HIV/AIDS treatment and care in Belarus

Evaluation report

January 2014

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WHO Collaborating Centre on HIV and Viral Hepatitis

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Prepared by:
Jens D. Lundgren and Dorthe Raben
WHO Collaborating Centre on HIV and Viral Hepatitis
Irina Eramova and Vera Ilyenkova
WHO Regional Office for Europe

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Abbreviations

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
CD4	T–lymphocyte cell bearing CD4 receptor
EECA	eastern Europe and central Asia
FSW	female sex workers
HIV	human immunodeficiency virus
IDU	injecting drug user
KAP	key affected populations
MoH	Ministry of Health
MoF	Ministry of Finance
MSM	men who have sex with men
MTCT	mother-to-child transmission
NGO	nongovernmental organization
NSP	needle and syringe programme
OST	opioid substitution therapy
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission
POC	point of care
PSM	procurement and supply management
PUD	people who use drugs
SW	sex worker
TGF	The Global Fund
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
STI	sexually transmitted infections
WHO	World Health Organization

Thematic Area: HIV/AIDS treatment and care

1. Scope of review

An evaluation of HIV/AIDS treatment and care was performed from the perspective of the WHO/UNAIDS Treatment 2.0 Framework which indicates five priority areas: optimize drug regimens, provide access to point-of-care diagnostics, reduce costs, adapt delivery systems and mobilize communities.

The evaluation builds on a desk review and a country mission which took place from 11-14 November 2013 in Minsk, Belarus.

A specific focus was also on HIV testing practices as an entry point for HIV treatment and care and on vulnerable groups and access to treatment and care. Also the sustainability of programmes was reviewed in light of the current and future international and national available funding schemes.

Country epidemic: latest trends and response overview

The estimated HIV prevalence in the general population in Belarus is 0.4% (UNAIDS). According to a sentinel survey from 2012, the prevalence among sex workers is 2.4%, among MSM 2.8% and among IDUs 13.3%.

The annual number of HIV diagnosis is increasing in Belarus with 1223 new cases in 2012 compared to 733 in 2006.

The majority of new infections are concentrated in the age group 30-39 years old. According to official statistics around 60% of registered PLHIV are men and around 40% are women, with an increase in the percentage of women infected. According to the National Center of Epidemiology, heterosexual transmission significantly prevails IDU transmission over the last years. (In January-November 2013 14% of new HIV cases are attributed to IDUs, and 84% (of whom 48.3% female and 51.7% male) got infected heterosexually. However, according to the information from "seen for care" registry, 62% of PLHIV screened on HCV in 2012, also have hepatitis C markers, indicating that IDU continue to play significant role in HIV transmission *(3)*.

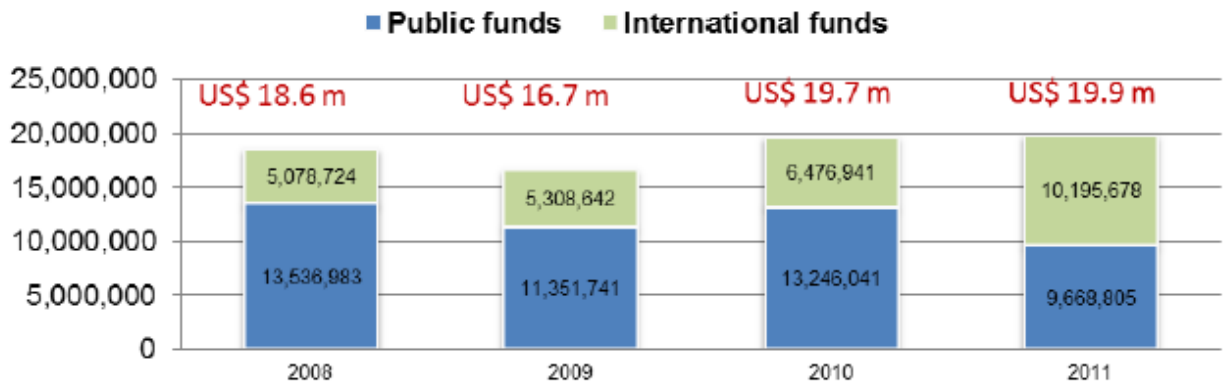
HIV confirmed cases are registered in all regions of the country, but with the majority of them residing in Gomel oblast (77.6% according to official data).

Investments in the national HIV/AIDS response

The HIV response in Belarus has been heavily dependent on foreign aid, with around USD 20 million invested annually in HIV. Though domestic investments doubled during 2008-2011, the percentage of international funding has increased from 27% of the total budget in 2008 to 51% in 2011, of which 96% were from the Global Fund (TGF) *(1)*.

The majority (55-65%) of all spending has been on prevention, but expenditure on care and treatment slightly increased between 2008 and 2011. It remains unclear how resource allocation takes into account disease burden and potential for impact for more cost-effective programmes *(1)*.

As the TGF funding runs out in 2015 and the possibility of renewing grants seems unlikely, there is great concern around the sustainability of the HIV response, and an urgent need for national health programmes to develop innovative funding mechanisms to take full leadership of the strategies and funding of the programmes and identify opportunities to increase value for money.



It is promising that the Ministry of Health during the mission stated its readiness to secure 100% of funding after 2016.

2. Strength and achievements

The treatment protocol is in line with international standards and recommendations. The number of adults and children currently receiving antiretroviral therapy (ART) is at 4248 in 2012. The majority of these are on first line treatment *(8,10)*.

