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Comprehensive HIV programme review: Republic of Moldova

Mission report: May 2023



Keywords

HIV INFECTION, PREVENTION, REPUBLIC OF MOLDOVA

Contents

Acknowledgements	iv
Abbreviations	v
Executive summary	vii
1. Introduction	1
2. Review approach	4
2.1. Objectives	4
2.2. Methodology	4
3. Governance and leadership on HIV national response in the Republic of Moldova	6
4. Health finance and universal health coverage	11
5. Integrated people-centred services	14
6. Human resources for health	17
7. Enabling environment	18
8. Epidemic patterns and surveillance (including among key populations)	22
8.1 The HIV epidemic in the Republic of Moldova	22
8.2 Key population size estimation	26
8.3 HIV care cascade	27
9. Prevention services for key populations and other groups	30
9.1 Prevention programme design	30
9.2 Implementation of prevention programmes for key populations	30
9.3 Availability of services for people in prisons	31
10. PrEP	35
11. HIV testing policy and service delivery	37
12. HIV treatment policy and service delivery	43
13. HIV and TB	47
14. OST	52
Annex 1. Distribution of roles and responsibilities in the management of the national HIV programme in the Republic of Moldova	57
Annex 2. Terms of reference	63
Annex 3. Mission agenda	68

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Abbreviations

ANSP	National Public Health Agency
ART	antiretroviral therapy
ARV	antiretroviral
CAPCS	National Health Procurement Agency
CD4	cluster of differentiation 4
CNAM	National Health Insurance Agency
CSO	civil society organization
DTG	dolutegravir
EECA	eastern Europe and central Asia
EIA	enzyme immunoassay
ELISA	enzyme-linked immunosorbent assay
EMTCT	elimination of mother-to-child transmission
GDP	gross domestic product
Global Fund	the Global Fund to fight AIDS, TB and Malaria
HBV	hepatitis B virus
HCV	hepatitis C virus
HPV	human papillomavirus
IBBS	integrated bio-behavioural surveillance
MSM	men who have sex with men
MTCT	mother-to-child transmission
NGO	nongovernmental organization
HPHA	National Public Health Agency
NCD	noncommunicable disease
NPPC	National Programme for the Prevention and Control of HIV/AIDS and Sexually Transmitted Infections for 2022–2025
NRL	National Reference Laboratory
OAMT	opioid agonist maintenance treatment
OI	opportunistic infection
OST	opioid substitution therapy
PAS Centre	Centre for Health Policy and Research
PCR	polymerase chain reaction
PHC	primary health care
PIT	provider-initiated testing
PIU	Project Implementation Units
PLHIV	people living with HIV

PMTCT	prevention of mother-to-child transmission
PrEP	pre-exposure prophylaxis
PSE	population size estimate
PWID	people who inject drugs
PWUD	people who use drugs
RDT	rapid diagnostic test
SDMC	Hospital of Dermatology and Communicable Diseases
STI	sexually transmitted infection
TAF	tenofovir/raltegravir
TB	tuberculosis
TESSy	European Surveillance System
TPT	tuberculosis preventive therapy
UCIMP	Department for Coordination, Implementation and Monitoring of Health Projects
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Program
UNODC	United Nations Office on Drugs and Crime
VL	viral load

Executive summary

The comprehensive review of the National HIV/AIDS Programme was carried out by a team of international experts led by the WHO Regional Office for Europe and the WHO Country Office in the Republic of Moldova with the active participation of the national programmes and other national and international stakeholders involved in HIV prevention and control and opioid agonist maintenance treatment (OAMT) in the Republic of Moldova.

While the absolute numbers are small, the burden of HIV infection in the Republic of Moldova is among the highest in Europe (third highest after the Russian Federation and Ukraine). The epidemic is concentrated in key populations, with prevalence in people who inject drugs (PWID) 13.9%, men who have sex with men (MSM) 11.4% and sex workers 2.7% and their sexual partners. HIV prevalence in the adult general population is 0.6%. While in the early 2010s the geographical distribution of newly diagnosed HIV was characterized by a concentration in urban areas, due to a higher concentration of key populations and their sexual partners, there has been a downward trend in recent years, in 2022 fewer than half (46%) of people newly diagnosed with HIV were from urban areas.

The treatment cascade shows modest progress and the 90–90–90¹ targets were missed. Based on Joint United Nations Programme on HIV/AIDS (UNAIDS) estimates (Spectrum 2022) there were 15 249 people living with HIV (PLHIV) in the Republic of Moldova, of which 66% knew their HIV status, 72% were on antiretroviral (ARV) therapy (ART) and 89% of people on therapy achieved viral suppression. According to the results of the second-generation surveillance, underdiagnosis is an issue among key populations, only 48% among MSM are aware of their HIV status, 50% among PWID and 62% among sex workers. Among those with known cluster of differentiation 4 (CD4) cell count, 53% of these people were diagnosed late, with CD4 cell counts below 350 per mm³. Percentage of people with HIV diagnosed late increases with age and is highest in people over age 50. The proportion of late diagnosis increased slightly in 2021, likely due to the impact of COVID-19.

The national response to the HIV epidemic is currently guided by the National Programme for the Prevention and Control of HIV/AIDS and sexually transmitted infection (STIs) for 2022–2025. It was developed as a comprehensive public health response to reduce morbidity and mortality due to HIV and ensure universal access to high-quality prevention, treatment and care services. Additionally, the document reinforces the national commitment to the regional and global goals of ending AIDS by 2030. It prioritizes HIV prevention among key populations, universal access to treatment, reducing vertical transmission, increasing quality of services, removing barriers and improving enabling environment. The country has set ambitious goals for innovative approaches and expansion of interventions. However, disruptions related to the COVID-19 pandemic and the humanitarian and financial crisis as a result of the Russian Federation's invasion of Ukraine affected programme implementation. Over the years, the HIV response has been supported by various organizations and implementing partners, including the Global Fund to Fight AIDS, TB and Malaria (Global Fund), United Nations Joint Team (UNAIDS, WHO, UNICEF, the United Nations Office on Drugs and Crime (UNODC), the United Nations Development Programme (UNDP)) and others. Over the years the Government has gradually taken over a significant proportion of expenditures of the HIV response, including full takeover of antiretroviral (ARV) treatment and increasing proportions of key population programmes.

In 2023 the Republic of Moldova will apply for a new grant to support tuberculosis (TB) and HIV response covering the period 2024–2026. According to the new Global Fund application documents/instructions (GFATM), the grant proposals must be based on comprehensive evaluations/reviews and, therefore, inform the need for further investment in the field. It is

¹ The UNAIDS target that by 2020, 90% of all PLHIV will know their HIV status, 90% of all people with diagnosed HIV infection will receive sustained ARV therapy and 90% of all people receiving ARV therapy will have viral suppression.

important to note that the last holistic evaluation of the National Programme for the Prevention and Control of HIV/AIDS and Sexually Transmitted Infections for 2022–2025 (NPPC) took place in 2011. The lack of such evaluations of the past 2016–2020 Programme constituted one of the serious barriers for the justification, promotion and approval of the current Program.

The Ministry of Health, through letter No. 04/4061 dated 6 December 2022, officially requested WHO to conduct an external evaluation of the National HIV/STI Prevention and Control Programme.

Technical assistance for the programme review was organized through the WHO Regional Office for Europe, the WHO Country Office in the Republic of Moldova and external consultants.

Considerations for future development

The following **high priority actions** for the Republic of Moldova have been identified and policy consideration suggestions are provided for each area. Medium and low priority actions are included in the relevant sections.

Governance and coordination

- Conduct a functional review and develop an optimal configuration for the coordination of national programmes and key components (M&E, prevention, diagnosis and treatment, resources and finances) ideally avoiding duplications and fragmentation of national and externally funded components and ensuring a pathway towards full integration into the existing national entities.
- The National Public Health Agency, by statutory mandate, is the entity responsible for programme management based on a multi-sectoral, results-oriented approach. Based on the results of the functional review, its role in the development of national programme strategy, management and reporting, M&E of results, including epidemiological data, national and regional coordination of prevention programmes and other public health interventions should be clarified.
- Clarify the mandate of the dermatology and communicable diseases hospital as a clinical institution and its role in the vision for integrated multidisease national programmes in the future. For example, given the large potential of the hospital expanding the mandate to act as the National Clinical Centre for Socially Significant Diseases or expanding clinical management of a larger range of infectious diseases could be options to consider. An additional task is for strategic purchaser to provide more incentives to manage these diseases on an outpatient basis and reduce incentives for unnecessary hospital admissions would accelerate the transition to people-centred integrated approaches.
- Develop a clear strategy to increase the functional capacity of national organizations in the field of strategic procurement of services that can achieve programmatic results, ensure sufficient funding and service continuity and procure the full range of products, including through international platforms; mechanisms to ensure integration and elimination of duplication and fragmentation in programme coordination; protect the role of national governmental actors.

Health finance and universal health coverage

- HIV/AIDS programme financial management would benefit from a more integrated governance system and a progressive integration of functions and technical capacities into regular public administrative services, e.g. within a revised multiannual contracting framework, the National Health Insurance Agency (CNAM) can fully assume civil society organization (CSO) contracting.
- OAMT services contracting can be improved by moving to bundled payment model (per patient covered).

- Due to its financial unsustainability, the phasing out of the diagnosis incentives payment to GPs should be planned.
- Integrate procurement and logistics inventory management through the implementation of logistics management system software (labour migrants).

Service delivery

- Explore service integration of other diseases in HIV service delivery platforms and also stronger integration of HIV, viral hepatitis and STIs into primary health care (PHC) and sexual and reproductive health services.
- Design payment mechanisms for decentralized outpatient care.
- Consider elimination of mother-to-child transmission triple elimination goals for HIV syphilis and viral hepatitis B virus (HBV) (HBV).

Human resources

- Align measures to addressing socially significant diseases to to the overall Strategy for Human Resource Development (2016–2025). Develop effective models of motivation for health staff to retain in the service In the context of the Normative framework on human resources planning.
- Revise national classifier of professions and facilitate integration of social workers into the staff of medical institutions. The national public health workforce development strategy at country level, including for ensuring the sustainability of the fight against HIV, STIs and hepatitis, should take into account the growing role of social workers of nongovernmental organization (NGOs) as providers of public health services at the community level and PHC.

Access to products and PSM

- Consider public procurement of essential medicines through international platforms (e.g. GDF).
- Reporting to the WHO Global Price Reporting Mechanism to support national decision-making.

Enabling environment

- Focus on interventions aiming to reduce stigma and discrimination among medical workers, particularly considering decentralization of services to districts and primary care. Include in the CME a module on medical ethics and stigma reduction.
- Focus on systematic linkage of labour migrants generated data to routinize feedback and establish regular accountability mechanisms.
- Address inequalities in HIV services access and outcomes and close the gaps that exist in specific localities and for certain groups.
- Adjust criminal code by removing art 212 of the Republic of Moldova; amend code on the disclosure of confidential information.

Strategic information

- Develop an electronic database on HIV/AIDS, including clinical and surveillance data and link to an existing electronic system used by NGOs to share data on linkage to care for key populations.

- Have one database for both entities (the Hospital of Dermatology and Communicable Diseases (SDMC) and the National Public Health Agency) to get rid of extra recording and reporting.
- Align the M&E plan of the national programme with the Regional Action Plan for HIV, viral hepatitis and STIs (midterm review and post 2025). Targets for the 'burden of disease' indicators should be revisited to project an increase in case detection efforts. Alternatively, an 'HIV incidence' (estimation) indicator can be chosen, for which a decrease of target values could be projected. Move to 95–95–95.
- Increasingly use data from both routine and non-routine sources to tailor programmes and interventions at subnational levels and for highest priority.
- Routine programmatic data, as well as data from special studies, indicate that men in the country are significantly underdiagnosed. Bio-behavioural studies show an increase in HIV prevalence among MSM, while preventive services appear to be poorly reaching them, 48% are aware of their HIV status and 60% report using a condom during their last sexual intercourse. HIV testing coverage among PWID is also low and only 41% used condoms during the last sexual intercourse and 37% received a combined set of HIV prevention interventions. One in five from both key populations avoid health care due to stigma and discrimination. Efforts to reach this population need to be stepped up to improve HIV underdiagnosis in the country.
- Conduct a study on the misclassification of modes of transmission (for routine data).
- Revise the HIV case notification and epidemiological analysis forms to improve the quality of data on high-risk behaviours and transmission routes.

Prevention

- Due to documented continued HIV transmission, prioritize strengthening MSM programme:
 - expand reach, including geographical and into more hidden populations;
 - expand the service package, including improved attractiveness and quality.
- Ensure continuation of provision of services for PWID and reach non-injecting users, while adjusting validation criteria to allow coverage of users of new drugs, where transmission risks have been confirmed.
- Adjust payment mechanisms to increase focus on quality, reduce incentives to focus only on coverage and incentivize performance. Combination payment methods could include:
 - capitation + per service;
 - capitation + pay-for-results (reaching high testing coverage among those covered with prevention; new HIV detection).
- Further seek integration of TB and HIV services for key and vulnerable populations.

PrEP

- Further simplify pre-exposure prophylaxis (PrEP) service provision, with reference to the WHO 2022 technical brief Update to WHO implementation guidance (simplified laboratory requirements for monitoring, e.g. creatinine).²
- Lift the requirement to provide passport data in order to receive PrEP.
- Actively use HIV testing services for spreading information on PrEP and active recruitment of new users.
- Consider delivery through online platforms.

² Differentiated and simplified pre-exposure prophylaxis for HIV prevention: update to WHO implementation guidance: technical brief. Geneva: World Health Organization; 2022 (<https://iris.who.int/handle/10665/360861>, accessed 15 January 2024).

- Improve PrEP awareness and create demand among target populations, including web outreach interventions.
- Improve awareness and knowledge of PrEP among health-care providers.
- Expand the role of NGOs in facilitating and monitoring adherence to PrEP.
- Investigate/clear cases of HIV transmission among PrEP clients.

HIV testing

- Consider conducting a study with a comprehensive assessment of the causes of late HIV diagnosis, establishing missed opportunities for screening and/or early diagnosis of HIV at different levels of the health-care system based on clinical indications, forming a "socio-epidemiological portrait" of risk groups for late detection of HIV in a specific context (gender, age, possible time and route of transmission, social status, , etc.), with the development of policy considerations for national HIV programmes.
- Designate a national reference laboratory, approve its status, position, functions, corresponding to the tasks of the National Reference Laboratory (NRL) on HIV/AIDS; develop and implement a plan to develop its capacity.
- Conduct an HIV testing algorithm verification study to select the optimal list of tests for screening and confirmation of HIV-positive status, standardize the HIV testing algorithm throughout the country.
- Based on findings of verification, consider revising the current testing algorithm to ensure confirmatory tests chosen for use are compliant with WHO recommendations and manufacturer's instructions. Consider maintaining HIV-1 viral load (VL) test as the baseline test at the treatment initiation. In meantime, collect and analyse all relevant information related to the country's experience of off-label use of the Xpert HIV-1 VL assay as a diagnostic test to confirm the presence of HIV infection, with possible involvement of the manufacturer.
- Approve the procedure for testing for HIV/syphilis using dual tests in the HIV and STIs clinical protocols.
- For children who were never breastfed, consider inclusion of additional testing following a negative NAT at 4–6 weeks to account for potential false-negative NAT results, in line with WHO recommendations.
- Optimize the use of available resources for the diagnosis of HIV infection:
 - develop a methodology for calculating the need for medical goods for laboratory testing in the field of HIV;
 - monitor the efficient use of resources, since procurement and inventory are the most important and necessary components of the quality management system; proper organization of purchases and inventory can reduce costs by ensuring that reagents and consumables are available when they are needed. The policy considerations provided in the Handbook "Quality Management System in Laboratories"³ can be useful for countries to develop their own procedures for organizing procurement and managing stocks;
 - training of laboratory personnel in the procedure for testing for HIV in accordance with the national testing algorithm.
- Develop and implement a national EQA HIV testing programme with the mandatory participation of all HIV testing laboratories/sites in it.
- Implement in-laboratory control programmes in all laboratories/testing sites for HIV.

³ Laboratory quality management system: handbook, version 1.1. Geneva: World Health Organization; 2011:4 (<https://iris.who.int/handle/10665/44665>, accessed 15 January 2024).

- Develop and implement a unified system for recording and reporting all cases of HIV testing, regardless of the form of ownership of the medical institution/NGO.
- Introduce HIV resistance testing to monitor (with WHO support):
 - transmission of ARV- resistant HIV variants to patients prior to initiation of ART (including newly identified patients with treatment experience who have not taken ARVs for more than 90 days);
 - HIV resistance to ARV drugs in patients with ineffective therapy (patients with a VL HIV-1 more than 1000 copies / mL); and
 - transmission of ARV-resistant HIV variants during vertical transmission of HIV from mother to child.
- Start surveillance on the emergence of resistant HIV variants to ARVs, to evaluate the effectiveness of ART programmes in the country. A patient-centred approach involves not only testing for HIV resistance to ARVs, but also assessing treatment adherence of PLHIV in virologically ineffective HIV treatment, focusing on the complex clinical, behavioural, social and structural needs of affected patients and communities.
- Work in this direction should be carried out with the support of WHO and guided by a national working group established under the Ministry of Health with the participation of laboratory specialists, infectious disease doctors for adults and children, representatives of the Ministry of Health and international organizations.

Treatment

- Update current practices to routinely investigate the reasons of patients who are not on ART and strengthen case-management, counselling, adherence counselling.
- Implement the policy considerations in the report following "Technical assistance to conduct an assessment of barriers for pregnant women to access the prevention of mother-to-child transmission (PMTCT) services in the Republic of Moldova for 2019–2021", with thorough investigation for all forms of MTCT; consider moving towards triple elimination of vertical transmission of HIV, HBV and syphilis.
- Consider simplification/alternative procurement mechanisms to ensure availability of paediatric ART formulations.

TB/HIV

- The NTP should promote early diagnosis of HIV-associated TB by increasing HIV testing in people being investigated for TB and potentiate the role of NGOs in promoting HIV testing in at-risk populations.
- Systematic TB screening in at-risk populations should be strengthened and fully implemented.

OAMT

- Discontinue the system of mandatory registration and follow-up of individuals applying for substance use treatment, including for OAMT. This will remove a critical barrier that discourages many individuals in need to seek care for their problems.
- Educate narcologists and other medical personnel to prioritize evidence-informed approaches (in which interventions such as narcological registration have no place).
- To scale up treatment, consider alternative models of service provision and adapt regulations to allow the delivery of OAMT through PHC, private providers, dispensing

through pharmacies, mobile clinics. Such models have been successfully implemented in many countries and importantly, in the region of eastern Europe and central Asia (EECA).

- Revise the system of reimbursement to OAMT service providers. Consider paying for treated cases, rather than "per visit". One option can be adopting a definition of "treatment case" that would cover a patient receiving OAMT in a previous month regardless of a mode of medication dispensing (daily in the clinic or take-homes).

1. Introduction

The Republic of Moldova constitutes a total land area of 33 846 km² and shares borders with Romania in the West and Ukraine in the south, east and north. The Republic of Moldova is divided into 32 districts, three municipalities and two autonomous regions: Gagauzia and the Left Bank of the Dniester.

Demographics

Based on data from the National Statistic office of the Republic of Moldova for January 2022 there were 2 615 199 inhabitants on the Right Bank. The population density is currently at approximately 85.5 people per square kilometer. Since the 1990s, the population of the Republic of Moldova has been declining due to high migration rates, low birth rates and high death rates (birth rate 10.9 births per 1000 people; death rate 11.1 deaths per 1000 people). Since 1991 the population size has shrunk by 800 000 inhabitants.⁴

The life expectancy rate in the Republic of Moldova was 70 in 2021, with one of the highest gaps between men (75.9 years) and women (67.4 years) in the region;⁵ life expectancy at birth has, however, been increasing. The fertility rate is relatively low: 1.55 children born per woman. Almost 20% of the population ages 0–14, 67% of the population is 15–64, while nearly 14% is over 65 years of age (2021). The infant mortality rate has been decreasing in recent years and has declined from 24 (2010) to 12 deaths per 1000 live births in 2019.⁶

Gross domestic product and health spending

The Republic of Moldova is a small lower-middle-income economy. In 2022 the country was granted European Union candidate status. The Government's policy agenda is progressive and oriented towards reforms and European integration.

Following independence from the Soviet Union in 1991, the country experienced rapid economic decline, which led to health system funding shortages, reductions in service provision and HRH, increased OOP payments for users and a rise in tobacco, alcohol and illicit drug use. These economic conditions led to migration, with the resident population falling from 2.97 million in 2003 to 2.61 million in 2021⁷. Since the early 2000s,⁸ there has been progress in reducing poverty and promoting inclusive growth. The economy has expanded by an average of 5% annually, driven by consumption and fuelled by remittances, which accounted for a quarter of gross domestic product (GDP), among the highest share in the world. The health-care system has been also affected by the migration (see section on HRH).

4 Население Молдовы [Population of Moldova]. In: Legislation of Moldova [website]. Moscow: SoyuzPravoInform; 2023 (in Russian; <https://md.spinform.ru/people.html>, accessed 15 January 2024).

5 Life expectancy at birth, male (years) – Moldova. In: World Bank Data [online database]. Washington (DC): World Bank; 2023 (<https://data.worldbank.org/indicator/SP.DYN.LE00.MA.IN?locations=MD>, accessed 15 January 2024).

6 Health systems in action: Republic of Moldova. <https://eurohealthobservatory.who.int/publications/i/health-systems-in-action-republic-of-moldova-2022>

7 Population, total – Moldova. In: World Bank Data [online database]. Washington (DC): World Bank; 2023 (<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=MD>, accessed 15 January 2024).

8 Poverty reduction and shared prosperity in Moldova: progress and prospects. Washington (DC): World Bank; 2016 (Report No. 10572-MD; <https://www.worldbank.org/en/country/moldova/publication/poverty-reduction-and-shared-prosperity-in-moldova-progress-and-prospects>, accessed 15 January 2024).

GDP per capita in the Republic of Moldova was US\$ 3695 \$ in 2021 (equivalent to 29% of the world's average).⁹ The share of public spending of GDP for the health system was 6.6% and has remained stable for the last few years.

In 2021 total GDP was € 11 559 million and gross national income (GNI) per capita was € 4419, an increase of 13.9% compared with 2020. Total expenditure as a proportion of GDP on health in 2019 was 6.6% (Table 1). The proportion of OOP health expenditure was 39% in 2019; this was primarily related to outpatient care, including medications and inpatient care.

Due to the economic downturn in the Republic of Moldova, life expectancy at birth fell from 69 in 1989 to 66 in 1995, although this increased to 69.1 in 2010, and slightly further to 70 in 2021. Health burden from infections (particularly TB) and chronic illness rose, as did mortality. Many of these deaths can be attributed to very heavy alcohol and tobacco consumption; 18.8% of male mortality and 13.7% of female mortality were related to alcohol consumption. Chronic liver disease and cirrhosis remain a very significant overall cause of mortality in the Republic of Moldova.

