

**SPECIAL** REPORT



# HIV testing in Europe and Central Asia

Monitoring implementation of the Dublin  
Declaration on partnership to fight HIV/AIDS in  
Europe and Central Asia: 2022 progress report

**ECDC SPECIAL REPORT**

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This report by the European Centre for Disease Prevention and Control (ECDC) was coordinated by Teymur Noori. The report was produced under contract ECDC/2019/037 by Katherine Turpie (National AIDS Trust), Annabelle Howard (National AIDS Trust), and Alison Brown (United Kingdom Health Security Agency). Juliana Reyes and Charlotte Deogan (ECDC) provided a full review of the report.

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# Abbreviations

|        |                                                         |
|--------|---------------------------------------------------------|
| ART    | Antiviral therapy                                       |
| EEA    | European Economic Area                                  |
| ECDC   | European Centre for Disease Prevention and Control      |
| EMCDDA | European Monitoring Centre for Drugs and Drug Addiction |
| EU     | European Union                                          |
| GAM    | Global AIDS Monitoring                                  |
| MSM    | Men who have sex with men                               |
| PLHIV  | People living with HIV                                  |
| PrEP   | Pre-exposure prophylaxis                                |
| PWID   | People who inject drugs                                 |
| STI    | Sexually transmitted infection                          |
| WHO    | World Health Organization                               |
| UNAIDS | The Joint United Nations Programme on HIV/AIDS          |

## Executive summary

This report presents the situation of HIV testing in Europe and Central Asia, summarising data on the implementation of national guidelines that shape HIV testing policies, the provision and uptake of HIV testing services and efforts being made to widen engagement with HIV testing and reduce late diagnosis. In the reporting year 2022, responses were submitted to ECDC from 51 of the 55 European and Central Asian countries (Andorra, Liechtenstein, Türkiye and Turkmenistan provided no data).

Key findings include:

- Only 83% of people living with HIV (PLHIV) across Europe and Central Asia know their HIV status, highlighting a need to strengthen and expand testing services. In the EU/EEA, approximately 89% of PLHIV know their HIV status.
- Forty countries reported having national guidelines for HIV testing, however, a third of reporting countries indicated their guidance was over five years old. Half of countries with guidance over five years old reported no plans to revise guidance.
- There is a wide range of testing interventions implemented across the region. Despite recent increases in the levels of implementation of novel, innovative testing modes, such as home testing and lay provider testing, traditional, clinic-based testing interventions remain among the most implemented across Europe and Central Asia.
- Legal and regulatory barriers to HIV testing continue to exist across Europe and Central Asia, with thirty-three countries reporting restrictions on who can administer an HIV test and eight countries reporting restricted access for HIV tests for certain populations.
- Data on the uptake of HIV testing among key populations was limited, especially for migrants, undocumented migrants and transgender people.
- Providing HIV testing services with suboptimal linkage to care has limited benefits, therefore clear time standards and referral pathways are important, especially with increasing levels of testing in non-traditional settings. Forty-three countries have linkage to care recommendations and twenty-three countries were able to provide data on the proportion of people promptly linked to care, with rates ranging from 76% to 100%.
- The COVID-19 pandemic and resultant public health measures negatively impacted the provision and uptake of HIV testing, with countries reporting reduced testing services and increased difficulties accessing testing.

## Background

In 2015, the United Nations member states adopted the Sustainable Development Goals (SDGs) for 2030, including SDG 3.3: 'Ending the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne and other communicable diseases' [1].

Despite progress in reducing HIV transmissions, in 2021 there were 106 508 people newly diagnosed with HIV across Europe and Central Asia [2]. Over half of those diagnosed in 2021 were diagnosed at an advanced stage of HIV infection, where the immune system is not functioning effectively ('late diagnosis'). A diagnosis is defined as late when the CD4 cell count is below 350 per mm<sup>3</sup> blood at the time of diagnosis. [2]. Individuals who are diagnosed late are more likely to experience negative health consequences, as late diagnosis is a strong indicator of increased morbidity and mortality. Additionally, it increases the risk of onwards transmission of HIV, as it is estimated that people diagnosed late have been living with an undiagnosed infection for at least three to five years [3,4]. Therefore, early HIV testing, prompt diagnosis and linkage to care is critical to achieve the SDG goal and to ensure good health outcomes for people living with HIV.

# Methodology

Between January and March 2022, an ECDC survey was used to collect data to monitor the implementation of the 2004 Dublin Declaration. The monitoring questionnaire was disseminated to the 53 countries that are part of the WHO European region, plus Kosovo<sup>1</sup> and Liechtenstein via an online survey.

National health authorities were asked to complete the Dublin Declaration survey between February and the end of March. In July and August 2022, a validation exercise was performed by each country and corrections were made where necessary.

The survey contained specific questions in relation to HIV testing, including questions about national testing guidelines, the provision and monitoring of testing services, uptake of testing among key populations, linkage to care and the continuum of HIV care. The responses to these questions are presented in this report.

As well as considering the picture for the whole European and Central Asian region, findings are presented by WHO sub-regions (East, Centre and West) which broadly group areas of Europe and Central Asia by geography and epidemic type, as depicted in Figure 1.

The countries covered by the report are grouped as follows:

**West, 24 countries:** Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Liechtenstein, Malta, Monaco, the Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, the United Kingdom.

**Centre, 16 countries:** Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Hungary, Kosovo, North Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Türkiye.

**East, 15 countries:** Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

**Figure 1. Geographical/epidemiological division of the WHO European Region**



<sup>1</sup> This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

## Progress and remaining challenges

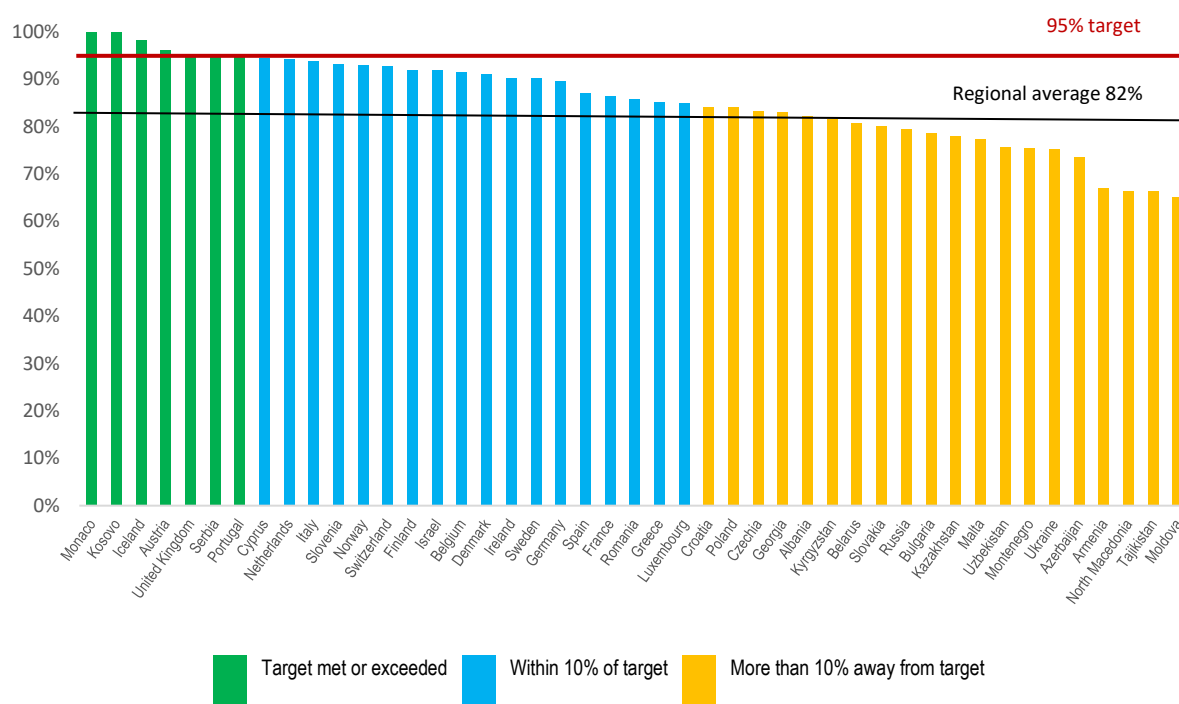
The scale-up of HIV testing is an essential element of the HIV response necessary to achieve the first UNAIDS continuum of care target: 95% or more of all people living with HIV (PLHIV) knowing their status by 2025.

In the 45 countries reporting data within Europe and Central Asia for both stage 1 (estimated number of PLHIV) and stage 2 (PLHIV that have been diagnosed), an estimated 2 312 179 people are living with HIV, 1 912 968 of whom (83%; range 65–100%) have been diagnosed. This is equivalent to approximately one in six (17%; range 0–35%) people living with HIV in Europe and Central Asia being unaware of their HIV status. Overall, the proportion of undiagnosed people living with HIV is highest in countries of the East sub-region and lowest in those of the Centre sub-region.

Of the 24 countries in the EU/EEA able to provide data for both stage one and stage two, approximately 89% know their HIV status. This is equivalent to approximately one in ten people living with HIV in the EU/EEA being unaware of their status (11%; range: 2–23%).

Seven of the 45 countries reporting data are currently meeting the 2025 UNAIDS target with 95% or more of all PLHIV knowing their HIV status (Monaco, Kosovo, Iceland, Austria, the United Kingdom, Serbia and Portugal). Of the other 38 countries, 18 are within 10% of the 2025 target (15 West; 3 Centre; 0 East) and 20 are more than 10% away from reaching this target (1 West; 8 Centre; 11 East).

**Figure 2. Percentage of all people living with HIV who know their status in 45 countries in Europe and Central Asia, 2022<sup>1</sup>**



Data availability is fairly limited on the proportion of PLHIV who know their status among key population groups. However, available data suggests that there is considerable variation in the proportion of those who are diagnosed between countries and key population groups (Figure 3).

Twenty-six countries were able to provide data for men who have sex with men (MSM). Of these 26 countries, 381 678 MSM are estimated to be living with HIV, of whom 307 952 (81%; range 1 – 100%) know their HIV status and 73 726 (19%; range 0 – 99%) do not. Seven countries reported that 95% or more of MSM who are living with HIV know their HIV status (Bulgaria, Kosovo, Belarus, Austria, the United Kingdom, the Netherlands and Finland). The proportion of those undiagnosed is highest in the East sub-region, where only 26% of MSM living with HIV have been diagnosed.

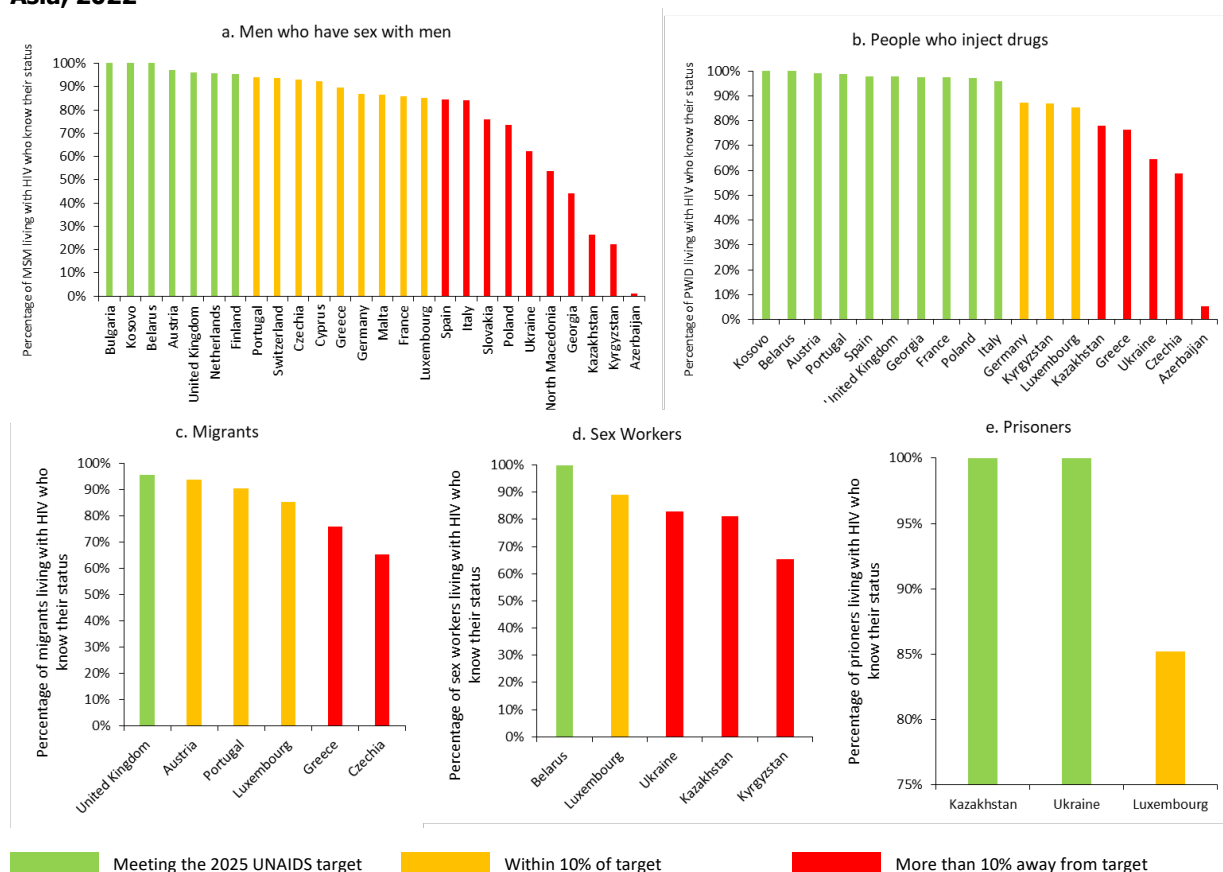
In the 18 countries able to provide data for people who inject drugs (PWID), 241 297 PWID are estimated to be living with HIV, of whom 154 316 (64%; range 5–100%) are aware of their status and 86 981 (36%; range 0%—

<sup>1</sup> Latest available data reported by countries in 2022. See Annex 1 for further information on the data provided by countries, including year of data collection.

95%) are not. Nine of the 18 countries reported 95% or more of PWID who are living with HIV know their HIV status.

Data availability is more limited for migrants, sex workers and prisoners. Six countries were able to provide data on the number of migrants living with HIV who know their status, ranging from 65%–96%. Five countries were able to provide data on sex workers, ranging from 65%–100%. Only three countries were able to provide data on prisoners, with the proportion of prisoners living with HIV who know their status ranging from 85–100%.

**Figure 3. Percentage of key populations living with HIV who know their status in Europe and Central Asia, 2022**

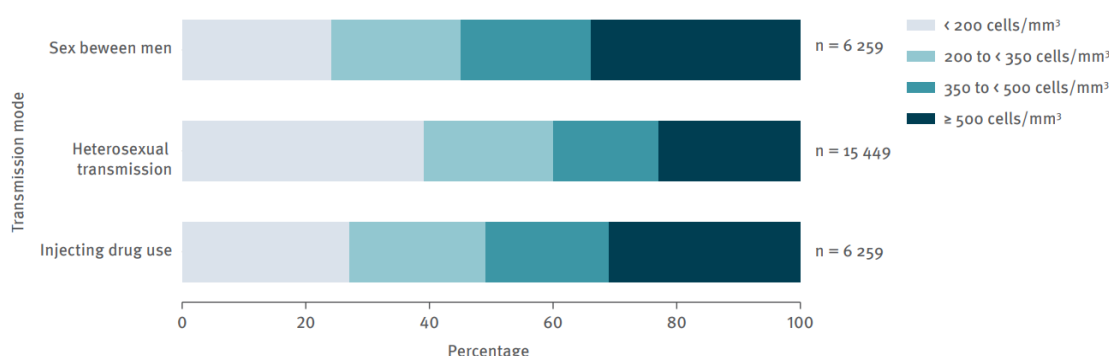


Scaling up testing services should aim to both reduce the number of people who have never been tested for HIV and increase the frequency of testing among people at risk of acquiring HIV. As well as reducing the undiagnosed number, this should also reduce the proportion of PLHIV who are diagnosed late. A diagnosis is defined as late when the CD4 cell count is below 350 per mm<sup>3</sup> blood at the time of diagnosis.

In Europe and Central Asia, late diagnosis remains a challenge in most countries (Figure 4). Just over half (54.2%) of all individuals diagnosed with HIV in 2021, where a CD4 count at diagnosis was reported, were classified as late diagnosis [2]. The percentage of late diagnoses varied slightly by sub-region: rates of late diagnosis were highest in the East sub-region, with 55.3% of new diagnoses classed as late, and lowest in the West, with 52.5% of new diagnoses classed as late [2]. Late diagnoses accounted for 52.8% of new infections in the Centre sub-region [2].