Table 1: Major expected results; targets and main achievements

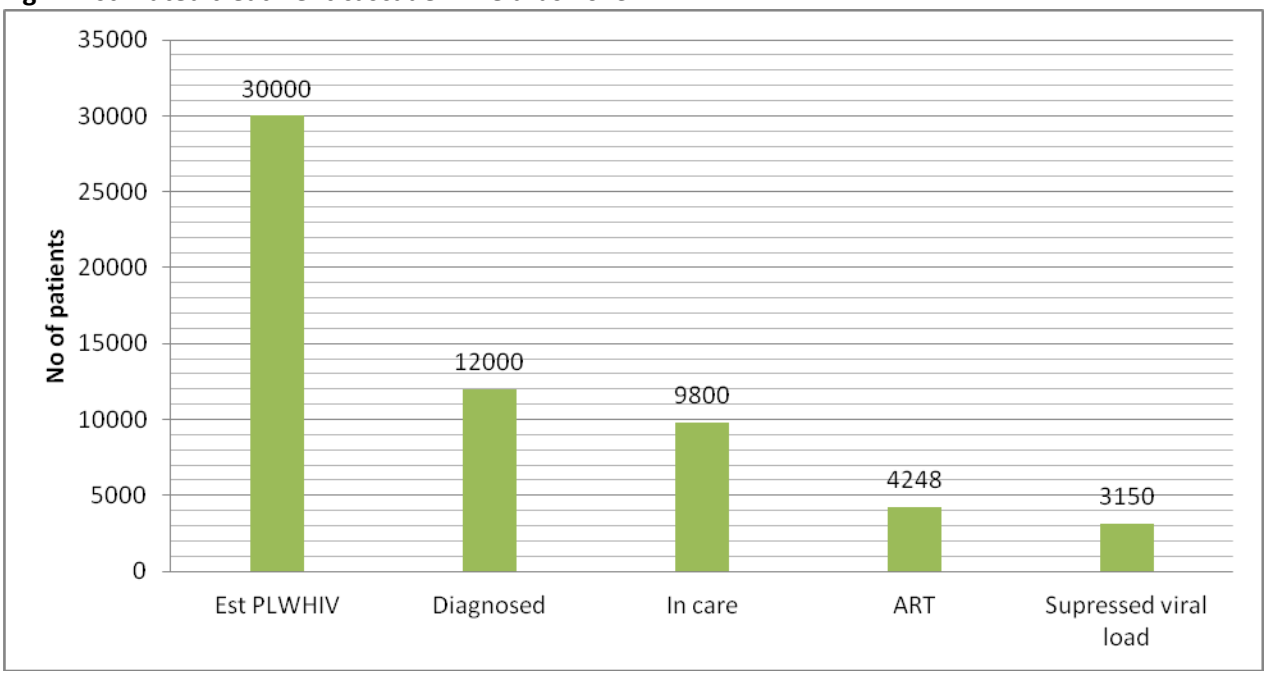
NAP*	
95% of patients infected with HIV to be given ART	The country has experienced a rapid increase in number of PLHIV receiving ART with 1262 people starting treatment in 2012. The total number of people on treatment is however only 50% of the estimated need in 2013 (see below)
2% reduction in risk of infection by MTCT	Among 511 children born to HIV positive mothers, the HIV prevalence was 1.8% in 2012.
Reduction in the spread of HIV among IDUs to below 8%, MSM below 3% and FSW below 1%	HIV prevalence among sex workers is 2.4%, among MSM 2.8% and IDUs 13.3%.

*State programme for the prevention of HIV Infection 2011-2015

3. Weaknesses and challenges

The estimated treatment continuum below shows some of the challenges of treatment and care in Belarus. Each of the steps of the care continuum will be dealt with in the report. It should be noted that many of the figures are based on estimates and personal communication with the Infections Disease Hospital in Minsk. In particular the number of patients with suppressed viral load (*1)* should be taken with caution as it was not possible to have confirmed during the mission.

Fig. 1: Estimated treatment cascade in Belarus 2013



As a recipient of TGF grants, Belarus and TGF have agreed on the number of PLHIV who should receive ART. As seen in the table below, it is about 50% less than the estimated ART need (using the WHO/UNAIDS Spectrum model) and has not yet reached the planned number to receive ART (column 2).

Year	PLHIV planned to receive ART (TGF grant – the only available fund source)	Spectrum ART estimated need	Gap
2013	5 100-5 200	10 000	4 800 – 4 900
2014	6300	N/A	
2015	7 100-7 200	12 700	5 500 -5 600

Reallocation of saved funds in 2013 (expected to be between USD 300,000 and USD 500,000) for procurement of additional ARV medication would allow to cover the gap.

Linkage to care and initiation of HIV treatment

Community based HIV testing is either based on testing in mobile units or referral to testing in clinics for key populations. Linkage to care after a reactive result by community-based organizations is the weakest part of the programmes. As an example from Solegorsk, in 2012, 680 IDUs were tested for HIV with about 37-40% HIV positive tests. However of all HIV positive IDUs who were referred to HIV treatment and care services only about 5% reached it. This is a strong indication of a need to bring services closer to HIV infected IDUs.

There is also misunderstanding among patients about delaying treatment and discontinuation of treatment is quite common. When a patient enters into HIV care, the process is that an epidemiologist communicates the HIV test result and the infectious disease doctor initiates the patient on treatment.

Human capacity to address the health needs of PLHIV is very limited. There are lack of physicians and medical nurses providing treatment and care (due to low salary) and lack of social support. Thus there is no follow up on PLHIV who have been registered for HIV care, but do not come for regular check up.

Priority area 1: HIV testing

The Resolution of the Ministry of Health of the Republic of Belarus #97 as of 12 July 2012 "On the establishment of clinical indications for mandatory medical examination of individuals, and on the list of other categories of individuals subject to mandatory medical examination" states that HIV testing is prescribed in case of pregnancy, STIs, viral hepatitis, IDUs (once a year), prisoners, foreign citizens, as well as for a number of indicator conditions:

- unexplained mild or high fever lasting for more than 3 months;
- lymphadenopathy for more than 3 months;
- unexplained diarrhoea lasting for more than 1 month;
- unexplained weight loss (10% and more);
- recurrent pneumonias (two and more times a year);
- recurrent sepsis;
- subacute encephalitis and dementia in the previously healthy individuals (encephalopathy);
- serous meningitis, meningoencephalitis of an unclear etiology;
- recurrent candidiasis *(9,14)*.

The number of tests a year is around 1 million (population 9.5 million). However, when looking into the categories of people tested, the testing reaching key populations (MSM, IDU and FSW) is either low or not recorded. The below table shows the number of HIV tests in 2012 and the HIV prevalence in the population group tested.

