

Regional Report: Programmatic and Finance Gaps for Key Populations in a Selection of Eastern Europe and Central Asia Countries

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Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ECUO	East Europe and Central Asia Union of People Living with HIV
EECA	Eastern Europe and Central Asia
EHRN	Eurasian Harm Reduction Network
ELISA	Enzyme-linked Immunosorbent Assay
EPP	Expenditure Per Person
HIV	Human Immunodeficiency Virus
MSM	Men who have Sex with Men
NSP	Needle Syringe Programs
OST	Opioid Substitution Therapy
PLHIV	People Living with HIV
PWUD	People Who Inject Drugs
SW	Sex Workers
TB	Tuberculosis

Introduction

Context & Rationale

This report, and its underlying assessment process, were conceived and conducted in the context of a regional Global Fund grant, “Partnership for equitable access to the HIV care continuum in the Eastern European and Central Asian (EECA) region,” by the East Europe and Central Asia Union of People Living with HIV (ECUO).

The regional project’s goal is to enhance the effectiveness, accessibility, sustainability and scale-up of HIV treatment programs in the EECA region, with a special focus on key populations. The project has to discrete objectives:

Objective 1. Create enabling conditions at national and regional levels for facilitating access to HIV care and improving linkages between the main elements of the HIV care continuum for key populations in at least five participating countries in the region by 2018.

Objective 2. Advocate for transition to the strategic and sustainable state funding of the HIV care continuum, based on evidence and on the needs of key populations, in at least five participating countries in the region by 2018.

The assessment described below was conducted and managed by the Eurasian Harm Reduction Network, as a sub-recipient of this grant.

Aim and Objectives of Assessment

The aim of this assessment was to capture a snapshot of the financial landscape surrounding the HIV response for people living with HIV (PLHIV) and key populations at increased risk for HIV in Azerbaijan, Belarus, Estonia, Kazakhstan, the Kyrgyz Republic, the Russian Federation, and Uzbekistan. For the purpose of this assessment, key populations were defined as people who use drugs (PWUD); men who have sex with men (MSM); and sex workers (SW).

The specific objectives of this assessment were:

1. To assess service coverage and total expenditure, both as absolute figures and as a percentage of national funding, for all categories of services within the continuum of HIV and TB care for PLHIV, SW, PWUD, MSM.
2. To calculate unit costs for all categories of services within the continuum of HIV and TB care for PLHIV, SW, PWUD, MSM.
3. To estimate how much funding is needed to meet the full need of key affected populations, how much of that funding can be secured domestically, and what is the remaining gap that needs to be secured through outside funding.

Assessment Methods

Tools

In order to capture a complex range of financial and programmatic data necessary to complete analysis, an Excel-based database was developed to allow for systematic capture and processing of data. Categories of data included the following:

- General information: basic country demographics; economic indicators; total health expenditure; total HIV expenditure, as planned by program area
- Coverage levels: population size estimates for each key populations; number of people receiving each service in the care continuum, disaggregated by key population group
- Actual expenditures: real expenditures on the HIV program, including target group specifics and cost categories, as well as sources of funding

A tool was designed to facilitate user-friendly collection of data, presenting clear definitions of terms and concepts, and providing the user with a range of possible analyses, which could be conducted, based on quality and detail of data available. Three specific analyses are automatically run by the tool, each in its own labeled worksheet:

- Analysis of intervention by funding source
- Analysis of intervention implementation by target population
- Analysis of intervention by cost

As further described below, not all of these analyses were able to be completed during this assessment, due to lack of available data; however, the database is sufficiently powered to conduct these analyses when data are available.

A copy of the full tool, including its instructions, is attached to this report as an appendix.

Data Collection Procedures, Sources and Sampling

Data collection was managed by a national consultant in each country, who were trained during a two-hour. National consultants were trained to use the data collection tool, and counseled on methods of data collection. Consultants used only publicly available, published data. Sampling of data was not a significant issue for this analysis, as all data collected was collected from national-level resources.

Limitations

There were several known limitations within this methodology:

1. **Use of secondary data sources.** Because of limited resources available for this assessment, it sought to use only secondary data sources. Potential limitations arise from incomplete, unverified, or inconsistent data; and from variables that may have been defined or categorized differently across different existing data sources. This is particularly problematic for financial data, which may not be routinely disaggregated by service elements in existing records.
2. **Lack of key population-specific data.** The lack of disaggregated HIV services data presents serious barriers to creating accurate treatment cascades to demonstrate access to services for each key population. This issue has been well-documented by other partners in the region.
3. **Limited time resources.** Because of the relationship of this assessment to a larger schedule of project interventions, a limited time frame was able to be devoted to data collection.

In addition to these known limitations, there were several other significant, systemic limitations that arose during the process of data collection. Across the region, these included:

- **Lack of expenditure data.** As previously noted during a similar regional analysis undertaken by the Eurasian Harm Reduction Network in neighboring countries¹, countries in the EECA region do not conduct routine expenditure tracking or analysis within the HIV response. As a result, it is not possible to track expenditures by category of spending, including program areas as a whole, or disaggregated by key population. For three of the six countries included in this analysis, HIV program expenditure was completely unavailable.
- **Data insufficient for unit cost calculation:** As a result of lack of detailed expenditure data, it was not possible to calculate detailed expenditure per person (EPP), nor to assess service delivery unit costs for any of the countries in this analysis. In order to proceed with the third objective of this assessment, to calculate financial gaps, the assessment turned to existing unit cost data available from Optima studies previously done by countries. However, unit costing data were still only available for three out of the seven countries: Belarus, Kazakhstan, and the Kyrgyz Republic.
- **Financial gap analysis indicative, but not precise.** By utilizing existing unit cost data from Optima studies, the assessment was able to analyze unit costs alongside programmatic coverage gaps to calculate total financial gaps for investment in key population and PLHIV programming. However, the analysis should be considered indicative, and not precise, for two reasons:
 - While programmatic gap data came from 2014, the latest available Optima unit cost data were from 2012 and 2013, and therefore recent changes in commodity or service delivery pricing may not be reflected. To control for this, the assessment team conducted a rough calculation of EPP for 2014 and 2015 for each country (where data allowed), and judged that EPP in prevention services was similar enough to the Optima unit costs that they could be considered reliable for indicative analysis. This method of verification did not hold up for ART costs, however; it is assumed that this is because expenditure for ART may include only medication costs, and not include the higher costs associated with administration and clinical monitoring – highlighting why reliance on unit costs, even if slightly outdated, is more sound than using ART EPP based on unclear expenditure tracking method variation in each country.
 - Simple calculation of unit costs by programmatic gaps does not take into account economies of scale, any programmatic efficiency gains, improved cost-effective utilization of existing capacity in the current system. Therefore, it may be expected that unit costs may decrease as more clients are covered, and result in cost savings which can be reinvested for further optimization. Therefore, these calculations should be considered indicative of additional financial need, but they should not discourage program planners from seeking further ways to optimize services and increase cost-efficiency.

¹ *Road to Success: Towards Sustainable Harm Reduction Financing*. Eurasian Harm Reduction Network, 2015. Available at: <http://www.harm-reduction.org/reports/road-success-towards-sustainable-harm-reduction-financing>

Findings

All findings presented here are using data capture from the secondary sources cited in the References section, starting on page 19.

As anticipated, every country investigated was found to have unique strengths and weaknesses, which combine to present a distinct set of barriers and challenges to strengthening the continuum of HIV care.

Objective 1: Service Coverage and Expenditure

Prevention and Testing: Coverage of Key Populations with Key Services

Note: International coverage targets, as defined by UN bodies, are expressed as percentages. Therefore, this assessment also assesses available data in terms of percentages, in order to compare country progress to international standard targets. However, all percentages presented here assume not only accuracy of the numerator (e.g. services received were adequate to meet international, evidence-based standards), but also of the denominator, which is a population size estimation. An underestimated denominator can have a significant impact on the actual coverage percentage.

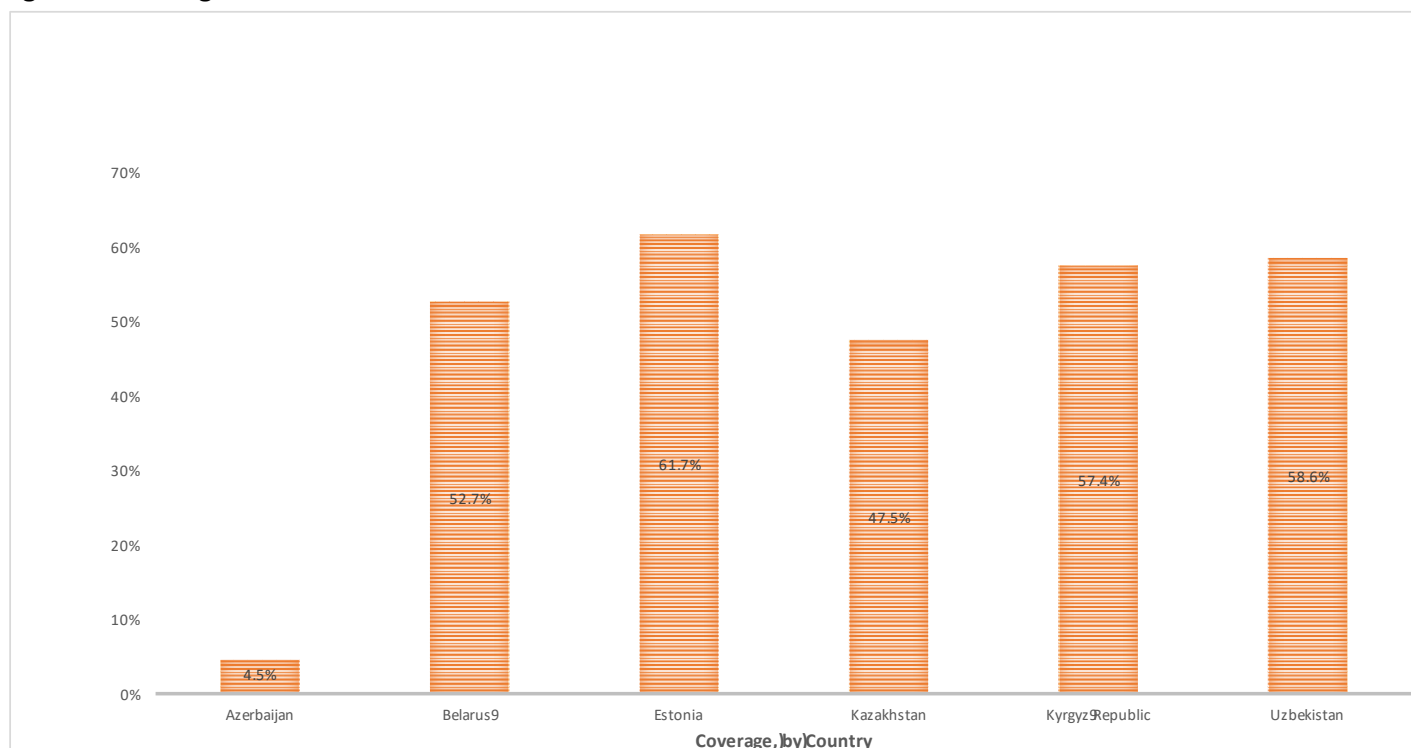
MSM were particularly strongly excluded from prevention service coverage, with 2015 coverage levels reaching only 10.0% in the Kyrgyz Republic and 11.2% Belarus. Kazakhstan covered 23.9% of all MSM with prevention services. In Uzbekistan, coverage is reported to be 50.2%, but this assumes a very modest total MSM population of 3,000 (0.01% of Uzbekistan's general population), and therefore should be interpreted with great caution. No MSM-specific program data were available for Azerbaijan, Estonia or the Russian Federation in 2014 or 2015.

