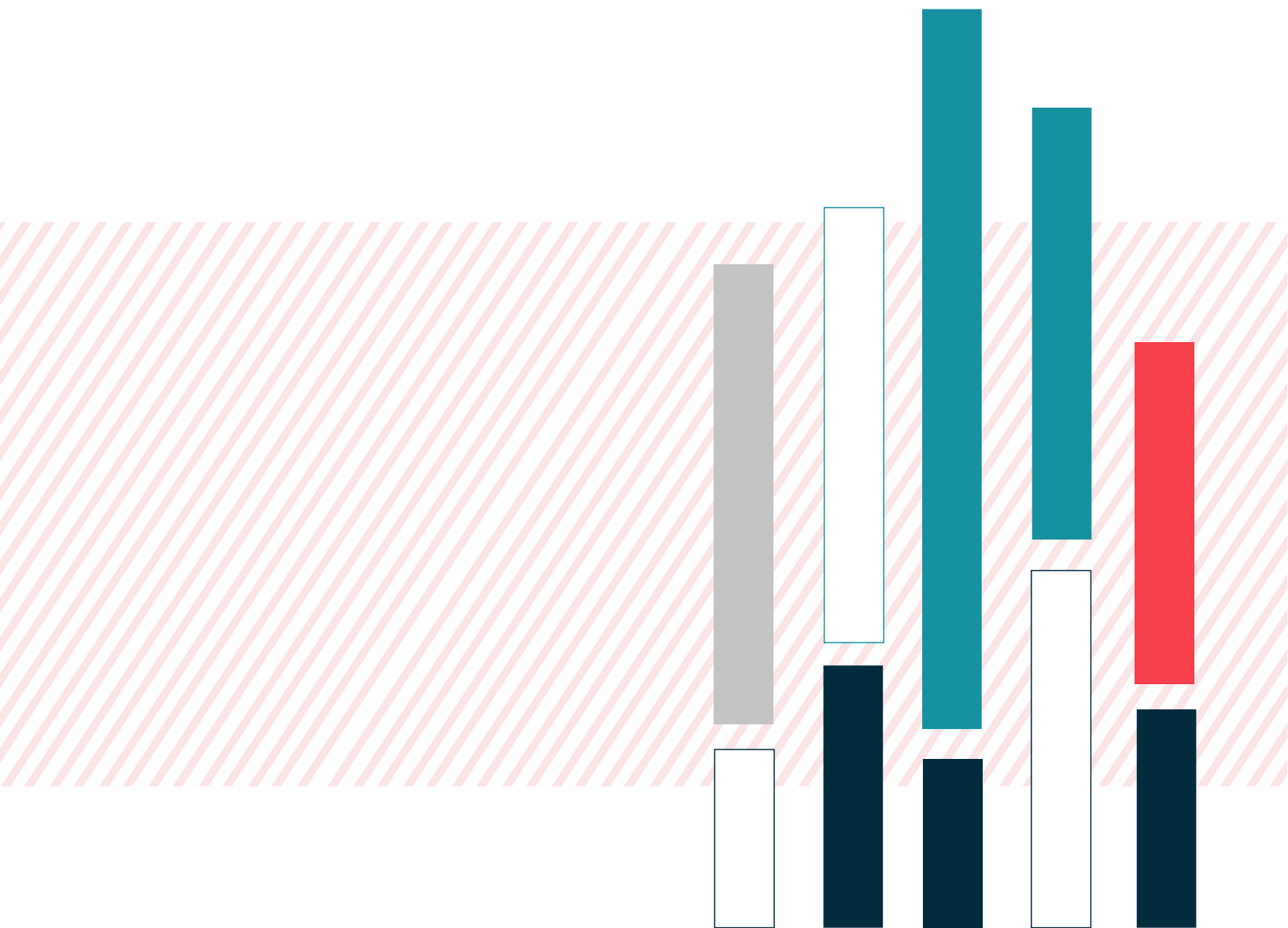




OVERVIEW OF THE RESULTS OF NATIONAL STUDIES  
IN THE COUNTRIES OF EASTERN EUROPE AND CENTRAL ASIA

# CASCADE OF CONTINUOUS HIV CARE FOR MSM IN EECA



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## List of Abbreviations

AIDS	Acquired immune deficiency syndrome
ARV	Antiretroviral therapy
CD4	CD4 lymphocytes
ECDC	European Centre for Disease Prevention and Control
EECA	Eastern Europe and Central Asia
GF	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human immunodeficiency virus
IBBS	Integrated bio-behavioral surveillance
LGBT	Lesbian, gay, bisexual and transgender people
MSM	Men who have sex with men
NGO	Non-governmental organization
PLH	People living with HIV
PO	Public organization
PrEP	Pre-exposure prophylaxis
UNAIDS	Joint United Nations Programme on HIV/AIDS
VL	Viral load
WHO	World Health Organization

## Summary

The cascade of continuous HIV care for men who have sex with men (MSM) allows us to evaluate the effectiveness of national measures aimed at overcoming the HIV epidemic, and visually depicts the coverage, availability, and quality of select HIV prevention and treatment services – by showing the ratio of those who need services and those who have achieved positive changes as a result of receiving those services. The cascade clearly demonstrates where gaps exist in the HIV service delivery system, and where progress has been made in the realization of the global “90-90-90” targets in the fight against the HIV epidemic.

The countries of Eastern Europe and Central Asia (EECA) are characterized by gaps in the quality, completeness, and reliability of up-to-date data on HIV infection among MSM and trans\* people. There are few published cascades for MSM. In addition to the countries of the “Right to Health” program (Armenia, Belarus, Georgia, Kyrgyzstan, and Macedonia), published cascades of HIV services for MSM were only found in the Russian Federation, Ukraine, and Kazakhstan.

In the Russian Federation, which accounts for the majority of new HIV cases in the EECA region, the largest gap in the “90-90-90” targets occurs at the stage of diagnosing HIV infection: only 23% of HIV+ MSM are aware of their HIV status (2015 data). The same occurs in Kazakhstan – 23%. In Ukraine, the largest gap also occurs at the first stage of the cascade, however, results there are a bit better: 59% of HIV+ MSM know their status.

An analysis of the cascades of services for MSM in the 5 countries of the “Right to Health” program was carried out on the basis of national studies conducted in 2018-2019 using the “Guide on Developing, Analyzing, and Using a Cascade of Continuous HIV Care for MSM”, developed by ECOM. The studies were carried out by national LGBT community organizations and other NGOs in cooperation with national ministries of health and specialists from medical institutions.

When compiling cascades of services in these five countries, the researchers were faced with problems related to the availability and quality of data. Some data is missing simply because of a lack of research and services through which such data can be obtained. For instance, there is no data on key issues related to the adherence of MSM to ARV therapy, because there is no relevant research on this topic. Meanwhile, there is no data on the availability of mental health services, because such services for MSM and trans\* people do not exist. Other data is not available because there are no mechanisms for disaggregating more general data (for instance, it is not possible to assess the coverage of trans\* people with prevention interventions, since they are considered as “MSM” in national statistical forms). Stigma and discrimination based on sexual orientation and gender identity have a significant impact on data quality. One of the key factors affecting data quality is the fears of MSM of encountering discrimination, and stigmatizing and abusive treatment by medical workers. The reluctance of MSM to inform medical workers about their sexual behavior leads to the distortion of statistics at all stages of the cascade, from the number of HIV+ MSM who know their status to the number of HIV+ MSM who are receiving ARV therapy and who have reached an undetectable viral load.

Based on data from national studies, it can be said that the situation related to the achievement of the first “90” target (90% of HIV+ MSM have been tested for HIV and know their status) is better in Armenia and Macedonia, where 54% of the estimated number of HIV+ MSM know their status. In the other countries, this stage of the cascade is more problematic: only 6% of the estimated number of HIV+ MSM in Belarus know their status, 19% in Kyrgyzstan, and 26% in Georgia.

The researchers identified the following as barriers to achieving the first “90” target: low coverage of MSM by HIV prevention programs, which leads to low coverage of MSM by HIV testing, and low awareness among MSM about HIV and about the services they can receive; cases of stigma and discrimination among healthcare providers; high level of stigma towards HIV+ MSM and trans\* people with the LGBT community itself;

financial and administrative difficulties related to conducting HIV testing through LGBT and other civil society organizations; and, geographical and administrative limitations on the accessibility of HIV services.

Macedonia has been the most successful in relation to the achievement of the second "90" target (90% of HIV+ MSM know their HIV status and receive ARV therapy), and has managed to fully achieve this goal: 91%. Belarus and Georgia are approaching the target at 84%. In Armenia and Kyrgyzstan, this indicator is 59%.