Fig. 2: HIV tests in 2012 (adapted from figure in annex 1)

Category	Number of tests	Prevalence
Drug users (102)	4 466	1.5
STI patients (104)	21 347	0.2
Blood donors (108)	302 131	0.007
Pregnant women (109)	231 584	0.05
Recipients (110)	15 677	0
Prisoners (112)	27 583	0.5
People examined by clinical indications (adults) (113)	74 203	0.5
People examined anonymously (114)	18 126	0
People examined by epidemiological indications (115)	1 700	5.2
People examined by clinical indications (children) (117)	5 896	0
Children born to HIV infected mothers	511	1.8
Other populations*	287 060	0.11
Foreign citizens (200)	13 098	0.05
TOTAL:	**1 003 382**	**0.12**

*military, job testing, ministry internal affairs

According to the Behaviour Sentinel Survey (BSS) report only half (54%) of interviewed IDUs had had an HIV test during the last 12 months and around 53% of IDUs use injection equipment which was already used by other IDUs. Looking at the numbers recorded by the National AIDS Center, 4466 IDUs have been tested in 2011. The estimated number of IDUs in the country is 75000, giving a testing rate of 6% among IDUs.

For pregnant women, 231 584 tests were performed in 2012. With approximately 100 000 pregnancies in Belarus a year (personal communication), this means that pregnant women are HIV tested twice during pregnancy. The effectiveness and cost effectiveness of this intervention should be considered and could effectively mean cost-savings on HIV testing in this group to be used in other groups where HIV testing coverage is currently very low. Further, the HIV prevalence among children born to HIV infected mothers is 1.8% (see table above), which does not match the obvious high testing rate among pregnant women (*10).*

The National Law N° 345-3 "Prevention socially dangerous diseases, HIV" came in force on July 2012, which allows mandatory HIV testing for a number of professional categories and lists professional categories, which cannot maintain their duties if a person lives with HIV– e.g. surgeons. The law allows compulsory HIV testing if a person evades or declines mandatory testing or if there is *"a valid reason to suspect a person has HIV…"*. The law states that disclosure of status is allowed upon request by the Ministry of Health, Ministry of Internal Affairs and compulsory isolation and treatment for socially dangerous diseases (including TB) can be forced upon an individual. This law raises serious concern of the voluntary and confidential nature of the test procedures as the core principles of global and regional testing guidelines and recommendations (*11,12,13).*

It is also worth noting that the procedure for confirming a positive HIV test in Belarus requires two separate blood samples, which as a consequence means that patients risk being lost in between the two blood samples and might not receive the result of the first test, the confirmation of the second, nor are properly linked to care and treatment.

There are many barriers to HIV testing, showing the challenges that exist to scale up HIV testing and ensuring that the number of undiagnosed people with HIV is reduced and people diagnosed with HIV successfully linked to care and treatment:

- rapid testing is illegal and not considered a diagnostic tool;
- to get an HIV confirmatory test people are asked for formal ID;
- geographical barriers as tests are performed only in some towns in Belarus;
- limited outreach testing that focuses on IDUs and partners of IDUs;
- reported stock-outs of HIV tests in summer months;
- fear of stigma and discrimination.

In order to ensure earlier diagnosis of PLHIV, testing programmes need to be designed to reach people most at risk. Measures need to be taken to ensure an enabling environment for testing. The MTCT programmes need careful auditing and the effectiveness and cost effectiveness of interventions need to be considered and data used actively to design programmes that find as many HIV positive as possible. Concrete recommendations will be summarized in section 4.

Priority area 2: Optimize drug regimens

The number of treatment regimens is relatively high (23 regimens). The country is planning to gradually switching to the new WHO guidelines for ART; which will include a simplification of the treatment regimens and revision of the inclusion criteria into treatment and treatment monitoring. The country will be in need for technical assistance, while making this change.

An evaluation was conducted in 2011 on procurement and supply management (PSM)(February 2011) with the aim of evaluating changes in regulatory topics as assess all components of PSM from the central level to the end user. A number of recommendations were formulated following this mission in relation to regulatory issues, product selection, forecasting and quantification, procurement, quality assurance and receipt, storage and stock management, logistics management information, reporting, monitoring and evaluation. The recommendations are yet to be followed up on. Importantly, in relation to optimizing drug regimens, is need to improve the dissemination of decrees on changed treatment protocols and follow-up during supervisions with all ART centres *(2,6).*

Priority area 3: Provide point-of-care (POC) with simplified diagnostic and monitoring tools and addressing other barriers to treatment

Late diagnosis is a considerable issue, linked to the high number of undiagnosed PLHIV. Although data suggests that the level of AIDS related deaths is stabilizing, it was not possible during the mission to get clear information on trends in AIDS related deaths and CD4 count at diagnosis. There is no electronic database available and information on registered HIV cases and PLHIV on ART was received through verbal communication.

According to the information received, cumulative 2 000 HIV cases were diagnosed as of end 2012, of whom 268 had died and 148 were lost to follow up.

In Minsk in 2012, 160 new HIV cases were identified, of whom 132 (82%) got registered for care. Of 160 new HIV cases in 2012, CD4 tests performed in 121 (75.6%) PLHIV

- CD4< 200 -11 PLHIV
- CD4 200-350 – 24 PLHIV
- CD4 350-500 – 66 PLHIV
- CD4>500 – 20 PLHIV

35 cases (42%) were diagnosed late (CD4 count below 350).

In total 651 PLHIV in Minsk receive ART – 41% out of all registered for care or 52% seen for care in 2012. In 2012 CD4 tests were performed in 442 PLHIV out of 571 who do not receive ART, with 192 with a CD4 count below 350.

No information on viral load and number of people receiving ART with a suppressed viral load was available to the mission. There are reports from community-based organizations that monitoring of HIV; CD4 count and VL machines are often broken and as a consequence disease monitoring is not adequate.

Barriers to treatment and care as mentioned by representatives of Belarusian Community of PLHIV:

Doctor-patient relation

- very limited time for consultations;
- a very quick turn over of doctors;
- limited “respect” of infectious diseases as a specialty in professional circles which influences patient-doctor relationship;
- lack of trust towards the medical professionals among patients;
- treatment options are rarely discussed with patients;
- information about treatment in the community of people who live with HIV is limited.

Patients preconceptions

- a common misunderstanding among patients that treatment is not good and they would not benefit from it;
- fear in the community that generics will not work or would be of poor quality, which will be connected with side effects for patients;
- fear in the community about low quality of treatment connected with production of non-prequalified by WHO generics or biosimilars in Belarus.