In most settings, MSM also experienced low access to HIV testing. Only 2.1% of all estimated MSM in Azerbaijan received an HIV in 2015; in Uzbekistan, only 52 individuals were tested, constituting 0.7% of the estimated population (see note above about conservative population size estimate). In Estonia, 3.3% of MSM accessed testing in 2015; and in Kazakhstan, 6.5%. The Kyrgyz Republic provided significantly better access, with 40.0% of all estimated MSM accessing testing, and Belarus reported testing enough MSM to account for 116.2% of the estimated population². Except for Belarus, where 96.9% of all reported tests were express test technology, all reported testing is presumed to be through traditional enzyme-linked immunosorbent assay (ELISA) technology. Neither Estonia nor the Russian Federation report any testing data on MSM for 2014 or 2015.

² Because express testing and ELISA testing numbers were reported separately, the 116.2% coverage presented here is calculated using the cumulative number of tests, divided by the estimated population size. In reality, since most express tests are confirmed with ELISA technology, it is possible and even probable that each reported ELISA test overlaps with the testing of the same individual using express technology. This means that the total number of people tested is likely to be less than the total number of tests administered, and therefore coverage may be less than 116.2%. However, given the data available, it is not possible to make a more accurate calculation reflecting the real number of people tested.

PWUD fared better in most settings, with 61.7% NSP coverage in Estonia, 58.6% in Uzbekistan, 57.4% in the Kyrgyz Republic, 52.7% in Belarus, and 47.5% in Kazakhstan; these levels approach or exceed the WHO recommendation of 60% coverage for PWUD with NSP. Assuming that both population size estimates and the package of services provided are adequate, this indicates promising interventions in all five countries. However, Azerbaijan and the Russian Federation fell far short of international targets, with Azerbaijan reporting coverage of only 4.5%, and Russia not reporting NSP coverage figures in official reports in 2014 or 2015³.

