RESULTS OF THE SECOND REGIONAL CONSULTATION ON PRE-EXPOSURE PROPHYLAXIS (PREP) IN CENTRAL ASIA

International Monitoring Experience and Strategic Recommendations for the Region

This document reflects the key findings, analytical observations, and positions formed by consensus during the Second Regional Consultation on Pre-Exposure Prophylaxis (PrEP) in Central Asia. It systematizes the key results of expert discussions, national practices presented, and regional priorities for implementing and monitoring PrEP programs. This document is based on a comparative analysis of international models for monitoring and evaluating PrEP programs, including approaches adopted by the World Health Organization, CDC/PEPFAR, and European countries, as well as on insightful discussions among participants of the Consultation, including representatives of government agencies, international organizations, civil society, and the professional community of the region.

The document aims to develop a coordinated regional vision for the development of PrEP monitoring systems, identify priority indicators and institutional mechanisms, and strengthen the evidence base for sustainably scaling up HIV prevention programs in the countries of Central Asia.

1. REGIONAL CONTEXT AND CHALLENGES

The HIV epidemic in Central Asia remains concentrated and disproportionately impacts key populations: people who inject drugs, men who have sex with men, sex workers, transgender people, migrants, and people in prison. Several countries in the region are experiencing persistent or moderately increasing rates of new HIV infections, highlighting the need to strengthen comprehensive prevention measures.

The region is characterized by a number of structural factors complicating the response to the epidemic: high levels of stigma and discrimination against key populations, limited access to health services in remote and rural areas, migration flows within and beyond the region, and the dependence of a significant portion of prevention programs on external funding. These factors require adapted and sustainable prevention models that take into account both the epidemiological situation and the socioeconomic context.

With key populations remaining vulnerable, the introduction of pre-exposure prophylaxis (PrEP) is becoming a strategically important tool for reducing the number of new HIV infections. When implemented correctly, PrEP can significantly reduce the risk of infection among individuals with high levels of exposure, complementing existing prevention measures, such as testing, HIV treatment, and harm reduction programs.

Participants of the Second Regional Consultation emphasized that the sustainability and effectiveness of PrEP programs directly depend on the existence of a structured monitoring and evaluation system. Such a system should ensure the transparency of processes, the manageability of programmatic decisions, and the development of an evidence base for adjusting strategies. Without systematic monitoring, it is impossible to objectively assess the coverage of target groups, adherence levels, the reasons clients discontinue taking the drug, and the actual impact of PrEP on epidemiological indicators. In turn, this limits the potential for scaling up and institutionalizing PrEP programs in national healthcare systems.

2. INTERNATIONAL EXPERIENCE MONITORING PREP

The development of PrEP programs in various countries has been accompanied by the formation of structured monitoring and evaluation systems to ensure program manageability, data comparability, and assessment of their actual impact on the epidemiological situation. International experience demonstrates that ensuring the sustainability of PrEP is impossible without clearly defined indicators, standardized approaches to data collection, and regular analysis of results.

2.1 WHO APPROACH

The World Health Organization proposes a PrEP cascade model, logically structured in a manner similar to the HIV treatment cascade. This model covers the entire client journey through the program: from initial screening for HIV risk and determining compliance with clinical and epidemiological criteria to starting medication, achieving adherence, continuing use if risk persists, and discontinuing use when risk is reduced or eliminated.

The WHO approach emphasizes the need for systematic monitoring of both clinical and programmatic parameters. ***Key indicators include:***

- PrEP coverage among individuals for whom it is recommended;
- Proportion of clients continuing treatment 3 months after initiation (early retention);
- Seroconversion rate among PrEP users;
- Cases of discontinuation due to toxicity or other medical contraindications;
- Disaggregation of data by gender, age, membership in key population group, and other sociodemographic characteristics.

The WHO also recommends the use of a standardized set of minimum data that includes dates of prescription and dispensing, HIV test results, type of regimen (daily or ad hoc), as well as the use of anonymous identifiers to ensure confidentiality.

The WHO model places particular emphasis on comparability of data at the national and subnational levels, allowing countries to assess progress, identify gaps in coverage, and adapt PrEP implementation strategies based on epidemiological trends. For Central Asian countries, this approach is valuable as a basis for developing a unified regional monitoring system that ensures transparency and evidence-based prevention efforts.

2.2 CDC/PEPFAR APPROACH

The CDC and PEPFAR approach to PrEP monitoring is highly operationalized and focused on the managerial use of data. The indicator system is designed to ensure regular monitoring of client engagement, retention, and the continuity of services.