The overall score of sustainable development towards total progress achieving the 17 SDGs is 73.9¹⁰ (ranking 46 out of 163 countries, 2022). The universal health coverage index is 69 (2019).

Table 1. Country profile for the Republic of Moldova

Variable	Value
Total population ^a (Jan 2022)	2 615 199
Gross national income per capita (euro, 2021)	4419
Life expectancy at birth (years, 2020)	70
Life expectancy at birth (male/female years, 2021)	67.4/75.9
Probability of dying between 15 and 60 years (male/female, per 1000 population, 2016)	240.8/94.63
Total expenditure on health per capita (US\$ 2019) ^c	1115
Total expenditure on health as percentage of GDP (2021) ^b	6.6

^a Население [Population]. In: National Bureau Of Statistics of the Republic Of Moldova [website]. Chişinău: National Bureau Of Statistics of the Republic Of Moldova; 2023 (in Russian; https://statistica.gov.md/ru/statistic_indicator_details/25, accessed 15 January 2024).

^b Распространен "Ежеквартальный статистический бюллетень", на январь-март 2008 года [Quarterly Statistical Bulletin, January-March 2008 disseminated]. In: National Bureau Of Statistics of the Republic Of Moldova [website]. Chişinău: National Bureau Of Statistics of the Republic Of Moldova; 2023 (in Russian; https://statistica.gov.md/ru/statisticskii-ezegodnik-respubliki-republic-of-moldova-2021-g-9877_59482.html, accessed 15 January 2024).

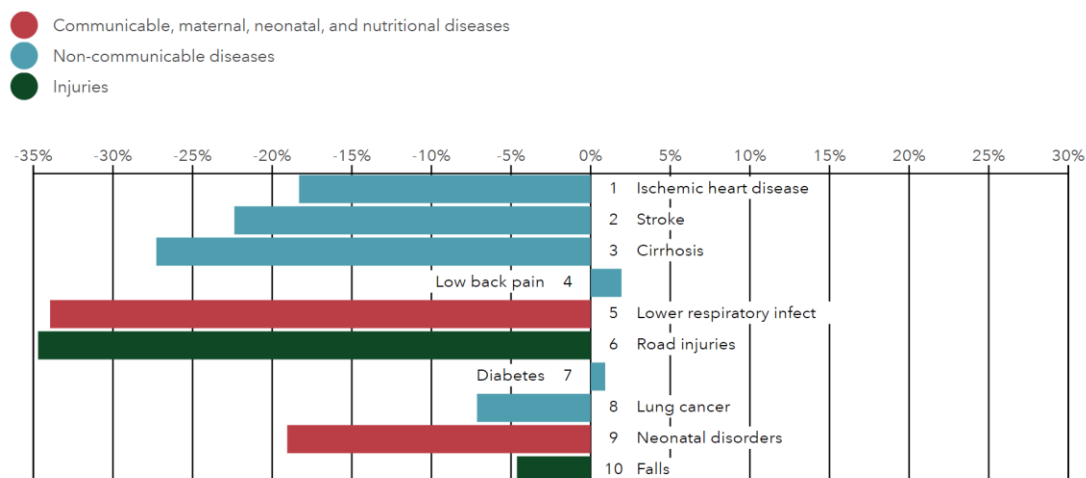
^c Moldova. In: World Bank Data [online database]. Washington (DC): World Bank; 2023 (<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=MD>, accessed 15 January 2024).

⁹ Moldova. In: World Bank Data [online database]. Washington (DC): World Bank; 2023 (<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=MD>, accessed 15 January 2024).

¹⁰ Sustainable Development Report: Moldova. New York: United Nations; 2024 (<https://dashboards.sdgindex.org/profiles/moldova>, accessed 15 January 2024).

Overview of key health challenges

Fig. 1. Top 10 causes of death and disability (DALYs) in 2019 and % change 2009–2019, all ages combined



Source: Republic of Moldova. In: Health data, country profiles [online database]. Seattle (WA): Institute for Health Metrics and Evaluation; 2024 (<https://www.healthdata.org/research-analysis/health-by-location/profiles/Moldova>, accessed 15 January 2024).

The Republic of Moldova has a very high prevalence of noncommunicable diseases (NCDs) and their behavioural and biological risk factors (Fig. 1). Five major NCDs (cardiovascular and pulmonary diseases, diabetes and cirrhosis) are the leading cause of morbidity and mortality in the Republic of Moldova, constituting 91% of all deaths.¹¹ Many of these deaths can be attributed to alcohol and tobacco consumption.¹² Chronic liver disease and cirrhosis remain a significant cause of mortality in the Republic of Moldova.

The COVID-19 pandemic had a major impact on access to health services. While the number of visits to family doctors remained fairly constant, there was a sharp decrease in the provision of diagnostics and the number of people treated in hospitals declined by 22% between 2019 and 2020.⁶

¹¹ GBD compare. In: Viz Hub [website]. Seattle (WA): Institute for Health Metrics and Evaluation; 2019 (<https://vizhub.healthdata.org/gbd-compare/>, accessed 15 January 2024).

¹² <http://www.euro.who.int/en/countries/republic-of-moldova/data-and-statistics>

2. Review approach

On 6 December 2022, the Ministry of Health of the Republic of Moldova requested the WHO Regional Office for Europe conduct an external evaluation of its NPPC. The evaluation was conducted from February to March 2023 and used the methodology developed by WHO for reviews of national TB programmes and WHO toolkit for Conducting Programme Reviews for HIV, Viral hepatitis and Sexually Transmitted Infections: Draft for field testing, Jan 2021. Technical assistance for the programme review was provided by WHO organized through the Regional Office for Europe and supported by the Country Office in the Republic of Moldova with the involvement of WHO regional office staff and external consultants.

2.1 Objectives

The objective of the HIV programme review is to assess the progress towards the goals of NPPC and to provide policy considerations for its further implementation. The HIV programme review also looked at the alignment with the principles of the Political declaration on HIV and AIDS: ending inequalities and getting on track to end AIDS by 2030, adopted in 2021; UNAIDS' Global AIDS Strategy 2021–2026: end inequality, end AIDS; SDG 3.3; and the regional action plans for ending AIDS and the epidemics of viral hepatitis and STIs 2022–2030. The programme review results assessed progress towards achievement of global, regional and national targets.

The HIV programme review focuses on assessment of following key areas:

- governance, health finance, workforce, service delivery, access to technologies and products
- epidemic patterns and surveillance (including among key populations)
- prevention services for key populations (key population) and other groups
- HIV testing policy and service delivery
- HIV treatment policy and service delivery
- HIV and TB coinfection
- OAMT.

2.2 Methodology

The HIV programme review consisted of two phases:

- a desktop review of the National Strategy, national HIV testing guidelines and diagnostic algorithms, national HIV treatment standards and guidelines, PrEP standards and guidelines, OAMT guidelines, prevention guidelines, Global Fund proposal and reports, documents and other reports including from the Ministry of Health, the national HIV programme and partners.
- A country mission for the period of February 6–13 2023 (mission programme is available in Annex 3). During the mission experts interacted with relevant institutions and facilities at national and regional/local level and discuss with key informants: policy-makers, health-care providers, community and beneficiaries, the Ministry of Health, NGOs (including GF principal recipient), UNAIDS, UNICEF, UNDP, the United Nations Office on Drugs and Crime and other national partners.

The geographical coverage of the mission has included the capital city of Chişinău and the city Balti located in the northern part of the country and Ungheni in the western part. Interactions with implementers on the Left Bank were conducted via virtual means.

During the period of the mission following meetings were organized with:

- government institutions: Ministry of Health, Ministry of Finance, CNAM, ANSP, the National Health Procurement Agency (CAPCS), national HIV programme team, National TB Programme, Republican Narcology Dispensary, PCIMU, TB/HIV programme coordination Transnistria region, Ungheni district specialist clinics, Penitentiary No. 16 Pruncul and Penitentiary No. 9, Department of Social Assistance and Child Protection, the Health Section, Balti Clinical Hospital/Regional ARV Treatment Centre, the Narcological Cabinet, Family Doctors Centre/Health Centre No. 1 and 14 regional social centres;
- representatives of community-based and governmental organizations as well as representatives from key populations, both service providers and beneficiaries: PWID, sex workers, MSM, PLHIV, the Centre for Health Policy and Research (PAS Centre), the KAP Committee, Iniativa Pozitiva, AFI, Community PULS, Gender DOC-M, the League of PLHIV and the Union for Equity and Health; and
- multi/bilateral partners and international organizations: UNAIDS, UNICEF, UNODC, UNDP and others (see the Annex 2 Agenda).

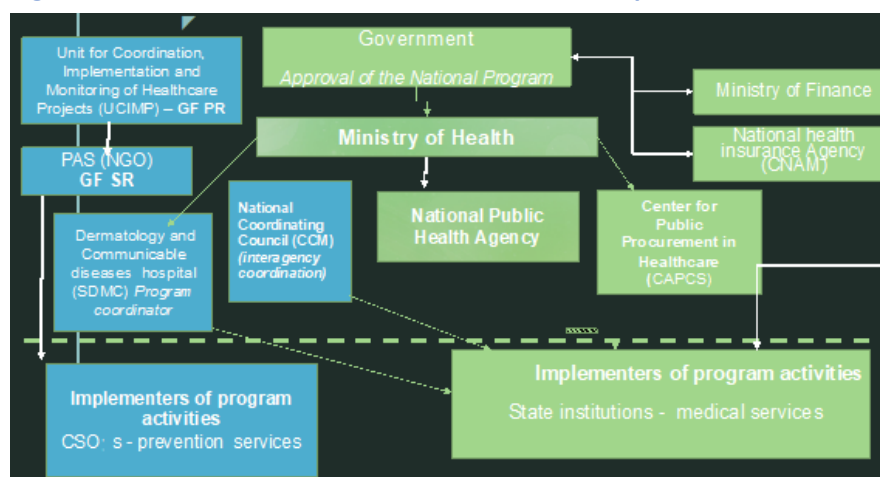
3. Governance and leadership on HIV national response in the Republic of Moldova

Context

In the Republic of Moldova, the national response to ending AIDS as a public health threat is driven by the implementation of the NPPC, approved by Government Decision No. 134 on 02.03 2022.¹³ The COVID-19 pandemic caused a delay in the process of official approval of NPPC by the Government. The programme is based on an effective evidence-informed response through the implementation of coordinated, comprehensive and high-quality measures for HIV prevention, treatment and care, as well as interventions aiming to improve enabling environment. The action plan includes a comprehensive review.

The multisectoral HIV response is governed by the National Coordination Council, the multisectoral body acting as the country coordination mechanism (CCM) which was established in 2005 by the Decree of the Government of the Republic of Moldova under the leadership of the Vice Prime Minister. Currently, the Chairman of the CCM is the Minister of Health, the deputies are a representative of the CSO League of PLWH and the State Secretary of the Ministry of Culture and Education of the Republic of Moldova. The activities of the CCM Secretariat are also regulated by the 2018 Government Decree¹⁴.

Fig. 2. Governance structure of the national HIV response



Source: Nizova N, 2023.

Structures and policies in place for the HIV response

The Republic of Moldova is ahead of the curve in maturity of its national institutions and in its capacity to ensure programmatic takeover of donor supported services and procurements, but a few improvements are still needed, such as the capacity to ensure service continuity for prevention of contracted services for key populations and the capacity to procure from international platforms.

¹³ National Program for the Prevention and Control of HIV/AIDS and Sexually Transmitted Infections (2022-2025). Chişinău: Government of the Republic of Moldova; 2022 (https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=113018&p_count=107110&p_classification=05&p_classcount=3737, accessed 15 January 2024).

¹⁴ HOTĂRÂRE Nr. 825 din 03-08-2005 cu privire la instituirea Consiliului naţional de coordonare a programelor naţionale de profilaxie şi control al infecţiei HIV/SIDA, infecţiilor cu transmitere sexuală şi de control al tuberculozei [DECISION No. 825 of 03-08-2005 regarding the establishment of the National Coordination Council of the national HIV/AIDS prevention and control programs, sexually transmitted infections and tuberculosis control]. Chişinău: Government of the Republic of Moldova; 2005 (in Romanian; https://www.legis.md/cautare/getResults?doc_id=118440&lang=ro#, accessed 15 January 2024).

Overall, the multistakeholder analysis demonstrated competent, professional implementers in public and government sectors and strong coordinated technical support from international partners.

There are a large network of institutions involved in the response to the HIV epidemic. The list of main institutions is provided in Fig. 2, Table 2 and their main functions in Annex 1. The health system has a large range of public and private medical facilities, as well as government agencies and authorities involved in the provision, financing, regulation and administration of health services.

The Ministry of Health is primarily responsible for developing health policies and the development of legislation regulating the organization and provision of health services. A unit of national programmes has been created in the Public Health Department of the Ministry of Health. The function of this department is focused on strategic planning issues, development of normative and legislative acts for consideration by the Government, monitoring their implementation, as well as coordinating the activities of stakeholders – national partners and international organizations providing technical assistance to the country in the development of public health reforms. The functions of development and coordination of programme activities in the field of public health are delegated to the National Public Health Agency.

The Ministry of Finance is implementing a financial management system based on the application of long-term strategic planning (including donor funds) and the creation of action plans (targeted programmes). The Ministry of Finance is working on improving legislation to change the financial management system in various sectors of government, which will be based on evidence of effectiveness and intersectoral interaction. This will avoid duplication and inefficient use of resources, including donor funds, in the use of which, according to the specialists of the Ministry of Finance, "there are still islands without control."

CNAM has successfully introduced a funding mechanism for CSOs through competitive grants to provide prevention services from the National Insurance Fund. However, the duration of the procedures makes it possible to allocate funds only in the second and third quarters of the year, which is linked to the risk of interruption due to absence of donor support.

CAPCS receives state budget funds from the Ministry of Health for the implementation of procurement procedures within the framework of 12 state national programmes, as well as for state medical institutions based on their requests. The legislative framework, technical capabilities and the level of staff training allow the agency to also carry out procurement using grant funds on the terms of the donor, if the Government decides to do so.

The National Public Health Agency (NPHA/ANSP) was established by Decree of the Government of the Republic of Moldova in 2017. In accordance with its mandate, the ANSP can implement activities on all major public health priorities both at the national and regional levels. It is well-staffed and has 10 regional offices (more than 1600 employees, including 450 in the central office in Chişinău).

Currently the ANSP is undergoing a functional review and there are plans to both amend the Public Health Law (2009) and update the mission and responsibilities of ANSP. This is an opportunity to clarify the role the ANSP plays in the coordination and implementation of national programmes. However, at the time of the mission, it was highlighted that 75% of its activities are carried out in the field of epidemiological risk surveillance, laboratory monitoring of epidemiological situations and health promotion.

In connection with the preparation by the Ministry of Health of proposals for amending the Law on Public Health, the issue of creating a department for coordinating national programmes within the ANSP is being discussed, with the prospect of developing its capacity, including coordinating international technical assistance projects.

In the context of contributing to the fulfillment of the tasks of the NPPC, ANSP currently only collects epidemiological data and participates in coordinating epidemiological surveillance activities, since

during the establishment of the agency, Government Decree stipulated that the ANSP "will carry out the coordination of all national programmes, including the prevention component, with the exception of the national HIV and TB programmes, given the availability of separate project implementation units within the framework of the Global Fund grant".

As challenges for the implementation of greater involvement of the ANSP network in the implementation of national programmes for socially significant diseases (HIV, hepatitis, STIs and TB), specialists of the ANSP outlined a "lack of coordination between the heads of interested structures at regional level, as well as with local ANSP on modern approaches to M&E of data".

In their opinion, it is necessary to form a unified national approach to ensure sustainable programme coordination of responsible structures and executors both at the national and regional levels, to ensure effective management of related diseases – HIV/TB, HIV/hepatitis, because delegating this function to clinical institutions is a long-term risk.

The SDMC is a clinical hospital undertaking treatment of STIs, HIV and dermatology. It has established a programme coordination unit for the HIV national programme, its staff being partially externally funded through Global Fund grants. The coordination unit oversees organization, quality and monitoring of HIV diagnostic and treatment services and carries out planning and distribution and control of resources (ARV drugs, tests for diagnostics and laboratory monitoring of treatment) for decentralized ART sites including Transnistria. This hospital is also the largest ART site in the Republic of Moldova in terms of the number of patients and monitors the quality of treatment for HIV patients throughout the country.

The Department for Coordination, Implementation and Monitoring of Health Projects (PI UCIMP DS; the Project Coordination Implementation Monitoring Unit or UCIMP) was established in 2000 by the Decree of the Government of the Republic of Moldova No. 391 with a remit to implement international assistance projects in health. It was created in the mould of the former Project Implementation Units (PIUs) of World Bank Projects as an autonomous, self-governing non-profit-making organization structure that operates in accordance with current national legislation and the procedures of external donors. The main objective is to ensure the effective implementation of health system projects financed by external donors by coordinating, implementing and monitoring activities in accordance with the provisions of funding agreements. Its staff have more than 5 years of experience in coordinating programmes for the prevention and control of HIV/AIDS/STIs and TB and quickly and effectively achieving their goals within the framework of grants. Today, the organization performs the functions of a PIU only for the Global Fund as the principal recipient for the TB/HIV grant, with its direct role being mainly in procurement of goods and services, contracting of subrecipients and implementers, financial grant and programmatic management and reporting to donors.

The PAS Centre is currently the only government subrecipient of a Global Fund grant since 2021. Prior to 2021 Centre was a primary recipient of national Global Fund grants (for HIV until 2017 and for TB until 2020) under dual-track finance policy and principal recipient for two regional TB/ Health System Strengthening grants covering 11 countries in the EECA. Its portfolio covers a wide range of public health programmes in health systems, communicable and noncommunicable diseases and social responsibility programmes with specific surveillance capabilities. The Centre's past and current projects are implemented in collaboration with national health authorities and agencies, national and regional CSOs and networks, key population networks, the WHO Regional Office for Europe and 11 country offices, academia and other bilateral and multilateral organizations. Under the Global Fund it directly implements a range of activities related to HIV, TB and Resilient and Sustainable Systems for Health as well as contracts the TB community-based service providers.

There are a large network of governmental organizations providing services to the key populations of PWID, MSM and sex workers, and supporting PLHIV and people with TB. All affected communities are represented in the CCM and meaningfully engaged in the implementation of the national HIV

response and delivery of specific services. The Key Affected Populations (KAP) Platform is a body that ensures meaningful engagement of communities into the HIV response.

Policies related to the HIV response

The NPPC has been developed in accordance with the provisions of Law No. 411-XIII of 28 March 1995 on Health Protection, Law No. 10-XVI of 3 February 2009 on State Surveillance of Public Health and Law No. 166 of 11 July 2012 as well as development strategy "the Republic of Moldova 2020", Government Decision No 1023 of 20 October 2013 on approving the National Public Health Strategy for 2014–2020 and other national and international documents in the field. The NPPC has been approved, with a delay, by the Cabinet of Ministers of the Republic of Moldova and included costed interventions, M&E, roles and responsibilities. The current programme management system is the result of the implementation of national health policy reform for 2007–2021, for which the remit was to form a national public health system. The new strategy for 2030 is under development and close to finalization.

The goal of the programmes is to mitigate the consequences of the HIV and STI epidemics, particularly in key populations and reducing HIV-related deaths.

The key objectives are to:

- reduce new HIV infections;
- 90–90–90: increase access to health services and improve health indicators of PLHIV; and
- ensure efficient management of the programme through strengthening the health system and improving strategic information.

The efforts of the Ministry of Health of the Republic of Moldova in this direction are in line with the WHO Regional Office for Europe priorities contained in the European Programme of Work, 2020–2025 – "United Action for Better Health in Europe".¹⁵ The Law of the Republic of Moldova provides for the allocation of the budget of at least 12% to finance the needs of the health-care system.¹⁶

The NPPC has an effective strategic focus for the current epidemic trends and the potential to achieve impact. However, it needs to be more data-driven in adjusting programmes, deploying technical approaches, reaching new groups and adjust geographical focus. Technical approaches to HIV prevention, testing, treatment and care are well aligned to WHO recommendations and the innovations are well positioned to show added value and achieve more impact. The key is quality of execution, effective implementation, continuous learning and maintaining the ambition to experiment then rapidly bring to scale.

The coverage targets are not fully aligned to international commitments, but if achieved by 2025, the Republic of Moldova will be well positioned to reach the 95–95–95 goals by 2030.¹⁷

The country is also well positioned to align its national programmes for HIV/STI, viral hepatitis and TB with the Regional action plan to end AIDS and the epidemics of viral hepatitis and STIs 2022–2030

¹⁵ European Programme of Work, 2020–2025: United Action for Better Health in Europe [website]. In: WHO/Europe/Our work. Copenhagen: WHO Regional Office for Europe; 2020 (<https://www.who.int/europe/about-us/our-work/european-programme-of-work>, accessed 27 January 2024).

¹⁶ Garam I, Zadnipro M, Doronin V, Matei A, Mosca I. Can people afford to pay for health care? New evidence on financial protection in the Republic of Moldova. Copenhagen: WHO Regional Office for Europe; 2020 (<https://iris.who.int/handle/10665/337540>, accessed 15 January 2024).

¹⁷ The UNAIDS goal to diagnose 95% of all HIV-positive individuals, provide antiretroviral therapy (ART) for 95% of those diagnosed and achieve viral suppression for 95% of those treated by 2030.

and the TB action plan for the WHO European Region 2023–2030 and is considering overseeing these national programmes under a single coordinating body post 2025.

The country has been actively participating in international initiatives. In June 2016, in New York, the Republic of Moldova joined the countries that signed the declaration endorsed during the United Nations General Assembly High-level Meeting on Ending AIDS and committed to ending the AIDS epidemic by 2030. The two cities of Balti and Chişinău joined the Paris Declaration to enhance the response to the HIV epidemic in big cities with a view to eliminating inequalities related to access to basic health and social services, to ensure social justice and economic opportunities.

Table 2. National institutions involved in response of HIV epidemic

No.	Institution	Description of function and role in HIV response
1	Ministry of Health	Responsible for health policy and the development of legislation regulating the organization and provision of health services
2	CCM	Multisectoral decision-making body representing all constituencies – an effective mechanism for participatory decision-making.
3	CNAM	Has mechanisms to fund HIV and TB services at all levels of care, including specialist outpatient, primary care and community-based care and strategically shape services towards decentralization and integration.
4	CAPCS	National institution in procuring key commodities at affordable prices and ensuring their uninterrupted supply.
5	ANSP	Activities on all major public health priorities both at the national and regional levels. Main activities included in the field of epidemiological risk surveillance, laboratory monitoring of the epidemiological situation and health promotion.
6	UCIMP	principal recipient of the current Global Fund grant in the Republic of Moldova.
7	SDMC	Institution providing services to the population in the diagnosis and treatment of HIV and STIs and coordinating the implementation of the National Programme prevention and control of HIV/AIDS and infections, STDs for 2022–2025.
8	PAS Centre	An independent non-profit-making organization that implements health programmes at national and regional levels.
9	KAP Platform	A consortium of community-based organizations

Challenges

The vision of the new model for joint management and improved coordination of integrated HIV/STI, TB and hepatitis (planned for 2021) has not yet been finalized.