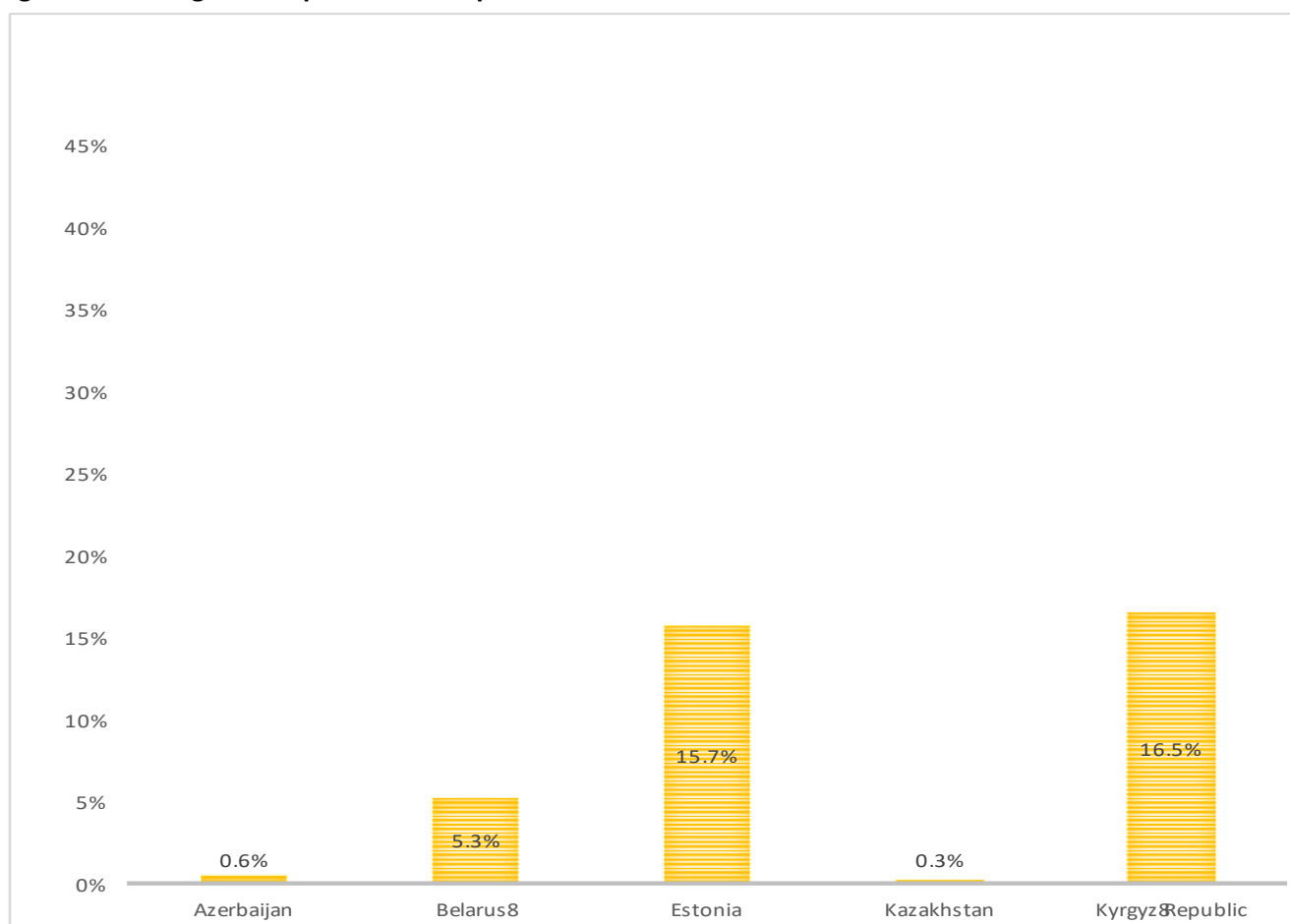
Figure 1: Coverage of PWUD with NSP



Additionally, all countries are still well below the WHO ideal of 40% access to opioid substitution therapy (OST) for all opioid users, with only Estonia and the Kyrgyz Republic reaching double-digit coverage of 15.7% and 16.5%, respectively. Belarus reaches 5.3% of all opiate users; while Kazakhstan and Azerbaijan each serve less than 1% of the population in need of this service. The Russian Federation and Uzbekistan do not have OST programs.

³ While NSP exists in the Russian Federation through the support of Global Fund funding, coverage is not reported in official national reports - including the National Health Development Strategy reports and Global AIDS Response Progress Reports. While it is common for countries in the region to rely heavily or solely on external resources such as the Global Fund to fund programs, the Russian Federation is unique in declining to officially report any coverage of these programs.

Figure 2: Coverage of People who Use Opioids with OST



Furthermore, the linkage between prevention services and access to testing is concerning: in Belarus, only 21.7% - less than half of those reached with prevention services – accessed testing in 2015. In Kazakhstan, only 39.4% of PWUD accessed testing; Uzbekistan, 39.7%; in and in the Kyrgyz Republic, 43.0%. Azerbaijan, on the other hand, reached 5.7% of its PWUD population with HIV testing, despite reaching only 4.5% with prevention services. Neither Estonia nor the Russian Federation report any data specific to testing of PWUD in 2014 or 2015.

SW had very limited access to prevention services in Azerbaijan and Belarus, with only 15.2% and 28.6% of all estimated SWs receiving prevention services, respectively. and only 8.8% receiving testing in 2015. Kazakhstan and the Kyrgyz Republic reported marginally better results, with 89.2% and 60.0% of SW being reached; these numbers are extremely promising, though their validity is based on the assumption of accurate population size estimates and information tracking systems, as further detailed in the Discussion below.

SW access to HIV testing followed a pattern similar to that of PWUD: Belarus recorded enough testing events to cover 294.3% of the estimated sex worker population⁴, while Kazakhstan tested 98.5% of all estimated SW, and in the Kyrgyz Republic, 55.9%. Uzbekistan reached a smaller percentage of all estimated sex workers, with only 20.3% tested in 2015. Access to testing in Azerbaijan was very low, at 0.3%, and neither Estonia nor the Russian Federation report any data on testing for SW in 2014 or 2015.

⁴ As indicated for MSM testing rates in Belarus, the high rate of testing assumes that the same individuals may have been tested multiple times. In addition, the 3.5% of all tests which were recorded as ELISA technology may overlap with express tests, having served as confirmatory tests for preliminary positive results through express testing. Therefore, the total number of unique rounds of testing per individual client may be lower than indicated in these calculations.

Minding Communities' Priorities for Services

While the current assessment focused primarily on assessing the quantitative coverage of key populations and PLHIV with essential services, it is important to note that quality of and access to services by communities is a critical issue both for programmatic effectiveness, and for informing a responsible budgeting process. Within the scope of a separate regional project, entitled *Money Can Buy Health If You Budget For It*, funded by the Robert Carr Networks Fund, EHRN conducted a brief assessment of service quality in Armenia, Estonia, and the Kyrgyz Republic.

This assessment focused on community-led processes of gathering perspectives and experiences on quality of services, including barriers and main weaknesses in current service provision. The final result of each country's assessment was a set of community-agreed priorities for improving services; such priorities should be considered heavily when countries seek to build budgets and reprogram existing funding. A summary of top priorities from the three target countries is as follows:

Armenia

Screening for sexually transmitted infections

Prevention commodities: condoms, needles and syringes, information materials

Access to express testing for HIV

Antiretroviral therapy (including for prevention of mother to child transmission)

Adherence support for ART

Viral load and CD4 testing

Treatment of coinfections: Hepatitis C, TB

Access to methadone treatment, including take-home treatment

Overdose prevention, including naloxone (for PWUD)

Estonia

Screening for sexually transmitted infections

Prevention commodities: needles and syringes, disinfectants

Antiretroviral therapy (including for prevention of mother to child transmission)

Viral load and CD4 testing

Treatment of coinfections: Hepatitis B and C, TB

Access to methadone and buprenorphine treatment

Overdose prevention, including naloxone (for PWUD)

Kyrgyz Republic

Prevention commodities: condoms, needles and syringes

Access to express testing for HIV

Antiretroviral therapy

Viral load testing

Treatment of coinfections: TB

Access to methadone treatment

Overdose prevention, including naloxone (for PWUD)

The commonality of priorities across these three countries, across different key population groups, should be striking: communities are identifying and seeking basic goods and services which have long been documented as essential components of the HIV response. In every country, access to basic prevention commodities, ART, viral load testing, and TB treatment was a priority. All PWUD communities identified access to OST and overdose prevention (specifically, naloxone) as a top priority.

In considering the analysis of coverage levels in Azerbaijan, Belarus, Estonia, Kazakhstan, the Kyrgyz Republic and the Russian Federation, presented above and below, these community priorities should be borne in mind. While countries still struggle to meet basic coverage levels for prevention services, communities are speaking loudly and clearly that these services are a priority; especially for PWUD, who identify access to OST as an ongoing need. Moreover, as presented below, all countries are struggling to reach even 30% coverage of all diagnosed PLHIV with ART, while communities of PLHIV in Armenia, Estonia and the Kyrgyz Republic all identify access to ART as a top priority. The lack of data on virologic suppression should, similarly, be viewed alongside a universal plea for access to regular viral load monitoring.

