms of abstinence, withdrawal and craving; and low-threshold methadone (i.e. abstinence from drug use is not required).

Along with psychosocial support, these services are all provided by the monitoring teams and general practitioners in mobile vans, for 365 days of the year. Providing dignified living conditions through appropriate referral to health and social care services and promoting personal reorganization for those most excluded from society are the mainstays of the programme. As part of its harm reduction approach, the programme also operates a NSP and distributes condoms and tinfoil from the office and mobile units. The patients of this service are assigned a case manager who provides follow-up care through learning all of the major problems

and/or needs of the user (e.g. health, social, judicial), gradually aiming to create the best possible relationship with the patient.

Hospitals provide the programme with HIV medication for specifically for individuals who are homeless, marginalised, or are in other relevant situations requiring care. Programme staff collect medication from the hospital and the nursing team monitors its administration. The nursing team also note any complaints regarding symptoms related to HIV medication and/or interactions with methadone and ensure information exchange among the various agents involved in treating/monitoring the problem. Timely adjustment of the dosage of methadone hydrochloride in the face of interaction with ART is ensured and so is administration and monitoring of other medical drugs (e.g. anti-HCV drugs, anti-TB drugs, antibiotics, antipsychotics, antidepressants and injected contraceptive drugs). In cases of transfer, detention or referral to other institutes, it is necessary to organize the entire clinical and psychosocial programme and transfer medication and treatment data (e.g. date of the next consultation and/or complementary diagnostic testing) to ensure continuity of HIV treatment. The Ares do Pinhal fact sheet shows many of the programme's achievements (Fig. 21).

Since the enactment of the 2001 law on decriminalization of drugs *(77)*, Ares Do Pinhal has also participated in, supported and promoted the creation of community working groups for collaboration with the police force. In the various parishes of Lisbon, meetings take place periodically with police representatives to discuss and assess drug use developments, drug trafficking and the litter related to drug use. Several partners are represented, including the Municipal Police and the Public Security Police. This partnership has caused high-risk health behaviours to be seen as health problems instead of judicial problems, enabling frequent monitoring by local police and community representatives. Police members indicate consumption places where intervention is necessary and also escort patients to mobile units for on-site methadone administration. Police officers identify syringes and other drug paraphernalia discarded in the street and contact Ares do Pinhal to remove them. Furthermore, partnership with the police force has enabled methadone to be dispensed to patients in temporary custody to avoid withdrawal symptoms or to patients being detained for a court hearing to ensure continuity for the methadone programme when patients are released from prison.

Evidence of impact/efficacy

Outreach approach to vulnerable people, especially those who use drugs has made it possible to track the major infectious diseases and, if in case of having positive cases, refer them to the specialist consultations in hospitals. The screenings are performed on more than 90% of the users included in the program and renewed annually. The population in the program actively injecting drugs in 1998 was around 80%, and currently it is only around 20%. Authors observe the HIV prevalence of users integrated in the Mobile Outreach Program (PSBLE) shows a slight but steady decline over the last few years, accompanying the tendency of the numbers at the national level.

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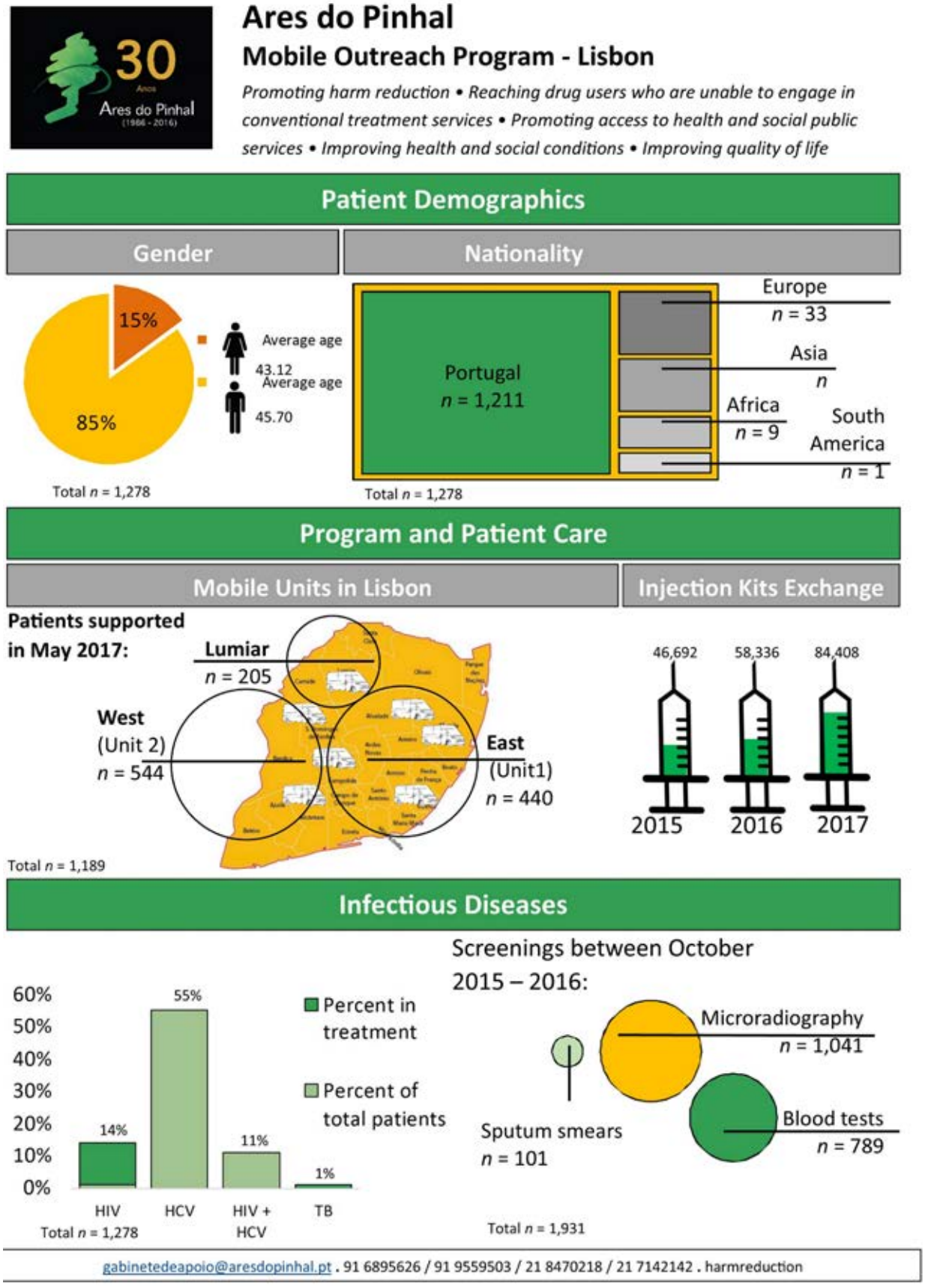
Sustainability

The Ares do Pinhal programme has had sustained financial support since 1998 from the MoH and the municipality of Lisbon and is widely accepted as a defining programme in in the city.

Fig. 21. Ares do Pinhal fact sheet



REPUBLIC OF MOLDOVA. Strengthening the harm reduction package

Submitted by: Pirtina, Lucia | Cotelnic-Harea, Tatiana | Bivol, Stela

Centre for Health Policies and Studies (PAS)

Background

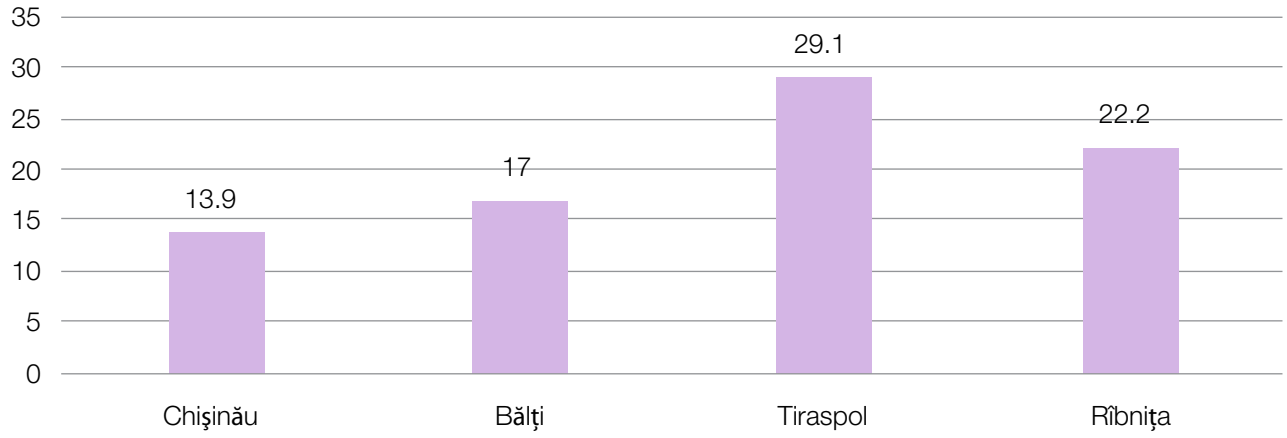
Up to the end of 2016, 11 043 new HIV cases had been cumulatively registered in the Republic of Moldova (including Transnistria), with the number of newly registered HIV cases remaining stable over the past three years at around 800 cases per year, with no major changes in sex distribution *(78)*. The prevalence of HIV in 2016 was 0.20%. However, the epidemic is concentrated among key populations, mostly people who inject drugs in the civilian and prison sectors but with increasing rates among of SW and MSM. The available data suggest that the epidemic has transitioned from an early concentrated epidemic in which the highest rates of transmission were among people who inject drugs to a more advanced concentrated epidemic in which onward transmission to the sexual partners of people who inject drugs and other key populations has become a source of new infections. HIV prevalence among people who inject drugs in urban settings is reported to be 14–29% (Fig. 22). According to the latest estimate in 2017, there are 36 900 people who inject drugs in the country.

A NSP was implemented in the Republic of Moldova in 1999. The package of interventions to reduce harm associated with injecting drug use included needle and syringe exchange; VCT; condom provision for people who inject drugs and their sexual partners; targeted information; overdose prevention measures; naloxone use; vein care; OST, promotion of condom use; and education and communication for people who inject drugs and their sexual partners. Between 2000 and 2002, NSPs were extended to four additional territories: Bălți, Chișinău, Falesti and Orhei. Implementation of the GFATM grant for the 2003–2013 period enabled NSPs to be extended to 20 territories (47.6% coverage) and in 12 penitentiaries (57% coverage). The package of interventions consisted of voluntary saliva-based testing for HIV through NGOs; OST (2004, in civilian areas; 2005, in the penitentiary system); and counselling for ART initiation. During this time, the harm reduction package supported by the GFATM comprised a minimal set of syringes, condoms and the provision of information, education and communication; however, this was insufficient to fully address all causative factors for the HIV epidemic in the Republic of Moldova.

Description of the good practice

To increase the coverage and efficacy of the national harm reduction services, the harm reduction package was augmented in 2015 to include a more comprehensive package of services, with additional emphasis placed on sex- and age-specific programming; peer-driven interventions; overdose prevention; legal aid; activities in prisons; technical assistance (evaluation of the OST programme in the Republic of Moldova); accreditation for the HIV prevention services provided by NGOs; mobilization of clients of the harm reduction programmes; outreach activities; developing community initiation groups for people who use drugs; and training to improve quality of care and institutionalize new services (Box 1).

Fig. 22. HIV prevalence rate among people who inject drugs (%) in key urban cities, Republic of Moldova, 2016



Source: MoH of the Republic of Moldova, 2016 *(78)*.

Box 1. The current augmented harm reduction package in Moldova from 2017

The package comprises:

- needle and syringe exchange (at the syringe exchange point and via field workers, pharmacies and mobile services);
- condom distribution (at the syringe exchange point and via field workers, through pharmacies, mobile services);
- community-based testing with rapid HIV tests in association with medical institutions to confirm the diagnosis and enrol in treatment if needed (including mobile units);
- counseling, referral and accompaniment to OST services by a social worker or peer educator;
- counseling, referral and accompaniment to specific medical services for hepatitis, STI and TB treatment and ART, including distribution of information materials;
- training activities to reduce risk behaviors for people who inject drugs and their sexual partners (including in the use of sterile injection equipment and condoms);
- naloxone release and overdose prophylaxis;
- psychological counseling and counseling for social assistance, legal advice, (counseling for social support, mentoring, case-management and linking people who inject drugs to other services);
- various other services, including
  - sex-specific information on reproductive health;
  - prevention of violence; prevention and management of overdoses;
  - support and assistance during pregnancy;
  - baby-sitting services to enable women to get involved in activities or benefit from harm reduction services;
  - referral;
  - accompaniment to consultations; and
  - payment for specific health services needed for women who inject drugs; and
- peer-to-peer educator accompaniment to the medical site to complete the diagnosis and, if the diagnosis of HIV infection is confirmed, accompaniment to the ART centres for medical supervision and ART initiation.

Evidence of impact/efficacy

At the end of 2017, NSPs had been implemented in 30 territories in the civilian sector (71.4% coverage; compared with 47.6% coverage in 2014) and in 18 penitentiaries, including in Transnistria (85.7% coverage, compared with 57% coverage in 2014). All of these interventions increased the coverage of services for people who inject drugs (Table 7) and of access to the continuum of care.

Key behavioural indicators from 2016 show that using sterile syringes has become the norm for people who inject drugs (proportion who used a clean syringe at the last injection: Tiraspol, 98.1%; Chișinău, 97.1%; and Bălți, 94.6%). Slower progress has been seen in adopting safer sexual behaviours: condom use at the last sexual encounter with an occasional partner among people who inject drugs averaged 62.4% in Chișinău, 55.2% in Tiraspol and 54.1% in Bălți.

Table 7. National coverage of harm reduction programmes for people who inject drugs, Republic of Moldova, 2013–2017

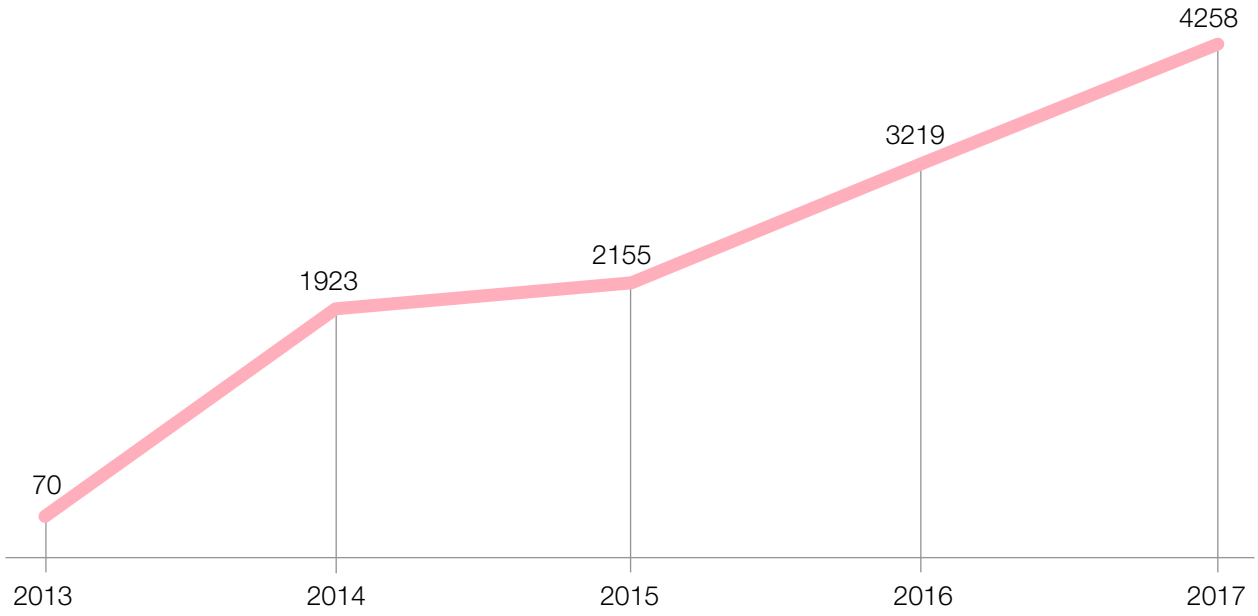
Year	2013	2014	2015	2016	2017
Coverage (%)	28.8	30.8	43.3	49.0	51.0

NGO involvement in community testing has contributed to the increased number of members of the key populations tested for HIV (Fig. 23).

Sustainability

MoH commitment in 2017 led to approval of a specific regulation on use of National Health Insurance Company funds. In addition, the MoH set priorities for the needs to be covered by those funds. Starting in autumn 2017, two implemented harm reduction projects financed by the National Health Insurance Company covered 20% of the need for harm reduction services. The state budget is projected to finance 58% of the need for harm reduction services by 2020.

Fig. 23. Number of persons in key populations tested by NGOs, 2013–2017



ROMANIA. Integration of HIV and viral hepatitis services for people who inject drugs in Romania

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[1]National Institute for Infectious Diseases "Professor Dr Matei Bals" Bucharest; [2]Anti AIDS Society (ARAS)

Background

In 2017, there were 692 new HIV cases in Romania. According to the Department for Monitoring and Evaluation of HIV/AIDS Data in Romania *(79)*, in 2016 there were 118 new HIV cases through injecting drug use, while in 2017 approximately 107 cases were reported. The primary mode of transmission is through heterosexual intercourse, with an average of 400–500 new cases per year in the adult population. In 2016, there were 100 new HIV cases due to injecting drug use of which; 1 case was HIV/HBV coinfected, 82 were HIV/HCV coinfected, and nine were HIV/HBV/HCV coinfected. In 2017, there were 108 new IDU-related cases, with a slight increase in the HIV/HCV coinfection rate: all eight new cases of HIV/HCV coinfection were related to injecting drug use. Romania provides treatment for hepatitis and HIV infection, which is also free to all patients diagnosed with HCV who have therapeutic indications.

Despite an outbreak of new HIV infections due to injecting drug use in the country during 2011–2013, rates for infections related to this outbreak have continuously decreased from 2014. However, Romania is one of four countries in the central part of the WHO European Region reporting higher rates of AIDS-related deaths (0.4 per 100 000 population; Table 8) *(1)*; nearly 70% of new infections are late presenters and HIV response efforts targeted at key populations remains a significant need in the country.

Table 8. HIV incidence in Romania, 2015–2017

Year	HIV incidence (per 100 000 population)	
	Children	Adults
2015	0.28	1.99
2016	0.1	2.19
2017	0.34	2.41

Description of the good practice

A bilaterally supported project between Romania and Norway, Strengthening the Prevention and Control of HIV/AIDS, HBV, HCV in Romania, was implemented from May 2014 to August 2016. The purpose of the project was to control HIV, HBV and HCV infections in key populations (specifically in people who inject drugs) by improving essential prevention services and screening/diagnosis services. The objectives of the programme were to increase the institutional capacity of the National HIV/AIDS Programme; establish a national registry to integrate HIV, HBV and HCV data; increase the early diagnosis rate for all three viral infections; decrease the transmission rate among people who inject drugs; and expand access to harm reduction programmes. Target groups for the programme were people who inject drugs, the Roma ethnic population and other populations at a higher risk of HIV infection.

The National Registry of Patients with HBV and HCV (RNHBC) was established in cooperation with the National Insurance House and the National Institute for Infectious Diseases to ensure that all those tested and receiving treatment are adequately recorded and that information is accessible by authorized health professionals. Approximately 337 general practitioners attended training sessions on the virtual platform and network. Activities to reduce transmission included harm reduction (including a NSP), information and education sessions (in person and online) for harm reduction, VCT services and media campaigns/an online campaign site *(80)*.

Evidence of impact/efficacy

In 2013, the number of IDU-related HIV cases was 290 but had decreased to 108 in 2017. A general increase in the number of HIV infections was probably due to

enhanced testing efforts through the programme, whereas the reduction in incidence among this target group seems to correlate with programmatic efforts.

Establishing the RNHBC

After funding from the Norwegian Financial Mechanism ended, one of the most important achievements was development of the National Registry for Hepatitis. This instrument was developed within the project and is one of the most reliable instruments of the National Health Insurance House. Currently, Romania provides free-of-charge treatment for patients diagnosed with HCV infection and therapeutic indications. The funds necessary for specific anti-HCV and anti-HBV therapies may be correctly predicted and monitored at the national level. Physicians that survey and treat patients with the HCV and HBV register their cases by logging on to the Registry's database using a personal username and password.

Testing and surveillance

During the project (May 2014 to August 2016), approximately 37 500 tests were administered across eight focus regions in Romania: 12 500 each for HIV, HBV and HCV. The total number of people screened was 12 500, including members of the Roma community. Approximately 1000 people who inject drugs received rapid testing for HIV/HBV/HCV infection and 163 000 000 condoms and 1 174 110 needles and syringes were distributed to people who inject drugs. These materials and services were provided by the NGO consortium for two years to people who inject drugs and Roma communities in Bucharest.

Training and education programmes

For the RNHBC, 337 general practitioners were trained to use the online virtual network. In addition, over 10 000 family practitioners throughout the country received online training (comprising four modules; each training session had a capacity of 25 people) to enhance their knowledge about HIV, HCV and HBV infection prevention and control measures. These practitioners included family doctors, gynaecologists, dermatologists, haematologists, psychologists and nurses.

Sustainability

The project has contributed to meeting the objectives of Operational Programme 2007–2013 on Employment, Human Capital and Social Cohesion and to the emerging National Strategy for Health 2014–2020. Approximately 85% of project funding was provided by the Norwegian Financial Mechanism and 15% by the Romanian MoH, which operated the programme. Social contracting mechanisms in place in the country enabled the Romanian Anti-AIDS Society (ARAS), the ALIAT Association and the PARADA Foundation to successfully implement project components on behalf of the MoH. These NGOs represent an extremely important source of data, especially for key populations and vulnerable groups such as the Roma population, people who inject drugs, MSM and SW.

SLOVENIA. Evolution of CBVCT for HIV infection and STIs for MSM in Slovenia

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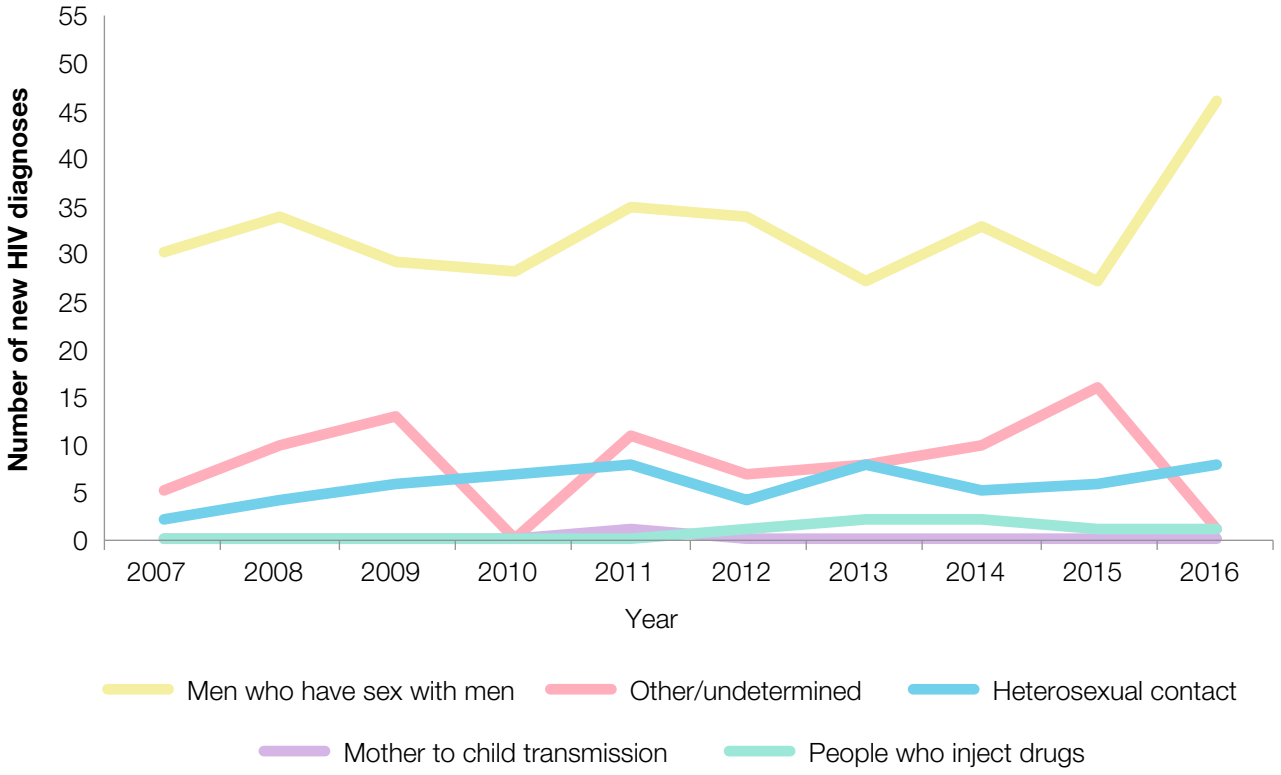
Background

Slovenia is a low-prevalence country, in which fewer than one per 1000 inhabitants live with HIV. The most common mode of transmission is through sex; specifically, MSM account for 69% of all new HIV diagnoses over a recent 10-year period (2007–2016; Fig. 24). During the same period, 470 HIV diagnoses were notified to the Slovene National Institute of Public Health. The annual number of reported cases was lowest in 2010 (at 35; 1.7 per 100 000 population) and highest in 2016 (at 56; 2.7 per 10 000 population). Preliminary data for 2017 indicate a noticeable decrease in new HIV diagnoses among MSM compared with 2016. Among 31 new HIV diagnoses in men reported by 22 November 2017, only 23 were known to be MSM.

Due to the low prevalence of HIV in Slovenia, HIV services are centred on prevention and health promotion, including safer sex, the use of condoms and lubricants, knowing one's sexual partner, and more frequent testing of key populations such as young people and MSM. Decentralized CBVCT has been a key element of this prevention and promotion strategy in the country.

Fig. 24. New HIV diagnoses by transmission mode, Slovenia, 2007–2016



Description of the good practice

A comprehensive package of targeted prevention and testing for HIV and STIs, with linkage to care and support, has been implemented in Slovenia with the involvement of NGOs, people living with HIV and health care workers in settings where HIV prevalence is highest. High-quality HIV/STI testing and counselling is provided by professional medical and social staff. High-quality diagnostics are provided by the Institute of Microbiology and Immunology at the Faculty of Medicine, University of Ljubljana.

In 2009, Legebitra (an NGO) piloted a community-based testing programme in association the with Institute of Microbiology and Immunology of the Faculty of Medicine, University of Ljubljana and Department of Infectious Diseases, University Medical Centre Ljubljana. Individuals can be tested for HBV, HCV and HIV infection, syphilis and oral/anal gonorrhoea. Testing for HIV and HBV infection has been available since 2009, testing for syphilis and oral gonorrhoea was added in 2012 and testing for HCV infection and anal gonorrhoea have been available since May 2015.

Through funding from the Norwegian Financial Mechanism for 2015–2016, confidential CBVCT services (for HIV, HBV and HCV infection, gonorrhoea and syphilis) were successfully established in MSM meeting venues outside of major cities. Services include counselling and providing psychosocial support to people living with HIV.

Slovenia is also a participant in the COBATEST Network *(12)* (for community-based testing) and the Euro HIV EDAT project *(19)*. The aim of these projects is to generate operational knowledge to better understand the role and impact of CBVCT services, explore the use of innovative strategies based on new technologies, and increase early HIV/STI diagnosis and treatment in Europe among the most affected groups.

The final ongoing programme, which is aligned with WHO recommendations *(81)*, includes confidential CBVCT (with standard blood tests) for HIV, HBV and HCV infection, gonorrhoea and syphilis at DIC Legebitra in Ljubljana, as well as regular testing in outreach settings in different regions of Slovenia and peer support for people living with HIV. Individual pre- and post-test counselling is provided for persons at the greatest risk of HIV. In the counselling sessions, participants can freely discuss with a counsellor their sex lives and ways to reduce the risks of HIV and STIs. For every person with a reactive HIV test, the service

provider arranges an appointment at the Department for Infectious Diseases, Ljubljana University Medical Centre for a confirmation test, including the offer to be accompanied by a peer counsellor to reduce stress and anxiety during linkage to care. People living with HIV are also offered psychosocial support from their peers to cope with life after a positive diagnosis. Support is available 365 days per year; continuous development efforts include monitoring relevant policy and legislation implementation while remaining sensitive to the needs of people living with HIV. Legal support is also provided in reported cases of discrimination.

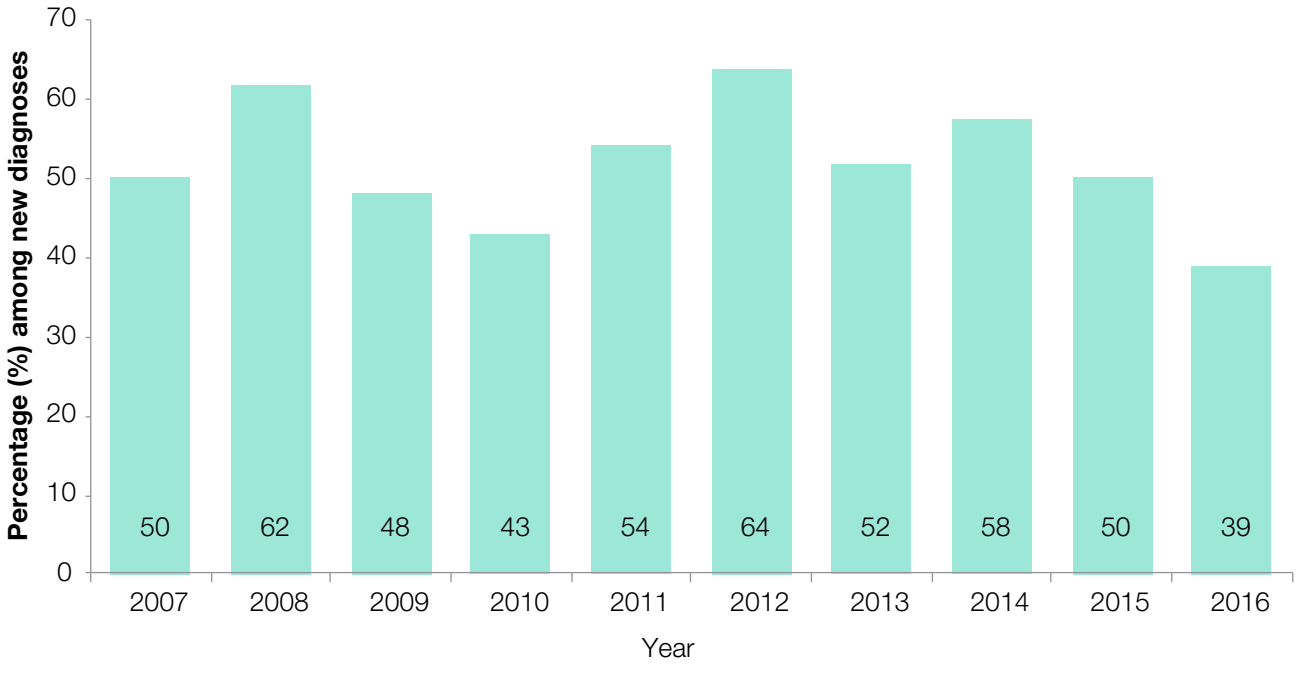
Evidence of impact/efficacy

The services were established in 2009 when community-based testing was provided for 50 people. In 2017, 1018 people were provided with services (total number of all types of tests: 5358). Since 2015, the proportion of reactive clients has declined slightly: positive test rates were 1.32% in 2015, 1.26% in 2016 and 0.92% in 2017. Rates of first-time testers have been measured since 2016: they were 17.1% in 2016 and 16% in 2017 (average 16.55%). Linkage to care has also been measured since 2016: the rate is 100% – meaning that all clients with a reactive HIV test result have been included in public health care system for confirmatory tests and treatment. Information on the confirmation of diagnosis has only been gathered since 2017: out the nine reactive HIV test results, seven have been confirmed (rate of 78%) by laboratory testing at the Public Specialist Clinic for Infectious Diseases.

According to ongoing monitoring of user satisfaction with the service, the following top five reasons for using the service were the "possibility of performing multiple tests in one place"; "confidentiality"; the "relaxed atmosphere"; "free-of-charge service"; and the "possibility to talk with someone who understands". In 2017, the average score for the service was 4.89 (out of 5), with a total response rate of 49%. For the second half of 2017, the response rate was 60% (342 out of 570 people tested). Approximately 88% respondents responded that they were very satisfied with the service, 11.1% that they were satisfied, 0.9% that they were neither satisfied nor dissatisfied with the service provided; 0% expressed being dissatisfied or very dissatisfied with the service. One suggestion for improvement was to offer an organized system and toolkit for partner notification directly through the programme.

The programme shows normalization of testing within the MSM population and qualitative development of the service as a whole, with impressive satisfaction rates. The proportion of late HIV diagnoses among MSM had a decreasing tendency between 2012 and 2016, coinciding with increasing coverage with HIV testing in the community (Fig. 25).

Fig. 25. Percentage of late HIV diagnoses[a] among MSM, Slovenia, 2007–2016



[a] With a CD4 cell count of under 350 mm^3.

Sustainability

Financial support for piloting community-based testing programmes was provided by the MoH from 2010 to 2014. Key resources for developing the programme were provided in 2015 and 2016 through the Norwegian Financial Mechanism. However, a substantial increase in resources for implementing high-quality safer sex promotion programmes and early testing among MSM has been provided by the MoH from 2017 after adoption of the new National HIV prevention and Control Strategy 2017–2025.

The MoH of Slovenia finances 93.32% of the programme. The remainder of funding is allocated by the Foundation for Funding Disability, NGOs and the Student Organization of the University of Ljubljana. Strategic partnerships have been formed between NGOs, health care providers, laboratories and the MoH, which guarantees long-term implementation and development of the CBVCT programme.


