3. HIV and Hepatitis C in Kazakhstan

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Introduction

The issue of HIV infection in Kazakhstan remains a public health priority. A step-by-step reform of the nation's health policies guarantees that the country's population will receive a timely diagnosis of HIV infection and the earliest possible prescription of the necessary therapy, in accordance with the UNAIDS '90-90-90' recommendations. Kazakhstan has managed to keep the spread of HIV infection at a concentrated stage, with infections remaining concentrated in key populations. Meanwhile, coverage of HIV-focused services for key populations, including harm reduction interventions, remains limited due to a range of barriers and challenges. The aim of this chapter is to systematise information on the history of the spread of HIV infection in the country and the phased roll-out of HIV policies. The statistical data presented here show the epidemiological situation as regards HIV among both the general population and key populations. The chapter describes the context for establishing HIV services for key populations, emphasising the role of NGOs in these endeavours. In addition, the chapter provides information on the spread of viral hepatitis C (HCV) in Kazakhstan, which is on the verge of implementing comprehensive HCV screening among the general population. While the chapter sheds light on the country's achievements in rolling out free direct-acting antiviral therapy for those living with HCV, it underlines the gap in the involvement of NGOs in HCV preventive initiatives for key populations.

HIV in Kazakhstan: Epidemiology, Key Populations and Services

In the era of global modernization and economic intensification, the issue of public health stays on the international agenda as one of the most concerning topics of political discussions and social science debates. The COVID pandemic has shown the vulnerability of the global space to infectious

threats and forced the world to take a new look at systemic measures to limit the spread of pathogenic microorganisms and viruses. HIV continues to pose a significant worldwide public health challenge, having caused the loss of approximately 40.4 million lives (with an estimated range of 32.9 million to 51.3 million) up to this point. The virus persists in all countries across the globe, and in certain nations, there are reports of rising rates of new infections, despite earlier declines (World Health Organization [WHO] 2023b). Worldwide, approximately 58 million individuals are living with a chronic hepatitis C infection, and roughly 1.5 million new infections emerge annually. An estimated 3.2 million adolescents and children are affected by chronic hepatitis C infection (WHO 2023a).

According to the World Health Organization's (WHO) report, every region has made progress in their own way and, at the same time, has to deal with specific gaps in their anti-HIV and HCV strategies. Central Asia, as a large and unique WHO European subregion, demonstrates its uniqueness in terms of its political structures, socio-economic characteristics, and health indicators. According to the latest United Nations' (UN) estimates, the current population of Central Asia is more than 75 million people – about 1% of the global population. Over the past ten years, the population of Central Asia has increased annually by an average of more than one million people (Tukumov 2023). This territory is characterised by intense migration, uneven access to medical care, and differences in preventive and harm reduction approaches (Renton et al. 2006). In parallel, since the beginning of the 1990s, Central Asian countries have been facing drug challenges (including illicit drug traffic and high prevalence of people who inject drugs [PWID]) in parallel with severe criminalisation and penalisation of those who are involved in drug use. All of these factors drive the growth of HIV and HCV in the country. Over the past ten years, the regions of Eastern Europe and Central Asia (EECA) have consistently recorded the highest rates of new HIV cases. In 2019, there were 100,000 new HIV infections in these regions alone, as reported by the Joint United Nations Programme on HIV and AIDS (UNAIDS) in 2019. What is particularly concerning is that in Eastern Europe and Central Asia, a staggering 95% of all new HIV infections are attributed to specific high-risk groups, including people who inject drugs, commercial sex workers, men who have sex with men, individuals in prison, and their sexual partners, as indicated by UNAIDS in 2019 (Davlidova et al. 2021).

Within the region of Central Asia, Kazakhstan was the first country exposed to HIV. Information about the first patients in Kazakhstan already