Treatment for children and youths

- outside of Minsk there are no infectious disease doctors working with paediatric cases in Belarus;
- in hospitals children who live with HIV are treated in wards for adults very often together with patients who have a history of drug use;

- youths living with HIV receive limited support with adherence which might affect reported problems with adherence.

Rapid tests have been available only in some pilot studies run by UNDP.

Priority area 4: Reduce costs

It is expected that that the Global Fund grant ends in 2015, the Ministry of Health is planning to procure ART medications through state procurement procedures and according to the Head of Department of Pharmaceutical Inspection and Organization of Medicine Supply and Head of Drugs Department this process has already started and the Ministry is planning to start with the procurement of three ART drugs (according to the UNDP/TGF country office it had previously been agreed that the Government would procure five drugs).

There are two major concerns regarding state procurement: 1) ensuring quality and 2) ensuring low prices. The price of drugs might be higher compared to prices which are negotiated by the Global Fund with the suppliers and procurement is done through voluntary pooled procurement (VPP). There is no guarantee that procured medications will be confirmed as pre-qualified by WHO.

In case state procurement procedures will face the above stated issues, there is an option to conduct procurement through the Global Fund procurement mechanisms by UNDP. The attempt to implement this option was made last year, but the Ministry of Health failed to transfer funds to UNDP to proceed with the procurement. In case the Ministry of Health will transfer funds to UNDP, this agency will be able to launch procurement procedure for the Ministry of Health. This will guarantee lower prices and the quality of medications (all medications procured through the Global Fund mechanisms are pre-qualified by the WHO).

Currently medications procured by the Global Fund funding have a 25% buffer in forecasting, while according to representatives of the Ministry of Health state funding will allow only 10% buffer, which will impose a higher risk of stock outs.

The overall system or drugs procurement and supply management seems to be working properly, but the functioning depends more on personal skills rather than defined instructions for operating procedures; which makes the entire system vulnerable and not sustainable. As an example, the Ministry of Health does not fully involve into all processes of PSM, and its involvement is more restricted by getting forecast data from the National AIDS Centre making procurement and delivering drugs to the National AIDS Centre. The forecasting methodology is not formalized.

Stock-outs happen and are handled by redistributing drugs from other regions, but delays in disbursement of ART to clinics are reported. A few cases were reported of paediatric ART use for adults because of stock-outs of adult formulations, and of patients receiving a part of a triple therapy regimen in situations of stock-outs.

Priority area 5: Adapt service delivery

OST and ART among IDUs

The vast majority of studies in the field of ART adherence among injecting drug users show that when enrolled in stable care with adequate psychosocial support, access to substitution therapy and proper management of co-morbidities, drug users may adhere just as well to ART as non–drug users. A recent meta-analyses evaluated 38 studies (N= 11,394 HIV positive drug users) and reported an overall pooled ART adherence of 60% among HIV-positive drug users, which is close to levels reported for PLHIV in general *(15-24)*.

ART outcomes are reported as better among drug users receiving OST compared to drug users not receiving OST. Opioid substitution therapy was independently associated with HIV-1 RNA suppression in several studies, and in one study, a CD4 cell count increase was also associated with OST. The positive effects of OST on ART adherence may be explained by a stabilization of the patient's social situation, regular access to care and referral, being accustomed to taking medication on a daily basis, as well as an improved social support network *(15-24)*.

It is estimated that approximately 75,000 people are injecting drugs in Belarus of which 0.3% are receiving OST. 10,500 IDUs are estimated to be living with HIV in 2010 with no data on HIV+ IDU on ART.

Currently there are 18 service points for OST in Belarus, including the OST site in Homel Tuberculosis and Narcological Dispensary, which is integrated into the TB facility and provides fully integrated services for IDUs, who are receiving TB treatment.

OST is part of TGF grant and functions as a pilot project with only 1 050 patients in total across the country. Although the demand is significantly higher and drug dependency treatment experts are ready to suggest OST to 2 000 more drug users who are registered in narcological dispensaries, capacities of the sites are nearly overstretched (hence inclusion of the new clients is extremely limited). For example Minsk main narcological dispensary OST service point serves around 55 patients and is not able to admit more, due to limitation in the number of medical doctors (narcologists). The assignment of narcologists to OST service sites is based on a decision by the chief of the medical facility. It is expected to have an evaluation report finalized assessing the OST coverage in Belarus, which is done by the Narcology service of Belarus; according to information from Belarus chief narcologist the report will be presented to the Minister of Health and decision regarding scale up of service will be considered later (supposedly in beginning of 2014).

The patient can only access OST services after having registered as a person who uses drugs (PUD). In reality there is no difference if a person is an active drug user or on OST, both of them have the status of a drug user. This legislation influences how quickly PUDs access the services. The legislation influences chances to work in some professions and possibility to carry a driving license.

The OST patients need to come to the OST clinics every day, as it is illegal to take methadone out of the OST clinic. Methadone is not on the essential medicines list and buprenorphine, which can be administered in tablets, is not registered in Belarus.

The OST pilot project is considered an important step in the right direction, however as the project is financed by the TGF, future funding needs to be urgently addressed to ensure continuity and sustainability.

Scaling up access to OST now depends on political will of the government to procure methadone and allocate personnel for provision of OST. HIV will continue to spread within the IDU community as well as within the general population until a solution is found to the high number of untreated IDUs in the country.

Coordination TB/HIV

A specific review of the national TB Programme was carried out by WHO in October 2011 as well as a mission on collaboration of TB and HIV programmes in February 2011 *(4,7)*.

The order by the Ministry of Health is regulating the TB/HIV coordination in country. The order describes step by step instructions for cooperation of two services (including timelines for conducting activities) as well as delegation of duties and responsibilities. All TB patients are supposed to get HIV test, in the Ministry of Health order there is no option for the patient to opt out from the HIV test. HIV patients are also screened for TB symptoms and in case of suspicion for TB they are referred to TB doctor. HIV patients with TB are getting TB treatment in TB facilities.