The findings of community-led assessment of service quality are not surprising: the international community has long known what core elements of programming are necessary for successful HIV programming. However, these findings should serve as an urgent reminder that there is no excuse not to do better: the evidence base and the community perspective align to send a clear message that it is time for all basic service needs to be met for key populations and PLHIV, providing high-quality, accessible services

Treatment Cascades: Coverage of PLHIV with Key Services

The *UNAIDS Fast Track to End AIDS* calls for reaching the 90-90-90 targets by 2020: that is, 90% of all PLHIV are diagnosed and know their status; 90% of all those diagnosed are enrolled and retained on ART; and 90% of all those on ART achieve virological suppression. With the ambitious goals to scale these targets up to 95-95-95 by 2030, in order to end AIDS globally, every country must act urgently to move towards 90-90-90.

Unfortunately, the EECA countries assessed here fall far short of reaching any of these targets. Figures 3 and 4⁵, below, provide visual representation of the treatment cascades for each country, quantifying the estimated number of PLHIV, the number who know their HIV status, the number in care for HIV infection, the number receiving ART, and the number achieving virological suppression. For each 90-90-90 benchmark (knowledge of status; treatment with ART; virological suppression), a red bar is provided, indicating the gap between achievement and target.

For the first indicator, diagnosis and knowledge of status, Uzbekistan and the Russian Federation come closest to achieving the target, at 87% and 77% respectively – but both still fall below the 90% needed to move towards epidemic control. In addition, as with prevention, it is important to note the significance of the accuracy of denominator in this coverage equation – in this case, the total estimated number of PLHIV. If the current estimate is conservative due to lack of robust surveillance, or surveillance which does not accurately target representative samples within key populations, the total number of estimated PLHIV may be lower than reality. These conservative estimates could make coverage rates appear artificially high. This is of particular concern in countries like the Russian Federation and Uzbekistan, where other coverage indicators for key populations are irregular or absent. Diagnosis is even lower in Estonia, Kazakhstan, and the Kyrgyz Republic, ranging from 70% to 55% of all PLHIV having knowledge of status. The lowest achievers in the assessed countries include Belarus and Azerbaijan, at 44% and 37%, respectively.

For the second indicator, enrollment and retention on ART for 90% of all diagnosed PLHIV, none of the assessed countries passes 35%. This is not surprising given the steep drop-off between diagnosis and linkage to care: of all those diagnosed, only 34% (Belarus) to 53% (Russian Federation) are linked to care to start with; an expectedly smaller number successfully enroll and are retained onto ART.

While it would be impossible to approach achievement of the third indicator, virological suppression, given the lack of achievement of the first and second indicators, the more concerning issue related to this indicator is lack of available data. Only Azerbaijan and Belarus report on virological suppression, achieving 21% and 10% of their epidemiological targets. While Azerbaijan has somewhat promising achievement relative to its low ART enrollment numbers (67.0% of all those on ART do achieve virological suppression), Belarus only achieves suppression for 37.2% of all those enrolled on ART.

⁵ Data for the Russian Federation is presented separately, due to scale (i.e. the number of estimated PLHIV is several orders of magnitude greater than any other countries assessed).

