

9. Labour Migrants – An Exploration of the New Driving Force of the HIV Epidemic in Uzbekistan

Azizbek Boltaev

HIV in Uzbekistan

According to the official data of the Ministry of Health, at the onset of 2023 a total of 52,420 cases of people living with HIV were registered in Uzbekistan (Igamberdiev 2023). From the first detected HIV infection in Uzbekistan in 1987 until 1st January 2022, around 71,000 cases have been registered, and the number of deaths among HIV-infected people is about 23,000 cases (Gazeta.uz 2022). An analysis carried out in 2022 of HIV-infected individuals, segregated by gender, revealed that 55% of HIV cases pertain to males, while 45% are attributed to females. 14% of all people living with HIV (PLWH) residing in Uzbekistan were 18 years old or younger (O'zbekiston Milliy Axborot Agentligi [UZA] 2022). HIV transmitted through sexual relations accounted for 79% of all registered cases, followed by parenteral transmission (12,7%) and mother-to-child transmission (0.6) (Uzbekistan's funding application to the Global Fund to Fight AIDS, Tuberculosis, and Malaria [GFATM] for 2020–2023).

A substantial majority (64.2%) of the registered people living with HIV (PLWH) in 2020 were geographically concentrated within four regions, namely the city of Tashkent (10,484), the Andijan region (6,870), the Tashkent region (6,560), and the Samarkand region (4,080) (Open Data Portal n.d.). Notably, in the preceding year, 2019, within the prison population, 300 persons living with HIV/AIDS (PLHA) were identified, predominantly comprising males (295 out of 300) (Uzbekistan's funding application to GFATM for 2020–2023).

The prevailing pattern of HIV transmission in the country manifests as a concentrated epidemic, with a distinct prominence of prevalence among designated key populations (KPs). The Integrated Biological and Behavioural Surveillance (IBBS) assessments reveal an upward trajectory in HIV prevalence among men who have sex with men (MSM), increasing from 3.3% in 2013 to 3.7% in 2017 and further increasing to 4.5% in 2021, as well as among sex workers (SW), increasing from 2.2% in 2011 to 3.2%

(2017) and decreasing to 1.27% in 2021. Concurrently, a discernible and consistent decline in prevalence is discernible among people who inject drugs (PWID), dropping from 8.5% in 2011 to 5.1% in 2017 and 2.9% in 2021.

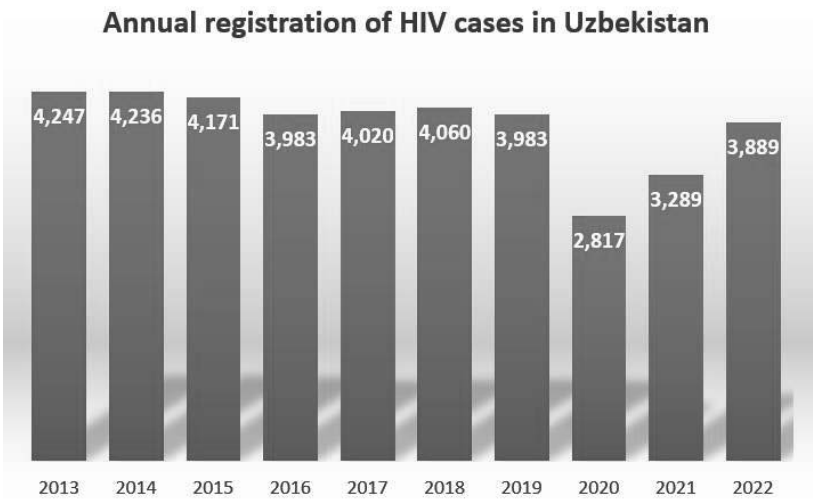


Figure 1: Annual registration of HIV cases in Uzbekistan

A noteworthy observation pertains to migrant populations, wherein 1,224 new HIV cases were identified in 2022, reflecting an almost threefold growth compared to the figures in 2013 (449 cases) (Igamberdiev 2023). Interestingly, a phylogenetic study of HIV cases in Uzbekistan carried out by Lebedev et al. (2022) suggested that the majority of HIV cases in Uzbekistan are likely to have been infected within the country through, for example, in-country migration networks. This calls for urgent attention to be paid to internal migrants as HIV prevalence appears to be growing in this group (Lebedev et al. 2022).

The IBBS assessments reveal a fluctuating trend in HIV prevalence among labour migrants (LM) over time: 0.8% in 2015, increasing to 1.3% in 2017, followed by a subsequent diminish to 1.1% in 2021. There is a particularly high HIV prevalence among LM from Samarkand (4.8%), Nukus

(1.7%), and Andijan (1.6%) (Data provided by Republican AIDS Center [RAC] to the International Organization for Migration [IOM]).