The existing management structure of the HIV/STI National Programme has managed to improve delivery of key components of national HIV response, yet has some functional limitations:

- Limited authority and mandate at local level and over levels of care other than specialized.
- Duplication and fragmentation of coordination and functions (M&E, procurement).

Despite the existing structures and platforms, there is insufficient intersectoral coordination in the implementation of programme activities, as well as limited interactions between the national and regional levels (the main resources for coordination are concentrated in medical institutions at national level).

National Public Health Agency (ANSP) has a large human resources potential (1600 employees) and a structure in the regions (10 regional offices), but has a limited mandate in the collection of epidemiological data on HIV.

There are sustainability and duplication risks due to the limited mandate of the current principal recipient of the Global Fund (UCIMP) in the implementation of the national programme. This is determined by its status as an independent state structure under the Ministry of Health, specifically established to perform the functions of the project implementation unit, including as a principal recipient of a Global Fund grant.

Considerations for policy action

High priority

- Conduct a functional review and develop an optimal configuration for the coordination of national programmes and key components (M&E, prevention, diagnosis and treatment, resources and finances) ideally avoiding duplications and fragmentation of national and externally funded components and ensuring a pathway towards full integration into the existing national entities.
- The National Public Health Agency, by statutory mandate, is the entity responsible for programme management based on a multi-sectoral, results-oriented approach. Based on the results of the functional review, its role in the development of national programme strategy, management and reporting, M&E of results, including epidemiological data, national and regional coordination of prevention programmes and other public health interventions should be clarified.
- Clarify the mandate of the clinical institution Dermatology and Communicable diseases hospital, in the future vision of the integrated multidisease national programmes. For example, given the large potential of the hospital expanding the mandate to act as the National Clinical Centre for Socially Significant Diseases or expanding clinical management of a larger range of infectious diseases could be options to consider. An additional task is for strategic purchaser to provide more incentives to manage these diseases on an outpatient basis and reduce incentives for unnecessary hospital admissions would accelerate the transition to people-centred integrated approaches.
- Develop a clear strategy to increase the functional capacity of national organizations in the field of strategic procurement of services that can achieve programmatic results, ensure sufficient funding and service continuity and procure the full range of products, including through international platforms; mechanisms to ensure integration and elimination of duplication and fragmentation in programme coordination; protect the role of national governmental actors.

Medium priority

- Based on the results of a study of the causes of inefficient coordination of the national programme executors at all levels, develop an action plan to create a sustainable communication mechanism to establish operational communication between all interested parties, including possible emergency situations in the implementation process of programme activities.

4. Health finance and universal health coverage

The Republic of Moldova has a mandatory, publicly financed health insurance system managed by the CNAM since 2005. Health insurance revenues are pooled into a single budget, which contracts with public and private health service providers. Around 15% of the population remains uninsured, primarily rural residents and those in the informal sector. CNAM provides access to essential health-care services, but OOP expenses create barriers to universal coverage. Government health spending has increased over the past decade, but it still accounts for fewer than half of total health expenditure, limiting the coverage of national TB and HIV programmes and community-based efforts.

Since 2014, the Ministry of Health has been purchasing first-line ART medicines and HIV testing supplies. Starting in 2017 the Mandatory Health Insurance Fund partially funds HIV prevention for key population groups. Despite significant fiscal constraints and continuing political instability, over the decade, the Government of the Republic of Moldova has been making significant efforts to sustain free access to qualitative prevention, treatment, care and support services for PLHIV and TB and key populations most at risk of infection.

The national investments in health overall and, particularly, in HIV have increased yearly, remarkably allowing full coverage of ARV medication costs. In 2021 the expenses for the national response to the HIV epidemic rose by 21.3% compared with 2020, increasing 30 229.6 thousand leu. In the structure of the total expenses for the national response to the HIV epidemic in 2021, the public financial resources account for 54.2%, compared with 2020 (60.2%) recorded a decrease of 6.0 percentage points. External resources accounted for 45.8%, which registered an increase of 6.0 percentage points compared with 2020. The total amount spent on this response is now around 172 255.8 thousand Moldovan Leu or US\$ 9 742 091. The national public budget contributions are set to increase from leu 93 396 600 in 2021 to leu 155 742 603 in 2025.

In 2021 funding was divided as follows: 36% for treatment, care and support; 31% for prevention; 15% for management and sustainability; 5% for enabling factors; 4% for TB/HIV coinfection diagnosis and treatment; 3% for social protection; 2% each for community mobilization and mother-fetus HIV transmission prevention; and about 1% each for gender programmes and programmes for children and adolescents.

The primary beneficiaries of the HIV/AIDS programme are the following.

- The Ministry of Health, state budget allocations and funds under the Mandatory Health Insurance for the "Public Health Services" programme, for prevention of HIV and implementation of the national HIV programmes.
- The NPHA, responsible for HIV/AIDS epidemiological surveillance and prophylaxis activities;
- SDMC, the tertiary institution responsible for HIV response, whose specific responsibilities relate to HIV coordination, diagnosis and laboratory, pre-ART surveillance, ARV treatment monitoring and ARV treatment provision, STI case management and management of the national HIV control programme.
- The National Blood Transfusion Centre, responsible for blood safety.
- The National Narcology Dispensary for activities on harm reduction in PWIDs, including the methadone substitution programme;
- Educational institutions, subordinated to the Ministry of Health, for expenditure in training, refresher training and specialization for pedagogical workers.
- Medical–sanitary public institutions at the republican, municipal and rayon levels.

Provider payment mechanisms

As the primary payer of health services, CNAM allocates financial means for prevention, diagnosis, control and treatment services of people infected with HIV/AIDS.

CSO contracting of key population services: starting 2017, CNAM allocates funding for HIV prevention for key populations (PWID MSM sex workers) and initiated a project-based social contracting from the prevention fund using open competition mechanism. In 2021–2022, 4170.3 thousand leu were executed, and seven projects were funded for HIV prevention among key populations. Despite increased allocation, significant improvements in the current contracting mechanism are needed, making sure that services are provided on a continuous basis, not just a few months per year, multiyear contracts, e.g. The anticipation of timelines avoiding interruption in funding), CNAM contracting with CSOs is an example to other countries in the region. The progressive integration of functions and improving the current mechanism of funding technical capacities into regular services will allow full takeover of CSO contracting by CNAM.

Inpatient HIV treatment is funded directly by CNAM to SDMC using a bundled payment per case treated. Other hospitals in the countries cannot contract with CNAM for inpatient treatment for HIV even in infectious diseases wards. In a situation when more than 50% of PLHIV are detected in late-stage disease, this may prove a significant barrier for timely service delivery and saving lives.

Outpatient-based HIV treatment follow-up: service decentralization and the development of ambulatory services has now started with the support of the Global Fund. However, to date CNAM has not engaged in development of contracting mechanisms for clinical services for a lifelong disease that are provided at lower levels of care than before. Decentralization of HIV clinical management to district level requires to cover the services of clinical monitoring services as per standard of care and considering introducing more effective outcome-based payment models (e.g. bundled payments combined on a pay-for-performance basis).

Primary care is provided by family doctors, together with their teams, including various preventive and diagnostic services. Family doctors are financed per capita. Regarding HIV, family doctors are engaged in preventive services such as health education and anti-drug counselling. Previously, HIV testing for pregnant women and condition-based had been a service provided by doctors through referring blood samples to HIV testing services. Starting 2019, rapid tests have been decentralized to primary care level and can be performed in any primary care clinic or office. The uptake has been slow. Starting 2021, under Global Fund grants and to incentivize case finding, family doctors received an incentive for a detected HIV case: 50 euros (€30 after taxes). Considering their average salary is €500 per month, this incentive corresponded to 10% of their monthly income. This pay-for-result scheme is not aligned to any of the current pay-for-performance schemes, as these were phased out. CNAM has no specific plans for takeover of this pay-for-result payment. Due to difficulties in covering the incentive under public funding, phasing out the diagnosis incentives payment to GPs should be planned.

In 2022 palliative care services provided in hospital conditions are financed by the "day-bed". For the year 2022, 300 bed-days were contracted. The actual expenses amounted to 265 500 lei (16 patients). Overall, palliative care was provided to 546 patients, costing 15 968 503 leu to CNAM.

Considering OAMT, CNAM pays per consultation. OAMT services contracting can be improved by moving to a bundled payment model (per patient covered).

HIV prevention activities are also part of activities provided by the Youth Friendly Health Centres, financed based on the "global budget." In 2022 CNAM contracted 41 young people health service providers for 34 187 362 leu.

Currently, the OPTIMA study to evaluate the effectiveness of allocations in HIV is being concluded. This will allow a deeper assessment of allocation effectiveness of HIV financing in the Republic of Moldova.

Policy considerations

High priority

- HIV/AIDS programme financial management would benefit from a more integrated governance system and a progressive integration of functions and technical capacities into regular public administrative services, e.g. within a revised multiannual contracting framework, the National Health Insurance Agency (CNAM) can fully assume civil society organization (CSO) contracting.
- OAMT services contracting can be improved by moving to bundled payment model (per patient covered).
- Due to its financial unsustainability, the phasing out of the diagnosis incentives payment to GPs should be planned.
- Integrate procurement and logistics inventory management through the implementation of logistics management system software (labour migrants).

Medium priority

- Service decentralization and the development of ambulatory services will require the introduction of more effective outcome-based payment models (e.g. bundled payments combined on a pay-for-performance basis).

5. Integrated people-centred services

The health system is still struggling to overcome a vertical, fragmented design. Stakeholders acknowledge that this perpetuates inefficient use of limited resources, fragmentation, poor coordination and continuity of care and a medicalized approach. There is a curative focus and investments into procurement of equipment, medicines and technologies and health-facility based investments over more challenging transformation of processes, quality, coordination, integration and continuity of services.

Overall the country has moved towards family based primary care oriented health system since the early 2000s. PHC provides most essential services including NCD management, reproductive, maternal, newborn and child health; immunization; and prevention and health promotion, palliative and home-based care. However, use of hospital care for non-acute needs, i.e. for conditions that could be managed on an outpatient basis just as effectively is still higher than necessary, often as a result of hospital care being reimbursed better than specialist outpatient and primary care levels. Additionally, the integration of health and social services is made difficult because of different funding streams.

The national HIV programme has planned work to decentralize HIV screening, confirmatory testing and ART treatment to district level, integrate health and non-clinical services (prevention, testing, treatment psychosocial support), integration of specialist outpatient services (HIV/TB/OAT/STIs/reproductive health/mental health), ensure psychosocial support to increase treatment adherence for ART at different levels of care.

Differentiated care: differentiated HIV testing services and differentiated care models are now a reality in the Republic of Moldova. Different HIV testing service modalities are currently being scaled up across a range of platforms: community-based testing, facility-based testing, self-testing. However not all testing modalities have been fully scaled up, i.e. strategies aimed at finding the HIV positives – i.e. index testing, social network testing. Multi-month drug dispensing for 3–6 months is provided.

Decentralized services: testing, both screening and confirmatory has been decentralized and allows same day diagnosis and treatment initiation. and task shifting of stable patients has been scaled up and treatment follow-up of stable patients is now decentralized to infectious disease specialists in a few cities and districts.

Integrated services: There are many examples of successful experience-integrated services, such as providing HBV and C testing for key populations and PLWH; HIV/syphilis and HBV testing performed in ANC for pregnant women; introduction of HIV/syphilis dual testing and many examples of effective integration of health and social services. The Global Fund grants have compensated for the insufficient community-based services and nonmedical support services offered by the public system. This is evidenced by efficient collaboration between NGOs and medical institutions, i.e. peer-to-peer consultants that are NGO staff providing services on the premises of clinical sites, including through social support centres in Chişinău, Balti. Services provided by NGOs allow for tailoring to the needs to clients. Additionally, within the scope of the OAMT programme there has been limited social support, as the employment of social workers is not laid out in the list of specialists. Social support is also limited in the penitentiary sector.

Some of the challenges include the fact that:

- the concept of service integration (medical-social) and decentralization in Chişinău is not yet agreed upon;
- payment mechanisms of integrated and decentralized services not well developed; and
- with decentralization, stigma and discrimination in public health systems becomes imperative to address.

Policy considerations

- Explore service integration of other diseases in HIV service delivery platforms and also stronger integration of HIV, viral hepatitis and STIs into PHC and sexual and reproductive health services.
- Design payment mechanisms for decentralized outpatient care.
- Consider EMTCT triple elimination goals for HIV syphilis and viral HBV.

6. Human resources for health

A variety of factors and conditions influence availability of HRH: low salaries, brain drain, ageing workforce.

Due to a reduction in population size, the National Bureau of Statistics has revised the indicators using a population size of 2.6 million (following the findings of the 2014 national census), indicating an increase in the number of physicians from 453 in 2014 to 477 per 100 000 population in 2020, but a decrease in the number of nurses per 100 000 population from 912 to 893 in the same period. This would put the country above the averages of the WHO European Region in 2019 (358 physicians and 816 nurses). However, uneven geographical distribution, concentration in the hospital sector create shortages and challenges for health-care provision across the regions.

There is an outwards migration trend of the health workforce to neighbouring Romania due both to a low threshold to enter the health workforce market and lower salaries at home compared with fewer language barriers and much higher salaries. As a result, the health workforce experiences shortages in both primary care doctors and specialists as well as nurses, particularly outside urban areas and district centres. Doctors' ageing is observed: more than half of the workforce are over 50 years of age or already retired. Despite large numbers of health professionals graduating from medical universities and colleges, attracting workforce in the areas with shortages has been a longstanding challenge despite measure to increase salaries and provide incentives to move.

During the mission it was noted that there was a very low number of infectious disease doctors working in the outpatient care sites providing care for PLHIV. Additionally, to migration out of the country, infectious disease doctors were choosing non-clinical better remunerated work at e.g. donors funded projects-institutions or international organizations. Young specialists were less motivated to choose infectious disease internship. Ageing specialist workforce was noticed in other specialties as well. The average age for doctors providing TB treatment and care services was approaching retirement age. According to a study conducted in 2013, the average age of TB doctors was 54 years, with few young doctors on course to go into the TB or TB/HIV fields.

There are continuous training and post graduate courses available at the State Medical University, but they do not fully satisfy the changing requirements of the medical profession and patient needs, and are not in line with the new policies. In parallel, training is conducted with external donors such as Global Fund support, which provide more up-to-date policy changes relevant for the interventions being implemented.

The Ministry of Health has developed strategies to address the shortage of health-care workers through various initiatives, including increasing salaries and benefits for health-care professionals and offering scholarships and other incentives for students to pursue careers in health care. However, progress has been slow and further concerted actions are needed to address systemic and specific issues to attract and retain health-care professionals in the country.

The implementation of activities included in the national programme to ensure operational management of human resources and continuous professional development have been implemented; in particular, digitally delivered training and workshops. COVID-19 has limited activities to support the state policy of planning and development of human resources programmes, including normative framework on human resources planning and retaining, developing effective models of motivation, revision of functional responsibilities and qualification requirements for state institutions and NGOs.

The Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova participates in a study on the provision of human resources for the national health system. The study is carried out at the initiative of the Ministry of Health with the support of the World Bank, with the

aim of identifying the deficiencies of the system that cause the exodus of medical personnel and staff shortages in institutions providing medical services.

The community health workforce that is currently providing services to key populations through NGOs are currently not professionalized – they do not have job descriptions aligned to register of professions (i.e. outreach workers, NSP workers, peer supporters) and there are no educational and professional requirements.

Policy considerations

- Align measures to addressing socially significant diseases to to the overall Strategy for Human Resource Development (2016–2025). Develop effective models of motivation for health staff to retain in the service In the context of the Normative framework on human resources planning.
- Revise national classifier of professions and facilitate integration of social workers into the staff of medical institutions. The national public health workforce development strategy at country level, including for ensuring the sustainability of the fight against HIV, STIs and hepatitis, should take into account the growing role of social workers of governmental organizations as providers of public health services at the community level and PHC.
- Public procurement of essential HIV commodities.

The Republic of Moldova's experience of setting CAPCS as a centralized procurement agency for medicines and medical devices represents a breakthrough among other countries in the region. Public procurement of ARVs and tests is an excellent development that allowed the Republic of Moldova ensure full transition away for ARV procurements at similar rates of quality and affordability as through the Global Fund. Even although procurement is based on technical advice from the national programme, more accurate forecasting methods can significantly reduce planning. Integrating procurement and logistics inventory management through the implementation of logistics management system software (labour migrants) has an enormous potential to increase efficiency in managing medicines and other supplies.

Policy considerations

Consider public procurement of essential medicines through international platforms (e.g. GDF) Reporting to the WHO Global Price Reporting Mechanism to support national decision-making.

7. Enabling environment

The Republic of Moldova faces similar structural obstacles as other countries in the region, such as punitive laws and policies on HIV transmission and exposure and high levels of intolerance, stigma and discrimination towards key populations, which creates barriers to key populations accessing prevention services. The country's legal framework does not criminalize same-sex relationships and selling sex is an administrative offense. Stakeholders also mention significant differences between the enabling environment in the Left and Right Banks.

Stigma and discrimination influences the access to health care, leads to social isolation, violence, delayed HIV testing, nondisclosure of status to partner, poor adherence to treatment.

Despite improvements in recent years, in medical settings stigma and discrimination towards PLHIV, expressed as negative attitudes, disclosure of HIV status and refusal to provide medical services are still reported and remain an obstacle to access to health services particularly in districts and in general health services. The 2018 Stigma Index study determined that four out of ten PLHIV experienced discrimination attitudes in the previous 12 months and four out of ten PLHIV stated that their HIV status was disclosed to third parties; most often, it happened within the health-care system, family or a close community. A study on the perception of equality in the Republic of Moldova was conducted, demonstrating a high level of intolerance towards PLHIV (GAM, 2020).

Achievements

A vast network of NGOs and community-based organizations representing most key population constituencies, well-organized and well-represented in decision-making bodies; strong capacity for leadership, advocacy rights-based responses and removing barriers.

Community-led monitoring mechanisms are in place, including access, quality, monitoring of human rights violations (React platform); strategic litigation cases are taking place; legal support to key population and PLHIV is available.

The Right Bank has made significant progress in amending normative acts, aiming to promote human rights and basic principles of nondiscrimination of PLHIV based on the recommendations of WHO, UNAIDS and the European Union. The Order on "Abolishment of some Laws regulating Prevention and Control of HIV/AIDS" has been approved and normative acts containing stigmatizing provisions have been abolished.

In 2014 the Equality or Antidiscrimination Law was approved, safeguarding equal rights for all, listing a wide range of criteria often exploited for discriminatory purposes. It includes among those – sexual orientation, which ensures the rights of LGBT people are respected.

In 2017 the National HIV Treatment Clinical Protocols were reviewed and approved, using the WHO recommendations as a basis to ensure treatment for all PLHIV despite CD4 cell counts. Regulations on sharing personal health information related to HIV and standards on HIV counselling and testing using rapid tests among vulnerable groups were developed and approved.

The Republic of Moldova has improved the legal environment around harm reduction and decriminalizing drug possession. Since 2004, there has been a marked shift in drug enforcement strategy towards prioritizing the prosecution of drug dealers rather than criminalization of drug use. Additionally, personal drug use was decriminalized in 2008. Major amendments to the Penal Code and Administrative Offences Code reformed criminal punishment, including promoting alternative punishments to imprisonment and excluding arrest for personal drug use, which now constitutes an administrative rather than criminal offense. The illegal purchase or possession of narcotic drugs or psychotropic substances in small quantities without the intention to distribute them, as well as their consumption without a medical prescription, is sanctioned by a fine or community service.

Increasing the dosage of drugs for self-use as defined by the law, as well as alternatives to imprisonment for some drug-related crimes were discussed and implemented although not completely in line with proposed progressive changes.

The requirement to take an HIV test to register an individual's place of residence has been removed. The national provision with regards to prohibiting using HIV-positive status as grounds for refusing adoption or custody/guardianship of children has been removed.

Significant efforts were invested to develop harmonized national standards and instructions related to HIV prevention. These include a series of national standards and guidelines related to HIV services, including implementation of the most recent WHO treatment guidelines as well as HIV testing and counselling, PMTCT, HIV surveillance and infection control, among other things.

Roadmap of the PLWH de-stigmatization has been developed jointly with representatives of the community of PLHIV.¹⁸

The Republic of Moldova is a pilot for the UNAIDS inequity tool – an opportunity to document and reduce further inequities, including gender-related ones.

Challenges

The exposure to or transmission of HIV is still prosecuted under the Criminal Code (Law Nr.985-XV dated 18.04 2002) with specific provisions under articles 211 and 212 with a sentence of up to 3 years. It has not been enforced and to date no one has been sentenced as a result of these provisions. Criminal code singles out AIDS as an aggravating factor in several articles related to sexual violence and trafficking.

Although the improved attitude of medical personnel towards key populations has been noted, positive change at the community level is less pronounced. Issues with medical personnel observing the right to privacy and confidentiality and high level of stigma and discrimination still persist, especially in districts and rural areas.

Penalization of sex work creates additional barriers in ensuring safer practices and access to services.

Issues of criminalization of drug possession and use pose additional challenges with human rights violations mentioned on the Left Bank.

There are human right violations by law enforcement agencies, which include predominantly punitive practices by law enforcement agents, insufficient use of alternatives to detention, insufficient attention to the medical needs of people (either those who are on OAMT or HIV treatment).

While community-led monitoring mechanisms have been strengthened and are generating data, their systematic linkage and interaction with coordinating institutions on a routine basis remains limited.

Although community members are well represented and included in decision-making multisectoral mechanisms and participate in programme planning processes, they consider that in some cases their voice and causes are not acted upon by high level decision-makers.

¹⁸ Initiativa Pozitiva, Sweden, UN Women. Roadmap of PLHIV de-stigmatization process in the Republic of Moldova. Unpublished draft.

Policy considerations

High priority

- Focus on interventions aiming to reduce stigma and discrimination among medical workers, particularly considering decentralization of services to districts and primary care. Include in the CME a module on medical ethics and stigma reduction.
- Focus on systematic linkage of labour migrants generated data to routinize feedback and establish regular accountability mechanisms.
- Address inequalities in HIV services access and outcomes and close the gaps that exist in specific localities and for certain groups.
- Adjust criminal code by removing art 212 of the Republic of Moldova; amend code on the disclosure of confidential information.