All people should receive the services they need, which are of sufficient quality to have an impact
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STRATEGIC DIRECTION 3. Delivering for equity

BELARUS. Implementation of the "treat all" approach by ensuring universal access to ARVs

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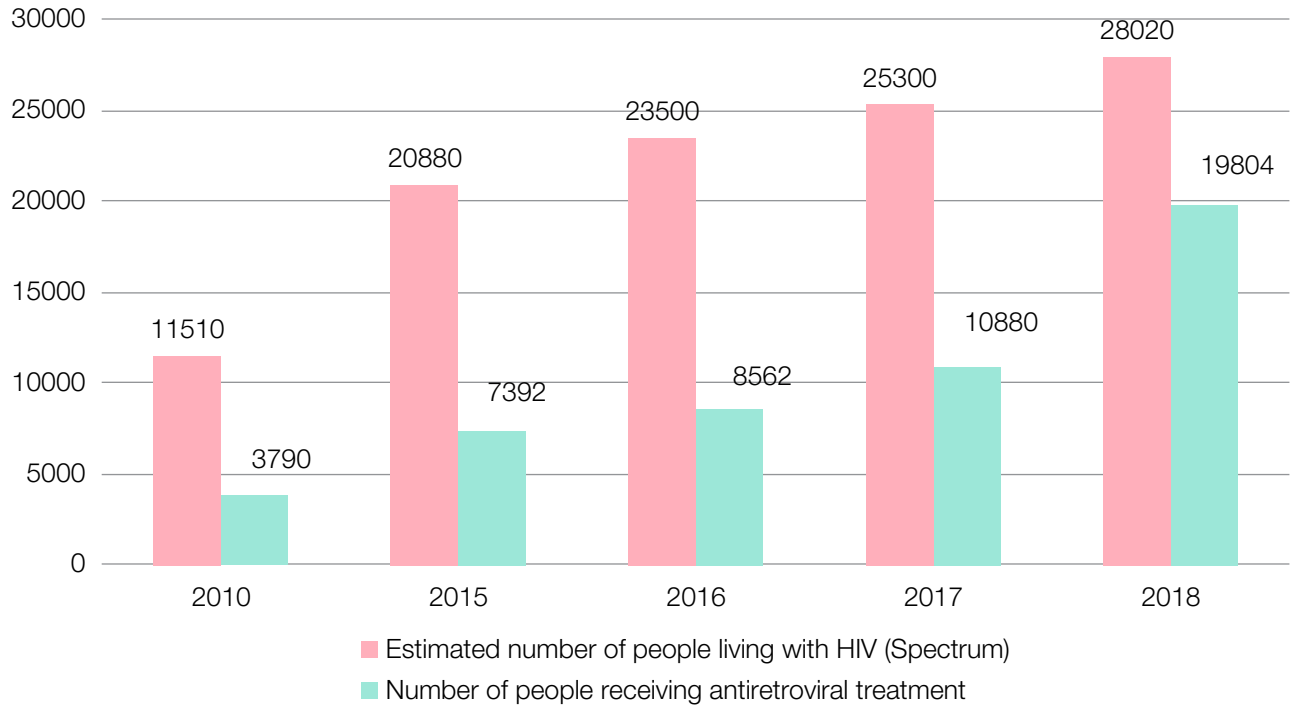
Background

Despite measures taken to curb the spread of HIV in the country, the number of newly detected HIV infections and the total number of people living with HIV are increasing greatly in Belarus. In 2007, 990 new cases of HIV infection were detected (10.2 per 100 000 population), whereas in 2017 the increased to 2468 (25.9 per 100 000 population). The cumulative number of HIV infections during the observation period increased from 8737 to 24 686; as of 1 January 2018, the number of people living with HIV registered in health care organizations had reached 19 231. However, the mortality rate due to AIDS has not significantly changed over the past five years, varying between 2.7 and 3.1 per 100 000 population. In the current situation, interventions aimed at early diagnosis of HIV infection and improving both access to ART and ART retention rates are becoming the most important elements of the national HIV response (Fig. 26).

Description of the good practice

On 1 June 2017, the MoH of Belarus adopted the new Clinical protocol for the diagnosis and treatment of HIV infection with the aim of providing ART to all people living with HIV, regardless of the disease stage and degree of immunosuppression, starting from 1 January 2018. Adoption of the document was preceded by extensive work by a national working group comprised of MoH officials, leading national HIV experts, practitioners, and representatives of international organizations, people

Fig. 26. Number of people living with HIV and number of people receiving ART, Belarus, 2010–2018



Source: Tatsiana Migal, Ministry of Health of the Republic of Belarus, Presentation on Zero Discrimination Day event, 1 March 2018, Minsk

living with HIV and civil society. The working group had the task of developing new national recommendations for the diagnosis and treatment of HIV infection in accordance with the latest WHO recommendations, including the "treat all" approach *(5)*, while taking full account of national capacities and priorities.

To ensure a smooth transition from the previous recommendation of providing ART to all people with a confirmed HIV diagnosis and a CD4 cell count of 500 per mm3 or less to providing ART to all people living with HIV regardless of CD4 cell count, an approximate schedule of patient recruitment for ART was drawn up for each region of Belarus. To accelerate recruitment of HIV-positive inmates, specialists from the Infectious Disease Service regularly visited penitentiary institutions to consult patients and initiate ART. In December 2017, several training seminars were held in all regions of the country to improve knowledge about ART, attended by 230 infectious disease doctors, with the support of the WHO Regional Office for Europe.

The MoH is purchasing ARVs to provide treatment for patients according to the established schedule of linkage to treatment and is creating a six-month drug reserve (using a timetable showing how many patients should be put on treatment each month of the year to avoid stock-outs). Following its commitment to ensure sustainability for the transition to domestic financing of HIV-related activities, Belarus is gradually increasing the share of government spending on the purchase of ARVs (74.6% in 2017). At the same time, local production of generic ARVs has been established, including tenofovir/emtricitabine/efavirenz – the three-component drug recommended by WHO as the preferred first-line regimen for ART *(5)*.

ART regimens have been optimized and harmonized to bring them in line with WHO recommendations. In addition, the MoH, in close cooperation with the pharmaceutical industry, representatives of patient organizations, specialists of the infectious diseases service, public organizations involved in HIV care and international partners, is actively working to further reduce the cost of ART. This will help to optimize public spending for addressing HIV and to ensure the sustainability of national HIV control measures. The regional meeting on improving access to good quality, affordable ARVs and anti-TB drugs in the EECA countries, held in Minsk in November 2016, was devoted to this theme. The second regional meeting on a similar subject in Minsk is planned for November 2018.

Evidence of impact/efficacy

As a result of implementing the "treat all" policy in Belarus, the number of persons covered with ART has begun to increase and is expected to continue over the next few reporting years.

ART coverage for people living with HIV: general population

As a result of the "treat all" approach, the number of people living with HIV and receiving ART increased from 8562 at the beginning of 2017 to 11 242 at 1 January 2018. In the second half of 2017, coverage with ART increased from 50.1% to 58.5% of people living with HIV. According to planning targets, 19 804 people will receive ART by the end of 2018 (Fig. 25).

ART coverage for people living with HIV: penitentiary system

The number of people living with HIV and receiving ART in penitentiary institutions increased from 651 on 1 July 2017 to 1008 on 1 January 2018, the latter corresponding to 54.8% of all people living with HIV in prisons.

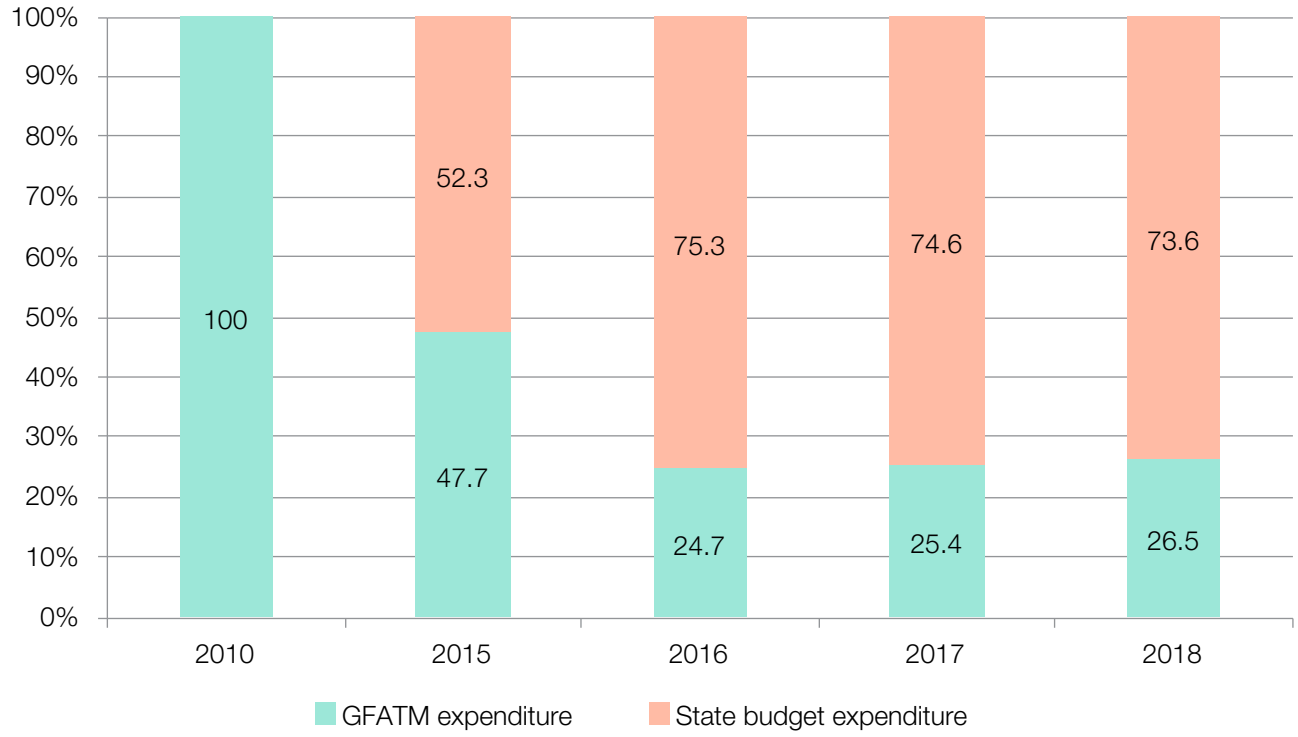
Optimization and harmonization of ART regimens

As a result of optimizing ART regimens, 40% of HIV patients were receiving tenofovir/emtricitabine/efavirenz (recommended first-line regimen for ART) at the beginning of 2018. The number of the main treatment regimens was reduced from 40 to 11. The number of patients receiving individual treatment regimens was reduced to 233, thus helping to reduce the financial burden for the health care system in the country.

Sustainability

Robust political commitment driven by the MoH of Belarus has enabled this policy to be effectively implemented throughout the country. The establishment of strong relationships with local manufacturers and the pharmaceutical industry has enabled the domestic production of first-line ARVs, thus allowing people living with HIV to receive the support they need while reducing the financial burden on the overall health system. Optimization of regimens has also reduced the financial burden for the health care system in the country. Fig. 27 shows the gradual increase in public spending on ART, with nearly three quarters of the budget now coming from the state.

Fig. 27. Proportion of GFATM and state funding for ART, Republic of Belarus, 2010–2018



Source: Tatsiana Migal, Ministry of Health of the Republic of Belarus, Presentation on Zero Discrimination Day event, 1 March 2018, Minsk

BULGARIA. Development of low-threshold HIV testing services for key populations

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Bulgarian Ministry of Health

Background

The overall HIV prevalence in Bulgaria is low (0.07% in 2016) and concentrated in key populations *(82)*, including people who inject drugs, MSM, the Roma population (men), prisoners and SW (Table 9). In 2001, the Bulgarian Government adopted the first National AIDS Strategy and the National action plan for prevention and control of HIV/AIDS and STIs 2001–2007. Supported by the MoH, the National AIDS Strategy and National action plan mandated state responsibility to ensure HIV testing services and ART were guaranteed for all. In 2004, decentralized, low-threshold rapid HIV testing and counselling services combined with harm reduction programmes for people who inject drugs were implemented as national priorities, including for key populations.

Table 9. Average HIV prevalence in key populations, Bulgaria, 2006–2011

	People who inject drugs	MSM (2007–2016)	Roma men aged 15–25 years	Prisoners	SW
Prevalence	5.73%	2.95%	2.06%	0.98%	0.82%

Source: National Centre of Infectious and Parasitic Diseases, 2015 *(82)*.

Description of the good practice

Components of the integrated model for HIV service testing and delivery in Bulgaria include health testing services within and outside of health care facilities.

Health testing services within health care facilities

HIV testing services through provider-initiated testing are available in Bulgaria for the general population. Some providers offer anonymous, free-of-charge HIV testing services with extended pre- and post-test counselling and psychological support; all offer referral to further care. Testing for migrants is available conducted by medical specialists in refugee centres. These services offer referral to care and additional counselling for psychosocial support and risk reduction.

HIV testing services outside health care facilities

From 2004 to 2008, through GFATM funding, different approaches were developed to increase access to HIV testing services with a clear focus on HIV prevention in target groups, including on-site HIV rapid tests (since 2005) via mobile medical units, drop-in-centres for people who inject drugs, NSPs, and sexual and reproductive health services. Seasonal low-threshold HIV testing services near popular seasonal resorts were also established, as well as HIV testing services in prisons. These services go beyond the health care facility package because they offer linkage to ART and TB, STI and reproductive care, including OST and NSPs as part of the essential harm reduction package for people who inject drugs. Health centres for the Roma population are community based and extended through medical staff.

Highlight: mobile medical units

Mobile medical units, equipped to offer HIV testing services as part of prevention services in difficult-to-reach places, were also implemented through NGOs via GFATM grants in Bulgaria. These units are managed and used by NGOs that specialize in working with Bulgarian key populations. The units host a team of medical specialists and outreach staff who provide free on-site care. Currently, a total of 11 mobile medical units operate in areas with a high disease burden in the country. They offer a combination of services including STI check-ups, condom distribution, NSPs and health education. The units are now widely used for providing HIV testing services to young people and MSM in discos, bars, clubs, university campuses and other similar locations. They also form an essential part of local and national HIV testing campaigns. Additional funding allocated to the state by GFATM grants enabled the geographical expansion of the low-threshold HIV testing service network, especially via mobile medical units.

Highlight: HIV testing services in prisons

Treatment and services are provided to all inmates in accordance with the same guidelines and protocols used outside the prison system in Bulgaria. In 2006, the MoJ and MoH issued a joint order regulating HIV prevention activities, which allowed Regional Health Inspectorate teams to visit the prisons twice per month and to provide voluntary HIV testing services based on the principles of privacy and assured confidentiality. In 2010, the MoJ and MoH issued a joint ordinance for medical care in prisons, based on national HIV treatment guidelines, which also regulated HIV prevention services and ART. As a result, HIV testing services are offered to all prisoners during the initial medical examination and thereafter as part of routine medical care, further motivating inmates to access HIV testing services. The MoH provides HIV testing and treatment supplies including ART and follow-up care. The MoJ provides suitable facilities for testing and treatment in prisons to deliver a combined package of HIV prevention mechanisms harm reduction for people who inject drugs.

Highlight: human resources capacity-building

Before the start of the National AIDS Strategy and National AIDS Programme, HIV testing was offered at hospitals and public laboratories, often without any pre- and post-test counselling and referral owing to a lack of training in this area. In parallel with establishing the first low-threshold HIV testing services in 2004, a long-term programme (2004–2007) supported by a GFATM grant was launched for capacity-building of counsellors, physicians, psychologists and laboratory staff to ensure the provision of comprehensive and high-quality services for clients. The total number of trained personnel increased from 41 in 2004 to 1822 in 2007, following implementation of the training programme. Of these, 211 are counsellors who provide high-quality counselling within low-threshold HIV testing services. An additional 1460 physicians, nurses and midwifes have been trained to recognize the risk for HIV and HIV-related conditions, offer testing, interpret and communicate test results, and manage people living with HIV.

Evidence of impact/efficacy

Number of testing sites and number of persons tested

Since 2001, the number of locations offering HIV testing services has significantly risen, from 41 certified laboratories to 158, representing a fourfold increase in testing sites as a result of the new low-threshold sites. For the first implementation period, on-site health care facilities tested between 320 000 and 350 000 persons in the general population. For low-threshold HIV testing service sites, 1258 persons received HIV testing services in 2003; however, 44 220 were accessing these services by 2006 – approximately 38 times the original number for low-threshold HIV testing services. Data from the third implementation period are awaited.

Testing key populations

Before launching the National AIDS Strategy and National AIDS Programme in 2001, coverage of HIV testing services for key populations was very low. Implementation of the integrated model for HIV testing services resulted in a 40-fold increase of the number of members of key populations receiving HIV testing services in five years: from only 410 in 2003 to 17 385 in 2009 (Fig. 28).

New HIV cases

The number of newly diagnosed cases among key populations has increased by 15 times (from nine HIV-positive persons out of 398 tested in 2004 to 138 HIV-positive persons out of 17 300 tested in 2009). The HIV case detection rate is 15.6 times higher in low-threshold HIV testing services compared with traditional health care facilities. Since 2009, there has been a steadily decreasing trend in the number of new HIV infections diagnosed among people who inject drugs (from 56 in 2010 to 22 in 2016), although similar numbers of people tested have been tested (Fig. 29). Number of HIV tests and new HIV infections in people who inject drugs, Bulgaria, 2001–2016). There is also a fourfold decrease in the proportion of people who inject drugs out of all new HIV diagnoses (from 46% in 2009 to 12% in 2016;).

Fig. 28. Number of people receiving low-threshold HIV testing services, by key population, Bulgaria, 2001–2015

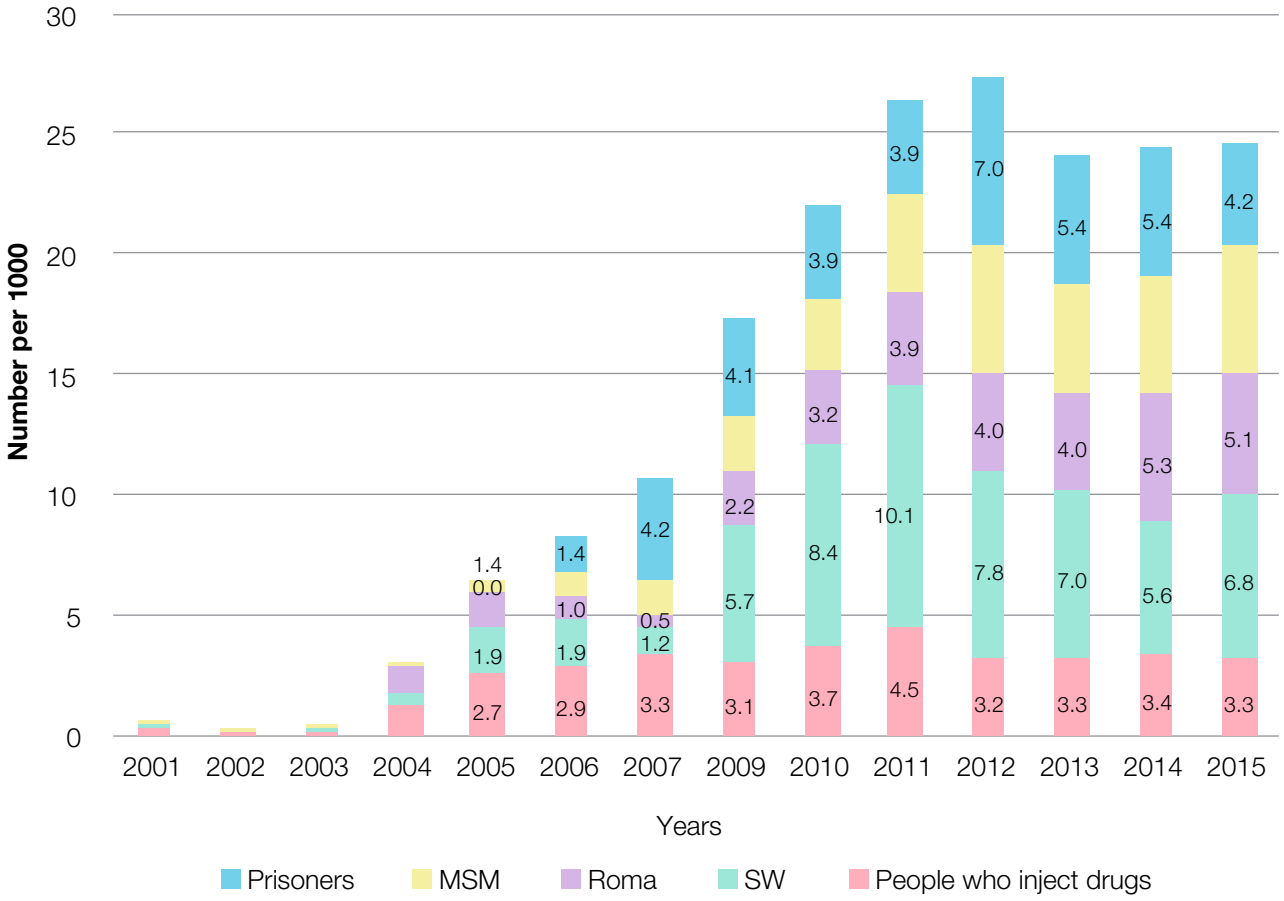
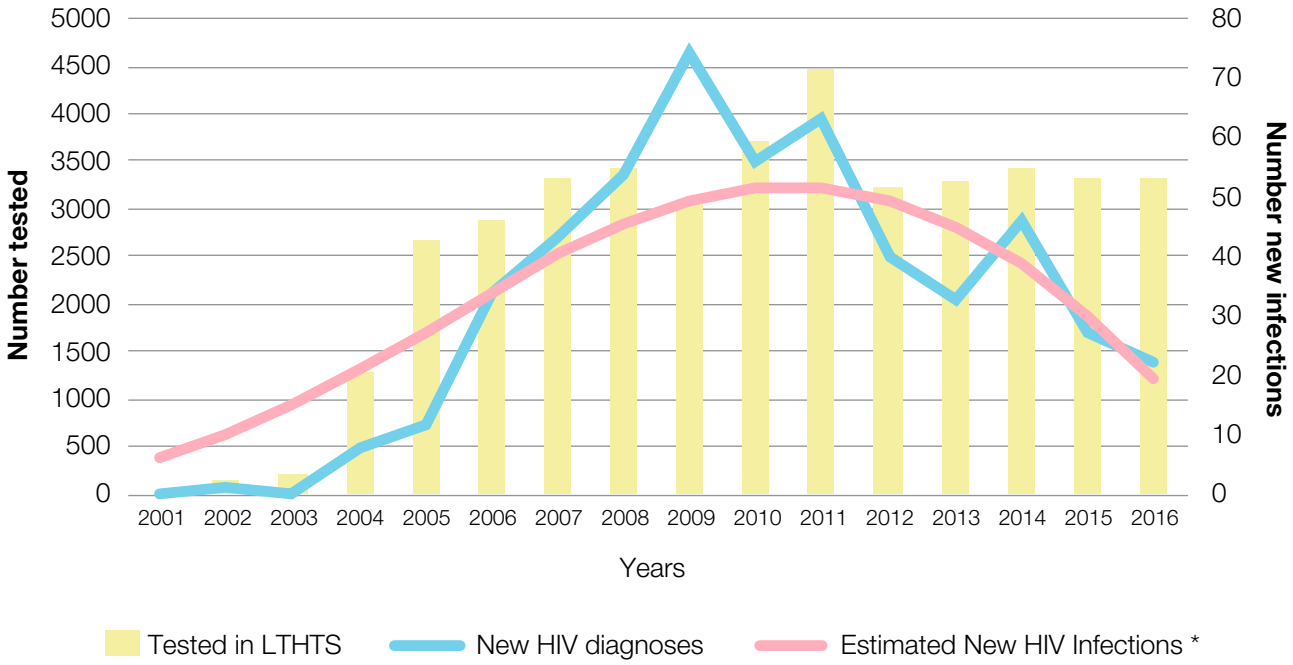


Fig. 29. Number of HIV tests and new HIV infections in people who inject drugs, Bulgaria, 2001–2016



Output and outcome indicators, along with a web-based system for individual data collection for HIV testing services, were developed in harmonization with national HIV prevention and surveillance indicators. This includes national guideline optimization and standard operating procedures, protocols and checklists for all components of low-threshold HIV testing services.

Sustainability

The successful implementation and sustainability of the low-threshold HIV testing services model was possible thanks to the commitment and coordinated work of various institutions and organizations. Consensus among the major stakeholders on the objectives and priorities of HIV testing service policy was achieved through the National Committee for the Prevention of AIDS and Sexually Transmitted Diseases to the Council of Ministers of the Republic of Bulgaria, established in 1996 *(83)* to build trust and partnership between government institutions, local authorities, affected groups and NGOs working with them. Robust national regulatory consensus through these partnerships in combination with a constantly developed national strategic plan for the prevention and control of HIV in Bulgaria allowed smooth implementation of GFATM projects which augmented the success of this low-threshold HIV testing services rollout. The joint partnership between the MoH and MoJ to implement progressive HIV testing services in prisons for HIV should be commended and may be seen as a growing Regional trend to accelerate intersectoral collaboration for health. The MoH operates and monitors low-threshold HIV testing services while the joint effort with the MoJ is maintained to operate those within the penitentiary system.

The current National AIDS Programme (for 2017–2020) is wholly funded by the MoH, which guarantees its implementation. The current 2020 strategy envisages stronger individualized case management for newly diagnosed persons with HIV in the future. Stronger collaboration with coinfection surveillance for HBV and HCV infection and TB may benefit this practice in the future.

FINLAND. Health education project for people who use drugs in the penitentiary system

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Background

With support from a private association in Finland and in cooperation with the prison service and drug and alcohol rehabilitation organizations, the Finnish Probation Foundation has designed a national harm reduction model and training programme for prisons based on health education and counselling. The moderators of the project were the Probation Foundation, an NGO, in cooperation with the Criminal Sanctions Agency. In the decades before the project was launched, morbidity rates among inmates had been increasing, particularly those related to blood-borne infectious diseases, substance use and mental health problems. About 50% of all people who use drugs are HCV infected; the most commonly used drugs are amphetamine, benzodiazepine and buprenorphine, often used intravenously. Finnish prisons do not currently have NSPs.

Description of the good practice

The health education courses for inmates developed during the project are now the permanent working method in Finnish prisons throughout the country. The aim of the courses is to reduce infectious diseases and other health and social risks/harm.

The health education programme includes the following interventions:

- an operational model recommendation for prisons and a training programme for prison staff to reduce the adverse effects of drug use in prisons (approximately 200 prison officers have been trained);

- a training programme for prisoner health education and counselling for leaders of the Health course (about 80 nurses/rehabilitation personnel have been trained) – the course comprises seven themes:
  - hepatitis;
  - HIV;
  - overdoses and first aid;
  - the risks of injecting drug use and alternative ways of using drugs;
  - drugs and mental health;
  - sexuality; and
  - substance use treatment; and

- a harm reduction guide for rehabilitation staff working with convicted persons in freedom (6000 copies have been distributed).

The project emphasized multilevel cooperation between staff in health care, substance use rehabilitation, surveillance and administration, as well as interaction and peer support among inmates. Accepting that a drug-free prison may be an unattainable goal is one major issue to consider when working on similar programmes. Health care in prisons should start from the same basis as any other type of health care: health care services during imprisonment – including counselling services – do not differ from those in the community, except for the institutional setting.

Current harm reduction activities in Finnish prisons include health education and counselling, testing for HBC/HCV and HIV infection, vaccination, and training in the promotion of non-intravenous use and in safe sex practices to prevent STIs, including making condoms available ad continuing ongoing OST.

Evidence of impact/efficacy

The HIV situation in prisons is under control: fewer than five new infections are found per year. The main indicators were that the project creates a health education model to be permanently embedded into the prison service and to train personnel for permanent positions in the Prison Personnel Training Centre. Effects on inmate behaviour were not systematically monitored, but some qualitative implementation data were gathered (i.e. via inmate interviews). Feedback on personnel training was compiled using questionnaires. According to the evaluation, the project was successful and received positive feedback on ensuring transferability and sustainability. In training prison staff, the focus was on acquainting staff with harm reduction approaches.

Sustainability

The Finnish Probation Foundation designed the national harm reduction model and training programme for prisons based on health education and counselling with support from a private association and in cooperation

with the prison service and drug and alcohol rehabilitation organizations. When the project started, the budget was €280 000 over three years. Thereafter, the budget has been about €30 000 per year, from internal funding (to cover the cost of materials, courses, education, information etc.). The project does not have its own budget but is part of the basic functions of the Criminal Sanctions Agency; since 2009, 100% of the funding has come from internal funding sources.

HA-REACT. Implementation of harm reduction training packages in Latvia and Lithuania

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Background

Latvia has a relatively high incidence of HIV, reported as 0.50 per 1000 population (adults aged 15–29 years), with fewer than 500 new cases in adults and children in 2016 *(84)*. Lithuania reported an incidence rate of 0.18 per 1000 population, also with fewer than 500 cases in adults and children for the same year *(85)*. The risk for HIV among people who inject drugs is high in both countries. Injecting drug use was the probable route of transmission (for those cases where transmission was known) for at least a quarter of the reported cases in both countries (Lithuania, 47%; Latvia, 27%) *(1)*. Coverage with harm reduction interventions such as OST and NSP is also low. In light of this deficit, the European Joint Action HA-REACT has been developed. HA-REACT aims to contribute to the elimination of HIV and a significant reduction in HCV and TB infection among people who inject drugs in the EU by 2020. Its purpose is to improve the capacity to respond to HIV and coinfection risks by providing harm reduction services focused on people who inject drugs in the EU. Scaling up harm reduction services in the focus countries, Latvia and Lithuania, was one of the programme's objectives.

Description of the good practice

The design and implementation of a harm reduction training package for care providers and policy-makers based on key harm reduction components was developed for both countries. Training was directed towards community organizations, peer educators, health professionals, social workers and decision-makers in the focus countries. Key objectives included promoting good policy dialogue; discussing the benefits and disadvantages of harm reduction interventions; overcoming reluctance to using harm reduction services; building capacity for harm reduction interventions; promoting the influence of decision-makers to adopt harm reduction strategies; and reducing stigma in the policy agenda. Transferability and providing added value at the EU level was considered central in the design of all tools and materials.

Package and target areas

Promotion of peer interventions was also considered and different training elements addressed topics such as HCV prevention, the implications of amphetamine use for harm reduction interventions, overdose prevention, and related stigma and discrimination, among others. Target areas and core harm reduction interventions were identified based on the successful experiences of other European countries.

Priority areas of the harm reduction training programme curriculum were as follows:

- OST, overdose prevention and NSPs;
- promotion of peer interventions;
- prevention of HIV and HCV infection, along with other infectious disease;
- reduction of stigma and discrimination related to people who inject drugs and people who use drugs; and
- other growing focus areas such as drug testing/drug checking interventions in recreational drug use settings or take-home naloxone programmes for overdose prevention.

Outputs

The outputs were:

- debate seminars (including debate techniques and harm reduction policy decisions);
- study visits (direct observation of successful harm reduction intervention experiences); and
- harm reduction intervention workshops (technical capacity development).

Debate seminars

The two debate seminars were coordinated by staff from the Instituto de Salud Carlos III (ISCIII) Biomedical Research Networking Centres (CIBER), Spain. The chosen format for the seminars included presentations, discussions and small-group work. The content of the sessions was adapted to each focus country according to their individual political and need-based profiles. Tailored agenda included:

- the local harm reduction context;
- target issues – overcoming reluctance towards harm reduction and promoting specific interventions among professionals;
- sharing good practice from other countries; and
- improving the existing harm reduction services in Lithuania and Latvia;

Experts were invited to give presentations from each focus country, as well as from HA-REACT partners and collaborating institutions from EU and neighbouring countries, such as the ECDC, EMCDDA and the Eurasian Harm Reduction Network. Gap and barrier analyses were completed to determine the optimal list of professional attendees representing NGOs, CSOs, health care institutions and key policy-makers.

Study visits

All study visits included presentations, discussions and direct observation of successful experiences/best practices. Two visits were organized in Spain and a third in Prague. Agendas of all study visits included visits to several harm reduction services: Mobile outreach units for methadone distribution and outreach services; night shelters; a pharmacy participating in the Opioid Substitution Treatment and Needle Exchange programme; local police departments; supervised drug consumption rooms; and low-threshold drop-in centres. The local experts and authorities described the status of harm reduction programmes, including in group discussions.

Harm reduction intervention workshops

Several workshops were designed to enable attendees to observe, practice and discuss the different harm reduction interventions. Two training courses consisting each of the following three workshops were organized (one in Lithuania and one in Latvia):

- a workshop on OST;
- a workshop on other harm reduction interventions; and
- a workshop on overdose prevention.

International experts were identified and invited to participate, together with experts from the focal countries as trainers and facilitators in the different workshops. All workshops applied a participatory methodology and included lectures, discussions, small-group exercises, individual assignments, a video, question and answers sessions, demonstrations, practical sessions (hands-on practice), small- and large-group exercises, and role play and simulation.

Evidence of impact/efficacy

All activities were evaluated using a standardized evaluation questionnaire, with promising results. Seminars achieved maximum evaluation scores of 93% in Riga (Latvia) and 88% in Vilnius (Lithuania). The study visits achieved a maximum evaluation score of 91% in Spain in 2016 and of 90% in Prague. Continuous evaluation of the training courses is still in progress. All who attended the seminar in Riga said they were willing to reflect the contents of the seminar in the workplace (strongly agree, 64%; agree, 36%) and 91% of the participants at the Vilnius.

The focal countries are currently integrating harm reduction interventions in their systems and professionals are engaging and, hopefully, mobilizing to make changes based on the information shared during training. Particular interest has been shown in naloxone programmes for overdose prevention and supervised drug use. Enrollment of people who inject drugs to such programmes has been discussed and, hopefully, will be promoted. Efficacy data for the programme are under analysis.

Sustainability

Each arm of the training programme prioritized collaboration with all local institutions in the focus countries. The training of trainers methodology (also used by WHO) enabled professionals of all cities and focal cities in Latvia and Lithuania to participate. Agendas, reports and evaluation materials will be freely available after the conclusion of the project so that countries interested in the training package can replicate it with minimal resources. The harm reduction training package should be adapted based on the country context and available resources.

HA-REACT. Harm reduction services in mobile outreach units: an example from Latvia

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Background

HIV risk among people who inject drugs is high in Latvia, as in many other European countries *(1)*. The first IDU-related HIV case was diagnosed in 1995 *(86)* and HIV transmission through injecting drug use is currently a significant cause of premature death *(87)*. Coverage with both OST and NSPs is low (at 10% and <50 per person who injects drugs, respectively) *(88)*. In this context, decentralized testing services are particularly needed in the country. Until 2017, there was only one mobile outreach unit (MOU) offering testing and linkage to care services.

