

**Assessment of Readiness of Health
Systems to Decentralize HIV
Testing Services in 5 Countries of
EECA
Georgia, Armenia, Moldova,
Kazakhstan, Kyrgyzstan**

SYNTHESIS REPORT

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Introduction

Decentralization has become a widely debated issue in the international development agenda and many developing countries are currently undergoing reforms in their systems to redefine roles and functions of lower levels of governments. Specifically on the HIV/AIDS sector, decentralization has been considered essential to respond adequately to the epidemic in order to enhance commitment, coverage and effectiveness at the state and district levels.

Decentralization can thus guarantee more equity in the provision of health services by lowering barriers to health access as district hospitals, health centers, communities and non-state providers become better able to act as entry points for HIV/AIDS prevention, testing, treatment, care and support.

In recent years, significant progress has been achieved in delivering health-related interventions that are designed to achieve goals relating to improving maternal and child health and reducing mortality and ill health due to HIV/AIDS, tuberculosis and malaria. It is increasingly apparent, however, that the gains have been neither universal nor sufficiently broad-based and sustainable. Progress at the national level has not necessarily resulted in gains for most vulnerable population groups; in some instances, progress has stagnated or been reversed. There is mounting evidence that health systems that can deliver services equitably and efficiently are critical for achieving improved health status. Thus, many global health initiatives now incorporate attention to health systems strengthening in the support they provide to countries.

Region of Eastern Europe and Central Asia (EECA) is mostly characterized with concentrated epidemic among key population (KP) groups, that face significant barriers in accessing essential health services, including HIV related services. Systematic and structural barriers, such as criminalization, stigmatization and marginalization of KPs leads to negative individual as well as public health outcomes. In particular, countries across EECA region struggle to achieve UNAIDS "90-90-90" goals to eliminate HIV, with core problems related to timely detection of HIV and linkage to care. Thus, efforts to improve policy and strategy towards adjusting services to serve better interest of affected groups, resulting in their improved access to services and increased effective coverage are essential. Decentralization of HIV services, with their integration into wider healthcare system is considered to be one of the strategies that might positively affect timely detection and linkage to HIV care.

Though, it's widely acknowledged that decentralization of HIV services from specialized care facilities to primary or secondary healthcare providers, is a complex process, especially in resource limited settings, and stigmatizing environment. Thus, countries should ensure systematic readiness to decentralization on one hand and consider external factors that might hinder the process on another. Systematic readiness to decentralization should look into how prepared the system is across it's main functions/building blocks of service delivery, financing, information systems, human resources, and governance and leadership, to decentralize services in effective way.

For these purposes we conducted the study to assess the level of readiness of health system functions in 5 countries of EECA to decentralize HIV testing services. Within the framework of the study, we relied on the World Health Organization (WHO) framework of health system building blocks. The six building blocks defined by WHO, contribute to the strengthening of health systems in different ways. Some cross-cutting

components, such as leadership/governance and health information systems, provide the basis for the overall policy and regulation of all the other health system blocks. Key input components to the health system include specifically, financing and the health workforce. A third group, namely medical products and technologies and service delivery, reflects the immediate outputs of the health system, i.e. the availability and distribution of care. Inevitably, any type of division of a complex construct such as the health system is fraught with problems.

As a result of the study, we intend to define key gaps in health system functions to inform the roadmap and respective actions countries need to undertake in order to ensure systematic preparedness and move towards effective decentralization if and where needed.

Study Objectives

The overall aim of the study was to understand the current level of and readiness of health system functions to decentralize HIV testing services and integrate them with broader health services.

Specific Objectives

To achieve the overall aim following key research questions (objectives) were set:

1. What political, economic and other external factors influence decentralization and integration of HIV testing services.
2. What health system factors across its main functions influence decentralization and integration of HIV testing services and what are the areas for improvement.
3. What enabling and disabling factors exist that facilitate or hinder the decentralization and integration process.

Study Methodology

The study applies an analytical case study design and framework-based mix-method approach to answer the research questions noted earlier. The approach helps clearly demonstrate the readiness across all key health system functions, as well as describe intersections and links between them.

The framework application required a **mixed-method approach** using desk review, secondary analysis of the quantitative data and in-depth-interviews.

Desk review of documents helped the research team to understand what the current status of decentralization is and how the health system operates today. Further desk review helped to unpack the readiness of health system functions to decentralize and integrate HIV testing

services. Based on the preliminary review of the available documents, it became possible to produce descriptive story about the status quo of decentralization and gaps in existing system.

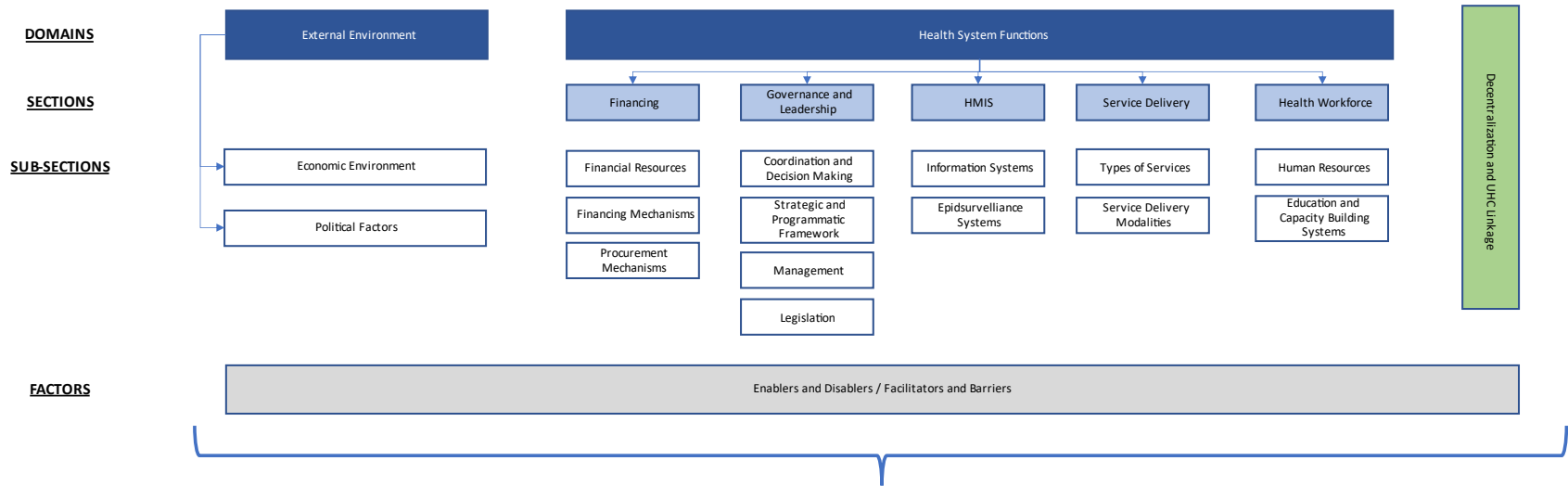
Quantitative data covered areas such as programmatic expenditure for the selected interventions, intervention coverage and/or service utilization data, where available. Triangulated with the qualitative data quantitative analysis allowed arriving at conclusive statements about strengths and weaknesses in health system functions and defined areas for improvement.

In-depth Interviews (IDI) were carried out with individuals most knowledgeable of the issues and able of sharing knowledge and expert opinion about the decisions made, gaps in the system, and policy amendments required. IDIs served three distinct purposes (a) to validate some findings arising from desk review, where necessary; (b) to interrogate how the decentralization should be executed (c) what is required to implement decentralization.

Conceptual Framework

Study on readiness of health systems to decentralize HIV testing services aimed to guide the assessment of current status and readiness of the health system functions to decentralize HIV services and integrate them across systematic blocks. Further framework investigated external environment, unpacking the political and health related context, as well as enabling and limiting factors, in order to identify the key elements that should be addressed for achieving decentralization. The framework is divided into two general domains. The external environment encompasses the elements outside of the health sector, including the political and economic environment. The second domain “Health System Functions” comprehends the key functions/building blocks of health system (Financing, Governance and Leadership, HMIS, Service Delivery, Health Workforce) representing the elements within the health sector. These elements are in close interaction and collectively they lead to the expected outcome of decentralized and integrated HIV services. Finally, by analyzing these domains, their sections, sub-sections and factors, the framework allowed us to examine a country’s readiness towards decentralization and identify the areas that need to be further strengthened to achieve better integration and decentralization of services.

CONCEPTUAL FRAMEWORK- Rapid Assessment of Health Systems to Decentralize HIV Testing and Treatment Services



Judgement on Readiness to Decentralization and Integration of HIV Testing and Treatment Services

Data Collection

Desk review. The research team reviewed the body of literature related to the HIV, Primary Health Care, Universal Health Coverage and cross-cutting issues. Published as well as grey literature (including policy and programmatic documents and reports, consultancy reports and surveys, etc.) formed the basis for the desk review.

Quantitative data was derived from the publicly available datasets and documents on programmatic budgets and expenditures, intervention coverage and service utilization rates. The data did not include any personal identifier and mostly was available in aggregated form. The research team did not intend to access the primary survey data, but instead we used the survey reports, where data has been analyzed and reported. Therefore, use of quantitative methods did not entail any ethical concerns.

In-depth interviews. As noted earlier, the research team, using snow-ball approach, identified list of respondents who were policy makers, national programs' staff, civil society and community-based organizations, donor representatives.

Data Analysis

Desk review analysis was conducted using Microsoft Excel and conceptual framework-based coding will was applied to the information entailed in the document. We intended to build core preliminary findings of document review, that allowed us to identify the issues requiring further validation through in-depth interviews.

In-depth interviews transcripts were analyzed using Microsoft Excel and conceptual framework-based coding approach. All findings, arising from the in-depth-interviews were summarized and presented in a summary form not disclosing the respondents identify. While analyzing the qualitative data from IDIs we compared and triangulated data from different key informant interview transcripts with desk review findings to assess their validity and mitigate the impact of biased or partial testimony from key informants.

The study used Framework-Based Coding to simplify and standardize the analysis of the qualitative data. The conceptual framework used in the study protocol formed the bases for the coding. Each QUOTE was characterized with three qualifiers, i.e., CODE that included the following:

- I. **External Environment Codes** - reflecting external influential factors, including political, contextual and/or economic environment that impacts process of decentralization.
- II. **Health System Codes** - reflecting the codes for Health Systems Functions, including Health Financing, Service Delivery, Health Workforce, Information Systems, Governance and Leadership.
- III. **Enabler/Barrier Codes** - a qualifier reflecting whether the quote reveals any barriers or enablers inhibiting or facilitating the decentralization process.

Summary Judgement on Decentralization and Integration of HIV Testing Services in 5 countries of EECA - Kazakhstan, Kyrgyzstan, Moldova, Armenia, Georgia.

Countries covered within the study have different context and hold major differences in HIV epidemic and response to it. Furthermore, countries are on the different level of decentralization of HIV services, though the study revealed major similarities in development and gaps of systematic readiness. These similarities provided us with the possibility to generalize the observations and come-up with the synthesis judgement on readiness of health systems to decentralize HIV testing services and provide common analyses of implications and respective recommendations.

Based on the analyzed data we can summarize that countries have made significant progress in moving towards decentralized and integrated HIV testing and confirmation services, furthermore, countries have political will and commitments, though major developments and improvements across health system functions are required.

Armenia - Country Profile

Country Context

The Republic of Armenia is a country situated in South Caucasus. The average annual population in 2020 was 2,961,900, with 64% living in urban areas. The country is administratively divided in ten regions (marzes) and the capital city of Yerevan, the capital accounts for over one-third of the country's population. Armenia is ranked as an upper-middle income (UMI) country by the World Bank, with GDP of USD 4,297 per capita in 2020.

Before the COVID-19 pandemic, Armenia was making gradual improvements in its macroeconomic development and recorded strong economic growth averaging 6.8 percent during 2017-2019. This progress was derailed in 2020. The country suffered a severe COVID-19 outbreak, with a new surge in the first quarter of 2021, ranking 33rd globally in recorded cases per million population. According to the World Bank outlook (April 2021), Armenia's economy contracted by 7.6 percent in 2020. The pandemic's impact on vulnerable households was only partially mitigated by the government's COVID-19 response. The poverty rate (UMI economy poverty line) is estimated to have increased to over 51% in 2020, a 7 percentage-point increase. GDP growth is projected to recover partially in 2021 to 3.4% and more strongly in 2022 to 4.3%; the recovery will be slow, as the economy is unlikely to return to pre-COVID output levels until 2023.

Challenging environment.

The large-scale military conflict between Armenia and Azerbaijan over Nagorno Karabakh republic resumed on 27 September and lasted till 9 November 2020, when ceasefire was agreed between the countries. The war resulted in humanitarian and internal political crisis currently being experienced by Armenia. About 5,000 people were killed and over 10,000 wounded in the war; over 60,000 people who lost their homes and were displaced from Karabakh to Armenia. The consequences of the military conflict, compounded by the impact of the COVID-19 epidemic created unprecedented overload and crisis in the health care system, including an acute lack of

medical resources, essential medical equipment and supplies. The Government of Armenia has prioritized budget allocations for social assistance to those who lost their homes and families of deceased and wounded people.

Health System Context

Since gaining independence in 1991, the health system in Armenia has undergone numerous changes from a centrally run state system based on Semashko model into a fragmented one that is largely financed from out-of-pocket payments, limiting access to health services for those most in need. The Armenian health system remains tilted towards inpatient care concentrated in the capital city despite overall reductions in hospital beds and concerted efforts to reform primary care provision. Organizationally, operation and ownership of health services have been devolved to regional level, with most part of the health facilities being under the jurisdiction of Yerevan municipality and the marz governments, while the Ministry of Health formally retains regulatory functions.

The health system is divided into three administrative levels: 1) national, 2) regional, and 3) urban, as well as structural levels based on 2 services: a) hospital and b) outpatient treatment. The health system also includes the National Centre for Disease Control and Prevention (NCDC) and the Scientific Centre of Drug and Medical Technologies Expertise (SCDMTE), and the National Institute of Health.