Key indicators include, in particular:

- ***PrEP_NEW*** — the number of people who started PrEP for the first time during the reporting period;
- ***PrEP_CT*** — the number of people who returned for a follow-up visit and continued to receive PrEP;
- ***PrEP_OFFER*** — the number of people who were offered PrEP;
- additional indicators reflecting client referrals by communities, use of self-testing, and re-engagement.

This indicator structure allows for the analysis of not only the initiation of treatment but also the client's trajectory through the service system: from being offered to PrEP to follow-up visits and sustained retention. Particular attention is paid to disaggregating data by gender, age, institution type, and key population membership, enabling the identification of inequalities in access and the revision of programmatic strategies.

A significant feature of the CDC/PEPFAR model is its emphasis on community-based monitoring. Community-based organizations are viewed not only as service providers but also as participants in the system of accountability. Parameters such as awareness about PrEP, barriers to access, client routing, and reasons for refusal or discontinuation are assessed. This allows for the collection of data beyond clinical statistics and consideration of social factors impacting the effectiveness of programs.

Within PEPFAR, monitoring data is used as an operational management tool: analysis results influence resource reallocation, geographic prioritization, changes in communication strategies, and adaptation of service models. This approach is of particular interest to Central Asian countries, as it demonstrates how a monitoring system can become more than just a formal reporting tool, but rather a mechanism for the strategic management of HIV prevention efforts.

2.3 EUROPEAN PRACTICES

European experience related to monitoring PrEP shows a high degree of institutionalization of programs and their integration into national health systems. Unlike donor-based models, PrEP is viewed as an element of a sustainable national public health policy. In the United Kingdom, PrEP monitoring is integrated into the National Health Service (NHS) system and is based primarily on data from specialized sexual health services.

Information is collected through national epidemiological surveillance systems, including databases on clinic visits, HIV and STI testing, and PrEP initiation and discontinuation.

The system allows for tracking of:

- The number of people seeking sexual health services;
- The number of people eligible for PrEP;
- Initiation and continuation of use;
- Discontinuation for various reasons;
- Seroconversion among users;
- Diagnosis with STIs while taking PrEP.

Particular attention is paid to disaggregating data by sex, age, ethnicity, gender identity, and sexual orientation, which allows for the identification of inequalities in access and adjustment of service models. Community-based surveys are also used to assess the need for PrEP, adherence, and the perception of services. This helps to expand the analytical base beyond clinical data.

In Germany, the monitoring system is coordinated by national epidemiological surveillance bodies and is closely linked to mandatory health insurance mechanisms. After PrEP was included in the insurance coverage system, monitoring began to rely on several data sources: insurance registries, pharmacy prescription databases, clinical registries, and national surveillance data.

This multi-component approach allows for analysis of coverage, uptake trends, discontinuations, and the impact on new HIV cases among key populations. A key feature of the German model is the link between monitoring and financial flows, which ensures the transparency of expenditures and an assessment of the cost-effectiveness of programs.

European practices demonstrate that the integration of PrEP into national health and insurance systems allows programs to be transformed from pilot initiatives into a sustainable element of public policy, where monitoring serves as a function of strategic management and long-term epidemiological control.

2.4 DIGITAL SOLUTIONS (example of Vietnam)

Vietnam's experience demonstrates how digitalization can be a key tool for scaling and improving the manageability of PrEP programs in middle-income countries with limited healthcare resources. The national program implemented a digital monitoring platform that integrates client registration, clinical data, and logistical management.

The system centrally collects information on new and current PrEP users, records prescription and dispensing dates, HIV test results, discontinuations, and reasons for dropout. The use of unique, anonymous identification codes maintains client confidentiality while ensuring traceability of their journey through the service system.

One of the key components of the digital platform is adherence monitoring. The system records follow-up visits and the duration of adherence, and also integrates reminders via SMS and mobile apps. This helps reduce drop-outs and improves adherence to medication.

The supply management module is particularly important. Based on data on the number of new and existing clients, forecasts of drug needs are generated, minimizing supply disruptions and excess inventory. Regional health authorities receive aggregated data for planning procurement and allocating resources.

Vietnam's digital model illustrates how the implementation of a unified national platform enables the integration of clinical monitoring, management decisions, and logistics into a single system. This approach is of practical interest to the countries of Central Asia, as it increases program transparency, strengthens accountability, and ensures the sustainability of scaling PrEP with limited resources.

3. KEY FINDINGS OF THE CONSULTATION

During the Second Regional Consultation, participants agreed that the development of PrEP programs in the countries of Central Asia should be accompanied by the creation of a unified, methodologically sound monitoring and evaluation system. Such a system should not be limited to collecting quantitative data, but should also provide a comprehensive understanding of the processes of engagement, retention, and the actual impact of programs on the epidemiological situation.