The two missions however recommended an improvement in the HIV and TB services coordination in both early diagnosis of TB among PLHIV, diagnosis of HIV and management of TB/HIV co-infected patients including weekly ID consultations at TB hospitals and TB consultations at ID hospitals and to ensure effective flow of information between the two services during and at the end of TB treatment. In October 2013 the Ministry of Health updated an order which defines criteria for providing isoniazid prevention therapy for HIV positive patients regardless of CD4 cell count. Development of indicators for monitoring is likewise important and should be part of the overall surveillance of the HIV epidemic in the country *(4,5,7)*.

HIV treatment in the prison system

According to the prison establishment 100% of the incarcerated people get tested for HIV in prison settings. Though everybody is tested for HIV, there is no track record of the number of people who learnt about the HIV status for the first time in prison.

Prevention interventions such as condoms, NSP and OST are not available in prisons, which may cause discontinuation of OST treatment for people who were clients of OST clinics.

ART in prisons is assured through TGF support. ART provision is based on DOT (directly observed treatment) and there is an involvement of one Christian NGO in helping incarcerated people to start treatment and to continue after the release. The NGO also supports the incarcerated with housing and social support after release. There is another programme focusing on the work with prisoners suggested by the Network of PLHIV in Belarus. Though the project has been in the middle of its cycle, the NGO was not able to start working within prisons.

Not all treatment regimens are available in the penitentiary system which imposes a risk of treatment disruption, when a person on ART is entering the penitentiary system. When a person on ART enters the penitentiary system, the penitentiary medical service contacts the medical doctor (infection disease specialist) who is in charge of the patient and receives confirmation. After confirmation, the penitentiary system doctor assigns a treatment regimen to the patient. In case the used drugs are not available, the penitentiary medical service may obtain drugs from the hospital. The entire process is mostly based on personal communication and individual commitment and there is no written procedures describing the process and delegating duties and responsibilities to all involved parties as well as defined timeframes for implementation of all necessary arrangements.

Solegorsk as good example of integrated service delivery

Solegorsk is a small city with a population of 138 000 and one hospital which is a good example of integrated services. HIV testing, treatment and care, PMTCT, TB, OST services are available within 5 minutes walk. An OST site provides methadone to 96 opioid dependent patients. Its capacity is limited with TGF financial allocation for methadone and personnel.

Priority area 6: Mobilize communities

Prevention activities for key populations are only provided by local NGOs. The state does not have finalized social contracting mechanisms to provide funding to NGOs working with key populations. NGOs could have played a significant role in linking identified HIV infected key populations to HIV treatment and care services, in follow up on clinic visits for lab monitoring of disease progression and in support to adherence for those on ART

Participation of people living with HIV in the national policy and programme formulation

There are two structures in the country that focus on planning of the HIV response in Belarus: CCM, which was developed together with TGF grants, which involves community representatives and organizations that work with key affected populations in the structure and National Interdisciplinary Council to Deal with HIV, which is a governmental structure with no representation from civil society.

In CCM there are eight members from civil society in the oversight committee, including representation from the organizations Positive Movement, Vstrecha, Belarusian Association of UNESCO Clubs. ACT, the NGO which received funding from TGF (principal recipient is UNDP in Belarus) and provided technical support to NGOs on community systems strengthening for 11 months, was excluded from funding and had to stop the work connected with community systems strengthening.

NGOs are important players, not least because of the groups most affected by HIV in the country. For an adequate response to the epidemic, it is important in the future to continue building on the experience and continue the services provided to key populations by the organizations that are currently doing the work. On the basis of good practice it is recommendable to develop a governmental strategy on prevention for key populations that can be implemented after the end of 2015, here included to develop a national strategy on how to finance NGOs. TGF together with the government and NGOs should develop an exit strategy on how to sustain the services for the benefit of the patients.

4. Key bottlenecks and solutions

4.1 Surveillance of the HIV epidemic in the country lacks important indicators and is not adequately analysed to inform policy decisions on priorities within the national HIV programme

The first step for an adequate response to a country's HIV epidemic is to "know your epidemic". As described above, a number of important indicators were observed to be missing for a more complete overview of the HIV epidemic in the country, i.e. CD4 count at diagnosis, number of people in care (in care and not on ART yet and in care and on ART and with suppressed viral load), as well as more data on key populations, HIV prevalence etc.

The analysis of the collected data also needs improvement, i.e. the rise in HIV cases among 29-35 years old, is most likely due to a rise in prevalence among IDU and MSM and therefore prevention, testing, care and support interventions should be focused on these risk groups and not towards the general population of 29-35 years old, as suggested by the National AIDS Prevention Centre. Key in the surveillance of the epidemic is a thorough analysis of the group of IDUs and IDUs with HIV as part of the national surveillance. Overall, the HIV response in the country would benefit from strengthening the surveillance system and ensuring that all relevant data is gathered in/by one responsible organization.

Recommendations

- Strategic key information on HIV surveillance and monitoring of HIV treatment and care should be available and analysed by the Center for Epidemiology and Public Health. It should inform policy decisions on priorities within the national HIV programme.
- The group of IDUs needs better analysis, and point of departure taken in the real number of drug users instead of the registered number. Also, it should be analysed why so few are registered.
- Capacity building of the Center for Epidemiology and Public Health and collaboration with WHO Regional Office for Europe, ECDC and the WHO Collaborating Centre on HIV and viral hepatitis to identify key indicators and ensure a centralized mechanism for analysis.
- A number of missions/evaluations have taken place within the last couple of years on various aspects of the HIV response. Recommendations from these missions should be analysed and appropriately integrated and monitored in future programme planning.

4.2 HIV testing does not target key populations most at risk

A key bottleneck to the HIV problem in the country is the low coverage of HIV testing, in particular among populations most at risk. As prevention activities have been targeting mainly young people, there is a serious gap in prevention, counseling and testing of groups most at risk. The low testing coverage in KAPs also shows in the high percentage of undiagnosed people with HIV, which in turn results in late diagnosis and as a consequence higher morbidity and mortality, higher economic costs and increased risk of transmission.

Testing programmes/activities should have clear linkage to care pathways identified and support established to ensure that people testing positive for HIV are linked to care. This was identified as not adequately secured in the country, i.e. in one project, only 30% of people with a positive HIV test was known to have taken a confirmatory test and accessed care.