The Ministry of Health through the National Institute of Health has developed strategy of the health system in Armenia (Health Strategy 2021-2025), aimed at the protection of the health of the population, reduction of morbidity, disability and early mortality, improvement of quality of life and prolongation of the average life expectancy. The document, includes focus on creating a favorable environment for the ending tuberculosis and HIV/AIDS by 2030, in line with SDG (SDG 3.3). This includes the development of a national laboratory network, infrastructure and equipment modernization, full implementation of a health information system, provision of immunization, social mobilization, active TB case finding among key and vulnerable populations, establishment and implementation of innovative methods of rapid diagnosis and outpatient people-centred services, development of human resources, public awareness measures, cooperation with interdepartmental, community-based, non-governmental and international organizations aimed at solving problems and provision of a legal framework for its implementation. The current reform agenda aims at introduction of universal health coverage, further strengthening of primary and out-patient care services, restructuring of the health care system alongside with further improvements in the continuous medical education system.

HIV Context

In 2019, Armenia had an estimated 3,500 [2,900-4,500] adults and children living with HIV (PLHIV), of which 2,300 men [1,900-3,000] and 1,200 women [1,000-1,600], according to SPECTRUM estimates 2020. HIV prevalence rate was 0.2 among adults aged 15-49 years (0.1 in women and 0.2 in men), prevalence in young women and men being below 0.1. New infections are estimated at <100.

New HIV infections decreased by 30% between 2010 and 2019, while AIDS deaths decreased by 31% during the same time period.

A WHO external review notes that the data demonstrate certain favorable trends in HIV epidemic in Armenia, as despite an increase in new HIV diagnoses, the number of estimated infections has been plateauing since 2015, suggesting that more infections are being diagnosed.

Since 1988 to the end of 2020, a total of 4,154 people with HIV, 1,962 AIDS cases and 923 deaths were cumulatively registered. In 2020, 369 new HIV diagnoses were registered (150% more compared to 2010), of them 69% men, 31% women and 7% young people 15-24 years. The likely reason for the increased number of new diagnoses reported in the recent years is increased testing rates. This is also supported by data showing late presentation of people living with HIV with advanced disease to health facilities (66% of all new diagnoses in 2019 were made at the stage when the CD4 count was less than 350 cells/mm³), and the recency survey conducted in 2018 only 12% of new diagnoses were recent infections.

Between 2010 and 2020 the main mode of transmission in Armenia was reported to be heterosexual contacts (78%), followed by injecting drug use (13%) and sex between men (6%). Mother-to-child transmission and transmission through blood or blood products have occurred in 1% in 2010 and 2.4% (1/41) in 2020, respectively. Between 2014 and 2019, 69% of newly diagnosed HIV infections were registered in people with own history of travel abroad or labour migration or of their partners. Ninety-one percent of those with the labor migrant history between 2009 and 2018 were related to Russia. The HIV transmission is concentrated among key populations and labor migrants at prevalence.

Armenia has a low-level concentrated HIV epidemic, the largest portion of new infections occurs among the following key populations: people who inject drugs (PWID); men who have sex with men (MSM); transgender people (TG), sex workers (SWs) and migrants.

Assessment of Health System Functions towards Decentralization

Service Delivery

Overall healthcare service delivery in Armenia largely relies on the private sector. Most of hospitals in Yerevan are private hospitals that can also provide services within the scope of the

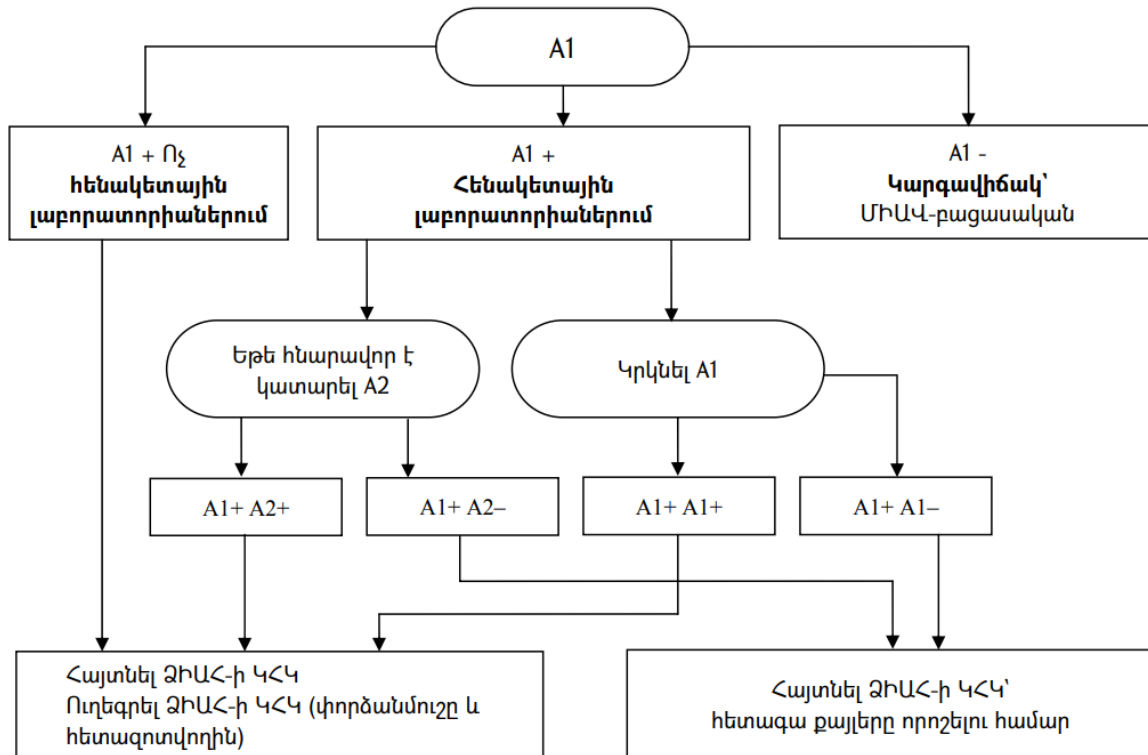
state order (state budget allocated by MoH). The hospitals in the regions are under the jurisdiction of the marz (province) authorities. Hospital services are free to certain groups of the population only and for a limited number of pathologies including TB, HIV, psychiatric disorders and malignancies, as well as emergency conditions being among them. The state financing of hospitals is case based, however capped by global budget principle, except for the TB and psychiatry hospitals that receive fixed financing for maintenance costs and variable financing for food and drug expenditures. The PHC level is represented by multi-profile polyclinics and rural outpatient clinics. The PHC units include family doctors and specialized physicians. The PHC level is financed on per-capita principle.

HIV services are provided as part of the state's free medical care. It includes: provider initiated HIV testing and counseling, voluntary HIV testing and counseling, routine and sentinel HIV surveillance, monitoring and evaluation, patient monitoring, antiretroviral treatment, in-patient care and HIV/AIDS patients' support, post exposure prophylaxis for health workers, prevention of mother-to-child HIV transmission and psychosocial support for patients with HIV/AIDS.

Until 2020, the National Center of AIDS Prevention of the Ministry of Health has been carrying out HIV diagnostics, antiretroviral treatment, patient monitoring and routine and sentinel HIV surveillance in Armenia. In 2020, as a step forward towards strengthening integration and coordination of different elements of care, the National Center for AIDS Prevention was merged with the Republican "Nork" Infectious Disease Hospital according to the Government decree #77-N dated 30 January 2020 with the creation of National Center of Infectious Diseases (NCID), as a main institution for implementing the MOHs strategy on Elimination of HIV/AIDS and viral hepatitis.

Currently, confirmatory diagnosis, treatment initiation and monitoring, as well as monitoring and evaluation of the HIV National Strategic Plan and surveillance are the core functions of the NCID.

The algorithm of HIV testing includes ELISA and/or rapid testing and confirmatory Western Blot. WHO external review recommended to update the testing and diagnostic strategy and optimize and decentralize HIV testing algorithm to be based on 3 different rapid tests and exclude Western Blot.



The county is moving in that direction and plans to revise the diagnostic algorithm; however, this requires changes in the HIV tests’ procurement policies to ensure availability of all required tests at the regional HIV testing laboratories. Approach to decentralized ART provision to PLHIV (drug dispensing and multi-month scripting) will be implemented in 2022-2023 in selected regional facilities with UNAIDS support.

HIV testing strategies

Out of total estimated 3,500 people living with HIV, some 850 people (25%) are still not aware of their status. This is the largest bottleneck in the cascade and various barriers in access, such as stigma or inequities in geographic access need to be addressed as well. To increase the case finding and early detection, Armenia has introduced a number of differentiated testing strategies.

Decentralization of facility-based provider-initiated HIV screening to primary care (since end of 2019) and secondary level health facilities. More than half of all new diagnoses are identified via facility-based provider-initiated testing, this modality continues to be important, with focus on primary health care (PHC) and ante-natal care along with continuous training on proper testing practices, counseling skills, and confidentiality. In 2020 RDTs were provided to all 49 regional clinics and 107 PHC doctors were trained on HIV testing skills and confidentiality including medical ethics and reducing stigma. Due to COVID epidemic and PHC doctors being on the frontline, the uptake of HIV testing was below anticipated target. Nevertheless, out of 2,093 tests conducted, 12 new diagnoses were detected. Moving forward, it is proposed to continue capacity

building of the PHC doctors aimed at expanding index testing and involve outreach workers in mobilization of target populations for referral to PHC for HIV testing to scale-up this activity in future years. To increase testing uptake by migrants, the next period will include combined testing for HIV, Hepatitis C and syphilis.

Scale-up of community-based screening in key and vulnerable populations using rapid diagnostic testing RDTs (including network-based testing and optimized case finding). Community-based testing is available through NGOs with support of the Global Fund. HIV testing service is included as part of service package contracted by the NCID. NGOs are provided with saliva HIV tests to implement assisted community-based testing among KP.

Linkage to care: The highest absolute numbers detected were in MSM, as in 2020, of the 62 screened positive through RDT, 43 were linked to care and 23 were confirmed, pointing to the need to further strengthen linkage to care. Armenia introduced client navigation and provides incentives to workers accompanying beneficiaries to NCID for follow-up diagnostics and treatment. This is also being implemented by NGOs working with KPs and clinics working with migrants including reimbursing transportation costs.

HIV self-testing kits (HIV-ST) have also been introduced with support from UNAIDS. As self-testing is a new initiative in Armenia, its implementation through pharmacies could be accompanied with counseling and demand generation activities performed by NGOs.

Reducing time from initial HIV screening to diagnosis and treatment initiation: currently all confirmatory testing and HIV diagnosis is centralized, and all screened positive are referred to NCID. This led to delays in timely diagnosis, retesting and delayed treatment enrolment. In 2019 the external NSP review recommended adoption of RDT-based algorithm and decentralization of confirmatory testing. To date, progress has been made to reduce the time from 1st test to diagnosis to five days and the time from diagnosis to treatment to one to five days. It is planned that the national testing guidelines will be updated in 2021, as well as planning for changes in procurement policies to ensure implementation of three RDTs from different manufacturers in all settings.

Financing

Armenia has a low level of state health financing, just 1.63% of GDP in 2016 (WHO). Private payments constituted 82% in 2015 and 85% in 2017. This reduces financial access to health services for Armenian citizens. The share of health spending in total government expenditure is one of the lowest in the European Region, only 6% in 2013-2016, it fell further to 5% in 2017. In 2019 the government increased the healthcare allocation to over 20% above the original budget. A State Health Agency was set up in 1999 and in 2002 it became part of the Health Ministry which, in effect, reduced its independence and its ability to act as a strategic purchaser. The Government of Armenia plans to reform the health care financing system by introducing health insurance starting with support by the World Bank and Asian Development Bank.

Despite the serious fiscal economic constraints, the Government of Armenia is committed to continue to increase its budget allocations to HIV and TB programs during the 2022-2024 grant period. The Government is committed to allocate US\$ 16.4 million for the control of the two diseases over the next three years (2022- 2024), compared to US\$ 14.9 for current cycle (2019-2021). The country fully meets the co-financing incentive requirements for the upcoming allocation cycle (US\$ 1,450,077). The additional co-financing investments for the period 2022-2024 is US\$ 1.5 million. The commitments are confirmed through the co-financing letter of the Ministry of Health.

HIV/AIDS is included in the list of conditions, for which provision of diagnostic tests and pharmaceuticals is free for the entire population (stipulated by amendment resolution N 1154 - N issued of Sept 22, 2017 to the Government decree of 23.11.2006 N 1717-N “On the lists of diseases and groups of population subject to free provision of pharmaceuticals”²⁹). This means that upon completion of the Global Fund Grant Program everybody will be entitled to receive free of charge diagnostics and treatment for HIV/AIDS

Financing of HIV response is distributed.

In 2022-2024 the state will continue covering the costs of health products with increasing share of ARV drugs – 40% in 2022, 60% in 2023, 70% in 2024 with full takeover in 2025. The expected coverage is 3,300 people by the end of 2024. State budget will also ensure the provision of social services package for the care, and procurements to ensure treatment of the opportunistic infections, as well as ensure procurement of 30% of tests for treatment monitoring (VL and CD4) in 2024 and full takeover in 2025.

The same relates to the procurement of ELISA test systems and HIV rapid test systems for the detection of HIV 1/2, blood collection and other medical devices for the HIV testing laboratories. State budget is planned for 30% in 2023 and 50% in 2024 with full takeover by the state in 2025.

Human resource costs of diagnostics and treatment of HIV cases, as well as maintenance of facilities is covered by the state.

Health Workforce

The National Strategy of Human Resource for Health (HRH) Development in Armenia for 2014-2019 expired. The MoH plans to introduce a new strategy for HRH based on WHO 2019 mission recommendations, which would adequately describe the situation, clearly define the overall vision and goals, identify challenges and gaps, and outline interventions for HRH planning, development and management.

Study revealed that there are major concerns related to readiness of primary or secondary health facilities personnel to work with people living with HIV and/or key population communities. Key informants mentioned urgent need to conduct country wide capacity building and sensitization trainings to medical staff of healthcare facilities.

Another challenge outlined by key informants was absence of limited quality of HIV specific modules in medical education. The HIV undergraduate and post-graduate training curricula of Medical Universities and the National Institute of Health is planned to be revised to ensure further continuous strengthening of the human resource capacity after completion of the grant programs.