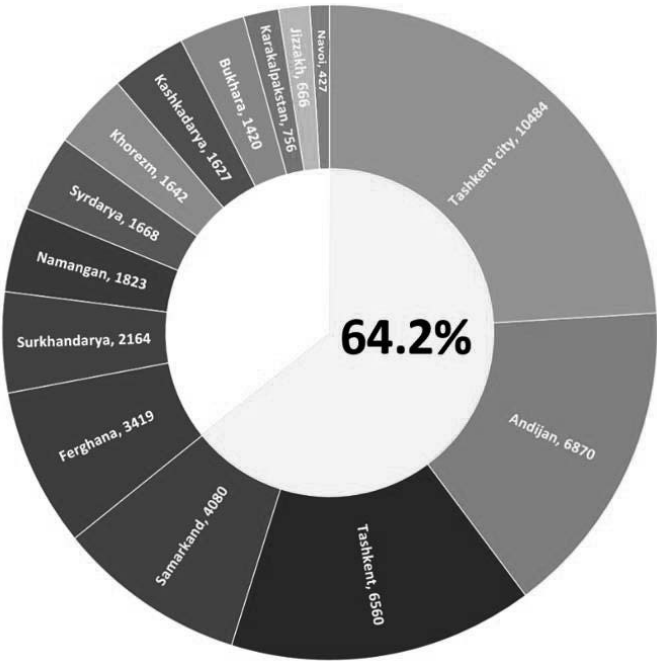


Figure 2: Distribution of HIV cases by geographical regions

Along with the prevalence of HIV among LMs, the IBBS studies revealed reductions in hepatitis C virus (HCV) and syphilis occurrences in 2021, compared to 2017. As such, HCV prevalence dropped by 20% from 2.2% to 2.0%, while the prevalence of syphilis decreased by 30% from 1.6% to 1.3%. The risk of LM contracting HIV is inflated due to the worryingly low knowledge about HIV within this group, as well the widespread engagement in risky behaviours.

Notably, the 2021 IBBS study showed that only 38.9% of LMs were able to give correct answers to all basic HIV-related questions (Data provided by RAC to IOM). Another study by Drobyshevskaya et al. (2022) that was conducted in the Moscow region, Russia in 2021 among LMs from Uzbekistan and Tajikistan revealed that about 20% of the study participants had no idea what HIV infection was. By contrast, only 4.5% of the native

inhabitants of the Moscow region had similarly poor knowledge about HIV (Drobyshevskaya et al. 2022).

When it comes to LMs, injecting drugs is a practice of particular interest as it dramatically increases the likelihood of HIV infection. Therefore, it is very important to monitor the safety of injection behaviour in this group. It should be noted that drug use among LMs significantly decreased in 2021 compared to 2017: 3.5% of LM had used drugs before they migrated (2017 – 5.9%), of which 0.2% injected drugs (2017 – 1.8%) compared to 0.3% of LM who have injected drugs since migrating (2017 – 0.9%). Among those surveyed, 0.3% of LM (0.4% in 2017) indicated that they had a sexual partner who injected drugs before they migrated (Data provided by RAC to IOM).

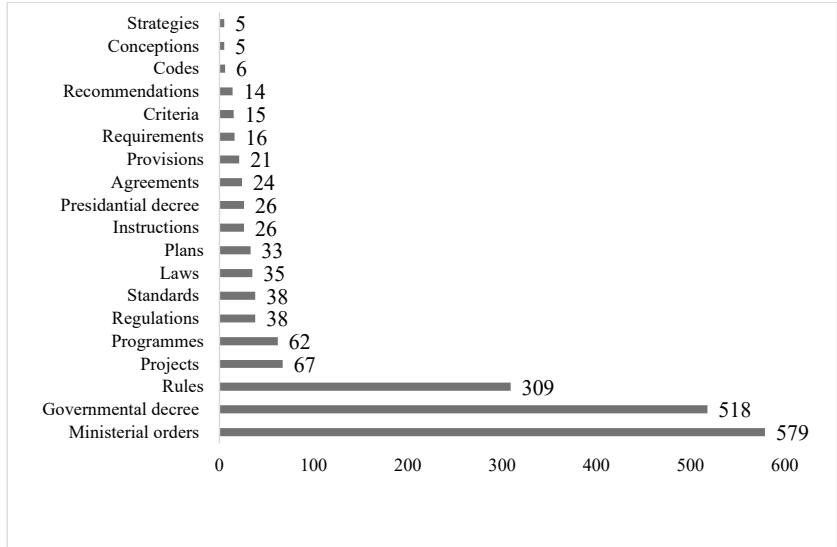


Figure 3: Annual registered cases of HIV among migrants

Of those LMs, 6.3% had at least one STI symptom when they returned home. According to a 2021 study, 28.8% of LMs with symptoms of STIs turn to a familiar health worker for medical help, 19.2% to a private doctor, and 13.1% to the STI dispensaries. 17.7% of LMs self-medicate, while 8.1% do nothing. A high proportion of LMs with at least one symptom of an STI were identified in Andijan (18.4%), Termez (14.3%), and Urgench (17%). Among such LMs, up to 35.7% (in Nukus) did nothing in relation to their