Description of the good practice

A new MOU was introduced in Latvia in January 2017 with the aim of reducing the incidence of HIV and other blood-borne infections among people who inject drugs, with special focus on so-called hidden populations (i.e. those not currently in contact with health services). DIA+LOGS, a NGO, was chosen to implement this MOU, developed in the context of the Joint Action proposal on HA-REACT and supervised by the Centre for Disease Prevention and Control of Latvia. This MOU provides harm reduction services such as NSPs, condom distribution, rapid HIV testing and counselling for people who inject drugs in Latvia's capital city Riga and its surrounding areas. The preparation period lasted approximately one year (2016). The most relevant activities were consolidating political commitment behind implementation of the MOU and coordinating this enterprise through local and national authority involvement.

During the same period, DIA+LOGS was in charge of community involvement. This NGO is well known and respected among people who inject drugs. After a year of preparation, the MOU started working for 23 hours/per week, distributed over four days. The MOU workforce and its functions included one nurse (14 hours/week); one social worker (23 hours/week); three outreach workers (23 hours/week) and one driver (23 hours/week). Target areas were identified and intervention sites were selected based on three criteria: (i) places where injecting drug use was most prevalent in the region; (ii) areas where no harm reduction services existed or were not provided; and (iii) places where harm reduction interventions were more difficult to implement owing to stigmatization. In the first six months of activity, the MOU performed 398 consultations with 93 different clients, distributed 432 condoms and 8436 needles/syringes and completed approximately 143 HIV tests. Even better results were achieved in the following three months owing to integration into the MOU of a research project on HIV testing managed by the Centre for Disease Prevention and Control of Latvia.

After the first six months, external professionals assessed the MOU based on structured interviews of clients and NGO workers and opinions from the Centre for Disease Prevention and Control of Latvia, which provides medical support, including an HIV testing service. A SWOT (strengths, weaknesses, opportunities and threats) analysis by the researchers identified the qualities required for a strong MOU programme:

1. preliminary research to determine the target population should be done before implementing MOUs.

2. selection of a good NGO for implementation based on the following criteria:
   a. is well known/experienced in the area to act as a crucial icebreaker for people who inject drugs;
   b. is experienced in collaborating with local authorities and communication pathways between this NGO, supervisors, municipalities and clients (people who inject drugs and their relatives);
   c. understands the social context and should be able to adapt their activities to changes; and
   d. is impressively staffed and demonstrates robust harm reduction competencies;

3. involvement of all local municipalities in the process;

4. social contracting services between local public health institutions and NGOs to allow active dialogue between theory and practice, supported by empirical studies and evidence;

5. monitoring and evaluation and quality assurance strategies that are defined before implementation;

6. standardization, including standard operating procedures and security protocols;

7. involvement of local authorities (especially police);

8. overdose prevention services (naloxone) be available in all units; and

9. sustainable financing mechanisms integrated throughout the projects.

Evidence of impact/efficacy

The MOU was designed to promote the health and safety of people who inject drugs. The large and increasing number of needles exchanged suggests that the MOU could be playing a decisive role in preventing HIV and hepatitis C among people who inject drugs, although data are still being analyzed. A MOU was shown to be a relatively low-cost method of meeting the immediate needs of people who inject drugs, including first aid, condom provision and relevant information, but has proven especially useful for providing access to health and other community services for this population. For many clients, the MOU represents their first contact with health services in general and with HIV prevention programmes in particular (primary or secondary prevention), thus facilitating linkage to care. Quantitative data on service provision during the first six months of operating the MOU enabled us to perform a descriptive analysis of its function (Table 10).

Implementation of the MOU has increased the distribution of needles by 5% since 2015. In 2015, 88 new cases of HIV were attributed to injecting drug use in the country; project designers expect the MOU to have an important impact in this population. Current data reveal strong uptake among people who inject drugs, and the coming final evaluation will determine the requirements for scaling up and for benchmarking against new HIV infections.

Table 10. MOU indicators, DIA+LOGS, Latvia, January – October 2017

Indicator (n)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
Consultations	14	52	39	42	42	48	44	36	72	99
Individual clients	14	52	39	42	42	48	44	36	72	99
New clients	9	30	65	57	57	79	20	20	49	27
Secondary clients[a]	0	0	0	0	2	0	0	0	0	0
Syringes and needle distributed	80	656	1480	445	1955	2010	1810	1005	1005	413
Syringes and needles returned	0	5	150	60	383	380	507	490	320	0
Condoms distributed	163	711	370	222	366	424	432	262	296	291
HIV tests performed	13	36	24	33	25	30	31	28	63	83

[a] Clients who are not reached directly by the MOU (i.e. they do not attend the MOU) but are provided with needles/syringes through one of its clients.

Sustainability

The Latvian Centre for Disease Prevention and Control plans to continue funding the MOU after the end of the HA-REACT Project. Purchase of another MOU is also planned. The MOU service has also been included in the new National HIV prevention plan for 2018–2020. DIA+LOGS has confirmed that it will seek funding opportunities to continue the work of this MOU. Cross-border knowledge sharing with other Member States, such as Estonia, has already begun. For example, professionals from DIA+LOGs were invited to share their experience of running the MOU in an Estonian workshop in December 2017.

ITALY. La Bussola: a handbook for protecting the rights of people living with HIV

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Background

In 2016, 3451 new HIV diagnoses were reported in Italy (an incidence of 5.7 per 100 000 population). Most people diagnosed with HIV in 2016 were male (76.9%); the average age was 39 years for men and 36 years for women. In 2016, 35.8% of newly diagnosed people were foreign nationals. Among them, 65.5% were heterosexual (women, 34.9%; men, 30.6%).

Description of the good practice

A handbook has been developed for individuals who have received a positive HIV diagnosis and may feel disoriented in managing their new chronic condition, as well as for caregivers attempting to support people living with HIV in Italy. Targeted primarily to people recently diagnosed with HIV in Italy, the handbook, La Bussola (The Compass) aims to raise awareness of the rights of people living with HIV, including the tools available to them in Italy *(89)*.

The handbook is designed for all people, including foreign nationals, who may use it as a tool to obtain urgent and essential care services from the Italian health system. The online version of the handbook was sent to the entire network of public STIs/infectious disease diagnostic centres (a network of about 700 public centres across all 21 Italian regions), as well as to numerous NGOs actively providing assistance to HIV-positive people.

After receiving a diagnosis of HIV seropositivity, it is necessary to be aware of the social security and welfare benefits provided by local legislation, including the eligibility requirements for receiving the necessary care in an infectious disease centre and for exemption from out-of-pocket expenses. Further, under Italian law, HIV-seropositive persons should not be discriminated against in the pre-selection criteria for employment nor after employment. Finally, concerning travelling expenses, it is necessary to understand which health services are paid for or subsidized by the host country.

The La Bussola handbook addresses these and other legal issues relevant for people living with HIV in Italy via sections based on the following 14 frequently asked questions:

1. What does it mean to become a person now living with HIV?
2. Am I obliged to communicate my HIV-positive status to my partner?
3. What do I need to do to obtain free access to care and medications related to my HIV status?
4. Does the HIV-positive status confer any social benefits?
5. What are the social benefits granted to the HIV-positive person for whom legal disability is recognized?
6. Are there any differences between regions related to granting health care to HIV-positive people?
7. Can the HIV-positive status limit access to work activities?
8. Can the HIV-positive status limit access to education and sports?
9. Under what exceptional conditions may an employer ask a worker to undergo HIV testing?

10. Can data concerning the HIV status of a person be communicated to third parties by the health personnel?

11. Can an employer investigate the health status of a person who is applying for a position?

12. Can employment agencies investigate the health status of persons requesting their services?

13. When legal disability is recognized, can an employer and/or an employment agency request clarification on the cause of the disability?

14. Does the HIV-positive person travelling abroad for work/study/tourism encounter any limitations in accessing other countries and/or in taking ART with them?

Evidence of impact/efficacy

This practice is in its initial stages and being implemented in the country. Therefore, data on reach and usage are not yet available.

Sustainability

D evelopment and maintenance of the handbook is fully financed by public resources from the National Institute of Health (Istituto Superiore di Sanità) and is expected to be available long term. It will be translated into English and updated every two years.

ITALY. A handbook on access to health care for foreign citizens and migrants

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Background

In 2016, 3451 new HIV diagnoses were reported in Italy, representing an incidence of 5.7 per 100 000 residents. Most people diagnosed with HIV in 2016 were men (76.9%); the average age was 39 years for men and 36 years for women. In 2016, 35.8% of newly diagnosed people were foreign nationals. Of these, 65.5% were heterosexual (women, 34.9%; men, 30.6%).

This good practice addresses the growing problem of migrant[15] and refugee health in Italy following the unprecedented level of migration into the WHO European Region. The Italian National Health System ensures that all people in the country, including migrants, receive a minimum level of assistance regardless of their specific conditions. Access to HIV treatment and prevention programmes falls within this minimal level of assistance and is therefore ensured to all the people in need. In relation to migrants, it is essential to distinguish between the different groups and types of migrants, in accordance with their status under Italian law.

Description of the good practice

The main purpose of the handbook, Access to care for foreigners, is to provide information on accessing health and social services to foreign living legally and illegally residing on Italian territory.[16] The handbook, published in two editions over two years, is the result of collaboration between the AIDS Unit and the Research Communication and Training Unit of the National Institute of Health *(90)*, with legal support from the Palermo Forum (specializing in immigration law). The starting point for this work was data collection by the National Institute of Health over many years through the AIDS Unit and the HIV/AIDS and STI Telephone Service. The collected information and data showed that the migrant population generally has a low socioeconomic status.

The handbook is structured into chapters (the first four are summarized below) and includes a list of primary centres for immigration, classified by type and function, with photo reproductions of forms and other documents such as health service access requests, the health insurance card and residence permit.

Chapter 1. Access to care for migrants: contains information and procedures for accessing the national health care system and obtaining a health insurance card, including registration costs and details of the different types of residence permits. This chapter is for

[15] The handbook is divided into six sections distinguishing migrants according to their status as (i) holders of a regular residence permit; (ii) migrants who do not have a regular residence permit; (iii) migrants from countries that entered bilateral agreements concerning healthcare with the Italy; (iv) EU citizens; (v) migrants with international protection; and (vi) models of the different documents/certificates.

[16] Including foreign persons coming from countries with which Italy has entered into bilateral international agreements, as well as persons coming from the EU.

persons who already have a valid residence permit.

Chapter 2. Access to social and health care for foreign persons who do not have a valid residence permit: outlines how to access urgent and necessary care for foreign persons who do not have a regular residence permit, including the procedure for requesting the release of the STP (Straniero Temporaneamente Presente) code, which is needed to receive urgent and necessary care, and the rights of foreign people who are awaiting regularization of their status in the country.

Chapter 3. Access to social and health care for foreigners according to bilateral treaties entered into by Italy and individual countries: contains a full list of treaties between Italy and partner countries concerning bilateral access to social and health rights for the citizens of both signatory countries, including a FAQ (frequently asked questions) section.

Chapter 4. Access to social and health care for citizens of the EU: contains references to the legal framework governing access to care for those EU citizens who exercise their right to move within the EU territory, including a list of the main forms that need to be obtained in the home country to request access to health care in Italy or any other EU country to which the person intends to relocate.

Evidence of impact/efficacy

The online version of the handbook has been distributed throughout the country via the Italian National Focal Point. This is a group of experts from public institutions and nongovernmental and volunteer organizations representing migrant communities in several Italian regions with the aim of studying migrant flows as they relate to the health needs of foreign populations. Over the past 14 years, this permanent working group has worked in collaboration with health professionals to promote national and international epidemiological research and projects in the field of HIV prevention. Special attention has always been paid to migrant populations and training courses for psychosocial and health professionals have been organized regularly.

Sustainability

Development and revision of the handbook are fully financed by public resources from the National Institute of Health. The handbook will be translated into English and updated every two years.

ITALY. Testing for syphilis and HIV, HBV and HCV infection in Italy: new guidelines for serological screening in public drug treatment services

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Background

About 70% of people who use drugs and attending public drug treatment services in Italy are not being tested for HIV, HBV and HCV infection, despite an estimated high prevalence of these infections among people who use drugs in the country (8%, 35% and 60%, respectively) *(91)*.

Description of the good practice

New guidelines aimed at promoting the serological screening and the early diagnosis of HIV, HBV and HCV and syphilis in public drug treatment services were developed by the National Institute of Health in collaboration with Drug Prevention Policy Department and regional representatives of drug treatment services (Fig. 30) *(92)*. Briefly, the new guidelines recommend actively offering serological testing for these infections to people who use drugs, both new and old clients, every six to 12 months, along with targeted pre- and post-test counselling, specific prevention measures, and follow-up treatment and care for those who need it.

The new guidelines include an overview of the epidemiology of HBV, HCV and HIV infections; prevention measures for these infections; a description

of the procedures and criteria for serological testing, highlighting the importance of testing for both new attendees and old clients; four summary sheets on the key aspects of serological screening for each infection; and a specific chapter on testing people who use drugs in vulnerable groups (prisoners, migrants, young people and minors). The guidelines also suggest an innovative communicative-relational model to improve the uptake of serological testing for drug-related infections is suggested.

When the final version of the new guidelines was ready, a two-day training course on use of the new guidelines was organized in 2016. Forty health care professionals working in public drug treatment services from all Italian regions and representatives of the community of people who use drugs were invited. The programme included plenary sessions, interactive discussion, role play and exercises/discussions in working groups. Results of the working group discussion were incorporated into the final version of the new guidelines. Specific outputs included specific recommendations for implementing serological testing, practical suggestions for overcoming organizational issues and a list of indicators to measure the effective implementation of the new guidelines and their impact on harm reduction.

Key indicators include the:

- number of clients tested for HBV, HCV and HIV infection;
- number of pre and post-test counselling;
- proportion of clients tested for HBV, HCV and HIV infection among all attendees;
- number of clients testing positive for any infection;
- prevalence of each infection among new and old clients;
- number of clients who tested positive who were linked to care for the specific infection; and
- proportion of health care workers trained in serological screening among those of the team.

The new guidelines were published in March 2018 on the websites of the National Institute of Health and the Drug Prevention Policy Department and will be on the MoH website soon. The guidelines are expected to be fully implemented by all drug treatment facilities in Italy in the second half of 2018. Drug treatment centres will measure the implementation level for the new guidelines annually using indicators reported in the final part of the guidelines. Overall, the rate of serological testing for every infection will indicate the corrective actions to be taken by each centre.

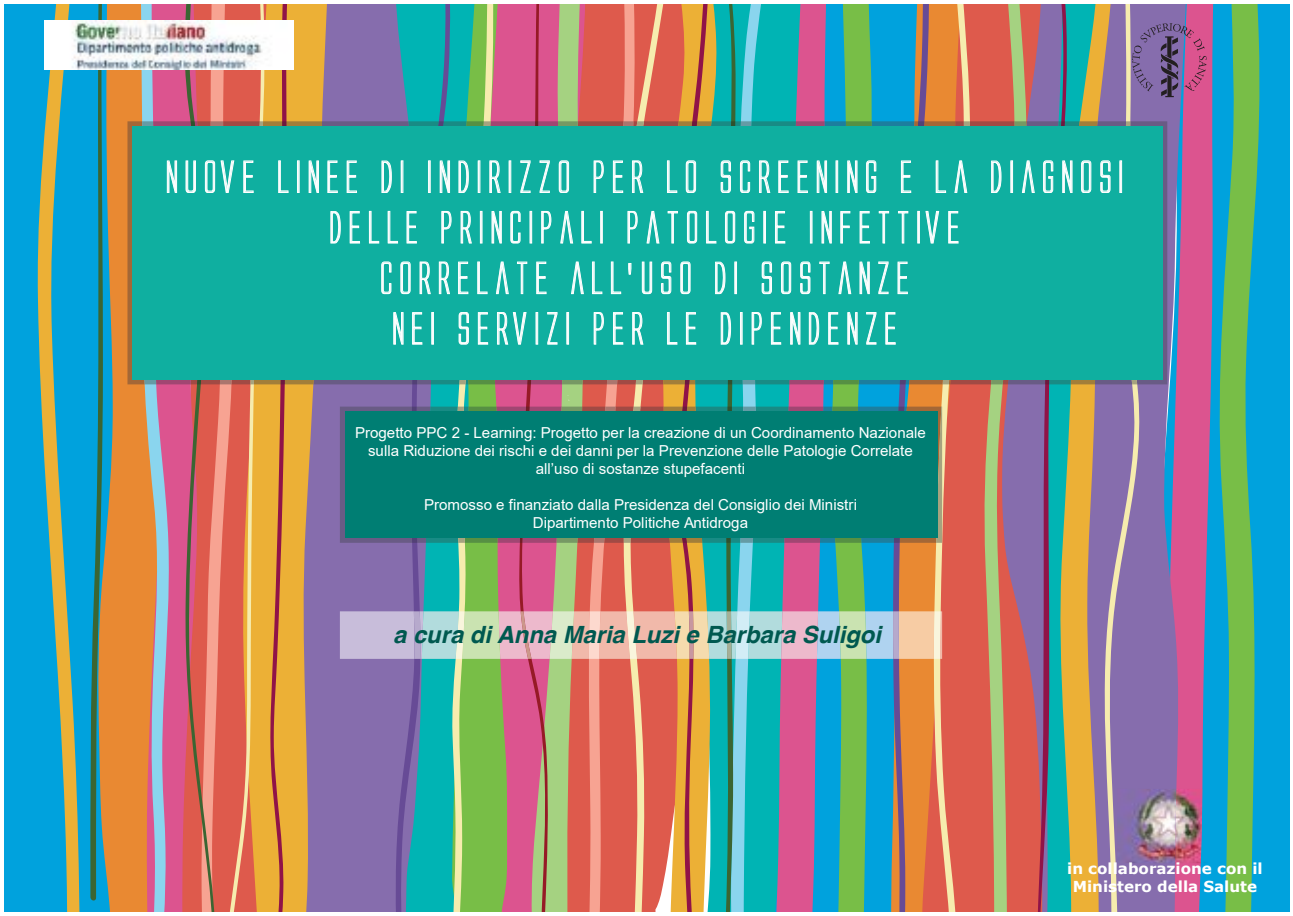
Evidence of impact/efficacy

The practice was primarily intended to improve uptake of testing for HBV, HCV and HIV infection and syphilis among people who use drugs. The effect on actual testing rates among people who use drugs will be monitored once the guidelines have been fully implemented across the country. However, some preliminary results are promising: The EMCDDA has proposed publishing a short version of the new guidelines (in English) on the EMCDDA website as a model of awareness and capacity-building in drug treatment centres that can be of use to other European countries. Furthermore, representatives of public drug treatment centres have recognized the relevance of the guidelines and recommended implementation of periodic training on effective communication and counselling for health professionals working in drug treatment centres.

Additional expected benefits of the practice in this key population are:

- collection of more accurate and granular data (information will be reported on an individual basis) on infections other than HIV, such as HBV and HCV infection and syphilis;
- strengthening national HIV surveillance data through more accurate detection of new HIV diagnoses among people who use drugs;
- raising awareness on the relevant spread of these infections among people who use drugs;
- development of communication and relationship skills among health care workers based on the use of innovative tools and procedures aimed at encouraging the uptake of serological testing in drug treatment centres (the new guidelines describe in detail the skills to be developed in terms of self-awareness, empathy and active listening);

Fig. 30. The new guidelines.



- enhancement of NSPs, to be extended to prisoners and migrants; and
- increased linkage to care, retention in care and coverage with ART.

Sustainability

Public drug treatment centres provide annual data on HIV prevalence and incidence to the MoH, the National Institute of Health and the Drug Prevention Policy Department. Over the next few years, this requirement will lead to reinforcement, at no cost, the application of the new guidelines to obtain reliable epidemiological data on HIV and other drug-related infections.

The guidelines are expected to be updated every five to seven years.

LITHUANIA. Initiation of national regulation of low-threshold services

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Ministry of Health of the Republic of Lithuania

Background

Targeted prevention measures of HIV infection were introduced in Lithuania following the first reported case of HIV in the country in 1988. In the first years of HIV epidemic, the main focus of the HIV response was on organizational goals: in 1989, the Lithuanian AIDS Centre was established to coordinate the national HIV prevention strategy; and in 1990, and the first National AIDS Prevention and Control Programme was launched.

In Lithuania, as in other countries in the Region, harm reduction measures (in particular, NSPs) have been heavily debated both in society and among decision-makers. The initiation of low-threshold programmes was led by a national institution, the Lithuanian AIDS Centre, which launched the a pilot NSP in the capital city of Vilnius in 1991. At that time, injecting drug use was rarely discussed and was not considered a problem of national concern. To understand the

peculiarities of injecting drug use behaviours, the Lithuanian AIDS Centre tried to establish contact with the IDU community with the help of volunteers. In this way, pilot needle and syringe exchange activities began with no legal basis, although the first HIV cases in the injecting drug use community were only identified in 1994 and harm reduction was not widely discussed. With hindsight, it is clear that Lithuania launched NSPs together with other services to prevent the spread of HIV among people who inject drugs, in a timely manner. To strengthen the decentralized response to HIV in key populations, Lithuania developed low-threshold services through active involvement of the country's local regions including regulation by the MoH. This highlighted the need (i) for a harm reduction services in society; (ii) to raise the awareness of decision-makers, especially in the local regions; and (iii) to regulate unified and clear standards for low-threshold services.

Description of the good practice.

In 2006, the MoH of Lithuania regulated low-threshold services by releasing an Order of the Minister of Health (entitled Description of low-threshold service provision). The ministerial order defined specific terms (e.g. needle and syringe exchange, risk behaviours, stationary and mobile services, types of service clients); the purpose and tasks of low-threshold services, along with mandatory services; the forms of service provision (stationary and mobile units); the needle and syringe exchange ratio; the qualification requirements for personnel and premises; and requirements for collecting and handling waste and controlling infections. In addition, the ministerial order detailed the requirements for eligible institutions (public institutions and NGOs) to establish a low-threshold service site and where they should be set up, that is, areas where high-risk groups meet (i.e. in the target group environment), thus ensuring geographical accessibility to customers. Budgeting for low-threshold services was also regulated by the ministerial order. Essential injecting paraphernalia (e.g. syringes, needles, condoms, alcohol wipes, waste containers) have been since purchased centrally from the state budget and distributed among all low-threshold services. The national regulations for low-threshold services have also strengthened advocacy for sustained financing.

The clearly defined national standards for low-threshold services have increased public awareness of HIV response measures, such as NSPs, and should reduce stigma among key populations, strengthen strategic information, and improve communication and social support for behaviour change for people who inject drugs (including people living with HIV). The legal framework for low-threshold services set the basis for the involvement of community organizations (i.e. NGOs) in providing the low-threshold services, along with financial support from the state. Of the 14 low-threshold service sites in Lithuania, five were set up by NGOs.

Evidence of impact/efficacy

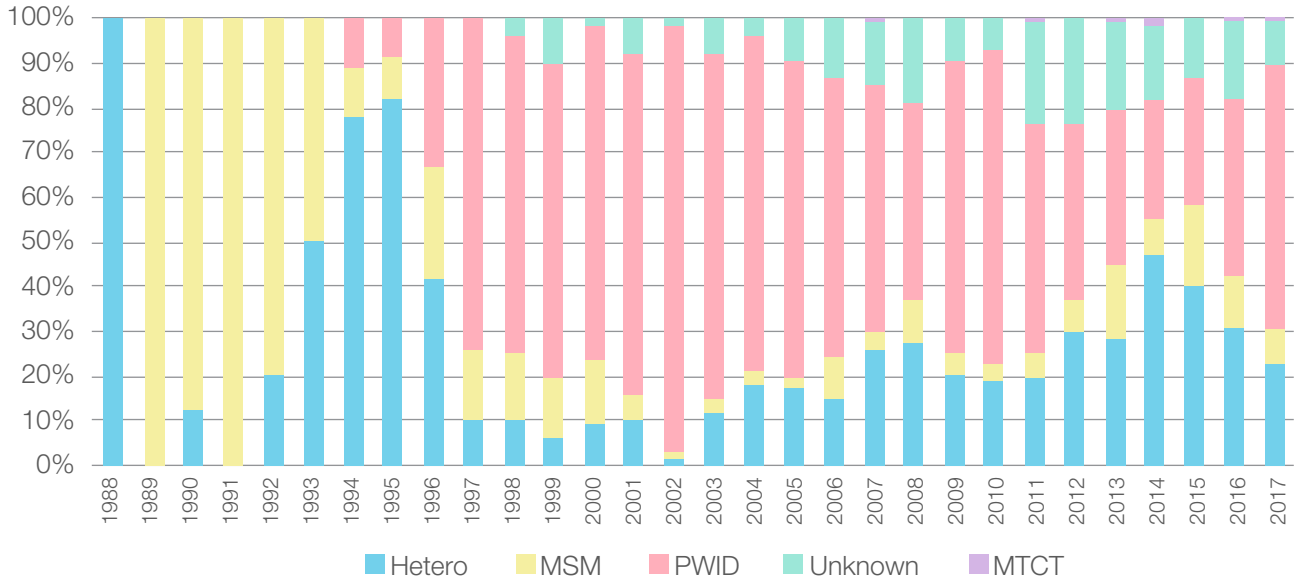
The procedure for low-threshold service provision was established under Order No. V-584 of the Minister of Health of the Republic of Lithuania, 5 July 2006 *(93)*. The national regulations for low-threshold services do not contradict ethical standards and have received support from relevant national and local authorities, including local regional leaders and NGOs.

Fig. 31 shows the decreasing proportion of people who inject drugs among all newly diagnosed people living with HIV in Lithuania. This trend is coincident with the continued development of low-threshold harm reduction services for people who inject drugs.

Sustainability

The national regulations for low-threshold service provision procedure have strengthened the case for sustained financing. Funding for low-threshold services (including for injecting paraphernalia needs) is included in the long-term national planning document, National Drug Control and Drug Addiction Prevention Programme action plan, and the Order of the Minister of Health is the official implementation body for the new national regulations for low-threshold services. The national regulations for low-threshold services have also strengthened advocacy for sustained financing (i.e. long-term funding of the low-threshold service measures is foreseen); the creation of new low-threshold services with EU financial support (from 2018) is scheduled. Full transition to state funding is recommended to ensure the local sustainability of these services.

Fig. 31. Transmission routes among newly reported HIV cases, Lithuania, 1988-2017



Hetero: heterosexual; PWID: people who inject drugs. *Source*: Centre for Communicable Diseases and AIDS.

PORTUGAL. The Portuguese Community Screening Network

Submitted by: Simões, Daniel[1] | Freitas, Rosa[1] | Rocha, Miguel[1] | Meireles, Paula[2] | Barros, Henrique[2]

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Background

In Portugal, 1030 new HIV diagnoses in 2016 were notified, of which approximately 56% were late.[17] These findings underline the barriers to testing in the country. Sex between men was the second highest mode of transmission in Portugal in 2016, corresponding to 35.7% of all new HIV diagnoses;[18] for the first time since 1984, MSM represented 50% of all new HIV male cases, reflecting a consistent increase over time in both the absolute number and relative contribution. Sharing of injecting paraphernalia was the cause of less than 3% of new cases in Portugal in 2016. Over a third of new HIV diagnoses occurred in people born outside the country, of whom three quarters were from sub-Saharan African countries. An estimated proportion of over 80% of newly diagnosed individuals in 2015 lived in the larger urban areas. Broadly speaking, the Portuguese risk profile varies but so does access to testing, further reinforcing the importance of developing a testing strategy targeting the most affected populations such as migrants, MSM, SW and people who inject drugs (prevalence estimates for the latter three groups reach 10%) *(94–99)*.

This asymmetry highlights the requirement for services tailored to the needs of target populations, as well as the creation of an epidemiological data surveillance and dissemination system to obtain high-quality strategic information about the epidemic(s). Data collection on HBV and HCV infection is scarce and testing in key groups was uncommon. With the establishment of the Portuguese Community Screening Network, these tests became available through CBOs.

Description of the good practice

The Network seeks to: (i) implement and expand decentralized access to testing for HBV, HCV and HIV infection and syphilis, while ensuring effective support and monitoring along the process of linking people to care between CBOs and the Portuguese National Health System; and (ii) provide data for second-generation surveillance of the incidence of these infections and their respective predictors among people testing at these CBOs. In regulatory terms, lay providers can perform rapid tests in Portugal. Currently, member organizations of the Network employ a mixture of health professionals and lay workers, who perform the rapid testing (depending on the composition of the teams). Peers are also integrated into some teams for testing. All persons providing testing services are trained under

[17] Defined as a CD4 cell count of below 350 per mm3 (55%) or presenting with an AIDS-defining event regardless of the CD4 cell count (1%).

[18] With heterosexual transmission being the main reported transmission route (57.1%).

the Network, which at the moment is the only structure in the country providing training for NGOs in HIV prevention and screening, as well as for viral hepatitis and syphilis. A major challenge for the screening Network was the lack of Portuguese guidelines for community-based screening. The approach chosen by partners was based on the most up-to-date international guidelines of reference institutions, CDC, ECDC and WHO *(87,100,101)*; it was developed in collaboration with EU-funded projects dedicated to community-based testing, such as COBATEST *(17)* and Euro HIV EDAT *(19)*. Based on these recommendations, a procedural manual was created to provide guidance on the physical infrastructure required for performing screening tests; the obligations of those conducting them; information required on the screened infections, screening protocols and models, and/or on counselling before and after a test; the referral process; and legislation and quality control. All guidance is in line with WHO's essential 5Cs for HIV testing services (consent, confidentiality, counselling, correct results and connection) *(87)*. The manual was written in a language accessible for all people who received training: health care professionals, lay workers and peers.

The first round of contacts to form the Network focused on organizations with which the promoter had previous contact, as well as organizations with pre-existing HIV screening projects (self-directed or financed through the National Programme for HIV and TB). After the first stage, organizations that were providing community-based screening throughout the country were contacted and/or contacted the Network. The Network started with 13 partner organizations and 18 testing sites (at the inception of the programme) and by the end of 2017 encompassed 18 organizations and 25 testing sites. Nine other organizations have requested to enter the Network but, due to current financial limitations, the response to new organizations has been slower.

The Network thus provides training in community-based screening for health professionals and lay providers, rapid testing kits, medical consumables, screening algorithms and data collection tools. The Network offers combined rapid and point-of-care testing for anti-HIV 1/2, the Hbs antigen, anti-HCV antibodies and anti-Treponema pallidum antibodies, according to individual criteria, which maximizes opportunities for early diagnosis in key groups. All tests used are finger-prick rapid tests, have a specificity and sensitivity of over 95%, and are approved for use in the EU. Data collection tools are available both online and via a printed structured questionnaire. Provision of tablets with mobile Internet access enables participants to fill in the online questionnaire during the testing session. Additionally, a coordinated online data collection and centralized data analysis system (by the Institute of Public Health of Porto University) provides organizations with monthly access to a standardized report on the screening activity. This reduces the data management burden but has also allowed the progressive analysis of each project by providing organizations with monthly updates required to make for ongoing adjustments.

Clients are first invited to respond to an anonymous questionnaire, which generates a unique identifier code that enables follow-up at subsequent visits in any member centre (and thus creating a multicentric, community-based prospective cohort). The questionnaire includes triage questions to assess which test(s) should be offered to each person. Pre-test counselling is voluntary (as the testing model is based on pre-test information), lasts for approximately five minutes and focuses on explaining how the testing sessions are structured, the tests themselves and the questionnaire. Participants are always invited to ask questions. While waiting for the test results (a maximum of 30 minutes after the finger-prick, depending on the tests performed), persons are invited to ask questions or to speak about the infections or other specific concerns they may have. As member NGOs work in a targeted fashion, many of the tested persons are members of the key population that the organizations work with; thus, the testers have specific knowledge on the corresponding risk behaviours, prevention strategies and complementary interventions/referrals. Following a reactive test between result, referral is offered by the testing centre to a specialty appointment in a hospital, with a member of staff to accompany the person to the first appointment to help navigate the hospital and face any barriers that arise. If necessary, the person is also referred to complementary support services (social, migration, drug treatment services). In the case of a negative result, the relevant prevention interventions are made available according to risk behaviour(s): these include condom distribution, safe drug use materials, information on other relevant services and testing sites, and information on PEP.

Most organizations offer escorted referral to care. In some organizations, more structured support is

offered to extend escort provision until the person feels comfortable navigating the system alone. In 2018, Grupo de Ativistas em Tratamentos (the screening network promoter) initiated a new project in its testing centres, as well as in two hospitals in Lisbon, whereby a trained peer will offer continuous support in linkage to care, adherence and retention in care. The trained peer works as a case manager for newly diagnosed persons from key populations. Peers will also be present as part of the medical teams of partner hospitals and will support and accept referrals from doctors for patients with adherence/retention difficulties.

Implementation of external quality control measures ensured the proper delivery of screening tests and use of appropriate reagents. The external quality control programme was coordinated by the National Health Institute Doutor Ricardo Jorge (the Portuguese National Institute of Health (INSA), a reference laboratory. The process consists of sending a panel of samples with unknown reactivity to all organizations, which then analyse and return the results to the reference laboratory. Cross-analysis allows the performance of each screening centre to be assessed by an external entity. Additionally, visits to the testing sites are part of the supervision programme to check laboratory conditions, storage conditions, regulatory compliance, among others. A checklist was developed in the initial phase by a team at São João Hospital, based on WHO criteria; to act as a guide for the external auditor. A report of each visit was done and sent to the organization, including suggestions for improvement, if applicable.

Evidence of impact/efficacy

The results have led to improved knowledge on epidemics in the national territory and on the quality of community testing in Portugal. Over the 2016–2017 period, over 2000 tests were reactive, of which 156 were for more than one infectious agent (Table 11; Fig. 32, left). For HIV, there were 205 reactive tests in 2016 and 267 in 2017 (total of 472). However, if only HIV tests had been offered, then 1540 reactive tests for infections other than HIV would have not been detected (Fig. 32). Additionally, an alarmingly high number of persons tested in the Network had never been tested for one of the four screened infections. Of those tested for the each infection at the first visit, the proportion that had not been tested previously ranged from 37.7% for HIV testing to 57.5% for HBV testing. The project was effective at targeting key groups: approximately 60% of the more than 27 000 people tested in 2016 and 2017 at any of the CBOs included in the Network were from one or more key population groups (MSM, people who inject drugs, SW and migrants; Fig. 32, right).