Governance and Leadership

Armenia's HIV response is guided by the extended National Program on HIV/AIDS Prevention in the Republic of Armenia 2022-2025 (further NPHP). This programme set key priorities for HIV response as well as formalizes obligations towards government, including policy and systematic as well as financial obligations.

National response is mainly coordinated by Country Coordinating Mechanism (CCM), that ensures implementation of national strategic plans and respective decision making. CCM is also responsible to monitor the Transition and Sustainability Plan 2021-2025 implementation progress, monitor actual disbursements of public funds for HIV by types of services (prevention, outreach, treatment and care) and when needed, ensures elaboration/revision of advocacy activities and messages. To effectively perform its supervisory duties CCM has established the CCM Oversight Body with respective rights and responsibilities. The Oversight Body keeps this mechanism to inform CCM on the overall implementation progress as well as to report on the on-site supervision and spot check. The CCM and the MOH carry out the role of coordination with other programs and development initiatives. The CCM ensures practical coordination and collaboration with all local partners involved.

Study reveals that there is lack of coordination with primary healthcare or other relevant healthcare field stakeholders, with their no to limited engagement into the processes of planning, coordination or decision making.

Health Management Information Systems

The current M&E system is fragmented and Excel-based with no linkages between the NGO-based prevention data and NCID treatment cascade. Monitoring is conducted by NCID M&E specialists. The current GF grant includes M&E strengthening and development of new electronic data system to connect data related to epidemiology, prevention and treatment cascade, laboratories and drug management modules. It is planned to finalize and make it operational in 2022. The quality of M&E is a priority and an M&E guidance and standard operating procedures are being developed. The next period will include finalization and maintenance phases for the newly developed information system.

The electronic health information system (e-health "ARMED") introduced in 2017 continues its operations at this stage mainly for the reimbursement by the State Health Agency of the providers operating under the government health programs. The HIV/hepatitis program databases, currently in process of development will be linked to the national e-health system and maintained by the state budget funds of the Ministry of Health.

Moldova - Country Profile

Country Context

Republic of Moldova is a country in eastern Europe, surface area of 33.9 thousand sq. km, bordering Ukraine and Romania (member of the European Union - EU) with a visa-liberalization agreement and an Association Agreement with EU since 2014 and received EU candidate status in 2022.

Its history of independence dates 1991 following dissolution of the Soviet Union. Moldova is ranked by the World Bank as a upper lower-middle income country (ULMIC); Gross National Income (GNI) per capita in 2018 (Atlas method) was estimated at USD 3,900 per capita. Administratively it is divided in 32 districts, 5 municipalities (Chisinau, the capital city, Balti, Comrat, Tighina, Tiraspol) and 2 regions with special status: Autonomous Territorial Unit Gagauzia, and territorial administrative units from the left part of Nistru river, generically known as Transnistria or Left Bank. The so-called Moldovan Republic of Transnistria has self-proclaimed its independence in 1990 but has not been recognized by any state. It is not controlled by the government, de facto authorities govern the region comprising 5 districts and two municipalities (Tiraspol - the capital and Tighina).

In 1991, Moldova started transition to democracy and has experienced sweeping political, economic and social changes. Adoption of market economy in 1992 resulted in large inflation and economic plunge, causing socio-economic distress, abrupt impoverishment, increasing inequalities and massive outmigration. This led to health system funding shortages, reductions in service provision and human resources for health, increased out-of-pocket (OOP) payments for users. Social distress led to increased vulnerabilities and risk behaviors, i.e. increased alcohol use and a new pattern of injecting drug use pre-cursor to an HIV explosive epidemic among people who injected drugs. Tuberculosis (TB) re-emerged as a public health issue. Economy rebounded since 2001, with positive annual growth, slow economic development and periods of recession. Deep and Comprehensive Free Trade Agreement (DCFTA) stimulates trade integration between Moldova and the EU. A large-scale banking fraud in 2014 has generated political instability lasting since. According to the latest Human Development Report 2019, there is

persistent inequality and stagnating human development. While absolute poverty is nearly inexistent since 2007, over half of population lives in precariat (USD 5.5-10/day), 15% are relatively poor (USD 1.9-5.5/day) and middle class stagnated since 2008. Remittances from Moldovans abroad account for a quarter of Moldova's GDP.

Moldova has the third fastest shrinking population in the world. In 2020 its present population is 2.7 mln on Right Bank (National Bureau of Statistics, NBS 2020), and a population of 475,6657 in Transnistria, adding up to a total of 3.3 mln, compared to 4.2 mln in 1991. Following reanalysis of Census 2014 data, NBS will update population breakdown by districts later in 2020. UN projections show a total 4.0 mln population, 8 this discrepancy in population leading to overestimations in targets based on estimated indicators. In parallel to outmigration, Moldova experiences a negative population growth, 1.2 children being born to the average woman, a birth rate less than the worldwide average population is expected to decline to 1 mln by 2050.

Health System Context

The health system of the Republic of Moldova is organized according to the principles of universal access to basic health services, with mandatory health insurance for other health services and equity and solidarity in health care financing. However, over 10% of the population lacks health insurance coverage.

The Ministry of Health and its subordinated institutions have full responsibility for the organization, functioning and regulation of health services provided to individuals and the public, and for ensuring the state surveillance of population health. The Ministry of Health addresses the major challenges in the health sector and promotes the principle of Health in All Policies through multi- and intersectoral collaboration, including the coordination of public health activities within the sector and beyond it.

The main source of revenue for the health system is currently mandatory health insurance funds, which are raised through payroll contributions for employees, transfers from the national budget to cover the non-working population (14 categories of people, such as pensioners, students, children and registered unemployed) and direct contributions from self-employed workers. OOP payments account for over a third of current health expenditure and are dominated by spending on medicines.

The Republic of Moldova has had significant success in reorienting the health system towards primary care, and the primary care system functions wholly on a family medicine basis. In rural areas, primary care services are provided by family doctor offices and health centres while in urban areas, services are provided through big family health centres (formerly the polyclinics). Family doctors act as genuine gatekeepers to specialist and inpatient services for insured patients. Inpatient care is provided at the municipal and district (secondary care), and republican (tertiary care) levels.

HIV Context

HIV disease burden is among the highest in Europe and second highest after Ukraine, accounting for 9.4 percent of years of life lost in the 15–49 age group. 37 Since mid-1990s Moldova experiences a concentrated HIV epidemic the largest portion of new infections occurs among three key populations: people who inject drugs (PWID); men who have sex with men (MSM); and sex workers (SWs), their clients, and their sexual partners. According to SPECTRUM estimates, the estimated HIV prevalence in the adult general population is 0.6% [0.3 in women and 0.6 in men], new infections occur mostly in adult population over 24: the estimated incidence of 0.45 in 15-49, 0.08 in 50+, 0.29 in 15- 24 and 0.04 0-14. The latest estimated number of PLHIV in Moldova is 14,589, lower compared to previously estimated 17,000 until 2018, a downward adjustment due to NBS population size revision. Since 1987 to date, a total of 13,656 people with HIV, 4,437 AIDS cases and 3,879 deaths were cumulatively registered on both banks of the Nistru River. The readjusted prevalence based on new population size estimates is 310 per 100,000. (National Agency for Public Health 2020) In 2019, 922 new HIV diagnoses were registered (31% more compared to 2010), of them 58% men, 42% women and 21% young people 15-24 years. There is a large variation in the HIV epidemic between Right and Left Bank, incidence was 20 per 100,000 inhabitants on the Right Bank and 47 per 100,000 inhabitants in the Transnistria (Left Bank).

The geographic distribution shows concentration in urban areas, the most affected sites are municipalities of Balti and on the Left Bank, Tiraspol and a town Rybnitsa due to a higher concentration of key populations and their sexual partners in urban areas. (National Agency for Public Health. Annual Epidemic Update 2020)

According to the latest Global Aids Monitoring Report (GAM) 2019, the HIV epidemic continues to be concentrated among PWID and SWs, with increasing transmission in MSM. Data suggest that the epidemic has transitioned from a PWID driven epidemic to one in which transmissions to sexual partners and MSM and SWs has become a source of new infections.

Main challenges in national HIV response include:

- Late diagnosis of HIV remains a problem in Moldova: more than 50% of people who were newly diagnosed with HIV were late presenters, with CD4 counts of <350 cells/mm³;
- Only 66 % of people living with HIV were aware of their status (SPECTRUM);
- Low access to HIV and Syphilis tests in small areas (village);
- Long time for HIV confirmation;
- Integration of HIV testing with other relevant services.

Assessment of Health System Functions towards Decentralization

Service Delivery

Moldova's health system has significantly evolved from the model inherited from the Soviet Union, which in 1990s has become unaffordable and inefficient during severe economic downturn faced by the country. The years 2000 have brought economy recovery, creating conditions for rebuilding the health system. There were notable improvements in the health system's performance over the recent years and major structural reforms included introduction of primary care based on family medicine in early 1997, nationwide mandatory national health insurance became operational in 2005, and investments in priority health programs, such as reproductive, mother and child and adolescent health, non-communicable diseases, TB, HIV and Hepatitis. TB and HIV are priority for public health as reflected in the National Public Health Strategy 2014-2020. One of the objectives is to reduce the burden of communicable diseases by reducing the risk factors and ensuring equitable access of population to primary, secondary, and tertiary prevention services; to improve the cross-sector collaboration mechanisms with clear definition of responsibilities among the health sector and other sectors in implementing the essential public health operations.

After almost three decades of ongoing transition from Semashko model of health care, the health system is still struggling to overcome vertical, fragmented design. Out roughly 80 hospitals in the country, around 40 are in Chisinau, the capital city. Stakeholders acknowledge it perpetuates inefficient use of limited resources, fragmentation, poor coordination and continuity of care and a medicalized approach. Purchasing mechanisms predominantly cover hospital services and underfund outpatient services. 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. The public health reform was conceptualized, and reorganization has taken place a number of times, and intent is to bring coordination of national programs under one umbrella, but process has been stalling. The very much needed transformation of service delivery to people centered models and hospital modernization process is hampered by political instability (since 2015 there were seven ministers of health and four directors of NHIC related to frequent change in governments).

HIV testing strategies

At the national level, Dermatology and Communicable Disease Hospital's (DCDH) lab centralizes the national capacity to conduct HIV testing, diagnosis.

Currently, the lab received the tests for the detection of HIV Avidity (HIV recency testing). Six labs are able to conduct HIV diagnosis. For HIV VL testing and early infant diagnosis via polymerase chain reaction (PCR) (Xpert HIV-1 Qual), the Republic of Moldova uses the Xpert platforms, located in 6 sites (4 on the Right Bank (one in the penitentiary system) and 2 on the Left Bank). CD4 count machines are located in 5 sites, 3 machines on the Right Bank and 2 on the Left Bank and are used according to updated protocols.

Moldova comprises a network of more than 300 laboratories in primary health care setting and in all hospitals that are able to conduct HIV testing. Additional testing labs are located in blood transfusion. The national clinical protocol sets HIV lab monitoring standards aligned to WHO 2016 guidelines. External validation of immune assays, viral load and EID testing is done by German institution INSTAND. The DCDH lab has started EQA for HIV since 2019.

With decentralization, focus on quality of testing is critical and establishing role of NRL is needed. Major gaps include lack of laboratory information system (LIS), and need to connecting HIV confirmatory labs and HIV testing sites in a real-time information module (reports are excel-based), lack of unique identifier does not allow counting people tested, only tests used, and lack of reference system to linkage to care.

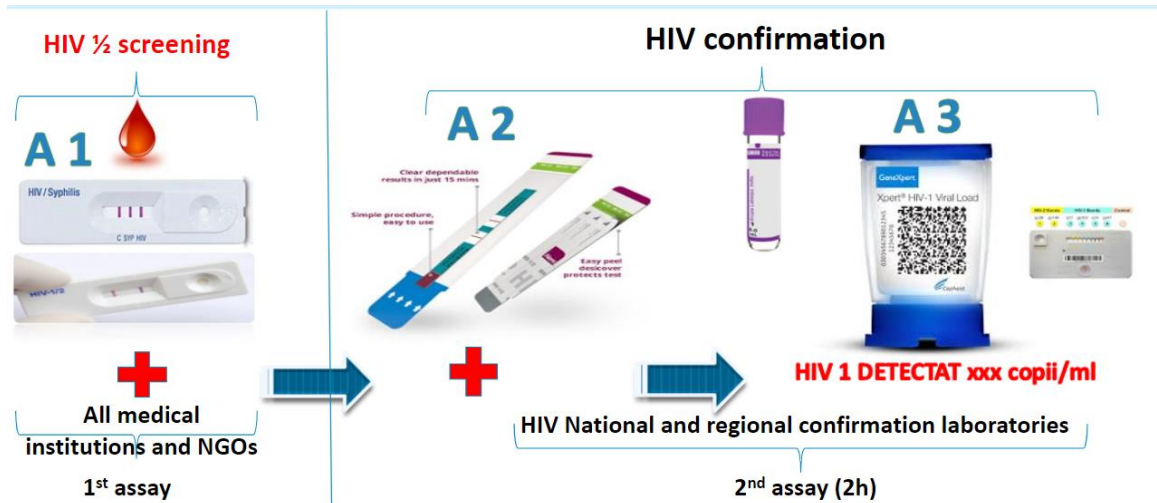
Since 2019 Moldova moved from conventional HIV confirmation algorithm to the new approaches included adopting WHO-recommended decentralized testing strategy based on RDTs for both facility-based and community-based testing (CBT) and testing decentralization to PHC. Adoption of new testing algorithm decreased time to results to 1-2 days as opposed to a month.

Furthermore, Moldova updated its guidelines and protocols for HIV testing and confirmation service delivery, in-line with the latest WHO recommendations.

Under the new HIV diagnosis guidelines, the:

- All levels of the health services have the ability to use rapid diagnostic tests for HIV ½ screening.
- Dual HIV/syphilis rapid diagnostic tests (RDTs) is the first test in HIV testing strategies and algorithms in ANC (since 2020).
- NGOs have the ability to use rapid diagnostic tests - HIV / Syphilis, HBsAg and HCV for all key affecting populations (IDU, MSM, SW and their sexual partners).
- The Pharmacy system have the possibility to distribute the tests for Self testing.