The efforts made by countries to bring national HIV treatment protocols in line with the recommendations of the World Health Organization (WHO) and to introduce ARV therapy regardless of the CD4 count of people living with HIV (PLH) are likely to contribute to the achievement of the "90" target for this stage of the cascade among MSM in the future.

Researchers listed the following barriers to the achievement of the second "90" target: limited availability of objective data regarding the true number of HIV+ MSM who are receiving ARV therapy; waiting time between the moment a positive result from a rapid test is received until the confirmation of the diagnosis, registration, and the initiation of treatment; widespread stigma among MSM and fear of visiting medical institutions for treatment; and, subjective notions of MSM-PLH about treatment regimens, side effects, and possibilities for changing treatment regimens. Another significant barrier is the lack of opportunities for migrants to receive ARV therapy in the countries where they go to work or to apply for asylum.

The achievement of the third "90" target (undetectable viral load among those who are on ARV therapy) seems to look the best. In Georgia and Kyrgyzstan, this indicator has reached the global target and is equal to 90%. The three other countries, Macedonia, Armenia, and Belarus, have also achieved a result of more than 80%. This attests to the high quality of work of infectious diseases doctors, and the effectiveness of the ARV therapy regimens being used.

Existing barriers that still hinder the full achievement of the global targets include low adherence to ARV therapy, as well as the insufficient amount of time that has elapsed since the introduction in countries of WHO recommendations on the initiation of ARV therapy immediately after an HIV diagnosis.

On the other hand, if we compare the third "90" target with the estimated number of HIV+ MSM and trans\* people, rather than with the second "90" target, the situation looks more critical than positive.

The full national reports are available through ECOM.

## Introduction

The EECA region has the fastest growing HIV epidemic in the world<sup>1</sup>. There has been an increase in the number of newly reported cases of HIV infection and AIDS deaths. The total number of new cases of HIV infection in the EECA region increased by 30% since 2010. In 2018, there were 150,000 new cases of HIV and 38,000 deaths from AIDS<sup>2</sup>.

Pre-exposure prophylaxis (PrEP) and early initiation of HIV treatment with antiretroviral drugs are important tools for ending the epidemic. When used correctly, PrEP reduces the risk of HIV infection to almost zero. Meanwhile, ARV therapy significantly reduces mortality among people infected with HIV, and is an effective way to prevent the spread of HIV infection, especially if treatment is started immediately after a diagnosis. Achieving the substantial and sustained suppression of virus reproduction in the human body, which is called an undetectable viral load, plays a key role in reducing the impact of HIV on an individual and on society as a whole, and contributes to an improvement in the quality of life of PLH and to the reduction of new HIV infections<sup>3</sup>. According to WHO recommendations and the "treatment as prevention"<sup>4</sup> strategy, ARV therapy should be initiated in people with an HIV diagnosis immediately after the infection has been established, regardless of the number of CD4 cells or the viral load<sup>5</sup>.

In 2014, the Joint United Nations Programme on HIV/AIDS (UNAIDS) and partners proposed three ambitious targets, called "90-90-90"<sup>6</sup>, which must be achieved by 2020 in order to effectively respond to the HIV epidemic:

90%

of all people living with HIV will know their HIV+ status;

90%

of all people who know their HIV+ status will receive ARV therapy;

90%

of all people receiving ARV therapy will have a suppressed viral load.

A cascade of continuous HIV care is useful to visually measure and demonstrate progress towards achieving the "90-90-90" targets, reflects the availability of services, and shows the relationship between those who need services and those who receive them. Accordingly, the cascade shows where there are gaps in coverage/availability and the quality of HIV prevention and treatment services<sup>7</sup>.

<sup>1</sup>UNAIDS DATA 2019. – URL: [https://www.unaids.org/sites/default/files/media\\_asset/2019-UNAIDS-data\\_en.pdf](https://www.unaids.org/sites/default/files/media_asset/2019-UNAIDS-data_en.pdf)

<sup>2</sup>2018 GLOBAL HIV STATISTICS UNAIDS. – URL:

[https://www.unaids.org/sites/default/files/media\\_asset/UNAIDS\\_Fact-Sheet\\_en.pdf](https://www.unaids.org/sites/default/files/media_asset/UNAIDS_Fact-Sheet_en.pdf)

<sup>3</sup>ECDC SPECIAL REPORT Thematic report: Continuum of HIV care Monitoring implementation of the Dublin Declaration on partnership to fight HIV/AIDS in Europe and Central Asia: 2017 progress report. – URL: <https://ecdc.europa.eu/sites/portal/files/documents/Continuum-of-HIV-care-2017.pdf>

<sup>4</sup>WHO Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: Recommendations for a public health approach. – Second edition. – 2016. – URL: <http://www.who.int/hiv/pub/arv/arv-2016/en/>

<sup>5</sup>Treatment as prevention (TASP) for HIV. – URL: [https://www.avert.org/professionals/hiv-programming/prevention/treatment-as-prevention#footnote9\\_l51gqoc](https://www.avert.org/professionals/hiv-programming/prevention/treatment-as-prevention#footnote9_l51gqoc)

<sup>6</sup>UNAIDS 90-90-90 An ambitious treatment target to help end the AIDS epidemic. – 2014. – URL: [http://www.unaids.org/sites/default/files/media\\_asset/90-90-90\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/90-90-90_en.pdf)

<sup>7</sup>Guide on Developing, Analyzing, and Using a Cascade of Continuous HIV Care for MSM. ECOM, 2017.

The treatment cascade for PLH in the EECA region in 2018 is presented below<sup>8</sup>. As of the end of 2018, 72% of the 1.7 million people living with HIV in the EECA region know their HIV status, of which 53% have access to ARV therapy. The percentage of PLH receiving ARV therapy who have an undetectable viral load is 77% (Fig. 1).

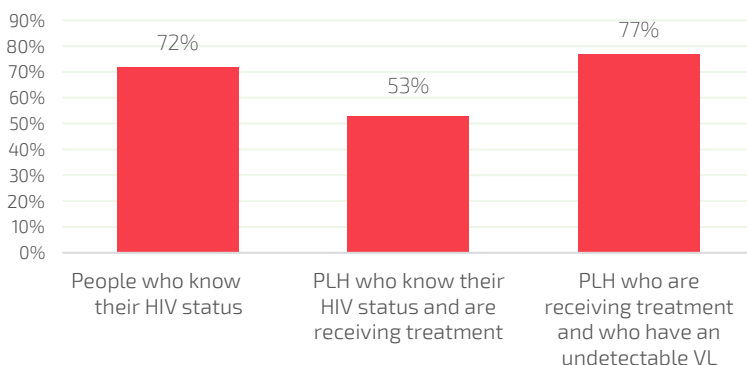


Fig 1. Treatment cascade among PLH, 2018 (UNAIDS)

Access to ARV therapy in the region remains among the lowest in the world, while the cost of drugs is among the highest for middle-income countries<sup>9,10</sup>. Reasons preventing PLH from accessing medical care and treatment include delayed initiation of ARV therapy, low adherence to or refusal of treatment, poor awareness about available services, cases of rights violations in medical institutions, stigmatizing and hostile attitudes on the part of medical workers towards PLH and representatives of all key populations, including MSM and trans\* people, and procedural and territorial barriers<sup>11</sup>.

In addition, coverage of key populations with regular HIV testing in the EECA region is decreasing, which leads to late detection and initiation of HIV treatment for a significant number of people living with HIV<sup>12</sup>.



Fig. 2 HIV prevalence among MSM in EECA countries

One of the key populations in the context of HIV infection is MSM, which accounted for 22% of all new HIV cases in EECA countries in 2018<sup>13</sup>. HIV prevalence among MSM in EECA countries ranges from 1.1% in Azerbaijan to 21.5% in Georgia (Tbilisi) and 22.8% in Saint Petersburg (Russia)<sup>12</sup> (Fig. 2).