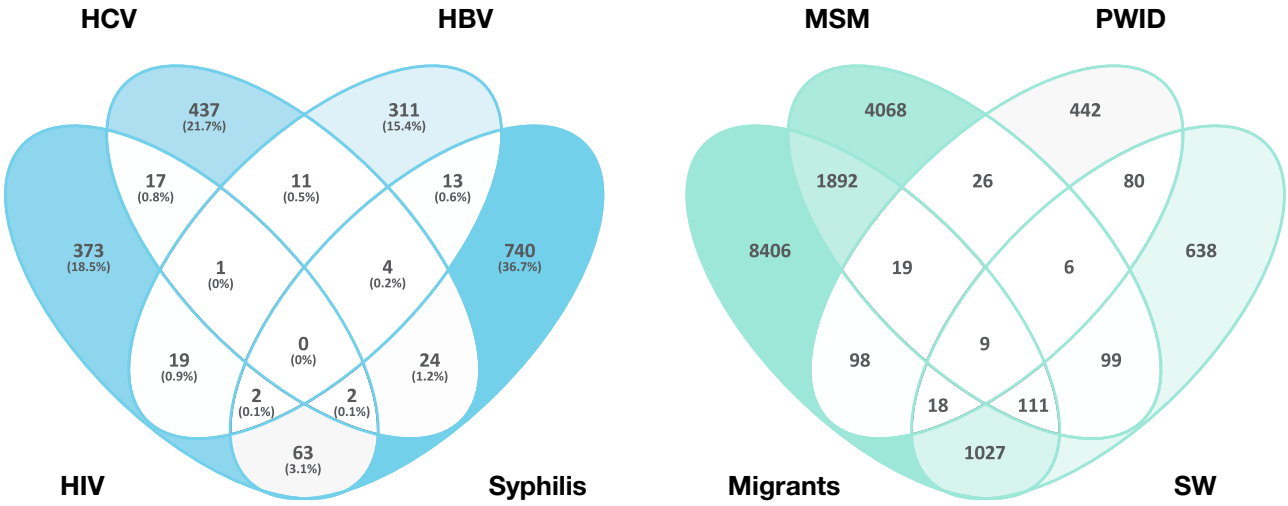
Over 70% of all people with a reactive test accepted the referral and linkage to care service offered by the CBOs (Table 11). Preliminary results demonstrate that peers/lay workers performed similarly to certified health professionals in performing tests and offering the correct test(s) and performed better for acceptance of referral to care for people who inject drugs (although this was lower for migrants).

The project ran a community-based data collection system, which enabled harmonized data collection and generation of both national-level indicators (for increasing knowledge about these infections in key populations in the country) and of more granular data (each organization has easy access to their own data and regional analysis is possible), which was managed by a reference public health institute. These data, analysed by target group/region, can be used to improve the targeting of interventions and prevention programmes, while increasing the skills and reliability of peer/lay workers in performing the tests.

Table 11. Screening results, Portugal, January 2016 – December 2017

Type of test	Tests performed (n)	Total persons tested (n)	Reactive tests, n (%)	Persons who accepted referral, n (%)
HIV infection	31 217	27 412	471 (1.7)	362 (76.9)
HCV infection	18 298	16 848	469 (2.8)	345 (73.6)
HBV infection	15 123	14 089	348 (2.5)	280 (80.5)
Syphilis	25 508	22 485	838 (3.7)	634 (75.7)

Fig. 32. Number of reactive tests and number of people reporting risk behaviours, Portugal, 2016–2017



Left panel: number/percentage of reactive tests for single and multiple infectious agent(s) at any of the 25 community-based structures from January 2016 to December 2017.
Right panel: individuals who reported behaviours which placed them as members of one or more key populations, of the 28 127 persons tested between January 2016 to December 2017.

Sustainability

The bulk of investment in the Network was necessary at the early stage for questionnaire and database design; training preparation; contact gathering; establishing project documentation structure(s); ethics committee review and data protection approvals; and establishing the initial partner Network. Maintenance of the project requires a lower annual financial investment, even with the increase in member organizations and a continuous scale-up of testing activities. The Network received financial support from the EEA Grants Programme (Public Health initiative) between April 2015 and July 2016 *(102)*. The partnership between the screening Network and AIDS Health care Foundation provided a rapid (one-minute) HIV screening test within distinct contexts. As the support ended in July 2016, the Network is still working (but with a very limited budget): providing tests, medical consumables and data collection tools, as well as database management, reporting and feedback. As a consequence of the economic crisis in Portugal, the National Programme for HIV, Viral hepatitis and Tuberculosis has not increased its support to CSOs. The Network has not received any public funding from the Portuguese State. At the moment the project is privately funded through its promoter and partners, thus limiting its capacity and potential for growth.

RUSSIAN FEDERATION. A complex, three-pronged, patient-oriented health care model for HIV-positive adolescents

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Background

Despite the worldwide progress made in reducing the HIV burden, the problem of HIV infection among adolescents remains acute owing to an increase in the proportion of adolescents among HIV-positive children, high mortality rates and lower ART efficacy caused by to lower adherence. According to UNAIDS (in 2017), young people aged 15–24 years have the lowest rates of HIV status awareness (under 50%), coverage with ART (40%) and achievement of an undetectable viral load (30%) compared with all other age groups. Studies show that the lowest level of adherence to ART is among adolescents aged 10–16 years, followed by adolescents aged 16–18 years.

The Russian Federation has the highest number of new HIV infections in the WHO European Region. Data for June 2017 from the National Clinical Infectious Diseases Hospital show that the proportion of children aged 10–17 years among perinatally infected HIV-positive children was 41%. According to data for 2017, half of HIV-positive adolescents received second-line ART and a fifth of adolescents received third- or fourth-line ART. Addressing HIV in adolescents requires a complex and multifaceted approach owing to a variety of health and social determinants. In addition to the medical problems associated with a chronic disease requiring lifelong treatment, adolescents face serious social problems (stigma and discrimination) in addition to the typical problems of adolescence (related to physiological, psychological and social characteristics of the age group). Working with adolescents without considering the individual links of this complex chain of cause and effect inevitably leads to failure, resulting in reduced adherence to follow-up and ART and possibly to poor morbidity and mortality outcomes.

At the all-Russian round table event, "Adolescents and HIV. Problems and solutions" (May 2017, Moscow), HIV-infected adolescents from the most affected areas expressed two main problems: insufficient attention and understanding on the part of health workers and poor interpersonal communication between adolescents due to stigma.

Description of the good practice

Among other specialized care approaches, the Russian Federation has developed a comprehensive, three-pronged patient-centred model of care for HIV-positive adolescents. All components of the model are inextricably linked and continuously implemented by an interdisciplinary team, together with adolescents and their families. The main goal of the model is to improve the quality of life of HIV-positive adolescents and increase life expectancy by disclosing and accepting HIV status; increasing adherence to follow-up and treatment; and reducing morbidity and mortality rates. The basic characteristics of the model include advisory activities, care and support.

Component 1: comprehensive cognitive, mental and neurological assessment

The comprehensive assessment involves conducting medical and psychological examinations to design a patient-tailored prevention and management plan addressing both medical and social support and integration needs.

In addition to standard medical examinations, neurological examinations included evaluation of cognitive dysfunctions and specialized investigations, where needed and by indication only.[19] According to a specific database of the results of complex medical examinations of 130 HIV-infected children, the following changes were detected in the absence of any clinical manifestations of HIV: every third child had vasculopathy and every tenth child had HIV encephalitis, hydrocephalus and developmental anomalies.

Examination of psychological characteristics included:

1. a clinical interview;
2. a personality diagnostic questionnaire designed for adolescents; and
3. a questionnaire for adolescents about parents.

A survey conducted in the same group of children revealed that only 30% of adolescents lived with both (biological) parents;[20] thus, the vast majority of HIV-infected adolescents also had psychological issues: in 90% of children, character attenuations were identified as a criterion for psychological risk and need of psychological support; and 45% of children were at risk of social inadaptation. Half of the adolescents reported a lack of harmonious relations in the family. High adherence to ART (defined as taking all prescribed ARVs)[21] was observed in only 40% of adolescents and correlated with harmonious family relationships and no risk of social inadaptation.

Analysis of rehabilitation and social integration pathways and targets suggests that 34% of families are in dire need of psychological support; 46% of families need psychological support, but to a lesser extent; and 20% of families (the best adapted) need less extensive psychological rehabilitation pathways.

[19] Brain magnetic resonance imaging is indicated in special cases: in children with advanced stages of HIV-infection and/or with cognitive disorders and/or based on physician decision due to specific medical concerns.

[20] Other adolescents lived with only one biological parent, in the custody of relatives, in the custody of non-relatives or in the children's home.

[21] Adherence is defined here by the authors: high, 100% intake of prescribed antiretrovirals (and a viral load of <50 copies/ml); lowered, 80 –100% intake of prescribed antiretrovirals; and low, <80% intake of prescribed antiretrovirals.

Component 2: comprehensive multidisciplinary care

The care package includes all necessary medical aid and individualized psychological support. Care is provided regularly according to individual needs and includes clinical, laboratory and instrumental evaluation of the course of HIV infection and ART effectiveness; ART adherence support; HIV education; support for disclosure of HIV-positive status (preparation, the act of disclosure, post-observation); support for disease acceptance; child–parent relationship support; and horizontal interpersonal (i.e. sibling or peer) relationship support.

These are provided through art therapy, sand play therapy, sensory workshops and classes, training courses and other creative activities.

Component 3: multidisciplinary activities

The activities include promoting, implementing and strengthening horizontal interpersonal relations among HIV-positive adolescents (through consultative meetings, workshops, training courses, camps, round table discussions, and sporting and cultural events). Such activities are held on a continual basis.

Developing good communication skills is vital for HIV-positive adolescents to mitigate the fear of serostatus disclosure in situations where peer–peer interaction is common and disclosure of disease status may not be fully understood. Fear of serostatus disclosure may lead to minimal social interactions and, in some cases, social isolation. Help provided to HIV-positive adolescents in this area allows them to not only master the necessary social skills but also experience successful interactions with peers.

Small-group counselling gives adolescents an opportunity to discuss issues related to their HIV-positive status, as well as those related to stigma and sexual development. Another objective of such counselling is to overcome obstacles to ART adherence.

In August 2017, the Applied Research Centre for Prevention and Treatment of HIV Infection in Pregnant Women and Children at the National Clinical Infectious Disease Hospital in St. Petersburg (a Federal Government institution) organized a summer training camp for adolescents from territories of the Russian Federation with the highest HIV burden. As a special activity focused on prevention of potential psychological and medical conditions, all adolescents were offered interventions related to the three components of the comprehensive care approach (described above). The following types activities were included: individual counselling, group game therapy (including a training element), creative activities and relaxation sessions in the sensory room.[22]

In the framework of the All-Russian information and testing campaign, Stop HIV/AIDS, the specialists of the Republican Infectious Diseases Hospital/Scientific and Practical Centre for Prevention and Treatment of Pregnant Women and Children, together with their colleagues from United Kingdom, held a training workshop in November 2017 in St. Petersburg. The workshop was attended by specialists working with HIV-positive adolescents and adolescents living with HIV themselves. The workshop provided detailed information on all three components of the model, including several multidisciplinary group training sessions involving clinicians, psychologists and HIV-positive adolescents. Feedback from participants was considered for the further implementation and strengthening of model components.

Evidence of impact/efficacy

Implementation of the comprehensive assessment, treatment and care/support model improve qualitative diagnostic testing for medical, social and psychological problems in adolescents. This is useful for identifying and addressing the medical causes of mental disorders; mastering social skills and gaining experience of successful interaction with peers; understanding the causes of decreased adherence to follow-up and treatment; building a person-centred programme for supporting adolescents; and harmonizing the psycho-emotional state of HIV-positive adolescents with that of peers.

Furthermore, complex multidisciplinary diagnostics within the framework of Component 1 conducted by specialists of the National Clinical Infectious Diseases Hospital showed that all HIV-infected adolescents need continuing social adaptation and psychological support. After the intervention, there was an increase of almost 50% in self-esteem levels and a similar reduction in anxiety levels, along with decreased

[22] A sensory room is a therapeutic space with a range of equipment that provides children with personalized sensory input and helps then calm and focus themselves so that they are better prepared for learning and interacting with others. Relaxation and activation stimuli as light therapy, sound therapy, aromatherapy and tactile therapy are used.

attention/memory impairment. Based on the results of secondary diagnostics conducted after implementing interventions specified in the model, positive effects were seen in important parameters: for example, increased self-esteem and decreased levels of anxiety, attention impairment and memory impairment (Fig. 33).

While implementing the model, adherence to ART a was found to correlate with the quality of family relationships. Assessment of the individual psychological features of HIV-infected adolescents in this study found that harmonious family relationships are especially important for adolescents with a lower socioeconomic and social status. Fig. 34 shows a substantial increase in viral suppression at three to six months of follow-up after the intervention. This outcome demonstrates the effectiveness of treatment; one of the most important contributory factors to treatment adherence was the provision of timely psychosocial support interventions

Fig. 33. Results of secondary diagnostics following a three-prong intervention, Russian Federation

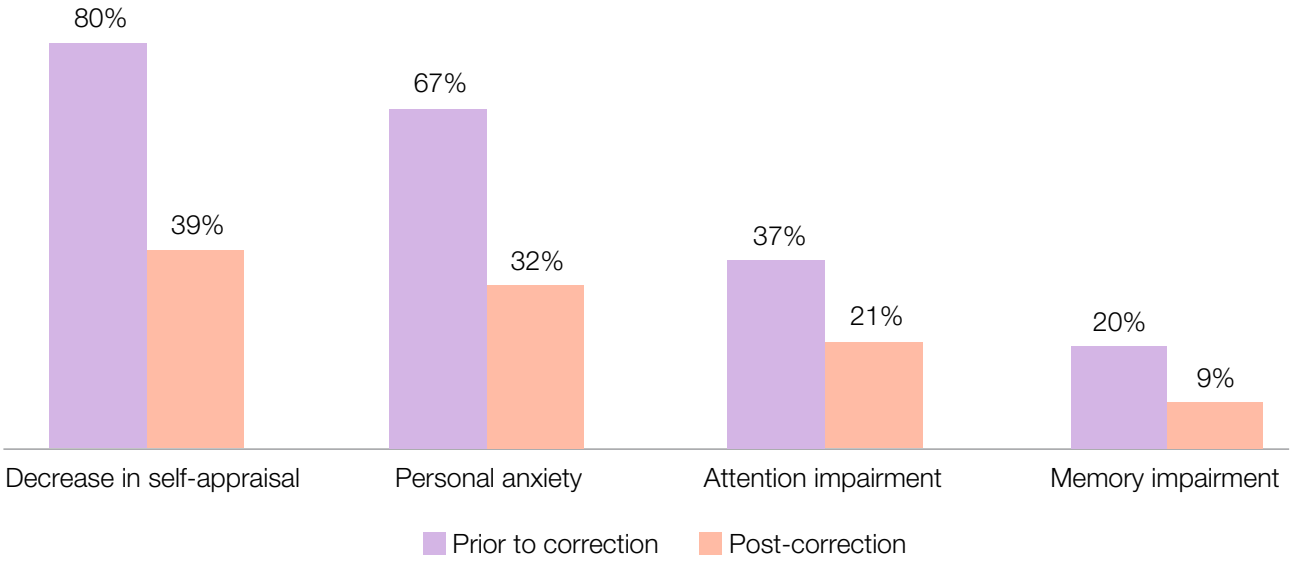
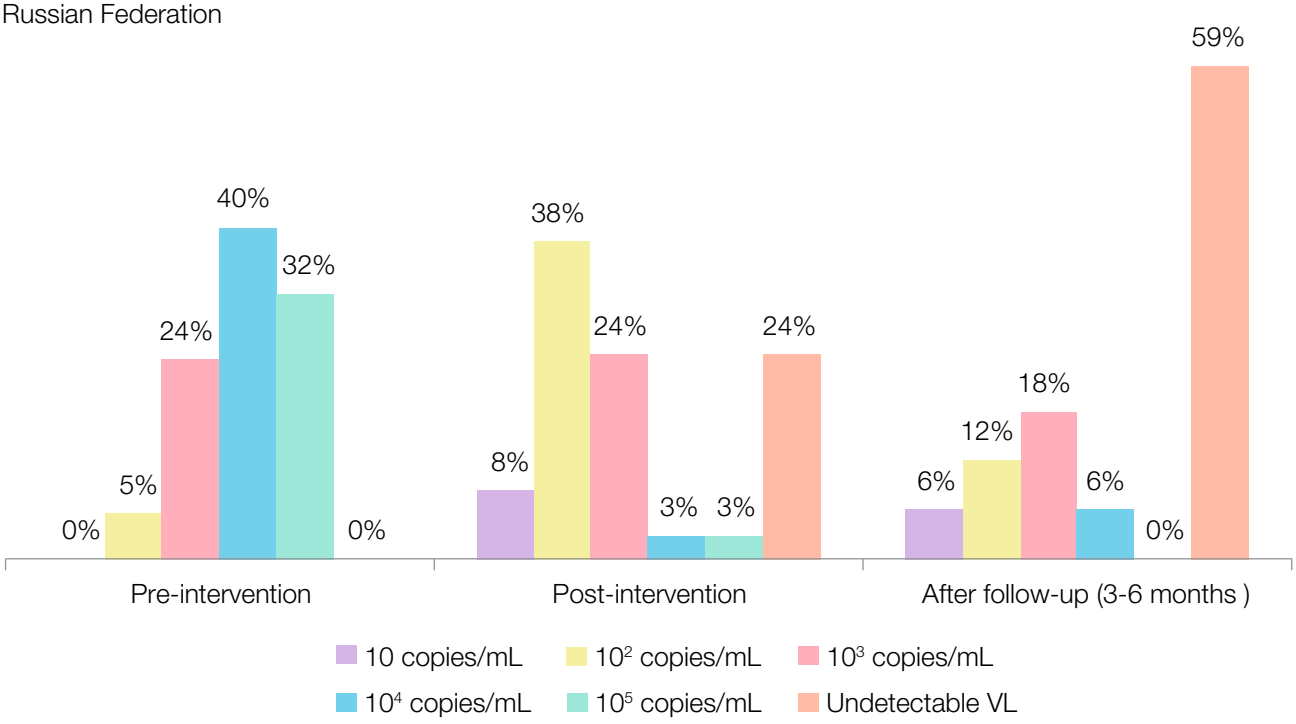


Fig. 34. Viral load in adolescents with lowered adherence to ART before and after implementing the care model, Russian Federation



VL: viral load.

Sustainability

The practice is fully funded by the Russian Federation. At the country level, this model is planned to be implemented into the work of all Regional AIDS Centres. At the local level, the model is included in the work programmes of the Federal institution, Republican Infectious Diseases Hospital/Scientific and Practical Centre for Prevention and Treatment of Pregnant Women and Children, affiliated to MoH of the Russian Federation. The project is expected to continue for the next three years, with monitoring and evaluation of programme results based on analyses of viral load and ART adherence.

UKRAINE. Improving HIV case-finding and access to treatment among people who inject drugs: the Optimized Case-Finding for HIV (OCF) and Community Initiated Treatment Intervention (CITI) scale-up project

Submitted by: Smyrnov, Pavlo | Denisiuk, Olga | Slobodianiuk, Kateryna | Kuznetsova, Julia

International Charitable Foundation "Alliance for Public Health"

Background

Ukraine has the second highest HIV incidence rate in the WHO European Region and the HIV epidemic is heavily concentrated among people who inject drugs and their sexual partners. The HIV epidemic began in 1987 among people who inject drugs in the southern and eastern regions. There are 346 000 people who inject drugs in Ukraine with an HIV prevalence rate of 22.6% according to a national IBBS from 2017 (unpublished data). People who inject drugs in Ukraine continue to have substantial HIV seroconversion rates and a significant number of heterosexual cases are still linked to people who inject drugs today. The HIV transmission risk among people who inject drugs is high, particularly if their peers include undiagnosed HIV-positive people who inject drugs, people who inject opiate-based drugs and previously incarcerated people who inject drugs. In 2006, the International Charitable Foundation (ICF) "Alliance for Public Health" initiated the widespread use of HIV rapid diagnostic tests through CBOs within HIV prevention programmes. According to the 2015 IBBS, despite the provision of HIV rapid diagnostic tests, only 38.5% of people who inject drugs had been tested for HIV the previous year. In 2015, ICF "Alliance for Public Health" initiated a new testing strategy[23] to provide uninterrupted access to HIV screening at outreach locations *(38)*. The approach, which combines self-testing with self-testing directly assisted by peers to lower the testing threshold, proposes further interventions to reach key populations that are either not yet tested or not aware of their serostatus. At the same time, programme data on the results of rapid HIV testing performed with harm reduction activities among people who inject drugs in Ukraine for 2010–2015 suggested a case-finding challenge: the detection of fewer HIV-positive cases every year.

Description of the good practice

Scale-up of the Optimized Case-Finding for HIV (OCF) and Community Initiated Treatment Intervention (CITI) project was designed in collaboration with the CDC and United States President's Emergency Plan for AIDS Relief *(103)*, with the aim of improving case-finding, the HIV testing strategy and treatment access for seropositive people who inject drugs.

The OCF strategy combines experience gained from previous network studies, outreach activities and HIV screening projects.[24] It is based on active contact tracing and recruitment of the extended risk/social networks of HIV-positive participants. The project uses a two-step recruitment model that starts with positive index cases: patients who test positive are invited by coupons from outreach staff at HIV screening services. Once at the OCF site, they are asked to invite three people who they think may be at risk of HIV (thus forming an extended risk network). These contacts are then offered to invite three of their contacts (regardless of serostatus) and encourage these partners to undertake rapid testing for HIV at the OCF site with the assistance of a contact tracing/case-finding specialist. Participants receive incentives of US$ 2 per visit and $ 1 for each person they recruit for testing. Anyone can participate every

[23] The testing strategy (Directly assisted self-testing): individuals who are self-testing for HIV receive an in-person demonstration from a trained provider or peer before or during HIV self-testing, with instructions on how to perform the self-test and how to interpret the result. This assistance is provided in addition to the manufacturer's instructions for use and other materials found inside HIV self-testing kits.

[24] Risk Network peer-driven intervention (implemented by Alliance Ukraine from 2009), Project Protect (implemented by the National Disease Research Interchange and Alliance from 2010) and Project TRIP (implemented by the National Disease Research Interchange and Alliance from 2013).

six months unless they become seropositive, in which case they become an index case to start the second-step recruitment process. A real-time Syrex Cloud is used for programme monitoring to record each client, each test result and linkage to care information, as well as for scanning the QR (quick response) codes (i.e. 2-dimensional bar codes) on referral coupons *(104)*. The case finder also attaches all HIV-positive clients to a CITI case manager and follows up the client's progress into treatment. Case managers provide additional support at all further stages: confirmation of HIV-positive results in regional health facilities, provision of additional diagnostic procedures (if needed) and administration of timely ART. CITI combines peer navigation, outreach case management and community support services to achieve better treatment uptake and better outcomes for HIV-positive people who inject drugs. CITI is designed to support HIV-positive clients for up to five months after registration. Testing at the sites includes motivational and peer support counselling. Rapid transfer of blood samples to the AIDS centre laboratory ensures that HIV-positive clients receive ART by the second visit.

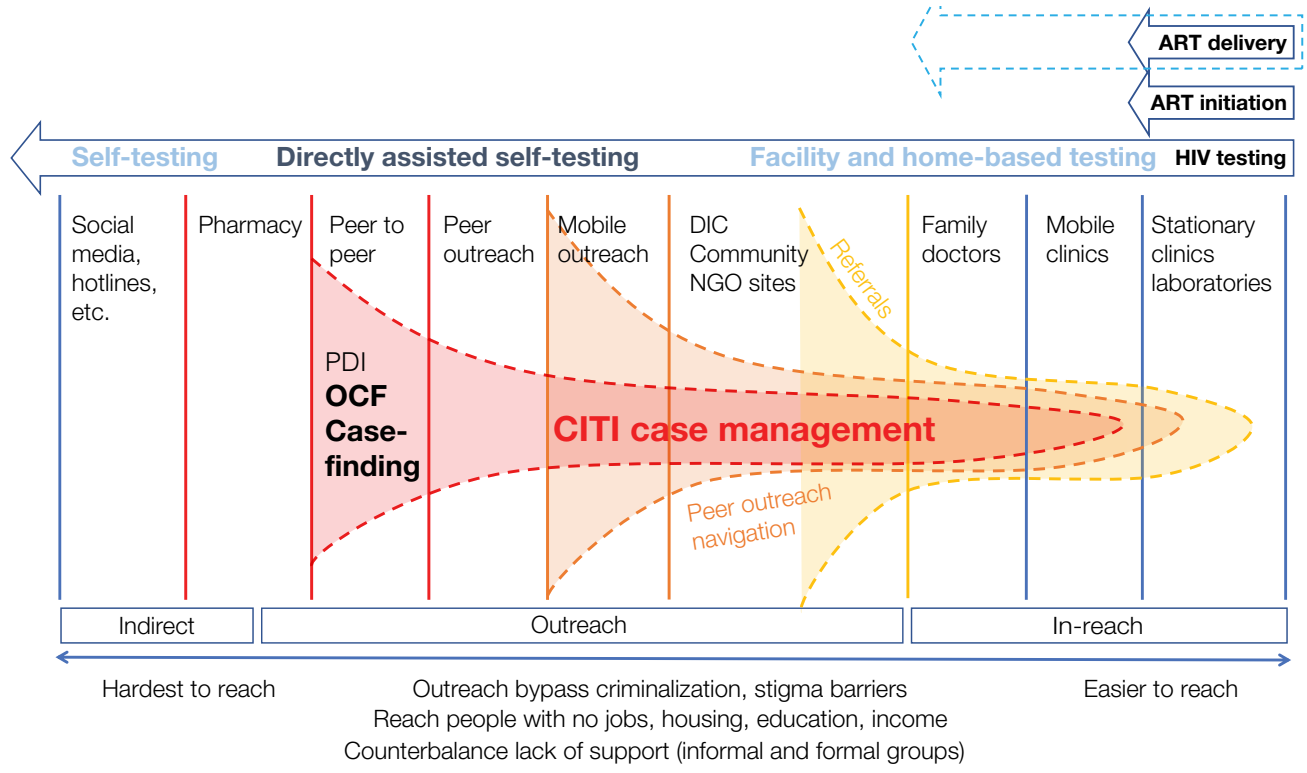
Objectives of the CITI case manager are to:

- assess the client's condition, needs and motivation, and determine his/her strengths;
- identify key barriers that prevent clients from accessing ART;
- analyse the available resources and services;
- design an assistance/support plan;
- coordinate social and medical services and represent client interests at health care institutions;
- monitor performance and implementation; and
- measure the performance goals of case management and terminate related services.

Evidence of impact/efficacy

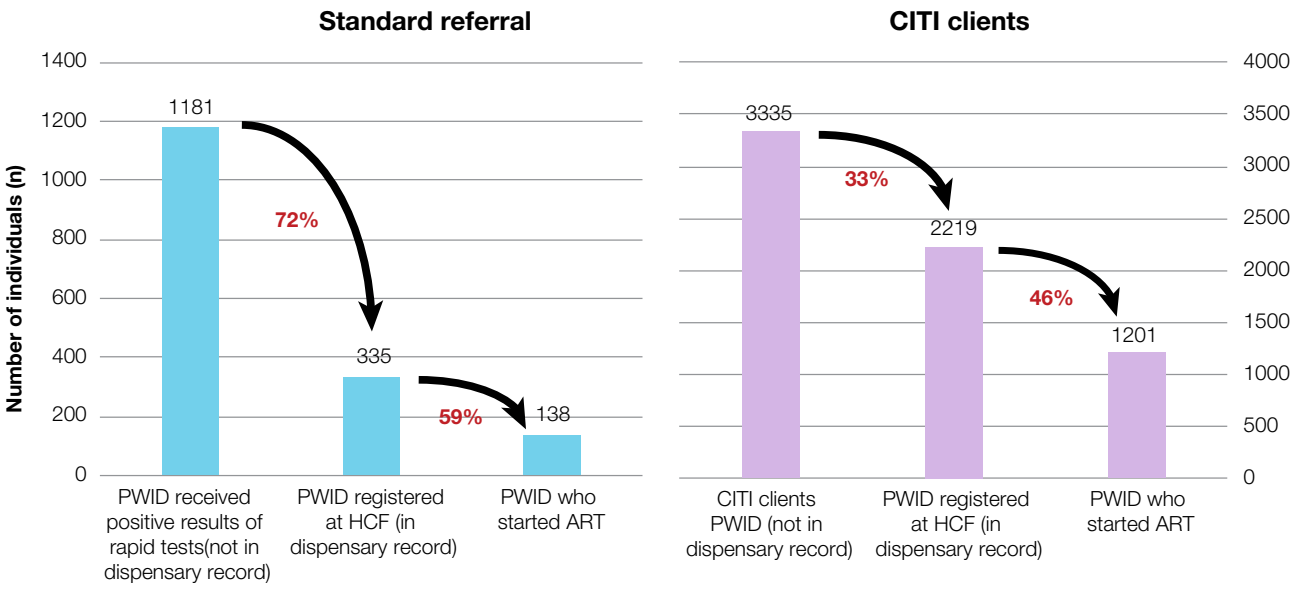
The OCF strategy reached 48 522 people who inject drugs and their partners with HIV screening services in between January 2016 and December 2017. The average HIV-positive yield among the OCF peers reached 17% in 2017. Programmatic data for 2016 suggest that the service continuum within the strategy from early initiation of ART to support of adherence among HIV-positive members of key populations is improved compared with standard practice (Figs 35 and 36).

Fig. 35. Scope of OCF/CITI outreach



PDI: peer-driven intervention.

Fig. 36. Comparison of CITI case management and standard practice in referral of clients who tested positive for HIV, 2016



HCF: health care facility; PWID: people who inject drugs.

CITI facilitated early treatment access for active people who use drugs.

- The average time from rapid testing for HIV to CITI enrolment was one to three days (50% of clients were enrolled the same day).
- The average time from enrolment in CITI to registration was 20 days.
- The average time from enrolment to ART initiation was 29 days.

Sustainability

Results of the project are planned to be used for lobbying for continuous expansion of the project in conjunction with local authorities into regions where there is currently no case management for HIV-positive people who inject drugs. Data on OCF/CITI effectiveness will be also used for advocating for CITI to be included into the national package of services funded by government.


All people should receive the services they need without experiencing financial hardship
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STRATEGIC DIRECTION 4. Financing for sustainability

CROATIA. Financial sustainability of the GFATM HIV/AIDS project: the Croatian experience of increasing domestic resources

Submitted by: Nemeth Blažić, Tatjana[1] | Kosanović Ličina, Mirjana Lana[2]| | Jelavić, Melita[2]| Jovović, Iva[3]| Begovac, Josip[4] | Skoko Poljak, Dunja[5]

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Background

The annual HIV infection incidence in Croatia is about two per 100 000 population, underscoring Croatia as a relatively low-prevalence country. The dominant mode of HIV transmission is through sex between men; 64% of all registered cases are MSM and, in the last several years (2014–2017), more than 80% of newly diagnosed cases were MSM. A small increasing trend has been seen in the number of newly diagnosed cases of HIV infection in the past few years, which may be partly explained by a true increase in the number of infections as well as by increasing the number of tests following the introduction of voluntary, free and anonymous counselling and testing for HIV in eight Croatian cities since 2004. In the past five years, the average number of annually reported HIV cases was 100 (range 77–116), showing an increase of around 150% compared with pre-2004.

Prior to the implementation in 2004 of the GFATM project Scaling Up HIV/AIDS Response in Croatia, anonymous and free counselling and HIV testing were not available. HIV testing services were available at several locations but required a medical referral, a health insurance card or a direct payment for the service. Second-generation surveillance of HIV infection had not been implemented. No bio-behavioural research had been conducted within the framework of HIV surveillance that aimed to monitor HIV or STI prevalence and risk behaviour in key populations. Systems for monitoring and evaluation also had only been partially implemented. There were no systematically organized educational public health campaigns to inform the general public or key populations about health risks. Before the GFATM project, there was also no systematic and comprehensive psychosocial care available for people living with HIV. Through the project, which was funded by the GFATM, Croatia received funds for the implementation of some priority areas of the national HIV/AIDS prevention strategy and programme. The MoH was the primary recipient of the GFATM donation and was the project coordinator (the total amount of the donation for the period 2003–2006 was US$ 4 945 192).

The GFATM donation contributed significantly to the financing of activities aimed at improving HIV/AIDS, HBV, HCV and STIs surveillance system(s) through establishing voluntary, anonymous and free HIV testing sites, promoting health education, supporting national campaigns to reduce risk behaviours, conducting bio-behavioural research, providing psychosocial support for persons affected by HIV, initiating harm reduction programmes and NSPs for people who inject drugs and creating a system for collecting indicators and monitoring and evaluating HIV/AIDS programmes/activities. These services garnered intersectoral collaboration and support, including a large contribution from NGOs and CSOs involved in HIV prevention activities targeted at key populations in Croatia (e.g. MSM, SWs, migrants and people who inject drugs).

Description of the good practice

After successful implementation of the GFATM project in 2003–2006, the country reached almost a 100% transition to financing a toolbox of activities via domestic resources. Despite limited resources owing to the long-term financial crisis in Croatia, all GFATM project components were fully transitioned to domestic financing sources except for one *(105)*. Sources are primarily allocated from the state budget through the MoH. Another source for financing activities is income from state lottery games;[25] this is used for prevention,

[25] Based on the Law on Games of Chance, Official Gazette No. 87/09, 35/13, 41/14 and 143/14 and by-laws, the government decree on criteria for defining users and the mode of allocation of part of the revenue from the games of chance for each year.

early detection and treatment, for rehabilitation of drug users, for harm reduction programmes and for collaboration with CSOs/NGOs The financing model and the legal framework for contracting and financial monitoring were provided through tender processes with the MoH (one-year or three-year projects/ programs for state institutions and social contracting of CSOs) and through standardized criteria and selection procedures (selection committee with multidisciplinary members). A portion of preventive activities (the work of the VCT and sexual health centre at the Croatian Institute of Public Health) were also funded by the Croatian Health Insurance Fund for the last few years. Similarly, part of the HIV/AIDS and STIs surveillance activities, national campaigns, volunteer counselling centres, and research are also funded jointly by local communities (rarely; only in some parts of the country), the private sector (very rarely), international projects and donations and European projects (e.g. Joint Actions: Quality Action in HIV Prevention *(106)*, HA-REACT *(78)*, INTEGRATE *(107)* and European Social Fund project Healthy Living *(108)*).

To ensure a smooth transition from international to domestic funding, it was vital to establish political commitment and consensus and then integrate this consensus into the Croatian National Program for HIV/ AIDS Prevention strategy. In addition, it was necessary to have robust cooperation between the health care sector and NGOs and the establishment of a legal framework and an institutional support model and system of civil society development and funding, as well as monitoring and evaluation of NGOs, including public/standardized procurement techniques for transparent allocation of funds from the state budget.