appeared in 1987, when the country was part of the Soviet Union (USSR). HIV infection was diagnosed in six foreign students who were subjected to immediate deportation from the Soviet Union. At that time, the Soviet authorities imparted an unambiguous message about the extreme danger of the HIV epidemic and associated it with the Western lifestyle, which was stigmatised as depraved and vicious. The agenda was widely supported by the national and local press. Headlines at the time compared HIV to the plague. Only few doctors had the courage to speak openly about the need for prevention services, increased healthcare capacity, and staff training before the first cases were registered among residents (Romashkina 2021). But even then, health experts argued that the threat of HIV spread lay not only in the behaviour of key population groups but also in insufficient anti-epidemic measures in hospitals. The insufficient supply of disposable medical instruments for clinics exacerbated the situation. For example, one Ministry of Health employee confided that the Kazakh Soviet Republic received only 21 million syringes from the Central Soviet Government in 1990, which covered only 10% of its real demand. At the same time, there was a hepatitis B epidemic in the country, with thousands of cases recorded. In parallel, the incidence of syphilis increased. For instance, in 1990, 13,000 new cases of syphilis were registered. Syphilis rose from the level of 1.4 cases per 100,000 population at the beginning of the 1990s to 640 cases per 100,000 at the beginning of the 2000s (Zhusupov 2000).

At the end of 1990, the Republican AIDS Center was established, followed by the networks of regional centres across Kazakhstan. The first HIV case among the Kazakhstan population was diagnosed in Almaty in 1990. By 1st December 1991, up to twenty HIV-positive patients were registered, nine of whom were foreign students. At the same time, at the dawn of its independence, Kazakhstan was facing a severe economic crisis, increased levels of crime, and drug trafficking. The first case of HIV among PWID was registered in 1996. The man was never registered at a drug treatment centre but was diagnosed with HIV and substance use disorders (SUD) in prison. Unlike with the homosexual HIV cases, the index case resulted in an instant outbreak of the epidemic, initially limited to Temirtau, a small town in the Karaganda region. From 1996 to 1997, specialists have faced exponential growth in the number of infections (from 30 cases in 1996 to 300 cases in 1997). It was in the city of Temirtau that the work of non-governmental organisations focusing on providing HIV services began. These NGOs were launched by active patients and community members in collaboration with the local AIDS centre. The first HIV preventive ser-

vices included the distribution of informational leaflets and the opening of syringe exchange points in Temirtau (Sukhorukov 2023). At the time, this was a rather exceptional example of a progressive approach towards HIV services; by comparison, the main policy approaches were repressive and included forced HIV testing, police raids, and severe stigmatisation. Newspapers of the time wrote about mass cases of acquired immune deficiency syndrome (AIDS) panic, with parents refusing to vaccinate their children out of fear that they would be infected with HIV. People with HIV often had to relocate, due to the harassment they faced and the threats made to their lives when others discovered their HIV status. The media fuelled this general AIDS phobia. By 1999, the number of registered HIV patients comprised 1,000 persons, the significant majority of whom were infected through injecting drug use. At the same time, experts believe that the real number of HIV cases exceeded the aforementioned figure at least tenfold. The year 2000 witnessed a growth in the number of HIV infection cases in other cities, namely Shymkent in Southern Kazakhstan and Pavlodar in Northern Kazakhstan. Kazakh authorities reported that in 2001 alone the number of HIV infections rose by about 240% (Human Rights Watch 2003). As of 1st June 2001 in the Republic of Kazakhstan, the total number of people diagnosed with HIV infection since the first case was registered in 1987 was 1,799. 37 people living with HIV (PLWH) have gone on to develop AIDS, and 31 of them have died to date. The rate of first-identified HIV prevalence in 2000 was 35 per 100,000 persons surveyed. In the first five months of 2001, the HIV prevalence was 99 per 100,000 people surveyed, five times higher than in the same period in 2000.

Several factors have contributed to the rapid growth of HIV infection in Kazakhstan. Firstly, the population had little information or awareness about HIV. That was especially true for young people. According to the Kazakhstan Demographic and Health Surveillance Report, 16.9% of men and 33% of women aged 15–19 did not know how to prevent an HIV infection (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2001). As many as 27.4% of men and 65% of women had experience of unprotected sexual intercourse with a non-regular partner. The young age was an additional risk factor associated with an increased likelihood of getting an HIV infection (a 2.5-fold increased risk) (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2001). According to reports on the drug use situation in five regions of Kazakhstan, about one third of uni-

versity students reported personal experience of drug use. It was also of considerable concern that the proportion of people using drugs at that time was extremely high (the estimated number was up to 250,000) (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2001). As of 2012, only 15%–20% of drug users engaged in behaviours that are safe in terms of HIV transmission. At that time, the most common types of drugs in Kazakhstan were cannabinoids (500–750 tons consumed per year) and opioids (29.3 tons consumed per year), in addition to other drugs (14.4 tons consumed per year) (Katkov 2013).