<sup>8</sup> UNAIDS DATA 2019. – URL: [https://www.unaids.org/sites/default/files/media\\_asset/2019-UNAIDS-data\\_en.pdf](https://www.unaids.org/sites/default/files/media_asset/2019-UNAIDS-data_en.pdf)

<sup>9</sup> Сборник успешных практик по улучшению доступа к континууму услуг в связи с ВИЧ для всех, кто в этом нуждается, в регионе ВЕЦА. – МБО «Восточноевропейское и Центральноазиатское объединение людей, живущих с ВИЧ», 2016. – URL: [http://mv.ecuo.org/wp-content/uploads/sites/4/2018/08/fin\\_bucklet.pdf](http://mv.ecuo.org/wp-content/uploads/sites/4/2018/08/fin_bucklet.pdf)

<sup>10</sup> Концепция по доступу к лечению. – МБО «Восточноевропейское и Центральноазиатское объединение людей, живущих с ВИЧ», 2017. – URL: <http://mv.ecuo.org/wp-content/uploads/sites/4/2018/08/KONTSEPTSIIYA-VTSO-LZHV-WEB.pdf>

<sup>11</sup> Сборник лучших практик по улучшению доступа к континууму услуг в связи с ВИЧ для всех, кто в этом нуждается, в регионе ВЕЦА. – МБО «Восточноевропейское и Центральноазиатское объединение людей, живущих с ВИЧ», 2017. – URL: [http://mv.ecuo.org/wp-content/uploads/sites/4/2018/08/luchshyie-praktiki\\_web.pdf](http://mv.ecuo.org/wp-content/uploads/sites/4/2018/08/luchshyie-praktiki_web.pdf)

<sup>12</sup> Briefly about the main things. ECOM prepared briefs on HIV among MSM in EECA countries. – Available at: [http://ecom.ngo/country\\_briefs/](http://ecom.ngo/country_briefs/)

<sup>13</sup> UNAIDS DATA 2019. – URL: [https://www.unaids.org/sites/default/files/media\\_asset/2019-UNAIDS-data\\_en.pdf](https://www.unaids.org/sites/default/files/media_asset/2019-UNAIDS-data_en.pdf)



The estimated population sizes of MSM in CEECA countries <sup>14</sup> are presented in Fig. 3.

Country	Estimated MSM population size
Russian Federation	2.1 million
Ukraine	181 500
Kazakhstan	62 000
Belarus	60 000
Azerbaijan	23 900
Georgia	18 500
Moldova	17 100
Kyrgyzstan	16 900
Armenia	16 100
Tajikistan	13 400
Macedonia	11 054
Uzbekistan	3 000

Fig. 3 Estimated MSM population sizes in EECA countries

In most countries of the region, MSM are not sufficiently covered by HIV testing services: less than half of MSM have been tested for HIV in the last 12 months and know their results<sup>14</sup> (Fig. 4).



Fig. 4 MSM who have been tested for HIV in the last 12 months and know their results

Most EECA countries are characterized by gaps in data on HIV among MSM: often such data is limited, of poor quality, and collected sporadically or not at all. There is a serious lack of data on coverage of MSM by ARV therapy. Studies show that there is insufficient strategic information on HIV among MSM and trans\* people in EECA countries<sup>15</sup>. Disaggregated data on the access of vulnerable groups to HIV diagnosis and treatment services is limited. Only a few countries in the region have cascades of HIV treatment for MSM: national monitoring systems do not track statistics on specific key populations and on their access to HIV treatment, care, and support.

The main starting point for all statistics on HIV among MSM is the estimated number of MSM in the country. In a number of countries, this figure is completely missing, is significantly different in comparison to other countries (by a factor of ten, which is difficult to explain by the impact of the social environment or migration), or has changed several times over the past 10 years, while the studies used to determine this figure were carried out without using proper technologies.

Given the high level of homophobia in all countries of the region, it can be assumed that it is the main obstacle to ensuring quality data, and consequently prevents the effective use of financial and other resources of national programs to fight the HIV epidemic.

<sup>14</sup> Briefly about the main things. ECOM developed briefs on HIV among MSM in countries of the EECA region. – Available at: [http://ecom.ngo/country\\_briefs/](http://ecom.ngo/country_briefs/)

<sup>15</sup> Assessment of existing strategic information on HIV among MSM and trans\* people in Armenia, Belarus, Georgia, Kyrgyzstan, and Macedonia. – ECOM. – 2018. – URL: [https://ecom.ngo/wp-content/uploads/2018/09/SI-Informacion-inforgafica\\_rus.pdf](https://ecom.ngo/wp-content/uploads/2018/09/SI-Informacion-inforgafica_rus.pdf)

## Cascade of HIV services for MSM in the EECA region: Literature review

It should be noted that there are few published cascades of continuous HIV care for MSM in the countries of EECA. There are several cascades of services for MSM in the public domain in EECA, but such information is either outdated or cannot be compared with cascades of other countries, due to limitations in the data collection methodology of the cascade. In most countries of the EECA region, there are cascades of HIV services that reflect the situation among PLH in general, without disaggregating data to describe individual key populations.

Nevertheless, out of the published cascades of HIV services for MSM, it is necessary to single out that of the Russian Federation, which accounts for the majority of the new HIV cases in the EECA region. The cascade of HIV services was based on a sample of 184 MSM who tested positive for HIV as part of a bio-behavioral study conducted in Moscow from 2010 to 2013<sup>16 17</sup>.

As seen in Fig. 5, the largest lag in the cascade of services is concentrated at the stage of diagnosing HIV cases among MSM – 77% of the identified HIV+ MSM were not aware of their status.

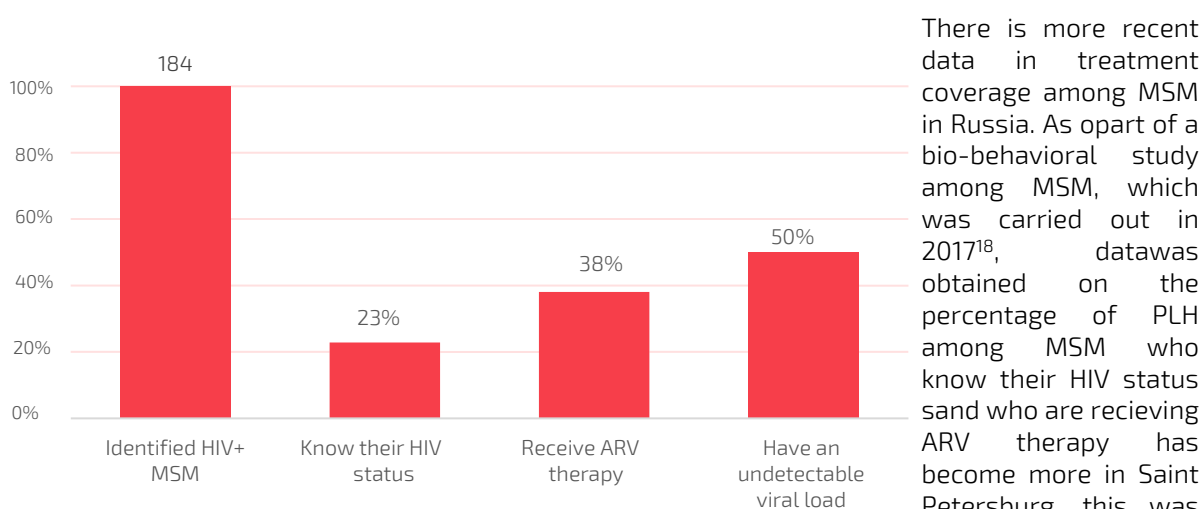


Fig. 5 Cascade of HIV services for MSM in Moscow, Russian Federation, (among MSM who received positive HIV test results during IBBS in 2010- 2013)

There is more recent data in treatment coverage among MSM in Russia. As part of a bio-behavioral study among MSM, which was carried out in 2017<sup>18</sup>, data was obtained on the percentage of PLH among MSM who know their HIV status and who are receiving ARV therapy. This has become more in Saint Petersburg, this was 88.82% (52 people), in Yekaterinburg – 88.70% (26 people),

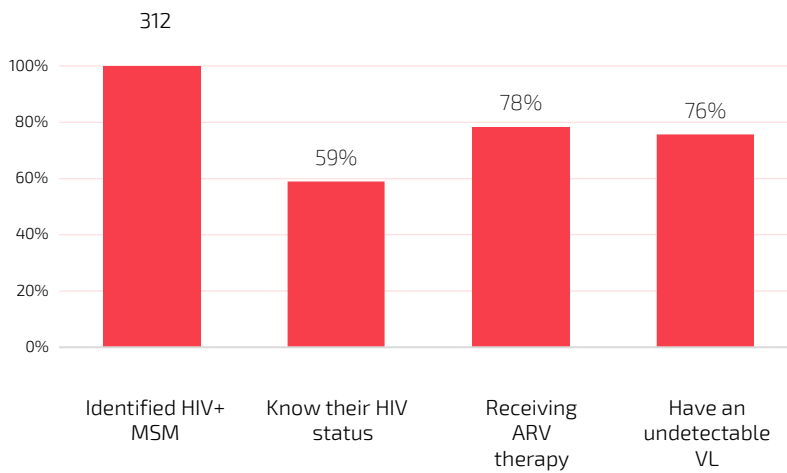
in Moscow – 100.00% (7 people). However, the paucity of this data and the lack of additional necessary information regarding other cascade indicators do not allow for the development of a cascade of services for MSM as of 2017.