Within Europe and Central Asia, those who have acquired HIV through heterosexual sexual contact are most affected by late diagnosis (60%; 63% for men and 56% for women), followed by those who acquired HIV through injecting drug use (48%). Percentages are lowest for men who acquired HIV through sex with men (45%) [2].

**Figure 4. New HIV diagnoses, by CD4 cell count per mm<sup>3</sup> at diagnosis, by transmission group, Europe and Central Asia, 2021 (n=28 742)<sup>1</sup>**



Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. HIV/AIDS surveillance in Europe 2022–2021 data.

## Policy, guidelines and strategies

Testing guidelines support national programme managers and service providers in designing and implementing HIV testing services. They set standards for best practice and inform strategic decision-making regarding the mix of approaches to deliver HIV testing services that will maximise impact.

Forty countries in Europe and Central Asia reported that there is a national policy, strategy or other recommendations from their government on HIV testing (Table 1). Between 2021 and 2022, five countries have reported that they updated their testing guidance. However, 13 of the 40 countries (32.5%) indicated that their testing guidance was over five years old at the time of submission. Guidance published over five years ago may be out-of-date and not reflect the most recent innovations in HIV testing (community-based testing, indicator-guided HIV testing, etc.). Of the countries with guidance over five years old, seven (53.8%) reported plans to revise their guidance within the next three years.

Eleven countries reported they did not have a country-specific national HIV testing policy, strategy or other recommendations from their government. Of these 11 countries, nine (81%) reported that they used guidance from ECDC [5], WHO [6], or from other sources such as professional associations or non-governmental organisations (NGOs). Five countries plan to introduce national HIV testing guidance in the next two years. Annex 2 provides information on testing guidance by country.

**Table 1. Number of countries with country-specific national HIV testing guidance and their year of publication, in Europe and Central Asia, by WHO/Europe sub-region**

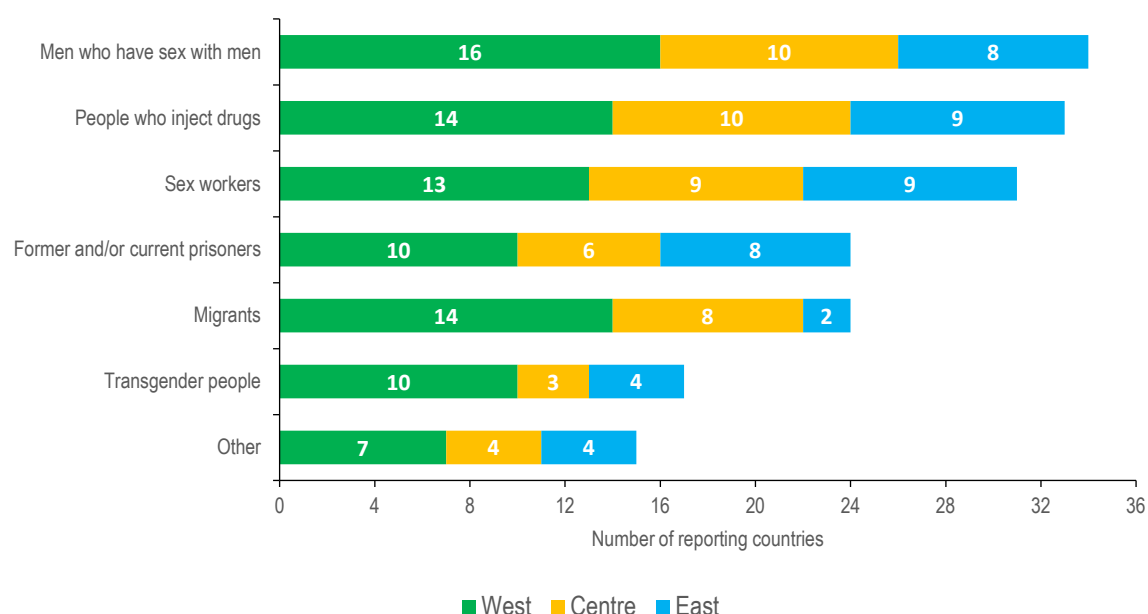
| Region | Countries <sup>2</sup> (n=40) | Year of publication of national policy/strategy (number of countries)                               |
|--------|-------------------------------|-----------------------------------------------------------------------------------------------------|
| West   | 17                            | 2022 (1); 2021 (1); 2020 (2); 2019 (2); 2018 (3); 2017 (2); 2014 (3); 2013 (1); 2011 (1); 2010 (1). |
| Centre | 12                            | 2022 (1); 2021 (1); 2020 (3); 2019 (1); 2018 (1); 2017 (1); 2016 (1); 2012 (1); 2009 (1); 2007 (1). |
| East   | 11                            | 2021 (1); 2020 (2); 2019 (1); 2018 (2); 2017 (2); 2012 (2); 2010 (1).                               |

ECDC guidance on HIV and hepatitis testing recommends that HIV tests are offered to key populations that are at an increased risk for HIV [4]. Of the 40 countries with a national HIV testing policy or strategy, 36 (90%) include specific guidance on key populations (Figure 5). The most reported key population mentioned were MSM (34), PWID (33), and sex workers (31). Transgender people and migrants were the least frequently mentioned in countries' national guidelines.

**Figure 5. Key populations included in national HIV testing guidance Europe and Central Asia, by WHO sub-region, in 2022 (n=36)**

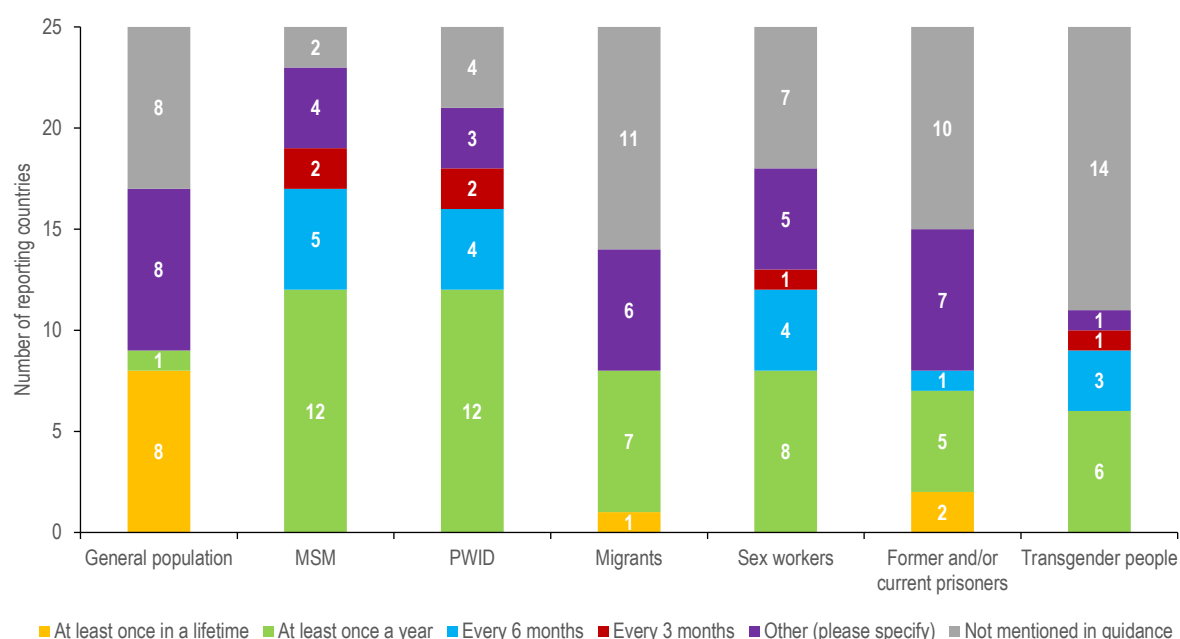
<sup>1</sup> Includes data from 46 countries. Data from Andorra, Bosnia and Herzegovina, Monaco, North Macedonia, Turkmenistan and Uzbekistan excluded due to inconsistent reporting over the previous decade. Data from Portugal not published at country request.

<sup>2</sup> Countries listed in Annex 2.



In the same guidance, ECDC recommends that key populations should be tested every 6–12 months, depending on local epidemiology and risk assessment [4]. Twenty-five countries reported that they include recommendations on frequency of testing for at least some key populations (Figure 6). Countries were most likely to report recommendations on frequency of testing for MSM and PWID. Countries were least likely to include recommendations on frequency of testing for transgender people and migrants.

**Figure 6. Recommendations on frequency of testing, by key population, in Europe and Central Asia (n=25)<sup>1</sup>**



Recommendations on HIV testing modalities are included in the HIV testing guidance for all 40 countries which reported having a national policy, strategy or recommendation (Figure 7).

<sup>1</sup> One country, Armenia, reported that their guidelines include recommendations on frequency of testing, however, they did not report on the specific recommendations.

According to guidance from ECDC, the following HIV testing interventions are effective and acceptable to target groups which can in turn increase the offer, uptake and coverage of HIV testing:

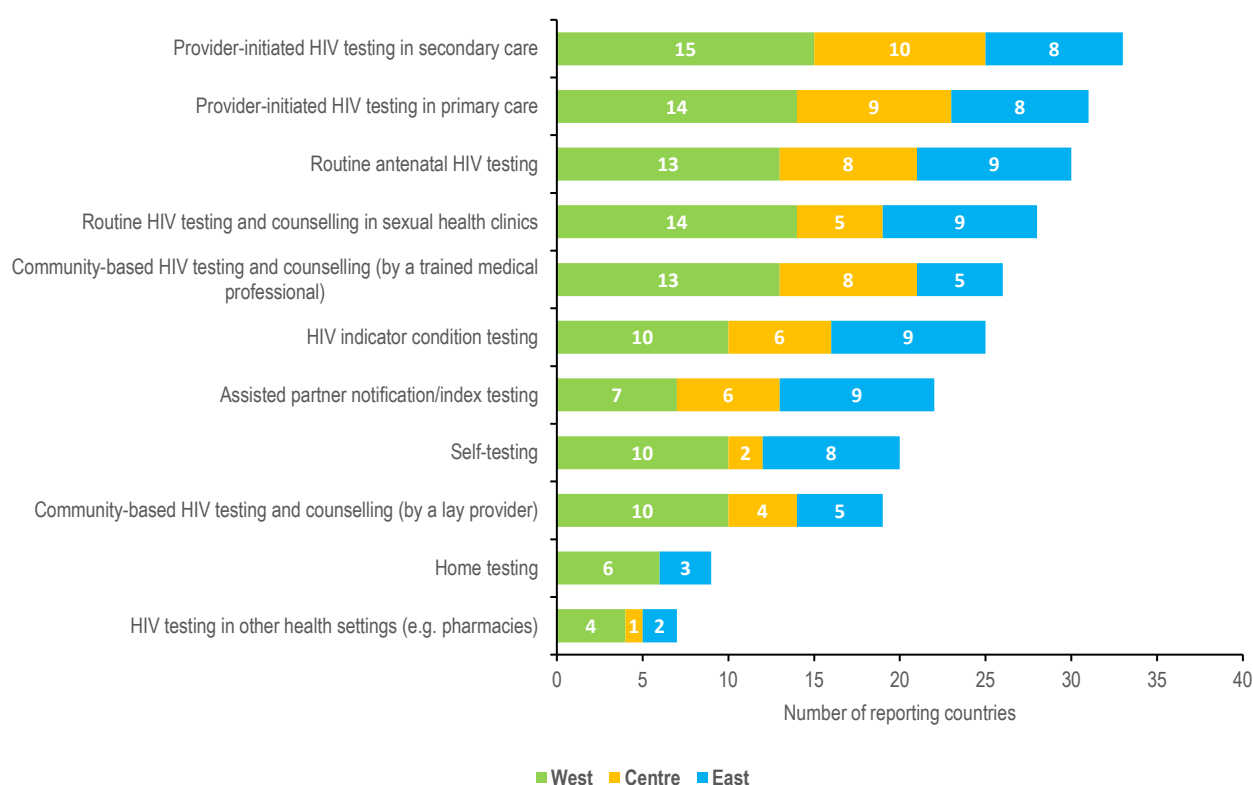
- Routine antenatal testing
- Routine testing in sexual health clinics
- Community-based testing
- Lay provider testing
- Self-testing
- Self-sampling
- Provider-initiated testing in primary and secondary care
- Testing in other health settings (such as pharmacies)

The guidance also recommends implementing assisted partner notification and HIV indicator condition testing as strategies to focus HIV testing on groups of people at higher risk of acquiring HIV [4].

The most cited testing modalities included: provider-initiated in secondary care (33), provider-initiated in primary care (31), routine antenatal testing (30) and routine HIV testing in sexual health services (28). The least frequently cited testing modalities are HIV testing in other healthcare settings, such as pharmacies (7), home testing (9) and community-based HIV testing by a lay provider (19).

The median number of interventions included in guidance for all 40 countries was six interventions. In the West, the median was seven (range 1–11), in the Centre it was four (range 3–8) and in the East it was seven (range 2–11).

**Figure 7. Different testing interventions included in testing guidelines, by WHO sub-region, 2022 (n=40)**



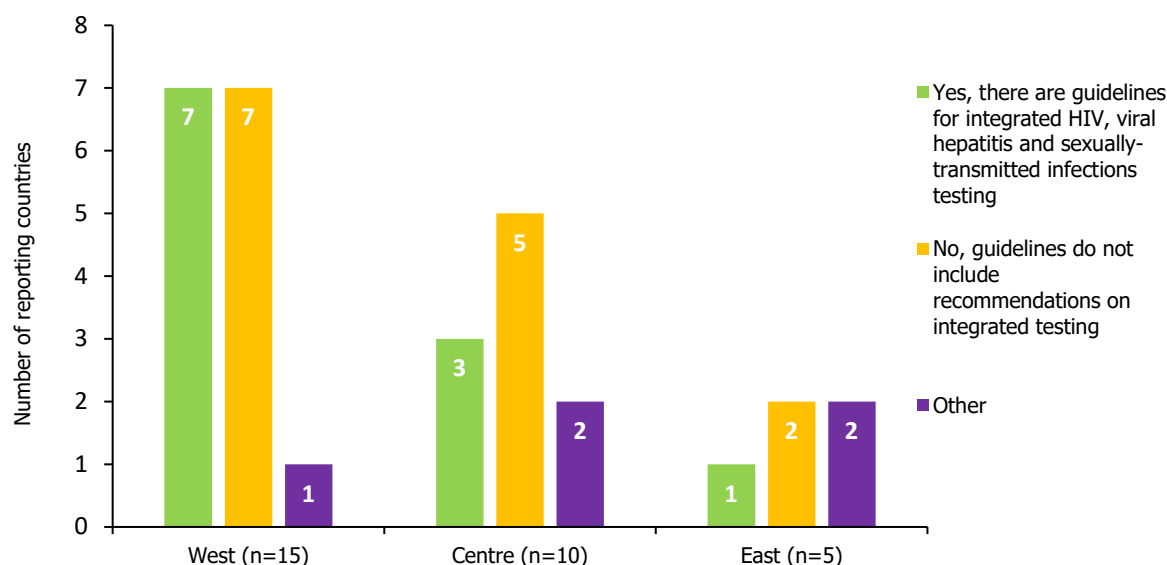
## Integrated HIV, STI and viral hepatitis testing

Countries were asked if their national testing guidelines included recommendations for integrated testing for HIV, viral hepatitis and sexually-transmitted infections, in line with the ECDC Public Health guidance on HIV, hepatitis B and C testing in the EU/EEA [4] (Figure 8). Eleven of 30 countries responding reported that their guidance included integrated testing for HIV, viral hepatitis and STIs and 14<sup>1</sup> reported that their guidance did not include any recommendations on integrated testing. Five countries reported 'other'. Of the 14 countries which reported they do not have guidance on integrated testing, five reported plans to include such guidance by 2023.

<sup>1</sup> EU/EEA countries reporting no integrated testing guidance (7): Bulgaria, Denmark, Finland, Greece, Malta, Sweden, Slovenia  
Non-EU/EEA countries reporting no integrated testing guidance (7): Israel, Kosovo, Moldova, Serbia, Switzerland, Türkiye, Ukraine

In the EU/EEA, eight of 19 countries reported that their guidance included integrated HIV, viral hepatitis and STI testing and seven countries reported that their guidelines did not include any guidance on integrated testing. Four countries reported 'other', including integrated testing only for specific key populations and recommendations to use synergies between HIV, HBV, and HCV testing.

**Figure 8. Recommendations on integrated HIV, viral hepatitis, and sexually-transmitted infection testing, in Europe and Central Asia, by WHO European sub-region (n=30)**



## Recommendations on mandatory testing in prisons

In line with a rights-based approach, mandatory HIV testing is not recommended on the grounds of public health [7]. In total, 40 of 47 countries report that voluntary HIV testing is available in prisons in Europe and Central Asia, with 20 providing opt-in testing and 16 providing routine testing on an opt-out basis. Two countries reported that HIV tests were offered during prison admission processes but did not specify if the tests continued to be available after admission. One country reported testing was available to people in prison if a doctor prescribed it. One country reported that national guidelines recommend offering HIV tests to all prisoners but did not specify if it was on an opt-in or opt-out basis. Four countries reported there was no national data on recommendations for HIV testing in prisons. However, three countries in the region (Belarus, Cyprus, and Malta) continue to report that HIV testing is mandatory for all prisoners.