Figure 3: Treatment Cascades Across the Region

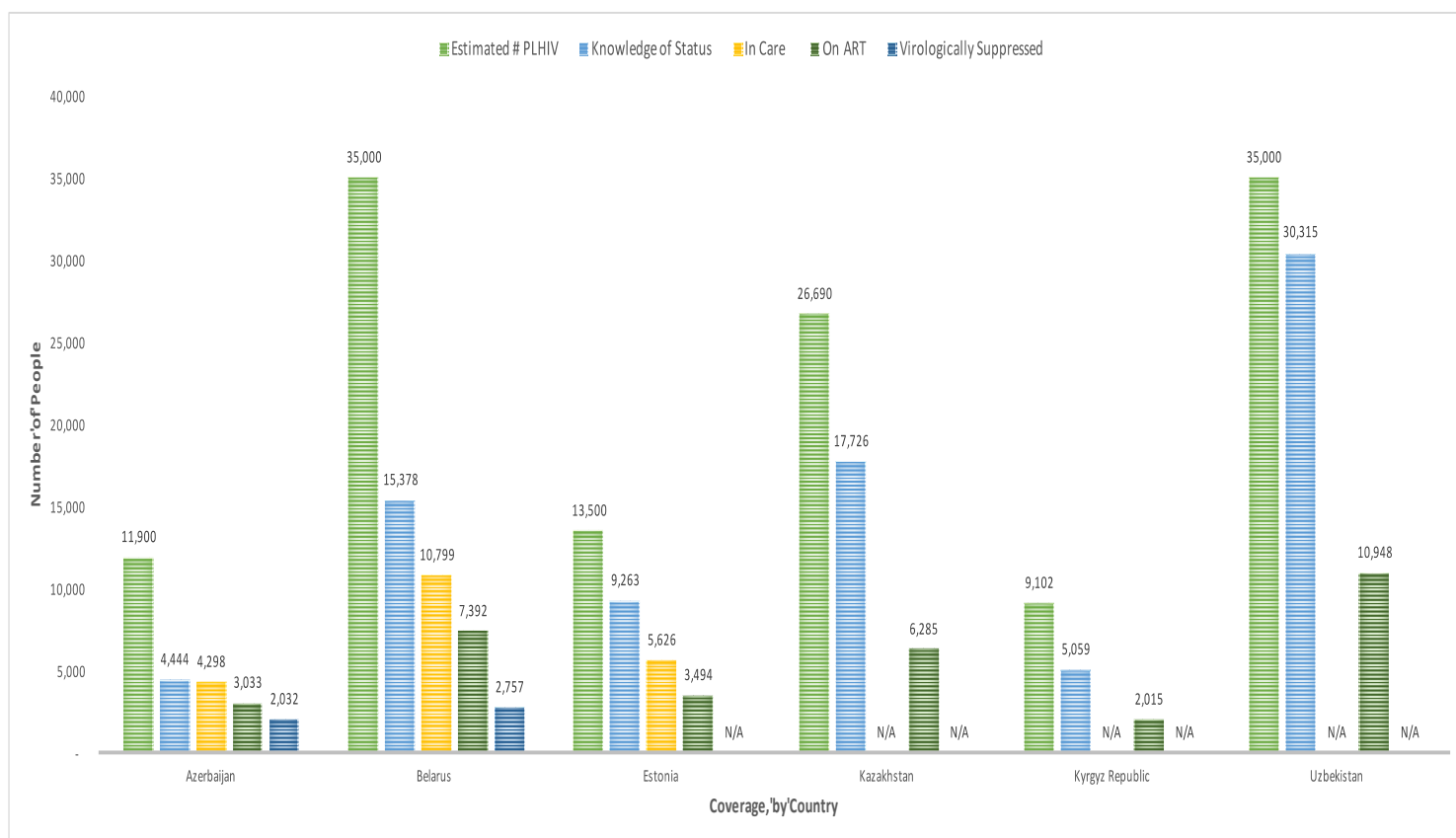
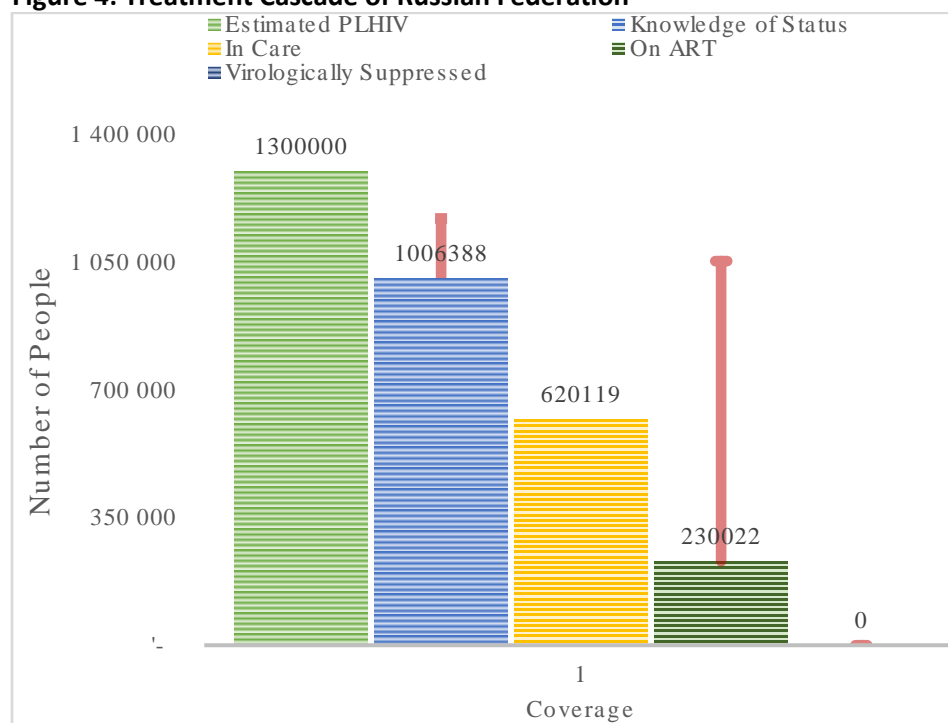


Figure 4: Treatment Cascade of Russian Federation



Expenditures by Program Area

Expenditure data were only available for three of the assessed countries: Belarus, Kazakhstan, and Uzbekistan. The Kyrgyz Republic had partial data available for 2014, as reported in the 2015 GARPR, but data did not provide disaggregation by program area, sources or cost categories; and therefore could not be used for reliable final analysis.

Proportion of total expenditures devoted to prevention varied significantly, with Uzbekistan devoting 49.3% of total HIV budget to prevention, and Belarus, 39.2%, while Kazakhstan, on the other hand, spent just 4.6%. Breakdowns of prevention expenditure by key population, as available, are presented in Table 1, below. It is important to note that the vast majority of Belarus' prevention spending does not go to programming targeted at key populations, indicating potential for optimized use of resources for higher impact.

Table 1: Breakdown of prevention expenditure by target groups

Country	Expenditure as % of Total HIV Budget				
	Total Prevention	PWID Prevention	MSM Prevention	SW Prevention	Non-Key Population Prevention
Belarus	39.2%	6.3%	0.9%	1.5%	30.5%
Kazakhstan	4.6%	2.7%	1.1%	1.7%	0.8%
Uzbekistan	49.3%	40.9%	0.3%	3.1%	5.0%

In Kazakhstan expenditure for HIV testing was 7.1%, and in Uzbekistan, 2.3% - with the majority of expenses going to testing non-key populations, in line with expenditure trends for prevention. Belarus did not report expenditure data on HIV testing.

Treatment expenditures as a percentage of total budget varied significantly by country. Uzbekistan spends only 13.5% of its HIV budget on treatment costs, while Belarus spends 21.6% and Kazakhstan spends 48.6%. The breakdown of treatment expenditure by spending category, as available, is presented in Table 2, below. Though data are sparse, it is notable that spending on opportunistic infections still outpaces spending on ART in both Belarus and Kazakhstan; at the same time, both countries fall well below meeting the ART coverage targets, as presented above in Figure 3. This disparity in expenditure indicates there are opportunities for potential cost-savings, as OI expenditures drop significantly when PLHIV are provided with effective ART⁶. This is particularly prescient for Belarus, where high spending on OIs is likely to be linked to low rates of diagnosis (44%), leading people to come late to care and need treatment for complex OIs.