Considering the high prevalence of parenteral HIV transmission, drug use and heroin addiction have been the key drivers of HIV epidemics all across Kazakhstan for more than two decades. The growth of the prison population in the country has also been a significant driver in terms of the spread of HIV. Surveys conducted among anonymous visitors of injection drug use drop-in centres in Almaty and Shymkent indicated that drug-dependent individuals accounted for up to 30% of people in penitentiary institutions, where, despite the measures taken, drugs remained available. Injecting equipment was not sterilised and was used until it was completely unusable. The results of epidemiological surveillance conducted in 2001 in penitentiary institutions of the Karaganda region showed 42% seroprevalence of HCV among inmates (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2001).

Since 2005, additional vulnerability to HIV has been registered among the female population. According to official state statistics, women accounted for 19% of newly registered HIV cases in 2001, increasing to 28% by 2005. One of the causal factors here was the steady increase in the proportion of HIV cases that were transmitted through sexual activity, which accounted for 5% of newly registered cases in 2001, compared to 25% in 2005 (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2006). The groups of people with unsafe injecting and sexual behaviours, among whom HIV infection is currently concentrated, are predominantly drawn from the least socially protected segments of the population. Their vulnerability to HIV infection is determined by their lack of access to information and education programmes and their inability to use any knowledge they do have to protect themselves from HIV. The issue was also aggravated by poor knowledge about HIV among medical specialists

and insufficient anti-epidemic standards in clinics. The first requirements for mandatory HIV screening among blood donors and arriving foreigners were adopted in the early 1990s. However, these requirements were not sufficiently fulfilled, given the low material resources of the clinics. In 2006 an outbreak of nosocomial HIV transmission was registered in Kazakhstan. The tragedy was that 150 children were infected at one time in the city of Shymkent. The children were infected due to the repeated use of disposable instruments during blood transfusions. Overall, 21 doctors were brought to criminal liability (Kommersant 2007). The repercussions of these mass HIV infection cases included not only the punishment of doctors but also the worsening of stigmatisation issues in Kazakhstan. The victims of the tragedy confessed that discrimination and stigma was a key part of their daily lives (Akulova 2023).

Stigma in its various forms has proved to be one of the key problems associated with HIV epidemics. It is obvious that HIV stigma hinders preventive and treatment approaches. At the same time, stigma has its direct impacts on those who are beyond the scope of the HIV problem being a key factor in the epidemic's spread (Li et al. 2017). Stigma refers to the societal devaluation and disapproval linked to specific attributes, actions, medical conditions, and social positions (Stringer et al. 2019). In the context of HIV, stigma is made worse by issues such as contempt for drug addiction, the criminalisation of and punishment for risky behaviour (such as drug use, commercial sex, and belonging to a sexual minority), and a lack of evidence-based information about the infection. Stigma can manifest through isolation, criticism, verbal harassment, aggression, threats, penalisation, denial of care and testing, poorer treatment provision, and administrative barriers. According to the Stigma Index Report in 2016, one in three (39.3%) of people living with HIV who was interviewed was afraid of being gossiped about because of his/her positive HIV status or feared sexual rejection (37.5%).

One in five people living with HIV (21.3%) experienced the fear of being verbally affronted, harassed, and/or threatened. Every tenth person feared physical harassment, threats, or being physically assaulted. People living with HIV in Kazakhstan reported that they had been gossiped about (44.6%), had been verbally affronted, harassed, and/or threatened (23.2%), had experienced sexual rejection (15.8%) or psychological pressure and manipulation by their partner (13.0%), or that members of their household had been discriminated against (12.3%). 8.8% of people interviewed reported having been physically harassed and/or threatened, and 8.2% had been

physically assaulted. In Kazakhstan, individuals with HIV frequently encounter discrimination, primarily from healthcare providers (with 6.0% reporting strong discrimination and 12.4% indicating signs of discrimination) and government employees (with 4.0% experiencing strong discrimination and another 4.0% reporting signs of discrimination) (Amanzholov et al. 2016). As many as 30%–40% of Kazakhstanis stated that they would not buy food from a person with HIV or allow their children to learn alongside HIV–infected peers (The Joint United Nations Programme on HIV/AIDS [UNAIDS] 2021). Additionally, one of the significant drivers of HIV stigma are service providers who exhibit stigmatising behaviour in narcology dispensaries, tuberculosis (TB) clinics, and places that provide reproductive and maternal healthcare services. Taking unnecessary precautions, such as using masks, actively denying care, and segregating clients who were living with HIV, were signs of widespread stigmatisation and were hardly perceived by health workers as devaluating (Stringer et al. 2019).