Medium priority

- Adjust the legal framework in line with the policy considerations of international organizations on decriminalization and/or depenalization of drug use for nonmedical purposes and drug possession for personal use, including the quantities for personal use; depenalize sex work.
- Support and effectively resource community-led responses to navigate fulfillment of sustainability and transition, policy and legal environment changes.
- Consider propose change of criteria of efficiency of police work by changing from the number of detentions to referrals of PWID to prophylactic, treatment and care programmes.

8. Epidemic patterns and surveillance (including among key populations)

8.1 The HIV epidemic in the Republic of Moldova

While the absolute numbers are small, the burden of HIV infection in the Republic of Moldova per capita is among the highest in Europe (third highest after the Russian Federation and Ukraine). The epidemic is concentrated in key populations, as an estimated HIV prevalence in the adult general population is 0.6% [0.4 in women and 0.8 in men] but exceeds 5% in some key populations (Table 3). The HIV prevalence in PWID 13.9% (PWID) MSM 11.4% (MSM) and sex workers 2.7% (sex workers) and their sexual partners. There is a variation in the epidemic within the country, in the breakaway Left Bank region (Tiraspol, Transnistria) PWID experience the highest levels of HIV prevalence and transmission among MSM is becoming more important in the area west of the Nistru River (the Right Bank, Chişinău).

Table 3. HIV epidemic among key populations in the Republic of Moldova

Key population	HIV prevalence
PWID	13.9% (2017)
	11.4% (2020)
	8.1% Chişinău ▼ – 14.9% Bălţi ▼ of 23.5% Tiraspol ◀ (2020)
MSM	9.0% (2017)
	11.4% (2020)
	11.6% Chişinău ▲ – 8.55% Bălţi (2020) ▲
Sex workers	3.9% (2017)
	2.7% (2020)
	2.1% Chişinău ▼ of 4.4% Bălţi (2020) ▼
Prisoners	3.8% (2017)

Note: ▲ shows increase in prevalence compared with the previous years; ▼ shows a decrease in prevalence compared with the previous years; ◀ no pattern of either increase or decrease.

Source: integrated bio-behavioural surveillance (IBBS).

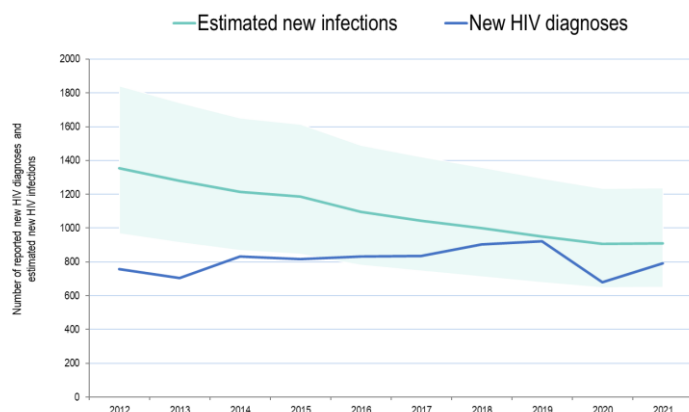
When looking at the last two decades, the estimated highest number of new infections was in 1700 in 2007. The epidemic stabilized in the following decade and is currently on a downward trend, with around 900 new HIV infections estimated in 2021.¹⁹ A sharp drop in new HIV diagnoses in 2020 and 2021 compared with 2019 (27% and 14%, respectively) most likely reflects reduced access to testing services during the COVID-19 pandemic. However, the country reported a year-on-year increase in 2022, 929 people were newly diagnosed in the country, the highest number ever registered.²⁰ When comparing the total number of new diagnoses to the estimated number of new HIV infections over the last decade, overall, fewer people were diagnosed with HIV than had been infected in the

¹⁹ AIDSinfo [website]. Geneva: Joint United Nations Programme on HIV and AIDS; 2023 (<https://aidsinfo.unaids.org/>, accessed 15 January 2024).

²⁰ 2022 data is preliminary and is not included in the figure.

Republic of Moldova, indicating that the number of people living in the country with undiagnosed HIV is most likely not decreasing (Fig. 2).

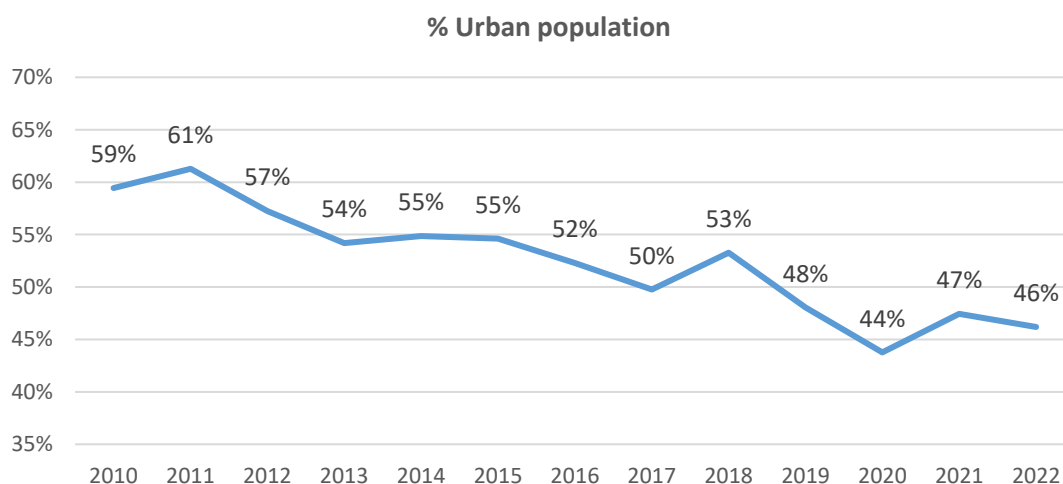
Fig. 2. Estimated new HIV infections and reported new HIV diagnoses in the Republic of Moldova, 2012–2021



Source: SPECTRUM 2022 data; HIV/AIDS Programme Coordination Unit, SDMC.

While in the early 2010s the geographical distribution of newly diagnosed HIV was characterized by a concentration in urban areas, due to a higher concentration of key populations and their sexual partners, there has been a downward trend in recent years, with 46% of people newly diagnosed with HIV lived in cities in 2022 (Fig. 3), which is approaching the pattern observed in the general population; according to the 2014 census, 38% of the population of the Republic of Moldova lives in cities.

Fig. 3. Urban distribution of people newly diagnosed with HIV

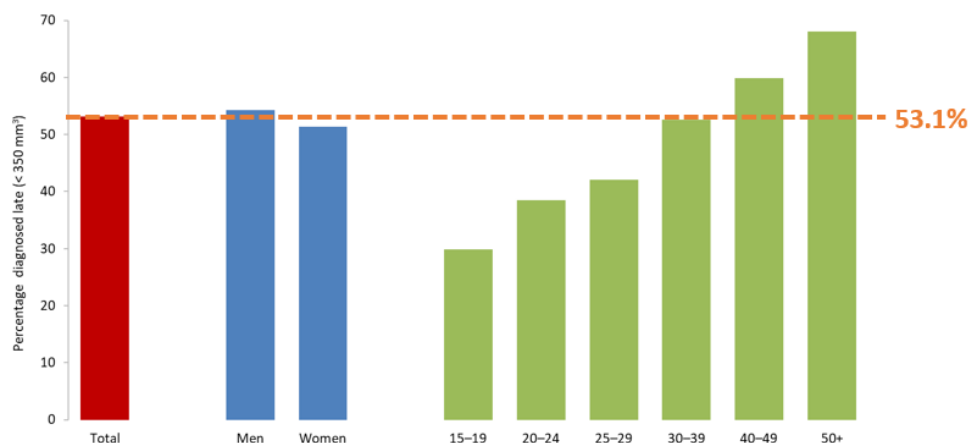


Source: HIV/AIDS Programme Coordination Unit, SDMC.

Information on CD4 cell count at the time of HIV diagnosis was available in 81% of HIV cases newly diagnosed during 2017–2021; 53% of these people were diagnosed late, with CD4 cell counts below 350 per mm³. Percentage of people with HIV diagnosed late increases with age and is highest in people over age 50 (Fig. 4). 32% had advanced HIV infection, CD4 below 200 per mm³ at the time of

diagnosis. Data over the last 5 years indicate the trend of the proportion of late diagnoses slightly increasing in 2021, likely due to the impact of the COVID-19 pandemic.

Fig. 4. The proportion of people diagnosed late (CD4 cell count < 350 per mm³) by gender and age in the Republic of Moldova 2017–2021 (n = 3330)



Source: European Surveillance System (TESSy) data submitted by the National Public Health Agency of the Republic of Moldova.

Sexual transmission is the most common self-reported mode of HIV acquisition. The majority of people who were newly diagnosed with HIV self-reported sexual transmission as the most probable route, ranging from 86 to 92% during 2012–2021. Studies conducted in the WHO European Region found that there is a high possibility of bias in routine surveillance data on modes of transmission in diagnosed patients, with many cases registered as heterosexually acquired actually being people with a history of injecting drug use or MSM, preferring not to report their high-risk behaviours due to stigmatization.²¹ This highlights the importance of assessing the validity of routine surveillance data for modes of transmission, particularly in countries where some behaviours are highly stigmatized.

A special analysis conducted by UNAIDS on the modes of HIV transmission in the EECA, based on a combination of data sources including surveillance, prevalence surveys, other studies and estimation approaches, indicates that 95% of new cases are related to key populations;²² for example, a reported heterosexual mode of transmission may include clients of sex workers and sex partners of other key populations, so there is an evident link to the key populations in this group.

Of the 792 newly diagnosed HIV cases reported in 2021,²³ 15 (1.9%) were children under the age of 15. Of these, 12 were attributed to MTCT. Although antenatal-care coverage and HIV testing coverage among pregnant women are both high (95.7% and 99.6%, respectively in 2021) and ART coverage in pregnant women living with HIV is around 95%, the country still reported 12 cases of MTCT in 2021. A study assessing the barriers to pregnant women's access to preventive services was conducted in 2022. The findings showed that among MTCT cases registered between 2019 and 2021,

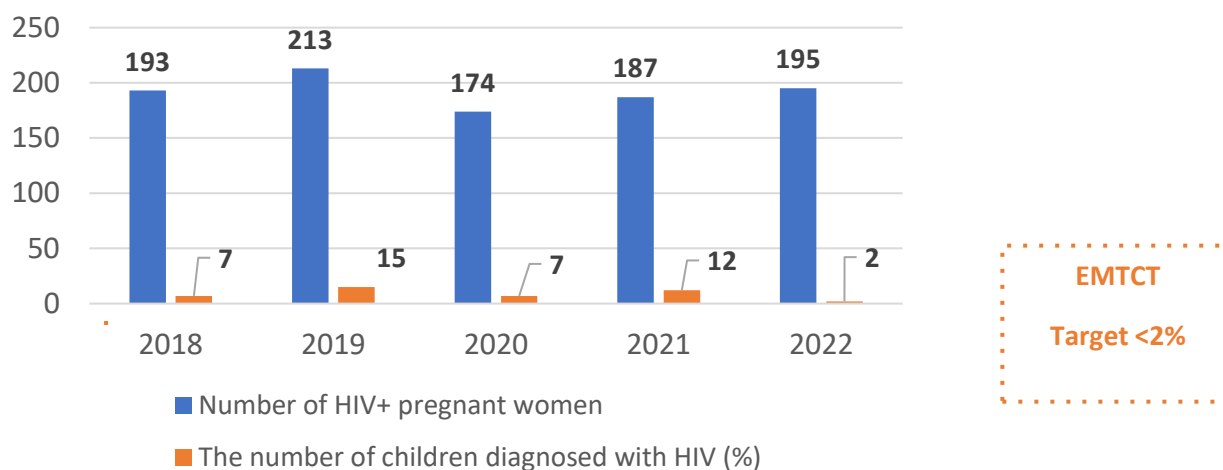
²¹ Dumchev K, Kornilova M, Kulchynska R, Azarskova M, Vitek C. Improved ascertainment of modes of HIV transmission in Ukraine indicates importance of drug injecting and homosexual risk. *BMC Public Health* 2020;20(1):1288. doi: 10.1186/s12889-020-09373-2.

²² Full report: In danger; global AIDS update 2022. Geneva: Joint United Nations Programme on HIV and AIDS; 2023 (<https://www.unaids.org/en/resources/documents/2022/in-danger-global-aids-update>, accessed 15 January 2024).

²³ HIV/AIDS surveillance in Europe: 2022 – 2021 data. Copenhagen: WHO Regional Office for Europe; 2022 (<https://iris.who.int/handle/10665/364829>, accessed 15 January 2024).

27% of HIV-positive pregnant women remained outside of medical care system, and 38% were not tested or tested negative for HIV during the ANC; these two making together 65% of MTCT cases for those 3 years. MTCT rates for the last 5 years are presented in Fig. 5. The data on HIV in TB patients is provided in the relevant chapter below.

Fig. 5. MTCT of HIV rate in non-breastfeeding populations



Source: HIV/AIDS Programme Coordination Unit, SDMC

Behavioural surveillance surveys among key populations

Special surveys among key populations suggest that while injecting drug use still plays a major role for the Left Bank region (Tiraspol, Transnistria), transmission among MSM is becoming more important on the Right Bank.

Selected key population-related indicators from the latest surveys are summarized in Table 4. While the HIV prevalence of HIV is increasing among MSM, the HIV testing and knowledge of the result is lowest among this population, only 47.9% are aware of their HIV status. HIV testing coverage among PWID and sex workers is 49.7% and 63.5%, respectively, also far below the target. ART coverage among key population living with HIV is poorly reported. Data are not available for MSM and sex workers and the coverage with ART is 70.3% among PWID. Only 36.5% of PWID reported receiving a combined set of HIV prevention interventions: 4.4% of opioid-dependent PWID in the country are receiving opioid substitution therapy (OST), which is far below the regional target of 40%.

40.6% of PWID and 59.7% of MSM reported using a condom during the last sexual intercourse, while 95.6% of sex workers used a condom during the last sexual act with a client. One in five MSM and PWID report avoiding health care due to stigma and discrimination. The drug scene profile changes also indicate change towards NPS, which were used during the last month in 42.6% of cases²⁴. The change of narcoscene together with more frequent use of NSPs was reported in an overview of NSP use in the Republic of Moldova in 2019.²⁵ The prevalence of injecting methamphetamines in the

²⁴ Integrated biological-behavioral surveillance survey among female sex workers, people who inject drugs and men who have sex with men in the Republic of Moldova. Chişinău: Dermatology and Communicable Diseases Hospital; 2020 (https://sdmc.md/wp-content/uploads/2020/12/IBBS_REPORT_MD_2020_FINAL_eng.pdf, accessed 15 January 2024).

²⁵ Iatco A. New psychoactive substance use in Moldova and Belarus: results from the Republic of Moldova. Vilnius: Swansea University, Eurasian Harm Reduction Association; 2019 (https://harmreductioneurasia.org/wp-content/uploads/2019/12/Moldova-NPS-Research_ENG.pdf, accessed 15 January 2024).

month preceding the review had notably increased, with prevalence of 36.7% in the Chişinău municipality, 60.2% in the Balti municipality and 31.3% in the Tiraspol municipality.

8.2 Key population size estimation

Key population size estimation (PSE) is carried out in the Republic of Moldova alongside IBBS studies. The latest round estimated 27 500 PWID (2020), 14 600 MSM (2020) and 15 800 sex workers (2020). PSE of MSM constitutes 1.2% of the adult male population of the Republic of Moldova, which is higher than the minimum size of 1% recommended by WHO/UNAIDS;²⁶ however, this is still lower than the average size for the EECA region (2.1%).

Table 4. Selected key population-related indicators, latest IBBS results###

Indicator	Key population	Latest results (2020)	Regional and global targets 2030
HIV prevalence among key populations	PWID	8.1% Chişinău, 14.9% Balti, 23.5% Tiraspol	N/A
	MSM	11.6% (Chişinău), 8.6% (Balti)	N/A
	Sex workers	2.1% (Chişinău), 4.4% (Balti)	N/A
HIV testing among key populations (%)	PWID	49.7	95
	MSM	47.9	95
	Sex workers	63.5	95
ART coverage among key populations living with HIV (%)	PWID	70.3	90
	MSM	No data	90
	Sex workers	No data	90
Condom use among key populations (%)	PWID	40.6	90
	MSM	59.7	90
	Sex workers	95.6	90
Coverage of HIV prevention programmes among key population (%)	PWID	36.5	95
	MSM	63.2	95
	Sex workers	60.7	95
Safe injecting practices among PWID (%)	PWID	94.7	95

26 WHO technical brief on key populations strategic information: Recommended population size estimates of men who have sex with men. Geneva: World Health Organization; 2020 (<https://iris.who.int/handle/10665/337578>, accessed 15 January 2024).

Viral hepatitis among key populations (%) ²⁷	PWID	8.9	N/A
Avoidance of health care among key populations because of stigma and discrimination (%)	PWID	18.8	< 10
	MSM	17.3	< 10
	Sex workers	5.1	< 10
OST coverage (%)	PWID	4.4 ²⁸	40

8.3 HIV care cascade

Of a total of 16 106 people (64% men, 36% women) diagnosed between 1987 and 2021, 33% are known to have died and the rest (10 139) represent 66% of an estimated 15 250 PLHIV. Of those diagnosed, 72% receive ART and 89% of people on therapy achieve viral suppression (Fig. 6). Significantly fewer men are diagnosed compared with women (56% vs. 84% of estimated PLHIV).

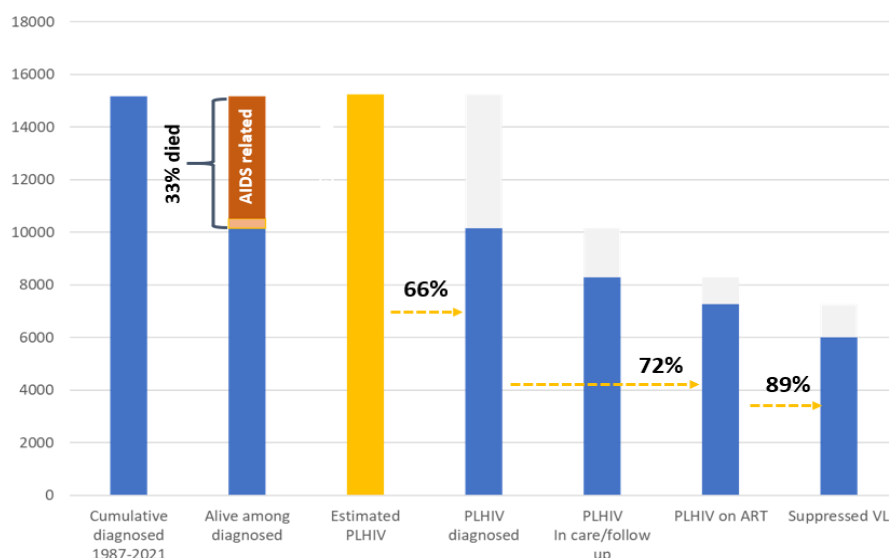
According to the results of the second-generation surveillance, underdiagnosis is also an issue among key populations: only 48% of MSM are aware of their HIV status, 50% among PWID and 62% among sex workers. This highlights the need for further improvement in working with these populations.

There has been an attempt to understand the reasons why 28% of people diagnosed with HIV do not start treatment. A special study was conducted to characterize newly diagnosed individuals in 2019 and 2020 who have not started ART. Of those who were newly diagnosed but not on ART, 40% died and 60% did not seek specialist care at all. The study further characterized the group who did not seek medical care, and showed that these were mainly people diagnosed in the hospital sector, usually over 40 years of age. In many cases, if a person tests positive with a rapid test in a general hospital, a blood sample is sent directly for confirmation without the person reaching specialized care. As a result, many of them may not receive their test result and be unaware of their HIV status, which is an alarming finding.

²⁷ Proportion of people in a key population who tested positive for antibody to hepatitis C virus and also tested positive for HIV among those tested for both.

²⁸ Programmatic data, 2021.

Fig. 6. HIV treatment and care cascade in the Republic of Moldova



Source: SPECTRUM 2022/HIV/AIDS Programme Coordination Unit, SDMC.

National M&E system

The national HIV M&E system in the Republic of Moldova is governed by the Monitoring and evaluation plan of implementation of the national HIV programme for 2022–2025 (Annex 3). The plan contains 49 indicators, nine of which measure the response at the impact level, nine at the outcome level and 31 at the coverage/output level. Impact level targets for 2025 are to maintain newly diagnosed HIV infections below 0.35 per 1000 uninfected population, maintain HIV prevalence in the general population at or below 0.49 and AIDS mortality at 9.1 per 100 000 or less and in addition, to keep HIV prevalence of $\leq 12\%$, $\leq 10\%$, ≤ 2.5 and $\leq 3\%$ among MSM, PWID, sex workers and prisoners, respectively. The remaining two impact level targets are to keep the MTCT rate below 2% and TB-related deaths among PLHIV below 40%. Treatment and care cascade is part of the outcome indicators and is set to 90–90–90 instead of 95–95–95. There is no disaggregation by key populations.

It should be noted that programmatic data are specified as the source for measuring impact indicators related to the burden of disease, with the target of maintaining the indicators below a certain value. However, increased case finding efforts that are required to reach the 'first 95' should lead to an increase in case detection, which should be seen as a positive result. Similarly, a decrease in HIV prevalence can only be due to higher mortality among PLHIV being higher than HIV incidence, which should not necessarily be the case when people with HIV have better access to treatment and live longer.

When it comes to impact level, WHO recommends using indicators on new HIV infections and HIV-related deaths and sources for both indicators should be modelled estimates, rather than the programmatic data.

The Coordination Unit of the National Programme for Prevention and Control of HIV/AIDS and STI within the SDMC, under the auspices of Ministry of Health, collects and aggregates data for the indicators of the M&E plan. There are a few parallel systems operational in the country that serve as a source for routinely collected data.

- Data on HIV prevention services among key populations are captured in the electronic database (through 1C software), using personal anonymous magnetic cards, managed by NGOs and community level organizations.

- Excel-based clinical database capturing all PLHIV diagnosed through the programme.
- Excel-based database capturing new HIV diagnoses, by sex, age, reported modes of transmission and other characteristics, managed by National Public Health Agency.
- Web-based registry of HIV testing, managed by the SDMC (under pilot).

Data in Excel-based registries are entered from the paper-based forms and data aggregation is performed manually, which is prone to errors. An electronic database on HIV/AIDS, including clinical and surveillance data, is currently in the early stages of development.