Moldova has decentralized HIV testing to public health laboratories. Based on the current service delivery algorithm all medical institutions and non-governmental service providers provide HIV rapid screening tests (HIV ½), while national and regional laboratories conduct HIV confirmatory testing through performing 2nd Assay and confirmation with GeneXperts.



As a result of introduction of updated HIV confirmation algorithms and decentralizing services to public health laboratories, country has observed significant progress in outcomes, including:

- Using the RDT at PHC level and confirmation through the GeneXpert platform decreased the turn around time up to 3 days for approximately 50% have of new diagnostics cases.
- 30% from all new diagnostics cases received the confirmation in the same day.

Financing

Moldova spent 12.9 percent of total public expenditures and at 5 percent of GDP on health (2018) being on higher end in the region. In absolute terms though total health expenditure is at PPP\$ 514 per capita (2014), much lower compared to countries in the European Union, and twice less than neighboring Romania PPP\$ 1079 per capita (2014) 47,48 Some 15% of the population remains uninsured, and these are more likely to be rural residents working in agriculture and informal sector and labor migrants.

KPs that are unemployed, underemployed, or employed in the shadow economy (sex work being an example), thus large shares do not have health insurance. NHIC provides access to an essential package of emergency, primary, and inpatient services without charge. However, out-of-pocket expenditures are the largest barrier to universal health coverage. Despite existing mechanism to reimburse medicines, pharmaceutical expenditures are heavily reliant on patient out-of-pocket payments for outpatient medicines. The government spending for health has significantly increased over the past decade, yet it only accounts for less than half of total health expenditure. This limits the possibilities to cover all needs of both national TB and HIV programs from state and national health insurance budgets. The shortage is particularly acute regarding the community involvement of NGOs in HIV community-based efforts.

Financing of HIV testing services are largely funded by the state budget. Overall, despite significant fiscal constraints and continuing political instability, the Government of the Republic of Moldova has made major efforts to sustain free access to HIV services, including testing and diagnostic services.

Health Workforce

Despite a high production rate of health workforce through both State Medical and Pharmaceutical University and Medical Colleges, new graduates prefer to leave the country for better employment prospects in neighboring Romania (with which Moldova shares the same language due to common history and a large proportion of Moldovan population have dual citizenship) or other EU and non-EU countries.

As a result, the health workforce experiences shortages in both primary care doctors and specialists and particularly of nurses, particularly outside urban areas and district centers, and ageing phenomenon, more than half of the workforce are over 50 years old or already retired.

COVID-19 disproportionately affects HCWs, and the number of HCWs who died of COVID- has no reached 25, given age and chronic conditions and poor supply of sufficient and quality protective equipment at the beginning of the pandemic response. This significantly affects the options for decentralization of care and there are challenges with staff motivation and retention. In these circumstances a human resources strategy is needed. Similar priority is needed for HIV, as well as aligning sector strategies to the overall Strategy for Human Resource Development (2016-2025).

Based on the KIIs there is a major concern regarding structural stigma and discrimination in medical settings towards PLHIV and key populations, especially in the regions and small communities.

Governance and Leadership

Currently, the HIV program exists as a vertical disease-oriented programme with coordination unit managed by different entities at the level of tertiary health care institution for HIV services. There are still major concern in regard to integrated governance system that is not sufficiently in place at the time. An evaluation of potential governance scenarios has provided a few scenarios, yet structure and coordination evolved since then, and new circumstances (i.e. a merge of Ministries of Health and Social Protection, set up of National Agency for Public) call for new options.

The National Coordinating Council of National HIV/AIDS Prevention and Control Programs, Sexually Transmitted Infections and Tuberculosis Control Programs (CCM) is an intersectoral structure at national level, which reflects the priorities and commitment of the Republic of Moldova in combating tuberculosis, HIV/AIDS and sexually transmitted infections (STIs).

The national coordination council was established on August 3, 2005, by Decision no. 825 of the Government of the Republic of Moldova, with the aim of contributing to the effective implementation of the activities within the national programs for prevention and control of HIV/AIDS infection, sexually transmitted infections (STIs) and tuberculosis control by attracting, coordinating, monitoring and managing grants offered by international organizations in response to HIV and TB infections.

CCM has 30 members, of which 29 members have the right to vote (representatives of state institutions, international agencies and non-governmental organizations), who participate in making decisions related to the development and promotion of national health policies in HIV field.

The decision-making level of the CCM is also supported by the National Commission of Experts, whose mandate is to ensure the process of programmatic supervision of national programs. At the operational level, the CCM activity is carried out through technical working groups.

Though, CCM ensure participatory process of stakeholders from HIV field, major concerns have been expressed by key informants in regard to need to engaged interested parties from outside of HIV, including primary and secondary healthcare units.

Health Management Information Systems

The M&E unit of the HIV-NSP-CU is responsible for the overall monitoring and evaluation of prevention, diagnosis, treatment of PLHIV, care and support. It does not have specific budget and depends on the donor funding.

National Agency for Public Health is responsible HIV routine sentinel surveillance collects data on newly HIV diagnosed people, performs the epidemiological investigation and reports to the national and international agencies, including WHO/ECDC, GAM reports to joint WHO/ECDC database.

Although relevant strategic information has been regularly provided to inform the decision-making process in the national response to HIV and to international data collections, and over the years, this system passed through a series of reforms and modifications, but it is yet premature to state that the system is fully functional and satisfies all needs.

The HIV information monitoring system include different modules with no linkages between them that have been developed over time.

Kazakhstan - Country Profile

Country Context

Kazakhstan is a transcontinental country located mainly in Central Asia and partly in Eastern Europe. Kazakhstan is the ninth-largest country in the world, covering some 2.7 million square kilometres. Kazakhstan is bordered by Russia to the north, the Caspian Sea to the south-west, Turkmenistan, Uzbekistan and the Kyrgyz Republic to the south, and China to the east.

Since the 2000s, Kazakhstan has seen impressive economic growth driven by the first generation of market-oriented reforms, abundant mineral resources extraction, and strong FDI. Sustained economic growth has transformed the country into an upper middle-income economy, commensurately raising living standards and reducing poverty.

According to the World Bank, since independence, Kazakhstan's per capita GDP has increased six-fold. Its GDP per capita of USD\$9,122 for 2020 is comparable to Russia's.

Oil is Kazakhstan's major export, followed by natural gas and other commodities. Kazakhstan has the 12th largest proven oil reserves and 14th largest natural gas reserves, and ranks in the top ten countries for coal, gold, chrome, zinc, lead and bauxite reserves. It is the world's largest producer of uranium. Kazakhstan's industrial sector is heavily reliant upon mining and mineral processing and on related activities such as the production of mining and engineering equipment.

Institutional and governance reforms have been as the main constraint to achieving Kazakhstan's development goals. Although Kazakhstan was an early modernizer, it is now undertaking reforms more slowly or unevenly, and therefore now has a business environment which is comparatively less conducive to private sector growth, a substantially larger public sector role in industry/economy, a less well-developed financial sector, and weaker governance and enforcement. The country is now focused on building requisite systems and institutions to enable transition to the high-income status, including reform of fiscal, financial, governance, regulatory, and service delivery systems allowing stronger competitiveness.

Kazakhstan has achieved large reductions in poverty over the past two decades. The poverty rate, measured in internationally comparable terms, fell from about 36 percent of the population in 2006 to less than 6 percent in 2013, driven primarily by rising income from wage employment. Growth over the decade to 2015 was pro-poor with the poorest 40 percent of the population benefiting more from consumption growth than people in the top income quintiles. This led to a drop in the Gini index from about 0.30 to 0.27—one of the few countries globally in which this happened.

Nevertheless, this progress remains fragile and has fluctuated recently. The share of the population in poverty doubled from 5.8 percent in 2013 to a peak of 12.2 percent in 2016, corresponding to an increase of about 1.2 million people. The economic downturn in 2015 was particularly hard on the most vulnerable households. Consumption fell more for the bottom 40 percent than for the top 60 percent, leading to slightly worse inequality in 2015 and 2016. The recent peak in poverty highlights both the risks of a growth strategy that relies too strongly on oil exports and the extent to which a lack of economic diversification leaves all regions vulnerable, regardless of their economic structure. Poverty reduction resumed in 2017, falling to around 8.5 percent due to renewed economic growth in 2018, marking the second consecutive year of poverty reduction.

Health System Context

Since independence, the health system in Kazakhstan has been subject to various steps of decentralization, although the central government has retained considerable authority. The Ministry of Health is responsible for developing national health policies and legislation and facilitating international collaboration. The regional (oblast) health departments are responsible for managing and delivering health care services in their respective jurisdictions. They also own and manage all state-owned hospitals and polyclinics in their regions with a relatively high degree of autonomy. The Ministry of Health is the owner of all national clinics and research centres.

Mandatory health insurance has been introduced in recent years with the aims of increasing the coverage and quality of health services and reducing informal and out-of-pocket payments. Funds are pooled from three sources: the government (to cover socially vulnerable groups, such as children, older people, pregnant women and the unemployed), and contributions from employers and from employees. In 2016, a Social Health Insurance Fund was established to become the strategic purchaser of publicly paid health services. The fund began collecting insurance premiums from employees and employers in 2017. It was originally supposed to begin reimbursing medical services provided under the health insurance scheme in January 2018. However, this was delayed until January 2020. Since then, the Social Health Insurance Fund has been the single purchaser of publicly paid services.

Citizens and permanent residents of Kazakhstan have access to two packages of medical care: the State Guaranteed Basic Package, which is financed by the state budget, and the Social Health

Insurance package. The Social Health Insurance Fund is the single public purchaser for both packages of services. Services covered in the State-Guaranteed Basic Package include emergency care and transport; primary care; specialist outpatient care for acute conditions, tuberculosis (TB), and HIV, noncommunicable diseases and contagious diseases; day care for specific diseases; inpatient care for contagious diseases and specific diseases listed by the Ministry of Health; and rehabilitation and palliative care for specific diseases. Services covered in the social health insurance package include specialist outpatient care, day care and inpatient care for a broader variety of diseases and conditions. In 2021 the proportion of the population covered by social health insurance was 81.3%, a decline from 84% in 2020. According to national data, the 18.7% of the population that is not covered by social health insurance are people of working age who are not registered as employees or as unemployed.

The oblast (regional) health departments are responsible for the delivery of primary, secondary and tertiary care (excluding research centres, which are run by the Ministry of Health). Some private providers operate in both the primary care and hospital sectors, and the majority of them contract with the Social Health Insurance Fund to provide publicly paid health services. Specialized and tertiary services are provided in a range of different institutions that vary in terms of size and structure. These are polyclinics, rural hospitals, oblast and city hospitals, specialized hospitals and national republican hospitals.

HIV Context

In 2019, Kazakhstan registered 3,675 new HIV cases, including 3,518 Kazakh citizens and 157 immigrants. Of these new HIV infections, 65,5% were males and 34,5% females.

In 2018, Kazakhstan registered 16.8 HIV cases per 100,000 population, while in 2019 this number had increased to 19.1, an increase by 13.6%. The total number of PLHIV ever registered with health authorities is 25,753, with 21,951 in active care and 17,535 in treatment by the end of 2019.

The most affected regions in Kazakhstan are Pavlodar with an incidence of 50 per 100,000 population; followed by Kostanay with 40.1; North Kazakhstan Region with 34.8; and Karaganda with 31.5. 62.7% of all cases are registered in AIDS clinical stage 1; 18.5% in clinical stage 2; 16.2% in clinical stage 3 and 2.7% in clinical stage 4.

AIDS-related deaths - In 2019, the AIDS mortality rate was 10/1000 PLHIV, compared to 11/1000 in 2018. The mortality rate in PLHIV from any other causes was 29 per 1000 PLHIV in 2018, compared to 26/1000 in 2019 (see Annex 2, slide 37). HIV prevalence among pregnant women decreased from 2.7 in 2017 to 1.3 in 2019. Kazakhstan submitted a request to WHO for certification of elimination of mother-to-child transmission of HIV.

Kazakhstan still has a concentrated HIV epidemic; in recent years, however, there has been a shift in terms of the highest number of new cases from PWID to MSM. HIV prevalence among sex

workers (SWs) is considerably lower than among MSM and PWID: it decreased from 1.9% in 2017 to 1.4% in 2019.

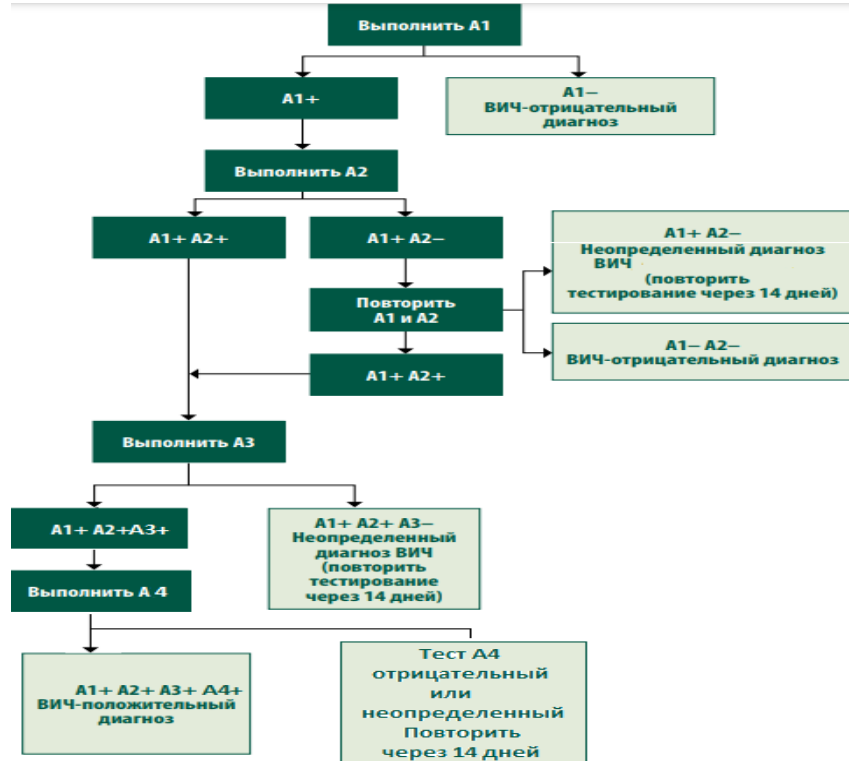
Kazakhstan is among countries that monitors the 90-90-90 Fast-Track targets. The national AIDS response is guided by an Action Plan that has been aligned to global UNAIDS and WHO policies. The National Health Programme “Densaulyk” states that “conditions for effective implementation of the international recommendations to fight HIV, including UNAIDS Strategy 90-90-90 have been created with the ambitious goal to eradicate HIV/AIDS”.