STI, while the large groups from Gulistan (40%), Urgench (38.2%), and Tashkent (33%) opted to self-medicate (ibid).

The coverage of key populations with HIV interventions increased from 2014 to 2020: PWID (estimated 39,000) from 24,552 to 32,000; SW (estimated 29,000) from 11,842 to 15,750; MSM (estimated 30,000) remained suboptimal, despite increasing from 1,491 to 2,186. The service coverage data needs to be interpreted with caution as it conflicts with other information related to the situation among the indicated key populations. As such, the increase in the coverage of PWID reported above does not correlate with the National Drug Control Committee's data that indicates a 20-fold reduction in the number of registered people who inject drugs over the last decade, falling from 7,988 in 2012 to 359 in 2021 (National Information-Analytical Center on Drug Control under the Cabinet of Ministers of Uzbekistan [NCDC] 2022).

HIV Services for Labour Migrants in Uzbekistan

In June 2021, the General Assembly of the United Nations High-Level Meeting on AIDS adopted a set of new and ambitious targets. Known as the '95–95–95' strategy, it aims to end the HIV epidemic by 2030. Within its framework, 95% of people infected with HIV should know their status, 95% of HIV-infected people should receive antiretroviral treatment (ART), and 95% of those receiving treatment should have a non-detectable viral load in their blood.

In order to implement measures in accordance with this strategy, the Government of Uzbekistan has adopted the state's 'Comprehensive programme of measures for 2023–2027 to increase the effectiveness of combating the spread of HIV infection endorsed by the President's Executive Order No. PK-14, dated 20th January 2023'. The programme envisages consolidating the funds of the state budget, the funds of the Global Fund to fight against AIDS, tuberculosis, and malaria, and the loan funds of the Asian Development Bank and the Asian Infrastructure Investment Bank and investing them strategically into reducing HIV among the population of Uzbekistan. In the next five years, a total of 120 billion Uzbek soums and 54 million US dollars will be channelled into increasing the quality of the services for the early detection, diagnosis, and treatment of HIV infection, into purchasing test systems and antiretroviral medicines, into developing the material and technical base of AIDS centres and their inter-

district diagnostic laboratories, into increasing the knowledge and skills of specialists, and into carrying out extensive prevention activities, as well as implementing other organisational measures (LexUZ 2023).

HIV Prevention

Just like the general population, Uzbek LMs are eligible for preventative HIV treatment and any other HIV and healthcare services they need. However, considering the fact that LMs have become the largest subpopulation in the country, with one of the highest prevalence of HIV, the Uzbek government has implemented additional measures to ensure their safety as regards HIV both during and after their time living abroad. In particular, the state's comprehensive programme (No. PK-14, dated 20th January 2023) envisages conveyance campaigns aimed at raising awareness among migrants and their families about the risk of HIV infection, protective measures, and treatment options. Within these campaigns, importance is placed on educating LMs and preparing them for an organised departure to work abroad. These activities are being implemented under the leadership of the RAC in partnership with the Agency for Foreign Labor Migration and other interested ministries and departments (Uchaev et al. 2022).

Primary prevention programmes on HIV infection are conducted for organised youth and are integrated into the education system. Every year, in line with the joint activities planned by different sectors (the Ministry of Defense and the Ministry of Health; the Ministry of Internal Affairs and the Ministry of Health; the Security Council and the Ministry of Health, etc.), educational seminars are held in departments, educational institutions, and military units, with the involvement of specialists from the narcological service, the Ministry of Internal Affairs, representatives of the Mahalla communities, and religious figures. Information and educational materials approved by the Republican Commission for the Review and Approval of Information and Educational Materials (hereafter referred to as 'the Republican Commission') are produced for various population groups, which, in turn, are distributed by governmental and non-governmental organisations (NGOs) (ibid).

The strict requirement that all information and educational communication (IEC) materials related to HIV are approved by the Republican Commission seems to negatively affect the variety and contents of such communication. As such, the content analysis of IEC materials that are available on

the internet and were developed by the Uzbek RAC and NGOs, and that target high-risk populations such as LMs, showed that while these supplies provide sufficient information about the nature of the virus and the ways it can be transmitted, too often they lack clear information on how to prevent HIV.