Additionally, to the routinely collected data, there are a number of special studies coordinated by the SDMC that generate strategic information about HIV:

IBBS among sex workers, MSM and PWID is conducted on a regular basis

Additional implementation research studies looking at the various programmatic issues are also conducted regularly and the results are available

Annual estimation of HIV epidemic (using SPECTRUM tool with the support of UNAIDS), including the subnational estimation of HIV epidemic (by right and Left Banks)

Policy considerations

High priority

- Develop an electronic database on HIV/AIDS, including clinical and surveillance data and link to an existing electronic system used by NGOs to share data on linkage to care for key populations.
- Have one database for both entities (the SDMC and the National Public Health Agency) to get rid of extra recording and reporting.
- Align the M&E plan of the national programme with the Regional Action Plan for HIV, viral hepatitis and STIs (midterm review and post 2025). Targets for the 'burden of disease' indicators should be revisited to project an increase in case detection efforts. Alternatively, an 'HIV incidence' (estimation) indicator can be chosen, for which a decrease of target values could be projected. Move to 95–95–95.
- Increasingly use data from both routine and non-routine sources to tailor programmes and interventions at subnational levels and for highest priority.
- Routine programmatic data, as well as data from special studies, indicate that men in the country are significantly underdiagnosed. Bio-behavioural studies show an increase in HIV prevalence among MSM, while preventive services appear to be poorly reaching them, 48% are aware of their HIV status and 60% report using a condom during their last sexual intercourse. HIV testing coverage among PWID is also low and only 41% used condoms during the last sexual intercourse and 37% received a combined set of HIV prevention interventions. One in five from both key populations avoid health care due to stigma and discrimination. Efforts to reach this population need to be stepped up to improve HIV underdiagnosis in the country.
- Conduct a study on the misclassification of modes of transmission (for routine data).
- Revise the HIV case notification and epidemiological analysis forms to improve the quality of data on high-risk behaviours and transmission routes.

9. Prevention services for key populations and other groups

9.1 Prevention programme design

The goal of the NPPC includes the key populations and their partners as the main sources of the continuous HIV epidemic. One of the strategic areas of reduction of new HIV transmissions was the intensified prevention activities in key populations. The list of key populations includes services and activities for PWID, MSM, female sex workers (female sex workers), transgenders and prisoners.

Provision of preventive services for key populations was based on the legislation on "Quality standards for HIV prevention services for target populations" approved by Order No. 996 of 23 December 2015, which stipulates basic principles for HIV prevention, in order to reduce the spread of HIV among key populations and offer minimum quality standards for organizing HIV prevention services among key populations. Standards consisted of four main areas: (i) distribution of consumables and other materials; (ii) health-related services; (iii) psychosocial and legal support; and (iv) gender-sensitive services. Standards also included service implementation methods and deontological principles to be applied while working with key populations. The document describes input, process and output criteria to define standards for the services provided to key populations.

In 2019 this document was revised and a number of innovations were introduced; in particular: (i) a detailed description of all preventive services, as well as new approaches to the provision of services for representatives of all key populations; (ii) all HIV prevention services provided to people at risk were divided into basic (mandatory) and additional (if necessary, depending on the needs of the beneficiary); (iii) requirements for providing HIV prevention services to non-injecting drug users; (iii) requirements for the provision of HIV prevention services to transgender people; (iv) requirements for the provision of HIV prevention services for young people at risk; (v) quality indicators for HIV prevention services were developed; and (vi) criteria for validating preventive services for people at risk. In addition, Order No. 278 of 18 March 2020 approved the "Standard for the organization and functioning of HIV prevention services among populations at risk, including young people at risk".

The ational clinical protocol "Disorders associated with use of new substances with psychoactive and stimulant properties in adults and adolescents" was approved by the Ministry of Health through Order No. 314 on 31 March 2022.

9.2 Implementation of prevention programmes for key populations

Services for PWID and their partners, as well as for people in prisons who inject drugs are provided by ten NGOs and the Department of Penitentiary Institutions at 29 geographical sites (Table 5). One mobile unit and three pharmacies were also included in the service provision network. Syringe and condom distribution programmes through pharmacies were an attractive option due to several reasons: most communities had pharmacies accessible to key populations and the work schedule of pharmacies allows the representatives of key population to get access to the necessary preventive materials almost around the clock. Unfortunately, in 2021, pharmacy owners requested conditions unacceptable to programme implementers.²⁹ As a result, pharmacies then stopped providing commodities to key populations. Alternative solutions have been considered and there is a plan to install 28 vending machines for the distribution of commodities for key populations.

29 Республика Молдова: Оценка устойчивости ответа на ВИЧ среди ключевых групп населения в контексте перехода от поддержки Глобального фонда на государственное финансирование [Republic of Moldova: assessing the persistence HIV response among key populations in the context of the transition from Global Fund support to public funding]. Vilnius: Eurasian Harm Reduction Association; 2021 (in Russian; <https://harmreductioneurasia.org/wp-content/uploads/2022/01/TMT-Report-Moldova-EHRA-2021-RUS.pdf>, accessed 15 January 2024).

HIV prevention interventions for MSM are provided by eight NGOs in three cities. Services for sex workers were provided by thirteen NGOs in 12 sites. Prevention interventions are delivered in stationary service delivery points, by outreach workers, mobile units and through online outreach. More innovative approaches were also considered, with the use of mobile applications and referrals to the services.

Table 5. NGOs providing services for key populations in territories and penitentiary system

Key population	NGOs	Territory/region	Penitentiary system
PWIDs	10	North, East, Centre and Transnistria	18 facilities
sex workers	13		no
MSM	8		yes
OAT(methadone and buprenorphine)	3 NGOs (psychological support)	Except Left Bank of river Nistru	13 facilities

Source: Programme Implementation Unit at SDMC, 2023.

The coverage of prevention services varies for key populations: programmatic data reported higher coverage rates for PWID (> 60%), coverage of sex workers has been 47.9%, while for MSM 28.3% in 2022 (preliminary data). Compared with 2021, the coverage of services has seen a relative increase due to changes in the denominator due to a decrease of the estimated size of the population in 2021 (Table 6). In 2019 the coverage for all key populations was (< 50%) and MSM coverage was 25.6%, sex workers 34.4%. The COVID-19 pandemic has made an impact on coverage for those key populations, by decreasing it to 22.1% and 22.2%, respectively in 2020. The data for 2021 and 2022 should be interpreted in the context of the following: (i) the implementation of the Electronic Register for M&E of beneficiaries in 2019, (change of denominator); and (ii) the validation of beneficiaries reached by HIV prevention programmes, according to new validation criteria, approved and applied in 2019. Service delivery has also included the Left Bank of the Nistry River.³⁰

9.3 Availability of services for people in prisons

The current National Drug Control Strategy 2020–2027 and the National Drug Control Action Plan 2020–2021 included plans for organizing activities to reduce drug use and the risks associated with drug use in prisons and provide harm reduction services in prisons. The National Administration of Penitentiary Institutions implements measures to prevent and reduce the smuggling of drugs into places of detention, as well as providing preventive services, rehabilitation programmes (therapeutic communities), treatment, harm reduction and the provision of support and assistance to prisoners who have addiction disorders. The Ministry of Justice is also responsible for training the staff of the National Administration of Penitentiary Institutions for the measures and activities mentioned above in relation to drugs and drug use. At present, psychosocial programmes, information interventions and individual consultations are being carried out in penitentiary institutions in order to reduce the risks related to drug use and addiction. The OAMT is part of the package of services (see the relevant section).

Since June 2018 Penitentiary No. 9 has been running a therapeutic community service for individuals with drug addiction. At the end of 2018, there were 11 residents in the community. During 2018,

³⁰ Moldova has an autonomous territorial unit, officially known as the Administrative-Territorial Units of the Left Bank of the Dniester, and often otherwise referred to as Transnistria. Throughout this report, the term Left Bank is used to refer to this region; Right Bank refers to the rest of the Republic of Moldova.

1990 prisoners received risk reduction services at 33 syringe exchange points in 13 penitentiary institutions of the country.³¹

Achievements

There is a progressive environment and commitment of stakeholders to prioritize key populations. Historically a large number of governmental organizations have developed networks of service delivery sites. There has been progress in service integration and collaboration between public and community platforms. Examples include interaction between public social centres and NGOs (Renasterea and PLHIV League in Chişinău, Equity and Health and Social Centre in Balti), penitentiary institutions and NGOs (e.g. the prison in Chişinău and the NGO *Initiativa Pozitiva*); youth clinics and NGOs providing services to key populations (example of ATIS, Balti). Discussions are taking place to integrate services for TB for key populations also include HIV services and vice versa.

A wide range of innovations in service delivery has been introduced: including sites (pharmacies), through mobile units and online outreach, vending machines for the provision of commodities, web outreach to provide information and improve access to integrated services.

In 2018 a single online database registration and recording of prevention services unique identifier code and individual magnetic beneficiary cards for all key populations were introduced. Since 2019 all NGOs working in the field of HIV prevention have switched to registering the provided services in the online database. This has allowed to simplify the recording and registration of service recipients and particularly: (i) eliminate duplication of recipients of services in different NGOs; (ii) provide an opportunity of continuous monitoring and analysis of the services provided, including services provided through pharmacies; and (iv) validate and report data in a shorter time.

Challenges

The increase in coverage in absolute numbers has been modest, geographically uneven and insufficient for MSM where HIV transmission is ongoing. Based on the NSP targets, coverage has been achieved for PWID and is very close to planned target for sex workers (Table 6). The targets were not met for the MSM (29% versus 35%), although HIV transmission is one of the most intensive. Reasons invoked is the challenge to reach hidden populations of MSM to do not self-identify as gay men, as well as an unattractive service package. Service providers showed modest success in accessing new and hidden populations, such as adolescents, women PWID, MSM and their sexual partners.

Table 6. coverage in key populations: 2019–2022

Key population	PSE 2019,	PSE 2021	2019		2020		2021		2022 ^a	
			Result	Target	Result	Target	result	target	result	target
PWID	36 900	27 500	42.3%		44.2%		59%	55%	60.2%	60%
sex workers	21 300	15 800	34.4%		22.1%		48.4%	45%	47.9%	50%
MSM	17 100	14 600	25.6%		22.2%		29.2%	30%	28.3%	35%

Source: programmatic data 2019–2022; preliminary results.

³¹ Kuretschuk E, Doltu S et.al. Assessment of the impact of drug policy on public health and the HIV epidemic in the Republic of Moldova. Report, 2022.

Different components of the service package are implemented with varied success: the distribution of consumables and materials, psychosocial and legal support is provided with ease, while implementation of health-related and gender-oriented services was limited as it depends on the historical provision of services and available funding from other sources. More components of the defined package are implemented in large cities, particularly where the service delivery point is close to a health care facility, i.e. proximity to the youth clinic in Balti.

Due to the changing drug scene, traditional harm reduction approaches may not be suitable for new psychoactive substance users, including young key populations. While currently there is research ongoing to better understand the risks in the users of new substances including of increased sexual transmission as a result of drug use, these groups are left out of coverage of the current programmes that are rigid in their validation criteria. Current programme validation criteria are not flexible enough to include non-injecting users and other clients based on the changing needs. With the expansion of online outreach, defining these services and validation criteria will need to follow.

From 2018 the provider payment mechanism has switched from a global budget in the form of grants to pay-for-result, the only change being achievement of coverage targets. This mechanism incentivizes achieving coverage at all costs but can also have side-effects of focus on quantity and no incentives for quality and comprehensiveness of services. Additionally, the outcome-based provider payment mechanism is also combined with complex validation and reporting process. This brings additional burden and creates tensions between NGO service providers and the validators. Further refinements in design of payment mechanisms to mitigate the arising issues are needed.

Despite the overlap of populations, provision of TB and HIV services by NGOs is contracted separately. NGOs representatives have flagged this as a missed opportunity for further integration of TB and HIV services to key populations.

Based on the discussions with the representatives of community-based organizations, outreach and social workers are also seeing a change in the sociodemographic profile of those who are now diagnosed with HIV, as their profile that does not match the profile of key populations reached by the programmes. It was noted that around 50% of identified new HIV diagnoses are from rural areas, with low levels of education, socially vulnerable and showing multiple risk factors, including mental health issues and alcohol abuse. This needs further investigation, to better understand the risk factors and linkage to key population programmes.

Elimination of vertical transmission of HIV

To externally assess progress towards the elimination of mother to child transmission (EMTCT), an assessment of barriers for pregnant women to access the PMTCT services in the Republic of Moldova for 2019–2021 was performed at the request of the national HIV coordination. In particular, the technical assistance aimed to assess the components of the national HIV programme, HIV surveillance system, M&E system (M&E) and data quality relevant for understanding the progress towards EMTCT of HIV in the Republic of Moldova. The preliminary report, which also includes the policy considerations, has been available since during the time of the mission, therefore this component is not included in the programme review.³²

Policy considerations

High priority

- Due to documented continued HIV transmission, prioritize strengthening MSM programme:

³² Kowalska J. Technical assistance to conduct an assessment of barriers for pregnant women to access the PMTCT in the Republic of Moldova for 2019–2021. 20 October – 19 January 2022, preliminary report.

- expand reach, including geographical and into more hidden populations;
- expand the service package, including improved attractiveness and quality.
- Ensure continuation of provision of services for PWID and reach non-injecting users, while adjusting validation criteria to allow coverage of users of new drugs, where transmission risks have been confirmed.
- Adjust payment mechanisms to increase focus on quality, reduce incentives to focus only on coverage and incentivize performance. Combination payment methods could include:
 - capitation + per service;
 - capitation + pay-for-results (reaching high testing coverage among those covered with prevention; new HIV detection).
- Further seek integration of TB and HIV services for key and vulnerable populations.

Medium priority

- Continue documentation of risks and evidence of higher HIV prevalence in the newly emerging subpopulations.
- Collect additional evidence of changing profile of newly diagnosed HIV, not belonging to the traditional risk populations, tailor geographical reach where pockets of transmission are documented.

10. PrEP

The provision of PrEP in the Republic of Moldova started in 2018 following the approval of the national clinical protocol on HIV PrEP by the order of the Ministry of Health no 313 of 07.02 2018. PrEP services were delivered by the state health institution – HIV department at the SDMC and the medicines for PrEP were initially purchased from Global Fund funds (later transitioned to domestic funding) while clinical tests and doctor's consultations were covered by the national health system from the very beginning.

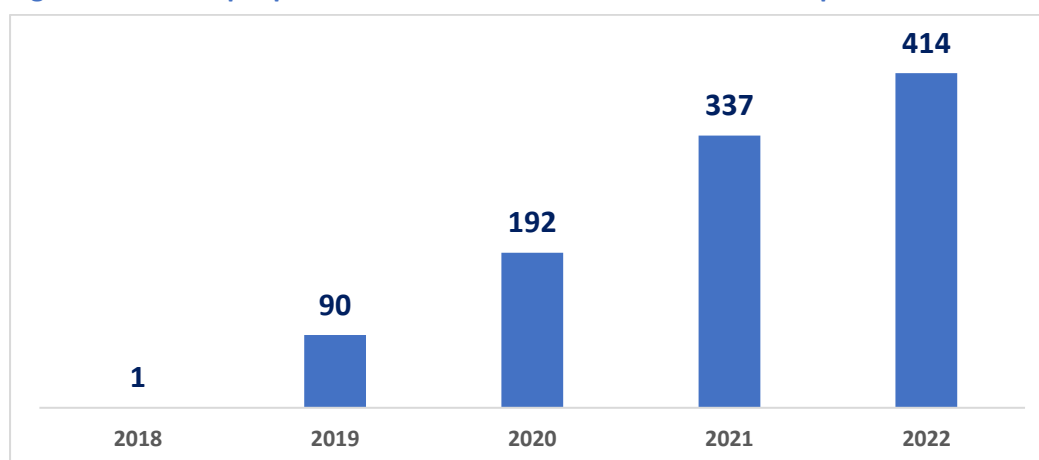
Although institutionalization of PrEP by the national HIV programme was a unique example for the EECA countries, a fully medicalized facility-based model of PrEP delivery was not popular among potential clients. First, it was implemented through the same facilities that were providing ARV treatment to PLHIV. Second, the initial programme was lacking the awareness-raising and demand creation components. As a result, the enrollment into the project was extremely low: by the end of 2018, there was only one PrEP user.

Two projects – one implemented by *Initiativa Pozitiva* funded through the regional Global Fund project "Sustainability of services for KAP in EECA region" (the SoS project) and second implemented by the NGO *GenderDocM* funded by UNAIDS Increased awareness about PrEP programme, conducted training of medical personnel and community representatives and actively involving communities into the recruitment and counselling of PrEP users. As a result of their implementation, a mixed model of PrEP delivery with the active participation of the communities has been working in the Republic of Moldova since 2019 and the number of clients has been increasing annually (Fig. 7). During COVID-19 pandemic, a medical doctor from SDMC carried out consultations and prescribed PrEP remotely, while *GenderDocM* introduced PrEP deliveries to clients.

Based on the data from 2021, most PrEP users belong to two key population groups: MSM of 73.6% (2020–71.4%) and sex workers of 11.6% (2020–7.3%).

The current national clinical protocol „*Profilaxia Pre-expunere la infecția HIV*” was approved in 2022 and mostly aligned with WHO guidance, including eligibility criteria and indications for PrEP (request of PrEP by anyone who believes they are at risk of HIV, pregnant and breastfeeding women, etc). However, this protocol was approved before the WHO 2022 technical brief on PrEP was published and several most recent WHO recommendations such as simplified laboratory requirements for monitoring, were not considered.

Fig. 7. Number of people who received PrEP at least once in the Republic of Moldova in 2018–2022



Source: Programmatic data, SDMC.

Although a positive trend in PrEP provision in the Republic of Moldova is evident, coverage is still insufficient to make an impact at a public health level. PrEP programmes do not reach all potential clients who could benefit from them, particularly in the regions. NGOs working with key populations in the Republic of Moldova indicated that a requirement to provide passport data to receive PrEP reduces the acceptability of PrEP services among their clients. They also named insufficient awareness and widespread misconceptions about PrEP among target populations, as well as still low knowledge of PrEP among health-care providers as additional barriers to enrollment/retention/continuation of PrEP.

The mission has also observed that HIV testing services are not being actively used for spreading information on PrEP and the active recruitment of new users. It was also reported that there were allegedly 10 new HIV cases among PrEP users with unclear reason which requires additional investigation and open communication to involved communities and health-care workers.

Key achievements

- The national clinical protocol on PrEP approved in 2022 is mostly aligned with WHO guidance, including target populations and indications for PrEP (pregnant and breastfeeding women, availability of PrEP at the request of the person, etc).
- A mixed (community-facility-based) PrEP model is being implemented, mostly through GenderDocM.

Key challenges

- Requirement to provide passport data to receive PrEP reduces the acceptability of PrEP services among key populations.
- Low coverage with PrEP, particularly in regions.
- PrEP service delivery is still partially medicalized/institutionalized, which creates additional barriers in an already stigmatized environment.
- Simplified laboratory requirements for monitoring are currently not implemented.
- Insufficient awareness and misconceptions of PrEP among target populations, low knowledge of PrEP among some providers, which affects retention/continuation in PrEP.
- Reported 10 new HIV cases among PrEP users with unclear reasons for transmission.

Policy considerations

- Differentiated and simplified pre-exposure prophylaxis for HIV prevention: update to WHO implementation guidance: technical brief. Geneva: World Health Organization; 2022 (<https://iris.who.int/handle/10665/360861>, accessed 15 January 2024).¹
- Lift the requirement to provide passport data in order to receive PrEP.
- Actively use HIV testing services for spreading information on PrEP and active recruitment of new users.
- Consider delivery through online platforms.
- Improve PrEP awareness and create demand among target populations, including web outreach interventions.
- Improve awareness and knowledge of PrEP among health-care providers.
- Expand the role of NGOs in facilitating and monitoring adherence to PrEP.
- Investigate/clear cases of HIV transmission among PrEP clients.

11. HIV testing policy and service delivery

Context

The National HIV Testing Strategy, as well as the provision of universal access to HIV testing services is part of the national HIV/AIDS response and reflected in the HIV national strategy. Given the relatively low rate of new HIV infections in the general population, HIV investments are primarily targeted to key populations, PWID, sex workers and MSM. In the Republic of Moldova there are about 400 HIV testing sites in the country, including 12 state laboratories, 17 medical facilities of the penitentiary sector and 14 NGOs and a decentralized model for the provision of HIV testing services. NGO-based nonmedical personnel who have undergone training in the laboratory at the Dermatology and Communicable Diseases Hospital can also conduct rapid diagnostic test (RDT)-based testing in NGOs.

About 235 000–260 000 HIV tests are performed annually in the country. The role of NGOs in providing HIV testing services is growing every year and community testing comprises 7% in 2019 to 10% in 2022 in the overall testing structure (Table 7). Since 2015, combined HIV, syphilis and hepatitis C virus (HCV) tests have been available through NGOs and in health facilities. Since 2016, the Republic of Moldova has introduced self-testing. Self-tests are available free of charge in a pharmacy network. The volume of self-tests distributed has increased from 5000 in 2019 to 11 750 in 2022.

Since 2007, mandatory HIV testing of people in the penitentiary sector in the Republic of Moldova was suspended. Since 2013, voluntary testing and counselling (through rapid HIV tests) has been offered to all new prisoners through NGOs. The coverage with HIV testing has increased from 22.9% in 2017 to 67.2% in 2019, 64.8% in 2020, 62% in 2021³³.

Table 7. Number of HIV tests and new cases of HIV infection detected in 2016–2022 in the Republic of Moldova

Indicators	2016	2017	2018	2019	2020	2021	2022
Number of HIV tests performed (health facilities and NGOs)	258 016	250 788	240 847	267 923	259 595	223 124	307 995
Number of newly diagnosed HIV	832	835	905	922	674	797	929
Number of HIV tests conducted by NGOs				18 348	21 471	31 849	30 953
Number of HIV cases detected by NGOs				92	73	149	104
HIV testing yield of community-based testing				0.50%	0.34%	0.47%	0.34%
Self-tests distributed				5000	5600	10 300	11 750

Source: Data provided by the Dermatology and Communicable Diseases Hospital for GAM reporting.

National Guidelines for the Laboratory Diagnosis of HIV Infection were approved by the Order of the Ministry of Health, Labour and Social Protection No. 409 dated 16 March 2018 and have not been revised since then. The main method of screening for HIV in adults and children over 18 months of

³³ Monitoring the control of HIV infection in the Republic of Moldova, 2021. Chişinău: Ministry of Health; 2022.

age, both in health-care facilities and in NGOs, according to this guideline, is HIV testing using capillary blood-based RDT only. Additionally, HIV screening methods differ depending on the location of laboratories/medical organizations in the territory of the Republic of Moldova (on the Left Bank laboratories use the enzyme-linked immunosorbent assay (ELISA) method (2 laboratories) and not RDTs). The primary screening method is a dual HIV/syphilis rapid test, as recommended by WHO.