Kazakhstan has seen steady progress towards the 90-90-90 targets. In 2019, the situation showed that 82% of PLHIV knew their status; 68% of those who knew their status received sustained ARV therapy; and 78% had viral suppression. Around 14% of the general population was tested for HIV in Kazakhstan in 2019; with 1.9% of the total amount of HIV tests done among key populations. In 2019, the diagnostic laboratories of 16 Regional AIDS Centres conducted 3,069,199 HIV tests, of which 3,518 people (0.11%) were confirmed HIV-positive by immunoblot.

Integrating AIDS through people-centred systems to improve universal health coverage (UHC)

- In order to guarantee the sustainability of mutually supportive HIV-related prevention, treatment, care and support services, information and education, the Republic of Kazakhstan has integrated the services into the national public health care and primary health-care system to address the problem of co-infections and opportunistic diseases, especially for TB, drug use and mental health disorders, as well as services for sexual and reproductive health, including prevention, diagnostics and treatment of viral Hepatitis, cervical cancer and other sexually transmitted diseases, including human papillomavirus and services in response to sexual and gender-based violence, bearing in mind that women and girls are particularly vulnerable to such co-infections and opportunistic diseases. Thus, the Narcological service introduced a “single window” for PWID to provide testing for HIV, TB, and distribute methadone in one stop-point. During restructuring in 2019, the narcological and mental health services were merged into a single institution: the Republican Scientific-Practical Centre for Mental Health (RSPCMH) of the Ministry of Health. The Centre provides integrated preventive, consultative and social assistance, diagnostics and treatment for people who inject drugs. The Ministry of Health has also ensured the provision of integrated services for HIV, STIs and Hepatitis through integration of AIDS and STI services. The Kazakh Scientific Centre of Dermatology and Infectious Diseases (KSCDID) has developed a one stop shop (friendly cabinet) tariff plan that provides free HIV, STIs, Hepatitis and STI testing to key populations.

Current HIV confirmation algorithm



Financing

State funding covers around 95% of the national HIV response. This covers most care and treatment-related services, testing, as well as outreach workers for KPs and PLHIV based at AIDS Centres.

HIV testing and diagnostic services are fully covered by the state budget, including procurement of test systems, lab infrastructure and funding of service delivery.

The model of financing of primary health care is carried out within the framework of the guaranteed volume of free medical care.

The HIV program is part of the overall health budget. The sources of financing for screening, diagnostics and treatment services are the budgetary funds of the Republic of Kazakhstan. These funds come from the republican budget to the social health insurance fund (MSIF) in the form of transfers. The Ministry of Health, in agreement with the Social Health Insurance Fund, forms a budget request.

Health Workforce

The provision of HIV preventive and diagnostic services is part of the formal education curriculum. The country has curricula on HIV for post-graduate education as part of advanced training every 5 years.

The Decree of the Government of the Republic of Kazakhstan dated October 12, 2021 No. 725, On Approval of the National Project Quality and Affordable Health Care for Every Citizen "Healthy Nation", does not provide for a section on HIV infection, however, trainings on issues related to HIV infection and KPs are conducted by AIDS centers within the framework of their operation, as well as within the framework of various international projects.

Governance and Leadership

Country coordinating mechanism (CCM) is a consultative advisory body under the Government of the Republic of Kazakhstan which was established to ensure coordination and optimization of activities of the central and local executive bodies, international and local non-profit organizations, including religious and educational organizations, mass media and other legal entities, irrespective of their type of ownership, participating in the measures to control HIV/AIDS and tuberculosis.

Kazakh Scientific Center of Dermatology and Infectious Diseases is an entity responsible for implementation of HIV response, including the global fund programmes.

It should be noted that there is no separate national HIV/AIDS strategic plan in Kazakhstan, though there is a general national health project for 2021-2025, and HIV response is integrated into it.

Program Management for HIV testing and treatment: - KNCDIZ-republican level, Centers for HIV Prevention-regional level.

A part of the structure for the formation of decision-making processes in the field of HIV are representatives of public health organizations that carry out activities in the field of prevention and treatment of HIV infection.

Program Management of state programs for primary care and universal coverage: Department of Medical Assistance of the Ministry of Health of the Republic of Kazakhstan - republican level, Health Department - regional level.

Health Management Information Systems

Currently, Kazakhstan is strengthening the availability and effectiveness of medical care through the integration of information systems, the use of mobile digital applications, the introduction of electronic health passports and the transition to paperless hospitals.

The E-health Care programme is part of the Government's "Digital Kazakhstan" programme, which aims to increase living standards of citizens, using digital techniques. In this context, a Database of Individual Client Records (DICR) was developed in 2020, which allows getting data on all indicators, with automatic breakdowns by test result, gender, age groups and type/place of coverage of KPs with preventive programmes.

In 2021 and 2022, the further improvement and roll-out of the DICR system was implemented, by introducing a system for identifying customers by QR code to all government and non-governmental organisations providing HIV services.

Information system in the field of HIV is a single source of data on HIV infection and operates in real time and allows to:

- evaluate the effectiveness of HIV treatment in the context of the institution, region and the whole country.
- monitor and control the timeliness of laboratory tests and all appointments.
- assess the quality of epidemiological investigations and the epidemiological situation in the Republic of Kazakhstan and regions.
- receive monthly, quarterly and annual reporting

Kyrgyzstan - Country Profile

Country Context

Kyrgyzstan is a landlocked, mountainous country in Central Asia with a population of 6.6 million in 2020. It is a lower middle-income country with a small economy dominated by the extraction of minerals, agriculture, and reliance on remittances from citizens working abroad, making it vulnerable to external shocks. As a result of the COVID-19 pandemic, GDP declined by 8.6% in 2020.

Since gaining independence from the Soviet Union in 1991, the Kyrgyz Republic has experienced considerable political turbulence, accompanied by economic and social fragility, episodes of social unrest and frequent changes of government.

The Kyrgyz economy has grown at a robust pace between 2000 and 2016 - but there are signs that the current economic paradigm may be insufficiently dynamic to sustainably address poverty and generate inclusive growth in the medium- to longer-term.

The Kyrgyz economy is heavily dependent on remittances, gold production and foreign aid and as a result has been vulnerable to external shocks. Strong and sustainable economic growth requires institutional strengthening and policies to develop the private sector, spur international trade, and encourage fiscally sustainable energy production.

The Kyrgyz economy has proved more resilient than expected to the spillovers of the war in Ukraine and sanctions on Russia. Real GDP grew 7.7 percent during January-July, yoy, supported by industry, agriculture, construction and services. Growth was driven by domestic demand which in turn was supported by solid remittance inflows (7.5 percent growth in US\$ terms) from Russia, aided by a strong Russian ruble.

Inflation increased to 13.8 percent in July from 11.2 percent in December 2021, driven by food and fuel prices following the global trends. In the first 7 months of 2022, the fiscal position was solid with a surplus of 1.4 percent of GDP. Total revenues increased to 45.9 percent of GDP from 38.6 percent a year ago, driven by higher tax revenues.

Spending increased to 44.5 percent of GDP from 37.2 percent a year ago driven mainly by capital outlays. The surplus, along with the appreciation of the national currency helped reduce the public debt burden to an estimated 49 percent of GDP by end July 2022. The current account deficit significantly increased to an estimated 15.2 percent of GDP in H1, 2022 because of a sharp reduction in gold export and a surge in imports.

The poverty rate is expected to increase to 25.5 percent in 2022 (at the \$3.65 a day, 2017 PPP poverty line) from 21.8 percent in 2021, and 18.7 percent in 2020. High inflation remains the most immediate concern for the welfare of the population. Increases in public sector salaries and in pensions, and the enhancement of the social protection program have softened the negative impact of the food price increase on the population. The intention of the authorities to further scale up and extend the social protection program will help protect the most vulnerable part of the population.

Health System Context

The health system is mainly governed by the Ministry of Health, which develops health policies, drafts health legislation and oversees the regulation of the health system. The Mandatory Health Insurance Fund (MHIF) under the Ministry of Health is an executive agency that pools public funds at the national level for the procurement of a standardized package of services from health care organizations. While the MHIF is meant to be a strategic purchaser of health services, this ambition has not been fully realized.

At the regional level, the activities of public providers are coordinated by the oblast coordinators appointed by the Minister of Health. Oblast state administrations or the relevant oblast governments also play a role in the coordination of activities at the regional level through coordinating commissions on public health issues in oblasts, cities and districts.

Most health care organizations are public and most health workers are salaried employees. External development partners have played an important role in supporting Kyrgyzstan's reform agenda and have also supported its response to the COVID-19 pandemic. The government aims to expedite the digitalization of the health system, although a digitalization roadmap or strategy for the health sector is still lacking. To institutionalize the digital transformation of the health sector, the E-health Centre (the Republican Centre on Electronic Health) was established, replacing the Republican Medical Information Centre. Patient rights and the participation of the public in the governance of the health system are still sporadic and at an early stage of development.

Health expenditure per capita is one of the lowest in the WHO European Region, due to the country's small GDP per capita. In 2019 health expenditure per capita amounted to US\$ 260 PPP (\approx US\$ 62), exceeding only Tajikistan. In terms of its share of GDP, health expenditure amounted to 4.5% of GDP in 2019, and public expenditure on health was only 2.3% of GDP. Private spending, almost entirely in the form of out-of-pocket expenditure and including informal payments, accounted for 46.3% of health expenditure in 2019, a decrease from levels seen in 2014–2017, but an increase from the levels seen in the 2000s. In a related development, public sector current expenditure on health as a share of total government expenditure increased from 7.1% in 2000 to 12.8% in 2005, although it declined again to 7.1% in 2019. Voluntary health insurance is virtually non-existent.

A mandatory health insurance system was established in 1996, with the Mandatory Health Insurance Fund (MHIF) under the Ministry of Health acting as single public payer for almost all hospitals and providers of primary care. The benefits package of publicly covered services is defined in the SGBP. However, in 2019 only 69% of the population was covered by mandatory health insurance, a decline from 76% in 2016. One of the reasons for this decline is the introduction of digital technologies for registration and accounting, making it possible to delete duplicate records and increase the reliability of data. Another reason is the migration of working-age people to other countries. Payment mechanisms for health services have changed with the establishment of the MHIF. At primary care level capitation financing was introduced, while payment of hospitals was based on treated cases, following a DRG system. In recent years payment for results and quality of care has been piloted, under a system called Results-Based Funding (RBF) for hospitals and Funding for Performance (F4P) for primary health. Salaries of health workers vary across the country but remain low and do not reach the country's average salary.

Public health services are state-run and coordinated nationally, mostly by the Ministry of Health. Prior to the COVID-19 pandemic, the country achieved high coverage rates for routine childhood vaccinations, but the COVID-19 pandemic has resulted in disruptions to vaccination programmes. Less emphasis is placed on addressing noncommunicable diseases, such as through measures addressing tobacco smoking, alcohol consumption, obesity and nutrition. Despite the fact that Kyrgyzstan is a signatory of the WHO Framework Convention on Tobacco Control, the country so far has not implemented many of the required measures. Tax and non-tax measures are inadequate and tobacco tax in Kyrgyzstan is among the lowest in the WHO European Region. Primary care facilities are the most easily accessible health care providers, with FGPs most commonly responsible for the initial visit, check-up and, if necessary, examination and treatment. If a consultation with narrow-profile specialists is needed, the family doctor refers patients either to Family Medicine Centres (FMCs) or to a hospital. To improve accessibility in rural areas so-called Feldsher-Obstetric Points (FAPs) have been established, run by a feldsher, as well as a family doctor who visits the FAP regularly. Despite attempts to strengthen primary care, a number of persistent challenges remain, including low public confidence and a preference for services offered by hospitals and narrow-profile specialists.

HIV Context

Epidemiological Situation with HIV: Notwithstanding the low incidence, high rates of HIV transmission continue to persist in Kyrgyzstan. Over the past five years, the total number of officially registered HIV cases in the country has almost doubled (from 4,819 cases in 2013 to 9,135 cases in 2019).

The estimated number of PLHIV amounts to 8,5003 whereas the HIV prevalence was 142.9 per 100,000 population as of December 31, 2019. In recent years the number of HIV-positive women has been increasing and has reached 43% of the total number of PLHIV in 2019. The detection of women increased from 30% in 2013 to 36% in 2019 among newly registered PLHIV for the reporting years.

HIV is registered mainly (85%) among people aged 15-49; 7.5% are children aged 0-14; the senior citizens aged 50 and over are 7.5%. 49% of PLHIV live in urban areas and 51% in rural area. Among PLHIV who injects drug predominate men (93%) and among PLHIV who is SW 76% are women. The most common age at the time of HIV detection among (a) PWID is 25-49 years (86%); (b) SW – 25-49 years (64%); (c) MSM: 15-24 years – 34%, 25-49 years – 59%. While the prevalence rate remains relatively stable, a slight increase in the incidence rate is observed from 9.8 in 2015 to 12.3 per 100,000 population as of December 31, 2019.

The total number of registered HIV cases in the Kyrgyz Republic as of December 31, 2019 amounted to 9,135 people whereof 2,049 have died⁵. While in 2013, 478 new cases of HIV infection were registered, in 2018 and 2019, 820 and 788 new infections were registered, respectively. In recent years, there has been an increase in the number of HIV-positive women reaching 43% of the total number of PLHIV in 2019.

According to the official statistics, the HIV epidemic in Kyrgyzstan continues to be concentrated among key affected populations, primarily among PWID, SW, MSM and TG. At the same time, starting from 2012, a steady upward trend in sexual transmission of HIV could be observed. In 2019, sexual transmission accounted for 70% of all registered HIV cases, whereas mother-to-child-transmission accounted for 12.3%.