As described in section 3.1, pregnant women are offered an HIV test twice. The effectiveness and cost effectiveness of this needs further analysis as it is not recommended by WHO and cost savings possible. It needs to be understood what the HIV prevalence is in pregnant women when the first and the second test is taken. The second HIV test will show the incidence of HIV among pregnant women and if very low, it is recommendable to remove the second test. In general testing programmes should have a clear aim; is the aim surveillance of the epidemic or to find as many HIV positive as possible? Data should be carefully used instead of only being reported. The second test of pregnant women could fill a most urgent needed gap of testing of IDUs.

Recommendations

- Testing programmes should be established targeting most at risk populations and rapid testing introduced in these groups.
- Develop more outreach testing for key populations including IDUs, SW and MSM done by community based organizations.
- Clear linkage to care pathways should be secured as a component of testing initiatives.
- Target indicators for key populations to be developed and monitored.
- Simplify the national protocol on testing and include rapid testing in the protocol.
- Audit of PMTCT program to better understand why children are still born with HIV and to evaluate the (cost) effectiveness of the programme.

4.3 Inadequate procurement and supply management of ARVs and commodities

The future of the procurement of ARVs is jeopardized by TGF not continuing direct funding after 2015. So far TGF has been responsible for all ARV procurement. Forecasting should be based on standard operating procedures and not by each region applying to the Ministry of Health.

Recommendations

- Develop a centralized coordination, forecasting and distribution plan, as well as a thorough transition plan from TGF to Ministry of Health for procurement of ARVs.
- Investigate the possibility of whether the first years TGF can procure for Ministry of Finance in order to ensure continuity and low prices.
- Introduce a system to monitor stock-outs.
- Follow up on recommendations from WHO mission in 2011.

4.4 Insufficient coverage of enrolment and retention in HIV care and ART

Retaining IDUs in care is challenging. The mission identified a lack of personnel in HIV treatment and a high personnel turnover, resulting in lack of information/misinformation – and many examples of people who stop taking their medicine when they feel better were given by informants. The community reported a widespread mistrust in the system, personal beliefs, and a general low knowledge of HIV transmission and treatment.

The use of peer educators was a good example of involvement of civil society in ensuring enrolment and retention in care, however this initiative was funded by WHO and should be considered transferred into permanent NGO staff and collaboration formalized with the clinics for better sustainability of the strategy.

Recommendations

The Ministry of Health alone or in discussion with the Global Fund: to consider investment of financial and human resources in response to the HIV epidemic as a strategic approach to stop the epidemic development and decrease future cost. This would include investment in key areas:

- Increase coverage with ART to minimize the gap between estimated number of PLHIV who need ART and who receive it in order to get a prevention benefit of ART at the population level.
- Create multidisciplinary teams for HIV treatment and ensure the availability of human resources (physicians, medical nurses, social workers) who provide HIV treatment and care services for PLHIV through for instance considering task shifting if necessary.

4.5 Lack of harm reduction programmes, including low OST coverage

It is evident that the HIV epidemic in Belarus is driven mainly by drug use. The response to this rising transmission is not adequately responded to by existing evidence based interventions.

The group of IDUs needs better analysis, and point of departure taken in the real number of drug users instead of the registered number. Also, it should be analysed why so few are registered. The OST pilot project is considered an important step in the right direction, however as the project is financed by the TGF, future funding needs to be urgently addressed to ensure continuity and sustainability.

Scaling up access to OST now depends on political will of the government to procure methadone and allocate personnel for provision of OST. HIV will continue to spread within the IDU community as well as within the general population until a solution is found to the high number of untreated IDUs in the country.

Recommendations:

- Expansion of coverage with HIV testing and provision of HIV services for IDUs as recommended in WHO guidance (WHO UNODC UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users, 2012 revision, WHO 2012) (HIV rapid testing, HIV treatment and care at community level through mobile clinics, OST sites).
- Scale-up OST coverage in IDUs (from current 1 000 patients to at least 30 000 – 40 000 to reach coverage rates from estimated 1.3% to over 40% as recommended by WHO) to have an impact on the reduction of HIV transmission within this key population group (investment in new OST sites, human resources, methadone).
- Ministry of Health to procure OST as part of procurement plan and include methadone to the essential medicines list.
- Best practice example from Minsk – provide cost effectiveness analysis as requested by the chief narcologist to make the case.
- Consider changing the legislation on OST and IDU and documenting that current registration requirements are a barrier to initiating OST as such registration does not allow taking up some jobs and having a driver's licence. It should be analysed why so few are registered.

4.6 Lack of integrated services, including collaboration between HIV clinics and NGOs, TB hospitals and narcologists

It is crucial to ensure the availability of human resources (physicians, medical nurses, social workers) who provide HIV treatment and care services for PLHIV.

Peer consultants can help with accepting the diagnosis, linkage to care, improving adherence and retention in care, which will ultimately influence treatment outcomes at individual and community level. Treatment cascade for Belarus with gaps in the diagnosis, coverage of treatment and percentage of people with suppressed viral load *(1)* shows a need for a multidisciplinary approach for the benefit of the patients.

The team working with a patient might include: a doctor, a nurse, peer-consultant, psychologist and social worker. Until now there has been a few peer-consultants in Belarus who themselves are people who live with HIV. Peer consultants can be instrumental in treatment preparedness, work on adherence and case management of the patients, which are the areas that need to be addressed in Belarus.

Peer-consultants experience a few barriers that might influence the quality of their work and ultimately, quality of life of people living with HIV who they serve. The peer consultants who are non-medical personnel are rarely considered by medical staff as a part of the team that works with the patient. To ensure the work of the peer-consultants, it is advised that they work on the basis of the clinic, which is not possible at the moment since legislation states that non-medical staff cannot be employed by a clinic. A space to conduct peer-consultation with the patients is also a challenge. The peer-consultants do not have a room/ a physical space to conduct consultations, and as a result consultations are provided in informal settings: cafes, parks etc.

Recommendations

- Build up multidisciplinary teams across Belarus that will address the needs of the patients. All the members of the team should be working together to address different needs of the patients.
- Provide a physical space for consultations- peer consultants need to be a vital part of the health care system.
- Develop legal basis to provide services to patients by non-medical professionals.
- Collect good practice on prevention interventions for key populations by NGOs.
- On the basis of good practice build a governmental strategy on prevention for key populations that can be implemented after the end of 2015 and develop a national strategy on how to finance NGOs.