Prevention messages are often limited to the importance of fidelity among spouses and avoiding sexual contact outside of marriage. The author of the report failed to find any IEC materials funded by GFATM or the state budget that clearly stipulate the importance of using condoms, nor was there any material in the Uzbek language explaining the rules of correct usage of condoms. However, some training materials for NGO staff and peer educators contain safer sex-related information in Russian (Korotkova et al. 2021) and are delivered to end beneficiaries through verbal communication by social workers, peer supporters, and medical workers as part of routine counselling before and after HIV testing (Ministry of Health of the Republic of Uzbekistan 2023).

HIV Testing and Linkage to Care

HIV diagnostics are carried out by a network of 63 inter-district (*Uzb.: tumanlararo*) HIV laboratories while another 15 laboratories are located within the premises of regional AIDS centres. The Uzbek government, in its efforts to reach the '90–90–90' goal, has increased HIV testing in the last decade to 38% – from 2,564,400 tests in 2013 to 4,137,000 in 2022 (Igamberdiev et al. 2023). The current HIV testing algorithm in Uzbekistan requires HIV diagnosis to be made based on positive results from three different tests. The final confirmatory Western blotting test is also required by the national HIV testing algorithm (Ministry of Health of the Republic of Uzbekistan 2023), but its use is not recommended by the World Health Organization (WHO 2021), as it may sufficiently increase the cost of testing and delay the final diagnosis (Association of Public Health Laboratories 2015).

Upon their return to Uzbekistan after staying abroad for three months or longer, all residents of Uzbekistan (citizens and non-citizens) must undergo testing for sexually transmitted infections, including HIV. The aim of this measure is the early detection of HIV among LMs, and it is carried out jointly by the Ministry of Health, the Ministry of Internal Affairs, the Ministry of Employment and Labor Relations, the State Border Protection

Committee of the State Security Service, the Women's Committee, the Republican Council on Coordination of Activities of Self-governing Bodies, the Committee on Religious Affairs, and the Youth Union of Uzbekistan (Anonymous 2018).

Although HIV testing is conducted on a large scale, its quality and outcomes raise concerns. As such, the 2021 IBBS study showed that only half (49.5%) of the migrant cohort responded affirmatively to the question, 'Have you ever undergone an HIV test?' Conversely, a subset of 6.8% encountered difficulties in articulating their response to this question. Among those migrants who underwent testing, 44.1% indicated that they had been tested in their home country, 35.9% sought testing within the confines of Russia, and 13.9% pursued testing across both domestic and Russian locales. Notably, a noteworthy proportion of 17% of those who had taken tests remain unaware of the outcomes of testing (Data provided by RAC to IOM).

Similarly, a household survey conducted in 2020–2021 by the United Nations Children's Fund (UNICEF) and the State Committee for Statistics identified that less than half (48.3%) of women were offered and underwent HIV testing during their pregnancy. This is despite the fact that the current clinical protocol requires 100% coverage of pregnant women with HIV testing. The level of awareness of outcomes of the testing was even lower – 21.4%.

Rapid HIV tests are available through AIDS centres and HIV-service NGOs, and such testing can be performed by a trained health worker. Civil society organisations are advocating the introduction of HIV self-tests as a means of lowering the threshold to early HIV detection (Uchaev et al. 2022).

HIV Treatment and Care

The Uzbek government has taken over full responsibility for financing the procurement of antiretroviral medications from the GFATM, which had funded HIV treatment in Uzbekistan since 2004. Funds are channelled through the RAC, which coordinates HIV treatment and care through 14 regional AIDS centres and extends technical support to 137 primary health-care facilities that dispense ART across the country (Uzbekistan's funding application to GFATM for 2020–2023).