All these events showed that Kazakhstan had to reconsider its HIV policy. Since the early 2000s, the country has started to change its HIV policy in terms of treatment, prevention, and surveillance of infection. The first preventive HIV programmes were already launched in the mid-1990s, but at that time their efficiency was limited by poor financial policy and a lack of international support. The first large-scale international collaboration started in 2003 when the Republican Aids Center received the Global Fund's grant for capacity building for the response to HIV/AIDS. Within the framework of the grant, Kazakhstan received money to cover the first antiretroviral therapy (ART) campaign for those patients who had already been diagnosed with AIDS. Since 2006, ART programmes have been fully covered by the state budgets. To date, in the era of health insurance, ART and all diagnostic procedures for HIV patients are provided free of charge, regardless of the individual's insurance status, within the guarantee package of free medical care.

However, in 2017, Kazakhstan adopted clinical protocols on the principle of early ART initiation. According to WHO recommendations, HIV patients receive ART regardless of their CD4+ count. But, according to the Almaty Centre for AIDS Prevention and Control's recent survey conducted in Kazakhstan, it was estimated that as of 2017, 75% of PLWH were aware of their HIV status, of which only 59% received ART (Denebayeva et al. 2020). In 2003, Kazakhstan introduced the first sentinel surveillance procedures in pilot mode in one of the regions with the highest HIV prevalence in the country (Karaganda). In the following years, sentinel surveillance

spread nationally. It helped to monitor the spread of HIV infection among vulnerable population groups, to determine estimated national rates of HIV infection among adults, and to evaluate the HIV response and plan further prevention and treatment programmes (Kazakh Research Centre of Dermatology and Infectious Diseases 2012). The following sentinel groups have been included in the surveillance since 2003: PWID, sex workers, men who have sex with men (MSM), pregnant women, people with sexual diseases, and prisoners. The first sentinel surveillance among MSM was carried out in 2003 in Karaganda alone. In 2005, it was expanded to four sites, and then during 2008 to 2010 to eight sites. Sentinel surveillance among pregnant women was carried out from 2003 to 2007. Since 2008, Kazakhstan has carried out mandatory double (in the first and third trimesters) HIV testing of pregnant women upon obtaining informed consent. In this regard, surveillance among pregnant women was cancelled. HIV surveillance among people with sexually transmitted infection (STI) symptoms was stopped in 2011.

The last two decades, Kazakhstan has experienced a concentrated stage of HIV epidemics with a prevalence in 2022 of 0.3% in the general population, compared to the 0.6% worldwide rate. As reported by the Minister of Healthcare Azhar Giniyat, for the last ten years, the morbidity rate in the country has doubled, while the mortality rate of AIDS has decreased 1.7 times (Figure 1) (Official Information Source of the Prime Minister of the Republic of Kazakhstan 2023). According to statistical prognosis, morbidity prevalence is on the rise and will potentially reach the level of 0.47%–0.60% by 2030 (Mussina/Kadyrov et al. 2023).

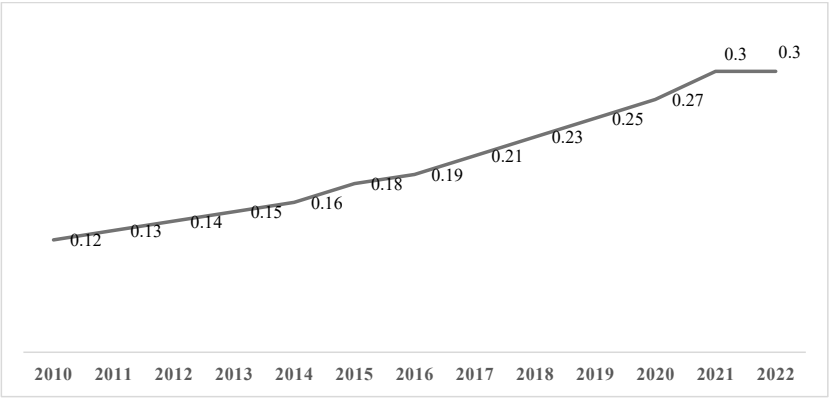

Figure 1: Prevalence of HIV in the general population of Kazakhstan (%) (Official Information Source of the Prime Minister of the Republic of Kazakhstan 2023)

When it comes to discussing epidemiological data on HIV in Kazakhstan, the majority of research publications underline the poor quality of statistical data in the field. In most cases, that refers to the underreporting of statistical indicators. Among the reasons for this underreporting, Thorne and her co-authors listed stigma and discrimination, over-centralisation of the surveillance systems, insufficient linkages between services, and insufficient involvement of civil sectors in data gathering and distribution. Additionally, the authors mentioned universal technical and methodological challenges while estimating epidemics concentrated in stigmatised, vulnerable population groups (Thorne et al. 2010).