Evidence of impact/efficacy

Implementation of the GFATM project made a positive contribution towards developing a national response by building partnerships and collaboration and investing in human resources: a functional network of experts has been established, including a common communication channel via email on the national level (aids-hr@googlegroups.com); during the implementation of the GFATM project, people gained new and useful knowledge and skills, and new services were introduced; cooperation among stakeholders improved, and formal and informal partnerships were established.[26]

Sustainability

The framework within national strategic documents and institutional support of cooperation between health institutions and CSOs have made a significant contribution to this effort, accomplished by including objectives, activities and stakeholders in the Croatian National HIV/AIDS Prevention Program and therefore enabling continuous national funding, implementation and efficiency monitoring. In addition, it shows that GFATM not only provides financial resources but also makes a positive contribution towards developing a national response by building partnerships and collaboration and by investing in human resources and building capacities of CSOs. Partners involved in the implementation of the National HIV/AIDS Programme or who provide support for implementation or development of resources[27] work in cooperation, enabling synergy to achieve the common goal of all the stakeholders. Areas for CSO/NGO engagement include HIV testing and counselling, training of experts, anti-discriminatory programs, psychosocial support, education and prevention among adolescents, prevention for MSM, prevention for people who inject drugs, including harm reduction programs and prevention in the general population. Along with national funding, one of the additional opportunities for sustainability is participation in EU projects and using EU funds for cofinancing activities.

[26] For example, between the Croatian Institute of Public Health or county public health institutes and the CSOs Iskorak, the Croatian Association for HIV and Viral Hepatitis (CAHIV) and the Association for Improvement of Quality of Life (NGO Flight), as well as the NGOs HELP (which helps youth, and people with drug-related problems) and Hepatos Rijeka.

[27] For example, the MoH, the Ministry of Science and Education, the Ministry for Demography, Family, Youth and Social Policy, the public health institutes, the national insurance fund, the University Clinic for Infectious Diseases “Dr Fran Mihaljević”, the WHO office in Croatia, the Croatian Institute for Health Insurance, the Office for Combating Narcotic Drug Abuse and the Office for Cooperation with NGOs, as well as CSOs that are specialized, trained and have experience in the field of HIV prevention (the NGOs Flight, HELP, Terra, Institut, Croatian Red Cross, Iskorak, Hepatos Rijeka and CAHIV).

Kazakhstan. Improving access to ART for people living with HIV

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Republican Centre for AIDS Prevention and Control of the Ministry of Health of Kazakhstan

Background

The HIV epidemic in Kazakhstan is at a concentrated stage. HIV prevalence among the general population is 0.1%. The prevalence of HIV infection is 117.7per 100 000 population. The HIV incidence was 16.2 per 100 000 population in 2017 and 15.4 per 100 000 population in 2016 *(109)*.

ART was implemented in Kazakhstan between 2003 and 2004. The first clinical guidelines for diagnostics, treatment and medical care provision for HIV infection and AIDS was published in 2004. According to the guidelines, ART initiation was recommended for those with a CD4 cell count of less than or equal to 200 per ml. Less than 6% of the 4000 people living with HIV and registered at AIDS centres received ART. ARVs were procured through GFTAM funding and the list of available drugs was poor, with only one or two treatment lines available.

From 2009 onwards, the government took full responsibility of ARV procurement from the national budget, thus ensuring the sustainability of HIV interventions in the country (Fig. 37). According to 2016 WHO recommendations, ART should be initiated immediately for patients with a confirmed positive diagnosis of HIV infection, irrespective of the CD4 cell count. In 2017, a new clinical protocol was adopted in Kazakhstan, known as the "test and treat" strategy, in which ART is initiated in accordance with the Consolidated guide to the use of antiretroviral drugs for treatment and prevention of HIV infection: recommendations from a public health perspective *(5)*.

At around the same time, the cost of first-line ART in Kazakhstan per person in 2016 was calculated as $ 946–3140, depending on the treatment scheme. Although the country made significant progress in ART provision to all those in need, the cost of ARV procurement by the state was higher than the global median cost, which greatly limited the number of people who could receive ART *(110)*.

Description of the good practice

In April 2016, the MoH commissioned all responsible agencies to consider procuring drugs at a lower price through the United Nations Children's Fund (UNICEF) Within the framework for carrying out these instructions, joint meetings were held with specialists from the Pharmacy Committee of the MoH of Kazakhstan, the Republican Center for AIDS Prevention and Control of the MoH of Kazakhstan and Samruk Kazyna Pharmacy,[28] the sole distributor of medicines procured for the provision of free medical care in Kazakhstan. Comparative data on the cost of ARVs in Kazakhstan and the UNICEF price proposal were presented at the meetings. Calculations were presented, showing that predicted savings from procurement through UNICEF in the allocated financial resources for purchasing ARVs would make it possible to increase the amount of drugs purchased and thus increase coverage with ART for people living with HIV. As a result of the meetings, Samruk Kazyna Pharmacy took responsibility for negotiating with UNICEF to purchase ARV drugs.

Since ART provision to all those in need is a national priority, it was decided to hold a online video conference conference with specialists from UNICEF (Copenhagen, Geneva and Astana offices), Samruk Kazyna Pharmacy (Astana), the Republican AIDS Centre, UNAIDS, the CDC, and the KazUnion of people living with HIV (Almaty) to clarify all questions from UNICEF, Samruk Kazyna Pharmacy and other international organizations. Discussions included the conditions for concluding the agreement between UNICEF and Samruk Kazyna Pharmacy and other topics, including the necessity for 100% prepayment of the order, the currency contract, the means of delivery of drugs from the manufacturer in the Republic of Kazakhstan, violation of transport or factory packaging, and timing for the supply of drugs in Kazakhstan. Once answers to the outstanding questions were received from UNICEF, Samruk Kazyna Pharmacy informed the UNICEF Head Office that it intended to purchase 11 types of ARVs for Kazakhstan.

[28] In February 2009, the Government of the Republic of Kazakhstan decided to establish SK-Pharmacy Company within the structure of the National Welfare Fund Samruk-Kazyna JSC (Government Decree No. 134, dated February 11, 2009). Rights of possession and uses of absolute share of Samruk Kazyna Limited Liability Partnership were transferred by the Republic of Kazakhstan's Government Decree No. 516 dated May 25, 2013 to the Ministry of Health of the Republic of Kazakhstan.

Evidence of impact/effectiveness

Purchase of the 11 types of ARVs through the UNICEF mechanism reduced the procurement price for ARVs by 2–40 times and reduced the budget expenditure by half. Owing to the price reduction, the cost of first-line ART in Kazakhstan (tenofovir/emtricitabine/efavirenz) decreased from $ 3140 to $ 100 per patient. This financial savings enabled coverage with ART for people living with HIV to double from 7000 patients by the end of 2016 to 12 000 by the end of 2017 (Fig. 38). Furthermore, four new ARVs with high treatment efficacies and good safety profiles were added to the list of drugs with a guaranteed volume for free medical care (including dolutegravir[29]).

A total of 16 types of ARVs are now included in the list of medicines and medical products for provision of citizens within the guaranteed volume of free medical care and within the system of compulsory medical insurance *(111)*.

Regarding the UNAIDS 90–90–90 targets *(112)*, by the end of 2017 about 80% of the estimated number of people living with HIV knew their HIV status and were registered at AIDS centres. Around 55% of these patients were receiving ART and 55% have achieved viral suppression. While this practice makes great strides towards optimizing the second 90–90–90 target (i.e. 90% of people who know their status are on ART), the country still needs to scale up activities to reach the 90–90–90 targets by 2020.

Sustainability

All HIV/AIDS interventions are monitored and sustained via government funding, including activities such as development and implementation of clinical protocols for HIV treatment and care, centralized ARV procurement, and monitoring of ART effectiveness.

Support for this practice at the national level is reflected in various national decrees.[30]

[29] In May 2018, WHO issued a statement concerning a potential risk of neural tube defects in infants born to women taking dolutegravir at the time of conception (59). As more countries have scaled up ART optimization efforts and include or plan to include dolutegravir-containing regimens in their national protocols as the preferred first-line option, WHO issued a briefing note in April 2018 on the clinical advantages of and programmatic information about the new fixed-dose combination tenofovir/lamivudine/dolutegravir (60). Additional and diverse analyses are planned for July 2018 to expand on the original data, which originated from a single country.

[30] The Decree of the Government of Kazakhstan dated 8 November 2017, no. 719, On amendments to the Decree of the Government of Kazakhstan, dated 30 October 2009, no. 1729; On approval of the rules for procurement of medicines, preventive (immunobiological, diagnostic, disinfecting) drugs, medical products, devices and equipment and pharmaceutical services necessary for providing the guaranteed volume of free health care in the system of mandatory social health insurance, and the Decree dated 8 July 2015, no. 515, On approval of rules for procurement of services for the storage and transportation of medicines and medical products and devices by a single distributor to ensure the guaranteed volume of free health care in the system of mandatory social health insurance and on introducing amendments and additions to some decisions of the Government of Kazakhstan, and in Chapter 16, Section 8, of The procedure for procurement from a single source or through international organizations established by the General Assembly of the United Nations, as approved by the authorized public health body and on the basis of international treaties (agreements) ratified by the Republic of Kazakhstan, as well as international treaties signed for implementation.

Fig. 37. Financing for ART, Kazakhstan, 2005–2017

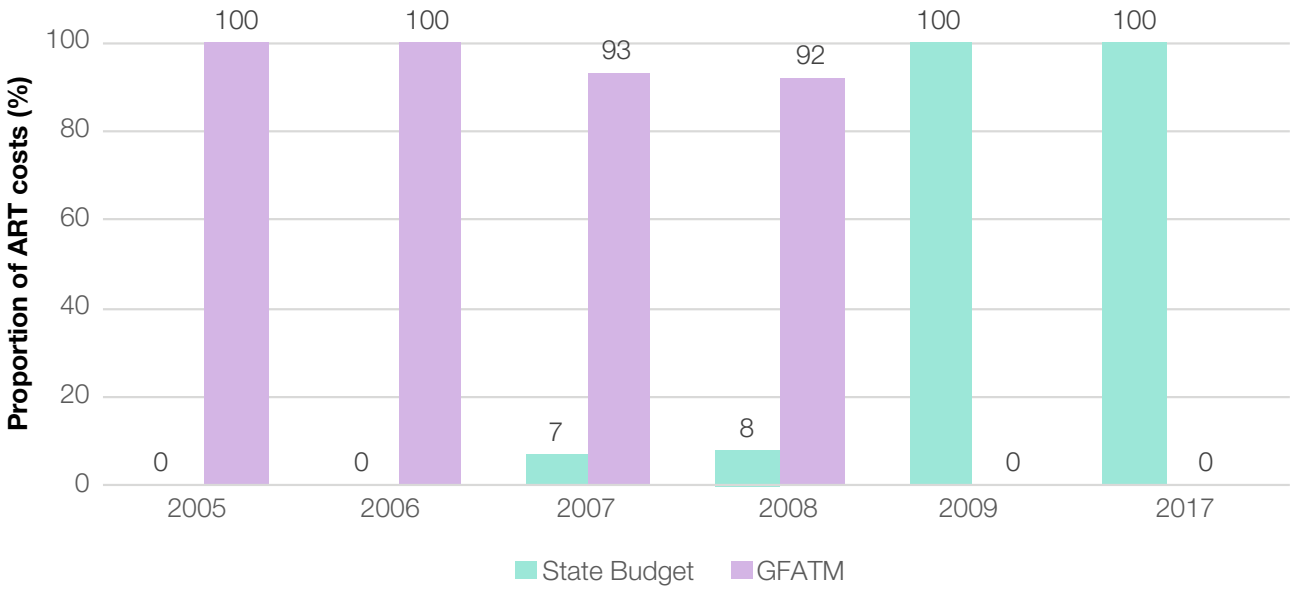
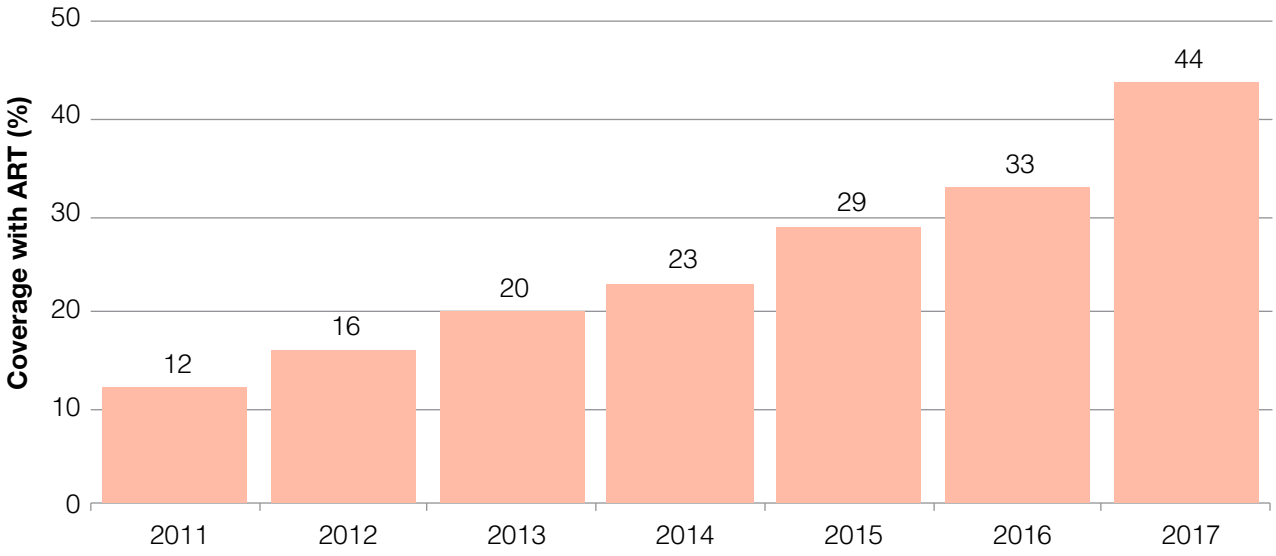


Fig. 38. Estimated coverage with ART among people living with HIV, Kazakhstan, 2011–2017



MONTENEGRO. Transition to domestic funding of the HIV response through social contracting of NGO/CSO service provision

Submitted by: Brajovic, Mina[1] | Cicic, Alma[2] | Golubovic, Vladan[3]

[1]WHO Country Office Montenegro; [2]Institute for Public Health; [3]Country Coordinating Mechanism Secretariat

Background

GFATM support in Montenegro from 2006 to 2015 resulted in a continued low prevalence (0.03%) of HIV among the general population in the country and a remarkably low prevalence of HIV among two key populations: 1.1% in people who inject drugs, and 0.5% in SWs. However, as in many countries in central Europe, MSM transmission is significantly increasing (12.5% prevalence in 2014). This increase made the country re-eligible for GFATM financing in 2016. At the end of the grant in June 2015, the Montenegrin government took over financing of services provided in public sector, including full funding for expanded ART, OST and VCT. However, no formal structure permitted CSO implementation of the HIV prevention activities. Consequently, lack of NGO manpower disrupted the implementation of established preventive services within CSOs. Less than a year after the end of the GFATM support, provision of the NGO-led prevention services in Montenegro was nearly terminated. The remaining grant funds were used to procure a one-year stock of prevention commodities, including needles, syringes and condoms. Two NGOs, CAZAS and Juventas, continued providing some preventive services by limiting their package and scope of services, which resulted in a considerable reduction of the coverage/recipients among key populations. Compared to 2015, Juventas reported an almost 65% decrease in unique client reach of MSM in the first half of 2016, compared with 2015, while the burden among this population fuels the epidemic. Similarly, CAZAS reported a one-year termination of the work of its drop-in centre for people who inject drugs, from July 2015 to June 2016, with limited outreach work confined to the capital of Podgorica. The EU country report on Montenegro from 2016 empirically documented that "efforts were made to implement the National HIV Strategic Response but sustainable funding is still not ensured". These harsh realities and dialogues laid the ground for a new commitment to secure HIV funding through the state.

Description of the good practice

Funds provided through the Commission for allocating funds from games of chance by the Ministry of Finance in 2016 partially filled the funding gap, covering between 20% and 25% of the previous GFATM contributions for HIV prevention services. Then, in 2016, due to the successful advocacy of Juventas, the Montenegrin parliament passed a legislative act to allocate €100 000 for NGOs "that provide services for supporting people living with HIV/AIDS and affected populations". This set the first precedent for explicit commitment to funding HIV prevention services

through NGO implementation to key populations. The same allocation has been included in the 2017 state budget. Nevertheless, these allocations were sufficient to cover only 40% of the overall national yearly deficit. Therefore, the CCM decided on the basis of the GFATM board decision from December 2016 to submit a new GFATM funding request in the amount of €556 938 to mobilize new and catalyse existing funds for remaining gaps.

In 2015, the year of closure of the HIV Round 9 Grant, NGOs and CSOs united in advocating for the sustainability of HIV/AIDS services aimed at key populations. This advocacy campaign primarily targeted decision-makers to mobilize the transition but also educated the wider public about the successes derived from the national HIV response in Montenegro. The messages emphasized (i) the irreplaceable role of CSO service provision and (ii) the difference in cost between prevention (€6–€8 per person per month) and treatment for HIV (€1200–€1500 per person per month) and hepatitis C (€1500–€2000 per person per month).

Evidence of impact/efficacy

A key obstacle in Montenegro following the transition from the GFATM financing was the absence of a social contracting mechanism which would allow NGOs to continue delivering prevention services. Thus, the OSFs and the UNDP provided bridge funding to invest in the development of sustainable systems for HIV prevention and treatment support. With OSF support, Juventas and CAZAS were nominated to work with the MoH on the development of a social contracting mechanism that would allow government financing of civil society-led prevention interventions. The MoH launched its first open public call for proposals for HIV prevention programmes in November 2017, with €80 000 allocated for prevention services for key populations, €10 000 for support to people living with HIV and €10 000 for procurement of necessary commodities. Amendments to the law determining the state budget for both 2016 and 2017 were adopted by the Montenegrin parliament, demanding state budget allocation to sustain existing and grow durable solutions for financial contributions to HIV/AIDS services for key populations.

The conditional GFATM (2017–2019) allocation only permits funds regarding service delivery. Therefore, the civil society sector in Montenegro plans to bolster advocacy efforts, through both the CCM and joint advocacy strategic plans. For example, CAZAS is currently implementing a social contracting capacity-building project with OSF funds and will seek further OSF support to enhance management and service delivery capacities.

By allocating yearly earmarked funds of €100 000 from the government/MoH (between 35% and 40% of overall needs for NGO-led preventive services) and becoming re-eligible for the GFATM support, Montenegro is able to sustain a low prevalence of HIV. According to the new law on NGOs from 2017, 0.3% of the state budget is earmarked for NGO projects in general, an additional 0.1% is dedicated to protection of people with disabilities and another 0.1% is allocated for co-funding EU-supported projects.

Sustainability

The current estimate for the need for preventive HIV services is around €300 000. This includes the costs of renting premises for drop-in centres for MSM, SWs and people who inject drugs, as well as the centre for people living with HIV, outreach work among key populations, salaries of staff and outreach workers, operating costs of the services and other costs incurred. Through consensus between Montenegro and GFATM, the government and the MoH plan to gradually increase their share of the costs for HIV prevention services among key populations, through social contracting of the NGO/CSO sector. The MoH has already allocated a budget line for 2018 in the amount of €125 000 for this purpose and most probably will continue to increase the annual allocations. The current agreed projection is to slightly increase the proportion of state funding each year to maintain the current level of support. As part of the implementation arrangement, national authorities monitor programme and management costs of the social contracting mechanism by allocating additional Montenegrin funds.

Investments by the UNDP will help improve the legal framework for this funding mechanism, assuring that the MoH is operating in line with new countrywide requirements for sectoral reviews related to the financing of civil society. Additional efforts to secure the support of local authorities are planned. This will be necessary to provide NGOs free premises for the operation of their service and thus further savings by eliminating rent expenses. The funds saved will

be used to provide service delivery. Although in its preliminary stages, the advocacy work of NGOs/CSOs and the intersectoral consensus gained in the country, along with continuous support from a variety of donors, have paved the way to full domestic funding for Montenegro in the years to come.

REPUBLIC OF MOLDOVA. Financing of harm reduction services for key populations by the National Health Insurance Company

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Background

According to national statistics, 11 877 HIV cases (including 3728 in Transnistria) were cumulatively registered by the end of 2017. Around 800 new cases (including 230 in Transnistria) have been registered each year for the last three years, with no major changes in the sex distribution. In 2016, the prevalence of HIV in the Republic of Moldova was 0.20%. However, the epidemic is concentrated among key populations: mainly, people who inject drugs, in both the civilian and the prison sectors, but with increasing rates among SWs and MSM. Available data suggest the epidemic has transitioned from an early concentrated epidemic, in which the highest rates of transmission were among people who inject drugs, to an advanced concentrated one, in which onward transmission to the sexual partners of people who inject drugs, and other key populations, has become a source of new infections. According to the latest estimates, there are 36 900 people who inject drugs (including 10 800 in Transnistria), 17 800 SW (3500 in Transnistria) and 17 100 MSM (4100 in Transnistria).

The IBBS survey among risk populations was carried out for the first time in the Republic of Moldova in 2009–2010, using respondent-driven sampling methodology. The same methodology was used during the studies conducted in 2012–2013 and 2016–2017, assuring data comparability. This methodology enabled the recruitment of both beneficiaries of harm reduction programming and members of key populations. However, data from studies conducted in 2003, 2004 and 2007 cannot be compared, owing to methodology variance. Fig. 39 shows HIV prevalence among MSM, SWs and people who inject drugs, in 2009, 2013 and 2016.

Prevention service coverage of key populations increased between 2014 and 2017 (see Table 12).

Fig. 39. IBBS survey results on HIV prevalence among MSM, SWs, and people who inject drugs, Republic of Moldova, 2009, 2013, and 2016

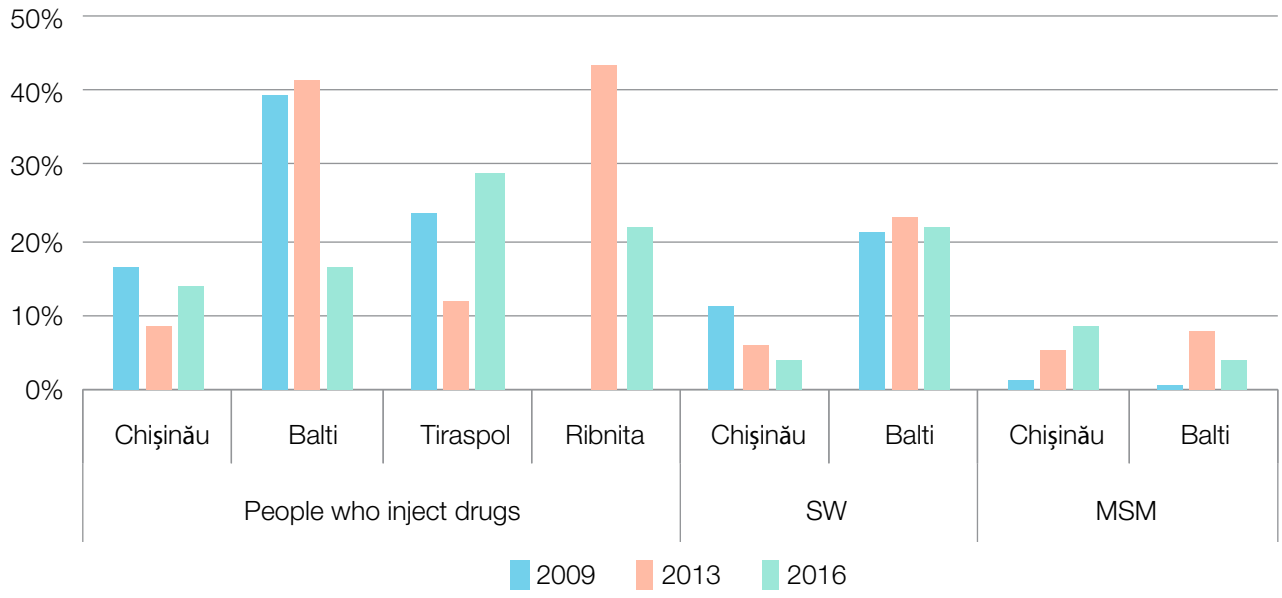

Table 12. Prevention service coverage of key populations, Republic of Moldova, 2014–2017[a]

Key population	Coverage (%)		
	2014	2016	2017
People who inject drugs[b]	30.8	49.0	51.1
SW[c]	24.6	39.3	46.8
MSM[c]	14.7	22.3	26.9

[a] Estimated. [b] Needle exchange. [c] Condom distribution.

Description of the good practice

Before 2017, HIV prevention services for key populations were exclusively financed by an external source, the GFATM. In alignment with the National AIDS Programme for 2016–2020 and the national Transition and Sustainability Plan, a gradual shift in the financing of prevention services from GFATM to domestic funding was proposed. For 2016 it was expected that two projects (approximately €50 000 each) would be funded from domestic resources. Unfortunately, this proved difficult, as a strong financial and procurement regulatory mechanism had not yet been put in place.

In 2016, the Union for HIV Prevention and Risk Reduction initiated a dialogue with representatives from the GFATM, UNAIDS, WHO, the MoH, the NHIC and the Coordination Unit of the National AIDS Programme, to mobilize the development of a legal/regulatory framework for the financing of harm reduction services from the state budget. As the result, a financing and procurement mechanism whereby procurement would be sourced from the NHIC prophylaxis fund was developed and agreed upon by all the stakeholders.

As a result, at the beginning of 2017, a joint order of the MoH and the NHIC for the approval of regulation regarding the financing of harm reduction services by the NHIC prophylaxis fund was endorsed, setting HIV harm reduction programmes as health priorities. The regulations included:

1. the financing principles of the projects;
2. permitted modalities of project presentation and selection;
3. the projects' financing conditions, which stipulate that the funding applicant:
   a. must be a non-profit-making institution/association registered in the Republic of Moldova;
   b. must have had, in the 2014–2017 period, a minimum of three years of experience in implementing projects similar to those for which funding is requested;
   c. must have had past project management experience worth at least €7500 per project;
4. guidelines for monitoring and evaluating sources of financing.

Moreover, the procurement mechanism requires that services are provided through accepted standards, thereby defining the standard service package, the manner of provision, the monitoring and evaluation framework(s), and so on. Those standards were reviewed in 2016 and approved through the Ministry of Health, Labour and Social Protection, and the first call for proposals from qualifying applicants was announced on 14 August 2017.

In response, four local NGOs with experience in the field of HIV prevention services applied. Two projects were selected for funding: (i) Inițiativa Pozitivă received €47 600 to cover a total number of 718 beneficiaries (including MSM, SWs and people who inject drugs) in the central region of the Republic of Moldova from 2017 to 2018, and (ii) Tinerii pentru Dreptul la Viață received €48 000 to cover a total number of 1000 beneficiaries (only people who inject drugs) in the northern region of the country during the same period.

Evidence of impact/efficacy

The shift from global to domestic financing is of high importance, especially as the resources from GFATM for the 2018–2020 period were reduced by 40%. The reductions mostly affected the prevention programmes. Along with these challenges and changes in the external

funding landscape, the sizes of key populations have increased: from an estimated 30 200 people who inject drugs in 2014 to an estimated 36 900 in 2017; from an estimated 12 000 SWs in 2014 to an estimated 21 300 in 2017; and from an estimated 13 500 MSM in 2014 to an estimated 17 100 in 2017. Consequently, the gap between the amount of resources available for prevention and the number targeted for coverage grew exponentially. Thus, domestic financing is timely and a vital first crucial step towards the full budget coverage needed to reach the desired targets and reduce the HIV epidemic among these key populations. Despite national efforts to mobilize domestic funding, the amount of funding available is still inadequate. Leveraging domestic financing through the identification of a proper financing and procurement regulatory mechanism will make it possible to increase the access of key populations to harm reduction measures and coverage, including service provision outside the formal health system (all prevention services, including HCV, HIV and syphilis testing, are provided by NGOs). It will also contribute to the decentralization of the funding mechanism by the NHIC.

It is too early to discuss the impact of this practice, but the HIV incidence in the key population is expected to decrease because of the increased coverage of key populations with harm reduction services in the Republic of Moldova.

Sustainability

Joint approval/regulation by the MoH and the NHIC is fundamental to this practice. The NHIC is also interested in contracting NGOs active in the field for harm reduction services for HIV, and the representatives of the Republic of Moldova expect long-term implementation of similar activities. In addition, the NHIC has shown interest in funding another project for €50 000 in 2018, demonstrating its ongoing commitment for further project implementation.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA. Transition to domestic funding for a consolidated HIV response

Submitted by: Senih, Andrej[1] | Bozinoska, Elizabeta[2] | Stevanovic, Milena[3]

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Background

Up to the end of 2017, there have only been a total of 358 diagnosed cases of HIV and 83 registered AIDS-related deaths in the former Yugoslav Republic of Macedonia, underscoring the fact that it is low-prevalence country *(113)*. Studies continue to show the country has been able to prevent an epidemic among people who inject drugs *(114)*; this is probably because of the very early introduction of NSPs *(115)*, the scale-up of OST, and relatively good service coverage, thanks to decentralized services *(116)*. Similarly, services targeting female SWs are also available across the country, relying almost exclusively on service delivery NGOs, and this has a correlation with an extremely low prevalence.However, the former Yugoslav Republic of Macedonia has faced a continuous increase of HIV prevalence among MSM during the last five years, with the latest prevalence data showing 5.4% (2018)and at least 84% of newly diagnosed cases being reported in this group in 2016 *(117)*. Compared to those for the other key populations, services for MSM have been, indeed, at least brought to scale, a fact that has been outlined and addressed in a new draft national strategy until 2021.

Description of the good practice

The former Yugoslav Republic of Macedonia lost its eligibility status for GFATM national grants in 2013, based on its classification as an upper middle-income country with a low HIV burden of disease. A special working group was appointed by the MoH to oversee a series of initial analyses and consultations to transition to domestic resources with proactive support from the CCM secretariat. However, CSO advocacy emerged independently from these national-level processes to catalyse this transition.

Beginning in 2014, a civil society platform for joint advocacy was formed by all 15 HIV-programme-implementing NGOs and CSOs from across the country to ensure the successful transition from donor to national funding for HIV programmes that targeted key populations. The platform initiated a series of strategic actions, including uniform collaboration

with the MoH on developing procedures and criteria for the social contracting of NGOs under national funding, demanding and supporting processes for data gathering, budget estimations and planning of the annual national HIV programme for the years 2015 to 2018, engaging members of the parliament (including the prime minister) and initiating a public hearing in the Parliamentary Commission on Health. The platform called on the government to ensure domestic transition, allocate funding and establish a contracting mechanism for CSOs. During the four years of transition planning and work in the former Yugoslav Republic of Macedonia, civil society resorted to street actions and protests against budget cuts while engaging with media to raise the issue as a public health concern. CSOs also worked with political parties in the pre-election period at the end of 2016, which resulted in 12 of them signing a declaration of commitment to allocate national funds for sustaining the HIV response. Key factors for success were the early initiatives taken by the CCM and, independently, by CSOs, the dialogue with the MoH, working with political parties, organizing protests during critical moments and campaigning. Gathering data for budget and programme planning and for advocacy, that is, support from the GFATM, in particular with financing key studies, were also fundamental building blocks.

Evidence of impact/efficacy

By the last quarter of 2017, the state had allocated significant funds from the national budget for 2018 to atone for gaps following withdraw of the GFATM support and by requesting the MoH to develop a long-term mechanism for contracting CSOs in 2018 as implementers of the national HIV programme. This work resulted in the recognition of NGOs/CSOs as implementers of HIV services targeting key populations within a government-funded national HIV programme in 2015 and formalization of eligibility criteria and procedures for selection of CSOs as implementers of HIV programmes by the MoH in 2016. Moreover, the signed declaration of commitment by 12 political parties prior to parliamentary elections in December 2016 served as the basis for obtaining high-level political commitment on the HIV issue. Following the September 2017 decision to sustain funding, the MoH piloted the social contracting mechanism to deliver services through CSOs in the last quarter of 2017 (Fig. 40).

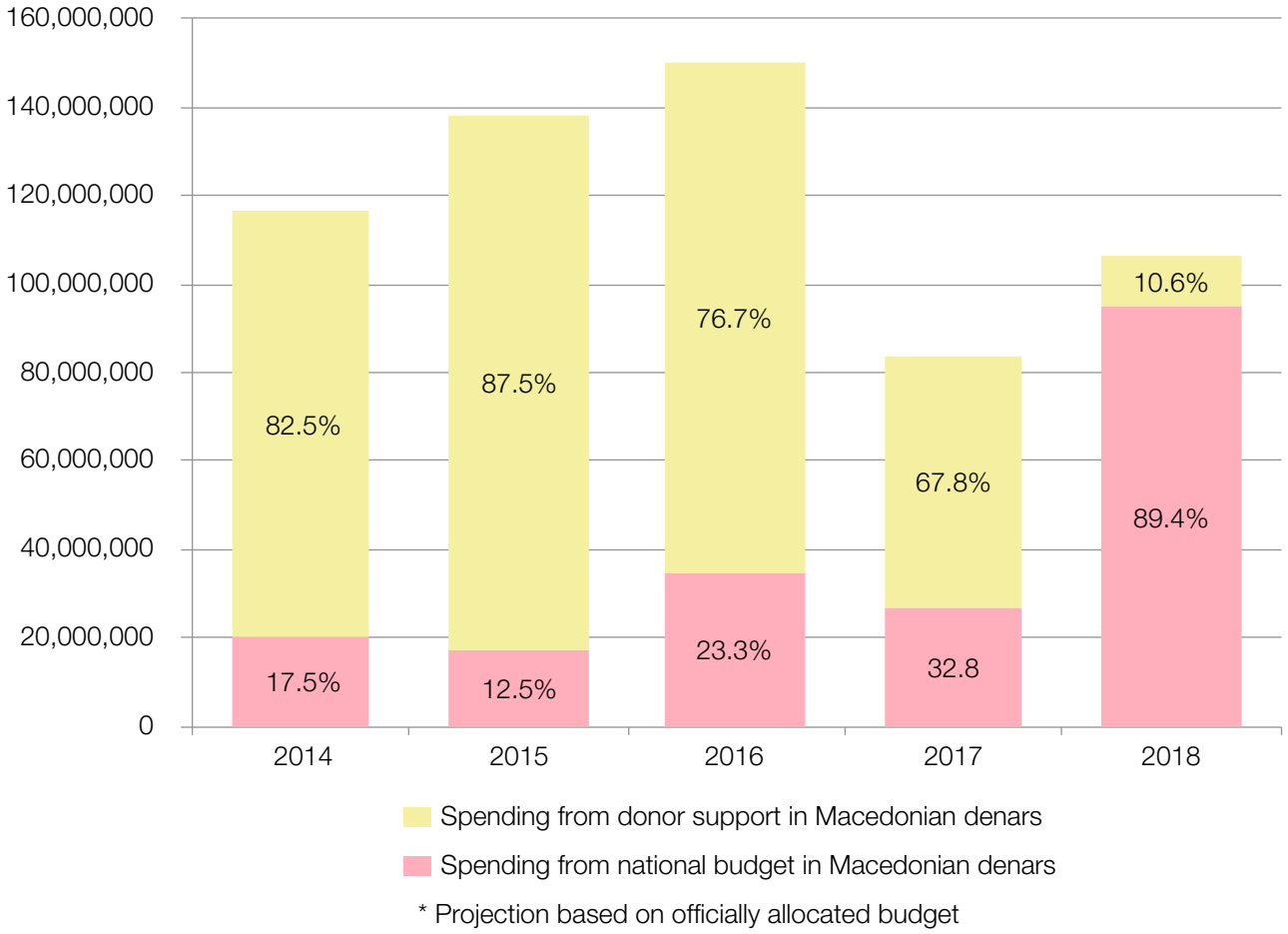
This practice ensured that more than 15 000 beneficiaries from key populations access and maintain access to life-saving services for HIV. While GFATM support was instrumental in establishing the practical base for diversified services in the HIV response, the former Yugoslav Republic of Macedonia was able to adopt these services into their own political, social and economic situation, with impressive results. The augmentation of the role of NGOs and CSOs in the development and implementation of national policies in the health sector cannot be understated. The formal recognition of CSOs in implementing health services for preventive programmes is the first example of its kind for the MoH. In 2018, the MoH signed annual agreements with all 15 NGOs involved in HIV service delivery among key affected populations *(118)*.