4.7 Recommendations from previous evaluation missions are not sufficiently taken into account in country programming

A number of specific evaluations on procurement of drugs and on TB programme and coordination was undertaken in 2011 and the recommendations from these missions are yet been taken into account. There is therefore a wealth of thoroughly analysed data which country programming should take into account.

Recommendations

- Ensure that evaluation recommendations are centrally discussed and used for programme planning.
- Technical support could be provided by WHO Europe and the WHO Collaborating Centre on HIV and viral hepatitis.

5. Cross cutting issues

5.1 Sustainability and access to services

As highlighted throughout the report, sustainability is a crucial concern in light of the fact that the main donor of treatment and care programmes in the country are finalizing their funding. This is in particularly an issue in regards to quality, price and continued availability of ART in the country. Also, the more innovative programmes focusing on key populations, i.e. mobile testing units for IDUs and OST treatment programmes are financed (and for some even run) by external donors like TGF/UNDP/WHO and others and it is crucial for their sustainability that transfer mechanisms to local partners are secured and properly arranged and monitored.

As regards to access to services, this needs improvement on all steps of the treatment cascade, from HIV testing to access to treatment and proper monitoring of disease progression through regular viral load measurements.

5.2 Human rights

Barriers to testing and access to treatment and care are challenges all over the world. The environment in which PLHIV are received is extremely important in order to secure diagnosis and retention in care. Human rights issues in relation to being HIV positive and IDU were identified during the mission and does not foster improvement in tackling the epidemic in the country.

Recommendations

- Consider changing the legislation on registration of IUDs to receive OST. The registration as a drug user is considered a barrier to start OST.
- In July 2014, when the process to change the legislation can be officially started, as the law will by then have been in practice for two years, it is recommended to start the work on changing the legislation to ensure repeal of mandatory testing and treatment.

6. Conclusions and Recommendations

6.1 Conclusions

The current evaluation of HIV/AIDS treatment and care in Belarus focused on five priority areas: optimize drug regimens, provide access to point-of-care diagnostics, reduce costs, adapt delivery systems and mobilize communities, as defined in the WHO/UNAIDS Treatment 2.0 Framework. It is important to underline that a number of specific evaluations on procurement of drugs and on the TB programme in the country and coordination with HIV treatment had been undertaken in 2011 and that the recommendations from these missions had not yet been taken into account. There is therefore a wealth of thoroughly analysed data which country programming should take into account.

As TGF funding runs out in 2015 and the possibility of renewing grants seems unlikely, there is great concern about the sustainability of the HIV response, and an urgent need for national heath programmes to develop innovative funding mechanisms and to take full leadership of the strategies and funding of the programmes and identify opportunities to increase value for money. It is promising that the Ministry of Health during the mission stated its readiness to secure 100% of funding after 2016.

The country has experienced great progress in the number of PLHIV on treatment. The treatment protocol is in line with international standards and recommendations and more than 4000 PLHIV are on treatment by 2013. This enormous effort by the medical professionals should be supported and further developed.

Policy decisions should be driven by a thorough analysis of strategic key information on HIV surveillance and monitoring of HIV treatment and care. Testing programmes should be established targeting most at risk populations and rapid testing introduced in these groups/develop more outreach testing for Key populations, also for IDUs, SW and MSM done by community based organizations. There is an urgent need to scale-up OST coverage in IDUs. Clear linkage to care pathways should be secured as a component of testing initiatives. Integration of services should be prioritized and the example of Solegorsk with testing, treatment and care, PMTCT, TB and OST in

one hospital, a good example to be studied further. It is recommended that a centralized coordination, forecasting and distribution plan is developed, as well as a thorough transition plan for procurement of ARVs from TGF to MoH. It would be recommendable to investigate the possibility of whether the first years, TGF can procure for MoF in order to ensure continuity and low prices. The transition phase from TGF financing is crucial to adequately respond to the challenges and ensure that progress made over the last couple of years is not lost.

It is evident that HIV will continue to spread within the IDU community as well as within the general population until a solution is found to the high number of untreated IDUs in the country.

6.2 Recommendations

Table 2. Main bottlenecks, recommendations and expected results

Main bottlenecks (prioritized)	Main recommendation	Recommended activities	Responsible agency	Expected result
Lack of harm reduction programmes, including low OST coverage	Significant increase in coverage of IDUs with OST and HIV services	• Initiate analysis of the group of IDUs • MET on essential drugs list and introduce rapid tests	• MoH in collaboration with WHO/TGF • MoH	Decrease in morbidity and mortality of IDUs and decrease in HIV transmission
Insufficient coverage of enrolment and retention in HIV care and ART	• Multidisciplinary teams to support enrolment and retention in care • minimize the gap between current coverage and estimated need	• Cross disciplinary discussion on process and capacity building needs identified • agreement between MOH and TGF to use TGF savings or reallocate some funds for the priority area – to procure ARVs for more PLHIV	• MoH • MoH + TGF	Decrease in morbidity and mortality of PLHIV and decrease in HIV transmission
HIV testing coverage does not target population groups most at risk	Targeted testing of most at risk population and ensure linkage to care	Analysis of testing programmes Technical support by WHO	Republican Center of Epidemiology in collaboration with MoH	Decrease in morbidity and mortality of PLHIV and decrease in HIV transmission Decrease in late presentation and in numbers of undiagnosed PLHIV and increase positivity rate in the tested population