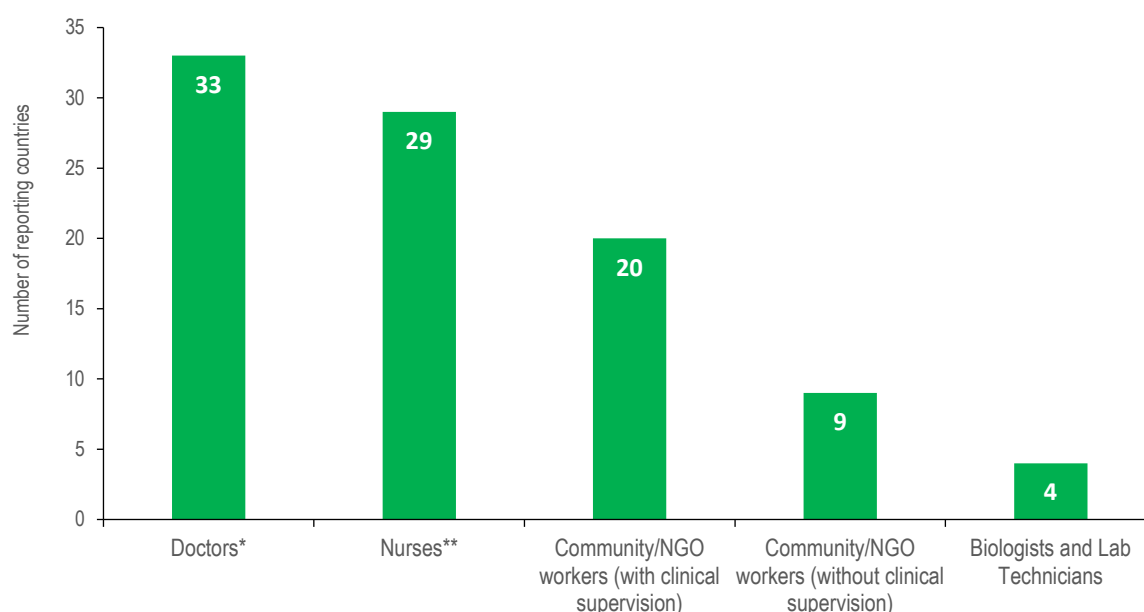
## Legal and regulatory barriers

Legal barriers to testing are those enshrined in law, while regulatory barriers are those contained in guidance or common practices [8]. A substantial barrier to testing is the criminalisation of HIV transmission and the activities of the key populations affected by HIV – for example, criminalisation of sex work, drug use, and nondocumented migration – which remains widespread in Europe and Central Asia [9]. Within the range of possible barriers to testing posed by legal or regulatory restrictions, this brief examines the restrictions regarding who can administer or receive an HIV test and the costs associated with HIV testing.

Lay provider testing, which has been recommended by WHO since 2015 [10], supports task-sharing in the health sector and may be more acceptable to marginalised populations. However, restrictions on who can administer an HIV test persist in Europe and Central Asia, ranging from only doctors being able to take blood samples, to a clinician having to be present in the building while testing is taking place [8].

Thirty-three of 45 countries (73%) reported that they have restrictions regarding who can legally carry out an HIV test, while ten (22%) reported no restrictions (Figure 9). Two countries reported they were unsure if restrictions existed. Among the 35 countries which reported that restrictions exist, or they were unsure if restrictions existed, 33 countries reported that doctors were able to administer HIV tests: three countries reported that specialised doctors were able to administer HIV tests and 30 countries reported that any doctor could administer the tests. Twenty-nine countries reported that nurses were able to administer testing, however, seven restricted HIV test administration to specialist nurses, one restricted this to any nurse on a doctor's order and one restricted it to any nurse under clinical supervision. Twenty countries reported that community and NGO workers were able to administer HIV tests with clinical supervision and nine reported that community and NGO workers were able to administer HIV tests without clinical supervision. However, three of the countries that indicated that community and NGO workers were able to administer HIV tests reported that they were restricted to administering/assisting with HIV self-tests or HIV rapid tests. Countries also reported other testing opportunities, including tests administered by laboratory staff in four countries and by midwives in one country.

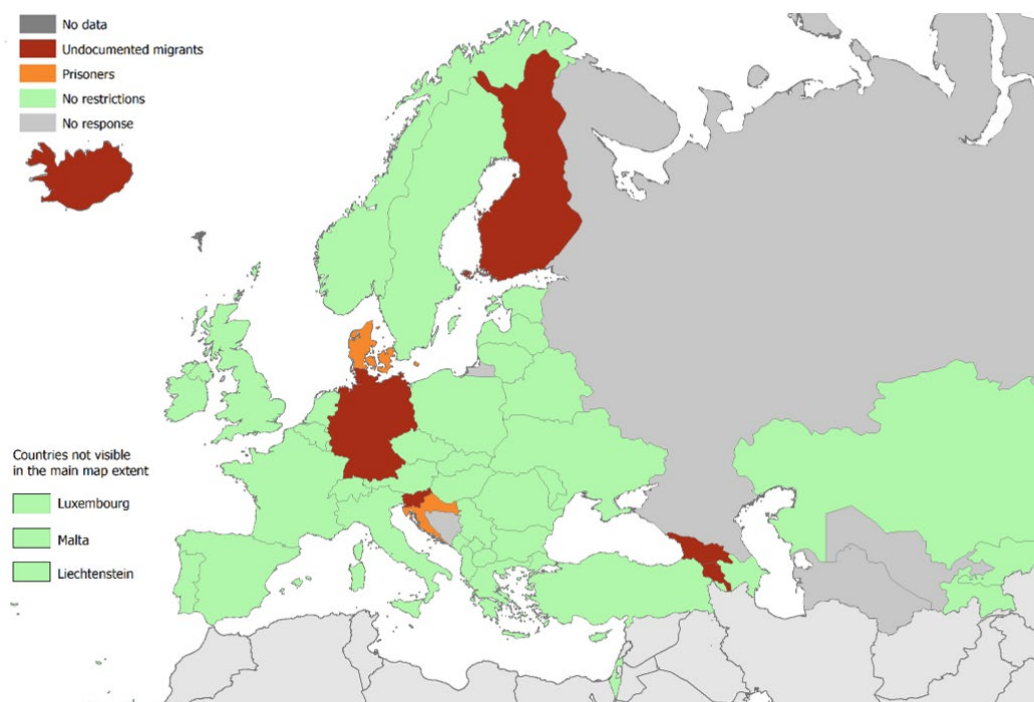
**Figure 9. Professions able to administer HIV tests in countries reporting restrictions on who can provide tests, in Europe and Central Asia (n=35)**



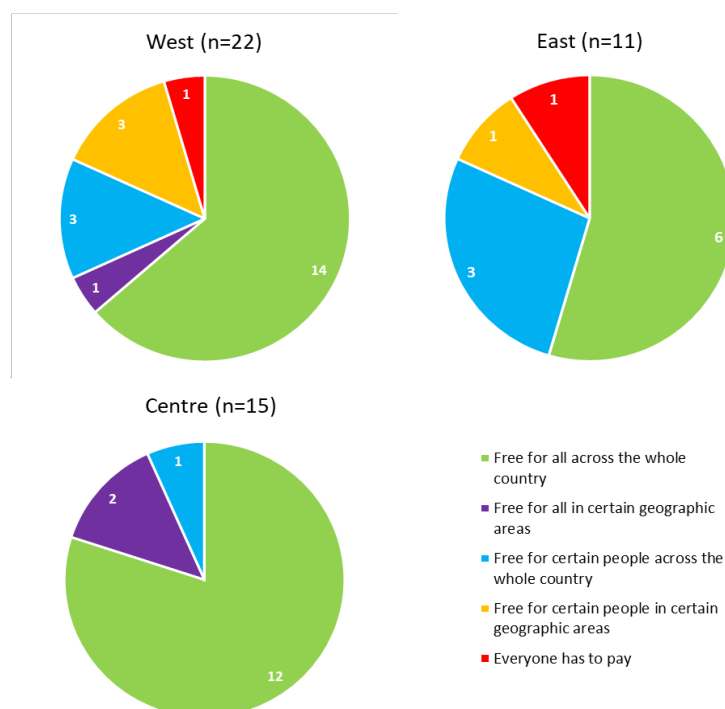
\* Includes countries which responded: specialized doctors (3), any doctor (30).

\*\* Includes countries which responded: any nurse (20), specialist nurse (7), any nurse under clinical supervision (1), nurses on order of doctor (1)

Restrictions on who can receive HIV tests often means that HIV testing is not available for those who need it the most. While most countries in Europe and Central Asia (42 of 50; 84%) reported that there were no restrictions on who can receive an HIV test, eight (16%) countries reported that HIV testing is restricted for certain populations (Figure 10). Six countries reported that there is restricted access to HIV testing for undocumented migrants. One of the six countries, Georgia, reported that access to HIV testing was restricted for all migrants, regardless of their formal migration status. Two countries reported that access to HIV testing was restricted for people in prisons.

**Figure 10. Restrictions on access to testing for specific populations, in Europe and Central Asia (n=8)**

Another important barrier to accessing HIV testing is the cost of HIV testing. Charging fees for HIV testing creates barriers to access for those who are unable to afford the fees. Of the 48 countries reporting data on the costs associated with HIV testing, 32 (67%) reported that testing was free for all across the whole country and 16 (33%) reported there were costs associated for testing for some populations or in certain geographic regions. Three countries reported that it was free for people in certain geographic regions, seven countries reported that testing was free for certain populations across the whole country, four reported that testing was free for certain populations in certain geographic areas and two countries reported that everyone has to pay. Figure 11 disaggregates the data by WHO European sub-region.

**Figure 11. Countries reporting costs associated with HIV testing in Europe and Central Asia, by WHO European sub-region, 2022**

## Provision of testing services

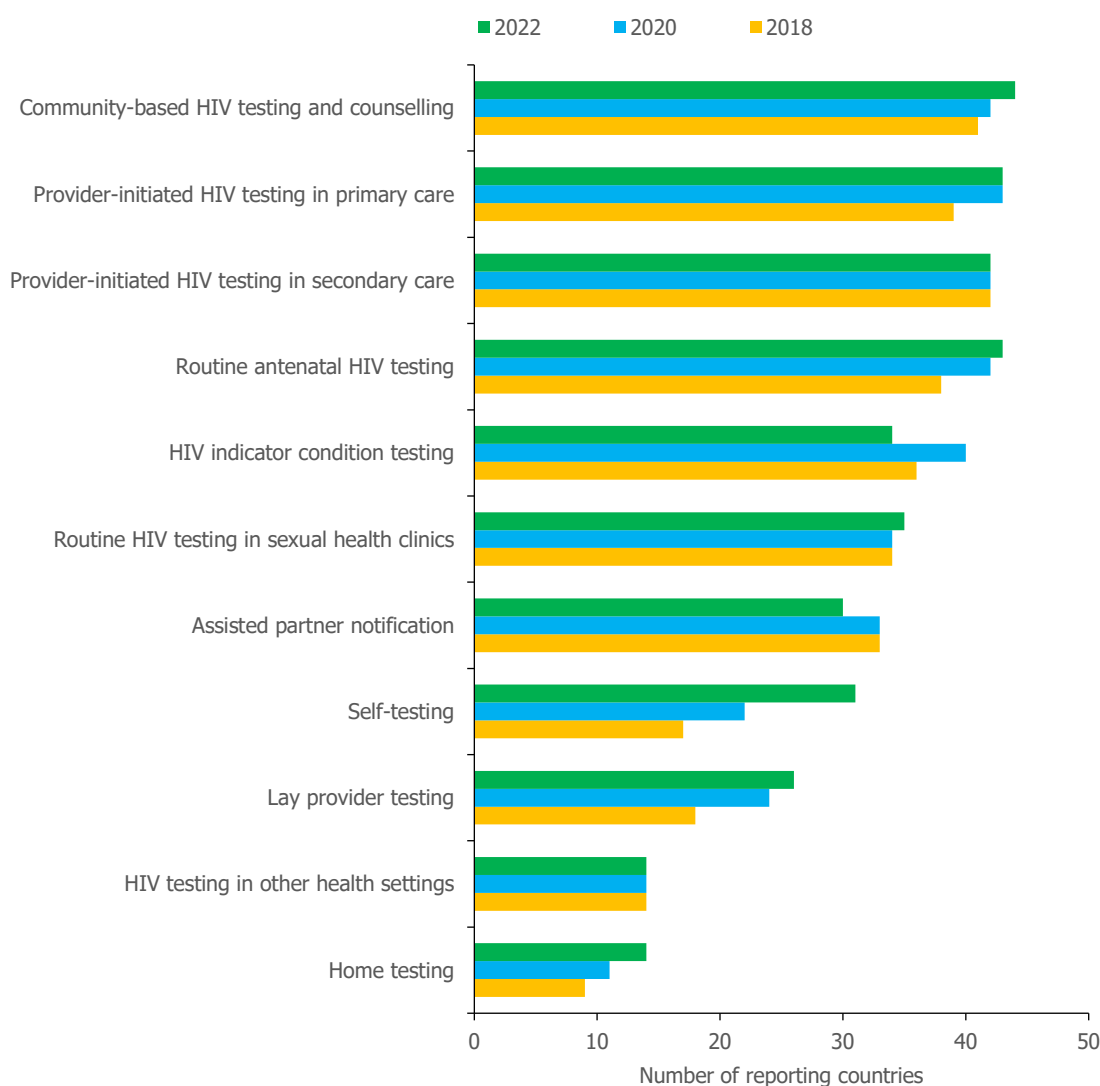
The provision of a range of testing services has improved over time, although data from 2022 suggests that some testing services have been scaled back compared with previous years (Figure 12).

The following services have consistently been among the most frequently reported HIV testing services provided by countries in Europe and Central Asia: community-based HIV testing (44 in 2022), provider-initiated testing in primary and secondary care (43 and 42 in 2022 respectively) and routine antenatal testing (43 in 2022).

The implementation and provision of self-testing services has increased significantly between 2018 and 2022 (82%; from 17 countries in 2018 to 31 countries in 2022). Most types of HIV testing services saw small increases in the level of implementation in Europe and Central Asia between 2020 and 2022, however, two testing modalities saw decreased implementation between 2020 and 2022: assisted partner notification (-9%; from 33 to 30) and HIV indicator condition testing (-15%; from 40 to 34).

Nonetheless, the number of different testing services that are available in 2022 remains greater for most modalities than the level of provision of testing services in 2018 and 2020. Annex 4 provides a breakdown of the countries providing community-based HIV testing services, HIV indicator testing, self-testing, lay-provider testing and home-testing.