Sustainability

The 2018 Annual Work Plan of the National HIV Commission prioritizes the long-term initiatives to sustain the practice. NGO and CSO successes were intricately linked to sustained and trusted funding by a variety of country mechanisms. Although funding came primarily from the state budget, additional sources of funding were instrumental. The AIDS Health Care Foundation continued its support for the secretariat of HIV; this support was shared between the Health Education and Research Association (HERA) NGO and Stronger Together. The Open Society Foundations of the former Yugoslav Republic of Macedonia lead a crucial role supporting the HIV platform and financing targeted advocacy interventions. In addition, the International Planned Parenthood Foundation continued their funding of HERA for the initiation of national transition processes for the sustainability of HIV services beyond the GFATM.

With this strong start, it is expected that CSOs and NGOs will become further engaged in areas such as TB prevention and treament, and sexual and reproductive health services in the country.

Fig. 40. Annual spending of the national HIV programme in The former Yugoslav Republic of Macedonia, 2014–2018



UKRAINE. Reducing the economic burden associated with substitution maintenance therapy through expansion of dispensing drugs for self-administration

Submitted by: Kuzin, Ihor | Lyashko, Viktor | Ivanchuk, Irina

Public Health Centre of the Ministry of Health of Ukraine

Background

According to national surveillance data for 2015, there are 347 000 people who inject drugs in Ukraine. Of these, 42 247 are registered as patients suffering from "mental and behavioural disorders due to opioid use" as of 1 January 2017. Among countries in the WHO European Region, Ukraine has one of the largest burdens of HIV-related diseases. The key role in the development of the epidemic is played by key populations, among whom people who inject drugs have the highest HIV prevalence rates (about 22%), with the dominant subgroup being opioid users. Therefore, the development of HIV services provided to people who inject drugs (i.e. NSPs and substitution maintenance therapy) is of particular relevance for the country.

Description of the good practice

Substitution maintenance therapy programmes have been used and expanded in Ukraine since 2004. During more than 10 years of the programme's existence, costs related to procurement of drugs and their logistics management were fully covered by international donors, namely by the GFATM. To date, Ukraine has one of the largest substitution maintenance therapy programmes in the EECA region, and it covers 10 189 patients as of 1 January 2018. Despite the need for substitution maintenance therapy, the government only funded the functioning of service points, allocating no funds for purchasing substitution maintenance therapy drugs, and this jeopardized the sustainability and further

development of the program, owing to a decrease in donor funding.

In 2016, an active advocacy campaign was conducted with the participation of the Public Health Centre, the All-Ukrainian Network of People Living with HIV and other partners to allocate funds from the state budget for the procurement and logistics management of substitution maintenance therapy drugs. In 2017, sufficient quantities of drugs were purchased to cover the needs of all existing patients. Since the end of 2017, drug logistics management (delivery and storage) is also funded from the state budget.

Considering the long time it takes to provide substitution maintenance therapy and the fact that the majority of patients have received long-term treatment and are stable, active efforts were made during 2015 to change the regulatory framework so that drugs could be delivered to stable patients for self-administration. For this purpose, negotiations were held with the Ministry of Internal Affairs and other interested parties to change the existing regulations. The necessity of conducting negotiations with the Ministry of Internal Affairs (police forces) was due to the fact that, according to Ukrainian regulations, although substitution maintenance therapy services provision is determined by the MoH, all draft legislation should be done in conjunction with law enforcement agencies, since drug use regulations are considered to fall under the responsibility of both ministries. Previously, representatives of law enforcement agencies opposed the introduction of self-administration practices, justified by the significant risks of drug misuse and its leakage into the illicit market. In order to obtain the approval of the Ministry of Internal Affairs, active work was carried out, lasting approximately one year, by providing information and education about the implementation of substitution maintenance therapy programmes, the experience of issuing drugs for self-administration in other countries, approaches and measures to prevent misuse and proper cooperation between health care and police institutions.

At the beginning of 2016, changes to the regulatory framework came into force which made it possible to actively deliver substitution maintenance therapy drugs to stable patients, provided that certain criteria were met (i.e. having been in the substitution maintenance therapy programme for at least six months, the absence of violations of the rules of participation in the programme, abstinence from other drugs, as confirmed by the results of monthly tests for six consecutive months).

At the beginning of 2018, 64.7% and 33.5% of patients who were on buprenorphine and methadone therapy, respectively, received drugs for self-administration for up to 10 days, under the necessary supervision. Three forms of self-drug administration are now present in the country: (i) patients receive drugs from local health care centres (predominant mode), (ii) stable patients with prescription opioid dependence receive drugs in pharmacies and (iii) patients receive drugs as part of at-home hospital services in cases where they cannot visit the health care centre on a daily basis due to health concerns.

Evidence of impact/efficacy

Data from 1 January 2018 show that the proportion of patients receiving substitution maintenance therapy drugs for self-administration varies in different regions of the country. Almost all regions in Ukraine are actively implementing this practice, but the scale of its implementation has significant regional variations. It was assumed that the state funding would ensure the continuity of treatment of already existing patients. However, thanks to an active advocacy campaign, funding was obtained to ensure the continuity of treatment while expanding scope. Thus, during 2017–2018, the programme will be expanded to cover approximately 2000 additional people, an additional 20% of those already receiving treatment. When the practice of dispensing medications for self-administration was introduced, it was not expected that its introduction would happen with such haste, as a variety of opinions encountered within law enforcement agencies and even individual medical workers were common. However, over the course of two years, it was possible not only to introduce the practice of dispensing drugs for self-administration but also to significantly expand the self-administration practice, covering 64.7% of all patients receiving buprenorphine and 33.5% of all patients receiving methadone in Ukraine.

Buprenorphine:

Out of 26 regions in Ukraine (24 oblasts, Kyiv city, and Crimea), 695 (64.7%) patients receive buprenorphine pills for self-administration; some regions have reached and are approaching 100% implementation, 13 regions have a rate over 50%, and 9 are still below a rate of 20%.

Methadone:
Out of 26 regions in Ukraine (24 oblasts, Kyiv city, and Crimea), 2984 (22.5%) patients receive methadone pills for self-administration; no regions have yet reached 100% implementation, 7 regions have a rate over 50%, and 8 are still below a rate of 20%.

Sustainability

The introduction and expansion of the practice of dispensing drugs for self-administration does not require additional resources from international donors. Rather, the practice allows resources for medical institutions to be saved, thus reducing the financial burden of the state for the delivery of harm reduction programming. Considering a large burden of HIV in Ukraine falls within the key population of people who inject drugs, this practice is a timely, domestically financed, strong example for other Member States in the EECA region to consider when adjusting their national HIV programmes and policies in the future.

Change the course of the response to achieve ambitious targets

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STRATEGIC DIRECTION 5. Innovation for acceleration

EUROPEAN TESTING WEEK. A regional initiative to advocate and promote testing for viral hepatitis and HIV

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Background

The HIV in Europe initiative was instrumental in the European working group that proposed a consensus definition of late presentation of HIV infection for the purpose of facilitating efforts to understand and remedy this problem through surveillance and research in 2010 *(119)*. The definition was quickly adopted by national surveillance institutions and international public health bodies such as WHO and ECDC, and it enabled comparisons across countries, health care settings and key risk groups. It was soon evident that, in spite of improvement in the field of HIV testing and treatment across Europe, in 2012, around half of newly diagnosed HIV cases were so-called late presenters (with a CD4 cell count of <350 cells per mm3), including 30% of cases with advanced HIV infection (a CD4 cell count of <200 cells per mm3) *(120)*. This became the starting point for launching European HIV–Hepatitis Testing Week as a way to increase focus on HIV testing and thus help to reduce the proportion of people living with undiagnosed HIV and reduce the proportion of late presenters.

Description of the good practice

European Hepatitis–HIV Testing Week was launched by the HIV in Europe initiative in 2013 as a platform to help promote and increase testing and to encourage people throughout Europe to become aware of their HIV and/or hepatitis status *(121)*. Now in its sixth year, and the fourth time hepatitis testing has been included, European Hepatitis–HIV Testing Week will take place from 23 to 30 November 2018 with a pilot second testing week in May 2018 to encourage testing activities throughout the year. The ultimate goal of European HIV–Hepatitis Testing Week is to make more people aware of their HIV and/or hepatitis status and reduce late diagnosis by communicating the benefits of testing and by supporting ongoing dialogue between all partners in the HIV and hepatitis communities to:

- encourage people who could be at risk of HIV or hepatitis to get tested;
- encourage health care professionals to offer an HIV or hepatitis test as part of routine care in specific settings and conditions (in line with present European guidelines);
- support and unite organizations to scale up HIV and hepatitis testing and share lessons learnt between countries;
- make government bodies aware of the individual, societal and economic benefits of HIV and hepatitis testing initiatives and how to evaluate testing practices; and
- help end the HIV and hepatitis epidemics by preventing onward transmission to others through early diagnosis and treatment.

The week offers partners across Europe the unique opportunity to unite to increase awareness regarding the benefits of HIV and hepatitis testing. European HIV–Hepatitis Testing Week is relying on three core groups of partners to help ensure it achieves its aim: government bodies, health care professionals and CSOs. These partners may be active within the HIV and/or hepatitis fields or work with communities at an increased risk and can help ensure promote HIV and hepatitis testing and timely access to treatment as a national priority.

To participate in European HIV–Hepatitis Testing Week, organizations are asked to register on the website. Participants that sign up for the European HIV–Hepatitis Testing Week indicate that they intend to take action to contribute to achieving the aims of the testing week to increase the proportion of people who are aware of their HIV and/or hepatitis status. There is no minimum requirement for those who sign up for the testing week, and it is entirely up to the participants how the local campaign will be executed. Some of the possible activities include hosting testing week events/activities, raising awareness among key populations regarding the importance of HIV and/or hepatitis testing, lobbying government bodies on the importance of improved access to HIV and/or hepatitis testing, recruiting other organizations to sign up and helping to create a list of places in their country where individuals can access free, confidential and voluntary HIV and/or hepatitis tests. After the conclusion of European HIV–Hepatitis Testing Week, all registered participants are asked to complete a post-testing week online evaluation survey.

Unfortunately, not all countries implement a policy of ensuring timely access to free care and treatment for those who test positive for HIV and/or hepatitis. As a result, as part of the work, European Hepatitis–HIV Testing Week supports participating partners in ongoing efforts to lobby government bodies to employ health care policies that meet European guidelines, including access to treatment. In 2017, European HIV–Hepatitis Testing Week supported a joint statement developed by an alliance of key and most affected populations and regional groups and networks calling for organizations, clinics, health care providers and policy-makers to ensure access to effective, comprehensive, rights-based, safe, anonymous and voluntary HIV and hepatitis testing for everyone to promote early diagnosis and linkage to care. Additionally, since its initiation, European HIV–Hepatitis Testing Week has built a public platform on social media for participating partners to interact on the international level. The majority of European HIV–Hepatitis Testing Week participants use social media to promote related events/services; however, participants also report that they use social media to promote testing advocacy, share other testing week activities from affiliated organizations and interact with the local/international communities.

Evidence of impact/efficacy

Based on testing statistics and feedback from implementing partners, the annual evaluation of the European HIV–Hepatitis Testing Week focuses on how valuable the testing week platform and associated materials are in helping to scale up access to testing at a local level. Additionally, a dossier of evidence for HIV and hepatitis has been developed to help organizations lobby, organize and evaluate their testing activities. The dossiers of evidence are updated regularly to include data on the current state of HIV and hepatitis in Europe in addition to guidance on how partners can find and add their local and country epidemiology to make it context specific.

European HIV–Hepatitis Testing Week has partnered with NAM aidsmap *(122)* and the ECDC to create the European Test Finder *(123)*. The European Test Finder is a search engine where users can find their nearest testing centre where they can access testing for HIV, hepatitis and STIs. The aim of this service is to increase visibility and access to information on where to find testing services. In 2017, the Test Finder was available in 44 countries throughout Europe and has been translated into 16 languages.

In 2017, there were 640 partner organizations who signed up for the testing week. The majority of the partners were from western Europe (see Fig. 41). Most of the organizations in the Other category were multinational.

Additionally, of those who completed the post-testing week evaluation survey, the vast majority have reported from 2015–2017 an estimated increase in testing by at least 50% or more during testing week in comparison to the amount of testing that they conduct on a daily basis (Fig. 42).

Respondents of the evaluation survey also are asked if they target specific groups for their testing week activities. The vast majority report targeting the general population, MSM and youth; however, there have been increases in activities that are targeted towards patients with STIs, towards immigrants originating from countries with generalized HIV/HBV/HCV epidemics and towards people with indicator conditions (Fig. 43).

Since 2015, when hepatitis was added as a key focus area, the number of participants implementing combined activities for HIV/HBV/HCV has also been on the rise.

Sustainability

The HIV in Europe initiative fundraises to run the platform (webpage, materials, coordination) and secures support

Fig. 41. Geographical distribution of European Hepatitis–HIV Testing Week participants by parts of the WHO European Region (West, Centre and East)

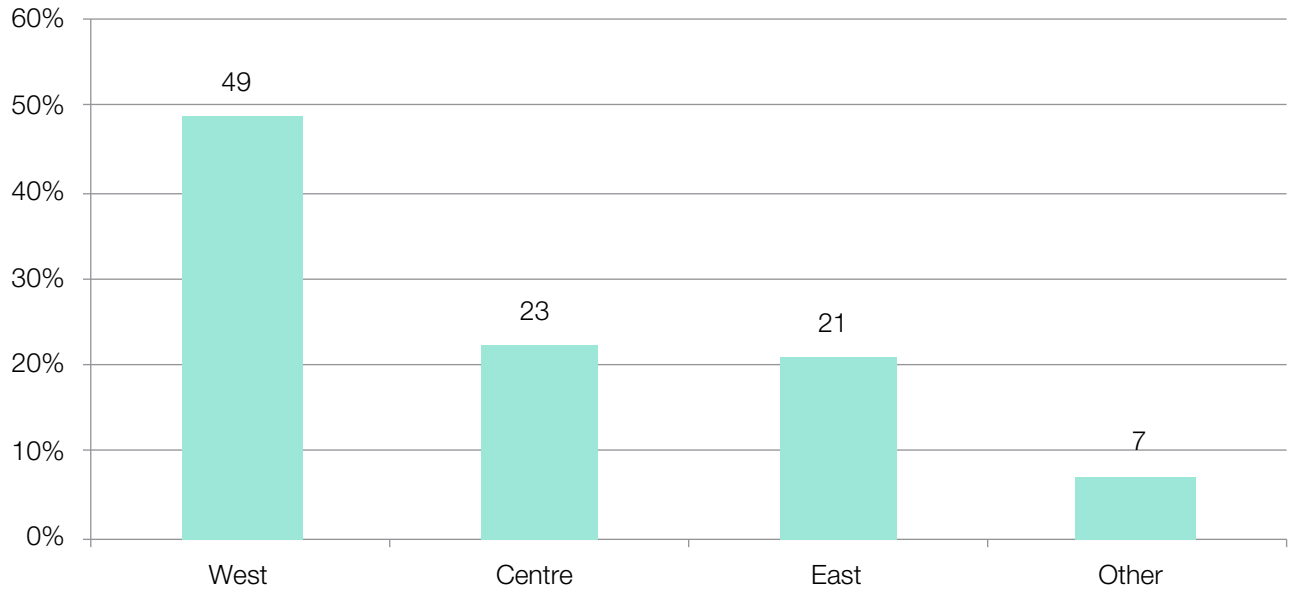
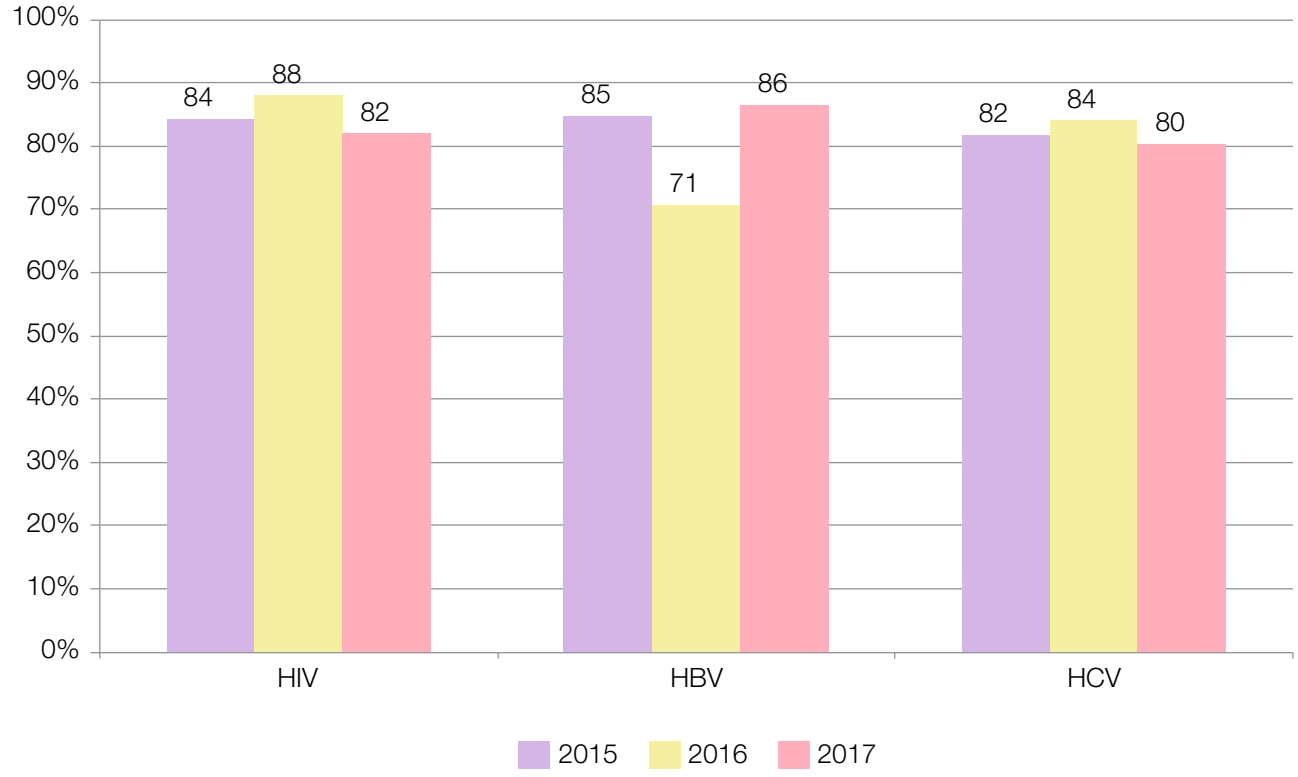
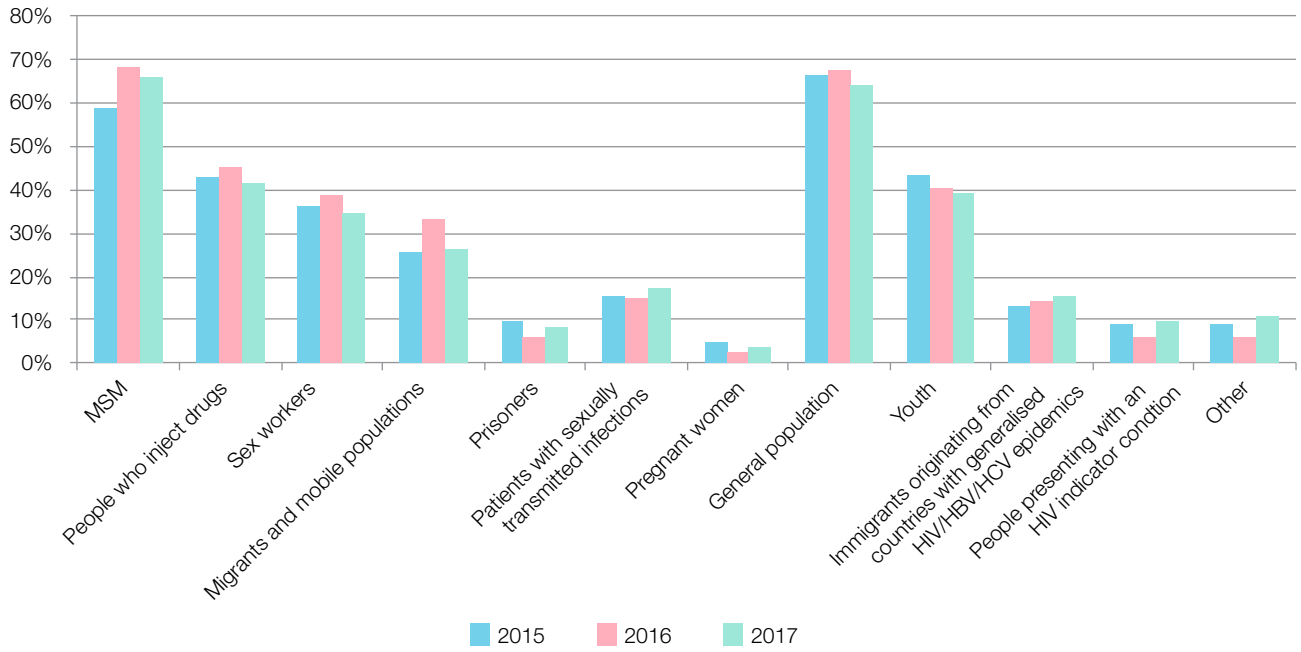


Fig. 42. Reported estimated increase in testing of at least 50% or more, 2015–2017



from private funders. Unfortunately, HIV in Europe is not in a position to offer any direct financial support to participating partners. This means that the testing and advocacy activities depend on the participants' own resources. The European Hepatitis–HIV Testing Week initiative supports participants by offering a range of template materials, ideas for testing activities, a platform for sharing experiences and a condensed compilation of the evidence and European guidelines available on HIV and hepatitis testing. In particular, Toolkit 1 outlines guidance on how organizations can raise funds for their activities through applying for grants with pharmaceutical companies or local trusts, partnering with local health providers and/or the local government,

Fig. 43. Targeted populations for European Hepatitis–HIV Testing Week activities, 2015–2017



working with NGOs and conducting local fundraising events (Fig 44). Additionally, Toolkit 1 provides guidance on how to develop applications and proposals to apply for funding. These can be found on the Materials page of the European HIV–Hepatitis Testing Week website *(124)*. The European Hepatitis–HIV Testing Week has established an internationally recognized initiative that many have come to look forward to every year. A testing week will continue to be held every year with the aim of encouraging testing, increasing serostatus awareness and reducing late diagnosis, which is a persistent obstacle for the HIV response in the WHO European Region.

Fig. 44. Cy Checkpoint, AIDS Solidarity Movement Cyprus.

GERMANY. Let's talk about sex: HIV/STI prevention in medical practice

Submitted by: Leibnitz, Mirja | Taubert, Steffen

Deutsche AIDS-Hilfe

Background

The Robert Koch Institute estimates that 12 700 people in Germany are unaware of being infected with HIV as of the end of 2016. In Germany, about half of all patients newly diagnosed with HIV are late presenters.[31] The average time between HIV infection and HIV diagnosis is about five years among MSM, and six to seven years among heterosexuals. Compared to that for MSM, the probability of late presentation for diagnosis is significantly higher for migrants (odds ratio (OR) 2.93; 95% confidence interval (CI) 2.2–3.9), heterosexuals (OR 1.51; 95% CI 1.16–1.97) and patients with unknown transmission risk (OR 2.16; 95% CI 1.69–2.77) *(125)*.

Detecting HIV may be difficult since the presentation of acute and chronic infection varies considerably. It is crucial for the timely diagnosis of HIV and other STIs that physicians deal with sexuality and sexual health in an unprejudiced manner that ensures the respect of all patients and people living with HIV. Only then will patients openly report about the health risks associated with HIV and other STIs, making it possible to administer the appropriate testing to obtain diagnoses. However, many physicians do not feel sufficiently trained for this form of communication *(126–128)*. Moreover, an evasive response by professionals to these diseases may pave the way for discrimination against the corresponding patients at hospitals and medical practices.[32]

Description of the good practice

Good communication about sexuality and transmission pathways is key for timely diagnoses of STIs, but many physicians are not adequately trained. This educational communication training programme for doctors and medical students aims to fill this gap and to counteract discrimination and stigmatization of MSM (particularly when HIV infected), SWs, their clients and other marginalized groups.

Deutsche AIDS-Hilfe (a German AIDS service organization) developed, in collaboration with national experts representing key national organizations and institutions, a continuous education programme for physicians *(129)*; this programme was later expanded to universities/medical students.

The education programme is aimed at:

- establishing and improving physician–patient communication regarding aspects of sexuality and sexual practices;
- improving the understanding of living environments of people living with HIV to counteract stigmatization and discrimination in the public health sector; and
- promoting collaboration between physicians and local HIV/AIDS service organizations as well as other counselling centres.

The content of the education programme includes:

- how to obtain an HIV/STI-related sexual history theoretically and through practice;
- identifying weaknesses in communication techniques and offering learning experiences to improve them;
- reviewing clinical knowledge, especially regarding the diagnosis and transmission routes of HIV/STIs (syphilis, gonorrhoea, chlamydia, hepatitis A/B, HPV) where necessary;
- explaining the living environments of people living with HIV and the relevant target groups for HIV/STI prevention in an easy-to-understand manner; and
- explaining the forms of discrimination (in particular, in health care).

Methods

Workshops for physicians are offered as in-house training to organizers of medical quality circles, or in relation to general practice days (regular regional meetings of physicians), at congresses or at clinics/hospitals.

[31] Defined as having a CD4 cell count <350 per mm3 or clinical AIDS (a CDC category C event) at the time of the first reported positive HIV test.

[32] A 2012 survey among people with HIV revealed that 19% of the respondents had been denied medical treatment on account of their HIV infection in the year before the survey.

Workshops usually take one and a half to four hours. The seminars comprise a theoretical further education module dealing with the diagnosis of HIV/STIs, and a practical module dealing with sexual history and talking about sexuality. Upon request, advanced modules can be added, such as communication of medical findings, female-specific issues, sex and sexuality in the ageing population(s) and dealing with HIV at the medical practice. The interactive chemsex workshops involve exercises and role play in small groups and offer opportunities to discuss personal attitudes, for example towards morally controversial topics such as promiscuity or unusual sexual practices. Physicians and medical students are introduced to different so-called *Lebenswelten* (social environments, choices and ways of living) by LGBT referees and trainers. If possible, people living with HIV are invited to the workshops for testimonials.

Scope

The project was launched in 2010 with the first workshop for physicians. Since then, 131 workshops have been conducted. The workshops are attended by an average of 14 physicians, which adds up to a total of 1833 participants throughout Germany. The workshops are most popular among general practitioners and gynaecologists.

At the medical schools of Charité Berlin, Frankfurt/Main and Lübeck, a total of eight educational courses for 70 lecturers were conducted between 2012 and 2017. The educational courses enabled lecturers to teach the education module, which is now offered at these three universities as an obligatory course that is one to three hours long. A one-day seminar (eight semester hours) has been conducted at the universities in Cologne, Dresden, Essen, Freiburg, Leipzig, Mainz, Munich, Münster, Rostock and Witten/Herdecke. The total reach of medical students in the period 2013–2017 was at least 2800.

Evidence of impact/efficacy

The evaluation of the seminars for doctors using a questionnaire completed at the end of the workshop reveals a high level of satisfaction among the participants, and the event is regarded as being highly beneficial. Altogether, 1213 questionnaires were returned, which is equivalent to a response rate of 72%; 95% of the participants rate the workshop as very useful or mostly useful for their work. The average rating given for the instructors' competence and ability to present the contents is 1.2 [scale from 1 (very good) to 5 (poor)]. The average overall rating given for the event is 1.37 (representing the period from October 2010 to December 2017).

Qualitative evaluation results of the project show efficacy and the need for physician–patient communication concerning sexuality, sexual practices and transmission pathways to improve diagnosis, treatment and prevention. Although comparable data is not available, the feedback from workshop participants shows a clear enhancement of knowledge about and willingness to conduct HIV/STI testing and to improve communication skills regarding the topic of sexuality and sexual practices towards patients.

The regularly conducted evaluations of the whole-day seminars at medical universities showed an average rating of 1.1 for the instructors as well as 1.2 for the overall seminars (scale from 1 (very good) to 5 (poor)). Particular praise was given to the interactive role play, exercises and discussions, the balance of theoretical and hands-on content, the atmosphere of open dialogue and the discussion of sexuality, which is usually lacking or completely absent in medical studies. Many medical students specifically asked for longer/more education modules on this subject area as well as more in-depth education on how to take a sexual history. At the annual conference of the German Association for Medical Education on 23 September 2017, the education module for universities was voted the "most convincing contribution to the direct improvement of patient care".

Sustainability

The development, implementation, outreach and continuation of the workshops and seminars has only been possible because of the excellent collaboration and partnership with experts from the Deutsche Arbeitsgemeinschaft niedergelassener Ärzte in der Versorgung HIV-Infizierter (German Association of Practicing Physicians Treating HIV-Infected Patients), the Deutsche STI-Gesellschaft (German STI Society), the Deutsche AIDS Gesellschaft (German AIDS Society), the German Competence Network for HIV/AIDS and the Federal Centre for Health Education, Deutsche AIDS-Hilfe. Currently, financial support from the Federal Centre for Health Education and the Private Health Insurance Association, Verband der Privaten Krankenversicherung (the primary donor), allows all workshops to be free of charge. Financial sustainability of the communication trainings targeting physicians

could be achieved by charging workshop participants in the future. The seminar module for students has been implemented in the curricula of a number of universities throughout Germany, and it is expected that more universities will implement it as part of their curricula. This ensures that the practice is maintained at university level. Additionally, the seminar structure of the teaching module for students has been added to the best-practice examples (Longkomm Toolbox) of the project for the development of a national longitudinal communication skills curriculum for undergraduate medical education *(130)*.

GERMANY. Your Health, Your Faith: HIV prevention with and for African faith-based communities in Germany

Submitted by: Gangarova, Tanja | von Unger, Hella | Petry Kababiito, Lillian | Petry, Manfred | Kazadi, Pastor Paul | Biaggiocy Ennin, Pastor Jim

Deutsche AIDS-Hilfe

Background

Migrant groups from African countries are disproportionally affected by HIV/AIDS in Germany, with about every third new HIV diagnosis given to an African person who has immigrated to Germany *(131)*. More than half of HIV new diagnoses among migrants in Germany are people from sub-Saharan African countries. Because infections are not just brought from the countries of origin but also occur in Germany, HIV prevention services must be better tailored to the needs of migrants. To date, these groups and their communities are only minimally involved in HIV prevention and research. Community-based participatory research provides a valuable tool for building capacity and enabling migrant communities to create knowledge for HIV prevention and health promotion in their (faith) communities.

Description of the good practice

Your Health, Your Faith (2016–2018) is a three-year participatory research project that aims to improve the involvement of African faith-based communities in HIV research and prevention services. The project is conducted by the National AIDS Service Organization in collaboration with partners from different African communities, African pastors, AIDS service organizations (ASOs)[33] and researchers from the Institute of Sociology, Ludwig Maximilian University of Munich.

The project participants are trained and supported in five German cities. HIV prevention trainings for African pastors have been conducted, enabling them to communicate preventive messages in a frame of church ceremonies without external support. The pastors involved in the project train other African pastors willing to become active in this filed. The trainings cover two topics: HIV-related knowledge and methods, that is, how to use the bible to enable the communication about health-related issues in African churches. The idea behind is to empower more African pastors and enable them to communicate HIV-related messages and take on more responsibility for their communities.
Teams of African activists, African pastors and ASOs have been built in each city. Together, they developed a concept for preaching preventive messages in church settings and developed scenarios for a mobile theatre group. Passages from the bible were identified to enable African key persons or the pastor to communicate preventive messages, for example:

- "My people are destroyed for lack of knowledge", Hosea 4:6 (knowledge will help us protect ourselves from HIV); and
- "Love your neighbour as yourself" Mark 12:30–31 New International Version, Matthew 22:39 (solidarity with HIV-positive people is God's will).

The main messages of the sessions are:

- get tested! (late presenters are a big problem in these German communities);
- take pills when you are sick! (some Africans living with HIV do not initiate ART because they believe that god (or praying) will cure them); and
- solidarity with HIV-positive people (don't judge, don't exclude).

As part of the events in the church, the pastor gives a sermon. Afterwards, there is an open discussion. ASOs or public health authorities are also involved in the discussion. A mobile theatre group is part of the project and can be booked by every organization or

[33] Aidshilfe Saarbrücken, AIDS-Hilfe Hamburg, Aidshilfe Düsseldorf and health authorities/public health centres in Berlin and Bremen.

church. The scenarios address HIV-related topics. The interactive approach of the pastors and the usage of supportive performative prevention methods have proven themselves; the theatrical performances enable the communication on taboo topics such as HIV/AIDS.