The latest routine data of the Republican AIDS Centre shows that most new HIV cases are detected among sexual partners of PWID - 4.6% (422 cases, N = 9,135), sexual partners of PLHIV - 7.5% (689 cases, N = 9,135)⁷ and, presumably, among labour migrants. Moreover, following the sentinel surveillance (SS) for 2016, HIV prevalence among PWID amounted to 14.3% (estimated number is 25,000), among MSM to 6.6% (estimated number is 16,900), and among SW to 2.0%⁸ (estimated number is 7,1009). There are no official data on transgender people.

The average annual number of prisoners in the penitentiary system of the Kyrgyz Republic amounts to about 8,000 people, with an annual rotation of about 3,500 people. There is a high prevalence of HIV (11.3%), HCV (34.5%) and syphilis (14%) among prisoners.

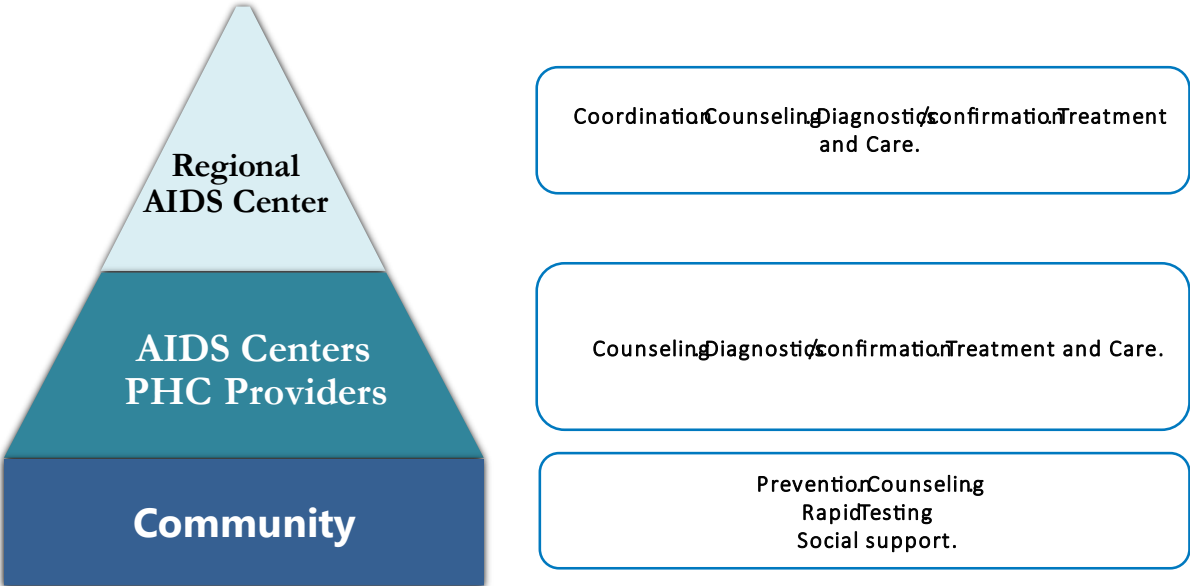
Assessment of Health System Functions towards Decentralization

Service Delivery

The Kyrgyz Republic has rolled out GeneXpert platforms for the diagnosis of HIV as part of the decentralization of services to the PHC level with the transition of the running costs to state funding by the end of 2023.

Kyrgyzstan still uses old algorithm of HIV confirmation, that includes western blotting. Rapid testing/screening services are available at all levels and regulated by Order of the Ministry of Health of the Kyrgyz Republic No. 765 dated June 27, 2022.

HIV testing services are carried out by all types of healthcare organizations. Since 2012, HIV testing has been carried out on the basis of NGOs. Testing services are mainly distributed between regional and local AIDS centers and community providers:



Most regions have decentralized the services to the PHC level pursuant to the MoH Decrees No. 717 dated December 31, 2012. HIV services are currently provided by 53 PHC facilities.

Based on the assessment of the key informants considering the wide network of providers of HIV testing services, including on the level of primary health care, decentralization of HIV services into the PHC can be considered largely achieved.

Financing

The Global Fund remains the main donor of HIV response in the Kyrgyz Republic, and international donor organizations (e.g. PEPFAR) are also actively involved in financing. However, in recent years, share of the government funding has increased, especially in funding diagnostic and treatment services.

In line with the Transition Plan for domestic funding in the HIV Programme there will be gradual increase in domestic funding for ARV drugs procurement and prevention programmes for key populations. The proposed request for funding envisages that the domestic budget will cover 40% of the country need for ARV drugs and diagnostic tests in 2021, 50% in 2022 and 60% in 2023.

Since 2019 due to extension of the MoH transition to the programmatic budget, the budget of the National AIDS Centre has divided into three lines: the general expenses; health products and pharmaceuticals; prevention programmes.

Health Workforce

Most PHC organisations have resources to provide services to PLHIV, laboratory facilities, specialists and a well-functioning system of interaction both at the PHC level and at in-patient facilities.

However, according to the MoH Republican Medical Information Centre, PHC organizations are still faced with a shortage of trained personnel to provide services to PLHIV. The lack of quality services is one of the reasons for PLHIV to stop taking ART, low adherence and loss for supervision, care and support.

Health Management Information Systems

Data on the HIV situation is regularly updated on the website of the Republican Aids Centre (RAC) and provided upon request of parties concerned.

At the same time, the implementation of national programmes is monitored with the support of international organisations. In 2019, an assessment of investments in HIV was carried out. HIV spending data is provided in the national GARP report and national HIV accounts.

For the purpose of collecting, storing, processing and reporting epidemiological, laboratory and clinical data on all registered HIV cases, the country uses the Electronic Surveillance system for HIV cases (ESS) in order to make informed prevention and treatment decisions.

ESS has been installed and is used in 31 institutions (9 AIDS centres, 21 FMCs and facilities within the State Penitentiary Service). As part of decentralization of services, the GF grant supports the ESS scale-up to cover all sites providing services for PLHIV.

ESS should be integrated into the general e-health system, and an ARV drug accounting and forecasting module should be implemented throughout the country.

Georgia - Country Profile

Country Context

Georgia is situated in South Caucasus. At the beginning of 2021, the total population was 3,728,573, with 59.4% living in urban areas. The country is administratively divided in ten regions and the capital city of Tbilisi. Georgia is ranked as an upper-middle income (UMI) country by the World Bank with GDP of USD 4,275 per capita in 2020; however, an estimated 19.5% of the population lived below national poverty line in 2019.

Georgian economy's growth has been solid, averaging 5% per year between 2005 and 2019. The COVID-19 pandemic reversed some of Georgia's economic and social gains. The economy fell into recession after March 2020 as the authorities introduced pandemic-related lockdown measures, contracting overall by 6.2%; the transport, tourism, and construction sectors suffered the largest negative impacts. The unemployment rate reached 20.4% in Q4-2020, rising sharply from an estimated 12% at end-2019, and poverty is estimated to have risen by 5.4 percentage points in 2020. The government's fiscal response to the pandemic drove a widening of the fiscal deficit in 2020, reached 9.8% of GDP, and public debt to over 60% of GDP.

The Georgian economy grew faster than expected in 2021, due to rising mobility, trade volumes, tax collection, credit growth, and tourism revenues, and returned and even exceeded the pre-pandemic GDP levels. However, the labor market has been slow to recover. The annual inflation rate by the end of 2021 spiked to 13.9%, the highest figure during the last decade. Unemployment, poverty and inflation remain the top three challenges named by public opinion polls in 2021. At the end of 2021 and in the beginning of 2022, the repeated waves of new COVID-19 infections threaten Georgia's further recovery. The number of reported cases per capita were once again among the highest in the world. Vaccination coverage has risen, but less than one third of the population (31.3%) had been fully vaccinated by the end of 2021, which further blurs the prospects of rapid economic revival.

The Government's pandemic response has been supported by international partners with the purpose of helping Georgia address and mitigate the health and social impacts of the COVID-19

pandemic. The World Bank's USD 80 million Georgia Emergency COVID-19 Response Project was approved in March 2020; in June 2021, the World Bank released USD 34.5 million in additional financing to scale up COVID-19 vaccination. Also, Georgia has secured funding to support essential health (TB and HIV) services through the Global Fund's COVID-19 Response Mechanism (C19RM) in 2020 and 2021 with more than USD 6.5 million of total funding.

According to the latest review of the International Monetary Fund (IMF), while the medium-term growth perspectives improved and if efforts to control COVID-19 are successful, the recovery could be stronger than expected due to still sizeable fiscal support, pent-up demand, and faster than expected growth in tourism, yet the output levels are expected to remain below their pre-pandemic trajectory. COVID-19 variants or further vaccination delays could derail the recovery by requiring new lockdowns and reducing external demand. Renewed political uncertainty could increase the national currency volatility, undermine investment and confidence, and hinder structural reform efforts. Significant external vulnerabilities remain. Further depreciation of the Georgian Lari could increase inflation pressure and threaten financial stability given high dollarization of the economy. Depreciation could also pose vulnerabilities for public debt, given the high share that is denominated in foreign currency. Large current account deficits leave Georgia vulnerable to unexpected shortfalls in financial inflows.

Respectively, considering Georgia's short-to-medium term economic outlook, the fiscal space is expected to be very tight to meet the need for any additional health sector spending for the targeted diseases and programs (HIV/AIDS and TB) and RSSH measures for the period 2023-2025.

Health System Context

The population health status has improved in Georgia during the last two decades. For example, the under-5 mortality has decreased from over 30.1 per 1,000 live births in 2000 to 9.3 per 1,000 live births in 2020 and life expectancy at birth increased by 4 years from an average of 70.1 in 2000 to 74.1 in 2019, before declining to 73.4 years due to the pandemic. The country is facing a growing burden of noncommunicable diseases (NCDs). The NCDs are the leading cause of mortality and morbidity in the country and pose serious challenges when responding to COVID-19.

Georgia has significantly transformed its health system after three waves of reforms of the Semashko health system inherited from the Soviet Union thirty years ago. As a result of these reforms:

- the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia (MoIDPLHSA) has retained priority-setting, policy-making and regulatory functions, with financing and purchasing function delegated to its subordinate entities: National Health Agency (for the Universal Health Care Program (UHCP) and most other publicly funded individual health services programs) and NCDCPH (for public health and selected vertical health programs including the control of communicable diseases – HIV/AIDS, TB, and HCV). However, these agencies have yet to

become effective strategic purchasers as planned by the ongoing health financing reforms. Pharmaceutical and medical devices market is deregulated.

- Over 90% of the population has some degree of coverage under the UHCP, financing of which, by the year 2020, has increased more than threefold since its introduction in 2013. However, despite this notable increase in public expenditures on health from 0.8% in 2000 to 2.7% of GDP in 2019, it is still low by international comparisons, as it is below the averages for upper middle-income countries (3.3%), the WHO European Region (4.8%) and the EU (5.9%). Furthermore, while population health coverage is broad, the public benefits structure is extremely complex with substantial co-payments and reimbursement of outpatient medicines is very limited leading to catastrophic health expenditures for % of the Georgia population.
- Health providers are fully autonomous and over 80% of them is privately owned for-profit entities, the exception being rural ambulatories, TB and HIV/AIDS facilities, mental health institutions and a limited number of general hospitals, mainly located in hard-to-reach and/or scarcely populated areas. There is an oversupply of hospital beds and excess number of physicians per 1,000 population and an acute shortage of the nursing staff. Recruiting and retaining staff to work in rural areas is a challenge. The skewed distribution of physicians and nurses, ageing cadre in certain specialties, including TB and pulmonology, infectious diseases specialists, epidemiologists and other public health specialists also makes optimizing the skill-mix challenging.
- According to the *service coverage index*, measuring the universal coverage, access to essential services increased from 45 (out of 100) in 2000 to 65 in 2019, although this was still below the averages for the European Union (78) and the WHO European Region (74). Gains in access to treatment for infectious diseases such as HIV, TB and Hepatitis C have been particularly notable. However, considerable challenges remain in equity to access to these services for KPs at the Primary Health Care (PHC) level and general health system, as well as in general population's access to treatment for chronic conditions and preventive treatments for cardiovascular diseases – particularly for outpatient medicines. These access barriers are partially determined by weak gatekeeping function of the PHC, rural-urban differences in PHC services availability and coverage, system-level financial incentives and a strong patient preference for accessing the system at more specialized levels of care.

Based on fundamental changes made to the healthcare system in the past few years in Georgia and to address the remaining challenges, the MoIDPLHSA defined the 10-year perspective for the sector as to ensure accessible and quality healthcare for the people. The Georgian *National Health Strategy 2021-2025 (NHS-2025)*, which is currently under development, reconfirms the government's commitments to SGD targets considering health as a basic human right and outlines NHS-2025's seven goals in support of its vision:

1. Strengthen Governance in Healthcare Sector

2. Improve Equity and Efficiency of Health Financing System
3. Develop Human Resources in Health
4. Ensure Access to High Quality, Effective and Safe Medicines and Health Products
5. Strengthen Health Management Information Systems
6. Strengthen and Improve Quality of Health Service Delivery
7. Improve Public Health Risk Preparedness and Response System

The GoG, with the support from WHO, EU, UNICEF and other development partners, has developed PHC Reform Roadmap for the years 2022-2025 as part of this strategy. The Roadmap takes into account the lessons learned during the pandemic in restructuring PHC services provision towards greater use of remote and digital services, better communication and services coordination and envisions implementation of the people-centered, comprehensive and integrated PHC model with new, more equitable benefits package, revised payment model and performance and accountability framework and defines a phased implementation plan. According to this plan, the gradual integration of HIV/AIDS, TB and viral hepatitis and other communicable diseases prevention and care services at the PHC level will be accelerated in the years 2023-2024.

WHO and other development partners are also assisting the GoG in the development and implementation of the Human Resources, Health Management Information System, and Digital Health Strategies that will support the implementation of the NHS-2025.