In addition, all three countries had significant levels of 'Other Expenditure,' which falls outside of core expenditure on prevention, testing and treatment. While this exercise did not allow for a detailed investigation of the components of each country's Other Expenditures, it is possible that there is opportunity for significant reprogramming of funds so that expenditure has more impact on disease outcomes.

Table 2: Breakdown of treatment expenditure by program area

Country	Expenditure as % of Total HIV Budget				
	Total Treatment	ART	Opportunistic Infections	Care and Support	Other Expenditure*
Belarus	21.6%	0.88%	5.6%	0.3%	39.2%
Kazakhstan	48.6%	0.51%	0.9%	N/A	39.7%
Uzbekistan	13.5%	10.3%	1.7%	2.2%	59.8%

*Other Expenditure falls outside of prevention, testing or treatment costs. Further details on what is included in this spending were not readily available.

⁶ A 2016 meta-analysis showed substantial cost-savings by reduction of OIs through introduction of ART, even in middle-income countries. (Low A et al. *Incidence of Opportunistic Infections and the Impact of Antiretroviral Therapy Among HIV-Infected Adults in Low- and Middle-Income Countries: A Systematic Review and Meta-analysis*. [Clin Infect Dis](#). 2016 Jun 15;62(12):1595-603. doi: 10.1093/cid/ciw125. Epub 2016 Mar 6.)

Objective 2: Unit Costs

Because of the limited nature and detail of expenditure data, it was not possible to conduct sophisticated per client expenditure analysis. Therefore, as described above in Limitations, existing Optima unit cost data were used.

Table 3: Prevention Unit Costs, from Optima (USD)

Country	NSP Unit Cost	OST Unit Cost	Year	MSM Prev. Unit Cost	Year	SW Prev. Unit Cost	Year
Belarus	101.36	645.31	2013	39.03	2013	88.62	2013
Kazakhstan	56.43	318.17	2015*	13.46	2015*	34.13	2015*
Kyrgyz Republic	116.38	509.51	2015*	449.13	2015*	103.65	2015*

*Data for Kazakhstan and the Kyrgyz Republic were presented in 2015 Optima reports, though the year of source data was not identified.

Table 4: Treatment Unit Costs, from Optima (USD)

Country	ART Unit Cost	Year
Belarus	576.48	2013
Kazakhstan	2279.00	2015*
Kyrgyz Republic	861.55	2015*

*Data for Kazakhstan and the Kyrgyz Republic were presented in 2015 Optima reports, though the year of source data was not identified.

Objective 3: Addressing Funding Gaps

A programmatic gap analysis was conducted for countries where financial data was available, in order to contribute to a financial gap analysis. Programmatic gaps were calculated using available coverage data, and comparing to international coverage targets.

Table 5: Programmatic Gaps

Country	Additional Clients in Need of Services				
	PWID Prevention (NSP)	PWID Prevention (OST)	MSM Prevention	SW Prevention	PLHIV in need of ART
Belarus	5,509	6,402	29,307	6,901	20,958
Kazakhstan	16,087	38,806	10,074	--	15,333
Kyrgyz Republic	644	1,766	10,997	0	5,268

Using these programmatic gaps and unit costing data available from Optima studies, financial gaps were calculated for Belarus, Kazakhstan and the Kyrgyz Republic.

Table 6: Financial Gaps for PWID Prevention

Country	NSP Program Gap	NSP Unit Cost	NSP Gap Subtotal	OST Program Gap	OST Unit Cost	OST Gap Subtotal	Total Financial Gap
Belarus	5,509	101.36	558,392.24	6,373	645.31	4,112,560.63	4,670,952.87
Kazakhstan	16,087	56.43	907,789.41	38,806	318.17	12,346,905.00	13,254,694.41
Kyrgyz Republic	644	116.38	74,948.72	1,766	509.51	899,794.66	974,743.38

Additional investment needs for NSP vary greatly within the three countries assessed, owing primarily to variation in population size. OST financial gaps also vary widely, from over \$12m in Kazakhstan to less than \$1m in the Kyrgyz Republic, but are significantly more urgent considering the low access of people who use opioids with OST. Overall, PWID programming continues to need more investment in all countries, though programmatic efficiency gains should also be considered alongside planning for scale-up of funding.

Table 7: Financial Gaps for MSM Prevention

Country	MSM Program Gap	Unit Cost	Total Financial Gap
Belarus	29,307	39.03	1,143,852.21
Kazakhstan	10,074	13.46	135,596.04
Kyrgyz Republic	4,397	449.13	1,974,824.61

For MSM programming, Kazakhstan is a clear leader in the assessed countries, with a relatively small financial gap. It may be possible to reprogram funds within the MSM program, without compromising quality, in order to reach the required number of individuals, or otherwise a shrewd argument may be made for a relatively limited additional investment which can bring the country in line with meeting one of its major targets for prevention. In a large country such as Kazakhstan, this argument may depend heavily on the geographic distribution of those currently not covered – e.g. if they are in major cities where outreach programs are active, reprogramming funds and adding efficiencies may result in more clients reached; if, however, they are in different geographic regions where no outreach programs are currently active, additional funding is likely to be required to initiate new programming.

The situation is rather more dire in Belarus and the Kyrgyz Republic, which each require over \$1million additional investment to reach enough MSM with the current programming standards. While these countries should certainly still seek to optimize services and realize cost-savings where possible, it is

unlikely that these financial gaps will be able to made through programmatic adjustments alone; they will require additional investment from external or domestic resources.