The use of standardized indicators comparable to international approaches was established as a core principle. This includes indicators for initiating PrEP, retention at specified intervals (including the three-month threshold), seroconversion among users, reasons for discontinuation, and coverage of key populations. Disaggregation of data by gender, age, membership in key populations, geographic region, and type of facility was recognized as a mandatory element, which will allow for the identification of structural inequalities and the adjustment of programmatic decisions.

Special attention was given to the need to transition to electronic accounting systems that ensure efficient analysis, transparent reporting, and reduced risks of data duplication. The use of anonymous identifiers and standardized reporting forms is seen as a prerequisite for maintaining confidentiality and improving the quality of data. Participants of the Consultation emphasized that quantitative monitoring should be complemented by qualitative research.

An analysis of stigma, discrimination, social barriers, the motivations for using PrEP, and reasons for discontinuing it allows for a deeper understanding of the behavioral and structural factors that impact program effectiveness. Without such analysis, monitoring risks becoming a formal reporting procedure that fails to reflect the real barriers to accessing services.

For the region of Central Asia, a fundamentally important conclusion was the recognition of the need for cross-border comparability of approaches. Active migration processes, cross-border mobility of migrant workers, and the intersection of vulnerable groups across countries require the harmonization of indicators and methodologies. The compatibility of monitoring systems will allow for the tracking of coverage and retention trends in a transnational context, strengthen regional cooperation, and help to develop a coordinated strategy for the HIV response in Central Asia.

4. STRATEGIC RECOMMENDATIONS FOR THE COUNTRIES OF CENTRAL ASIA

Based on discussions and the analysis of international experiences, participants of the Consultation recommended the development of a multi-tiered PrEP monitoring system combining centralized coordination and decentralized implementation. A coordinating role should be assigned to national HIV prevention centers within ministries of health, which provide methodological guidance, standardize indicators, monitor the quality of data, and prepare national analytical reviews. Primary data collection should be conducted at the regional level—in state healthcare organizations, centers for sexual health services, and with the participation of non-governmental organizations and communities working with key populations.

It is recommended to include indicators for:

- PrEP initiation (the number of people who started taking it for the first time);
- resumption of treatment after a break;
- retention after 3 months and for longer intervals;
- seroconversion among users;
- discontinuation of treatment with indication of the reasons (toxicity, risk reduction, loss of contact, etc.);
- coverage of key populations with mandatory disaggregation by gender, age and other socio-demographic characteristics.

Particular attention should be paid to the digitalization of accounting processes. The introduction of electronic databases using anonymous unique identifiers is recommended to guarantee client privacy while simultaneously ensuring traceability of their journey through the service system. Digital tools should include the ability to generate real-time reports, aggregate data by region, and to automatically verify the completeness of information.

Regular data analysis is essential for program management. The optimal model is quarterly reporting at the regional level, followed by an annual national analytical review, including an assessment of trends, the identification of gaps, and the development of recommendations for strategic adjustments.

In addition, it is recommended that PrEP monitoring be integrated with other components of the HIV response system, such as testing, treatment, and harm reduction programs, in order to provide a holistic view of the prevention continuum and ensure the strategic alignment of efforts at the national and regional levels.

5. SIGNIFICANCE FOR THE SUSTAINABILITY OF PROGRAMS

Participants of the Consultation emphasized that PrEP monitoring is not solely a technical component of the program, but also a strategic tool for managing the HIV epidemic. Systematic data collection and analysis enable informed management decisions, timely adjustments to priorities, and the reallocation of resources in accordance with the actual needs of key populations and epidemiological trends.

With a significant portion of prevention programs in Central Asian countries still dependent on external funding, monitoring plays a crucial role in ensuring accountability in relation to donor funding. Ensuring the transparency of data on coverage, retention, effectiveness, and barriers to access builds trust with international partners and creates the conditions for long-term collaboration. At the same time, the availability of a high-quality evidence base facilitates dialogue with national authorities on co-financing and institutionalizing PrEP.

Gradually integrating PrEP funding into national healthcare budgets is impossible without demonstrating measurable results and assessing the economic feasibility of programs. A monitoring system allows for an analysis of the cost-benefit ratio, identifying the most effective service models, and justifying expanded access to prevention.

The development of a sustainable monitoring system based on standardized indicators, digital accounting tools, and regular analytics provides a solid evidence base for scaling up PrEP. In turn, this contributes to achieving the goals of the global HIV response strategy, including reducing the number of new infections and strengthening national public health systems in the countries of Central Asia.