NHS-2025 also includes two outcome indicators on TB and HIV under *Objective 6.5. Reduce disability, morbidity, and premature mortality due to communicable diseases*

- 6.5.1. Incidence of HIV per 10,000 population (Target 2025: 1.5)
- 6.5.3. Incidence of TB per 100,000 population (Target 2025: 35).

HIV Context

Georgia remains a low HIV prevalence country with concentrated epidemics in key populations, mainly among MSM, transgender (TG) people and in some areas among PWID. Despite low HIV prevalence in the general population and signs of a decreasing trend of new HIV diagnoses, evidence of high HIV levels in MSM and TG people, rates of recent HIV transmission in the MSM population and young population indicate ongoing transmission and risk of potential worsening of the HIV epidemic in key populations and their sexual partners. Despite efforts made to improve access to testing, more than half of new HIV diagnoses are made at a late stage, with variation among different districts.

Routine surveillance data showing an increase in heterosexual transmission, particularly among the male population, which due to high stigma may partially reflect HIV transmission among men who have sex with men. In addition, increasing proportions of heterosexual transmission may also indicate HIV transmission among sexual partners of key populations (KPs) and signs of transmission in the general population. The justification for these potential features of HIV

epidemic may be found in the MISC 2018 study, which indicates a very low knowledge of the general population about HIV, and highly prevalent misconceptions about HIV.

Routine HIV surveillance

The latest estimate data (*Spectrum 2021, UNAIDS*) the number of people living with HIV is 8.400, and population prevalence is 0.3%, being twice as high among the male population (0.4%) than among the female population (0.2%). Based on most recent preliminary estimates, there are around 660 new HIV transmissions occurring a year.

Based on routine HIV surveillance data, in 2021 there were 530 new HIV diagnoses registered, including 130 new HIV diagnoses among females, 192 AIDS diagnoses, and 144 deaths. Among those new HIV diagnoses with CD4 cell count available, late diagnosis was reported in 54% of cases. Most new HIV diagnoses were reported in the age group 35-44. The predominant transmission mode was heterosexual with 315 new HIV diagnoses (59%) of all reported, followed by MSM 107 (20%) and PWIDs 67 (13%). The number of new HIV diagnoses per 100,000 was highest in the capital city Tbilisi with 15.5 and in the Mtskheta-Mtianeti 18, followed by Samegrelo – Zemo Svaneti 12.4, AR Adjara 12.3 and Imereti 11.3.

Although HIV notification rate per 100,000 population (13,3) is higher than the average of European Region (11,8) and eastern bordering country Russian Federation reports one of the highest HIV notification rates (40,8), there is not sufficient evidence to state, that migration plays a role in driving HIV epidemic.

Due to the COVID19 pandemic, the trends should be interpreted with caution and in a wider timeframe. Over the last decade, the number of new HIV diagnoses has been increasing from 455 since 2010 to 717 in 2015 and then has been relatively stable in 2017-2019 ranging between 630-672 (Figure 1). There was a 21% drop in the new HIV diagnoses in 2020-2021 compared to 2019.

Based on the geographical distribution of new HIV diagnoses for the period of 2010-2021, the highest number has been reported in the capital city of Tbilisi (2,670 new HIV diagnoses), followed by Samegrelo-Zemo Svaneti with (827) and Imereti (808). Taking into account the size of the living population, the highest notification rate for the same period has been reported in Samegrelo-Zemo Svaneti (248 per 100.000 population), followed by Tbilisi with 226.5 per 100,000 population (*ref. HIV NSP 2023-2025, Table 1*).

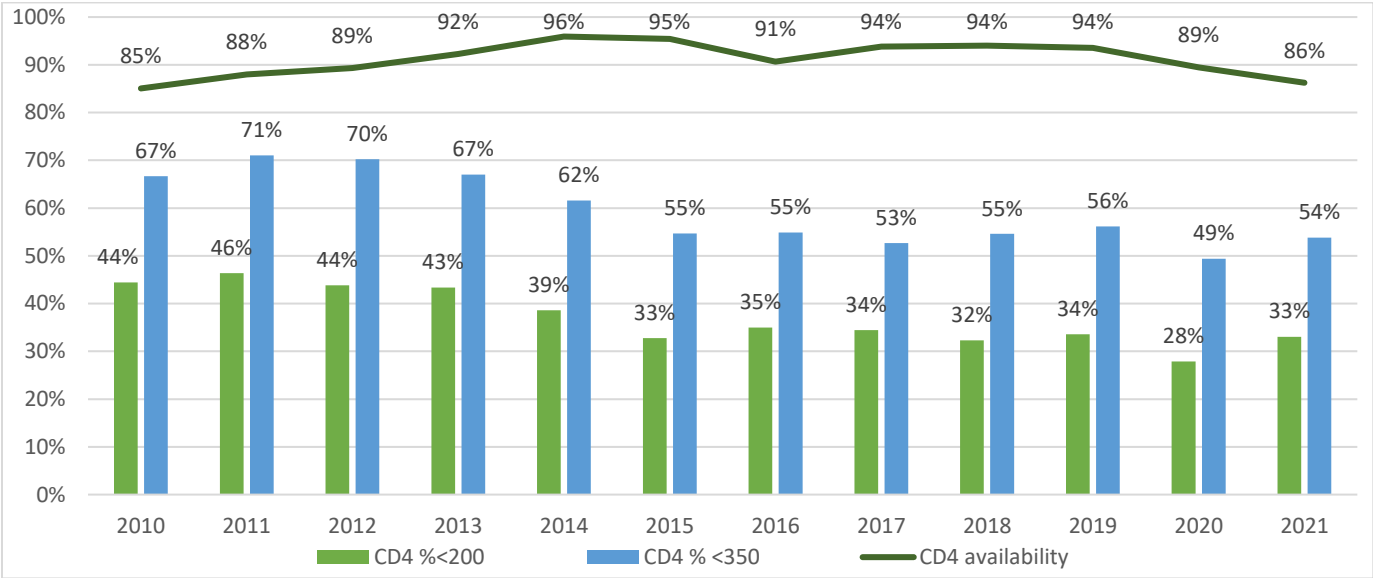
Recent HIV infection and late diagnosis

The data on recent HIV infections has an important value for monitoring the ongoing transmission of HIV in different populations, setting priorities and evaluating interventions. The available data for the period between 2018 and 2020 show that a total of 271 (16.0%) newly diagnosed persons were classified as recently infected. The proportion of recent infections was significantly higher in younger people (33.9.6% among 18-29 years vs. 13.2% among 30-39 years vs. 11.1% among 40-49 years; and 7.0% among 50+ years age groups. Overall, men were more likely to have a recent HIV infection (17.5% vs. 11.1% for the total cohort). People infected through male-to-male sex (MSM) had the highest proportion of recent infections (33.7% among

MSM, vs. 13.3% among heterosexually infected men vs. 11.2% among heterosexually infected women vs. 6.7% among PWID, $p < 0.0001$), with similar differences observed in each calendar year.

Late diagnosis remains a significant challenge in Georgia. Over the last decade, there has been an improvement in the proportion of late diagnosis (CD4 cell count < 350) among newly reported HIV cases, from 67%–71% in 2010-2011 to around 55% in 2015-2021 (see Figure 3). A similar improving trend has also been noticed among those with advanced disease (CD4 cell count < 200); the proportion has been decreasing from 46% in 2011 to 33% in 2015 and has been relatively stable since then except the start of the COVID-19 pandemic in 2019.

Late HIV diagnosis in Georgia, 2010-2021



Assessment of Health System Functions towards Decentralization

Service Delivery

HIV diagnostic services are implemented by AIDS Center (IDACIRC). IDACIRC contracts the regional infectious disease hospitals in 3 regions - Kutaisi, Zugdidi and Batumi. In addition, the 4th programme operated in occupied region of Abkhazia, under special circumstances.

HIV confirmation and diagnostics algorithm is defined by national HIV epidemiological surveillance guideline, that has been updated in 2022 and is in line with WHO latest recommendations of RDT based confirmation.

Though confirmation is currently available only in AIDS center in Tbilisi, thus complicating the process in terms of time and cost of confirmation.

No experience of decentralized diagnostics or treatment on level of PHC exists in the country. Though country has a successful case of integrated rapid testing in PHC.

While specific programmes for HIV, TB and viral hepatitis remain till this day, there has been increasing attention for **integration** of these programmes, both at the policy and service-delivery level. In the past three years, the national response to HIV/AIDS has been guided by the **Georgia HIV/AIDS National Strategic Plan 2019-2022**. This and the new HIV/AIDS NSP 2023-2025 have been developed in close coordination with the National TB and Hepatitis C Elimination programmes, ensuring alignment of the HIV NSP 2023-2025 with other national programmes, as well as with regional (European) and global policies and strategies.

Increasing integration of the HIV, TB and viral hepatitis programmes at the service-delivery level is evidenced by joint screening of HIV and hepatitis C, as well as joint efforts to manage TB/HIV coinfection, e.g., by screening TB patients for HIV, and HIV patients for TB, and coordinated management of treatment, such as TB preventive treatment (TPT) for all HIV patients. Similarly, there is strong integration between the HIV and hepatitis C programmes, since the National AIDS Centre is also responsible for the National Hepatitis C Elimination Programme.

In addition to an increased effort to integrate vertical programmes, **decentralisation of services** is also a priority. The decentralisation of services was particularly accelerated by the initiative to eliminate hepatitis C by 2020, which has catalysed the integration of HIV and TB screening interventions with hepatitis C screening services at different levels of health care, including primary health care, secondary and tertiary health-care institutions. This will allow bringing services closer to their beneficiaries, and contributes to providing access to *universal health care* to all Georgian citizens, which has been a key goal since 2013.

Current HIV/AIDS-related programmes and services provided by the Georgian state are provided as part of the state's free medical care. They include: routine and sentinel HIV surveillance; provider-initiated HIV testing and counselling (PITC); voluntary HIV testing and counselling; post-exposure prophylaxis (PEP) for health workers; prevention of mother-to-child HIV transmission (PMTCT); antiretroviral treatment (ART) and patient monitoring; in-patient care and support for HIV/AIDS patients; psychosocial support for patients with HIV/AIDS; screening of all blood and blood products; and monitoring and evaluation of programmes and services.

Financing

National HIV response is funded by the TGF since 2004. Since 2014 country is in the process of transition from external to state funding of HIV response. Georgia government started investing

into HIV response largely after co-financing requirements have been placed by the Global Fund under the New Funding Model (NFM).

Ever since country is gradually increasing state budgetary investments into HIV response, with HIV testing and treatment components being ones with the highest state budgetary contributions.

Currently HIV diagnostics - are fully covered from the state budget. State HIV programme is part of the State healthcare programme (with separate programme and budget codes). State programme is approved by order of government of Georgia, that defines AIDS center as a provided of diagnostics and treatment services. NCDC is procuring services from AIDS center through direct contracting. State healthcare programme defines standard costs of treatment and diagnostics services.

No major gaps in financing mechanisms has been identified within the study, as country has well-established model of service procurement and financing, as well as experience of work with both infectious disease hospitals, as well as primary and secondary healthcare units, within the state programmes.

Health Workforce

From Fall 2021, WHO is supporting the ministry of Health of Georgia in developing a comprehensive sector wide Human Resources Development Strategy (HRDS) for health and an action plan for its implementation. The HRDS is expected to be harmonized with the vision on PHC reform, which, entails the gradual integration of certain HIV/AIDS services.

Thus, it is expected that the need and scope of the human resources development interventions at PHC level will be already reflected in an overarching HRDS by the beginning of 2023. However, support will be needed to ensure the implementation of the systematic and coordinated system for human resources capacity building based on needs in the field of HIV, STIs, viral hepatitis, TB, infection control and pandemic preparedness.

Updating the curricula for undergraduate and postgraduate education and professional development of doctors, nurses, social workers, psychologists, and other members of the PHC multidisciplinary teams to be functional nationwide from 2024-2025 will be required. Fine tuning of the HRDS may also be needed by the end of 2023 to account for implementation challenges that may arise once the PHC reform and HIV/AIDS services integration process will advance.

Governance and Leadership

Improvement of access to quality health services has been a top priority of the Government of Georgia (GoG). Political commitment to ensure universal health coverage has led to significant increase in health budget and reduce barriers to health services.

The national response to HIV and AIDS started with the advent of the HIV to the country in the 1990s. Since then, the national response to HIV has been constantly evolving, expanding the scope and coverage of its programmes and services, ensuring that interventions are evidence-informed, and respond to the needs of those most at risk of HIV and/or in need of prevention, treatment and care services.

The HIV National Strategic Plan 2023-2025 is a continuation of the current and previous national programmes, where it aims to address the key priority challenges that emerge constantly in terms of service delivery (prevention, testing, treatment) and enabling social, legal and policy environments. In addition, the latest national strategic plan also aims to expand programmes and services to address new, emerging challenges, or introduce or scale up innovative approaches, such as PrEP, HIV self-testing, dedicated services for transgender people, or innovative approaches in response to the challenges of COVID-19.

The HIV National Strategic Plan 2023-2025 builds on the same principles and shares the same priorities of global, regional and national strategies and action plans on HIV/AIDS, TB, viral hepatitis and STIs, including: 1) Global AIDS Strategy 2021–2026 “End Inequalities. End AIDS” (UNAIDS, 2021a); 2) Political Declaration on HIV and AIDS 2021 (UNAIDS, 2021b); and 3) the World Health Organization’s 2022–2030 European Regional Action Plans for HIV, Viral Hepatitis and Sexually Transmitted Infections (WHO, 2021) (reference to more detailed information on the Alignment of the National HIV/AIDS Strategy 2023-2025 with global and regional policies and strategies, HIV NSP 2023-2025 p.47-51).

The overall goal of the Georgian National Strategic Plan 2023-2025 is to provide an effective response to HIV for the period of 2023-2025, and to set the right conditions for ending AIDS by 2030. It has three objectives:

- To strengthen uptake, comprehensiveness and quality of HIV prevention services with a focus on key and more vulnerable populations
- To strengthen the uptake, comprehensiveness and quality of HIV testing, treatment and care services – with a view to reaching the 95-95-95 test and treat goals
- To strengthen sustainability of the national response to HIV/AIDS; reduce stigma and discrimination; and promote human rights and gender equality

The national response to HIV is delivered through joint efforts of the public, private and non-governmental sectors. Although there was a significant investment by public, donor and private sectors, resulting in the increase in service delivery capacity, challenges remain with the equal access to health services by marginalized populations and PLHIV.