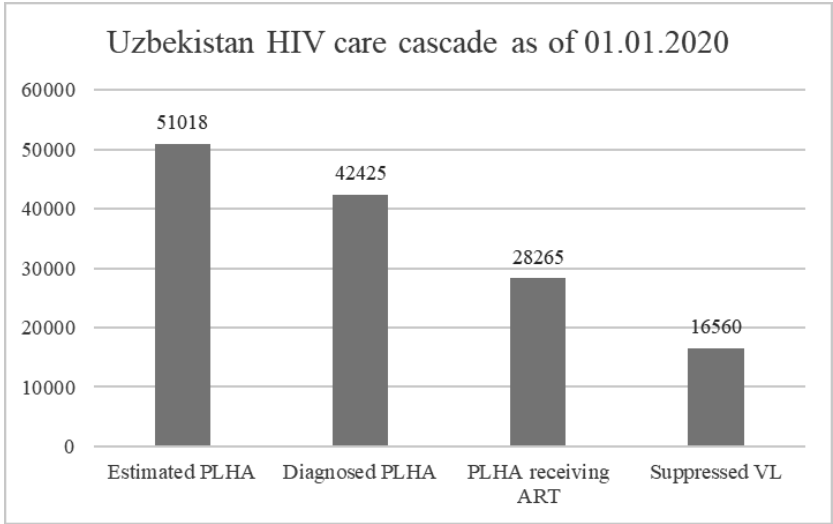


Figure 4: Uzbekistan HIV care cascade as of 01.01.2020

As the Uzbek government had indicated in its funding request to the GFATM, in 2020 the HIV care cascade in Uzbekistan was '83–67–59', demonstrating a major gap in reaching the declared targets with ART coverage at the level of 55% of PLHIV estimate ($n=28,265$). An increase in public funds allocated for this purpose within the framework of the adopted State Program to combat HIV infection facilitated an increase in the number of PLHIV who received treatment. The current HIV treatment protocol is based on 2019 WHO ART treatment guidelines, and according to the Ministry of Health, by 1st January 2022, ART had been provided in Uzbekistan to as many as 45,000 patients, of whom 74% were able to significantly lower their viral load levels (Ministry of Health of the Republic of Uzbekistan 2022).

All pregnant women on ART take ART during pregnancy and continue it after delivery and breastfeed their babies for at least 12 months, known as a B+ regimen.

Since 2014, PLHIV who are not able to personally visit the point of distribution of antiretroviral (ARV) drugs can receive drugs for up to three months through their authorised persons, provided they undertake the responsibility to regularly send the results of blood tests for CD-4 cells and viral load to their doctor, at their own expense. These tests are necessary

to monitor the state of HIV infection and allow doctors to assess the extent of the impact of HIV infection on the body. This provision is intended to reduce the incidence of treatment interruption among individuals who travel outside the country for long periods and do not have access to ART in the destination countries (Ministry of Health of the Republic of Uzbekistan 2014). The provision of pre-exposure prophylaxis (PrEP) for discordant couples was started in mid-2019 and is now being planned for key populations (Uzbekistan's funding application to GFATM for 2020–2023).

Key Gaps in HIV Programming Targeting Migrants

1) Poor Preparation for Migration Leads to Increased HIV Vulnerability

It is typical for migrants from Central Asia to come to the Russian Federation, Kazakhstan, and Turkey without a clear understanding of the cost of living, registration requirements, employment conditions, opportunities for support, and access to healthcare. Female migrants in such circumstances are at high risk of becoming sex slaves, having unwanted pregnancies, and being denied sexual and reproductive health services (United Nations Population Fund [UNFPA] et al. 2021).

Although the Agency for Foreign Labour Migration is formally mandated to equip all Uzbek citizens with legal and healthcare-related information relevant to the country of destination, in reality only a fraction of migrants contact the Agency before their departure. For example, many LMs remain unaware of the importance and ways of obtaining a policy for Mandatory Medical Insurance when they migrate to the Russian Federation. Migrants lacking such a policy cannot benefit from the range of free healthcare services on offer, including antenatal and perinatal care (Uchaev et al. 2022).

2) Lack of HIV Prevention Programming That Is Specific to Labour Migrants' Needs

Despite the fact that LM have become the main driving force of the HIV epidemic in Uzbekistan, interventions targeting this population group are largely limited to HIV testing, with limited attention paid to HIV preven-

tion. The lack of funding for NGO-led HIV prevention activities targeting migrants in Uzbekistan's within the largest AIDS programme funded by GFATM. LMs are not regarded as a key population with specific and multi-dimensional HIV-related needs, but as one that does not differ from the general population (Niginahon 2022). Although the new State Program to counteract HIV names LMs as one of the target groups, it is so far limited to HIV testing and awareness-raising as key responses to the problem, while leaving unaddressed other facets of this group's vulnerability to HIV infection such as stigma, discrimination, and access to healthcare services in the countries of migration.

3) Lack of Interventions Designed to Address the Needs of the Family Members of Migrants Who Are Left Behind

Labour migration is often associated with the separation of children from their parents. In such situations, Uzbek children are most often left with their grandparents or the families of uncles/aunts. Less frequently the children are entrusted to neighbours. In any case, children separated from their parents for extended time periods face an increased risk of emotional, physical, and sexual abuse. The Uzbek mass media regularly publishes articles and reports about such cases, which may take the form of sexual exploitation that may lead to homicides or suicides of victims of abuse (Central Asian News Service 2018; Kun.uz 2018). Irregularity of remittances sent back home may result in situations when children face several threats, ranging from reduced dietary diversity and limited access to medical services to child neglect and abuse (Murodova 2018; United Nations Children's Fund [UNICEF] 2019).