Provider-initiated testing (PIT) is offered to patients with TB, when clinically indicated; pregnant women attending ANC. Testing of all pregnant women is provided at registration and in some cases, again with the first negative test results in the third trimester of pregnancy if the woman has an increased risk of infection: serodiscordant couples, pregnant women from key groups (PWID, sex workers), other women who had an increased risk of infection during pregnancy.

The country also performs testing of HIV- exposed children under 18 months of age for the purpose of early detection of HIV infection. The main method of diagnosing exposed infants with HIV is a polymerase chain reaction (PCR) test, as recommended by WHO. The first test is recommended to be carried out in the first 48 hours and the second test is carried out two weeks after the end of prophylactic ART, i.e. at six weeks. Additionally, the third testing of children under 18 months is not recommended since breastfeeding is not recommended.

Funding for the purchase of tests for HIV testing is provided by the state budget (Right Bank) and from the Global Fund grant (Left Bank). All tests are centrally stocked at the Dermatology and Communicable Diseases Hospital. After the Dermatology and Communicable Diseases Hospital performs an acceptance assessment of the characteristics of each new lot of tests before they are put into practice (to confirm that the conditions of transportation and/or storage did not affect the performance of a particular medical device, the use of a medical device satisfies the requirements for ensuring its operational characteristics), tests are distributed to medical institutions and NGOs.

In-laboratory quality control (ILC) and EQA programmes are being implemented in the country to ensure the quality of HIV testing.

12 laboratories in 35 regions of the country and one medical facility of the penitentiary system (Colony 16) confirm of HIV-positive status. The algorithm for confirming HIV infection is provided for by Order No. 409 and includes testing the second blood sample of the patient and two additional tests – a rapid HIV test and a molecular genetic test based on the quantitative determination of HIV RNA. The time to receive the final HIV test result can be limited to the day of the client's visit to the health facility, which can significantly reduce the time to detect new HIV infections and ensure rapid treatment initiation.

In the Republic of Moldova, 12 laboratories carry out laboratory monitoring of HIV infection and the effectiveness of ART. For these purposes, laboratories are equipped with the necessary equipment and reagents.

In 2022, 6271 CD4 cell count tests were carried out for 9194 PLHIV that were in medical care in 2022, including for 836 among PLHIV taken into medical care that year. In 57.3% of tests performed among newly diagnosed PLHIV, the level of CD4 cell count was below 350 cells / μ l, which indicates late detection of HIV infection.

The average coverage of HIV-1 VL testing in 2022 for PLHIV who receive treatment was about 87% (6833 tests out of 7857 PLHIV on ART). Viral suppression (the number of HIV RNA copies fewer than 1000 / mL of plasma) was observed in 89% of PLHIV and virological treatment failure was observed in 11% of patients who receive treatment.

Achievements

The Republic of Moldova provides wide access to HIV testing services. The country has a wide network of HIV testing sites, health-facility, community-based and self-tests are available free of charge from pharmacies.³⁴ Community-based testing has increased as a proportion; testing with rapid tests can be carried out by nonmedical personnel who have undergone special training. HIV screening for key populations is provided in all/most health facilities and NGOs

The country has implemented a HIV testing strategy, allowing for same day diagnosis and treatment initiation. Such an approach is an example of best practice in the EECA region. The primary screening test at the PHC and NGO levels is a dual HIV/syphilis test – a much welcome development and best practice in the region.

Currently HIV tests are procured centrally through national procurement regulations. Tests are WHO prequalified and the SDMC laboratory ensures checks before their distribution to health facilities. This is a best practice, in line with WHO recommendations.³⁵ and allows for quality control of tests for the diagnosis and laboratory support of HIV infection. The country provides access to testing for HIV-1 and CD4, VL, including for PLHIV who have not previously received ART (before starting ART) and for patients on ART. For this, a sufficient number of equipped laboratories operate in the country.

In the country, a lot of attention is paid to building a quality management system in the network of medical laboratories, which is confirmed by the accreditation of the laboratory of the Dermatology and Communicable Diseases Hospital for compliance with the requirements of EN ISO 15189:2012 "Medical laboratories – Requirements for quality and competence".

Challenges

Despite the national testing strategy being mostly aligned to WHO recommendations, its implementation has still not led to significant progress in reducing the gap of undiagnosed people.

Although the laboratory at the SDMC is providing the coordination, oversight and performs functions of quality management and quality control and has largely contributed to the positive developments and uptake of many of the WHO recommendations, the Republic of Moldova does not have a formally designated national HIV reference laboratory authorized to carry out the main tasks:

- development of a policy and strategy for HIV testing organizational and methodological support for a network of HIV laboratories, development of documentation on the HIV testing algorithm, SOPs, instructions, etc;
- counselling and training of specialists of laboratories/medical institutions/NGOs on HIV testing;
- introduction and approbation of new laboratory tests;
- ensuring internal and external quality control;
- validation of new test methods and equipment;
- conducting benchmarking; and
- evaluative analysis, needs assessment, monitoring and maintenance of test kits and laboratory equipment of laboratories involved in HIV research.

³⁴ The mission members were not able to see self-tests available in the network pharmacy, there seemed to be a stock out.

³⁵ Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach, 2021 update. Geneva: World Health Organization; 2021:419 (<https://iris.who.int/handle/10665/342899>, accessed 15 January 2024).

The lack of an HIV NRL creates certain barriers to the organization and provision in the country of services for the diagnosis and laboratory support of PLHIV of guaranteed quality, approbation and implementation of new testing methods and ensuring the quality of HIV testing services in the country.

The current HIV testing algorithm in the country is not standardized, unified and verified. This may create risks of cross-reactivity of tests procured for the diagnostic algorithm.

Currently, the use of molecular genetic test for VL HIV-1 as a confirmatory testing does not comply with WHO recommendations, as it does not have a diagnostic purpose.³⁶

Despite a welcome use of dual tests (HIV and syphilis) for screening tests as a best practice for integrated services and creating strong grounds for seeking high coverage for the HIV syphilis and HBV EMTCT, their use is not fully regulated, which creates challenges in the follow-up and requires an unified approach supported by both HIV and STI professionals.

Some laboratories do not use their available resources efficiently – they use more tests than the national testing algorithm provides (a third rapid test is used, a parallel rather than sequential testing method, the HIV-1 VL test is performed even if the second line test result is negative).

Access to EQA programmes (INSTAND, Germany – serology of HIV, syphilis, VL HIV-1, CD4 cell count; US Centers for Disease Control and Prevention, Atlanta – serology of syphilis) is limited by the participation of a single laboratory (the Dermatology and Communicable Diseases Hospital) and requires significant expansion through participation in international/national programmes of all laboratories and all providers of HIV testing services in accordance with WHO recommendations.³⁶

The country has limited access to training of medical and nonmedical specialists in the provision of HIV testing services (since 2018, training has been conducted not more than once a year), which may also be partly due to the lack of NRL, one of the tasks of which is to organize such training.

Laboratories in the country are equipped with CD4 cell counting equipment: the BD FACSCount™ Cell Analyser, its options, upgrades and spare parts, which were discontinued at the end of 2018. BD FACSCount™ reagents, although currently available, may be discontinued in the near future. An EQA programme for CD4 count and HIV-1 VL also is only available for participation by a single laboratory (the Dermatology and Communicable Diseases Hospital) in the country.

Due to the lack of access to testing for HIV resistance to ARV drugs, it is not possible to assess the effectiveness of ART programmes in the Republic of Moldova in case of virological failure.

Policy considerations

High priority

- Consider conducting a study with a comprehensive assessment of the causes of late HIV diagnosis, establishing missed opportunities for screening and/or early diagnosis of HIV at different levels of the health-care system based on clinical indications, forming a "socio-epidemiological portrait" of risk groups for late detection of HIV in a specific context (gender, age, possible time and route of transmission, social status, , etc.), with the development of policy considerations for national HIV programmes.

³⁶ Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach, 2021 update. Geneva: World Health Organization; 2021: chapters 2.2, 2.7 (<https://iris.who.int/handle/10665/342899>, accessed 15 January 2024).

- Designate a national reference laboratory, approve its status, position, functions, corresponding to the tasks of the National Reference Laboratory (NRL) on HIV/AIDS; develop and implement a plan to develop its capacity.
- Conduct an HIV testing algorithm verification study to select the optimal list of tests for screening and confirmation of HIV-positive status, standardize the HIV testing algorithm throughout the country.
- Based on findings of verification, consider revising the current testing algorithm to ensure confirmatory tests chosen for use are compliant with WHO recommendations and manufacturer's instructions. Consider maintaining HIV-1 viral load (VL) test as the baseline test at the treatment initiation. In meantime, collect and analyse all relevant information related to the country's experience of off-label use of the Xpert HIV-1 VL assay as a diagnostic test to confirm the presence of HIV infection, with possible involvement of the manufacturer.
- Approve the procedure for testing for HIV/syphilis using dual tests in the HIV and STIs clinical protocols.
- For children who were never breastfed, consider inclusion of additional testing following a negative NAT at 4–6 weeks to account for potential false-negative NAT results, in line with WHO recommendations.
- Optimize the use of available resources for the diagnosis of HIV infection:
 - develop a methodology for calculating the need for medical goods for laboratory testing in the field of HIV;
 - monitor the efficient use of resources, since procurement and inventory are the most important and necessary components of the quality management system; proper organization of purchases and inventory can reduce costs by ensuring that reagents and consumables are available when they are needed. The policy considerations provided in the Handbook "Quality Management System in Laboratories"³ can be useful for countries to develop their own procedures for organizing procurement and managing stocks;
 - training of laboratory personnel in the procedure for testing for HIV in accordance with the national testing algorithm.
- Develop and implement a national EQA HIV testing programme with the mandatory participation of all HIV testing laboratories/sites in it.
- Implement in-laboratory control programmes in all laboratories/testing sites for HIV.
- Develop and implement a unified system for recording and reporting all cases of HIV testing, regardless of the form of ownership of the medical institution/NGO.
- Introduce HIV resistance testing to monitor (with WHO support):
 - transmission of ARV- resistant HIV variants to patients prior to initiation of ART (including newly identified patients with treatment experience who have not taken ARVs for more than 90 days);
 - HIV resistance to ARV drugs in patients with ineffective therapy (patients with a VL HIV-1 more than 1000 copies / mL); and
 - transmission of ARV-resistant HIV variants during vertical transmission of HIV from mother to child.
- Start surveillance on the emergence of resistant HIV variants to ARVs, to evaluate the effectiveness of ART programmes in the country. A patient-centred approach involves not only testing for HIV resistance to ARVs, but also assessing treatment adherence of PLHIV in virologically ineffective HIV treatment, focusing on the complex clinical, behavioural, social and structural needs of affected patients and communities.
- Work in this direction should be carried out with the support of WHO and guided by a national working group established under the Ministry of Health with the participation of

laboratory specialists, infectious disease doctors for adults and children, representatives of the Ministry of Health and international organizations.

Medium priority

- For capacity-building of HIV testing providers and health care specialists consider the possibility of developing an online course on the provision of HIV testing services and ensure wide access to such training and certification.
- Assess the country's need for replacement equipment for CD4 cell count, taking into account the need of PLHIV for such tests (use should be primarily at the time of diagnosis for determining advanced disease and then until established on ART), the expected workload on laboratories, the logistics of blood samples for testing; based on this exercise, replace equipment where feasible.

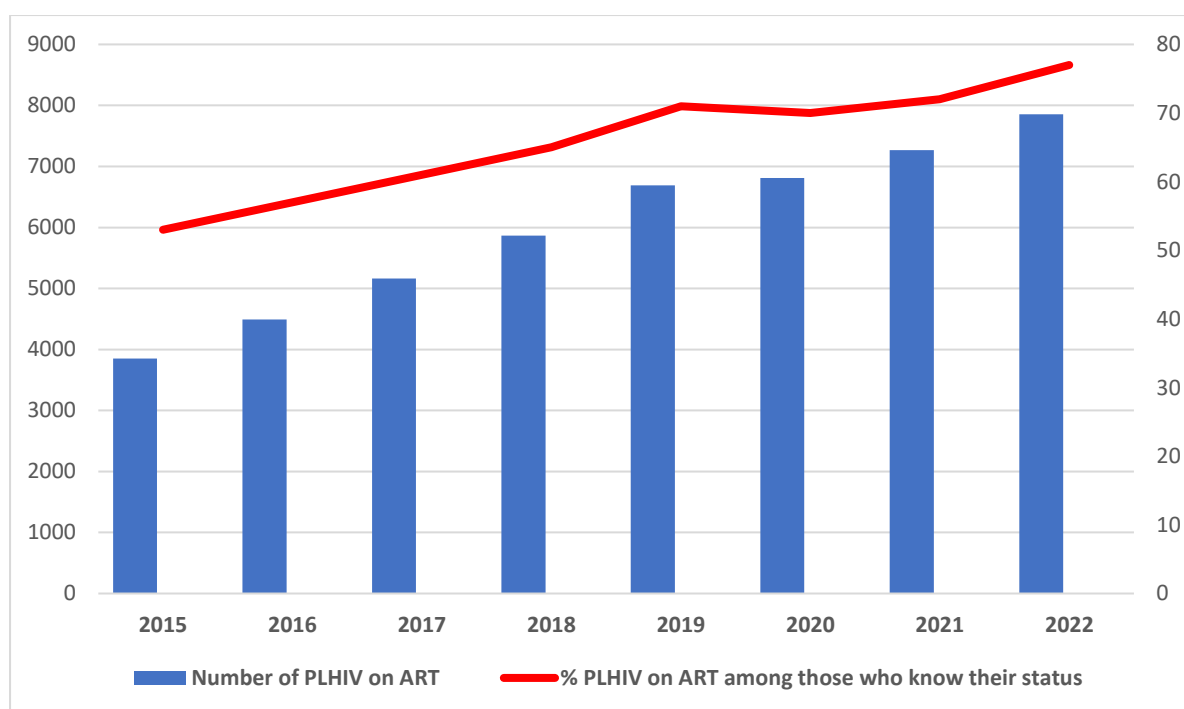
12. HIV treatment policy and service delivery

Treatment and care of PLHIV

In the Republic of Moldova, universal access to ARV treatment (ART) is provided to all PLHIV as a test and start and rapid initiation approach.

The total number of patients on ART was 7857 in 2022 from 9194 PLHIV enrolled in medical care and a total of 10 139 people registered as PLHIV in the Republic of Moldova. (Fig. 8) Among those who receive treatment, adults were 7728 and children – 129.

Fig. 8. Dynamics of the absolute number of patients on ART and coverage of ART among PLHIV who know their status in 2015–2022



In 2022 among newly diagnosed 921 patients (908 adults and 13 children under 15 years), 836 people were enrolled in treatment (91% of newly diagnosed cases). Almost all naive patients receive dolutegravir (DTG)-based therapy regardless of gender, mostly a once-daily fixed-dose combination of TLD (tenofovir/lamivudine/DTG). The majority of doctors and patients report enthusiastically about DTG-based therapy in terms of effectiveness, safety and side-effects.

With regard to the percentage of patients with a VL below 1000 copies / mL, a positive dynamic is observed compared with 2019–2020. As of 2022, almost 89% of PLHIV on ART were virally suppressed, most probably due to better adherence to treatment.

Antiretrovirals for second and third -line ART regimens with both protease inhibitors, as well as nucleoside reverse transcriptase inhibitors (NRTIs) are available and being used in rare cases of the need to switch the ART regimen.

HIV treatment and care is provided at eight treatment sites: in SDMC in Chişinău (still most patients in the Republic of Moldova on ART) in Balti, Cahul and in the prison hospital and four sites in the Left Bank: Rybnitsa, Tiraspol, at TB hospital – Bender and Bender prison hospital. Decentralization to new sites has started in 2021. One example is Ungheni with 96 people on ART excellent results and. The infectious disease specialists in general health services have the mandate to diagnose HIV-infection

and administer ARV treatment. In difficult cases patients are hospitalized for 12–14 days on average. The options for hospitalization include 35 beds (30 adult/5 children) in Chişinău and 20 beds in the Left Bank.

The practice and timing of treatment monitoring are in line with WHO recommendations: VL tests are performed 3–6 and 12 months after ART initiation as well as in other cases, for example repeated VL test after an elevated VL, after ART switch, during pregnancy, with poor compliance. Annually HIV RNA tests are provided to all stable patients on ART.

Psychosocial support is provided by different players, including NGOs and state social centres. It is a great support not only in the work with various risk groups, but also for better treatment adherence in particularly vulnerable groups.

Achievements

The so-called "test and treat" concept is successfully and fully implemented in the Republic of Moldova. The majority of naïve patients receive their first therapy either on the first day or within seven days of diagnosis at the latest. It happens thanks to a quick HIV diagnosis on the spot without unnecessary delays. Confirmation of HIV diagnosis is decentralized rapid treatment initiation is implemented in decentralized ART sites. The simplification of confirmatory procedure enabled the country to shorten HIV diagnosis confirmation from 4–6 weeks to almost one day. Successful cooperation between health facilities and NGOs on case management has positively contributed to this achievement.

Clinical protocols for HIV are updated regularly, based on newly available evidence and latest WHO recommendations. The clinical protocol is very detailed and contains all aspects of HIV treatment and care, including treatment, care, coinfections with TB and hepatitis, prophylactics for opportunistic infection (OIs), palliative care, care for PLHIV, diagnostic procedures, PrEP, post-exposure prophylaxis (PEP) and other aspects. Treatment protocols updated in 2022 are in line with WHO guidelines with DTG-based ART recommended as the preferred first-line regimen for both adults and adolescents, as well as for children older than four weeks and weighing at least 3 kg.

This strategy is also being implemented: most patients, both naïve and experienced, are on DTG based regimens (mostly TLD, some – tenofovir/raltegravir (TAF) and ABC based), just in a few cases on efavirenz or PI.

At the beginning, patients receive ART for at least 3 months; for stable patients, 6-month intervals have become established countrywide. During COVID-19 pandemic drug dispensing for longer period of times was implemented.

The possibilities for screening for STIs such as syphilis and gonorrhoea are available. Especially in Chişinău, thanks to cooperation with dermatologists-venereologists, rapid confirmation and treatment of STDs are also possible. Treatment for syphilis is being successfully implemented and over 99% of patients were treated on an outpatient basis, patients with syphilis were offered benzathine benzylpenicillin.

In principle, a modern DAA-based therapy for chronic hepatitis C is available and free of charge, both for PLHW and for mono-infected patients. This therapy is successfully carried out after appropriate diagnostics, despite a number of bureaucratic barriers.

Interaction with the anti-TB service is solid: most of all PLHIV have been regularly screened for TB. Significant results have been achieved by including TB specialists as staff of infectious disease services, which allowed closer interaction in the management of patients with HIV/TB coinfection. In Balti, the OST site is located in the TB clinic. Screening for latent and active TB (including Xpert, TB LAM, X-Ray) as well as prophylactic treatment are countrywide available.

Challenges

The number of patients enrolled has increased; however, the achievements were far below the second 90–90–90 targets. Treatment coverage is still low, as about 1300 patients were without ART in 2022. Almost 60% of new diagnosed patients are late presenters. Various causes have been reported by a series of assessments conducted in 2021^{37,38,39} including personal factors to delay not start or interrupt treatment (self-stigma, low health literacy, migration, alcohol and drug use, denial of HIV status or lack of confidence in treatment of health system), provider related factors: geographical and financial barriers, not receiving information from general health providers either about the need to start ART or referrals to ART sites.

Decentralization has started but only in a few regions and the same time absolute majority of all patients are still treated in the Chişinău centre (dermatological hospital) although there is not enough medical staff (doctors, nurses) available (present, for example, one doctor is treating a total of over 3000 people on ART)

Unfortunately, screening for NCD such as cardiovascular diseases, diabetes, cancer screening is hardly offered in the ART sites, both in the large centres and at the peripheries. Patients are only referred to the GPs with an unclear result, because the doctors at the ART sites are not responsible for this and the services are not reimbursed or covered by the current global budget arrangements.

A very important aspect for HIV-positive women, such as gynaecological screening, including human papillomavirus (HPV) screening/screening for cervical carcinoma, is not linked to HIV treatment centres or there is no established cooperation between HIV treatment providers and gynaecologists. HPV vaccination is not routinely offered.

Although HCV DAA treatment is available but getting it is complicated and the current diagnostic algorithm is not simplified or aligned to WHO recommendations, still including fibroscan and genotyping, followed by a request for treatment to the Ministry of Health, treatment with non-pangenotypic regimens, etc. Usually a patient, diagnosed with HCV by disease doctor that is working in ART sites is referred to the infectious disease doctor in a polyclinic who is responsible for the preparation of the patient file for the commission, which decides on the treatment and the scheme to be used. The file is sent to Chişinău and it takes about 1–1.5 months until treatment is administered. The decision on HCV treatment is highly centralized and the role of doctor is limited to the collection of a large list of the documents. In addition, there are some potential barriers, for patients, who do not have insurance and resources, to pay for "mandatory" usually unneeded tests.

There are additional barriers to testing for hepatitis. For example, in Balti only patients from the town of Balti are screened for HBV and C, all other patients from districts are referred to the family doctors often with an unclear result, although it is certainly of great importance whether HIV positive patients also have a HBV or C infection. On the other hand, in decentralized integrated centre, i.e. in Ungheni all infections can be diagnosed and treated from "one hand".

No data could be collected on general vaccinations (diphtheria/tetanus, measles, pneumococcal infection, influenza, etc.) or those specifically indicated for HIV. These vaccinations are possibly carried out by GPs, but no cooperation between HIV centres and GPs has been established so far.

Since only a few people addicted to opiates have access to OST therapy at all, there is no close cooperation or exchange of information between substituting doctors and HIV treatment providers,

37 Study report on causes of ART treatment interruption among PLHIV (2021). Unpublished.

38 Study report on causes of late presentation to initiate ART treatment (2021). Unpublished.

39 Study report on causes for not starting ART treatment (2021). Unpublished.

which is extremely important for the issues of compliance, comorbidities and drug interventions alone.

Regarding inpatient treatment of patients with OIs – there is a lack of some important medications such as Cotrimoxazole for intravenous use, Valganciclovir for oral administration. In addition, patients with severe HIV-associated conditions can only be treated in Chişinău (dermatological hospital), as other hospitals do not cover the costs of therapy.

Due to the lower quantity of paediatric dosage needed in the Republic of Moldova there are some difficulties to procure paediatric ART formulations.

Policy considerations

High priority

- Update current practices to routinely investigate the reasons of patients who are not on ART and strengthen case-management, counselling, adherence counselling.
- Implement the policy considerations in the report following "Technical assistance to conduct an assessment of barriers for pregnant women to access the prevention of mother-to-child transmission (PMTCT) services in the Republic of Moldova for 2019–2021", with thorough investigation for all forms of MTCT; consider moving towards triple elimination of vertical transmission of HIV, HBV and syphilis.
- Consider simplification/alternative procurement mechanisms to ensure availability of paediatric ART formulations.