Table 8: Financial Gaps for SW Prevention

Country	SW Program Gap	Unit Cost	Total Financial Gap
Belarus	6,901	88.62	611,566.62
Kazakhstan	--	34.13	0
Kyrgyz Republic	--	103.65	0

While prevention programs for sex workers in Belarus have smaller gaps than programming for other key populations, there is still a sizeable gap (\$611,567) to meet full need. Given the other, competing financial priorities in Belarus' HIV response, stakeholders might seek to optimize use of current funds, if possible, to reach a greater number of clients without adding additional financial burden. Sex work programs are faring better in the Central Asian countries, with Kazakhstan and Kyrgyzstan both exceeding target coverage and not requiring any additional funds; both countries should still examine current programming to assess whether there are opportunities for service optimization or cost-savings within existing budgets, which would allow either more sex workers to receive services (or for those currently reached to receive a more complex package of services), or for funds to be re-programmed to other populations in need, as described above and below.

Table 9: Financial Gaps in Testing and Treatment

Country	ART Program Gap	ART Unit Cost	Total Financial Gap
Belarus	20,958	576.48	12,081,867.80
Kazakhstan	15,333	2279.00	34,943,907.00
Kyrgyz Republic	5,268	861.55	4,538,645.40

Across all areas of intervention, in all three countries, financial gaps in ART were the largest, ranging from over \$4.5m in the Kyrgyz Republic to nearly \$35m in Kazakhstan. These tremendous gaps reflect two realities: coverage is still dangerously low across the region and needs to be scaled up urgently; and also countries are sometimes paying rates for medications that are significantly out of line with prices paid by other countries⁷. In Kazakhstan, for instance, rationalizing ART prices to US\$1,000 per client or less would cut the financial gap from \$35m to a more manageable \$15m. Therefore, while countries

⁷ Middle income countries around the world struggle with accessible pricing for ART, as summarized by a number of papers presented at the 21st International AIDS Conference in Durban, South Africa. (<http://i-base.info/htb/30702>)

should consider traditional cost-savings measures such as task-shifting and other improved methods of prescribing ART, an emphasis should be placed on assuring that ART purchase prices are taking full advantage of the best international prices available.

Discussion

While the data collected as part of this assessment is valuable in getting an overall picture of programmatic coverage and financial gaps across EECA, the assessment was significantly hampered by lack of available, detailed expenditure data. This highlights the urgent need for all countries to institute **expenditure tracking** systems, in order to understand how and how much money is being spent on the HIV response. In addition, countries should assure **regular analysis of expenditure data** (at least biennially), in order to ascertain what is being bought with the money spent. These steps are absolutely critical both for programmatic transparency, and for the opportunity to identify potential efficiency gains. Without these underlying data and analyses, countries are not able to responsibly budget for the necessary increases in domestic expenditure that would be involved in scaling-up programming, nor are they able to consider the impact of decreasing international donor support for key populations across various elements of the HIV response.

In the countries where HIV program expenditure data were available, the availability of program-area expenditure data indicated high levels of spending (>37%) on costs not directly related to prevention, care or treatment of HIV, indicating that administrative and management costs are either very high or being costed at an inflated rate. This is important as it presents a significant **opportunity for cost savings and reprogramming of funds**; specific opportunities for optimizing efficiency must be assessed at the country level, on a case-by-case basis. Considering the robust financial gaps presented above, it is critical that alongside raising additional funds, countries seek to utilize the funding they have more effectively to help close the gap.

In addition to financial data, there are limitations to the epidemiological data available, including **population size estimates** (PSEs). The accuracy of PSEs is critical because a PSE provides the denominator for a coverage calculation, and therefore they must be accurate in order for the underlying epidemiological assumptions about transmission mitigation to be accurate.

Furthermore, despite the availability of key population-disaggregated data for **treatment cascades**, a systematic review of the cascades shows us that targets are not being met for anyone. With no country in this assessment achieving more than 35% coverage of all diagnosed PLHIV with ART, and only two countries having access to viral suppression data (a critical step in assuring that 90% of those on treatment are achieving suppression), it is clear that significant, urgent effort is needed to scale-up treatment program.

Perhaps most concerning, however, is that no country assessed is reaching even the first indicator in the treatment cascade: all knowledge of status levels still fall below the 90% threshold. This has dangerous implications for downstream spending, with PLHIV coming later to care and requiring more expensive intervention – as seen in Belarus' high OI expenditures – and also potentially requiring more expensive ART regimens.

These shortcomings, together, indicate a need for comprehensive action in all areas: to scale up testing and knowledge of status for all key populations, to assure a much more robust linkage to care and

enrollment on ART, and to urgently introduce the viral load technology needed to monitor treatment effectiveness.

In all countries - even in countries where no expenditure data were available - it is safe to assume based on low prevention and treatment coverage that significant additional resources are needed to approach WHO targets for prevention and UNAIDS 90-90-90 targets to end AIDS by 2030. **This makes the need for expenditure data, which would allow for unit costing and sophisticated gap analysis, even more pressing.**

Conclusion

Recommendations & Advocacy Messages

1. Ministries of Finance, in cooperation with Ministries of Health, should require expenditure tracking by program area for all HIV spending.
2. Expenditure data must be publicly available, so that analyses can be conducted to determine the cost-effectiveness of spending and opportunities for cost-savings.
3. Programs should urgently prioritize the scale-up of prevention, testing and treatment services, using cost-savings or additional investment, as needed, to move towards 90-90-90 targets.
4. Key populations, in particular, are well below targets for prevention coverage. Particularly MSM require urgent scale-up of prevention programming and testing access in order to approach 90-90-90 targets.
5. Community voices echo the epidemiological evidence: key populations and PLHIV need comprehensive access to prevention commodities, ART, clinical monitoring (including viral load screening), and treatment of coinfections.

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