Elderly caregivers left behind by migrating family members encountered elevated levels of depression, loneliness, cognitive decline, and anxiety. Additionally, their psychological well-being, as indicated by scores, was comparatively lower compared with older parents who did not have migrant children (IOM 2020; Thapa et al. 2018).

4) Low Demand for HIV Testing among Labour Migrants

Whether in their home countries or their primary host nations such as Russia, Kazakhstan, or Turkey, LMs originating from Central Asia have

access to HIV testing via ELISA (enzyme-linked immunosorbent assay) immunoassay tests and rapid diagnostic kits. Despite this availability, there is limited demand for HIV detection services among these migrants. This phenomenon suggests that LMs tend to underestimate the significance of the HIV issue and consequently do not assign high priority to undergoing testing. This perspective arises from the perception that testing does not yield immediate advantages, yet it holds the potential to engender issues linked to discrimination and deportation (UNFPA et al. 2021).

5) Limited Options for HIV Testing in Uzbekistan

While the number of HIV tests administered in Uzbekistan has demonstrated a consistent increase over time, the avenues available for individuals to ascertain their HIV status remain confined primarily to AIDS centres and other government-run healthcare establishments, as previously illustrated. Despite notable improvements in the infrastructure of private laboratories and the increasing inclination of the general populace towards seeking services from private clinics and labs, these private facilities are still not permitted to conduct HIV testing. NGOs offer rapid HIV testing but only as a joint activity conducted with medical staff members of AIDS centres, although community-led testing is recognised as a high-impact intervention and recommended to be prioritised in programmatic considerations (Wagner et al. 2023).

6) Interruptions of ART during Migration

As noted earlier, the Ministry of Health of Uzbekistan has taken an important measure to improve the adherence to ART of Uzbek PLHIV while they're working abroad by creating a mechanism to ensure they are supplied with ARV medications as needed. However, some migrants still discontinue ART for various reasons, including not being able to find a person who could receive medications from the respective AIDS centre and forward the new supplies to them abroad. Other patients discontinue ART in an attempt to hide their HIV status out of fear of being deported, as is practised in Russia (Uchaev et al. 2022; UNFPA et al. 2021).

7) Unaddressed Psychosocial Needs of Migrants with HIV

People with HIV have a significantly higher risk of depression and other mental disorders compared to persons without HIV infection (Vollmond et al. 2023), which is more evident in subpopulations of sexual minorities (White et al. 2022). Mental disturbances and a lack of specialist care to address these challenges negatively affect the quality of life of migrants and their adherence to their HIV treatment regimen. The REG report indicates that very few organisations in Uzbekistan have the capacity to offer mental health support to PLHIV who have migrated, including NGOs 'Istiqbolli Avlod', 'Ishonch va Khayot', and 'Nihol' (Uchaev et al. 2022).

8) Lack of Gender Sensitivity in HIV Interventions among Labour Migrants

Although the procedure for joint implementation of information-promoting measures for the prevention of HIV infection among groups with a high risk of HIV infection requires that all activities among migrants be carried out in accordance with national traditions and a mentality that includes differentiated approaches towards working with male and female populations, the documents that were available for this review did not provide any evidence that the gender difference of migrants is respected.

Moreover, it is questionable whether effective counselling before and after HIV testing is feasible in reality, given the fact that the majority of migrants are males whereas nearly 90% of nurses in the Uzbek health system are females (Statistical Agency under the President of the Republic of Uzbekistan 2023). The patriarchal nature of norms and traditions in Uzbekistan serves as an additional barrier for effective HIV counselling, excluding any discussions about sex with someone of the opposite sex who is not a spouse.

In cultures where it is socially acceptable for males to have multiple partners and access to sexual protection services, and where marital rape is not a crime but the norm, women are in a particularly vulnerable position (Niginahon 2022). Examples of such vulnerability are witnessed on a daily basis, when wives cannot refuse to have sex with their husbands who have returned home from abroad and are first required to undergo HIV testing.

9) Poor HIV Programming Targeting Internal Labour Migrants

Although the Uzbek government continuously scales up its efforts to control HIV among LMs, it obviously targets those who work abroad. At the same time, the labour market also involves migration within the country. Internal migrants, just like external ones, stay away from their families for extended periods of time and have an increased risk of contracting HIV by having unprotected sex with occasional partners or by using drugs. In support of this risk, a phylogenetic study conducted by Lebedev et al. (2022) challenges the assumption that the primary source of migrant-related HIV infections in Uzbekistan originates from LMs returning from abroad. Instead, the study points to the significance of in-country migration networks as a potential driver of HIV transmission (Lebedev et al. 2022).