Medium priority

- Integration of screening for NCD (CVDs, diabetes, cancer screening), as well as gynaecological screening for cervix carcinoma in HIV services.
- Decentralization should be continued and involve more sites with sufficient capacity, availability of ART, medication for coinfection treatment and diagnostics. Successful decentralization pilot projects such as the ART site in Ungheni should be used.
- Improve screening for HBV and HCV, particularly integrate screening in ART sites for patients from both cities and rural areas, without referring to family doctors.
- Integration of DAA hepatitis C treatment (test and treat) at all ART centres/sites (central, regional, local), without complicated procedures and tests which are not necessary, with procurement of pangenotypic regimens.
- Monitoring and collection of information about vaccination status among PLHIV by HIV Specialists, as next step provide vaccination both general and specific for PLHIV at HIV sites.

13. HIV and TB

Epidemiological situation of TB/HIV

According to national data, around half of newly diagnosed HIV cases are already in an advanced stage (often overt AIDS) contributing to the high risk for TB. The HIV epidemic continues to be concentrated in key populations, such as PWID, MSM, female sex workers (female sex workers). In these populations there is an uneven geographical distribution of HIV prevalence.

According to the 2021 country data, the HIV status was known in as many as 97% of new TB cases (2005 of 2067). The proportion of HIV infection among TB patients was 10.7% (214 cases). Although the burden of TB/HIV in the country is still limited (like in most countries with a concentrated HIV epidemic) the annual incidence of TB/HIV cases in the Republic of Moldova has a continuously increasing trend after the year 2000, contrary to the descending TB incidence rate. (Fig. 9)

Fig. 9. TB incidence, New and relapse TB cases notified, HIV-positive TB patients

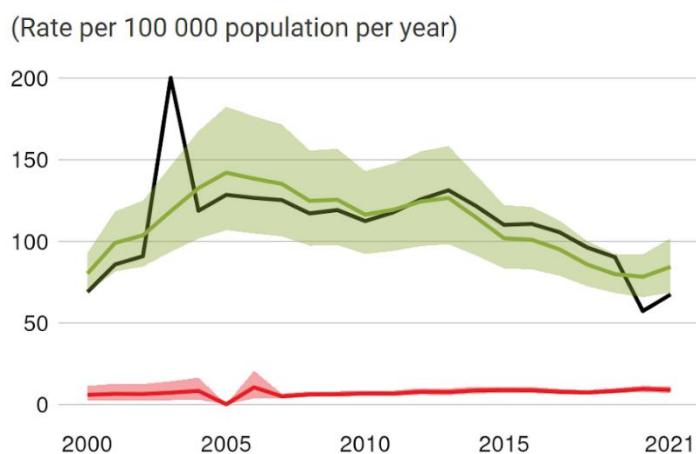
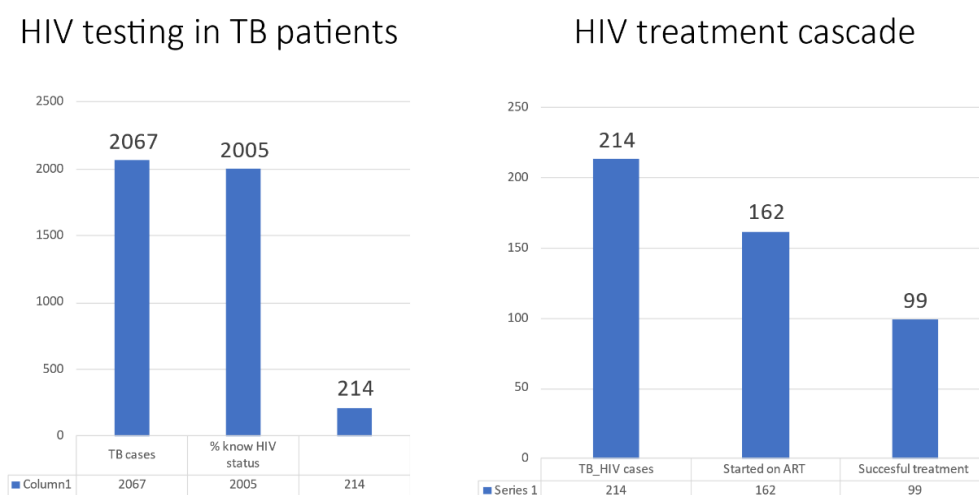


Fig. 10: TB/HIV testing and treatment rates, the Republic of Moldova 2021

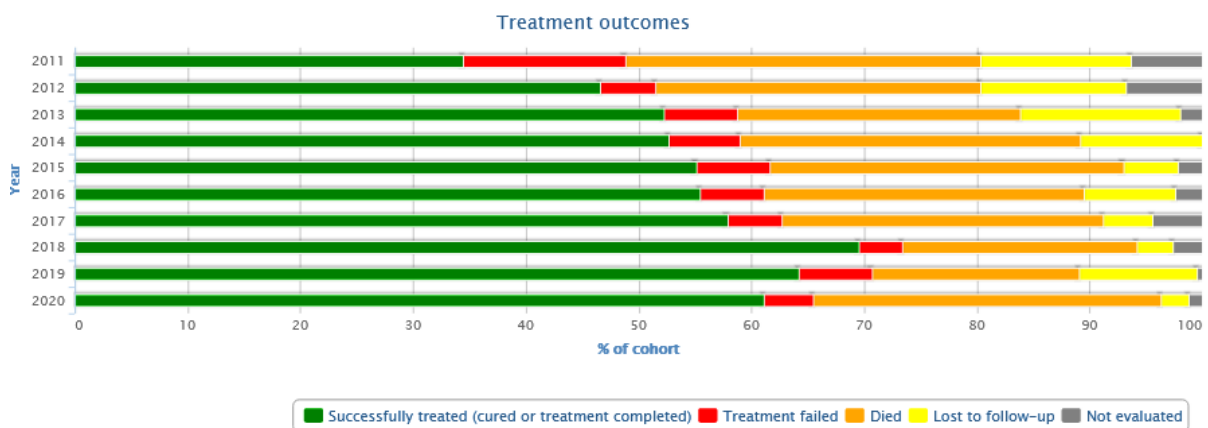


HIV testing in newly diagnosed TB patients has been optimal for many years (> 95%), but the proportion of newly diagnosed PLHIV who received tuberculosis preventive therapy (TPT) was very low at 33%, as well as while the proportion of people initiating ART is still fewer than ideal at 78%.

The timing of ART initiation is not reported, but it is likely to be delayed (high fatality rate in dually infected patients). However, interviewed health-care providers at both TB and HIV services were aware of the importance of timely initiation of ART. The estimated case detection rate of TB/HIV co-infected patients is 77.5% (280 TB/HIV cases/year estimated). 169 TB/HIV cases received ART (79% ART coverage).

Treatment success rate has been improving until the 2018 cohort, then got worse in 2019 and 2020 cohorts. Data from the 2020 cohort show, among 162 cases, a treatment success rate of 61%. (Fig. 11). Likely causes are the impact of the COVID-19 pandemic and increases in late presentation leading to increased outcome of death.

Fig. 11: TB HIV treatment outcomes



Health response to the HIV/TB coinfection challenge

The public health response to TB and HIV is delegated to the two national programmes that operate as vertical entities. The national response to TB and MDR-TB is implemented by the national TB control programme (NTP). Currently, the public health care facility Institute of Phthisiopneumology "Chiril Draganiuc" is accountable for the NPPC and, through its constituency, is performing the coordination of planning, implementation and monitoring of Programme activities. The NTP operates according to the National TB Response Programme for the years 2022–2025, a midterm policy document covering the Governing priorities aiming at applying innovative strategies to cut down the TB burden in the Republic of Moldova. The plan was developed in line with the provisions of several national laws on health care delivery, public health interventions and prevention.

The public health response to the HIV epidemic is in a younger phase compared with that against TB. HIV service decentralization is still in the initial phase, while TB services are effectively organized at referral and PHC level.

Currently, TB patients are managed in the TB sector even if they have HIV infection. There are reasons for this, including issues about infection control that are not optimally implemented yet in infectious disease hospitals and the fact that TB services only are entitled for reimbursement of costs associated with TB care.

Both HIV and TB programmes have the mandate to deliver the respective interventions through the PHC system that, in the Republic of Moldova, has been based on a family medicine model since the 1990s. Public medical facilities at primary and secondary levels belong to local public authorities and are autonomous self-financing non-profit-making organization making organizations that are directly contracted by the National Health Insurance Company for the provision of medical services under mandatory health insurance. PHC providers are responsible for early detection of TB and TB

treatment management after hospital discharge: two performance indicators are available – TB active case finding through examination of risk groups and TB treatment completion.

The effective involvement of the PHC network in TB and HIV activities seems to be challenged by several barriers. These include: (i) a high level of stigma, for both TB and HIV; (ii) staff shortages at PHC clinics and high staff attrition; (iii) weaknesses in the referral system between TB and HIV services and PHC clinics; (iv) lack of involvement of the PHC network in the recording and reporting system for TB and HIV; and (v) weakness of the training and supervision programme in the PHC network.

At hospital level, provisions of TB consultations in HIV wards and HIV consultations in TB hospitals have been strengthened in recent years. During the visit, we got evidence that the system works well, at least in large hospitals.

However, during the visit, we could not observe the efficiency of the integration of care for the two diseases at family doctor level. There is the impression that TB and HIV services are delivered separately, forcing affected individuals to use referrals and have multiple consultations. There is no system to monitor the outcome of referrals between the two TB and HIV services providers and the risk of significant losses and delays looks possible. According to interviews with both health staff and NGOs, there appears to be a large gap between perception of quality of care between health care deliverers and beneficiaries.

In terms of quality of care, the most likely determinants of the observed high mortality rate in PLHIV with TB is late diagnosis of TB and infection by MDR strains. The majority of PLHIV with TB observed among inpatients had just been diagnosed with HIV and had CD4 cell counts below 50 cell / μ L.

To capture TB cases at earlier stages and improve survival, TB screening in high-risk populations should be strengthened. Social mobilization and partnership with NGOs is important to address this issue. To capture more HIV infections, HIV testing should be expanded to patients with possible TB.

In 2017 the NAP launched IPT among PLHIV as a core intervention in HIV clinics. According to the approved procedure, isoniazid is prescribed by infectious disease specialists as self-administered treatment. The drug is dispensed together with ARVs at three-month intervals. PLHIV who are newly enrolled in HIV care are prioritized for IPT. No rule-in test for LTBI (i.e. The tuberculin skin test) is required to prescribe IPT, provided that the subject has no signs or symptoms suggestive of the disease. However, current IPT coverage (33%) indicates the need to identify barriers to universal coverage of this intervention. The updated clinical protocol 2020 also includes three month-combined Rifampentine-INH regimen, but this option is not currently implemented.

Monitoring and evaluation of TB/HIV epidemic and response

The SIMETB database is an individual case storage system of all TB patients in the Republic of Moldova since 2007. Data entry is performed in all TB clinics electronically. Data are managed and analysed once per year centrally, by the NTP, at the department of M&E that employs six active staff. This database contains some, but not all the information that would be essential to measure TB/HIV indicators. The equivalent database for individual case storage of all PLHIV, which was supposed to be ready by the end of 2017, is not yet available.

The NTP and NAP in the Republic of Moldova have not yet initiated monitoring collaborative TB and HIV activities for two main reasons: first, a joint M&E plan between the two programmes has not yet been developed. Secondly, TB related data collection and analysis of indicators from the HIV programme are not being collected yet.

Achievements

- Strengthened laboratory capacities are now at disposal of both the TB and HIV services. Diagnosis of TB and RR-TB based on molecular diagnostic tests (Xpert MTB rif) are largely used in symptomatic PLHIV.
- The proportion of TB patients in whom the HIV status is known remains very high at 97% and rapid HIV testing procedure (two days for full report of results) are widely in place for TB patients even at decentralized sites (i.e. by family doctors).
- HIV treatment and care is provided at eight treatment sites: in Dermatological hospital in Chişinău, Balti, Cahul and in prison hospital and four sites in the Left Bank: Rybnitsa, Tyraspol, at TB hospital – Bender and Bender prison hospital.
- Treatment regimens for HIV in TB patients are available and appropriate (DTG combination with DTG supplement dose) according to WHO recommendations.
- The duration of inpatient treatment of TB cases (including TB/HIV cases) is reducing over time and is usually not longer than 3–4 weeks.

Challenges

- At a higher level of the health system organization, the cooperation between TB and HIV services and the PHC network should be further strengthened, to bring TB and HIV diagnosis and treatment closer to the place of residence of patients.
- A TB/HIV collaborative working group exists but has low visibility and its role in facilitating joint planning and joint M&E is not well defined. In particular, a TB/HIV monitoring plan is not in place, while this could help guide the interventions towards reduction of mortality.
- The HIV recording and reporting system is still on paper, hampering quick and precise data analysis.
- There are signals that the HIV testing strategy for early identification and treatment of PLHIV should be improved. HIV diagnosis appears to be significantly delayed, often done in people with very low CD4 and at the time of TB onset.
- The very high HIV testing rate in TB patients is an important accomplishment in the Republic of Moldova. However, the offer of HIV testing is not currently extended to people being investigated for TB.
- Only 30% of newly diagnosed PLHIV receive preventive therapy. Additionally, shorter rifamycin-base regimens are not used.
- The experts have noted that in some of the visited facilities isoniazid and Xpert reagents were not available, hampering implementation of national policies.
- The proportion of TB/HIV patients who receive ART is at 79% but should be further increased. In addition, measurement of timing of ARV initiation would provide information on whether this action is conducted according to policy considerations.

Policy considerations

High priority

- The NTP should promote early diagnosis of HIV-associated TB by increasing HIV testing in people being investigated for TB and potentiate the role of NGOs in promoting HIV testing in at-risk populations.
- Systematic TB screening in at-risk populations should be strengthened and fully implemented.

Medium priority

- The Ministry of Health should intensify efforts for coordination of the programmes for control of HIV, TB, hepatitis. Involvement of the PHC system should be strengthened.
- The current TB/HIV coordination body should be strengthened to take responsibility for planning joint activities and M&E of their implementation.
- The TB and HIV programmes should develop a joint plan for M&E of TB/HIV activities in the country to enable reporting essential indicators for WHO and other relevant national indicators.
- The NACP should promote expansion of TB prevention by TPT in PLHIV through and introduction of shorter treatment regimens and capacity-building of health personnel and increasing literacy about the benefits of TPT in PLHIV.

14. OST

Context

OAMT has been available in the Republic of Moldova since 2004 in the civilian sector and since 2005 in prisons. As of February 2023, it has been delivered through 10 sites in the civilian sector and 13 sites (13 prisons out of 17) in the penitentiary system. Methadone has remained the main medication used in the Republic of Moldova and buprenorphine has been introduced since 2018. Originally supported by the grant from the Global Fund, since 2019 the OAMT has been fully funded by the state through the obligatory health insurance programme. OAMT is an essential part of the National HIV/AIDS Programme 2022–2025 and National Anti-Drug Strategy 2020–2027

Achievements

Policy

The sustainability of OAMT is ensured through sensible policy and funding arrangements. The leadership and commitments from the side of government are reflected in national strategies and relevant regulations and processes. Both preparations methadone and buprenorphine are included in the list of essential medicines and are procured by the state. Beneficial collaboration and technical assistance from multilateral partners (UNAIDS/UNODC/WHO) have contributed to the improved quality and coverage of treatment. Importantly, the policy dialogue both in relation to refining legislative framework and improving programmatic aspects of OAMT engages various stakeholders, including CSOs and affected populations. For example, there is a promising process in the Parliament to reform drug related legislation that should improve the legal environment and facilitate demand for and utilization of OAMT.

Coverage, quality and continuity of care

Clinical protocol regularly updated to reflect the changing drug landscape and incorporate new evidence. Take home dosing (originally introduced during the COVID_19 pandemic) is implemented on a reasonable scale – 35–70% depending on a location. Although ranging depending on a location, an average daily dose for methadone is 60–70 mg and 12–14 mg for buprenorphine. It is important to note that OAMT in the Republic of Moldova is seen as a long-term treatment. The National HIV/AIDS Programme defines the length of stay in treatment (at least 6 months) as a principal indicator of success. There were no cases of exclusion from the programme in 2020–2022.

Effective partnership with NGOs allows for the provision of integrated care that includes psychosocial support and access to counselling and testing for infectious diseases. HIV testing and care is routinely available for all patients seeking and receiving OAMT. In a move to respond to the needs of patients and improve treatment outcomes the Republican Narcological Dispensary in Chişinău added two positions of peer educators/social workers to its staff.

In the penitentiary system, along with providing OAMT to those who were in the programme prior to detention, treatment can be initiated in prison itself. Importantly, there seem to be well-established and coordinated procedures to ensure a smooth, uninterrupted transition between programmes when an OAMT patient is arrested or released from the prison.

Lastly, it seems that the system of OAMT provision has a decent capacity to adapt to new situations and emerging challenges. A good example of that is a timely arrangement and provision of OAMT to refugees from Ukraine who left the country following the invasion of the Russian Federation in February 2022.

Innovative solutions

There are exciting innovations in the pipeline in the Republic of Moldova. One is an electronic information system and use of plastic cards with unique confidential IDs that aim to improve programme management and data quality. Another innovation to be introduced is a mobile application to support video supported treatment. The application will allow medical personnel to see the patient and observe medication intake without the need for physical interaction. This should allow for dispensing more take-home doses and reducing the burden on OAMT staff. Importantly, in terms of funding implications, video visits will be considered as being equal to face-to-face visits.

Challenges and gaps

Coverage

The coverage of OAMT in the Republic of Moldova is extremely low – < 5% (611 patients out of estimated 12 900 with opioid dependence) – which hardly can contribute to the effective management of the HIV epidemic among PWID. National targets for the coverage are modest – 14.9% by 2025 and are remarkably below the regional targets proposed by the WHO. There is no agonist treatment provided on the Left Bank of Dniester River depriving the opportunity to benefit from this effective treatment of an estimated 2750 individuals who inject opioids in Transnistria region³.

Mandatory inclusion into the narcological registry remains a major barrier affecting the demand and utilization of OAMT. Registration implies a 6-month or 3-year follow-up depending on the status of a registered individual – user or dependent. The registered person must comply with certain conditions such as periodically visiting the narcology facility and providing drug free urine samples. At the end of a registration term a special commission reviews each case individually and decides whether to remove individuals from the registry or not. While in the registry, an individual is deprived certain rights (driving license, professional activities) limiting his/her options for employment and rehabilitation. The compulsory narcological registration has been an essential element of the outdated Soviet-style narcology system that aimed primarily at exercising social control over the population with substance use related problems, rather than focusing on providing care and treatment to people in need. There is no single evidence that would suggest that this approach has any benefit in terms of improving individual patient outcomes and/or public health.

The provider payment mechanism by the CNAM to OAMT providers is linked to the number of visits of patients to the facility. The "per visit" payment can be potentially discouraging for doctors to provide take home doses – the more take home doses are dispensed, the less patient visits will be needed and less payment will be received by the provider facility. There is an obvious need to revisit the funding model and avoid any unintended negative consequences that might affect the quality and the coverage of the treatment. For example, in some OAMT sites there have been no take home doses provided at all, even during the COVID-19 pandemic. It is difficult to state what specific reasons and motives have influenced such an approach by the treatment providers at those sites. This can be driven by disbelief of doctor narcologists in the legitimacy or effectiveness of non-observed intake of agonist medication or by their fear of legal consequences in case the medication is diverted to an illicit market.

Another important factor that limits the scaling up of OAMT in the country is a regulatory framework that allows the provision of agonist treatment by only specialized narcological facilities. In addition, there is a general shortage of narcologists in the Republic of Moldova, but also negative attitudes and lack of understanding of OAMT concept and its benefits among some narcologists. For example, there are locations where local doctor narcologists just refused to engage in OAMT. As a result of

these regulatory and competency restraints, the geographical availability of treatment is severely limited.

There is a visibly low (or no) interest from other medical specialties and facilities towards the OAMT which can further limit options for its expansion. This lack of awareness can be linked to the overall negative perception of people who use drugs (PWUD) in the Republic of Moldova society, but also to the lack of financial incentives for medical facilities to engage with the provision of services to PWUD populations.

Finally, the scale of OAMT provision in the penitentiary system can be limited due to the negative impact of criminal subculture on the demand and utilization of agonist treatment in prisons. Participation in OAMT is often seen by criminal leaders as a form of collaboration with prison administration and is discouraged. Although the number of inmates engaged with OAMT has increased in recent years, it is still rather low.

Quality

There are no formal referral schemes/protocols for integrated care delivery. Usually, integration implies a coordinated care provision in which specialized narcological facilities, PHC, psychiatric facilities, infectious disease clinics and other health and social care providers work together for uninterrupted provision of various services that individuals with substance use related problems might have. Patients' needs are at the centre of integrated care delivery. Currently, any forms of coordination between different services are largely based on personal contacts of medical personnel, are fragmented and lack formalization. OAMT sites located at relatively large multi-profile health facilities take advantage of the availability of additional services in their parent facility and patients there have better access to needed care. In contrast, OAMT sites placed at relatively small isolated narcological facilities lack such opportunities.

Although the psychosocial component of the treatment is incorporated into the national clinical protocol, it is not reimbursed by the health insurance scheme. Where available, it is funded by the Global Fund grant and is provided by the partner NGO. As a result, not all OAMT patients who might be in need of psychosocial support have the possibility to benefit from it.

There is no system to monitor the quality of OAMT services. The only indicator linked to the quality of treatment reflected in the National HIV/AIDS Programme is a length of treatment and the minimum standard is set as 6-month period. This lack of quality assurance mechanisms can negatively impact who receive treatment outcomes and on the attractiveness of treatment.

Available reports suggest that stigmatization and discrimination towards PWUD, including those on OAMT, has remained an universal barrier that affects the willingness of these groups to engage with services and negatively impacts on the quality of care provided. The impact can be specifically profound when discrimination comes from the side of health workers.

Governance

Although the Republican Narcological Dispensary is tasked to provide methodological support and overall coordination for the implementation of OAMT in the Republic of Moldova, at national level there seems to be a lack of commonly agreed priorities and strategic vision on the development of agonist maintenance treatment. Country has the National Antidrug Strategy 2021–2027 but it does not include specific costed activities and action plan. In overall health programming, OAMT has been mainly seen as an HIV prevention intervention and not as a single most effective treatment for opioid use disorders. This potentially can influence the perception of health professionals and place OAMT low in the list of primary approaches to deal with the problem of psychoactive drug use

Lastly, the bottlenecks in management and coordination periodically manifest as suboptimal estimates for the projected need for agonist medications. Such estimates are developed on an annual basis to procure medicines for the following year. Interviews with a number of respondents interviewed during the mission suggest that in recent years, on a few occasions, OAMT providers needed to adjust patient dosing to accommodate the remaining stocks of medicines until the next procurement was fulfilled.