**Figure 12. Countries implementing different testing services over time, Europe and Central Asia, 2018–2022**

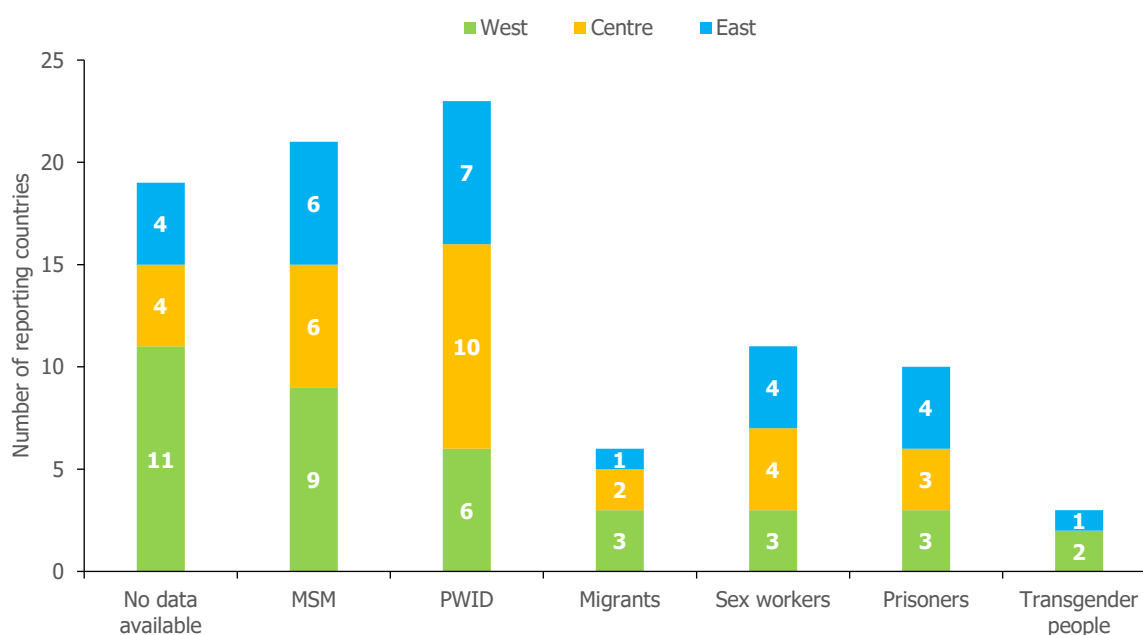


## Uptake of HIV testing

### Testing among key populations at increased risk of acquiring HIV

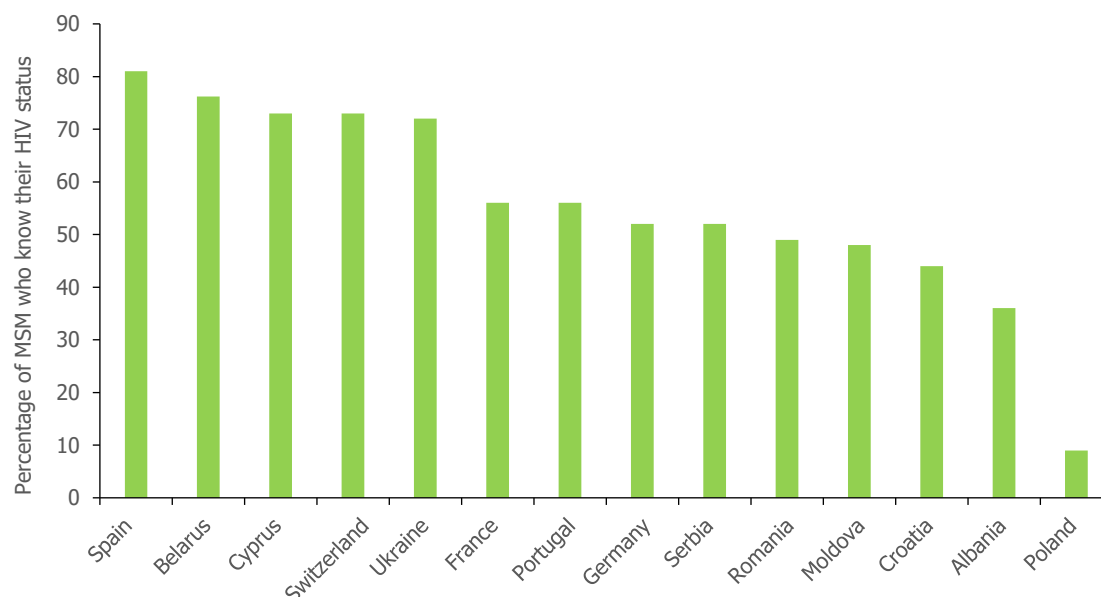
Ensuring that HIV testing is available and accessible to key populations at increased risk of acquiring HIV is crucial to combatting the HIV epidemic. Therefore, monitoring the uptake of testing among key populations is an important indicator of whether the implementation of testing is successful at targeting those most at risk. However, data on the uptake of HIV testing among key populations are limited, especially for migrants and transgender people (Figure 13).

**Figure 13. Data availability for HIV testing uptake among key populations in Europe and Central Asia, by WHO sub-region, 2022**



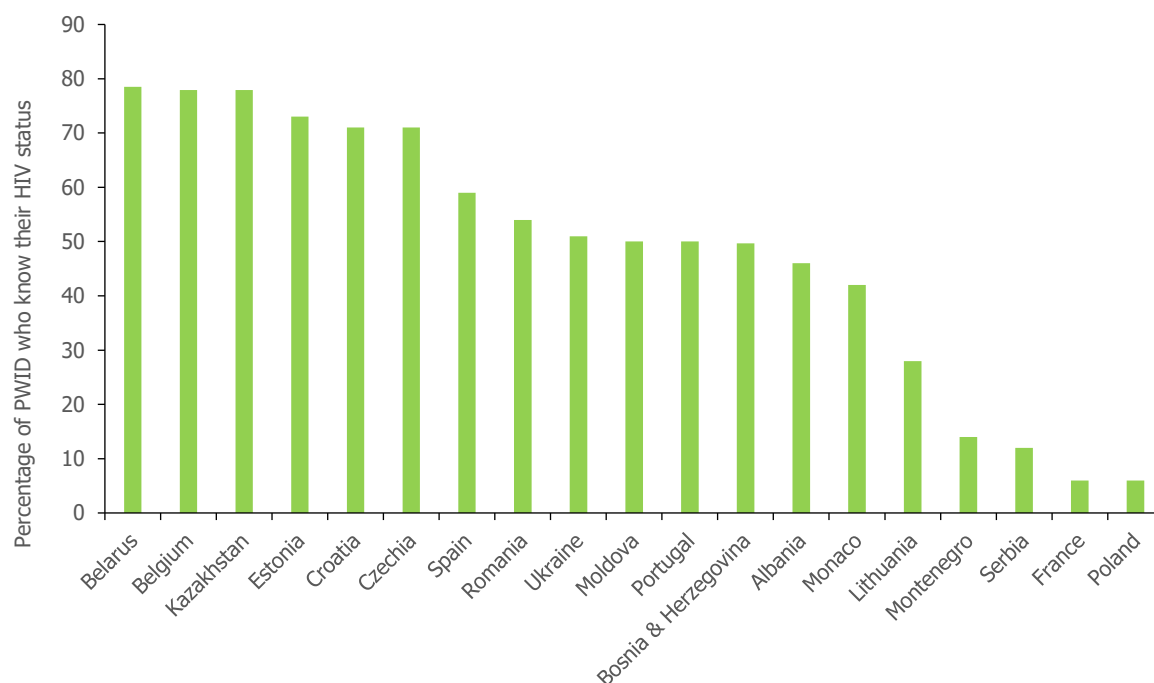
#### *Men who have sex with men*

Twenty-one countries reported they had data on the uptake of HIV testing among MSM. The year the reported data were collected ranged from 2017 to 2021. Of the 21 countries reporting data, only 14 were able to provide the percentage of MSM who know their HIV status (knowing whether they are HIV positive OR if they are HIV negative (Figure 14). In the 14 reporting countries, the proportion of MSM who know their HIV status ranged from 9% (Poland; 2021 data) to 81% (Spain; 2017/2018 data). The median proportion of MSM who know their HIV status in Europe and Central Asia is 54%. None of the reporting countries have met the 95% target set by UNAIDS [11].

**Figure 14. Percentage of MSM who know their HIV status in Europe and Central Asia, 2021**

### *People who inject drugs*

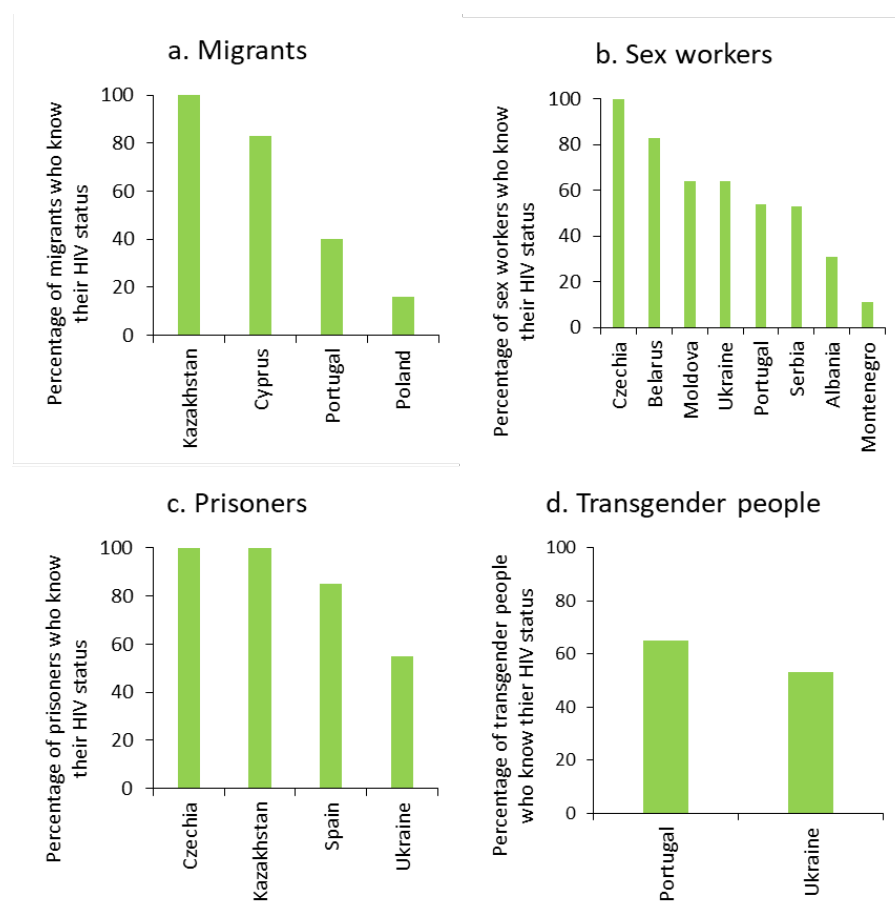
Twenty-three countries reported they had data on the uptake of HIV testing among PWID. The year the reported data were collected ranged from 2018 to 2021. Of the 23 countries reporting data, only 19 were able to provide the percentage of PWID who know their HIV status (Figure 15). In the 19 reporting countries, the proportion of PWID who know their HIV status ranged from 6% (France and Poland) to 79% (Belarus). The median proportion of PWID who know their HIV status in Europe and Central Asia is 50%. None of the reporting countries have met the 95% target set by UNAIDS [11].

**Figure 15. Percentage of people who inject drugs who know their HIV status in Europe and Central Asia, 2021**

## Other key populations

Data availability among the other key populations (migrants, sex workers, prisoners and transgender people) is very limited (Figure 13 and 16). Among the four countries able to report data for migrants, the median proportion of migrants who know their HIV status is 61.5% (range: 16%–100%). One country, Portugal, was able to report data on the number of undocumented migrants who know their HIV status (30%). Eight countries were able to report on the proportion of sex workers who know their HIV status (range: 11%–100%; median: 59%). Four countries were able to report on the proportion of prisoners who know their HIV status (range: 55%–100%; median: 92.5%). Only two countries were able to provide data on the proportion of transgender people who know their status. Portugal reported that 65% of transgender people know their HIV status and Ukraine reported that 53% of transgender people know their HIV status.

**Figure 16. HIV testing uptake among key populations in Europe and Central Asia, 2021**



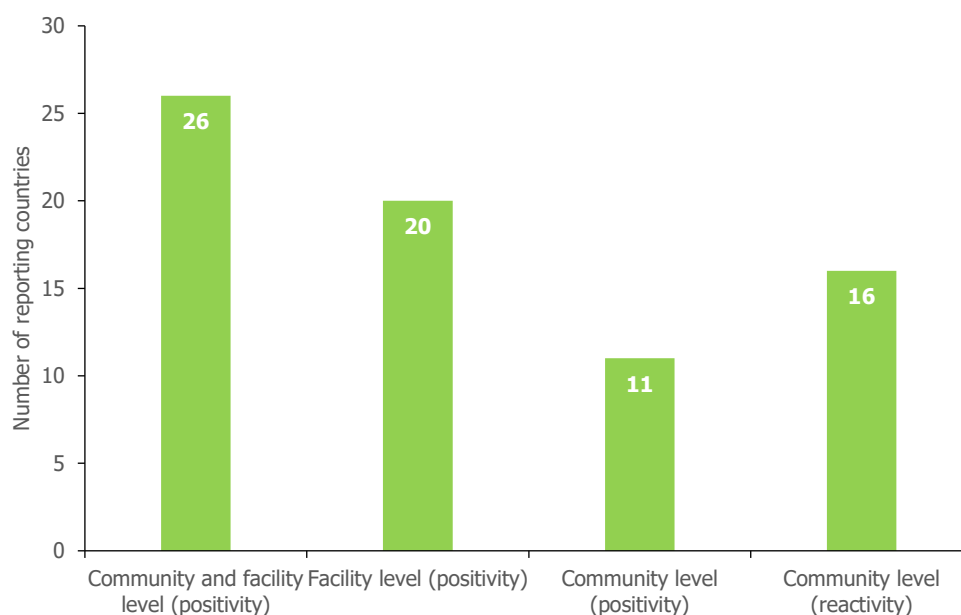
## Testing in different settings

Monitoring uptake of HIV testing in different settings enables national health authorities to ensure that services are delivered effectively, while being cognisant of trends in HIV transmission. Positivity data can also help countries determine the effectiveness of testing strategies, evaluate testing services and validate the number of people reported as newly diagnosed through routine reporting systems.

Overall, 34 countries were able to provide data on testing volume, positivity and reactivity at overall, facility-level and community-level HIV testing services (Figure 17). Twenty-six countries were able to provide data for community and facility-level HIV testing overall. Facility level testing services include provider-initiated testing in clinics or emergency settings, antenatal clinics, family planning clinics, voluntary counselling and testing (VCT) within a healthcare setting, along with other facility-level data. Eleven countries were able to provide community level data on testing volume and positivity and 16 countries were able to provide data on community level testing volume and reactivity<sup>1</sup>. Community level testing services include mobile testing, VCT not within a healthcare setting, along with other community-based testing services.

<sup>1</sup> 'Reactivity' does not necessarily mean that you are HIV-positive, because false positives can happen. Thus, if the result is reactive, the result is only preliminary and must be verified with a series of confirmatory tests.

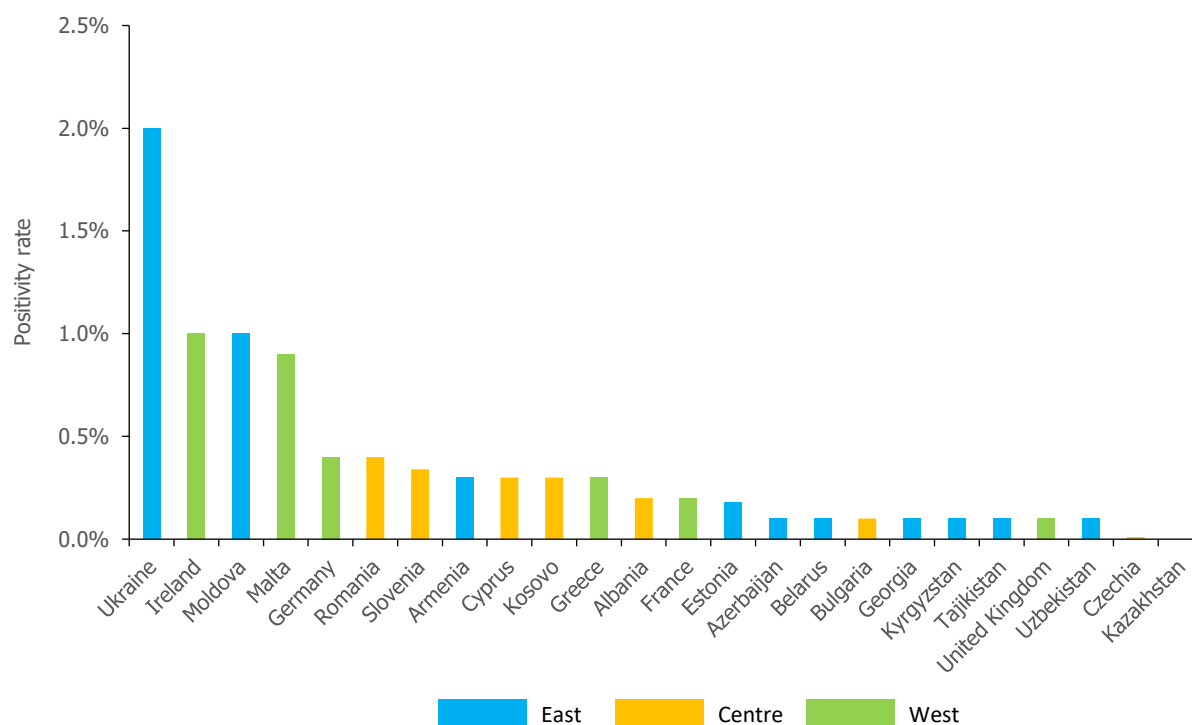
**Figure 17. Data availability for testing positivity/reactivity rate based on overall, facility level and community level HIV testing services, in Europe and Central Asia, 2022**