10) Disconnect between In-Country HIV Interventions and Programmes Abroad

The review revealed the absence of funded cooperative activities between Uzbek and foreign governmental and non-governmental institutions aimed at preventing and treating HIV in the countries of migration. With the exception of sporadic social support provided by NGOs and the provision of ART medication being sent from Uzbek AIDS centres to PLHIV abroad, Uzbek LMs are largely disconnected from the HIV programming organised by the Uzbek government. In Russia, for example, migrants who test positive for HIV are deported, while those whose results are negative are left with access to no or only a minimum level of HIV prevention services. Having low access to HIV prevention services, poor HIV-related knowledge, and a lack of health and prevention-related information in their native language makes Uzbek migrants with deficient Russian language skills particularly vulnerable targets for blood-borne and sexually transmitted infections. Various sources suggest that up to a quarter of all Central Asian migrants in Russia do not speak any Russian at all, while more than half of them cannot fill in required forms in Russian (TASS Russian News Agency 2011).

Bibliography

- Anonymous (2018): Procedure for joint implementation of information-promoting measures – measures for the prevention of HIV infection among groups with a high risk of HIV infection, in particular, migrants and their family members, as well as employees of beautician service institutions. Tashkent.
- Association of Public Health Laboratories (2015): Limitations for use of HIV-1 Western blot in plasma/serum. www.aphl.org/aboutAPHL/publications/Documents/ID_HIV-1-1-WesternBlotBrief_62015.pdf, 06.03.2024.
- Central Asian News Service (2018): In Andijan, a 60-year-old man is suspected of raping his 13-year-old niece and impregnating her. www.centralasian.org/a/29193204.html, 06.03.2024.
- Drobyshevskaya, Elena V./Pronin, Alexander Y./Zhukova, Evgenia V./Sochnev, Alexey S./Vatulyan, Anush K./Terin, Dmitriy F. et al. (2022): HIV awareness among labor migrants from Central Asia States. In: *Sociology and Management* 8, No. 1, pp. 43–67. DOI: 10.18413/2408-9338-2022-8-1-0-5.
- Gazeta.uz (2022): The annual increase in HIV-infected people in Uzbekistan has stabilized. www.gazeta.uz/ru/2022/12/01/hiv, 02.08.2023.
- Igamberdiev, B.N. (2023): Data presented at a Round table: Cooperation within the framework of the implementation of Presidential Decree No. 14 “On measures to further strengthen systems for counteracting the disease caused by the human immunodeficiency virus”, 09 June 2023. Tashkent.
- International Organization for Migration (IOM) (2020): *World Migration Report 2020*. Geneva: IOM.
- Korotkova, E.A./Klimashkin, A.A./Uchaev, S.S. (2021): Improvement of knowledge and skills consulting in the region reproductive health for women, living with HIV. [www.plwh.uz/assets/doc/%D0%9F%D0%BE%D1%81%D0%BE%D0%B1%D0%B8%D0%B5%20%D0%92%D0%98%D0%A7%20\(RU\).pdf?v=c88be2e910](http://www.plwh.uz/assets/doc/%D0%9F%D0%BE%D1%81%D0%BE%D0%B1%D0%B8%D0%B5%20%D0%92%D0%98%D0%A7%20(RU).pdf?v=c88be2e910), 02.08.2023.
- Kun.uz (2018): An 11-year-old girl was raped and killed in Surkhandarya. www.kun.uz/news/2018/09/28/surhondareda-11-esli-kizca-zurlanib-uldirilgan, 06.03.2024.
- Lebedev, Aleksey/Kuznetsova, Anna/Kim, Kristina/Ozhmegova, Ekaterina/Antonova, Anastasiia/Kazennova, Elena et al. (2022): Identifying HIV-1 Transmission Clusters in Uzbekistan through Analysis of Molecular Surveillance Data. In: *Viruses* 14, No. 8, p. 1675. DOI: 10.3390/v14081675.
- LexUZ (2023): Comprehensive programme of measures for 2023–2027 to increase the effectiveness of combating the spread of HIV infection endorsed by the President’s Executive Order [No. PK-14, 20 January 2023]. www.lex.uz/uz/docs/6364828#6365960, 06.03.2024.
- Ministry of Health of the Republic of Uzbekistan (2014): Order of the Ministry of Health of the Republic of Uzbekistan. On standard operating procedures for managing the provision of antiretroviral drugs and diagnostics [No. 230, 05 July 2014]. Tashkent: Ministry of Health of the Republic of Uzbekistan.