Policy considerations: short-term

High priority

- Discontinue the system of mandatory registration and follow-up of individuals applying for substance use treatment, including for OAMT. This will remove a critical barrier that discourages many individuals in need to seek care for their problems.
- Educate narcologists and other medical personnel to prioritize evidence-informed approaches (in which interventions such as narcological registration have no place).
- To scale up treatment, consider alternative models of service provision and adapt regulations to allow the delivery of OAMT through PHC, private providers, dispensing through pharmacies, mobile clinics. Such models have been successfully implemented in many countries and importantly, in the EECA.
- Revise the system of reimbursement to OAMT service providers. Consider paying for treated cases, rather than "per visit". One option can be adopting a definition of "treatment case" that would cover a patient receiving OAMT in a previous month regardless of a mode of medication dispensing (daily in the clinic or take-homes).

Medium priority

- Develop and implement mechanisms to support continuum of care through introducing referral protocols to ensure coordinated/integrated care that responds to various needs of patients. Such coordination needs to be ensured at a minimum between specialized narcological services and PHC, infectious disease clinics and psychiatric clinics.

Long-term

High priority

- As provided by the National Anti Drug Strategy, develop subsequent action plans with specific quantifiable objectives/targets, timelines, responsible institutions and funding arrangements. Such plan should also incorporate a mechanism for monitoring of its implementation.

Medium priority

- Develop evidence-informed standards of care and train all medical personnel on those standards.
- Develop and introduce quality monitoring mechanisms to ensure service providers' adherence to standards. Incentivized payment (more funding for high quality service) can be one mechanism that will motivate provider facilities to prioritize the quality of treatment.
- Ensure that the responsible coordination body (National Anti-Drug Commission) is effectively functioning, has the development of OAMT in its high priority list and establishes a mechanism for a regular review of the progress.

- Make sure that in the regulatory documents and relevant national strategies OAMT is considered not only as an HIV prevention intervention, but as an integral element of treatment for substance use disorders.
- Further reform the system of graduate and in-service (post diploma) education for substance use disorders professionals that would prioritize up to date evidence and international best practice and policy considerations.
- Consider increasing funding for substance use treatment that would include increasing funding for OAMT provision as well.

Annex 1. Distribution of roles and responsibilities in the management of the national HIV programme in the Republic of Moldova

Institution	Strategic planning for programme sustainability	Programme management and coordination	Monitoring and evaluation	Testing and diagnostics	Treatment services	Prevention and social support services	Procurement and supply management	Comments
Ministry of Health	+ Political leadership, legislative initiatives	+ Through CCM Leadership						In the process of revising the Law on Public Health in 2023, the Government of the Republic of Moldova plans to strengthen government leadership and coordination, as well as optimize the integration and distribution of functions at the stage of planning and implementing international technical assistance projects, including Global Fund Grants

ANSP			+ Collection of epidemiological data and participation in the coordination of epidemiological surveillance activities					The level of the mission and goals of the ANSP in the public administration system and its structure allow expanding the list of powers to manage the national HIV program
CNAM				+ Financing activities from the state insurance fund	+ Financing activities from the state insurance fund	+ Financing activities from the state insurance fund		
CAPCS							+ Procurement and supply management (ART,HIV laboratory tests) using state budget funds	Taking into account the capacity and level of staff training the Agency can carry out purchases at the expense of donors, subject to political leadership and

								changes in the legislative framework of the Republic of Moldova
CCM	+ Platform for interagency coordination and consensus building to agree on priorities and allocate funds to achieve national goals through the use of Global Fund grants	+ Performs an oversight function only for the programme activities of the principal recipient, Sub-recipient and executors of activities of the Global Fund grant						It is not part of the public administration structure. There are risks of reducing the level of intersectoral influence in connection with the transfer of authority to manage the SCM from the Vice Prime Minister to the Minister of Health. CSO's formed a platform KAP for discussions and coordination of actions.
UCIMP		+ A state structure created to manage the programme	+ Implements the function of M&E within the framework of	+ Controls the quantity and quality of services to	+ Controls the quantity and quality of services to achieve the target key	+ Controls the quantity and quality of services to		

		activities of the Global Fund grant only – principal recipient	the Global Fund grant in accordance with the requirement of the donor by supporting two separate PIU's for HIV and TB based in specialized medical facilities	achieve the target key populationIs of the Global Fund Grant	populationIs of the Global Fund Grant	achieve the target key populationIs of the Global Fund Grant		
SDMC		+ Additionally, to the state function, the medical institution performs the functions of the PIU for coordination and monitoring of activities for the diagnosis and treatment of HIV within the framework of the Global Fund grant	+ The SDMC maintains records of newly diagnosed HIV cases and monitoring of ART throughout the country within the framework of the National Program	+ The SDMC laboratory functions as a national reference laboratory for HIV	+ The HIV Treatment Department of the SDMC controls the quality of ART and prepares proposals for the development/updating of national protocols for the treatment and diagnosis of HIV in accordance with WHO recommendations		+ The SDMC determines the needs for the entire country for the purchase of ARVs and HIV diagnostic tests under the national HIV programme	SDMC practically fulfills the role of a national AIDS Centre. However, the structure, resources (human and technical), experience in implementing modern approaches in the fight against socially significant diseases (HIV) obtained thanks to the Global Fund, as well as the status of a national-level medical institution, allow

								us to significantly expand the range of activities of the SDMC to combat other infectious diseases.
PAS Centre		+ Coordination and monitoring of activities for the prevention and social support services in the field of HIV at national level.				+ Ensuring an integrated public health approach to service delivery for key populations	+ Procurement of prevention and social support services by contracting HIV service organizations on a competitive basis	Non-profit-making organization with a long history of successful implementation of Global Fund grants as principal recipients and SRs, has the resources and experience to carry out all components of the grant cycle
CSO's	+ Perform effective advocacy to ensure the sustainability of the progress made in the	+ Actively participate in the development and implementation of modern electronic tools in the activities of CCOs to	+ The system of electronic monitoring and analysis of the effectiveness of preventive measures was introduced into			+ Are the main service providers for key populations and risk groups		

	HIV (increasing budget funds for treatment and prevention, improving legislation, reducing stigma and human rights, , etc.)	improve the management system of organizations and programmes for key populations	the work of the CCOs					
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Annex 2. Terms of reference

HIV programme review: the Republic of Moldova

February 2023

Background

Despite significant progress in HIV programmes, the WHO European Region has not achieved the 90–90–90 targets sets for 2020 towards ending AIDS by 2030.

As of 1 January 2022, a total of 15 177 HIV infection cases, with 876 new cases registered up till mid-December 2022, according to the National HIV/AIDS/STI Prevention and Control Programme data. However, the number of PLHIV registered with the health system, who are alive and know their HIV status is 10 342. The percentage of PLHIV under ARV therapy is 70% (7267 people) and the rate of PLHIV reaching undetectable level of HIV RNA is 89%. The overall prevalence of HIV infection in the general population is around 0.2%. Nevertheless, among target high-risk populations (IDU, MSM, etc.), the prevalence is around 11.4%. Therefore, HIV epidemic in the Republic of Moldova continues to be concentrated among the key affected populations (KAP), mostly PWID, sex workers (sex workers), MSM and the sexual partners of these groups.

The number of reported HIV cases by gender shows different trends. The number of cases among women is stable and does not exceed 380 in 2010–2020 or 18 cases per 100 000 population. The number of cases among men shows a clear growing trend, from 341 in 2010 or 17.4 per 100 000 population, to 544 or 28.3 per 100 000 population.

Annually the number of HIV+ women that give birth also increased to over 200 in the last few years. The number of HIV-positive pregnant women that receive ARV-prophylactic treatment increased **three** times since 2006 (from 50 to 174 in 2021).

A persisting issue is the low level of IDUs enrolled in OST 4.4% of the estimated number in 2022 is another challenge of the national HIV programme.

The biggest challenge during COVID-19 crises is that it created severe barriers on the access of people to HIV testing, treatment and care services. The validated data on the first semester of 2020, show a 30% decrease in ART enrollment and a 40% increase of ART loss to follow-up compared with the same period of 2019

In 2017 the Republic of Moldova passed through the process of reviewing and adjusting the national **five** clinical ARV protocols (adults, adolescents, pregnant, PrEP and PEP) and national testing guidelines according to the latest WHO recommendations to allow the alignment of the Republic of Moldova to 90–90–90 strategy. The protocols have been approved by the Ministry of Health, Labour and Social Protection in February 2018. In order to ensure a smooth and correct implementation of the new protocols, a set of training for medical staff from all the districts of the country has been provided in April 2021.

Integrated people-centred approach principle is being implemented in the Republic of Moldova since 2019; however, the existence of separate National Programmes of TB and HIV have challenged this process. The National TB and HIV programmes were developed with WHO support in 2020 and contain clear interventions throughout expanding/ diversifying case-finding strategies based on TB screening/diagnostic assessment and monitoring by different setting and patient groups considering most prevalent comorbidities including HIV, HCV, mental health disorders etc. Redesigning/adjusting patient care pathways with relevant focus on integrated service delivery and most prevalent comorbidities (e.g. HCV coinfection, , etc.) including developing/ revising and implementing appropriate technical documents and guidelines were

stipulated in the latest National Programme and in related strategic documents of the Ministry of Health of the Republic of Moldova.

Last, the volatile political environment has brought changes in management of key stakeholders implementing the National HIV/AIDS/STI Prevention and Control Programme reflecting new approaches in programme monitoring, funding which may have impacted continuity of efficient services implementation.

In 2023 the Republic of Moldova will apply for a new grant to support TB and HIV response covering the period 2024–2026. According to the new Global Fund (GFATM) application documents/instructions, the grant proposals must be based on comprehensive evaluations/reviews and therefore inform the need for further investment in the field. It is important to note that the last holistic evaluation of the national HIV programme took place in 2011. The lack of such evaluations of the past 2016–2020 Programme constituted one of the serious barriers for the justification, promotion and approval of the current Program.

The Ministry of Health, through the letter No. 04/4061 dated 6 December 2022, officially requested WHO to conduct an external evaluation of the National HIV/STI Prevention and Control Programme

The technical assistance for the programme review will be organized through the WHO Regional Office for Europe Regional Office and Country Office in the Republic of Moldova and external consultants

Programme review

The objective of the HIV programme review is to assess the progress towards the goals of the National HIV/AIDS/STI Prevention and Control Programme 2022 (2021) – 2025 and to provide policy considerations for its further implementation.

The HIV programme review will focus on six key areas.

Epidemic patterns and surveillance (including among key populations).

- Review the performance against National Strategy targets and their alignment with the Regional Action Plans for Ending AIDS and the Epidemics of Viral Hepatitis and Sexually Transmitted Infections 2022–2030.
- Assess key population surveillance and provide policy considerations on IBBS for key populations and population size estimation.
- Assess the dynamics of HIV transmission and help understand trends in population groups.
- Review the impact of the service disruptions related to COVID-19 on HIV services.
- Provide policy considerations on surveillance and the M&E strategy and plan.

Prevention services for key populations (key population) and other groups

- Assess access to comprehensive prevention services for key populations, including the services provided by communities and at a community level, including those funded by the national sources;
- Review service delivery models for prevention, including community-based models;
- Review combination prevention services provision for each key population group (including OST, PrEP and STI services) and alignment with WHO guidelines.
- Review the provision of HIV PrEP; including PrEP decentralization (up to community level) to increase access.

- Assess level of stigma and discrimination among key populations and review of legislation on key populations.

HIV testing policy and service delivery

- Review HIV testing strategy and alignment with latest WHO guidelines, HIV testing algorithm and alignment with latest WHO guidelines.
- Assess testing service delivery models availability of HIV testing by expanding the network of facilities that provide relevant services, involving a pharmacy network, community-based testing and promotion of self-testing;
- Provide recommendation on how to ensure earlier diagnosis, improve testing yield among key populations and how to reach 95% of PLHIV knowing their status;
- Review the role of the reference laboratory and other laboratories doing HIV testing.
- Assess the quality of laboratory services, in particular by introducing quality monitoring for medical devices used to diagnose HIV, developing effective diagnostic algorithms and external quality assurance programmes.
- Provide policy considerations for integration of HIV, hepatitis, STI and TB testing for overlapping key populations.

HIV treatment policy and service delivery

- Review cascade of care and make recommendation on how to reach 95% PLHIV who know their status on ART (assess subnational and key population cascades).
- Review and recommend up-to-date treatment and care policy and national guidelines;
- Suggest ways for further optimization of treatment regimens aimed to improve adherence to treatment;
- Review and optimize treatment monitoring and patient follow-up protocols;
- Assess TB-HIV-hepatitis and STI programme collaboration and coordinated care.
- Assess progress towards the full provision of preventive treatment of TB to PLHIV;
- Review system for surveillance and prevention of HIV resistance.

Service delivery, governance, health finance, workforce, access to technologies and products, future proofing for health emergencies

- Assess prevention, testing, treatment and care service delivery models and make policy considerations for people-centred services.
- Assess the efforts for differentiation, decentralization and integration of HIV services.
- Review Governance and National HIV programme organization and capacity.
- Review the financing for HIV services and universal health coverage, including access, strategic purchasing and provider payment mechanisms.
- Assess transition to domestic funding and sustainability of services currently supported by donors and provide policy considerations.
- Review supply and maintenance of the health and community across the continuum of care.
- Assess civil society meaningful engagement in the programme and role in HIV services delivery.
- Review uptake of new technologies, novel medicines and diagnostics and strategies to increase their affordability.
- Review the learnings from the impact of COVID-19 on services and established approaches and surge capacities to maintain focus on disease goals, ensure the

continuity of essential health services and rapid recovery following acute or prolonged emergencies.

Mission members

Stela Bivol, Unit Lead, Joint Infectious Disease Unit, WHO Regional Office for Europe Mission Team Leader

Viatcheslav Grankov, Medical Officer, WHO Regional Office for Europe – HIV service delivery, testing and treatment, TB-HIV (TBC)

Giorgi Kuchukhidze, Epidemiologist, WHO Regional Office for Europe

Giedrius Likatavicius, Consultant, WHO Regional Office for Europe

Alberto Matteelli, Consultant, WHO Regional Office for Europe

Alexandre Lourenco, Consultant, WHO Regional Office for Europe

Pavel Khaykin, Consultant, WHO Regional Office for Europe

Natalia Nizova, Consultant, WHO Regional Office for Europe

Dr Iryna Andrianova, Consultant, WHO Regional Office for Europe

David Otiashvili, Consultant, WHO Regional Office for Europe

Methodology

The country mission is envisaged in two phases, (i) an online desk review of relevant documents, publications and reports, including national strategic and normative documents and guidelines related to HIV and viral hepatitis disease surveillance, prevention, diagnosis, treatment and care; to be completed by 1 May 2023 and (ii) a comprehensive collective of interviews and meetings with public health policy-makers and authorities, experts, representatives of NGOs, patients and beneficiaries; and visits to institutions and organizations involved in the public health response during a one-week in-country mission.

The review team will use the tools developed in the WHO tool kit for Conducting Programme Reviews for HIV, Viral hepatitis and Sexually Transmitted Infections, Jan 2021.

Time, duration and geographical sites of NPPC Review

The in-country mission is planned for February 6–13, 2022.

Logistic and organizational support will be provided by the WHO Country Office in the Republic of Moldova and national health authorities.

Deliverables

- Key findings and policy considerations on main areas of HIV programme review will be developed by the mission members and presented to the national stakeholders at the end of the country mission in February 2023.
- Key policy considerations will be agreed and finalized no later than two weeks after the mission and will be shared with the stakeholders in the Republic of Moldova.

- The final report with findings and policy considerations will be submitted to the Ministry of Health by April 2023.
- The report will be posted on the official website of the WHO Regional Office for Europe.

Annex 3. Mission agenda

06/02 Monday	10:00	Initial briefing with national stakeholders	Ministry of Health Office Vasile Alecsandri 2	All staff	All
	12:00–13:00	Lunch			
	14:00–15:45	Meeting with United Nations team (WHO, UNAIDS, UNDP, UNICEF, UNODC, United Nations WOMEN , etc.)	WHO Office Sfatul Țării 29 Le Roi 6th floor	All staff # of people ~ 20 ppl	All
		Meeting with the UNODC coordinator <i>OST</i>	UNODC Office	Ina Tcaci	David
	16:00–17:00	Meeting with the CCM Secretariat Oversight Global Fund grant/NP/Partnership	CCM Office Cosmescu 2	Silvia Stratulat	Natalia Alexandre
		16:30–17:30	Meeting with the AFI team HIV prevention (<i>community sex workers</i>)	AFI Office Varşovia 7, of. 2	Svetlana Doltu
07/02 Tuesday	09:00–12:00	Meeting with the national HIV programme team	SDMC Office		
		General Meeting with the team	Costiujeni 5/1	All staff	All

	Targeted presentation with the programme coordinator/Leadership/Management		Iurie Climașevschi	Natalia Alexandre Stela
	Targeted presentation with the coordinator of the HIV Prevention service		Maia Ribacova	Giedrius Slava
	Targeted presentation with the coordinator of the Treatment and Clinic service		Svetlana Popovici	Viatcheslav Pavel Alberto
	Targeted presentation with the coordinator of Data and Monitoring		Tatiana Costin and Daniela Bolun	Giorgi
12:00–13:00	Lunch			
13:30–15:30 Parallel meetings	Meeting with the National TB Programme coordinating team	IFP Office C. Vârnav 13	Valentina Vilc	Alberto Stela
	Meeting with the Ministry of Health Finance Department/Policy and Public Health Service	Ministry of Health Office Vasile Alecsandri 2	Mariana Gincu	Natalia Giedrius
	Meeting with the Ministry of Health Secretary of State/ <i>Governance</i>	Ministry of Health Office Vasile Alecsandri 2	Svetlana Nicolaescu	Alexandre
16:30–18:00	Meeting with TB and HIV programme coordinators, Transnistrian Region	Online/Zoom		All

08/02 Wednesday	07:00–13:00	Site Visit to Ungheni district hospital Decentralization, GeneXpert for TB/HIV/hepatitis/ARV Cabinet	or. Ungheni	Svetlana Popovici	Pavel
	09:00–10:00 Parallel meetings	Meeting with the Ministry of Finance	Ministry of Finance Office str. C. Tanase 7		Alexandre, Natalia, Stela
		Meeting with the Republican Narcological Dispensary OST Prevention	DNR Office	Iurie Bucinschi	David Slava
		Targeted presentation with the coordinator of the Diagnostic and testing service	SDMC Office Costiujeni 5/1	Ecaterina Noroc	Irina
	10:30–11:30 Parallel meetings	Meeting with the National Health Insurance Company Team	NHIC Office str. VI. Pircalaboratory 46	Doina Maria Rotaru	Alexandre, Natalia, Stela, Gedrius, Slava
		Meeting with the National Public Health Agency Data and Surveillance/ARV resistance testing	ANSP Office Gheorghe Asachi 67A	Nicolae Jelamschi Olga Burduniuc	Giorgi Irina
	12:00–13:00	Lunch			
	13:00–15:00	Meeting with the PCIMU and PAS team/ <i>Global Fund grant</i>	PCIMU Office Toma Ciorba 18/A	Victor Volovei Sergiu Gherman	principal recipient/SR Global Fund

					grant team except Stela
	15:30–18:00	Site Visit to Penitentiary No. 16 - Pruncul and Penitentiary no. nine Prevention /Testing/Treatment ARV/Funding/Management/OST/Mobile X-ray/TB	comuna Pruncul, str. Pruncul 44	Irina Barbiroş	Slava, Irina Pavel, Giedrius, Alberto, David
	15:30–16:30	Meeting with the Centre for Centralized Public Procurement in Healthcare (CAPCS)	CAPCS Office bd. Grigore Vieru 22/2	Gheorghe Gorceag	Alexandre Stela
Site Visit, Balti					
09/02	08:00–10:00	Departure to Balti ALL			
Thursday	10:30–11:30	Meeting with the Department of social assistance and child protection, Health Section, City Hall <i>Local Administration/Health Policies</i>	Balti Independenței 1	Ala Iatco	All
	12:00–14:00	Site Visit to Balti Clinical Hospital/Regional ARV Treatment Centre Clinical/Treatment/	Balti Decebal 101/A	Ala Iatco	Pavel, Alberto Stela, Slava, Giedrius
		Site Visit to Narcological Cabinet (<i>OST</i>)	Balti Decebal 101/A	Eduard Nenescu	David
		Site Visit to Family Doctors Centre/Health Centre No. one <i>Testing</i>	Balti Decebal 101/V	Ala Iatco	Natalia, Irina

		Meeting with the Balti Public Health Centre <i>Data/Surveillance</i>	Balti Ivan Franko 46	Ala Iatco		Giorgi
	14:00–15:00	Lunch				
	15:30–17:00	Meeting with the Regional social centre for assistance to people infected with HIV/AIDS Support/Treatment	Balti str. Victoriei 7A	Ala Iatco		Pavel Stela
		Site Visit to Union for Equity and Health, NGO, <i>Prevention/Testing (LSC, MSM, IDU)</i>	Balti str. Victoriei 7A	Ala Iațco		Slava, Giedrius, Pavel, Irina
		Site Visit to Community PULS, KAP, Community of PWUD, OST	Balti str. Victoriei 7A	Vitalie Rabinciuc		David
		ATIS Young people Friendly Centre HIV prevention/testing young people	Balti Kiev 30	Ala Iațco		Natalia
	17:00	Return to Chișinău				
10/02 Friday	09:00–10:30	Meeting with the Regional Social Centre Renasterea team and the League of PLHIV Support/Treatment PLHIV	str. Milestiu 20 M	Grigore Bîrlădean Igor Chilcevschii		Pavel
	11:00–13:00	Meeting with the KAP Committee members, Key Affected Population – UDI, MSM, LSC, PLHIV	Positive Initiative Office	Ruslan Poverga	TBC	All

			Independenței 6/2			
	13:00–14:00	Lunch				
	14:30–15:30	Meeting with the Positive Initiative team UDI Prevention/PLHIV Support/Management and Data	Positive Initiative Office Independentei 6/2	Ruslan Poverga	TBC	Pavel, David, Slava, Giedrius, Giorgi
	16:00–17:00	Meeting with the Gender DOC-M team <i>Prevention MSM</i>	Gender DOC-M Valeriu Cupcea 72/1	Veaceslav Mulear	TBC	Slava, Giedrius
13/02 Monday	10:00–12:00	Final briefing with stakeholders Draft, Conclusion and Recommendation	Ministry of Health Office Offline/Online Vasile Alecsandri 2	All staff		Slava, Giedrius, Natalia, David, Stela
	12:00 --	Departure to airport				All