The National Centre for Disease Control (NCDC) is the main public health institution under the MoIDPLHSA responsible for communicable and non-communicable diseases surveillance. As such, it is responsible for the overall management of all vertical state programmes on HIV, TB and viral hepatitis. Specific tasks include surveillance, laboratory support, and coordination of

national programmes. In addition, the NCDC has been the principal recipient (PR) of the Global Fund programmes on HIV and TB since 2013. As such, the NCDC works in close collaboration with the National AIDS Centre.

Diagnostics services are implemented by AIDS Center (IDACIRC). IDACIRC contracts the regional infectious disease hospitals in 3 regions - Kutaisi, Zugdidi and Batumi. In addition, the 4th programme operated in occupied region of Abkhazia, under special circumstances.

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NSP 2023-2025 and TGF funding request for the same period, include expanding network of providers of treatment to 3 additional regions. Though it can not be considered decentralization, rather expansion of network of service provides, under management of AIDS Center.

Country Coordinating Mechanism (CCM) - in 2003 the Country Coordinating Mechanism (CCM) was established with the support of the Global Fund. The CCM ensures the broad representation of stakeholders in the decision-making process and created inclusive spaces for mounting a multisectoral national response. The CCM is established under the auspices of the Ministry of Health and was chaired by the Minister. In 2012, regulations governing CCM operations were approved by the Government of Georgia (GoG) (*Resolution of Government of Georgia №220*). The resolution defined the CCM's goals and objectives, as well as its composition. The key purpose of the governmental resolution is to ensure that the coordination of the national HIV and TB response funded with state, GFATM and donor funds is adequately facilitated across governmental, non-governmental and international organizations. The adoption of this normative document by the GoG ensured the institutionalization of inclusive coordination mechanisms and contributed to the sustainability of participatory decision-making during and after the transition.

The membership of the CCM is multi-sectoral and includes representatives of governmental, international, non-governmental and private organizations, as well as other civil society representatives.

Oversight is a core function of the CCM. Its overall purpose is to ensure that national strategies and programmes are implemented as planned and that challenges and bottlenecks are identified and addressed in a timely manner. The CCM oversight committee was established in 2014. Representatives of civil society and the community are members of the oversight committee. This provides them with functional mechanisms for monitoring and oversight of the implementation of the national response, including the implementation of obligations by the state during the transition period. Oversight committee reports are an important instrument of advocacy and influence decisions.

Policy and Advocacy Advisory Council (PAAC) - After the GFATM introduced its New Funding Model (NFM) and set the requirements for increasing state financial contributions, the planning process for

transition and sustainability took place in 2015-2016. For these purposes, the CCM established the Policy and Advocacy Advisory Council (PAAC) in 2016 with the mandate of identifying transition-related challenges and developing potential solutions. The transition plan was developed and approved by the CCM in February 2017. As the PAAC successfully accomplished its role, the CCM decided to use it as a platform for stakeholder consultations and discussions related to TB and HIV national strategies, the CCM Transition Plan, the GF budget split for the new allocation period, and funding request preparation. The PAAC is engaged in advocacy efforts aimed at improvements in legislation, regulations, operational policies, and practice standards related to TB and HIV prevention and service delivery and provides technical assistance and recommendations to the CCM. The PAAC has a technical and advisory role, but not a decision-making one. Decisions on specific topics considered by the PAAC are made by relevant government agencies as per their mandates. The establishment of the PAAC broadened in-country dialogue with a greater group of stakeholders and constituencies.

Health Management Information Systems

All HIV screening and testing data is entered in the national HIV prevention database, which includes biological information, personal and key socioeconomic data, as well as information on behavioural risks and likely mode of transmission. The prevention database is linked to HIV treatment database: this allows monitoring of individuals across the HIV treatment-and-care continuum, and facilitates identifying cases of lost to follow-up in an early stage, and bring them back into care. However, the system needs to be updated and a process audit will be necessary to assess current gaps and challenges.

HIV surveillance is done jointly by the NCDC and the National AIDS Centre. The AIDS Centre collects data on newly diagnosed HIV infections, as well as data related to ART – including information on CD4 and viral load, ARV treatment and clinical outcomes. The AIDS Centre reports these data on an annual basis to the NCDC, which is responsible for the overall coordination of HIV surveillance and for subsequent reporting to the relevant national and international authorities, including to UNAIDS for Global AIDS Monitoring (GAM). HIV-testing data is collected by NCDC also through the State and Global Fund-supported programmes. The test for recent infection has been applied for the new HIV diagnoses in the 2018-2020 period, which has provided a potent tool to analyse trends and impact of interventions. Linkage to other databases and data collection systems is still limited.

The GoG's PHC reform roadmap envisions gradual integration of certain HIV/AIDS and TB preventive and care services at PHC level in the years 2023-2025. The reform is expected to further improve the physical and financial access and hence utilization of these services along with other essential preventive, diagnostic, curative, rehabilitation and palliative services included in the expanded PHC services package.

Furthermore, the planned gradual integration of certain HIV/AIDS and TB preventive, screening and care services at PHC level will most likely lead to alterations of the existing data and information flows. Hence, data integration and data quality assessment for retaining/improving the routine reporting and surveillance systems for both HIV/AIDS and TB services is warranted to ensure the smooth integration and transition to the new integrated HMIS and eHealth systems (the national strategies for which are currently developed with the support from WHO) that are expected to be in place by the year 2023.

In the context of emerging and competing public health priorities and challenges, there is an increasing need to create an integrated national surveillance, monitoring and evaluation system that can provide

and effectively manage all available data in a timely manner and meet the information needs of policymakers, service providers, and beneficiaries of programmes and services. This will involve strengthening overall HIV-related data tools and data collection systems: 1) in the context of development of the national HMIS, audit existing sources of HIV data and data flows; identify health information gaps and needs; address those needs and adjust relevant data collection systems; 2) strengthen the HIV patients registry by improving functionality and linkages; this involves i) automating the update with census data/death registry; ii) enabling linkages with prevention databases to construct cascade by population; iii) enabling interoperability between other diseases databases, including on TB, hepatitis C and OST.

Cross-Country Conclusions on Health System Functions

This study provides an descriptive account of the decentralization, breaking it down to readiness of separate health system functions. The report, where possible, elaborates components, describing contextual factors influencing decentralization process. While the description is organized by health system blocks, in many instances the information presented in each section spans across the set of health system functions/blocks. Furthermore, it tries to reveal which critical enablers contributed to the observed outcomes.

First and foremost, we would like to note that decentralization is a lengthy and multi-dimensional process. Secondly, many factors that determines the successful decentralization arises in a much broader context, which extends far beyond the HIV sector. Contextual developments require gradual adjustments of steps/approaches to the changing circumstances. Therefore, we will first discuss the health system-related factors.

This analysis demonstrates that the success of decentralization is driven by, and significantly benefits from, the gradual and consistent evolution of almost all health system functions/blocks, because enhancing these functions is an integral part of the process, contributing to the country's readiness to implement and manage the decentralization in effective and sustainable manner.

Developments in service delivery systems are critical in ensuring sufficient and sustained access to services, especially in process of decentralization. The countries should focus on gradually increasing the network of service providers, including the production of the necessary human resources, which helps to expand geographical coverage and increase access to testing. An increase in service coverage will become possible due to the allocation and gradual increase of domestic funding and improved service financing modalities. The study concludes that gradual evolvement of decentralization contributes to its effective outcomes. It's critical for countries to perform the process step-by-step, with purpose to create a solid ground for effective decentralization. For example introduction of HIV rapid testing in primary healthcare, creates a bases for further expanding of functions and roles of PHC to confirmation or diagnostics of HIV.

Likewise sustainable financing significantly benefits from early state budget contributions, which in turn are important both in smoothly increasing state funding for services and in seamlessly moving away from conventional structure of financing and procurement of services.

The development of **health management information systems** has multiple causes, extending beyond the HIV sector. The collection of strategic information and surveillance is critical in ensuring proper program planning and implementation monitoring. The study shows the importance of stable and gradual evolution and development of HMIS on different levels and most importantly its durable institutionalization (at least a large part of it except BBS).

The introduction and development of **governance and leadership** structures, plays a crucial role in the decentralization process. **Coordinating bodies and decision-making mechanisms,**

including the CCMs, create the space for inclusive national dialogue and meaningful participation by a broad group of stakeholders. Countries should ensure participation of and coordination with wider groups of stakeholders beyond HIV field, including PHC representatives and others. Participatory decision-making ensures the space for collaborative partnership and systematic reflection of the needs and interests of diverse stakeholders. Decisions and strategic priorities defined within those platforms should be reflected in national strategies and action plans. Thus, a stable approach to **strategic planning** should be an integral part of the decentralization process, ensuring the definition of the Government's obligations towards the process and roles of diverse stakeholder groups. Regular strategic planning, including the HIV strategic plan, the national healthcare strategies and action plans, contribute to a successful decentralization. **Management** structures and systems should be also institutionalized and aligned with national processes through the institutionalization of key management functions within state authorities, including contracting, procurement, monitoring and evaluation, reporting and other functions. Lastly, the country should ensure a supportive **legal framework** for the implementation of the decentralization with the development of normative documents.

These evolutionary developments should be facilitated by enabling factors that include the following:

External Accountability - external accountability and conditionalities are instrumental in influencing the government's actions. The global UHC agenda, and framework recommendations towards decentralization of health services, including HIV are crucial in influencing state to reform the policy and practice. WHO's recommendations to simplify HIV confirmation algorithms play essential role for countries to move away from conventional algorithms. On its own introduction of rapid test based confirmation, creates a solid ground for decentralization of services.

External Technical Assistance - this study reveals that external requirements, should be followed-up by external technical assistance, that is crucial in the evolutionary development of health system building blocks. Technical assistance provided by international partners contributes to facilitate national dialogues, properly plan and implement decentralization strategies.

Internal accountability - Internal accountability is mainly focused at two main factors: (a) public demand; and (b) civil society and community participation in advocacy and oversight. Public demand is triggered by an imbalance between the need/demand for services and the limited-service delivery capacity, which is unable to accommodate a sufficient number of beneficiaries in settings close or comfortable for them. The government's accountability should be secured through the participation of civil society and the community in decision-making platforms and processes. Overall, advocacy implemented on different levels including advocacy concerning financing and access to services, the implementation of state commitments and ensuring the sustainability, is crucial in creating public demand and holding the government accountable.

Political commitment - study reveals that in response to external and internal accountability, the political commitment of the government and respective authorities is crucial factor. Political commitment should be formalized and reflected in respective legal, regulatory and policy documents.

Observations on Drivers and Facilitators

In this section, we summarize our observations about drivers and facilitators that have emerged as important ones across the countries. We also reveal those critical processes that helped these drivers and facilitators to materialize.

The case study confirms the complexity of the decentralization process, the time it takes, and the intricate interplay of drivers and facilitators, that lead to a successful and sustainable decentralization.

Before discussing these interactions, we want to highlight that the decentralization proves to be a long-term and incremental process alongside the development of the countries. Namely, economic growth over the past decades creates conducive macroeconomic conditions, the governments political will to increase funding for healthcare, and importantly, countries drive toward healthcare reform, imposed stringent and legally binding accountability requirements on the government. Gradual evolutions across the health system blocks described in the document contributed to a successful transition. However, these developments would have been challenged and/or slowed down without a conducive and evolving country context. **Thus, the context in which decentralization happens has a significant bearing on outcomes and must always be considered when planning for a decentralization or adjusting implementation in any given country or program.**

Secondly, the **people's healthcare needs** recognized by national and international stakeholders seem to be one of the most critical determinants in driving changes in the health system, including decentralization.

Next, the evolutions in the health system blocks cannot be implemented by single donor support. Only through joint and complementary efforts of different partners and those involved with the health sector can collectively contribute to the expected positive outcomes. These observations further emphasize the importance of the partnership approach employed by WHO and Global Fund and the value such partnerships could afford. While we have not looked at how country-level "partnerships" themselves were facilitated, operationalized, and/or coordinated, the outcomes of multi-donor support, revealed in the study, allow us to **confirm the value afforded by the partnership and emphasize the importance of well-coordinated efforts that can assure**

complementarity of donor investments when collectively, the partnership delivers on the country's developmental objectives with tangible results.

Finally, additional important facilitator is **institutionalizing systems and processes** within the state. Institutionalization efforts are reinforced by **enhanced organizational and individual capabilities** achieved through extensive technical assistance delivered over the years, and individual capacity-building efforts on all levels.

Recommendations

Considering described observations, conclusions, implications and influential factors we have identified following cross-country policy recommendations:

Although countries has made significant progress in political commitments to decentralize HIV services, of already have pilot, small and large scale decentralization interventions in place, there are major areas for improvement from the health system functions perspective.

In particular, countries are encouraged to place their efforts on:

- Ensuring sustainable financing for decentralized HIV testing services.
- Ensure that the financing and service procurement mechanisms are in place and contribute to continuous implementation of services on all levels.
- Ensure legal framework creates conducive environment for decentralized service delivery, including recognition of Primary and Secondary level healthcare facilities, and medical professionals as eligible providers of HIV confirmatory testing services.
- Adopt and develop health management information systems, including better linkages between existing HIV service databases and general health information systems for better management of patients/beneficiaries.
- Invest into surveillance of HIV on all levels, and ensure sustainability of epid.surevlliance studies for better planning of policy and strategy, including defining modalities of service delivery.
- Ensure continues development of human resources/health workforce, on all levels, especially medical personnel of primary healthcare, including their sensitization on work with PLHIV and KPs.
- Integrate HIV module into medical, public health and related under-graduate and post-graduate educational curricula.
- Ensure multi-sectoral coordination and decision making, with engagement of stakeholders from the wider healthcare fields, including PHC.
- To establish formal mechanism of assessment and evaluation of results, effectiveness and outcomes of the decentralization.
- To initiate national countrywide dialogue on defining and validating model of decentralization of HIV testing and treatment services.
- Elaborate country-level strategic roadmap to decentralize HIV testing and treatment services;