- Ministry of Health of the Republic of Uzbekistan (2022): Specialist: 74% of people receiving HIV treatment in our country have several times their viral load reduced [Telegram]. www.t.me/ssvuz/11540, 06.03.2024.
- Ministry of Health of the Republic of Uzbekistan (2023): Ўзбекистон Республикасида ОИВ инфекциясини олдини олиш чора-тадбирлари ва тиббий ёрдамни ташкил этишни янада такомиллаштириш тугрисида, ССВ буйруғи №111, 19.05.2023.
- Murodova, Sevilya (2018): Impact of Remittances and International Migration on Poverty in Central Asia: The cases of the Kyrgyz Republic, Tajikistan, and Uzbekistan. In: Journal of Applied Economics and Business Research 8, No. 1, pp. 38–56.
- National Information-Analytical Center on Drug Control under the Cabinet of Ministers of Uzbekistan (NCDC) (2022): The Central Asian Region Information Bulletin on Drug-Related Situation for 2021. Tashkent: Baktria Press.
- Niginakhon, S. (2022): Gender assessment of national responses to HIV in the Republic of Uzbekistan. National report. Geneva: The Joint United Nations Programme on HIV/AIDS (UNAIDS).
- O'zbekiston Milliy Axborot Agentligi (UZA) (2022): In which regions of Uzbekistan is the incidence of AIDS increasing, or through what professions and industries can it be transmitted more? (+Video). www.uza.uz/posts/342809, 02.08.2023.
- Open Data Portal (n.d.): 2-001-0265 People living with HIV. www.data.egov.uz/eng/data/610b90691a64fdd0373a8f7c, 02.08.2023.
- Statistical Agency under the President of the Republic of Uzbekistan (2023): Health care. www.gender.stat.uz/uz/asosiy-ko-rsatkichlar/sog-liqni-saqlash, 06.03.2024.
- TASS Russian News Agency (2011): More than 20 percent of migrants from Central Asia do not speak Russian, the Federal Migration Service reported. www.tass.ru/obschestvo/509885, 06.03.2024.
- Thapa, Deependra K./Visentin, Denis/Kornhaber, Rachel/Cleary, Michelle (2018): Migration of adult children and mental health of older parents 'left behind': An integrative review. In: PLoS One 13, No. 10, p. e0205665. DOI: 10.1371/journal.pone.0205665.
- Uchae, Sergey/Abdullayeva, Oksana/Abdullaev, Shukhrat (2022): Assessment of access to medical services, care and health support for labor migrants living with HIV in the Republic of Uzbekistan. A research report. Commissioned by The Regional Expert Group (REG) on Migration and Health in Eastern Europe and Central Asia. www.migrationhealth.group/wp-content/uploads/2021/12/STUDY_Uzbekistan_RUS_FINAL.pdf, 06.03.2024.
- United Nations Children's Fund (UNICEF) (2019): Study report on effects of migration on children of Uzbekistan. www.unicef.org/uzbekistan/en/reports/study-report-effects-migration-children-uzbekistan, 06.03.2024.

- United Nations Population Fund (UNFPA)/International Organization for Migration (IOM)/The Joint United Nations Programme on HIV/AIDS (UNAIDS) (2021): Challenges of access to sexual and reproductive health and HIV services for internal migrants in Central Asian countries and international migrants from Central Asian countries in the Russian Federation, Kazakhstan, and Turkey during the COVID-19 pandemic. www.kazakhstan.unfpa.org/sites/default/files/pub-pdf/unfpa_eng_final.pdf, 06.03.2024.
- Vollmond, Cecilie V./Tetens, Malte M./Paulsen, Fie W./Gerstoft, Jan/Kronborg, Gitte/Johansen, Isik S. et al. (2023): Risk of Depression in People With HIV: A nationwide population-based matched cohort study. In: *Clinical Infectious Diseases* 77, No. 11, pp. 1569–1577. DOI: 10.1093/cid/ciad415.
- Wagner, Anjuli D./Njuguna, Irene N./Neary, Jillian/Lawley, Kendall A./Louden, Diana K.N./Tiwari, Ruchi et al. (2023): Demand creation for HIV testing services: A systematic review and meta-analysis. In: *PLoS Med* 20, No. 3, p. e1004169. DOI: 10.1371/journal.pmed.1004169.
- White, Lucy C.J./Cooper, Max/Lawrence, David (2019): Mental illness and resilience among sexual and gender minority refugees and asylum seekers. In: *British Journal of General Practice* 69, No. 678, pp. 10–11. DOI: 10.3399/bjgp19X700349.
- World Health Organization (WHO) (2021): Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach. www.who.int/publications/i/item/9789240031593, 06.03.2024.