<sup>16</sup> <https://ecom.ngo/wp-content/uploads/2018/01/nihms786269.pdf>

<sup>17</sup> <http://www.croiconference.org/sites/all/abstracts/967.pdf>

<sup>18</sup> Распространенность ВИЧ-инфекции и рискованного поведения среди уязвимых групп населения в 7 регионах Российской Федерации, результаты био-поведенческого исследования, 2017 г. – URL: <http://www.hivrussia.info/wp-content/uploads/2019/05/Biopovedencheskoe-issledovanie-v-7-gorodah-2017.pdf>

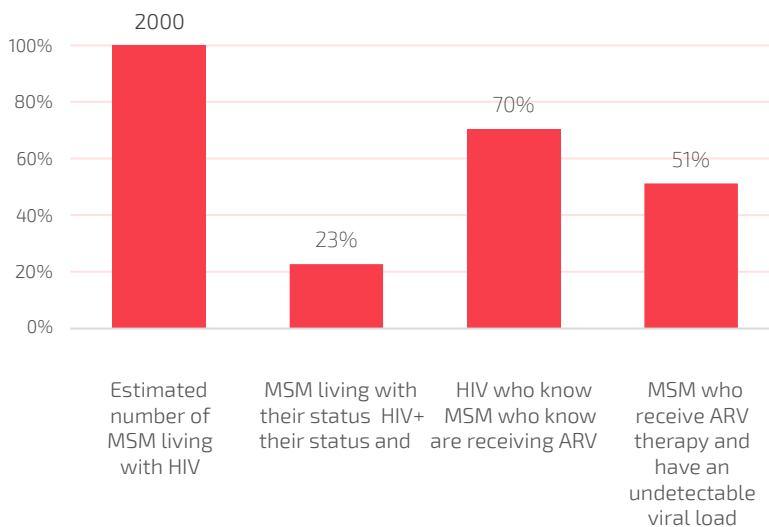
Fig. 6 Cascade of HIV services for MSM in Ukraine (based on IBBS results from 2017-2018)



In Ukraine, which ranks second in the EECA region in terms of the number of new HIV cases, the estimated number of HIV+ MSM is 13,553. The cascade of services for MSM was based on the results of a bio-behavioral study conducted in 2017-2018<sup>19</sup> (Fig. 6).

The percentage of HIV+ MSM, who know their HIV status, is 59%. 78% of MSM who know their status receive ARV therapy. 76% of MSM receiving treatment have an undetectable viral load. As can be seen, the largest lag in the coverage and involvement of HIV+ MSM in care and support is again observed at the first stage of the cascade of services for MSM

Fig. 7 Cascade of HIV medical care for MSM in the Republic of Kazakhstan (2017)



In the Republic of Kazakhstan, the largest lag is also observed at the stage of identifying HIV+ MSM: only 23% of the estimated number of MSM living with HIV know their HIV status. Access to ARV therapy is much better: 70% of MSM who know their HIV status are receiving treatment, of which 51% have an undetectable viral load<sup>20</sup> (Fig. 7).

<sup>19</sup> Сазонова Я. О., Салюк Т. О. Основні результати біоповедінкових досліджень серед ключових груп. – МБФ «Альянс громадського здоров'я». – Київ, 2018. – URL: [http://aph.org.ua/wp-content/uploads/2018/07/OSNOVNI-REZULTATI\\_A4\\_10.07.2018\\_Cajt.pdf](http://aph.org.ua/wp-content/uploads/2018/07/OSNOVNI-REZULTATI_A4_10.07.2018_Cajt.pdf)

<sup>20</sup> Петренко І.І. Доступ к МСМ через аутрич-работников сотрудников местных центров СПИД / Материалы 2й Региональной Консультации по ВИЧ среди МСМ и транс\* людей в ВЕЦА, ЕКОМ. – 2018.

## Cascade of HIV services for MSM and trans\* people in the countries of the "Right to Health" program

This section presents the results of the analysis of cascades of HIV services for MSM compiled as part of national studies conducted in 2018-2019 in the five countries of the "Right to Health" program: Armenia, Belarus, Georgia, Kyrgyzstan, and Macedonia (for the latter, there is only data from 2019). Table 1 presents the trends in the progress made towards achieving the "90-90-90" targets among HIV+ MSM. As can be seen, the largest lag for all countries occurs at the first stage of the continuum of services: 90% of HIV+ MSM know their status.

	Estimated number of MSM living with HIV		MSM who know their status of the estimated number of HIV+ MSM, %				MSM on ARV therapy, of the number of those who know their HIV status, %				MSM with an undetectable viral load, of the number of those receiving ARV therapy, %			
	2018	2019	2018		2019		2018		2019		2018		2019	
			N	%	N	%	N	%	N	%	N	%	N	%
Armenia	100	300	75	75%	158	53%	55	73%	93	59%	39	71%	76	82%
Belarus	4621	5880	259	6%	348	6%	211	81%	292	84%	172	82%	250	86%
Georgia	4490	2997	640	14%	773	26%	479	75%	648	84%	422	88%	584	90%
Kyrgyzstan	1115	1115	135	12%	207	19%	76	56%	123	59%	49	64%	112	91%
Macedonia	-	338	-	-	181	54%	-	-	165	91%	-	-	134	81%

Table 1. Data on cascades of HIV services for MSM in the 5 countries of the "Right to Health" project as of 2018-2019

Level of achievement of the "90-90-90" targets: ■ > 80% ■ 50-79% ■ 0-49%

Some progress in achieving the "90-90-90" strategy was observed in 2019, in comparison to the cascades compiled by national teams as of 2018. However, gaps still exist in the cascade indicators, in particular in relation to the percentage of MSM who know their HIV status out of the estimated number of HIV+ MSM.

A common problem for countries when compiling cascades to make progress towards the "90-90-90" targets for HIV+ MSM is the availability and quality of data used to develop such cascades. Limited data may be the reason that cascades do not fully reflect reality. Nevertheless, the use of data of insufficient quality may be acceptable if the goal is not so much to describe the current situation, but rather to set goals for the future, including to improve data quality.

The following was used to assess the cascade of HIV services for MSM in Armenia: the results of bio-behavioral studies conducted among MSM in 2016 and 2018, data from the Republican AIDS Prevention Center, and data from the project "Prevention of and raising awareness about HIV and AIDS among MSM and trans\* people". According to assessments of the local research team, the results of the 2016 bio-behavioral study did not fully reflect the situation of HIV among MSM in Armenia, because there was a risk that a significant part of the respondents involved in the study as MSM were actually not part of this group. Such an issue was not noted in relation to the 2018 bio-behavioral study.

A bio-behavioral study among trans\* people in Armenia was also conducted in 2018. HIV prevalence among this group was 2%<sup>21</sup>.

In Belarus, cascades were developed using data from the Republican Center for Hygiene, Epidemiology, and Public Health, information from the Official Republican Register of HIV-Infected Patients, data from 2015 and 2017 bio-behavioral studies, as well as calculations of the "Spectrum" program. The quality of data collection was assessed with the involvement of experts from the community, as well as relevant specialists.

The data collection process revealed a number of limitations, in particular the availability and objectivity of data on the number of MSM living with HIV. In the country, there are gaps in strategic information collected on HIV. As a rule, only basic epidemiological data is collected, which is not disaggregated. This makes it difficult to conduct a full-scale analysis, and affects the possibilities of using the data and developing a cascade. The full-scale collection of information on trans\* people is not carried out.

In Georgia, data sources for the cascade include program data from projects implemented with the support of the Global Fund, data from the Scientific and Practical Center for Infectious Diseases, AIDS, and Clinical Immunology, data from a bio-behavioral study conducted among MSM in 2018, as well as data from the "Spectrum" program. An analysis was carried out with the involvement of local organizations, members, and activists of the LGBT community, as well as state public health institutions.

There is no relevant, complete data on HIV testing and treatment among trans\* people in the country.

In order to develop the cascade of continuous HIV care for MSM in Kyrgyzstan, data from the AIDS Center and local NGOs working in the field of HIV prevention among MSM (PO "Kyrgyz Indigo" and "AntiAIDS" Association) was used, as well as program data from international organizations, such as UNDP and Population Services International (PSI), which are implementing HIV/TB prevention and treatment programs in the country. In addition, focus group discussions with HIV+ MSM, and a survey of specialists working in the field of service provision for MSM and trans\* people were carried out at the information collection stage.

Since 2018, trans\* people have been included in the list of key populations for HIV in the country, however, existing data on trans\* people in relation to HIV prevention and treatment is extremely limited, and does not allow for an assessment of the HIV cascade for this group.

At the same time, there is evidence that HIV infection may be actively spreading among trans\* people. A bio-behavioral study among trans\* people in Kyrgyzstan is planned for 2020.

The following sources were used to calculate and evaluate the cascade of continuous HIV care for MSM in Macedonia: data from a bio-behavioral study conducted among MSM in 2017-2018, a modeling tool of the European Centre for Disease Prevention and Control (ECDC), data from the registry of all cases of HIV infection of the Institute for Public Health, as well as data on treatment for all PLH of the Clinic for Infectious Diseases.