### *Overall facility- and community-level testing services*

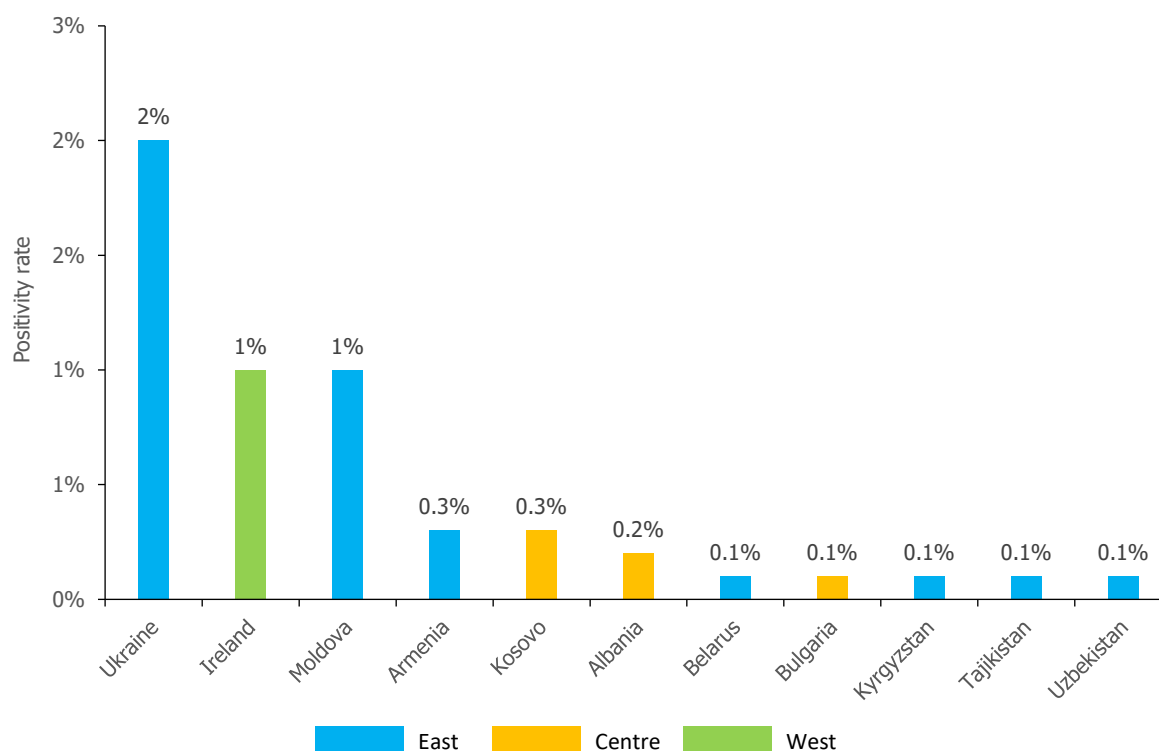
For overall community and facility level testing services, countries were asked to provide a positivity rate based on the number of tests (Figure 18). The median positivity rate was 0.2% (range: 0.01%–2%). Variation in overall positivity rates is expected as data collection methodologies vary and the data pulls together many implementation types of HIV testing aimed towards different populations.

**Figure 18. Positivity rate for community and facility level testing services, in Europe and Central Asia, 2022**



### *Facility level testing services*

Eleven countries were able to provide positivity rates for overall facility level testing services (Figure 19). The median positivity rate was 0.2% (range: 0.1%–2%).

**Figure 19. Positivity rate for overall facility level testing services, in Europe and Central Asia, 2022<sup>1</sup>**

Some countries were able to provide positivity rates for different facility level testing services (Figure 20). Thirteen countries were able to provide positivity rates for provider-initiated testing services. These rates ranged from 0% (Armenia, Estonia, Kazakhstan, Kosovo, and Kyrgyzstan) to 2% (Moldova)).

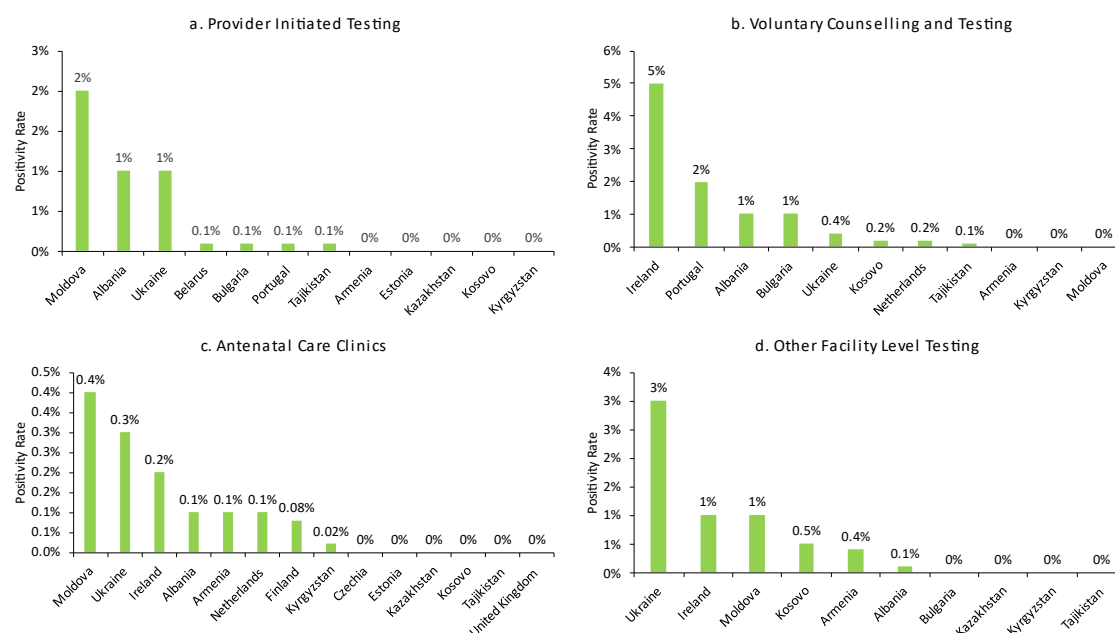
Twelve countries were able to provide data for positivity rates at facility level VCT testing sites, with rates ranging from 0% (Armenia, Kyrgyzstan and Moldova) to 5% (Ireland).

Fourteen countries were able to provide data for positivity rates at antenatal care clinics, with rates ranging from 0% (Czechia, Estonia, Kazakhstan, Kosovo, Tajikistan and the United Kingdom) to 4% (Moldova).

Ten countries were able to provide data for positivity rates at other facility level testing sites. Rates ranged from 0% (Bulgaria, Kazakhstan, Kyrgyzstan, Tajikistan) to 3% (Ukraine).

Additionally, six countries (Armenia, Kosovo, Kyrgyzstan, Moldova, Tajikistan and Ukraine) reported data on the positivity rates at family planning clinics. All six reported a 0% positivity rate.

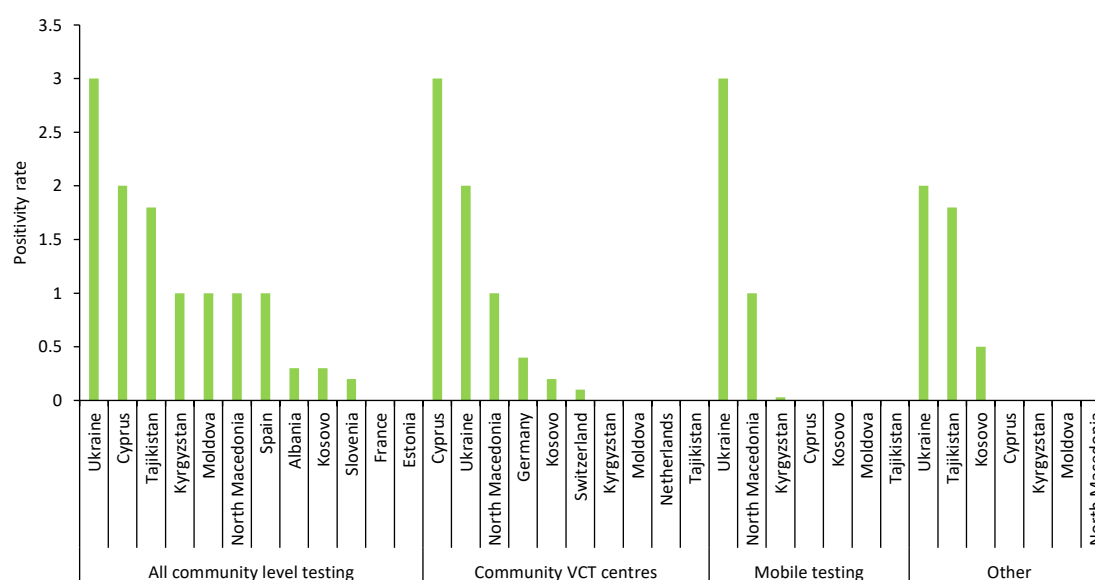
<sup>1</sup> Data from Greece not included in graph. Greece reported a positivity rate of 94%.

**Figure 20. Positivity rates for facility level testing services, in Europe and Central Asia, 2022**

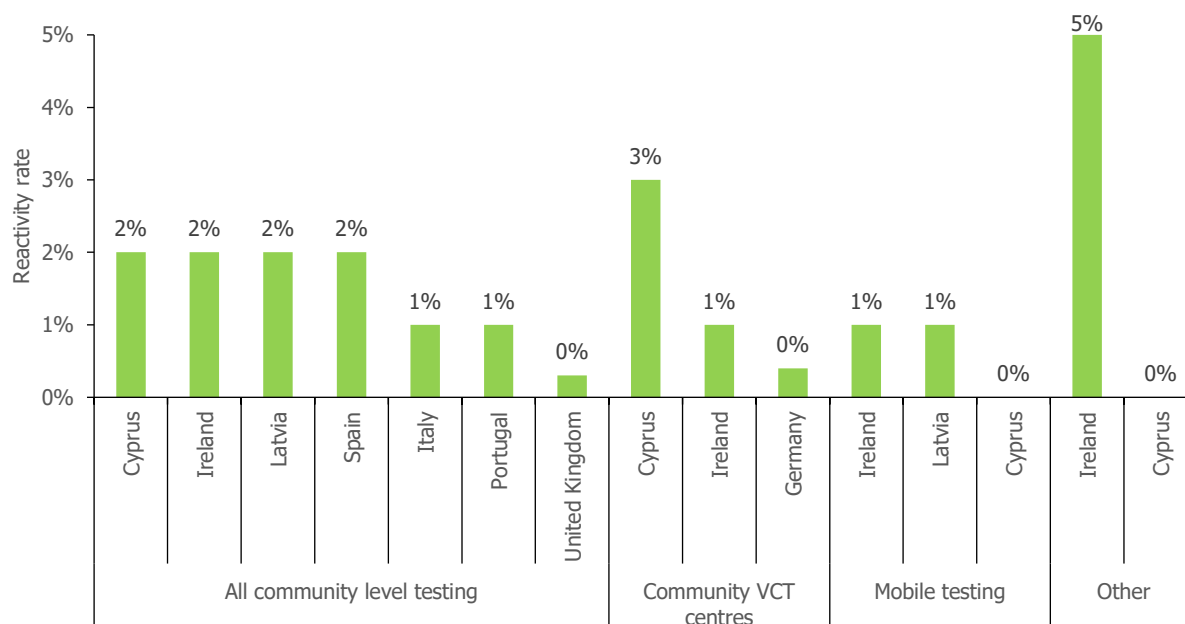
### Community level testing services

Twelve countries were able to provide data on community level positivity rates for all community level testing, with rates ranging from 3% in Ukraine to 0% in France and Estonia (Figure 21).

Ten countries were able to report the positivity rates for community testing within VCT centres. Rates ranged from 3% to 0%. Mobile community testing services also had a positivity rate between 3% and 0% in the seven countries able to report data. Other community testing services had a positivity rate between 2% and 0% in seven reporting countries.

**Figure 21. Positivity rates for community level testing services, in Europe and Central Asia, 2022**

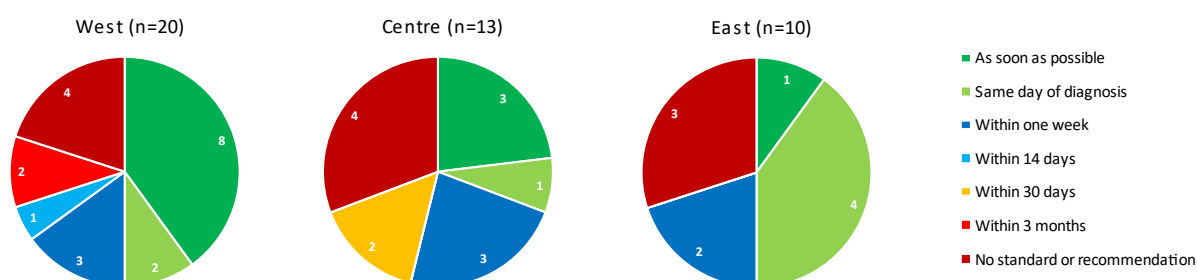
Additionally, countries were asked to provide reactivity rates for community level testing (Figure 22). Seven countries were able to provide reactivity rates for all community level testing. Reactivity rates ranged from 2% in Cyprus, Ireland, Latvia and Spain to 0.3% in the United Kingdom. Three countries provided data for VCT centres, with reactivity rates ranging from 3% (Cyprus) to 0.4% (Germany). Mobile testing reactivity rates ranged from 1% to 0% in the three countries able to provide data. Ireland reported 5% reactivity in other community settings and Cyprus reported 0% in other community settings.

**Figure 22. Reactivity rates for community level testing services, in Europe and Central Asia, 2022**

## Linkage to care

Providing HIV testing services where there is suboptimal linkage to care, including antiretroviral therapy (ART), has limited benefits for those living with HIV. While increasing HIV testing in non-traditional settings is important for widening accessibility, it also increases the likelihood of people not being linked to care, highlighting the need for clear time standards and referral pathways.

Forty-three countries provided data on recommendations on when linkage to care should take place following an HIV diagnosis (Figure 23). Of these 43 countries, seven (16%) recommended linkage to care on the same day of diagnosis, nine (21%) within one to two weeks, four (9%) within one to three months and 12 (28%) recommend linkage to care occur as soon as possible. Eleven (26%) countries had no standard or recommendation for when linkage to care should occur.

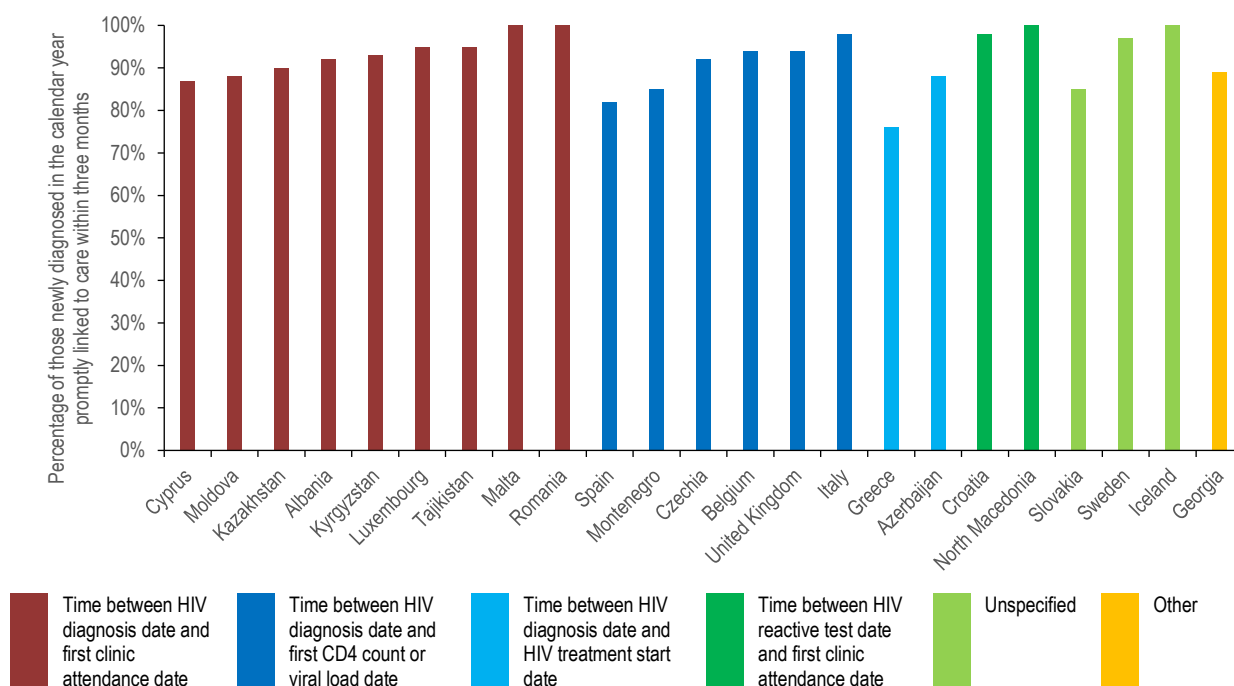
**Figure 23. Recommendations on when linkage to care should take place following an HIV diagnosis, by WHO sub-region, in 43 countries in Europe and Central Asia, 2022**

Linkage to care rates are not directly comparable between countries as there is no agreed standard definition on how to calculate linkage to care. Definitions for linkage to care for both facility-level and community-level HIV testing vary depending on which start and end dates are chosen to calculate the time taken to link to care. First clinic attendance date after diagnosis is considered the gold standard marker for linkage to care, but the choice of definition generally depends on which data are available. Table 2 outlines which definitions are used by different countries.