Main bottlenecks (prioritized)	Main recommendation	Recommended activities	Responsible agency	Expected result
Surveillance of the HIV epidemic in the country lacks important indicators and is not adequately analysed to inform policy decisions on priorities within the national HIV programme	Identify key indicators and ensure centralized mechanism for analysis	Technical support by WHO/ECDC	Republican Center of Epidemiology in collaboration with WHO/ECDC	Better monitoring of the epidemic and best practice interventions
Inadequate procurement and supply management of ARVs and commodities	Develop a centralized forecasting and distribution plan, as well as a thorough transition plan for procurement of ARVs	Transition plan with TGF Technical support TGF	MoH + TGF	Ensure quality and low price of ARVs as well as avoid stock-outs
Lack of integrated services, including collaboration between HIV clinics and NGOs, TB hospitals and narcologists	Develop NGO strategy for capacity building and financing mechanism	Cross disciplinary discussion on process and capacity building needs identified Technical support	MoH in collaboration with all involved stakeholders	Decrease in morbidity and mortality of PLHIV and decrease in HIV transmission
Recommendations from previous evaluation missions are not sufficiently taken into account in country programming	Technical support to ensure incorporation of recommendations in relevant country programmes and strategies	Technical support	MoH in collaboration with all involved stakeholders	Improvement of country programmes

Annex 1

Data about screening of the population of the Republic of Belarus for HIV antibodies						
Population code	**Screened**		**Number of HIV infected among those screened**		**Percentage of HIV infected people of those screened**	
	2011	**2012**	**2011**	**2012**	**2011**	**2012**
Citizens of the Republic of Belarus	927 532	990 284	1 195	1 216	0.13	0.12
Drug users (102)	4 499	4 466	57 (213)*	67	1.3	1.5
STI patients (104)	23 663	21 347	66 (267)*	40	0.3	0.2
Blood donors (108)	298 229	302 131	23	20	0.008	0.007
Pregnant women (109)	220 176	231 584	128	124	0.06	0.05
Recipients (110)	15 816	15 677	0	0	0	0
Prisoners (112)	31 894	27 583	170	150	0.5	0.5
People examined by clinical indications (adults) (113)	72 063	74 203	376	401	0.5	0.5
People examined anonymously (114)	18 685	18 126	0	0	0	0
People examined by epidemiological indications (115)	1 785	1 700	85	89	4.8	5.2
People examined by clinical indications (children) (117)	5 990	5 896	0	0	0	0
Children born to HIV infected mothers	531	511	12	9	2.3	1.8
Other populations	234 201	287 060	278	316	0.12	0.11
Foreign citizens (200)	11 162	13 098	1	7	0.009	0.05
TOTAL:	938 694	1 003 382	1 196	1 223	0.13	0.12

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List of informants

Name	Job title	Organization
Mr Igor Gajevsky,	Deputy Minister of Health – Chief State Sanitarian of the Republic of Belarus	Ministry of Health
Ms Inna Karaban	Deputy head of the Department of Hygiene, Epidemiology and Prevention	Ministry of Health
Ms Liudmila Reutskaya	Head of the Board on Pharmaceutical Inspection and Organization of Medicines Provision	Ministry of Health
Dr Dmitry PINEVICH	First Deputy Minister of Health of the Republic of Belarus	Ministry of Health
Ms Tatiana Migal	Head of the Department of Specialized Medical Care	Ministry of Health
Ivan Konorazov	Chief narcologist	Ministry of Health
Ms Valentina Bykova	epidemiologist, Head a.i.	National AIDS prevention centre
Ms Larysa Kasinskaya	Epidemiologist	National AIDS prevention centre
Ms Svetlana Sergeenko	Epidemiologist	National AIDS prevention centre
Ms Liudmila Reutskaya	Head of the Board on Pharmaceutical Inspection and Organization of Medicines Provision	Ministry of Health, Centre for Examinations and Tests in Health Service and specialists of the MoH, Department of Pharmaceutical Industry
Tatyana Shamsutdinova,	Head of Department of Medicinal Preparations of Center for Examinations and Tests in Health Service	Ministry of Health, Centre for Examinations and Tests in Health Service and specialists of the MoH, Department of Pharmaceutical Industry
Anna Tryasucheva	Head of the medical department of Penitentiary system	medical department of Penitentiary system
Alexander Zholudev	chief specialist of the medical department of Penitentiary system	medical department of Penitentiary system
Irina Kazakova	specialist of the medical department of Penitentiary system	medical department of Penitentiary system
Dr Eugene Golubitski	narcologist at OST site	OST site, Minsk oblast narcological dispensary
Mr Oleg Skripko	coordinator of OST component at the TGF grant implementation unit, UNDP	OST site, Minsk oblast narcological dispensary
Ms Anna Nazarova	peer consultant, Minsk	Involvement of PLHIV in service delivery
Ms Valentina Dulich	peer consultant, Minsk	Involvement of PLHIV in service delivery
		UNDP/TGF Grants Implementation Unit
Mr George Sinkov	Head of 2nd Minsk TB dispensary	2nd Minsk TB dispensary
Zhanna Saprykina	deputy head	2nd Minsk TB dispensary
Ms Svetlana Skripko	laboratory specialist, Head a.i.	HIV/AIDS Laboratory, National centre for hygiene, epidemiology and public health

Review team members

Name	Job title	Organization	Email address
Irina Eramova	Team leader, HIV treatment and care	WHO Regional Office for Europe	ier@euro.who.int
Jens Lundgren	Director. HIV treatment and care clinical expert	WHO collaborating centre for HIV and viral hepatitis	jdl@cphiv.dk
Dorthe Raben	HIV Public health, PSM of ARVs, service delivery expert	WHO collaborating centre for HIV and viral hepatitis	dra@cphiv.dk
Anna Zakowicz	Community mobilization expert	EATG	anna.zakowicz@gmail.com
Igor Karpov	Chief Infectious Diseases specialist at the MoH, HIV treatment and care	MoH	igorkarpov57@mail.ru
Dmitry Paduto	Deputy Head, HIV service delivery, diagnostic and monitoring, ARVs	Infectious diseases hospital in Minsk	ich@tut.by
Oleg Skripko	UNDP/TGF Grants Implementation Unit, Coordinator on PMTCT and Administration of Methadone Substitution Therapy	UNDP/TGF	oleg.skripko@undp.org
Eugene Spevak	Civil society, community mobilization expert		spevakes@gmail.com
Vera Ilyenkova	WHO Country office	WHO Country office	vil@euro.who.int
David Kokiashvili	M&E Public Health Specialist, observer	TGF	David.Kokiashvili@theglobalfund.org

World Health Organization
Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø
Denmark
Tel.: +45 45 33 70 00
Fax: +45 45 33 70 01
Email: aids@euro.who.int
Web site: www.euro.who.int/aids