Data on HIV among trans\* people in Macedonia is insufficient to develop an HIV cascade.

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<sup>21</sup> Integrated biological-behavioral surveillance survey among people who inject drugs, female sex workers, men who have sex with men and transgender persons. – URL: [http://www.arm aids.am/images/IBBS\\_ARMENIA\\_2018\\_eng\\_FINAL.pdf](http://www.arm aids.am/images/IBBS_ARMENIA_2018_eng_FINAL.pdf)

## Estimated number of HIV+ MSM

When calculating the cascade indicator related to the number of MSM living with HIV, researchers in the countries experienced some difficulties with the data. Most countries had difficulty obtaining objective data on the true number of HIV+ MSM. In some countries, the difficulties were linked to the reliability of the data obtained, in others, with the inconsistency of data obtained using different methods and approaches to estimating population sizes.

In Armenia, the results of the bio-behavioral study conducted among MSM in 2016, used to calculate the estimated number of HIV+ MSM in the country for the 2018 cascade, were questioned. As mentioned earlier, the study involved respondents who presented themselves as MSM, but were actually not representatives of this group, which may have affected the results.

In Belarus, in order to develop the 2018 cascade, the estimated number of MSM-PLH was calculated according to data from the "Spectrum" program, however, the data obtained differed from the results of a bio-behavioral study carried out in 2015. This may be the reason that, as of 2019, this indicator of the cascade is based on data from a 2017 bio-behavioral study.

The estimated number of MSM living with HIV in Georgia in 2018 was calculated using various approaches: based on data from the "Spectrum" program (3,800 people), and taking into account data on HIV prevalence among MSM in the country and the opinions of national experts (3,560 people). As of 2019, the estimated number of MSM living with HIV is 2,997 people. Such changes in figures are most likely due to the use of different methodologies for estimating population sizes.

In 2013 and 2016, assessments of the MSM population size were carried out in Kyrgyzstan, and considered two different age groups: in 2013 – 16-49 years of age, and in 2016 – 18-49 years of age. Due to this, the assessments had different results. The data from the last assessment in 2016 was used to develop the cascade for 2018 and 2019 – 1,115 people.

In Macedonia, the estimated number of MSM-PLH was also calculated using several methodologies: a modeling tool from the ECDC, as well as data from a bio-behavioral study among MSM in 2017-2018 were both used. Both approaches raised questions among national researchers, since each was linked with certain limitations. Based on the results of the ECDC modeling tool, there were 338 MSM-PLH in the country at the end of 2018, while according to the data of the bio-behavioral study, this figure was 597 MSM-PLH.

Taking into account the fact that there are controversies regarding the estimated number of MSM living with HIV in all countries, this issue urgently requires additional study and the adoption of coordinated approaches for calculating this indicator in countries of the region to allow

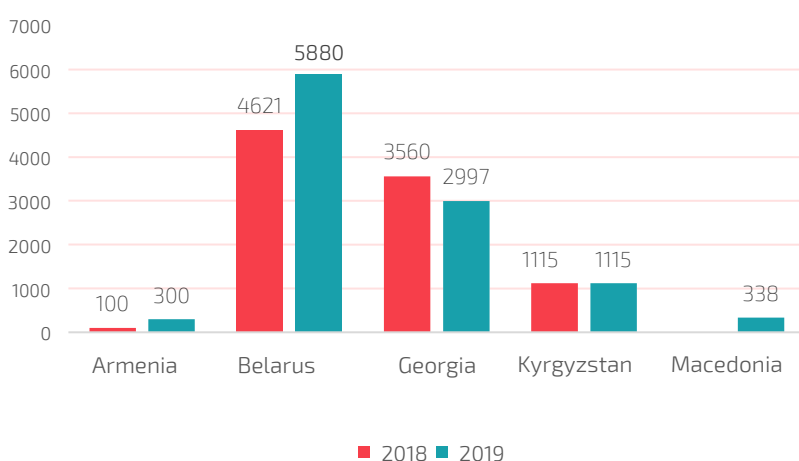


Fig. 8 Estimated population size of HIV+ MSM

for the comparison of data with other regions of the world. The volatility and week basis of this indicator in the countries may be reflected in the fact that the size of the target group that needs the package of services will be indicated incorrectly. The estimated number of HIV+ MSM in the cascades developed for 2018-2019 is presented in Fig. 8.

## MSM who know their HIV+ status

Knowing one's HIV status is the first and, perhaps, most important step in the "90-90-90" cascade, because the level of attainment of this indicator determines the effectiveness of subsequent efforts to involve HIV+ MSM in treatment.

HIV testing is crucial for the timely detection of HIV cases and the initiation of treatment. Thus, low coverage by HIV testing and the presence of barriers that affect the willingness and ability of MSM to undergo testing can lead to the late detection of HIV infection. Therefore, the risk of HIV transmission increases when HIV+ MSM do not know their status or if there are barriers to seeking HIV-related care.

In most countries under consideration, it is at this stage of the cascade that the greatest problems are observed in relation to the achievement of the targets. A number of countries, including Belarus, Kyrgyzstan, and Georgia, are especially far from achieving the first "90" target (90% of MSM living with HIV know their status): from 6% to 26% of HIV+ MSM in these three countries know their HIV+ status. However, in Kyrgyzstan and Georgia, since 2018, there has been a positive trend pointing to improvements in the achievement of this indicator. Meanwhile, this indicator remains unchanged in Belarus and is at an extremely low level - 6%. National experts from Belarus noted that the current lag in this target may be due to the lack of state financial resources for purchasing HIV tests and paying for the necessary infrastructure for testing and support services (such as counseling, support, and education). MSM are not identified as a separate vulnerable group under the existing governmental program to combat HIV. Funding for the program is not allocated in a targeted manner, but rather to interventions for the "general population", and does not sufficiently address the needs of this key population.

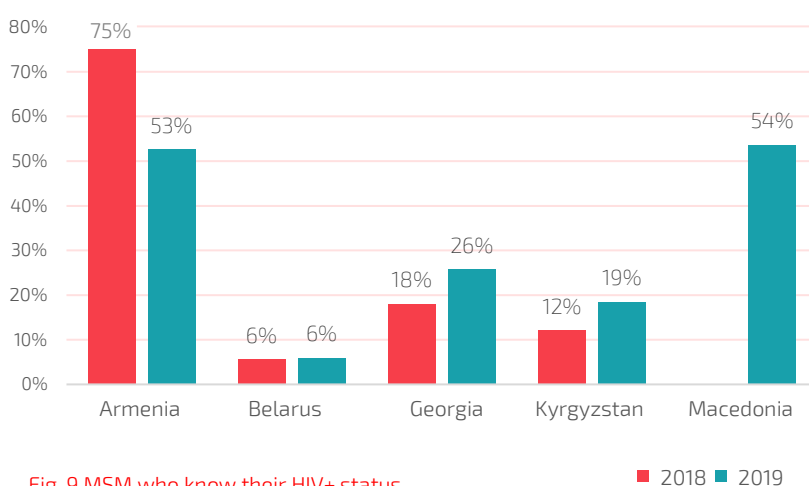


Fig. 9 MSM who know their HIV+ status

■ 2018 ■ 2019

Armenia and Macedonia demonstrate the best results among the project countries with this indicator reaching 54%. It is worth separately noting the changes in the dynamics in Armenia: the percentage of MSM who know their HIV status has decreased in comparison with the previous period, however, this reflects positive changes in the country, as data on the number of HIV+ MSM has become

more accurate, and the coverage and effectiveness of testing has increased. Thanks to this, more HIV+ MSM have found out about their HIV status and were able to receive the treatment necessary to maintain their health and prevent the spread of HIV in the country (Fig. 9).

While studying the reasons for the insufficient or extremely low level of coverage by HIV testing among MSM, national teams cited the following reasons, common to all countries under review. A primary factor is widespread stigma towards MSM due to their sexual behavior. MSM and trans\* people have low levels of trust in state medical institutions and often hide information about their sexual practices when undergoing HIV testing, which leads to their registration as representatives of other population groups. Self-stigmatization among members of the community and the lack of the ability to openly and safely discuss specifics of their sex lives with doctors significantly affect HIV testing coverage. Due to fears of encountering homophobic attitudes,

MSM and trans\* people may find questions related to their gender and sexual practices that healthcare providers ask during HIV counseling and testing to be abusive and too personal. In some countries, for example Kyrgyzstan, there is evidence of openly negative attitudes of medical professionals towards LGBT people<sup>22</sup>, and as a result, the highest level of internalized homophobia among the 13 EECA countries is observed there<sup>23</sup>.