**Table 2. Linkage to care definitions for facility-level and community-level HIV in 43 countries in Europe and Central Asia, 2022**

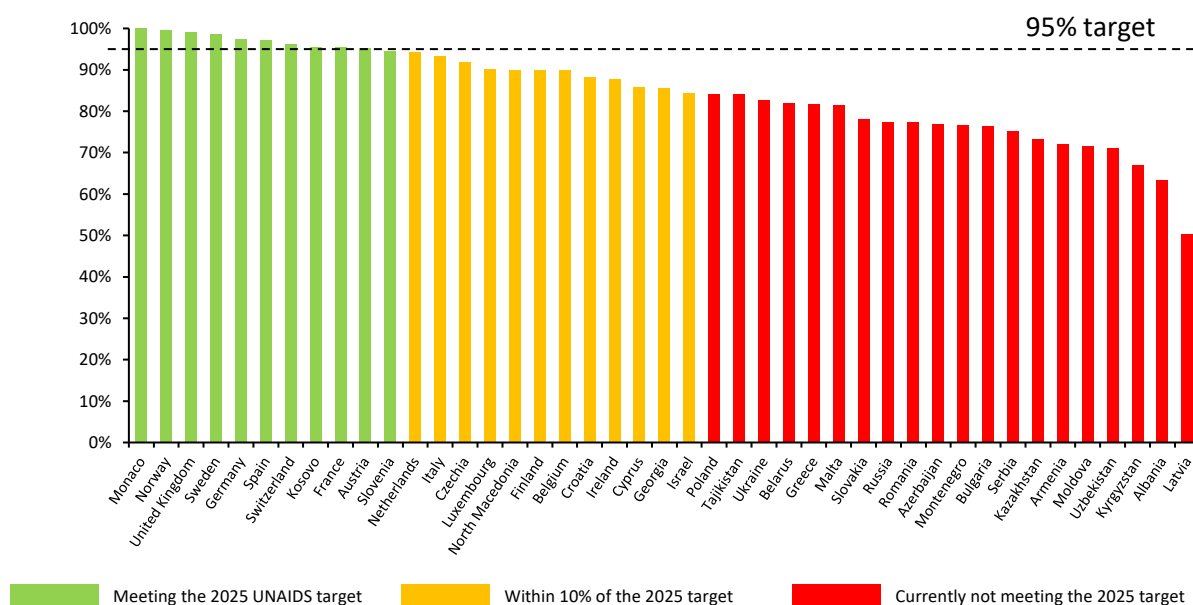
| Facility-level testing                                                     |  | Number of countries |
|----------------------------------------------------------------------------|--|---------------------|
| Time between HIV diagnosis date and first clinic attendance date           |  | 15                  |
| Time between HIV diagnosis date and HIV treatment start date               |  | 2                   |
| Time between HIV diagnosis date and first CD4 count or viral load date     |  | 7                   |
| Linkage to care not calculated for facility-level HIV testing              |  | 18                  |
| Other                                                                      |  | 1                   |
| Community-level testing                                                    |  | Number of countries |
| Time between HIV reactive test date and first CD4 count or viral load date |  | 1                   |
| Time between HIV reactive test date and confirmatory test                  |  | 2                   |
| Time between HIV reactive test date and first clinic attendance date       |  | 8                   |
| Time between confirmatory test date and first CD4 count or viral load date |  | 2                   |
| Time between confirmatory test date and first clinic attendance date       |  | 8                   |
| Time between confirmatory test date and HIV treatment start date           |  | 1                   |
| Linkage to care not calculated for community-level HIV testing             |  | 20                  |
| Other                                                                      |  | 1                   |

Prompt linkage to care was defined as being within three months from diagnosis [12]. Twenty-three countries were able to provide data on the proportion of those newly diagnosed with HIV in the calendar year who were promptly linked to care, with rates ranging from 76% (Greece) – 100% (Iceland, Malta, North Macedonia, Romania) (Figure 24).

**Figure 24. Proportion of those newly diagnosed with HIV in the calendar year promptly linked to care within three months, by facility-level linkage to care definition, in Europe and Central Asia (n=22)**

In the 43 countries that reported data for both stage 2 and stage 3 of the continuum of care within Europe and Central Asia, an estimated 1 873 976 PLHIV have been diagnosed, of whom 1 583 031 (84%; range 50–100%) are reported to be on treatment. Overall, by 2022, ten out of 43 countries met the target of 95% of those diagnosed receiving treatment (France, Germany, Monaco, Norway, Spain, Sweden, Switzerland, the United Kingdom, Slovenia and Kosovo) (Figure 25). Of the remaining countries, 13 countries are within 10% of the 2025 target and 19 countries are more than 10% away from the 2025 target.

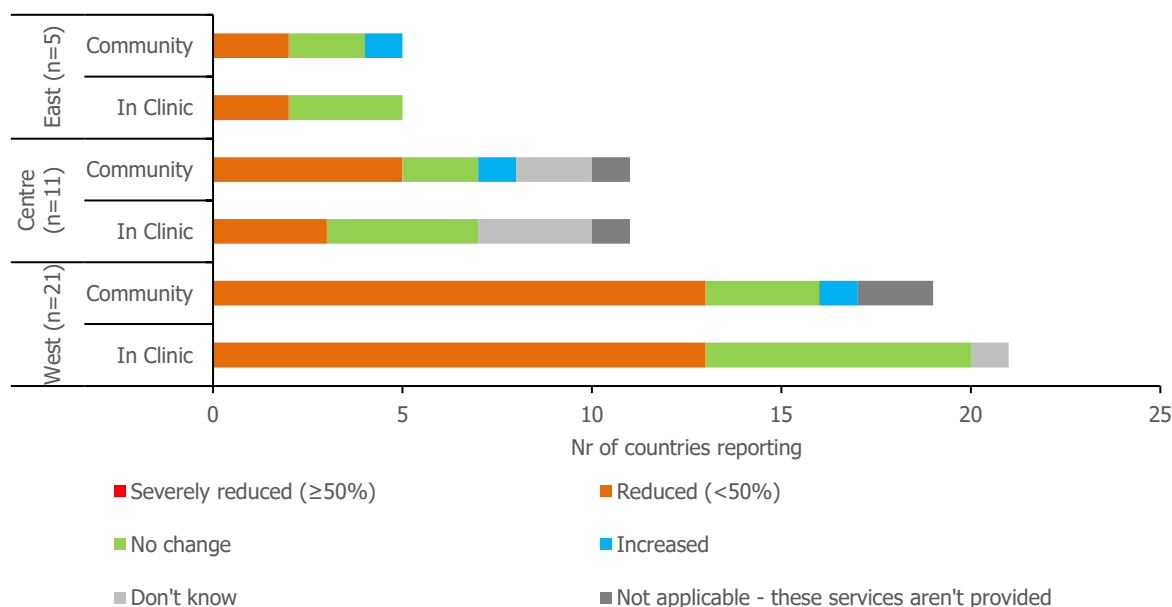
**Figure 25. Percentage of all people living with diagnosed HIV who are on treatment in 43 countries of Europe and Central Asia**



## Impact of COVID-19

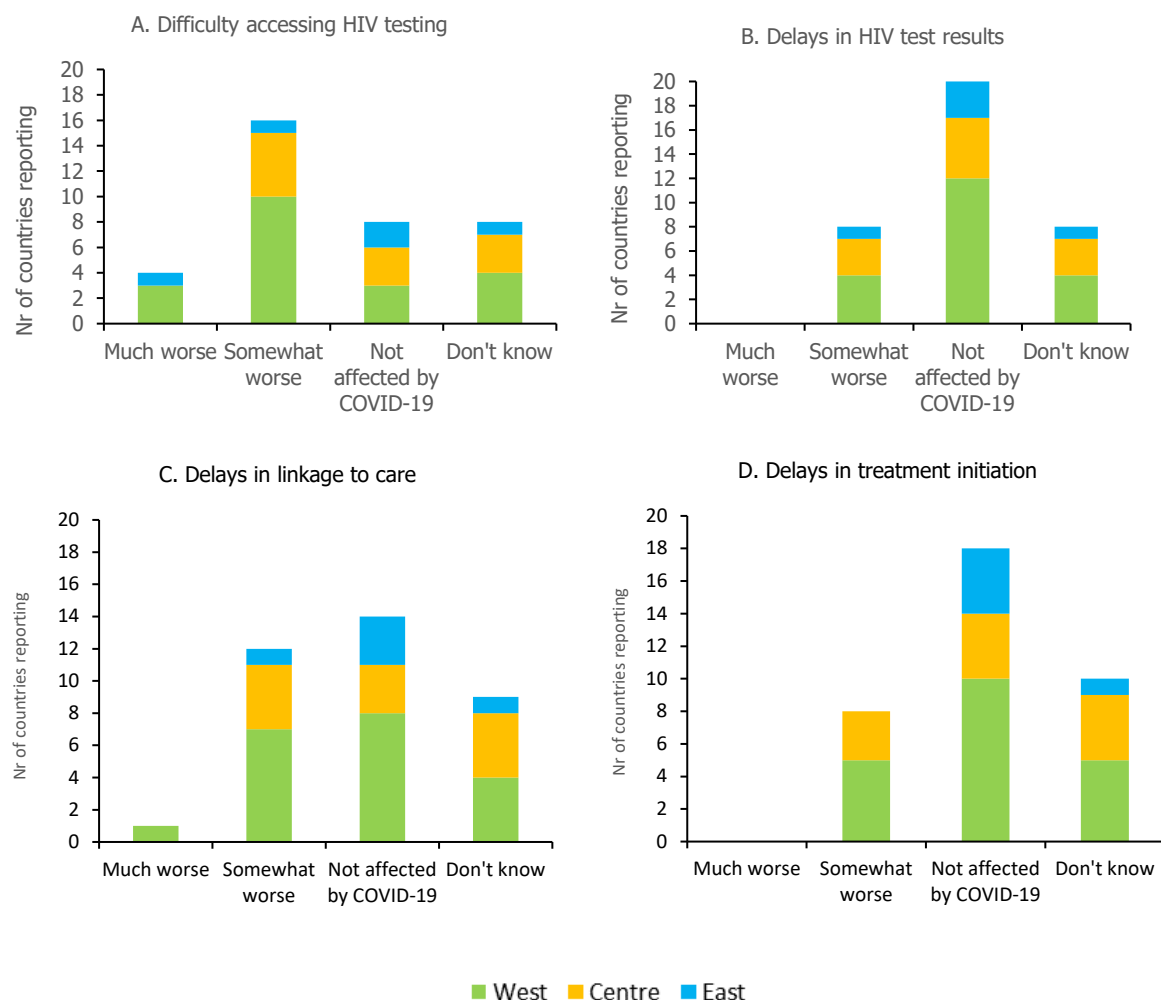
COVID-19 has had wide-reaching impacts on a range of healthcare services in Europe and Central Asia, including the provision of in-clinic and community HIV testing (Figure 26). Two of 37 countries reported that community testing services were severely reduced ( $\geq 50\%$ ) and 20 countries reported that community testing services were reduced ( $< 50\%$ ). Three countries reported that community testing increased due to the COVID-19 pandemic. Eighteen countries reported that in-clinic testing was reduced ( $< 50\%$ ) due to the COVID-19 pandemic.

**Figure 26. The impact of the COVID-19 pandemic on the provision of in-clinic and community HIV tests in Europe and Central Asia, by WHO sub-region, in 2021**



The COVID-19 pandemic exacerbated some of the known challenges for people living with or at risk of HIV (Figure 27). The COVID-19 pandemic had the greatest impact on access to HIV testing, with sixteen out of 36 ≥ countries reporting COVID-19 made existing difficulties accessing testing worse and four countries reported that it was made much worse. Delays in test results were reported by eight countries. Linkage to care was also negatively impacted by the pandemic, with twelve countries reporting that linkage to care delays were worse than before the pandemic and one country reporting the delays were much worse. Eight countries reported delays in treatment initiation due to the impact of the COVID-19 pandemic.

**Figure 27. The impact of COVID-19 on known challenges for people living with or at risk for HIV in Europe and Central Asia, by WHO sub-region, in 2021**



# Conclusions and priorities for action

## Limitations

Variations in data sources, sample sizes, timeframes and data quality limit the scope for directly comparing data between countries. Although accompanying definitions were provided alongside the questions, in practice, some countries use slightly different definitions, so caution is required when making comparisons.

Countries use different modelling tools for their estimates of the number of people living with HIV. This can impact what data they are able to produce. For example, Spectrum, the tool that 14 countries use to estimate the total number of PLHIV (diagnosed and undiagnosed), does not allow for disaggregation by key population. This helps explain the lower numbers reporting data for stage one of the continuum of care in key populations.

## Overall progress

People's knowledge of their HIV status through HIV testing is crucial to the success of the HIV response. Testing is the gateway to HIV prevention, treatment, care and other support services. Despite considerable progress made in reducing HIV transmissions, almost one in five people living with HIV across Europe and Central remain unaware of their HIV status. The available data, while limited, suggests that the equivalent figure for key populations at increased risk of HIV across Europe and Central Asia is higher, especially amongst PWID. Additionally, in Europe and Central Asia, just over half of people diagnosed in 2021 were diagnosed late and face the risk of increased morbidity and early death as a result, as well as further transmission. Therefore, it is essential that testing is scaled up in the WHO Europe region in order to reach the 2025 UNAIDS target of 95% of all PLHIV knowing their status.

Up-to-date, country-specific national HIV testing guidelines are important to maximise the impact of HIV testing services. Forty countries reported that they have guidelines on HIV testing in place, however, a third of these countries indicated their guidance was over five years old. Guidance over five years old may be out of date and not reflect recent innovations in HIV testing (i.e. community-testing, indicator-guided testing, etc.). While nine of the 11 countries reporting no guidance indicated that they used alternative guidance, such as ECDC or WHO guidance, each country will require a context-specific approach depending on HIV prevalence rates and key populations. Therefore, national guidelines tailored to the country context are preferable.

There has been an encouraging increase in the implementation of innovative, community-based testing interventions, however, testing interventions in traditional health settings still have generally higher coverage than home or community-based testing. While the number of countries offering lay provider testing has increased since 2018, the number remains much lower than the number of countries offering community-based testing by a medical professional. This implementation gap is disappointing, as WHO guidelines from 2015 explicitly support testing by trained lay providers to increase access to HIV testing services through community-based approaches. Testing in home and community settings expands opportunities for testing among individuals who may find testing in traditional health settings less accessible or acceptable for various reasons. There is evidently a need to scale up coverage of such testing interventions.

Despite the increasing level of implementation across a range of HIV testing interventions in Europe and Central Asia, legal, regulatory and financial barriers still exist, including restrictions on who can administer and access HIV tests. Thirty-three countries reported restrictions on who can legally carry out an HIV test, with many countries restricting HIV test administration to doctors and nurses. Eight countries reported restrictions on who can access HIV testing, with six countries reporting there is restricted access to HIV testing for undocumented migrants and two countries reporting there is restricted access to HIV testing for prisoners. Financial barriers to HIV testing also persist across the region, with two countries reporting that everyone must pay for HIV testing and 14 countries reporting that testing is only available free in certain geographic areas and/or to certain populations. Removing these barriers will help to increase the accessibility and uptake of HIV testing in the region.

Countries can only ensure that expanded testing services are available and accessible to those at risk for acquiring HIV if they are also monitoring uptake of these services. In particular, it is crucial that data on testing uptake rates can be disaggregated by key populations at risk of acquiring HIV. However, there is limited data availability on testing rates among key populations at increased risk of acquiring HIV, in particular amongst migrants, undocumented migrants and transgender people.

Only 23 countries were able to provide data on linkage to care, which is concerning given that providing testing without effective linkage to care is of limited benefit for those living with HIV. Based on the data reported, rates of linkage to care across the region are high. However, data from the continuum of care suggests that there is a substantial drop-off between PLHIV being diagnosed and then treated. As community-based testing becomes increasingly implemented across the region, it is important that countries develop and strengthen linkage-to-care guidelines and mechanisms to ensure that PLHIV have access to medical guidance and medication.

## Priorities for action

National HIV testing guidelines ensure a consistent national approach. Guidelines should incorporate guidance on testing in non-traditional settings, particularly community- and home-based testing interventions, including how to establish clear pathways to care. The guidelines should also include specific recommendations for key populations on testing frequency and how testing should be monitored to establish impact on HIV transmission. Countries without national guidelines are encouraged to develop national guidelines and countries with guidelines over five years old are encouraged to review and if needed update their testing guidelines to reflect recent advances in HIV testing.