The project seeks to embed HIV prevention services for and with migrants into a broader concept of health promotion. HIV/AIDS is generally not the only or the most important health concern of the communities. The chance of sparking interest and starting a conversation is greater when the main concern is promoting the well-being of migrants, in relation to HIV/AIDS and beyond. A topical embedding of HIV prevention in health promotion, women's health, young people's health, pregnancy counselling and information on access to the health care system has proven helpful. The implementation of further events and media (videos, booklets, etc.) for African pastors and communities is planned for 2018.

The project believes that sensitive topics such as HIV/AIDS should be addressed in an appropriate form, especially in church settings. What is appropriate depends on the situation, the context and the participating persons. It is important in this process to find a balance between respectful communication and the overcoming of taboos. A culturally sound approach should not contribute to silence and stigmatization; instead, it should make it possible to talk about HIV and eliminate the stigma.

HIV prevention in faith-based communities is possible and promising. In 2016–2017, 30 multilingual events were held in various African churches, reaching approximately 3000 people. The number of African clients using the services of ASOs in the cities involved in the project is further reportedly increasing.

The events in churches are evaluated after each event. The pastor, the ASO and the migrant organization write a joint report, which is collected by the National AIDS Service Organization. In addition, every six months, evaluation meetings (across locations) take place in Berlin. The results of the first phase of the project were evaluated in a participatory and cross-case manner, and quality standards for prevention events in African churches have been developed.

Indicators of success include:

- contact with an African church is established through an African community member/key person with training in HIV prevention;
- an event is planned collaboratively (involving the African church, an African HIV activist/key person and a representative of a German HIV NGO or a local health authority);
- the event takes place in a church setting and is documented;
- organizers and participants evaluate the event in a positive light; and
- the partnership is expected to continue, and more events will be planned.

A video about the project (in German) is available *(132)*.

Evidence of impact/efficacy

Contacts have been established in five cities, and 30 events were jointly planned, took place and were documented. In the evaluations (oral and written), the great majority of events were considered to have been successful; in only one or two cases, problems were encountered, and it was thought that these could be resolved through follow-up meetings. The project has received requests from other African churches and pastors in Germany, with them showing their willingness to participate in the project. However, there are some limits to the degree of cooperation between African churches and ASOs: social workers cannot always take part in the weekend events, the distribution of condoms is not allowed in church settings, and the organization, implementation and evaluation of events in African churches must be financially compensated. A method of project documentation is currently being developed and will be published in order to spread the knowledge gained in the frame of the project and make it accessible and useful for others such as ASOs, other African pastors and interested African communities. It will summarize the methods used, the messages sent, lessons learnt, and so on.

Sustainability

From the beginning, long-term sustainability has been the foremost premise of the Your Health, Your Faith project and was taken into consideration in the design of the project. Efforts have been made

on-site to ensure that the findings of the project can be and are being implemented, for example through the development and stabilization of structures and networks (cooperation between African churches, ASOs and self-organized migrant organizations). These networks and structures will still exist after finalizing the project and can be used for the further development of HIV prevention for and with African communities. The project has been presented to local authorities in each of the involved cities to ensure sustainable financing at the municipal level; for example, in Berlin and Essen, the project has already been introduced to local authorities to ensure long-term financing after the nationwide model project has finished.

NETHERLANDS. 4mezelf.nl: an online sexual health intervention designed to support MSM directly after HIV diagnosis

Submitted by: Heijman, Titia | Davidovich, Udi

Public Health Service of Amsterdam

Background

Men who have just been diagnosed with HIV have specific needs concerning their adjustment to the new realities in their lives. One important aspect of adjustment relates to managing their sexual health. Recently diagnosed MSM are in the midst of adjusting to the new and very diverse implications that their HIV status has for their sexuality, including issues and implications of infectiousness and treatment, issues of self-worth, perceptions of attractiveness, romantic attachment to others, future (sexual) relationships, disclosure of the HIV status to others, STIs in relation to HIV, the need to gain new knowledge in complicated issues regarding treatment and safe sexual behaviour in the era of ART and many others. Formal interaction with health professionals, or the medicalization of social processes, is relatively undesirable for recently diagnosed MSM.

Description of the good practice

A website that addresses many of the issues recently diagnosed (less than one year) MSM deal with, placing strong emphasis on managing their sexual health was developed (see Fig. 45). The Internet provides a low-threshold and safe environment to deal with sensitive issues. This so-called safety of distance can facilitate help-seeking behaviour and disclosure, as shown in previous research. In the fragile emotional times typical after HIV diagnosis, users can benefit from the fact that they can follow the intervention at their own pace, in the comfort of their home or location of choice and with minimal disclosure to third parties or strangers in the form of medical professionals. Moreover, the Internet makes it easier to offer the intervention modules on a tailored basis. Intervention memory that knows when users logged on/off allows them pick up again where they left on their return. However, men were able to find their information in one visit only if necessary.

Fig. 45. 4mezelf advert. ©GGD Amsterdam

The content of the interventions modules was based on results from a formative qualitative study conducted earlier for this project among MSM who had recently been diagnosed with HIV *(133)*. The content of the website is theoretically grounded in the Information–Motivation–Behavioural Skills model developed by

Fisher and Fisher. The website was launched in March 2013 and is currently still running.

Evidence of impact/efficacy

By January 2014, 1535 unique individuals had visited the website, with a total of 2587 visits. From September until January 2014, the number of unique visitors was around 200 per month. In this period, approximately 120 MSM diagnosed with HIV visited and made active use of the site. Around 72 of them identified as being recently diagnosed with HIV. Since the website serves only a limited number of men (estimated 300 per year), it was mainly marketed through STI clinics and HIV clinics in the Netherlands. The website was introduced at the STI clinic of the Public Health Service of Amsterdam in March 2013 and, in August 2013, it was offered as an additional tool to other STI clinics and HIV treatment centres in the Netherlands.

A leaflet was developed and handed out by the nurse or doctor in direct contact with a man belonging to the target group (recently diagnosed with HIV). Following an evaluation of the website for usability and acceptability in 2014, access to the website was simplified to allow its use without passwords. Furthermore, links to the website were strategically integrated in existing websites for MSM, such as Mantotman and Time2test.

Website statistics showed that the main visited topics included monitoring health, and sex and relationships (the other topics were talking about HIV status, STIs and dealing with emotions after diagnosis). On average, there were 1.6 visits per unique visitor. The topics were considered to be highly useful; however, few men (n = 48) participated in the questionnaires. Although the website could be used as a one-time programme, 56% stated that they intended to visit the site again.

The programme addressed a small but important target group and succeeded in structural integration into existing websites.

Sustainability

The website has been integrated into Mantotman, Time2test, HIVnet.org and the site of the Public Health Service of Amsterdam. The website is directed to a small Dutch subpopulation (MSM recently diagnosed with HIV) but its content can be adjusted to benefit also other groups.

NETHERLANDS. Testlab: a low-threshold, online-mediated HIV and STI testing service for MSM

Submitted by: Zuilhof, Wim[1] | Davidovich, Udi[2]

[1]STI Netherlands (SOA AIDS Nederland) and Rotterdam Public Health Service; [2]Public Health Service of Amsterdam

Background

MSM comprise the population with the highest rates of HIV and STIs in the Netherlands. MSM in the Netherlands also have high rates of Internet and smart phone use, which makes them suitable for online interventions. HIV/STI testing by online interventions serves high-risk populations who might be more reluctant to go the general testing services. It provides an opportunity for anonymity, it delivers messages efficiently and users can choose their own time for testing.

Description of the good practice

Testlab is an online service for testing for HIV, chlamydia, gonorrhoea and syphilis. Testlab is built within the national online HIV and STI prevention portal for MSM, http://www.mantotman.nl.

Men visiting the Mantotman website can initiate a Testlab testing request. Once initiated, men go through initial eligibility screening online. In order to use Testlab, men must not have active symptoms of STIs, been warned by a sex partner about an STI or had sexual risk behaviour in the prior 72 hours, in line with the current national protocol. Such cases are referred to direct testing at the STI clinic for further diagnosis or the potential prescription of PEP. Men with symptoms are asked to come directly in person that day to the STI clinic to go through rapid testing and commence with same-day treatment. Non-symptomatic men who been warned by a sex partner about an STI or had sexual risk behaviour in the prior 72 hours are allowed to continue with the test.

Men who are HIV positive and only wish to screen for other STIs can opt out of the HIV test. After finishing the

online questionnaire, they receive a referral letter that they can download. With this referral letter, men can present themselves for testing in a network of testing points that are scattered around their city and are very likely to be situated in the vicinity of the clients' place of work or living area. There, after presenting their referral letter at the testing location, the local nurse will draw blood for HIV and syphilis and men will self-swab their throat and anus and provide urine to establish throat, rectal and urethral samples for testing for chlamydia and gonorrhoea.

The testing point will then send the materials to an affiliated testing lab, which, in turn, will report the testing results to the STI clinic of the Public Health Service. The appointed physician there will then determine the diagnosis and upload the results online in a secured environment. The client can then login online and retrieve the results. This was the case in 98% of the test results for 2017. This entire process takes approximately five working days for all STIs tested for, from the moment of testing at the testing point.

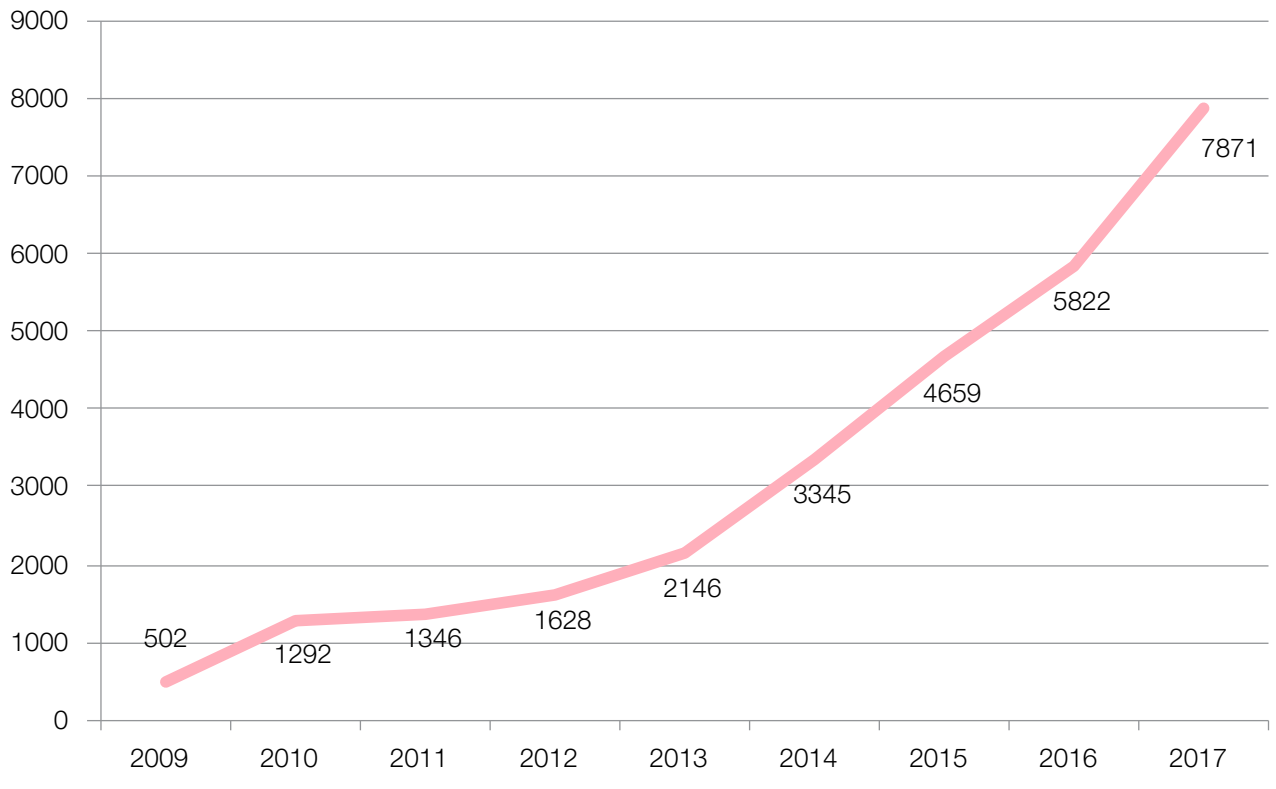
Testlab users with a positive test result are then asked to present themselves (with a provided online referral letter) at the STI clinic as soon as possible, for further diagnosis and treatment. Data for the number of successful follow-up visits following a positive test result are not yet available. Men who received a negative test result do not need to take any further action. They were successfully screened without physically seeing a doctor or having to visit an STI clinic.

Evidence of impact/efficacy

The service provides a viable alternative for the often-long queues and time-consuming visits at STI clinics and minimizes the interaction with health-providing services, as these are sometimes perceived as barriers for testing by risk groups. The service is, further, a very suitable method for STI screening among HIV-positive men. HIV-positive men who do not use condoms are advised in the Netherlands to test often (every three months) for STIs, even when there are no overt symptoms. This service offers them a quick and low-threshold way to regularly and often screen for STIs while opting out for the HIV test.

The service succeeded as a low-threshold testing service that attracts a large number of MSM for testing across the Netherlands. The total number of Testlab consultations since 2009 reached 28 611 by 2017, increasing every year (Fig. 46). The service is now offered in the regions of Amsterdam, Drenthe, Friesland, Groningen, Rotterdam, South Gelderland

Fig. 46. Annual number of Testlab consultations, the Netherlands, 2009–201



and The Hague. The service minimized personnel costs per negatively screened individual, as men who were found to be negative for STIs did not have to make use of the nurses at the STI clinics.

Sustainability

The service is offered free of charge and is integrated into the structural national STI care provided in the Netherlands. Its contribution is now seen as a viable permanent addition to the pallet of STI care options offered in the Netherlands for risk populations.

NETHERLANDS. Reducing sexual risk behaviour among youth: development and evaluation of a tailored, single-session online intervention

Submitted by: Davidovich, Udi

Public Health Service of Amsterdam

Background

In the Netherlands, half of all young people under the age of 25 years report having had sexual intercourse by the age of 19 years *(134)*. This national survey also showed that condom use among young people is low for casual contacts. One in 10 boys and one in six girls under the age of 25 years have been tested for an STI, and 5% of boys and 6% of girls for HIV. Data from STI clinics in the Netherlands show that STI rates are as high as 19.5%. The most prevalent infection is chlamydia, which is often asymptomatic *(135)*.

Description of the good practice

The intervention, the website http://www.vrijlekker.nl (see Fig. 47), was developed based on over 200 qualitative interviews conducted with youth and

Fig. 47. A screenshot from vrijlekker.nl

Source: vrijlekker.nl *(136)*.

investigating barriers to safe sex and STI screening. Based on these interviews, training modules were developed which participants could follow online. These modules aimed at counteracting the individual barriers for safe sex and STI screening as well as providing first steps in removing impeding elements in the participant's sexual network. The training was designed as a single online session aimed at inflicting cognitive change during one contact moment. The Information–Motivation–Behavioural Skills model, developed by Fisher and Fisher, was used as the theoretical basis of the intervention. The training included filmed coaches that guided users throughout the intervention, thematic films, interactive text with personal feedback and sexual network tools. The modules were offered on a tailored basis to match each user's own cognitive and behavioural risk profile, which was established via an automated online questionnaire.

Evidence of impact/efficacy

Over 170 000 unique persons used the intervention during its first year; in the years thereafter, more than 200 new users continue to do so every week.

An evaluation was conducted comparing a control group recruited online from a social media channel that was popular at the time and from an existing youth panel. This was done prior to the launch of the intervention. The intervention group was recruited later on online from several social media channels (see also Fig. 48 for the evaluation time frame). The control and intervention groups were demographically matched prior to comparison. Behavioural outcomes were compared at the six-month follow-up. The evaluation included 2944 participants, of whom 1553 completed the follow-up (mean age 19, SD 2.4).

Fig. 48. Evaluation time frame[34]

[34] The control group was recruited six months prior to the intervention launch (Time –1), and this is the time when the control baseline was measured. At the intervention launch (Time 0), the follow-up for the control group was conducted, and the baseline for the intervention group was measured. Six months later (Time +1), the follow-up measures for the intervention groups were conducted.

The intervention group had used condoms significantly more often with their most recent casual partner (OR 1.82; 95% CI 1.08–3.04) and/or with their steady partner (OR 2.17; 95% CI 1.48–3.18) than the control group at the six-month follow-up. The evaluation of the intervention demonstrated that offering adolescents and young adults a single-session intervention online which is empirically and theoretically sound and which is aimed at addressing the individual barriers for safer sex and STI screening resulted in a desired behavioural change. Usability and acceptability measures further indicated it was highly liked and used by the participants.

Some schools in the Netherlands have adopted the site as part of their routine sexual education programme. The large traffic bulk to the website and its in-depth usage point at an effect beyond the designated campaign time, which was set at one year. As a result, the intervention is continuously being offered online, at http://www.vrijlekker.nl. In addition, the success of this approach encouraged the Public Health Service of Amsterdam to further invest in the development of online and mobile representations of its services in a manner specifically designed for youth.[35]

Sustainability

The website and its automated tailored counselling features are offered free of charge and have been integrated into the structural online STI care that is provided by the Public Health Service of Amsterdam. The advantage of an automated online counselling service such as http://www.vrijlekker.nl is that the continuation of its activity requires only a minimal financial investment.

[35] Some websites are examples *(137,138).*

NORWAY. Sjekkpunkt: a low-threshold HIV testing service targeting MSM

Submitted by: Bjørnshagen, Vegar | Moseng, Bera Ulstein

Gay and Lesbian Health Norway

Background

MSM are disproportionately affected by HIV in Norway, as in other developed countries. The Norwegian Institute of Public Health reports a decrease in new HIV diagnoses in Norway of 30% since 2008. In 2017, 213 individuals were diagnosed with an HIV infection. Men accounted for 73% (*n* = 155) and women accounted for 27% (*n* = 58) of these cases. Of the 155 men diagnosed with HIV in 2017, 88 of them were MSM. MSM with backgrounds from developing countries are overrepresented in the Norwegian HIV statistics; they accounted for 60% of the MSM cases in 2017.

There is limited data on HIV testing among MSM in Norway. Norwegian data are typically based on non-representative Internet studies, and these indicate that approximately seven out of 10 MSM have ever taken an HIV test. However, there is reason to believe that the number is lower when considering probability surveys from comparable countries, such as in the United Kingdom. British population-based studies show that 50–60% of all MSM have ever been tested for HIV and that the proportion taking a yearly HIV test is considerably lower, 15–25%.

Increasing levels of HIV testing is a considerable challenge, and efforts in this respect should be as diverse as the individuals constituting this sexual minority. Based on the situation described above and inspired by similar projects in France and the United Kingdom, Gay and Lesbian Health Norway started applying for public funding of a pilot project on low-threshold HIV testing targeting MSM in 2004. After being granted funding by the Oslo municipality in 2011, Gay and Lesbian Health Norway invited major stakeholders[36] to participate in a reference group during the planning and implementation of the pilot project. The inclusion of all these relevant partners and their contributions was of great significance for the start-up of the project and its longevity. The positive impact of the project was evident for stakeholders after presentation of evaluation data approximately six months into the pilot project, illustrating the project's ability to reach the targeted population such as MSM rarely or never testing for HIV as well as MSM with backgrounds from developing countries.

Description of the good practice

Sjekkpunkt was launched in December 2012, as the first innovative low-threshold rapid HIV testing services outside the formal health system targeting MSM in Norway. As such, Sjekkpunkt contributed to an increased diversity in HIV testing services and possibly an increase in HIV testing rates among MSM in Norway. Besides HIV rapid testing, the consultations at Sjekkpunkt include conversations about HIV risk factors and behaviour change.

Sjekkpunkt is designed to address barriers in other existing HIV testing services in the formal health system, by lowering the threshold of taking an HIV test. The project targets MSM but, regardless of sex and gender identity, everyone who approaches the testing service is offered an HIV test. The low-threshold approach is ensured by availability and convenience (i.e. location, opening hours, outreach work, HIV rapid tests) and anonymity (requiring no names or social security numbers to get tested). Furthermore, Sjekkpunkt is administered by peers, in this case, other MSM, both HIV-positive and HIV-negative, working as lay service providers performing the tests/consultations. Concerning quality control, the peer workers go through a standardized training programme conducted by internal and external trainers. All volunteers are followed up on a regular basis after they start conducting tests by employees at Gay and Lesbian Health Norway.

The peer-driven approach is meant to leverage non-judgemental and non-clinical conversations about HIV risk factors and behaviour changes. The approach also makes access to MSM or men-only venues easier, where Sjekkpunkt offers HIV testing, such as gay saunas and sex clubs. This is part of the project's outreach component, in addition to monthly testing at hotels in other major cities in Norway outside the capital Oslo. Sjekkpunkt also offers monthly HIV testing at gay bars, clubs and cruising areas and weekly testing at a gay sauna in Oslo. Besides this, Sjekkpunkt provides drop-in testing at the main office of Gay and Lesbian

[36] Including the Norwegian Institute of Public Health, The Norwegian Directorate of Health and the Infectious Diseases Ward and the Department of Microbiology at Oslo University Hospital, as well as the Olafia Clinic, Norway's largest sexual health clinic.

Health Norway in the Oslo city centre (open Monday to Saturday).

The testing service aims to be as neutral and discrete as possible, by not having an LGBT profile and having no pronounced indications of being a place for HIV testing, with all the possible connotations this might entail. For example, the main testing site is located in a building with other organizations and companies, and a visit to the building therefore does not imply that you are there to take an HIV test. Neutrality, discretion and anonymity might be attractive features for hard-to-reach groups, such as men who have sex with both men and women, and MSM who are not open about their homosexuality. The testing service is marketed on neutral digital spaces, such as Facebook and Google AdWords, to reach MSM not identifying with the LGBT community or MSM who otherwise do not interact on gay social media where the testing site is also marketed.

The aforementioned strategies, with the combination of being present at gay venues and gay social media as well as aiming for a neutral profile with anonymous testing spaces, were chosen to address possible barriers to HIV testing and to recruit openly gay and bisexually identified MSM as well as more hard-to-reach groups to HIV testing.

Evidence of impact/efficacy

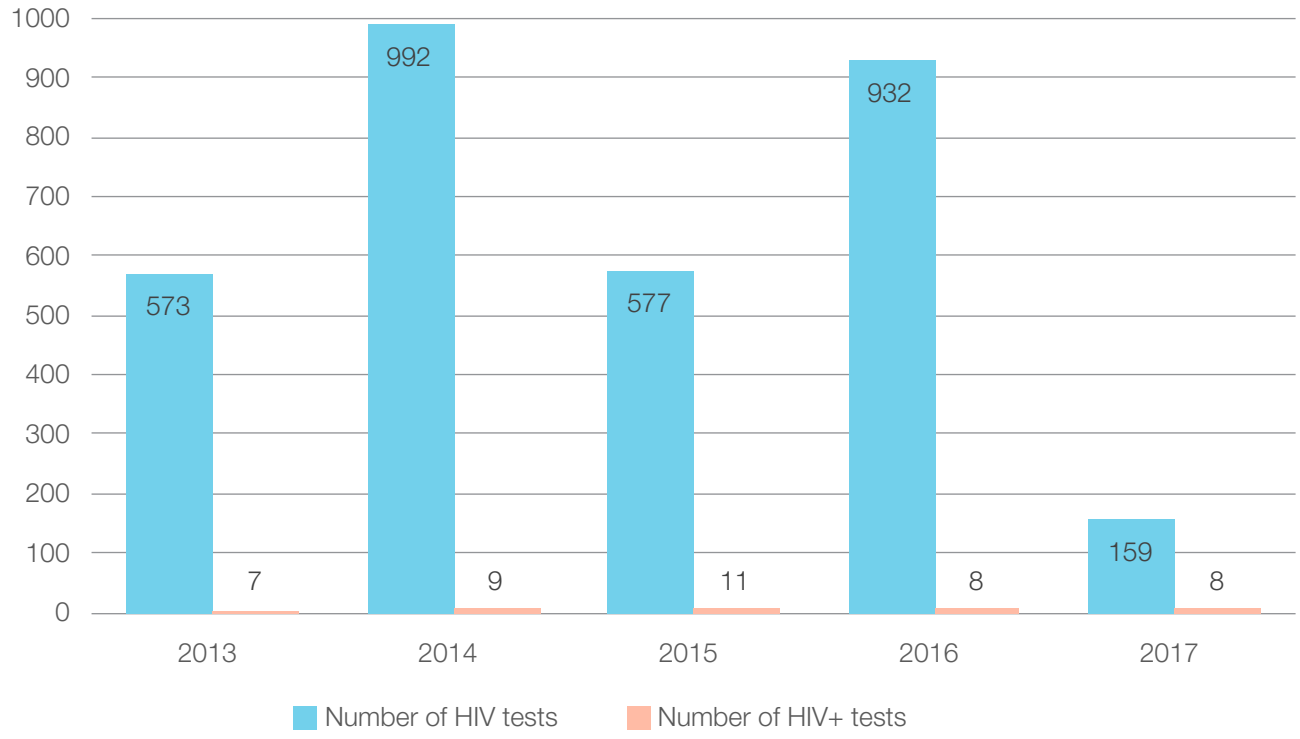
Since Sjekkpunkt was launched in the end of 2012, the number of HIV tests conducted at the testing service has increased on a yearly basis (Fig. 49).

The number of positive HIV tests per year diagnosed in Sjekkpunkt (Fig. 49) represents 7–15% of the HIV cases among MSM in Norway in this period. Individuals receiving a positive HIV test at Sjekkpunkt are linked to care at the nearest infectious diseases ward. In 2017, seven of the eight individuals testing positive were confirmed linked to care.

All users of Sjekkpunkt are asked to participate in an anonymous survey. Results from this survey are used to evaluate the testing service. Approximately 2.5% of the users of Sjekkpunkt are not from the MSM group (i.e. they are women, or men who only have sex with women). Data from 2017 describing the HIV testing history of MSM users[37] at Sjekkpunkt found that 16%

[37] The sample is restricted to men reporting ever having had sex with another man and not having visited Sjekkpunkt more than once during 2017 (n = 997).

Fig. 49. HIV testing data from Sjekkpunkt, Norway, 2013–2017



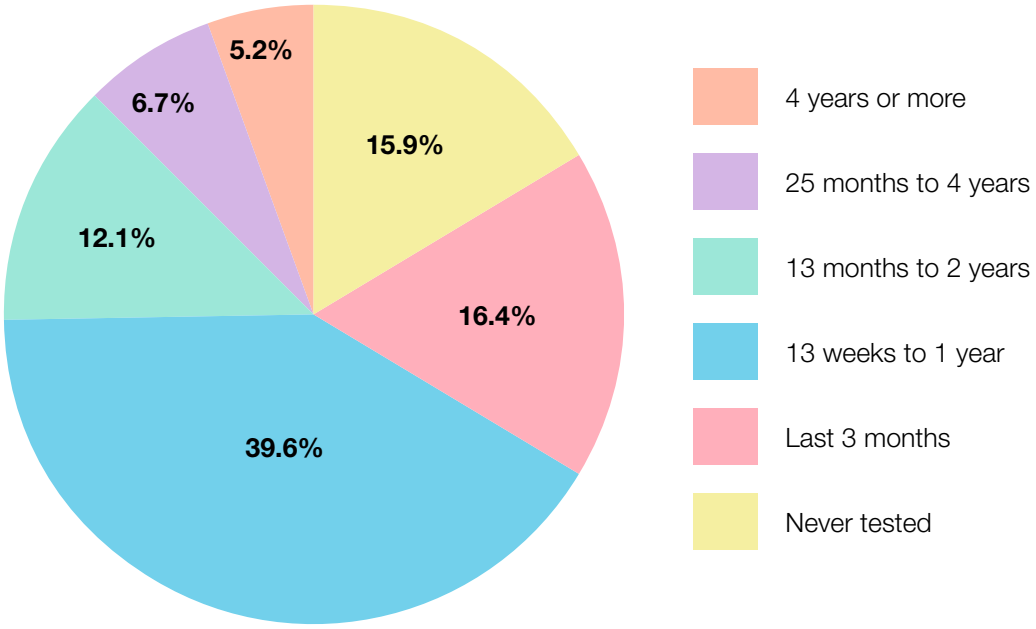
had never been tested and that 40% had not been tested within the last year (Fig. 50).

Sustainability

Sjekkpunkt is funded by the Norwegian Directorate of Health and the Oslo municipality, and maintenance of the testing service is dependent upon a continuation of this example of a successful cooperation between civil society and the public sector.

The sustainability of Sjekkpunkt also requires continuous collection and analysis of user data on sexual behaviour, sexual orientation, HIV testing history, alcohol and drug use, and so on, to evaluate whether the testing service reaches the intended target groups. This is done using a questionnaire including validated measures tested in representative studies regarding sexual health, such as the National Survey of Sexual Attitudes and Lifestyles (Natsal), the National Health and Nutrition Examination Survey (NHANES) and The National Longitudinal Study of Adolescent to Adult Health (Add Health).

Fig. 50. HIV testing history of MSM at Sjekkpunkt, 2017



SPAIN. The DEVO Network: a community-based initiative

Submitted by: Fernàndez-López, Laura[1,2] | Rifà, Benet[3] | Mansilla, Rosa[3] | Colom, Joan[3] | Casabona, Jordi[1,2] | [4]The DEVO Network Group

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Background

In Spain, the trend in the rate of new HIV diagnoses has remained relatively stable in recent years, with an estimated 9.44 cases per 100 000 population in the year 2015. Sexual transmission between MSM represents 53.6% of new diagnoses and increased from 47.5% in 2009 to 56% in 2015. Late diagnosis represented 46.5% of new cases in 2015, and 27.1% of them were diagnosed with advanced disease *(139)*.

Prevention and early diagnosis and treatment thus comprise the main strategy to reduce the impact of the HIV epidemic. CBVCT services are considered an effective tool for HIV testing, especially for key populations *(86)*. These centres offer their services outside of conventional health centres, on a voluntary basis and with the active participation of the community both in the design and in the implementation of interventions and strategies. These types of centres

generally operate on their own premises or through outreach interventions (e.g. on the street, in saunas or in leisure areas).

Description of the good practice

In 1994, the Catalan Health Department (currently, the Catalan Agency of Public Health; ASPCAT) funded a network of CBOs to offer free, voluntary and confidential HIV testing in the region. The purpose of this programme, the DEVO Project, was to complement existing facility-based HIV testing. The DEVO Project has since then expanded from six CBVCT services to the current 12, mainly operated by NGOs and serving various populations. While a few organizations specifically target MSM, SWs, young people or people who use drugs, most sites serve all vulnerable groups and people at risk. The counsellors have been trained on a peer-led basis to perform and interpret rapid HIV/syphilis diagnostic tests with finger-prick blood samples. The centres of the network are all CBVCT services, providing HIV testing through community and outreach services and by trained lay providers. In addition to providing HIV testing, most organizations affiliated with the DEVO Project conduct additional HIV prevention activities.

The DEVO Project has been collecting harmonized and systematic data on activity, process and results since 1994. The CBVCT sites use a web-based data entry tool through which data can be analysed and disseminated in collaboration with the Centre for Epidemiological Studies on HIV/STI of Catalonia (CEEISCAT) as part of the Catalan Agency of Public Health. For monitoring and evaluation purposes, the network currently uses the standardized core indicators defined in HIV-COBATEST (http://www.cobatest.org), aligned with UNAIDS, WHO and ECDC recommendations. The indicators allow evaluation of service activity and comparison with services in other countries which use the COBATEST tools.

Anonymized data is extracted and analysed by the Centre for Epidemiological Studies on HIV/STI of Catalonia and forms part of HIV surveillance in Catalonia. The data collected in the DEVO Project includes basic demographic data of the tester, location of the test, history of testing, results of HIV testing, syphilis testing and soon also HCV testing. Services in the DEVO Project use a unique identifier for each client, which makes it possible to determine the number of people tested.

Evidence of impact/efficacy

The DEVO Network makes it possible to collect standardized data on each person tested in the CBVCT services. The information collected can be analysed and disaggregated by sex, age, population group, risk behaviours and previous HIV test history. The data collected complement strategic information about some key populations and thus makes it possible to improve prevention HIV strategies addressed to these key populations. The continual monitoring performed by the DEVO Network enables improved public health decision-making in the Catalan Public Health Agency by detecting any changes in HIV testing uptake, in HIV tester' profiles or in HIV test-seeking behaviours.

From 1995 to 2016, the number of HIV tests performed in Catalonia annually increased, from 716 to 12 371 overall (Fig. 49). The replacement of traditional tests with rapid HIV tests in 2007 allowed for the expansion of testing in the community. The DEVO Network succeeded in scaling up HIV testing of key populations, with the number of tests performed in the following year increasing to 103% of the previous number of tests (140). The DEVO Network has also been shown to be successful in providing testing to at-risk populations: 70.7% of people tested were MSM, 6.6% were SWs, 0.5% were people who inject drugs and 38.2% were migrants.

The use of an anonymous unique identifier[38] in the network made it possible to determine the number of persons tested (9815 in 2016) as well as number of tests. Of the people tested in 2016, 2.2% had a positive test (Fig. 51); of these, 91.7% were referred for a confirmatory HIV test (all of whom had a confirmed positive test), and 98.0% were linked to care.
Continual monitoring by the DEVO Network enables improved public health decision-making in the Catalan Agency of Public Health. Currently, the DEVO Project diagnoses around 20% of all HIV cases reported in Catalonia, suggesting that CBVCT services comprise a valuable element of the strategy to increase HIV testing in Spain.

The longstanding experience of the DEVO Network in Spain was presented as an example of a successful approach for monitoring community-based testing in the meeting report Monitoring of HIV testing services in

[38] From 2014, the anonymous unique identifier used is the one suggested by the COBATEST Network: one digit for the sex, eight digits for the birthdate, plus the number of older brothers, the number of older sisters and the initial of their mother's name.