Researchers note that cases of disclosure of personal information and unprofessional communication continue to occur regularly in relation to MSM and trans\* people who have sought counseling and assistance for HIV and other sexual health issues. Thus, cases of HIV among MSM identified in state surveillance systems are reflected in statistical forms as relating to other modes of HIV transmission rather than to sexual relations between men.

Consequently, official data of AIDS centers on the number of HIV+ MSM who know their HIV status and are registered for treatment may be underestimations, which is confirmed by contradictions between the statistics collected by medical institutions and data obtained from bio-behavioral studies and community NGO-based prevention and support programs.

Together with administrative barriers, the high level of stigma towards HIV+ MSM within the LGBT community is also an obstacle to more widespread counseling and HIV testing through public organizations.

Among other reasons linked to gaps in the achievement of the first "90" target, researchers noted, for example, geographical and administrative limitations in the availability of HIV services. There are few qualified specialists that are friendly to MSM and trans\* people, and those that exist are primarily based in the capitals of countries. There are also country specifics related to such limitations. For example, in Armenia, the diagnosis of HIV and prescription of ARV therapy is only possible at the Republican Center for HIV Prevention in Yerevan, which can significantly demotivate people living in other cities. In addition, there are administrative hurdles in the country to organizing HIV testing through NGOs using rapid testing with a drop of blood from a finger. It should be noted that, since 2017, NGOs can conduct selective HIV testing with rapid tests using saliva (so-called "saliva tests"). However, this service is provided only through projects funded by international donors, which is a risk factor for the sustainability of programs. Self-testing in Armenia is extremely inaccessible, since tests are not available for sale, and the population, including representatives of key populations, do not have the necessary information about self-testing.

In Georgia, over the past few years, there has been a trend related to the decrease in the level of knowledge about HIV among key populations: younger representatives of all key populations are less likely than people of their age in the past to possess necessary information about HIV, and to know where they can be tested and receive support.

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<sup>22</sup> Москотина Р. и др. Исследование отношения к ЛГБТ среди сотрудников ключевых социальных сервисов пяти стран Центральной и Восточной Европы и Центральной Азии в рамках Региональной программы ЕКОМ «Право на здоровье» / Р. Москотина, Н. Дмитрук, О. Трофименко, Ю. Привалов, М. Касянчук (Евразийская коалиция по мужскому здоровью). – Таллинн, 2017. – 94 с.

<sup>23</sup> Шестаковский А., Касянчук М. Исследование интернализированной гомонегативности (внутренней гомофобии): Аналитический отчет / Евразийская коалиция по мужскому здоровью (ЕКОМ). – Таллинн, 2018. – 161 с.



## MSM who know their HIV+ status and are receiving ARV therapy

Until recently, countries had national clinical protocols, according to which ARV therapy was only initiated after CD4 cell levels dropped below a certain number. HIV+ patients needed to have their CD4 levels tested regularly, often for years, and wait for their condition to worsen enough to qualify for treatment. Some PLH could refuse to continue medical monitoring without access to the necessary treatment.

Over the last four years, national clinical protocols for treating HIV infection in EECA countries have been revised, and now take into account new recommendations of the WHO, according to which ARV therapy should be provided to all PLH, regardless of a patient's CD4 cell count.

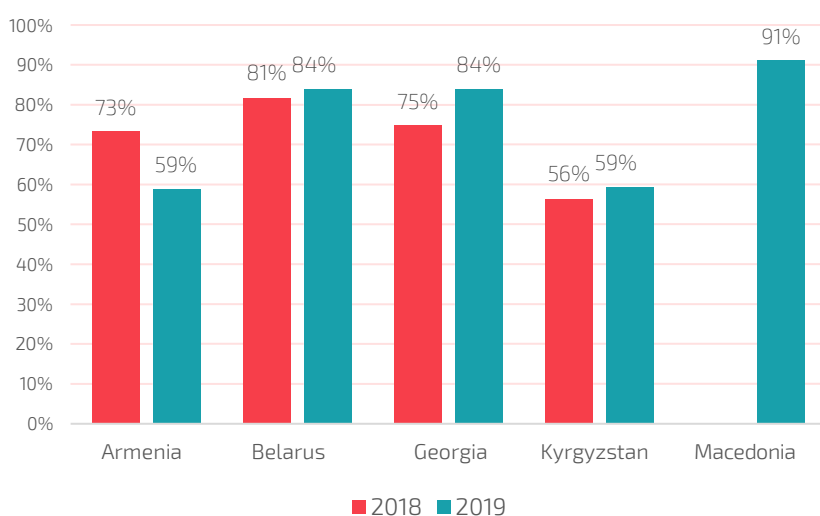


Fig. 10 MSM who are on ARV therapy, out of the number of those who know their HIV status

Among the project countries, the biggest lag in the achievement of the second "90" target among MSM (90% of PLH who know their HIV status are receiving ARV therapy) is observed in Armenia and Kyrgyzstan, where 59% of HIV+ MSM are on ARV therapy. As mentioned earlier, as of 2019, the data in Armenia appears to be more reliable than the data from 2018. Therefore, a comparison of the data from 2018 and 2019 will not be entirely correct. In Belarus and Georgia, positive trends were observed, and this indicator was 84% in 2019.

Macedonia has fully achieved the second "90" target for MSM: 91% of MSM who are aware of their status are already receiving treatment (Fig. 10).

Among the reasons that prevent the achievement of the second "90" target among MSM and trans\* people, researchers noted the following: strategic barriers (insufficient availability of objective data regarding the true number of HIV+ MSM that are receiving ARV therapy), systemic barriers (the need to wait several days after receiving a positive result from a rapid test in order to confirm the diagnosis, and to be registered for and receive treatment), and individual barriers (stigma and fear of visiting medical institutions for treatment, the prevalence of subjective and often implausible ideas of MSM-PLH about treatment regimens, side effects, and about the possibility of changing treatment regimens). Migration also represents a significant barrier. For example, in Kyrgyzstan, when an HIV+ person moves abroad, he is given medication for 6 months. However, due to the high cost of travel and the need to work without breaks, it is difficult for such people to return twice a year for ARV drugs, which in turn, affects adherence to treatment.

The national team from Macedonia emphasized that the achievement of this indicator at the level of 91% was made possible thanks to the close and well-coordinated work of the Clinic for Infectious Diseases (a centralized institution that provides treatment in the country), the community, and civil society organizations. ARV therapy in the country is accessible, and in addition to it, a psychosocial support system for PLH has been established.

## HIV+ MSM who are receiving ARV therapy and have an undetectable viral load

The situation related to the achievement of an undetectable viral load among those on ARV therapy seems to look the best. Currently, in the countries under review, updated treatment regimens using new drugs have been added to national HIV treatment protocols. The introduction of optimized treatment regimens and drug forms can increase the effectiveness and duration of ARV therapy, increase adherence to treatment, and also enhance suppression of the virus. New antiretroviral drugs are able to suppress viral loads faster, have fewer side effects and a lower risk of resistance, and can potentially reduce the cost of therapy and increase the effectiveness of treatment programs<sup>24</sup>.

Nearly all of the countries were able to significantly approach the last of the "90-90-90" targets, namely that 90% of MSM living with HIV who are receiving ARV therapy have an undetectable viral load.

In Georgia and Kyrgyzstan, this figure is 90%. The remaining countries, Armenia, Belarus, and Macedonia, are also approaching the achievement of this target, with the gap ranging from 4% (Belarus) to 9% (Armenia, Macedonia) (Fig. 11).