- The provision of a range of HIV testing interventions, especially HIV testing interventions outside of traditional settings, should be expanded to ensure increased accessibility for key populations at increased risk of acquiring HIV. This should be accompanied with improved linkage to care and treatment.
- Countries are encouraged to remove legal and regulatory barriers to HIV testing, including restrictions to access of HIV testing for specific populations and restrictions on which professions can administer an HIV test. Other laws reducing accessibility to testing for key populations, such as criminalisation of sex work, should be reconsidered.
- Costs for HIV testing should be reviewed, and countries are encouraged to provide provisions for those who are unable to afford HIV testing. This will reduce mortality and morbidity and new HIV infections in the future as it increases the accessibility of HIV testing.
- Monitoring the capacity for HIV testing volume and positivity should be increased where possible – this should include community-level and facility-level settings. Disaggregated data on key populations should be collected wherever possible.

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# Annex 1. Continuum of care for people living with HIV in Europe and Central Asia

| WHO Region | Country              | PLHIV                            |      | Diagnosed         |      | Treated           |      | Virally Suppressed |      |
|------------|----------------------|----------------------------------|------|-------------------|------|-------------------|------|--------------------|------|
|            |                      | Data source                      | Year | Data source       | Year | Data source       | Year | Data source        | Year |
| West       | Andorra              |                                  |      |                   |      |                   |      |                    |      |
|            | Austria              | ECDC modelling tool              | 2020 | Cohort data       | 2020 | Cohort data       | 2020 | Cohort data        | 2020 |
|            | Belgium              | Other modelling tool or estimate | 2020 | Surveillance data | 2020 | Other data source | 2020 | Other data source  | 2020 |
|            | Denmark              | Other modelling tool or estimate | 2020 | Other data source | 2021 | Surveillance data | 2021 | Surveillance data  | 2021 |
|            | Finland              | ECDC modelling tool              | 2021 | Surveillance data | 2021 | Surveillance data | 2021 | Surveillance data  | 2021 |
|            | France               | Other modelling tool or estimate | 2018 | Other data source | 2018 | Other data source | 2018 | Other data source  | 2018 |
|            | Germany              | Other modelling tool or estimate | 2020 | Surveillance data | 2020 | Other data source | 2020 | Cohort data        | 2020 |
|            | Greece               | ECDC modelling tool              | 2021 | Surveillance data | 2021 | Surveillance data | 2021 |                    |      |
|            | Iceland              | Other modelling tool or estimate | 2020 | Other data source | 2020 |                   |      |                    |      |
|            | Ireland              | SPECTRUM                         | 2018 | Other data source | 2018 | Other data source | 2018 | Other data source  | 2018 |
|            | Israel               | Other modelling tool or estimate | 2020 | Surveillance data | 2020 | Other data source | 2020 |                    |      |
|            | Italy                | Other modelling tool or estimate | 2019 | Other data source | 2019 | Other data source | 2019 | Other data source  | 2019 |
|            | Liechtenstein        |                                  |      |                   |      |                   |      |                    |      |
|            | Luxembourg           | Other modelling tool or estimate | 2021 | Cohort data       | 2021 | Cohort data       | 2021 | Cohort data        | 2021 |
|            | Malta                | ECDC modelling tool              | 2021 | Surveillance data | 2021 | Other data source | 2021 | Surveillance data  | 2017 |
|            | Monaco               | Other modelling tool or estimate | 2019 | Other data source | 2019 | Other data source | 2019 | Other data source  | 2019 |
|            | Netherlands          | ECDC modelling tool              | 2020 | Cohort data       | 2021 | Cohort data       | 2020 | Cohort data        | 2021 |
|            | Norway               | Other modelling tool or estimate | 2021 | Other data source | 2021 | Other data source | 2021 | Other data source  | 2021 |
|            | Portugal             | ECDC modelling tool              | 2019 | Surveillance data | 2019 |                   |      |                    |      |
|            | San Marino           | Other modelling tool or estimate | 2019 |                   |      | Other data source | 2019 |                    |      |
|            | Spain                | Other modelling tool or estimate | 2017 | Other data source | 2017 | Other data source | 2019 | Other data source  | 2019 |
|            | Sweden               | Other modelling tool or estimate | 2021 | Other data source | 2021 | Other data source | 2021 | Other data source  | 2021 |
|            | Switzerland          | Other modelling tool or estimate | 2021 | Other data source | 2021 | Other data source | 2021 | Cohort data        | 2021 |
|            | United Kingdom       | Other modelling tool or estimate | 2020 | Surveillance data | 2020 | Surveillance data | 2020 | Surveillance data  | 2020 |
| Centre     | Albania              | SPECTRUM                         | 2021 | Surveillance data | 2021 | Surveillance data | 2021 |                    | 2020 |
|            | Bosnia & Herzegovina |                                  |      |                   |      |                   | 2020 |                    |      |
|            | Bulgaria             | SPECTRUM                         | 2021 | Cohort data       | 2021 | Cohort data       | 2021 | Cohort data        | 2021 |
|            | Croatia              | SPECTRUM                         | 2020 | Surveillance data | 2020 | Cohort data       | 2019 | Cohort data        | 2020 |
|            | Cyprus               | ECDC modelling tool              | 2020 | Other data source | 2020 | Other data source | 2020 | Other data source  | 2020 |
|            | Czechia              | ECDC modelling tool              | 2021 | Surveillance data | 2021 | Surveillance data | 2021 | Surveillance data  | 2021 |
|            | Hungary              |                                  |      | Surveillance data | 2019 |                   |      |                    |      |
|            | Kosovo               | ECDC modelling tool              | 2022 | Cohort data       | 2022 | Cohort data       | 2022 | Cohort data        | 2022 |
|            | Montenegro           | SPECTRUM                         | 2021 | Surveillance data | 2021 | Surveillance data | 2021 | Surveillance data  | 2021 |
|            | North Macedonia      | ECDC modelling tool              | 2020 | Surveillance data | 2020 | Surveillance data | 2020 | Surveillance data  | 2020 |
|            | Poland               | SPECTRUM                         | 2020 | Other data source | 2020 | Other data source | 2020 |                    |      |
|            | Romania              | SPECTRUM                         | 2021 | Surveillance data | 2021 | Surveillance data | 2021 | Surveillance data  | 2021 |
|            | Serbia               | SPECTRUM                         | 2019 | Surveillance data | 2021 | Other data source | 2021 |                    |      |
|            | Slovakia             | ECDC modelling tool              | 2018 | Surveillance data | 2020 | Surveillance data | 2020 | Surveillance data  | 2020 |
|            | Slovenia             | ECDC modelling tool              | 2022 | Surveillance data | 2022 | Surveillance data | 2020 | Cohort data        | 2020 |
|            | Türkiye              |                                  |      |                   |      |                   |      |                    |      |
| East       | Armenia              |                                  | 2020 |                   | 2020 |                   | 2020 |                    | 2020 |
|            | Azerbaijan           |                                  | 2020 |                   | 2020 |                   | 2020 |                    | 2020 |
|            | Belarus              |                                  | 2020 |                   | 2020 |                   | 2020 |                    | 2020 |
|            | Estonia              | Other modelling tool or estimate | 2017 |                   |      | Other data source | 2019 |                    |      |
|            | Georgia              | SPECTRUM                         | 2021 | Surveillance data | 2021 | Surveillance data | 2021 | Surveillance data  | 2021 |
|            | Kazakhstan           |                                  | 2020 |                   | 2020 |                   | 2020 |                    | 2020 |
|            | Kyrgyzstan           | SPECTRUM                         | 2021 | Other data source | 2021 | Other data source | 2021 | Other data source  | 2021 |
|            | Latvia               |                                  |      | Surveillance data | 2021 | Other data source | 2021 |                    |      |
|            | Lithuania            | SPECTRUM                         | 2020 | Surveillance data | 2021 | Surveillance data | 2021 |                    |      |
|            | Moldova              | SPECTRUM                         | 2021 | Surveillance data | 2021 | Other data source | 2021 | Other data source  | 2021 |
|            | Russia               |                                  | 2020 |                   | 2020 |                   | 2020 |                    | 2020 |
|            | Tajikistan           |                                  | 2020 |                   | 2020 |                   | 2020 |                    | 2020 |
|            | Turkmenistan         |                                  |      |                   |      |                   |      |                    |      |
|            | Ukraine              | SPECTRUM                         | 2021 | Other data source | 2021 | Other data source | 2021 | Other data source  | 2021 |
|            | Uzbekistan           |                                  | 2020 |                   | 2020 |                   | 2020 |                    | 2020 |

An empty box indicates that no data were provided.

## Annex 2. Testing guidelines

| WHO sub-region | Country              | Year published | Revision planned | Plans to introduce guidelines | Key populations included in guidance |      |          |             |           |             |       |                 |       |
|----------------|----------------------|----------------|------------------|-------------------------------|--------------------------------------|------|----------|-------------|-----------|-------------|-------|-----------------|-------|
|                |                      |                |                  |                               | MSM                                  | PWID | Migrants | Sex Workers | Prisoners | Transgender | Youth | Pregnant people | Other |
| West           | Andorra              |                |                  | No                            |                                      |      |          |             |           |             |       |                 |       |
|                | Austria              | 2019           | No               |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       |             | Yes   | Yes             |       |
|                | Belgium              |                |                  | Yes                           |                                      |      |          |             |           |             |       |                 |       |
|                | Denmark              | 2013           | No               |                               | Yes                                  | Yes  | Yes      |             |           |             |       |                 |       |
|                | Finland              | 2010           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       |             |       |                 | Yes   |
|                | France               | 2018           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       |                 |       |
|                | Germany              |                |                  | No                            |                                      |      |          |             |           |             |       |                 |       |
|                | Greece               | 2022           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       |             |       |                 | Yes   |
|                | Iceland              |                |                  | No                            |                                      |      |          |             |           |             |       |                 |       |
|                | Ireland              |                |                  | Yes                           |                                      |      |          |             |           |             |       |                 |       |
|                | Israel               | 2014           | No               |                               | Yes                                  |      | Yes      |             |           |             |       |                 |       |
|                | Italy                | 2017           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         | Yes   |                 |       |
|                | Liechtenstein        | 2011           | No               |                               | Yes                                  | Yes  |          | Yes         |           | Yes         |       |                 |       |
|                | Luxembourg           | 2018           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       |                 | Yes   |
|                | Malta                | 2020           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       |                 |       |
|                | Monaco               | 2019           | No               |                               |                                      |      |          |             |           |             |       |                 |       |
|                | Netherlands          |                |                  | No                            |                                      |      |          |             |           |             |       |                 |       |
|                | Norway               | 2021           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       | Yes             |       |
|                | Portugal             | 2014           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       |                 | Yes   |
|                | San Marino           |                |                  | No                            |                                      |      |          |             |           |             |       |                 |       |
|                | Spain                | 2014           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         | Yes   | Yes             | Yes   |
| Centre         | Sweden               | 2017           | No               |                               | Yes                                  | Yes  | Yes      | Yes         |           | Yes         | Yes   |                 | Yes   |
|                | Switzerland          | 2018           | Yes              |                               | Yes                                  |      |          |             |           |             |       |                 |       |
|                | United Kingdom       | 2020           | No               |                               | Yes                                  | Yes  | Yes      | Yes         |           | Yes         |       |                 | Yes   |
|                | Albania              | 2020           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       |                 |       |
|                | Bosnia & Herzegovina |                |                  |                               |                                      |      |          |             |           |             |       |                 |       |
|                | Bulgaria             | 2012           | No               |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       |             |       | Yes             |       |
|                | Croatia              | 2017           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         |           |             |       |                 |       |
|                | Cyprus               | 2020           | No               |                               |                                      |      | Yes      |             |           |             |       |                 |       |
|                | Czechia              | 2016           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       |             |       |                 | Yes   |
|                | Hungary              |                |                  | No                            |                                      |      |          |             |           |             |       |                 |       |
|                | Kosovo               | 2018           | No               |                               | Yes                                  | Yes  |          | Yes         | Yes       | Yes         |       |                 |       |
|                | Montenegro           |                |                  | Yes                           |                                      |      |          |             |           |             |       |                 |       |
|                | North Macedonia      |                |                  | Yes                           |                                      |      |          |             |           |             |       |                 |       |
|                | Poland               | 2022           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       |             |       | Yes             | Yes   |
|                | Romania              | 2021           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       | Yes             | Yes   |
|                | Serbia               | 2007           | Yes              |                               | Yes                                  | Yes  |          | Yes         |           |             | Yes   | Yes             |       |
| East           | Slovakia             | 2020           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         |           |             |       | Yes             | Yes   |
|                | Slovenia             | 2009           | Yes              |                               | Yes                                  | Yes  |          |             |           |             |       |                 |       |
|                | Türkiye              | 2019           | No               |                               |                                      |      |          |             |           |             |       |                 |       |
| WHO sub-region | Country              | Year published | Revision planned | Plans to introduce guidelines | Key populations included in guidance |      |          |             |           |             |       |                 |       |
|                |                      |                |                  |                               | MSM                                  | PWID | Migrants | Sex workers | Prisoners | Transgender | Youth | Pregnant people | Other |
|                | Armenia              | 2017           | No               |                               |                                      |      |          |             |           |             |       |                 |       |
|                | Azerbaijan           | 2012           | Yes              |                               |                                      |      |          |             |           |             |       |                 |       |
|                | Belarus              | 2012           | Yes              |                               | Yes                                  | Yes  |          | Yes         | Yes       |             |       |                 |       |
|                | Estonia              | 2020           | Yes              |                               | Yes                                  | Yes  |          | Yes         | Yes       | Yes         |       |                 | Yes   |
|                | Georgia              | 2019           | No               |                               | Yes                                  | Yes  |          | Yes         | Yes       | Yes         |       |                 |       |
|                | Kazakhstan           | 2020           | Yes              |                               | Yes                                  | Yes  |          | Yes         | Yes       | Yes         |       |                 | Yes   |
|                | Kyrgyzstan           | 2018           | Yes              |                               | Yes                                  | Yes  | Yes      | Yes         | Yes       | Yes         |       |                 | Yes   |
|                | Latvia               |                |                  | Yes                           |                                      |      |          |             |           |             |       |                 |       |
|                | Lithuania            | 2010           | No               |                               | Yes                                  | Yes  |          | Yes         | Yes       |             |       |                 | Yes   |
|                | Moldova              | 2018           | Yes              |                               | Yes                                  | Yes  |          | Yes         |           |             |       |                 |       |
|                | Russia               |                |                  |                               |                                      |      |          |             |           |             |       |                 |       |
|                | Tajikistan           | 2017           | Yes              |                               |                                      | Yes  | Yes      | Yes         | Yes       |             |       |                 |       |
|                | Turkmenistan         |                |                  |                               |                                      |      |          |             |           |             |       |                 |       |
|                | Ukraine              | 2021           | Yes              |                               | Yes                                  | Yes  |          | Yes         | Yes       |             |       |                 |       |
|                | Uzbekistan           |                |                  |                               |                                      |      |          |             |           |             |       |                 |       |