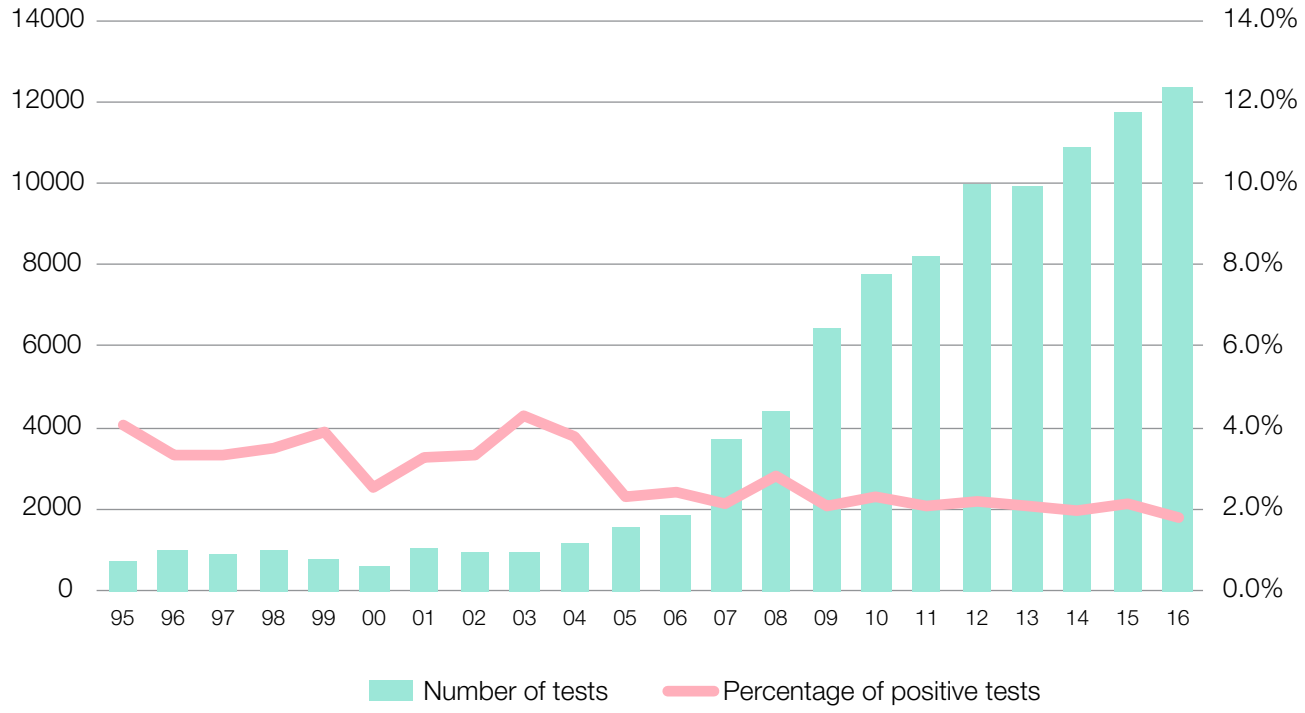
the EU/EEA, which was organized by the ECDC *(17)*. The DEVO Network was also presented as an example of a good practice in the WHO document Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach *(5)*.

Owing to the good performance of the DEVO Network and the positive results described during the years the network has been active in Catalonia, the Regional Office for Europe implemented a project following the DEVO Network model, to integrate different CBVCT services across Europe, creating the COBATEST Network in 2009.

Sustainability

The DEVO Network is supported by the Catalan Public Health Agency, supporting partially the CBVCT services and purchasing the HIV tests. The sustainability of the DEVO Network is further linked to the sustainability of the CBVCT services.

Fig. 51. DAVO Network: number of HIV tests and percentage of positive tests, 1995–2016



SWEDEN. Hiv idag [HIV today]: a national campaign to increase awareness, promote testing and reduce stigma

Submitted by: Mannheimer, Louise | Wallin, Malin

The Public Health Agency of Sweden

Background

In Sweden, more than 7000 people live with a diagnosed HIV infection. In 2016, 430 cases of HIV infection were reported. In the last five years, on average 447 new cases of HIV have been reported each year; of these, 60% are men. The number of reported cases of HIV in which HIV infection has been transmitted in Sweden has decreased over the last five years, mainly among MSM. However, the majority of cases in Sweden are still reported among MSM. The number of HIV infections reported among injecting drug users has remained low over the last five years but increased slightly in 2016. The increase is mainly seen in the major cities, in both men and women. Of the total number of cases, approximately 75% are foreign-born persons, most of whom have been HIV infected prior to their arrival in Sweden in countries with a higher prevalence of HIV. Where the HIV infection was transmitted outside Sweden, the transmission of HIV through heterosexual contact was reported in the majority of cases.

The preventive work in Sweden is based on the national strategy against HIV/AIDS and certain other communicable diseases *(141)*. One of the main objectives in the strategy is to improve the awareness about HIV in the public sector, in workplaces and in the general population. HIV is covered in the Swedish law on infectious disease control, and testing and treatment is free of charge for everyone.

The Public Health Agency of Sweden is the national coordinator of the national HIV prevention, a task that also includes undertaking actions aiming to reduce the stigma and discrimination associated with the infection. National surveys show that the knowledge about HIV and the living conditions of people living with HIV in Sweden

Fig. 52. Campaign image- HIV i dag, Swedish. ©Emilia B. Jimenez/Söderberg Agentur

in the general public is relatively low (142). Another study showed that people living with HIV in Sweden are afraid to talk openly about the infection, because of the risk of negative reactions. The physical health among people living with HIV is good, but the mental health is worse than in the general public, due to the stigma related to HIV *(143)*.

Description of the good practice

Within this framework, in 2015 the Public Health Agency in cooperation with local councils and CSOs developed a national information campaign about HIV in Sweden targeted towards the general public and health care staff. The Public Health Agency ran a media campaign with information targeted towards health care staff. As part of the information campaign, local activities in the regions and CSOs were also funded. Activities funded in regions and by CSOs were in many cases educational activities towards health care staff, such as, for example, web trainings.

The campaign message was:

Living with HIV in Sweden today is not like it was yesterday. The treatment of HIV is now so effective that it can reduce virus levels to practically zero and minimize the risk of transmission. Today, HIV is no longer a fatal disease but a chronic, treatable infection. With prompt intervention, you can expect to live for as long as you would have done without HIV.

Activities organized by the Public Health Agency to target the general public were:

- a media campaign via digital and print media at national, regional and local levels;
- an advertising campaign using social media (Facebook, YouTube, Grindr) and advertising in the local public transport system; and
- a website with in-depth information in 12 languages (http://www.hividag.se/).

Activities organized by the Public Health Agency to target health care staff were as follows.

Fig. 53. Campaign image- HIV i dag, English. ©Emilia B. Jimenez/Söderberg Agentur

- All primary health care centres, child care centres, dentists, school nurses and youth clinics received information in advance about the campaign, including training material for the staff.

- A special website for health care staff was created with up-to-date information about HIV and the living conditions for people living with HIV in Sweden today *(144)*.

Activities organized by CSOs and local councils, funded by the campaign, were as follows.

- Organizations were invited during the creational process of the campaign and also received funding to work with the key message of the campaign in their own target groups, such as MSM, migrants and people living with HIV.

- County councils also received funding earmarked for running local activities, such as holding trainings for health care staff, advertising in the local public transport and holding events in cinemas and train stations to target the general public.

Evidence of impact/efficacy

The media campaign ran from 1 November 2015 until 31 December 2017. During this period, the website http://www.hividag.se had a total of 152 126 unique page views. The campaign films were seen 5.6 million times, and 5 million interactions (clicks, shares) were undertaken with the campaign units. Evaluations made by the opinion institute, Novus Group International AB, show that the media campaign worked well, despite it addressing a complex subject. This external evaluation showed that 44% of the general population had seen the campaign, and seven out of 10 respondents stated that it had made a positive impression. Seventy-nine per cent reported that it was credible, and 78% found that the purpose of the campaign was clear. Seventy per cent believed that the campaign was relevant, and 57% stated that they liked it. Approximately 52% reported that it improved their knowledge, and 33% replied that the campaign made them actively update their knowledge about HIV (Novus Group International AB, unpublished/internal report). The efficiency of the campaign targeting the health care was measured through focus groups in a few areas, and the knowledge was found to be low. Thus, this area needs to be developed further.

Sustainability

Additional funding was provided to CSOs and local governments during 2016 and 2017 to continue using the campaign messages. Websites are still functional but will be closed down during 2018, owing to copyright issues.

TAJIKISTAN. Implementation of HIV testing and counselling services via NGOs

Submitted by: van Dam, Anke | Ibragimov, Ikram | Dilshod, Pulatov | Davlyatova, Zarina

AIDS Foundation East–West (AFEW)

Background

Tajikistan is one of the countries where the prevalence of HIV has increased by more than 25% over the last 10 years. Tajikistan is at the early stage of an HIV/AIDS epidemic, with an estimated 16 000 people living with HIV at the end of 2016. In 2017, 346 new cases of HIV (29%) out of a total of 1207 new cases of HIV infections were officially registered in Khatlon Region; in this area, since 2010, new HIV infections have increased by 23%, and AIDS-related deaths have decreased by 5%. Key populations in Tajikistan include prisoners, SWs, MSM and people who inject drugs. Migrants, children and women of reproductive age are also considered vulnerable groups by the Tajik National AIDS Programme *(145)*.

As part of its response to HIV, Tajikistan is planning to increase the coverage of harm reduction services, scale up HIV testing among its population and increase the number of people living with HIV who get treatment. Prevention, treatment, care and support are where NGOs can leverage strength in the HIV response. In 2015, AFEW in Tajikistan (AFEW-Tajikistan) began the advocacy process of introducing community-based HIV testing and counselling services managed by medical specialists from NGOs.

According to Tajikistan's MoH, 361 public organizations (i.e. NGOs) are registered in Khatlon Region; of these, 13 organizations regularly implement HIV prevention projects. Of these organizations, three are represented by the community of people who use drugs and people

living with HIV, and the remaining 10 organizations are represented by specialists committed to the fight against AIDS. The average number of years of experience held by the HIV service community organizations in Khatlon Region is 11, with the beginning of work taking place in 1996 and the recent registration of an NGO in 2013.

Despite the favourable legal environment and access to external financial support until 2015, NGOs providing HIV services faced technical and organizational difficulties in the practical implementation of pretest and rapid HIV testing and counselling (HTC) services, as they did not have full information on the procedure for obtaining a license, had no medical personnel trained in HTC and did not have the appropriate technical capabilities. According to the Republican AIDS Centre, as of 1 January 2015, no public organization in Tajikistan had a permit to independently provide pretest counselling and rapid HIV testing services.

Description of the good practice

In preparation for community-based testing, AFEW-Tajikistan conducted a series of consultations with representatives of HIV service organizations, the Republican AIDS Centre and UNAIDS. The introduction of community-based testing in Tajikistan demanded a process of consulting different stakeholders and developing an advocacy strategy.

Before applying to the MoH for a permit to provide pretest counselling and rapid HIV testing services, AFEW-Tajikistan received questions from the Regional and Republican AIDS Centres on the feasibility of introducing community-based HTC services. An appropriate motion was also received from UNAIDS country office in Tajikistan. AFEW-Tajikistan then prepared an analytical background paper on the importance of introduction of community-based HTC services. After lengthy negotiations, on 30 September 2015, the MoH, by Order No. 832, allowed the introduction of community-based HTC services not just from AFEW-Tajikistan but from all HIV service NGOs in the country.

Two staff members from AFEW-Tajikistan passed post-diploma courses for providing HTC services; an HTC point was then organized and equipped in Khatlon Region, and the first batch of rapid HIV tests was purchased. On 1 December 2016, in Qurghonteppa, the first HIV voluntary counselling and rapid testing point opened at the Representative Office of the AFEW-Tajikistan in Khatlon Region, where key populations are already provided with direct services. The number of people who inject drugs is high in Khatlon Region, as it is intersected by one of the primary routes of Afghan drug trafficking. People who use drugs are the main key population that AFEW-Tajikistan works with.

In 2017, AFEW-Tajikistan decided to share its experience with its partners. AFEW-Tajikistan was able to replicate its practice in other regions of Tajikistan through the education of partners, and effective knowledge sharing. AFEW-Tajikistan conducted two regional working meetings in Sughd Region and Khatlon Region, respectively, to introduce methods to implement community-based HTC points for 60 representatives of state, public and international agencies from three regions of the country. In cooperation with the State Institute of Post-Diploma Education for Medical Workers, AFEW-Tajikistan organized two-week courses for 10 representatives of five NGOs which intended to organize community-based HTC points. AFEW-Tajikistan additionally supported NGOs in the construction of premises, provided technical equipment for HTC points and provided training and staffing for the NGOs.

As a result, on 1 December 2017, three new voluntary HTC points, run by three public organizations, were opened in different regions of Tajikistan: Vita, in Dushanbe; SVON Plus, in Kulob; and Amali Nek, in Khujand.

AFEW-Tajikistan widely shares its experience and supports the organizations that are willing to provide HTC services for key populations on the premises of their NGOs. On AFEW-Tajikistan's website *(146)*, visitors may learn about the addresses of HTC points and familiarize themselves with monthly updated results of HTC services provided by NGOs. NGOs may find the flow of documentation for HTC points and regulatory/legislative information which will support the opening of community-based HTC sites. Using the experience and success of AFEW-Tajikistan on the implementation of community-based HTC services, the USAID Flagship program on HIV/AIDS also began to introduce salivary express testing, to be implemented by Tajik NGOs.

Evidence of impact/efficacy

By 1 April 2018, in four voluntary HIC points, 930 persons in key populations and residents of six regions of Tajikistan used the community-based HTC services,

including 547 (58.8%) men and 383 (41.2%) women. The age of clients ranged from 18 to 56 years.

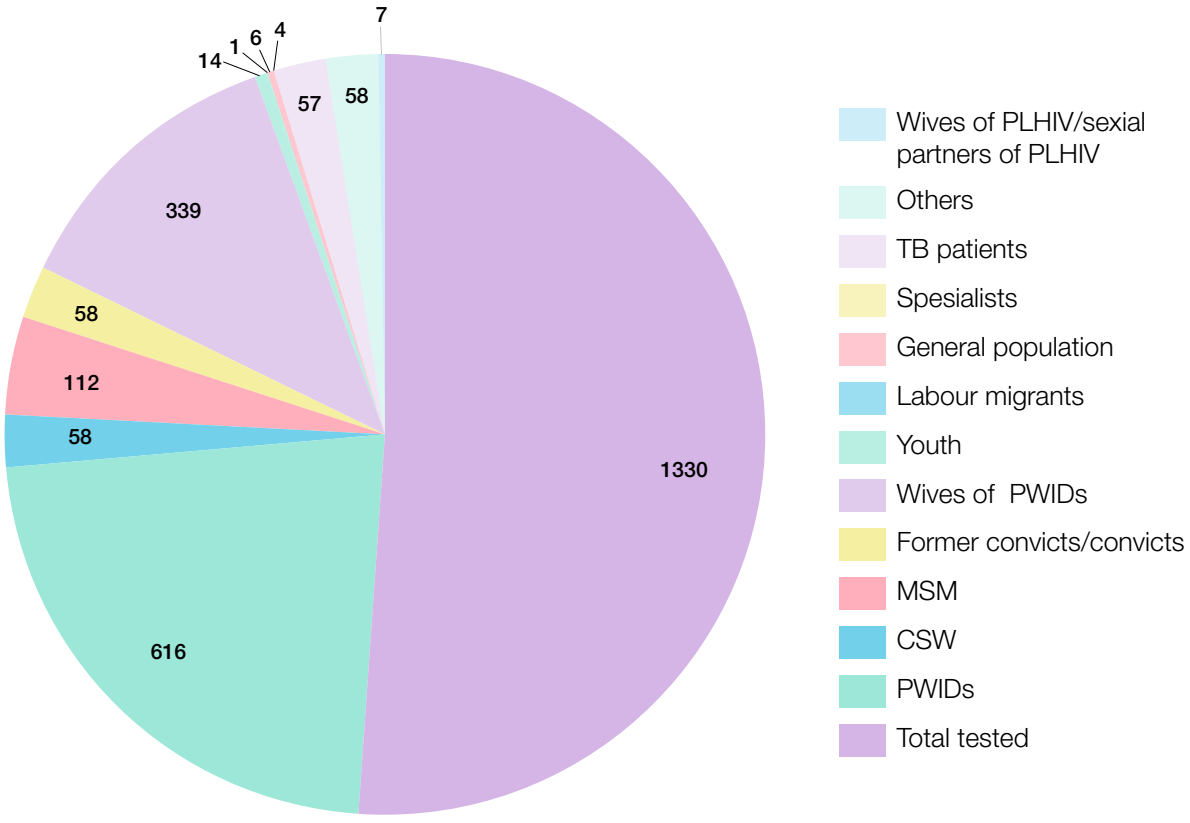
Out of 930 clients, 350 (37.6%) were people who inject drugs, 261 (28.06%) sexual partners of people who inject drugs, 96 were (10.32%) MSM, 51 (5.5%) were SWs and 46 (4.9%) had formerly been incarcerated. The rest, 126 (13.5%) people, included TB patients, medical specialists, law enforcement officers, and so on (Fig. 54).

Out of 930 people tested, 13 (1.4%) were determined to be HIV-positive; of these, eight were reconfirmed HIV cases, and five (four men and one woman) were newly detected HIV cases. All five of the new cases were representatives of key populations: MSM and people who inject drugs.

Sustainability

The main achievement and sustainable result of this practice is that NGOs in Tajikistan now have the legal framework to provide community-based HCT services which have been approved and certified by the government of Tajikistan. The community-based provision of HIV testing requires funding that is so far provided by project-based financial resources. The current activities allow continued advocacy for effective and sustainable mechanisms of funding for community-based HTC through state funding in the future. As such, both the National Health Strategy and the National AIDS Programme recognize the importance of the involvement and cooperation of the state health sector with civil society and NGOs. Although larger population sample sizes may improve the efficacy of the practice, it may be particularly efficient to help local governments establish procedural regulatory frameworks for the implementation of further HIV service NGOs and HTC sites in the country, which bears a large proportion of people who inject drugs, as well as other key populations.

Fig. 54. Number and characterization of persons tested in NGOs



PWID: people who inject drugs.

UKRAINE. Patent interventions aimed at increasing access to HIV and HCV treatment

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All-Ukrainian Network of People Living with HIV/AIDS

Background

There were 240 000 (220 000–260 000) people living with HIV in Ukraine in 2016; of these, only 37% (34–40%) were reported to be accessing ART *(147)*. Progress towards the second UNAIDS 90–90–90 target and increasing the number of persons on ART has been slow, owing to pharmaceutical patents. Three of the most common ARV medicines in Ukraine, lopinavir/ritonavir, abacavir and tenofovir/emtricitabin/efavirenz, as well as dolutegravir,[39] were therefore procured without competition among pharmaceutical companies. This was the same for HCV treatment, which few persons in Ukraine had been able to access.

Description of the good practice

To increase access to HIV and HCV treatment, since January 2015 the All-Ukrainian Network of People Living with HIV/AIDS started actively addressing the limitations posed by patent medicine exclusivity. Within the last three years, a number of positive results in this sphere had been achieved.

Dolutegravir (HIV)

Since 2015, the Network initiated active negotiations about possibility of entry of dolutegravir generics to the Ukrainian market. The negotiations included letter correspondence and meetings with patent-holder representatives. As a result, on 25 April 2016, the Medicines Patent Pool (MPP) and ViiV Healthcare announced the extension of the MPP dolutegravir license to Ukraine.

Tenofovir/emtricitabine/efavirenz (HIV)

On 15 February 2016, the Network organized a meeting entitled Regarding Provision of Uninterrupted Access to ARV Treatment, with the participation of major originator *(148)* pharmaceutical companies, international and patient organizations. The Network outlined at the meeting that generic substitution is one of the key ways to provide uninterrupted access to ART in 2016–2018 and continues working on all flexibilities provided by the TRIPS agreement *(149)* to achieve 100% coverage of ARVs in Ukraine. In particular, after the meeting, the Network and the pharmaceutical company-initiated negotiations regarding the tenofovir/emtricitabine/efavirenz patent. During negotiations with one pharmaceutical company, the Network repeatedly emphasized that patent monopoly on tenofovir/emtricitabine/efavirenz is unjustified, as the tenofovir/emtricitabine/efavirenz patent does not comply with patentability requirements and was opposed in other countries. As a result of negotiations, the Network received a non-enforcement letter, which was dated 1 September 2016, from the pharma company; since then, tenofovir/emtricitabine/efavirenz generics have been procured in Ukraine.

Abacavir (HIV)

In 2015, the Network prepared a patent opposition warning to the existing abacavir patent. Later in 2015, the Network submitted a letter to the respective pharma company requesting generic access in Ukraine. On 4 January 2016, they received a negative response for the generic importation of abacavir and abacavir/lamivudine. In response, on 15 February 2016, the Network raised a question during a meeting about the possibility of generic substitution of ARV medicines and, in particular, their compulsory licensing. At this meeting representatives of the respective pharmaceutical company's Ukrainian representatives and ViiV Healthcare Regional Office were present, and they expressed concerns regarding potential compulsory licensing of ARVs in Ukraine. On 25 April 2016, the global headquarter of the company announced increased programming and support for lower- and middle-income countries (LMICs), and the MPP and ViiV Healthcare subsequently announced the extension of a dolutegravir license to LMICs, including Ukraine. The Network submitted a new request to the company requesting extension of the MPP license on abacavir and abacavir/lamivudine in the country and, in time, received a non-enforcement letter from the pharma company regarding abacavir-related products.

[39] In May 2018, WHO issued a statement concerning a potential risk of neural tube defects in infants born to women taking dolutegravir at the time of conception (59). As more countries have scaled up ART optimization efforts and include or plan to include dolutegravir-containing regimens in their national protocols as the preferred first-line option, WHO issued a briefing note in April 2018 on the clinical advantages of and programmatic information about the new fixed-dose combination tenofovir/lamivudine/dolutegravir (60). Additional and diverse analyses are planned for July 2018 to expand on the original data, which originated from a single country.

Sofosbuvir and sofosbuvir/ledipasvir (HCV)

Since the beginning of 2015, the Network submitted several claims to the patent office that invalidated/delayed consideration of sofosbuvir- and sofosbuvir/ledipasvir-related patent applications. It allowed a generic manufacturer to register sofosbuvir in Ukraine, and this resulted in a reduction of the price from US$ 1350 to US$ 750 per treatment course. Further pressure caused the pharmaceutical company to extend its license with generic manufacturers to Ukraine, which will lead to a further reduction in prices for sofosbuvir and sofosbuvir/ledipasvir in the country. Therefore, it is expected that the price of sofosbuvir will probably be reduced to below US$ 300 per treatment course. There are also plans to continue patent claim activities and attempt to invalidate all blocking sofosbuvir and sofosbuvir/ledipasvir patents and patent applications. Current pharmaceutical company licenses with generic manufacturers usually have a provision for a royalty fee of approximately 9–12%. Also, the respective pharma company usually agrees to license sofosbuvir and sofosbuvir/ledipasvir in Ukraine via manufacturers from China, India and South Africa. This manufactural outsourcing restricts competition in the Ukrainian market, as it prevents national Ukrainian companies and companies in other countries from manufacturing their own sofosbuvir and sofosbuvir/ledipasvir or importing then into Ukraine. The price for sofosbuvir in Ukraine during the recent procurement was reduced to US$ 60 per treatment course, owing to the competition from generics.

Evidence of impact/efficacy

As a result of the Network's interventions and the entry of the generic versions to the market, the price decreases (in US dollars) were as shown in Table 13.

These price reductions may lead to improved access to affordable treatment and increase coverage with antiretroviral treatment in Ukraine for an additional 80 000 patients. As the Network expected, entry of generic versions reduced prices of ARV medicines on average by two to four times.

Sustainability

The practice may be maintained for a long period by improving patent law, in particular, patent prosecution proceedings aimed at the prevention of unmerited patents granting. Aside from the lack of allocating the additional resources, this work is exemplary in showing what even smaller groups of people and NGOs may do when facing large pharmaceutical companies and regulatory issues such as patent laws, which may fall out of the purview of NGO service delivery for HIV.

Table 13. Prices for HIV and HCV drugs before and after the introduction of generic versions to the market, Ukraine, US dollars

Drug (disease treated)	Pre-intervention (2016)	Post-intervention (2017)
Dolutegravir (HIV), per pack	228.00	5.00
Tenofovir/emtricitabine/efavirenz (HIV), per person per year	353.67	95.04
Abacavir (HIV), per pack	24.22	9.24
Sofosbuvir (HCV), per treatment course	1350.00	750.00

UNITED KINGDOM. Digital vending machine technology to distribute HIV self-tests to high-risk MSM populations in Brighton and Hove

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Background

Novel strategies are needed to increase HIV testing in high-risk groups, including MSM, and meet goals to reduce undiagnosed HIV infection. HIV self-testing is an attractive strategy enabling user autonomy in the timing, location and disclosure of testing as well as convenience. Self-testing also creates opportunities for providers to reach populations disengaged with conventional testing. We developed and evaluated a vending machine approach to target HIV self-testing

to high-risk MSM in a United Kingdom community setting. This project piloted the use of digital vending machine technology and HIV self-testing in a sex-on-premises site (at the Brighton Sauna) for MSM in a known high-prevalence location (Brighton and Hove). The Martin Fisher Foundation, Brighton Sauna staff, digital vending machine manufacturers and HIV self-test manufacturers, formed a unique team to launch the project, as well as establishing a sustainability plan for future initiatives. This innovative pilot of a new HIV self-test distribution method aimed to encourage self-testers to access care during sauna operating hours in a convenient and confidential manner and when the client felt it was an appropriate time to test. The pilot location sees approximately 400 clients each week, with sauna staff previously noting high levels of sexual risk-taking but low levels of engagement with outreach workers to discuss HIV testing. There is evidence that MSM attending sexual venues are at a greater risk of HIV transmission and, therefore, interventions that could improve HIV testing in these settings could lead to a reduction in HIV transmission rates.

Description of the good practice

A cross-sectional survey in a sex-on-premises venue (sauna) assessed feasibility and informed development of the self-test vending machine interface. Codesign workshops involving designers and LGBT community volunteers explored attitudes towards self-testing and a vending machine interface delivering HIV self-test kits in community settings (bars/clubs, pharmacies, university campuses and train stations). A total of 281 sauna clients (out of 400 per week) completed the survey, and 10 volunteers participated in the vending machine development codesign workshops. The survey found that 32% (n = 89) sauna clients had never tested for HIV, with 44% (n = 123) stating that they did not feel at risk of HIV infection despite high HIV infection risks known to this population. When clients were asked about considering self-testing via a vending machine, acceptability was 93% (n = 260) for this intervention. The codesign workshops also demonstrated high levels of acceptability for HIV self-testing.

The prototype machine (see Fig. 55) was installed in the venue on 16 June 2017. It was sited in a prominent part of the entrance area of the sauna. The digital screen advertised that the test was quick and required only one drop of blood. When the client engaged with the machine, they were asked to answer three short questions (age, the date of their last HIV test and whether they were a resident of Brighton and Hove), as well as to input their mobile phone number so they could be sent a link to a post-test questionnaire (it was made clear that the mobile number was not stored permanently; rather, the machine was designed so it would not issue a further test to the same number for a 28-day period to deter clients from obtaining tests and selling them for profit). The client then received an HIV self-test. The HIV test employed for this intervention was a third-generation HIV 1 and 2 antibody point-of-care test that provided a result within 15 minutes after providing a small sample of blood obtained by a simple finger pinprick. The rapid test is CE (European Conformity) certified with a sensitivity of 97% and specificity of 99%.

This intervention aligns with the principles of HIV testing recommended by the WHO, including consent (self-testing), confidentiality (self-testing), counselling

Fig. 55. The prototype vending machine

Source: Martin Fisher Foundation

and connection which are represented in the clear information on support and linkage to care provided with each HIV self-test kit dispensed by the vending machine. A sticker with clear information on what to do in case of a positive result was used. This included a helpline and weblinks as well as information on the nearest sexual health clinic. The sticker (see Fig. 56) also provides information about the window period and when to retest. As with many self-testing interventions, a balance must be struck between obtaining accurate data about HIV-positive/negative results and creating barriers for HIV testing. With the intervention, as it stands, the project was unable to determine accurately how many negative and positive HIV tests have been obtained; however, two individuals tested positive. They used the linkage to care information provided with the kits to access services. The project team is currently working on innovative ways to overcome this challenge and hope to incorporate them in the next generation of vending machines.

Fig. 56. Referral pathway (sticker)

Evidence of impact/efficacy

Following the design and installation of the machine, a cross-sectional mixed methods evaluation was conducted among vending machine users. HIV testing rates by community outreach workers at the venue before and after the intervention were used as a comparison. Community workers offer HIV testing twice a week during opening hours of the venue. Demographics were collected via the machine's user-friendly touchpad screen (age, date of the last HIV test, residence in the city). An online questionnaire and structured interviews gathered information on user experience of the machine, and experience, acceptability and attitudes towards HIV self-tests accessed via the machine.

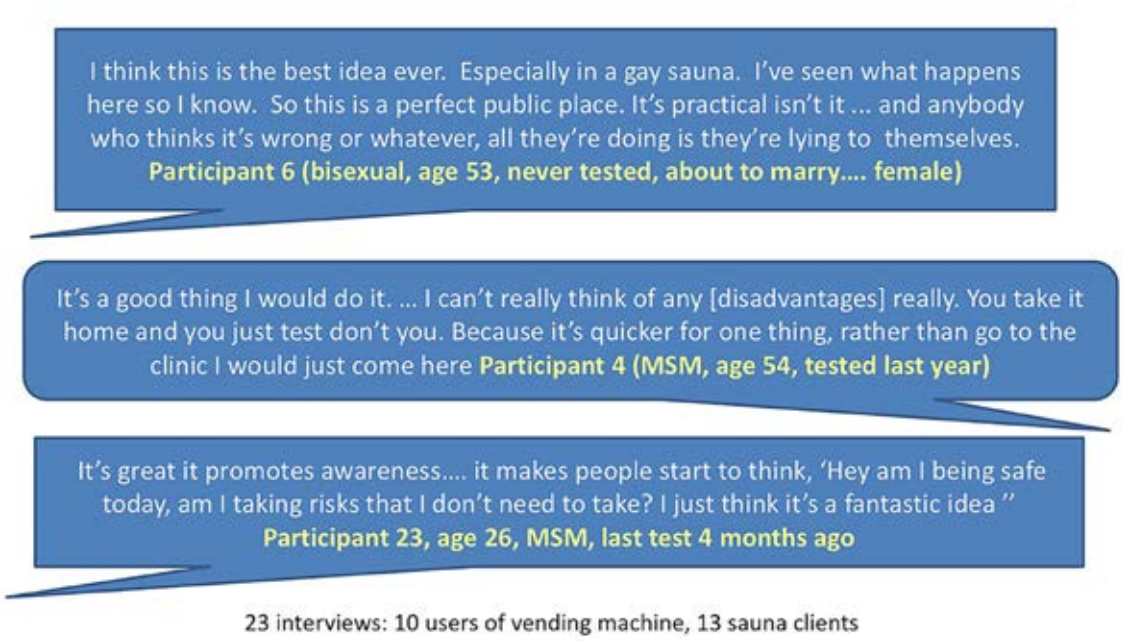
A total of 204 testing kits were accessed between 8 July 2017 and 31 December 2017. The median age of users of the machine was 31 years (range 18–70 years); 4% (n = 7) of users had never tested for HIV before, and only 11% (n = 22) had tested within the last one to five years. Uptake of HIV testing was higher via the vending machine compared with testing conducted by community outreach workers in the same venue and study period (35 versus 4.5 tests per month).

Twenty-three per cent (n = 48) of vending machine users completed an online survey evaluating their experience. The median age was 42 years (range 17–70 years). Thirty-four per cent (n = 16) of respondents had last tested more than a year previously, or never. Fifty-four per cent (n = 25) had engaged in condomless anal sex with a new or casual partner in the previous six months, and 34% (n = 16) had engaged in condomless sex with more than partners in the last year. Twenty-nine per cent (n = 14) had used the tests within two days of buying it, five had waited two to six weeks to use it and one had waited for 12 weeks before using it. Significantly, 93% (n = 44) said that they would recommend this intervention to others.

Twenty-three vending machine users completed semi-structured interviews. Interviewed users expressed high levels of acceptability for the convenience and discretion of both the vending machine and HIV self-testing. Fig. 57 shows extracts from comments from vending machine users.

Overall, the reaction to self-testing was positive. The idea of placing the vending machine in the sauna was widely regarded for its accessibility and simplicity.

Fig. 57. Responses to the vending machine



The convenience and discretion provided were highly valued as key advantages of both the vending machine and self-testing in general. The intervention has had wide coverage in the media, and this not only helps to normalize HIV testing in the community but also demonstrates the innovative nature of the intervention *(150,151)*.

Sustainability

This project offers an alternative and cost-effective way of accessing HIV tests. Prior to implementation, HIV testing was available in the sauna for only six hours per week (when community outreach workers were available on Wednesday and Saturday evenings) compared with the 123 hours per week the sauna operates. Peak visiting times to the sauna were often in the late evening and early morning, when staff would be difficult to secure and would require higher wages. Since the self-test has clear user instructions, no additional staff or training costs are incurred, other than baseline training to ensure staff understand how the test works and the correct referral pathways. The price per unit cost for this type of HIV self-test is currently around £35. The cost of the HIV self-test for this intervention (bought in bulk) is only £11.76 with no onwards laboratory costs, compared with £53.11 if a patient attends a sexual health clinic for a single HIV test (national sexual health tariff). There are also major savings to the state's health service through the reduction of onwards transmission and reduced costs resulting from late presentation of HIV infection. While the prototype vending machine was costly (over £5000), there have been significant economies of scale in ordering multiple additional machines, which now cost less than a fifth of the original price (under £2000). The additional machines use payless technology, which means that they will have an increased ability to accept payment. The survey revealed that clients are willing to pay a fair price for the kits (up to £10, equal to €9). This means that the intervention is cost-effective for health care services and clients alike, ensuring the sustainability of the approach. The intervention is still in place, and it is planned to roll out the next generation of digital vending machines distributing HIV self-tests in mainstream venues (gay bars, gay club, sex shops) in Brighton, thus improving access to HIV tests for the wider MSM community. In addition, plans are in place to roll out and evaluate the acceptability of using this technology in other key populations, including black MSM, heterosexual men and women from ethnic minorities and populations where English is not the first language, in other parts of the United Kingdom such as London and Manchester. Innovative ways to get accurate information on the exact number of positive and negative results without creating barriers for testing are being developed. In addition, a mobile phone application is under development, which will support the vending machines with information about the location of machines in the city and the potential for direct communication with health care professionals in case any questions regarding testing or results arise.

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The WHO Regional Office for Europe

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