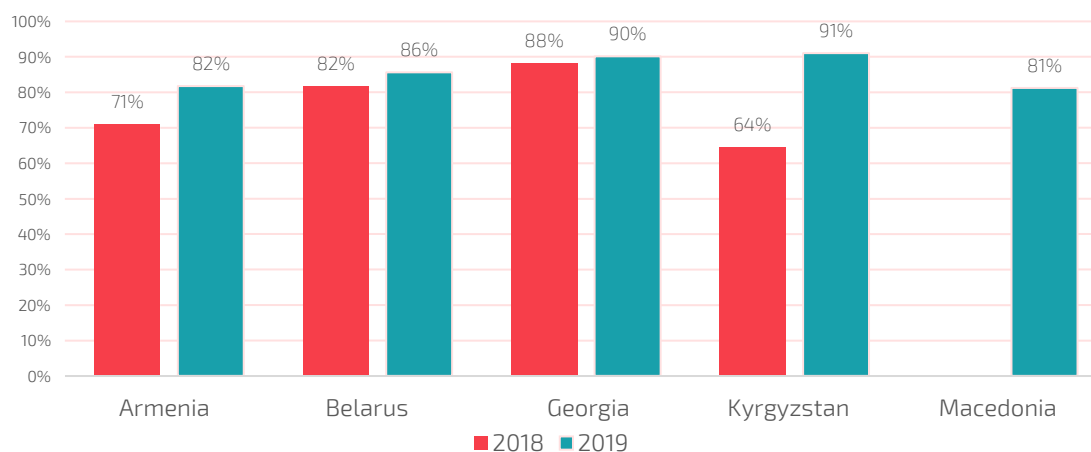


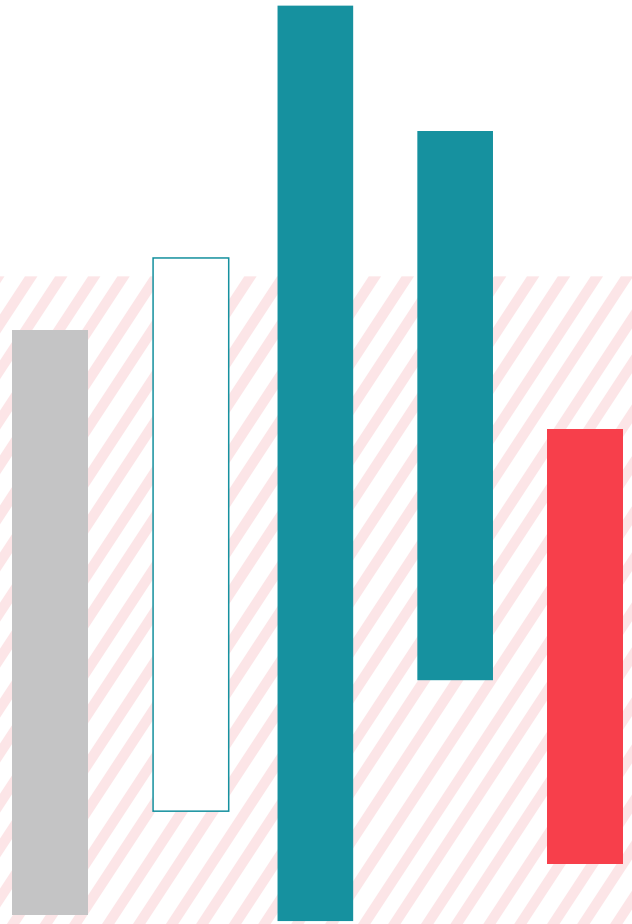
Fig. 4 HIV+ MSM receiving ARV therapy who have an undetectable viral load

Such achievements in the countries under consideration attest to the high quality of the work of infectious disease doctors and to the effectiveness of the ARV therapy regimens being used. In addition, efforts to create a high level of adherence to treatment among PLH using an individualized approach to selecting treatment regimens, accompanying psychosocial services, and reminders about regular visits, have significantly contributed to the results.

Among the existing barriers that may still hinder the full achievement of this target, national researchers noted some difficulties in the development of adherence to treatment, due to, for example, geographical restrictions on the availability of HIV-related medical services, as people from rural regions have lower levels of access to quality services.

<sup>24</sup> WHO Policy Brief "HIV Treatment. Transition to new antiretrovirals in HIV programmes". – URL: <https://www.who.int/hiv/pub/toolkits/transition-to-new-arv/en/>

Conclusions  
Problems  
Recommendations



## Conclusions

### 1. Cascade as a monitoring tool:

- The "Guide on Developing, Analyzing, and Using a Cascade of Continuous HIV Care for MSM", developed by ECOM, allows LGBT community organizations and other NGOs to effectively assess the coverage of MSM and trans\* people with HIV prevention and treatment services, the accessibility of these services, and their uptake by the target group. Working with the tool and planning a study to collect data for the cascade allows you to build and establish the necessary partnerships, including with representatives of national ministries of health and specialists from medical institutions, after which data is collected and analyzed while ensuring the meaningful involvement of the community and other stakeholders in this process.
- In addition, this tool allows you to determine which data, necessary for decision-making for national HIV programs, is not available, is not sufficiently objective, or is of low quality. Part of the data may simply be missing due to a lack of research, but much data may not be available because there are no services in connection with which such data can be obtained. For instance, there is no data on key issues related to adherence to ARV therapy among MSM because there are no relevant studies, while there is no data on mental health needs due to the lack of such services for MSM and trans\* people. Other data is not available because there are no mechanisms for disaggregating general data (for example, assessing the coverage of trans\* people with prevention interventions is not possible since they are considered as MSM in statistical forms). Stigma and discrimination based on sexual behavior and gender identity have a significant impact on data quality. For instance, the actual number of MSM who know their HIV+ status may be higher, but distrust of employees of medical institutions among MSM prevents them from reporting that they have sex with partners of the same sex. As a result, certain parts of the cascade, developed based on unreliable data, may not reflect the real HIV situation among MSM in the country, and may lead to the adoption of ineffective programs, advocacy and strategic decisions.

### Main gaps in the cascade:

- The countries reviewed show a significant lag in the achievement of the first two "90-90-90" target among MSM: PLH who know their HIV+ status, and PLH who are on ARV therapy of those who know their HIV status.
- The significant number of MSM who are not aware of their HIV+ status attests to the insufficient availability of HIV testing, and the insufficient coverage of MSM with HIV prevention programs and support services. This suggests that existing prevention programs, and the methods and/or funding of these programs do not meet the needs of MSM and trans\* people. In addition, this indicates that a very large number of MSM and trans\* people living with HIV still do not have access to ARV therapy, which threatens their health and lives, and also contributes to the further spread of HIV infection in countries of the region.

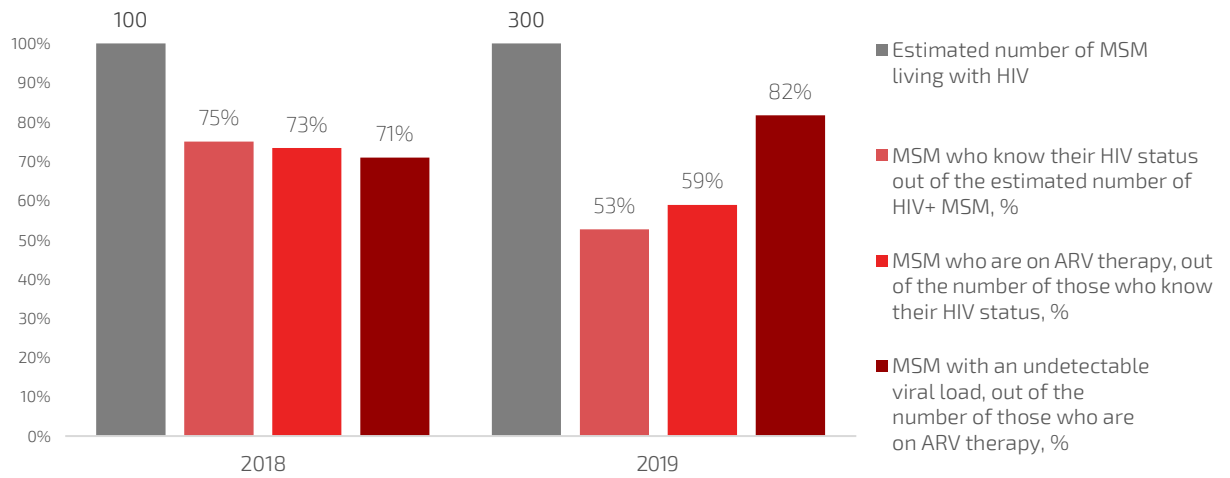
## Recommendations on the availability and quality of data

In order to improve the availability and quality of data for the development of a cascade of HIV services for MSM and trans\* people, it is necessary to:

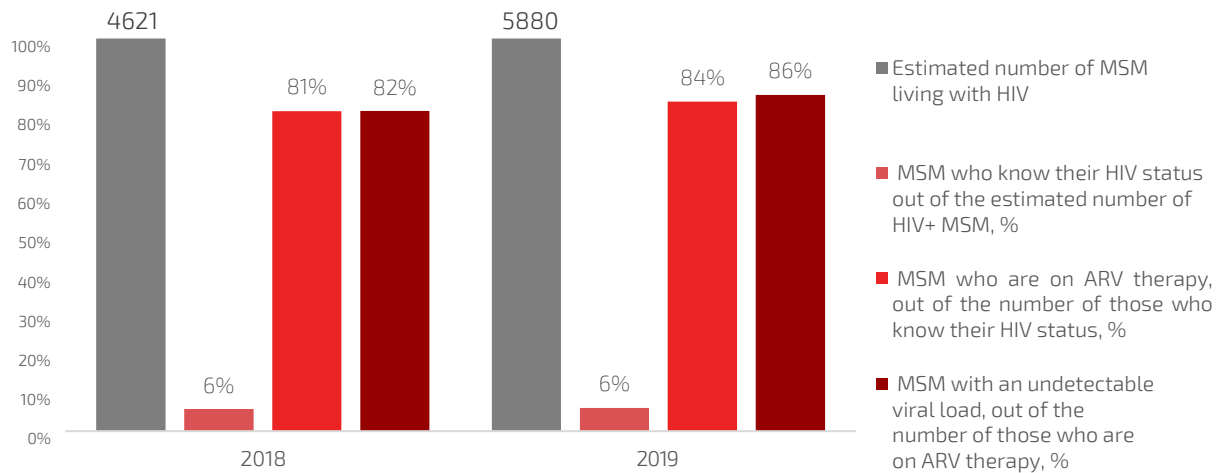
1. As a matter of priority and with the meaningful involvement of the community, contribute to obtaining reliable data on the estimated number of MSM in the country. This is the necessary baseline data, the quality of which determines the effectiveness of planning for and investment in all national programs to combat the HIV epidemic. It is necessary to promote the official adoption in countries of a methodology based on international best practices for estimating the population sizes of key populations, including gay men, other MSM and trans\* people.
2. Review national indicators for HIV prevention and treatment programs in order to ensure that they allow for effective monitoring of the prevalence of risky behavior, HIV, co-infections and marker diseases, as well as the availability and quality of services necessary for effective HIV prevention and treatment. To do this, the sets of national indicators should include: a direct mention of gay men, other MSM, and trans\* people as key populations; a list of necessary prevention and treatment services for MSM and trans\* people based on national and international best practices; and, guidance on the required quality of data and ways to ensure such quality.
3. Strengthen the monitoring of bio-behavioral research among MSM in order to promote compliance with research methodology and the required meaningful involvement of community organizations, which should ensure the high quality of data collection and analysis. Expand bio-behavioral research among trans\* people.
4. Include in regular national studies on the progress in combatting the spread of HIV infection, questions and mechanisms that will allow for the collection of data necessary to develop and analyze cascades of comprehensive HIV services for MSM and trans\* people.
  - Use the triangulation method to assess the correspondence of the following data on the coverage and quality of HIV prevention and treatment services for MSM and trans\* people: data of bio-behavioral studies, data of AIDS centers and other medical institutions, data of NGOs, and calculations of the "Spectrum" program.
  - Help to strengthen the capacity of community organizations, governmental bodies, and medical institutions in relation to the collection, analysis, and use of strategic information on HIV among MSM and trans\* people.
  - Develop cooperation between community organizations and specialists providing health services to MSM and trans\* people in order to overcome discrimination and stigma based on sexual behavior or gender identity as key barriers to the effective collection and analysis of data necessary for decision-making for combatting the spread of HIV infection.

## Appendix: Country cascades of HIV services for MSM

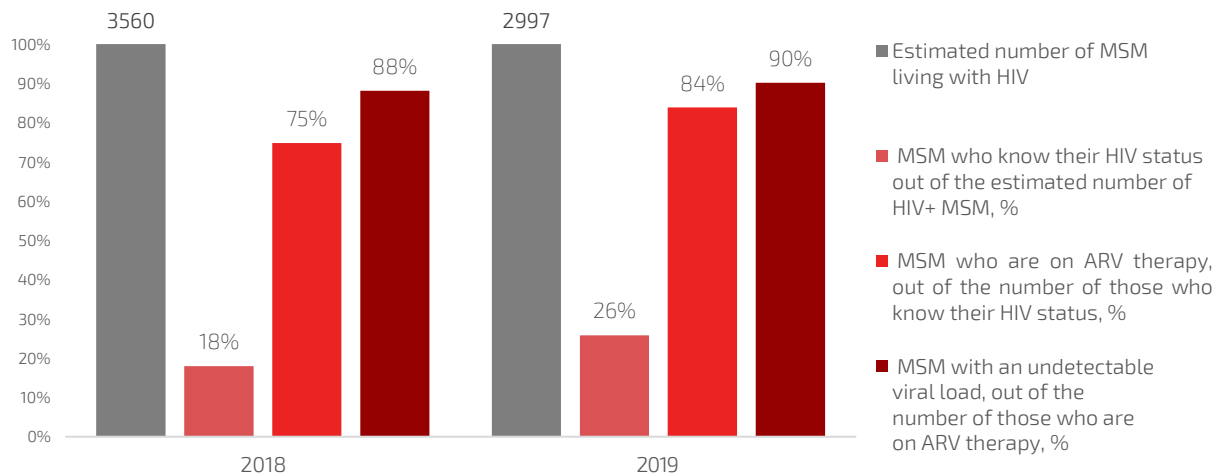
### Armenia



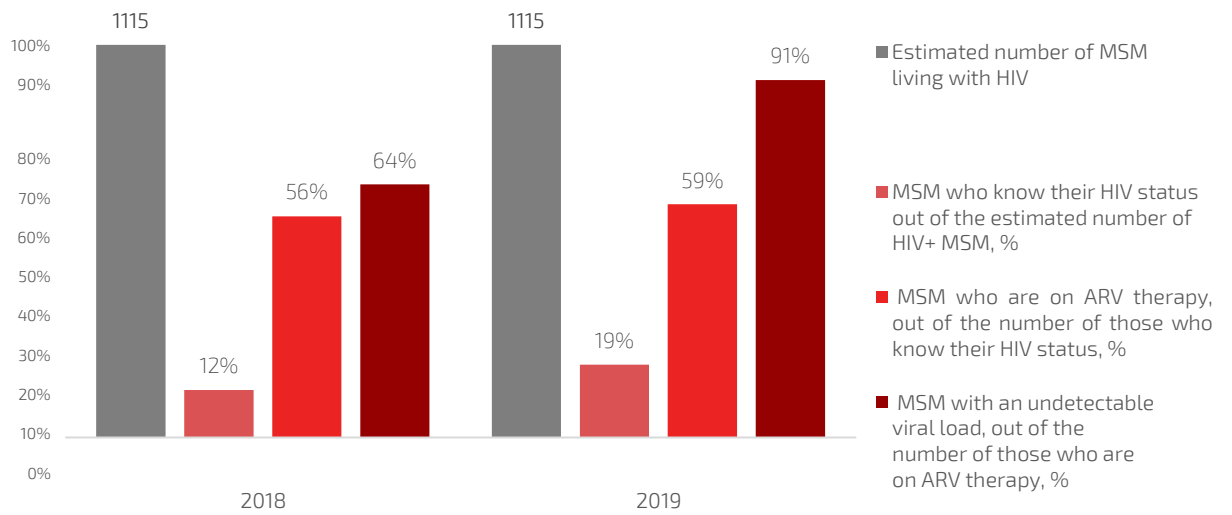
### Belarus



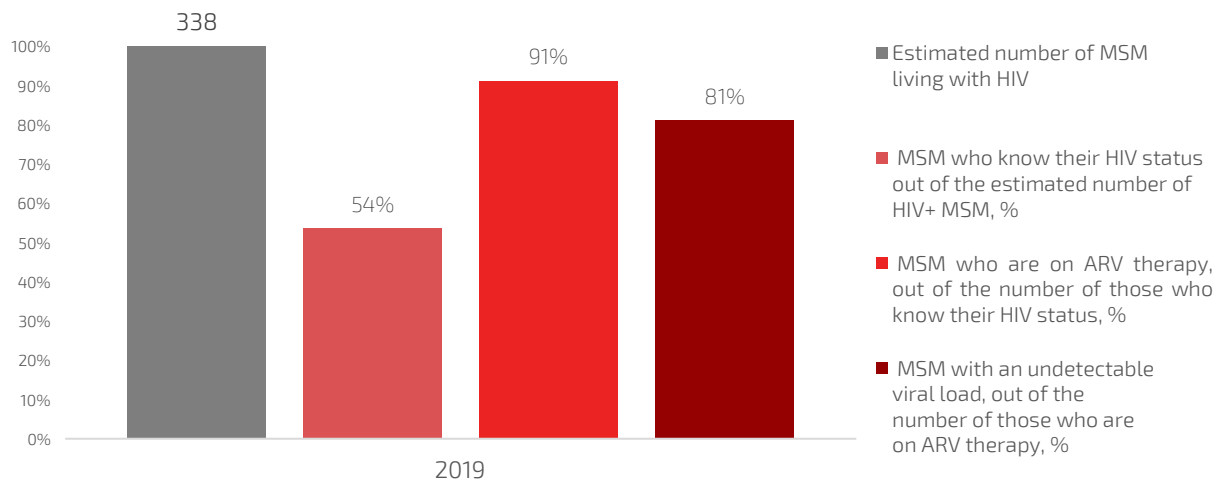
### Georgia



## Kyrgyzstan



## Macedonia



The full reports are available on ECOM's website [www.ecom.ngo](http://www.ecom.ngo) in the "Knowledge Center" section.