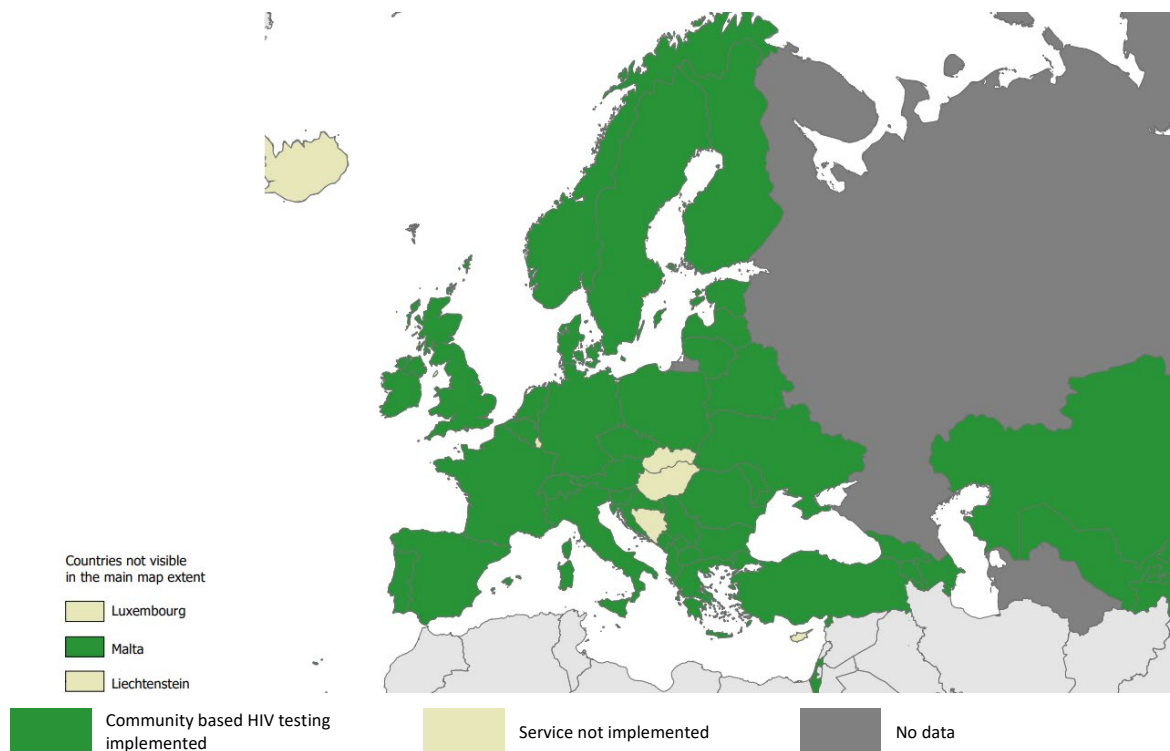
## Annex 3. HIV testing uptake among key populations in Europe and Central Asia

| Country              | MSM*      | PWID*                    | Migrants*  | Undocumented migrants* | Sex workers*             | Prisoners* | Transgender* |
|----------------------|-----------|--------------------------|------------|------------------------|--------------------------|------------|--------------|
| Albania              | 36 (2019) | 46 (2019)                |            |                        | 31 (2019)                |            |              |
| Andorra              |           |                          |            |                        |                          |            |              |
| Armenia              |           |                          |            |                        |                          |            |              |
| Austria              |           |                          |            |                        |                          |            |              |
| Azerbaijan           |           |                          |            |                        |                          |            |              |
| Belarus              | 76.2      | 78.5                     |            |                        | 83.1 (year not reported) |            |              |
| Belgium              |           | 77.9                     |            |                        |                          |            |              |
| Bosnia & Herzegovina |           | 49.7 (year not reported) |            |                        |                          |            |              |
| Bulgaria             |           |                          |            |                        |                          |            |              |
| Croatia              | 44 (2018) | 71 (2019)                |            |                        |                          |            |              |
| Cyprus               | 73 (2021) |                          | 83 (2021)  |                        |                          |            |              |
| Czechia              |           | 71 (2019)                |            |                        | 100 (2021)               | 100 (2021) |              |
| Denmark              |           |                          |            |                        |                          |            |              |
| Estonia              |           | 73 (2018)                |            |                        |                          |            |              |
| Finland              |           |                          |            |                        |                          |            |              |
| France               | 56 (2021) | 6 (2019)                 |            |                        |                          |            |              |
| Georgia              |           |                          |            |                        |                          |            |              |
| Germany              | 52 (2018) |                          |            |                        |                          |            |              |
| Greece               |           |                          |            |                        |                          |            |              |
| Hungary              |           |                          |            |                        |                          |            |              |
| Iceland              |           |                          |            |                        |                          |            |              |
| Ireland              |           |                          |            |                        |                          |            |              |
| Israel               |           |                          |            |                        |                          |            |              |
| Italy                |           |                          |            |                        |                          |            |              |
| Kazakhstan           |           | 77.9 (year not reported) | 100 (2020) |                        |                          | 100 (2020) |              |
| Kosovo               |           |                          |            |                        |                          |            |              |
| Kyrgyzstan           |           |                          |            |                        |                          |            |              |
| Latvia               |           |                          |            |                        |                          |            |              |
| Liechtenstein        |           |                          |            |                        |                          |            |              |
| Lithuania            |           | 28 (2018)                |            |                        |                          |            |              |
| Luxembourg           |           |                          |            |                        |                          |            |              |
| Malta                |           |                          |            |                        |                          |            |              |
| Moldova              | 48 (2020) | 50 (2020)                |            |                        | 64 (2020)                |            |              |
| Monaco               |           | 42 (2019)                |            |                        |                          |            |              |
| Montenegro           |           | 14 (2020)                |            |                        | 11 (2022)                |            |              |
| Netherlands          |           |                          |            |                        |                          |            |              |
| North Macedonia      |           |                          |            |                        |                          |            |              |
| Norway               |           |                          |            |                        |                          |            |              |
| Poland               | 9 (2021)  | 6 (2021)                 | 16 (2021)  |                        |                          |            |              |
| Portugal             | 56 (2021) | 50 (2021)                | 40 (2021)  | 30 (2021)              | 54 (2021)                |            | 65 (2021)    |
| Romania              | 49 (2018) | 54 (2019)                |            |                        |                          |            |              |
| Russia               |           |                          |            |                        |                          |            |              |
| San Marino           |           |                          |            |                        |                          |            |              |
| Serbia               | 52 (2021) | 12 (2021)                |            |                        | 53 (2021)                |            |              |
| Slovakia             |           |                          |            |                        |                          |            |              |
| Slovenia             |           |                          |            |                        |                          |            |              |
| Spain                |           | 59 (2019)                |            |                        |                          | 85 (2021)  |              |
| Sweden               |           |                          |            |                        |                          |            |              |
| Switzerland          | 73 (2018) |                          |            |                        |                          |            |              |
| Tajikistan           |           |                          |            |                        |                          |            |              |
| Türkiye              |           |                          |            |                        |                          |            |              |
| Turkmenistan         |           |                          |            |                        |                          |            |              |
| Ukraine              | 72 (2021) | 51 (2020)                |            |                        | 64 (2021)                | 55 (2019)  | 53 (2020)    |
| United Kingdom       |           |                          |            |                        |                          |            |              |
| Uzbekistan           |           |                          |            |                        |                          |            |              |

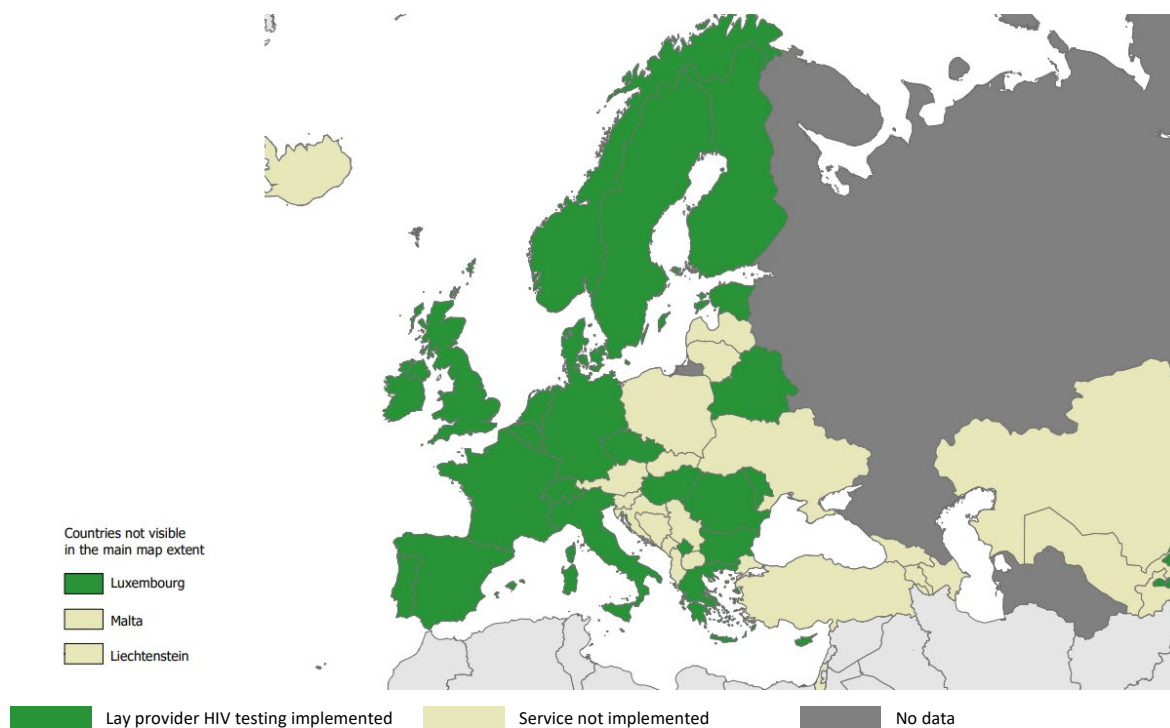
\* Percentage of population who know their status (year of data collection)

## Annex 4. Countries implementing different testing services, 2022

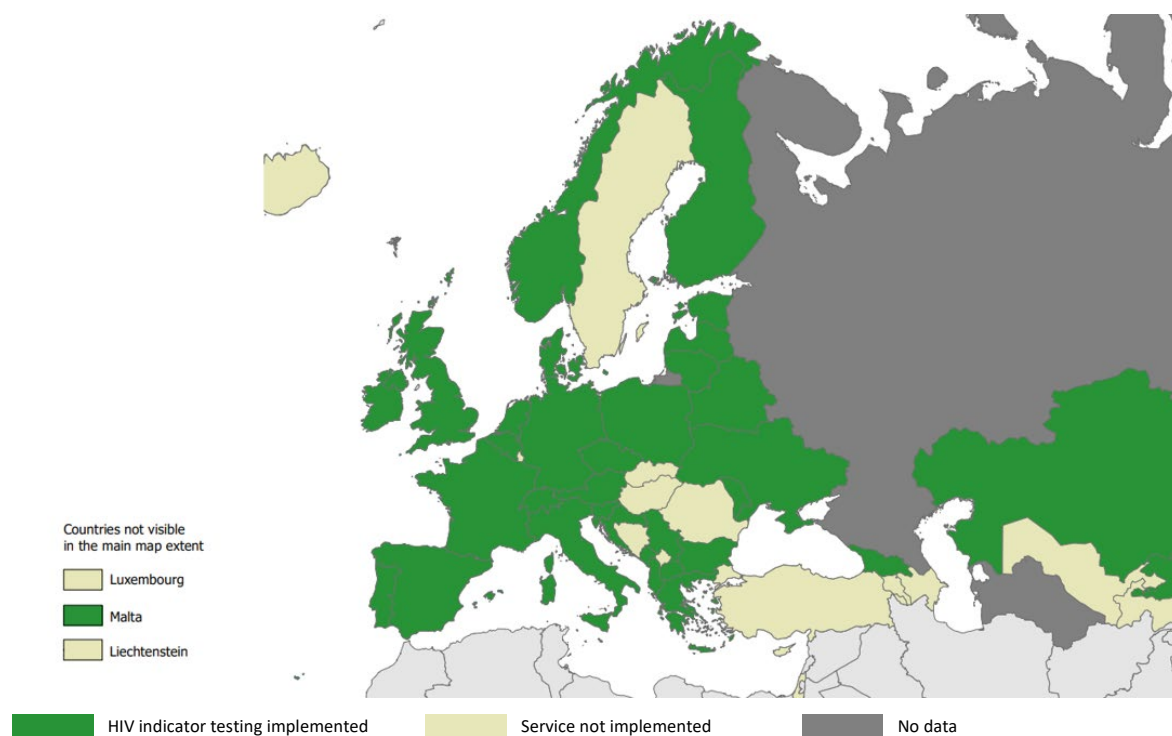
**Figure 4.1.** Countries reporting the implementation of community-based HIV testing and counselling services, Europe and Central Asia, 2022



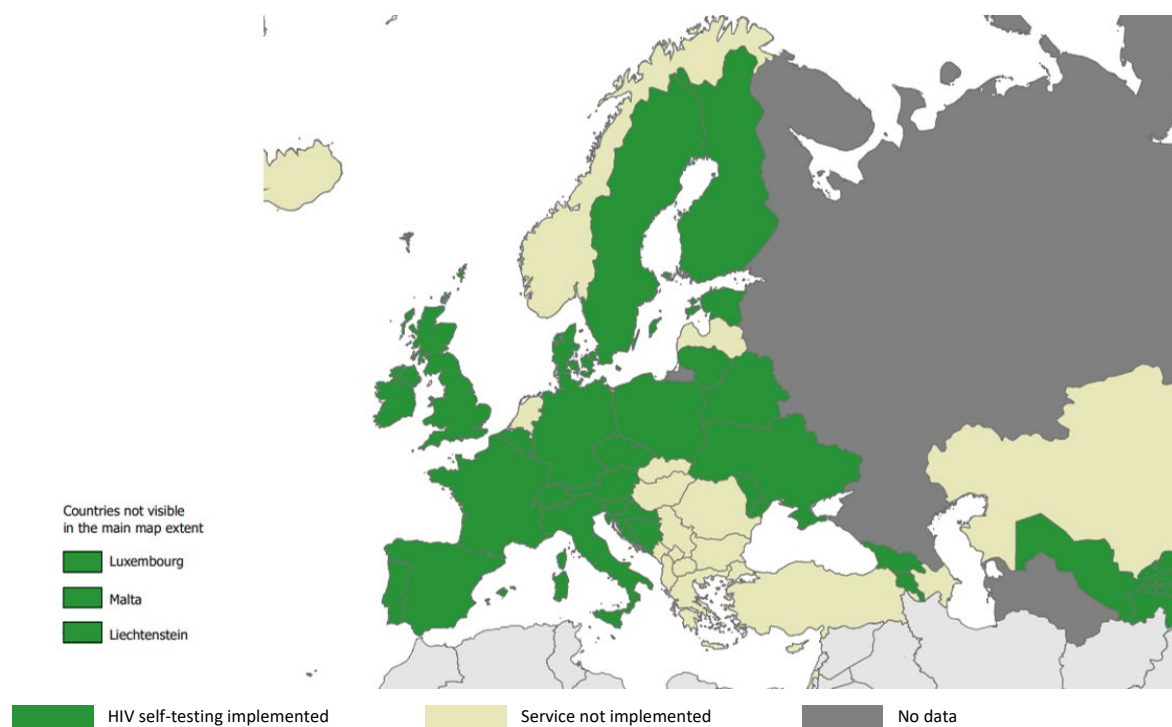
**Figure 4.2.** Countries reporting the implementation of lay-provider HIV testing and counselling services, Europe and Central Asia, 2022



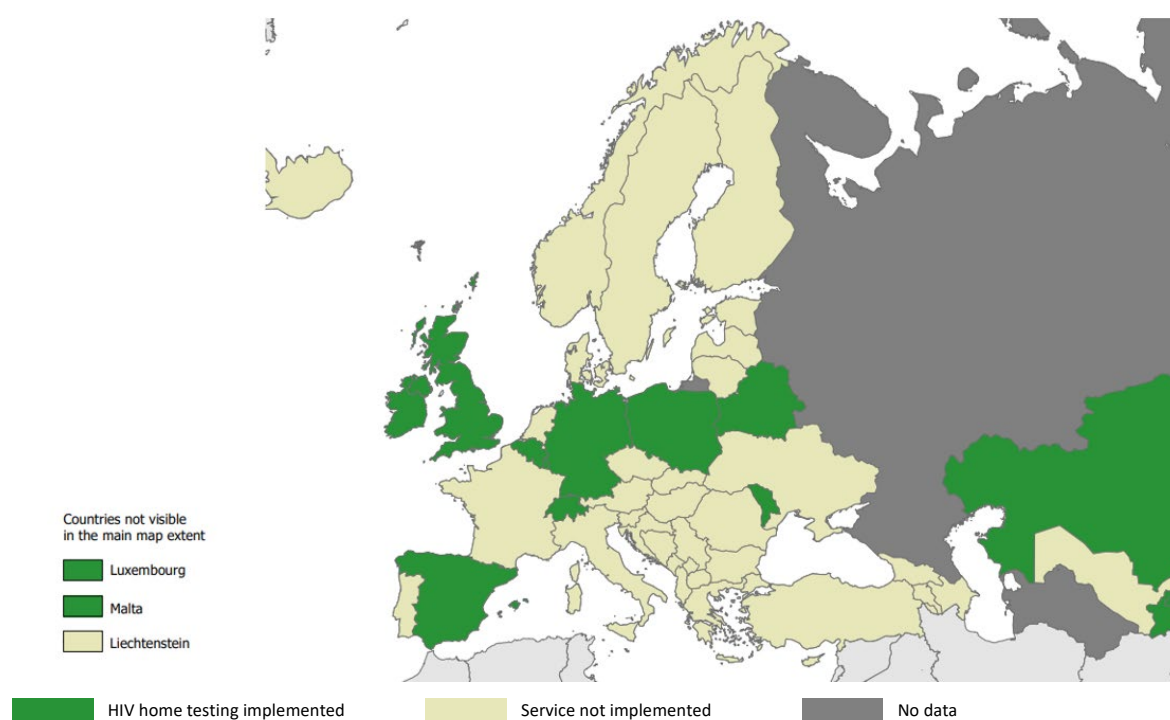
**Figure 4.3. Countries reporting the implementation of HIV indicator condition testing, Europe and Central Asia, 2022**



**Figure 4.4. Countries reporting the implementation of HIV self-testing, Europe and Central Asia, 2022**



**Figure 4.5. Countries reporting the implementation of HIV home testing, Europe and Central Asia, 2022**



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