In 2022, the absolute number of people living with HIV in Kazakhstan was 30,558, with 3,877 new cases registered that year. In terms of gender, there are significantly more cases among men (67.2% of all cases). Currently, sexual transmission is the most prevalent way for HIV to spread (74.7%), and parenteral is as high as 20.3%. Overall, 82.6% of people living with HIV are of working age. According to Mussina et al. (2023), the rate of HIV infection in Kazakhstan varies considerably depending on the data source used. In practice, for 2020, UNAIDS reported 3,600 newly diagnosed HIV cases in the country, while official governmental bodies confirmed just 93% of that indicator. Likewise, data on mortality is also sparse and fragmental. For instance, the Ministry of Healthcare reported a 1.7% decrease in the AIDS mortality rate (Official Information Source of

the Prime Minister of the Republic of Kazakhstan 2023), while Mussina et al. (2023) revealed a sharp escalation in the mortality rate (248%) in the cohort of PLWH hospitalised due to various somatic diseases in the period of 2014–2019. According to the study of Mussina and her co-authors, people with TB comorbidity and an older age had lower survival chances. Stigmatisation, poor social support, and barriers to medical health utilisation were listed as the main drivers of increased mortality risks for inpatients with a positive HIV status (Mussina/Abbay et al. 2023). The HIV prevalence in key population groups is presented in Table 1 (Petrenko 2023).

Table 1: HIV prevalence in key populations in Kazakhstan (Petrenko 2023)

Key groups	**2019/ 2020**	**2021/ 2022**
PWID	8.3%	7.6%
Sex workers	1.4%	1.3%
MSM	6.5%	6.9%
Inmates	4.2%	4.1%

While the HIV prevalence in sex workers and inmates has remained stable, the rate of HIV in MSM is on the rise. HIV incidence among MSM has increased sevenfold since 2009. Specialists face significant difficulties in estimating the prevalence among MSM, which is related to the fact that official data often give lower figures than studies among MSM (Semchuk 2018). The reason could lie in stigmatisation, the segregation of this closed community, and the low attractiveness of the services offered in state medical and preventive organisations. Recent surveys indicate that as many as 70% of individuals in Kazakhstan maintain prejudiced attitudes towards people living with HIV (UNAIDS 2019).

In 2017, the estimated number of MSM in Kazakhstan was 154,000 individuals. National research indicates that HIV testing rates among MSM in Kazakhstan are below 50%, and as a result, up to 50% of those living with HIV may not be aware of their HIV-positive status. Furthermore, in this context, MSM seem to have lower testing rates than other demographic groups in Kazakhstan (Wu et al. 2017). The low rate of HIV test uptake is associated with poor community connectedness with sexual and gender communities (Paine et al. 2021). According to the data of Berry et al. (2012), unprotected receptive anal sex raised the risk of HIV infection twofold. In

turn, unprotected sex among MSM living in Almaty was associated with low access to lubricants, transactional sex, STI symptoms, and non-injection drug use (Berry et al. 2012).

Given these statistics, the government has set a course to change prevention approaches among the LGBT community. For example, a pre-exposure prophylaxis programme for HIV was introduced in 2020. More than 3,000 people currently receive free, regular pre-exposure prophylaxis funded by the state budget. This programme's most frequent clients are MSM. In financial terms, the price of one course of the drug for pre-exposure prophylaxis does not exceed five dollars, which is undoubtedly one of the most efficient and low-cost HIV prevention approaches available in Kazakhstan (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2020a).

Another equally important facilitator of the HIV response among MSM is the work carried out in the community by NGOs. Currently, NGOs in Almaty, Astana, Karaganda, Shymkent, and Pavlodar conduct informational campaigns, work to minimise stigma, and provide support to overcome discrimination and increase tolerance towards LGBT people (such as AFEW Kazakhstan, Community Friends, Human Health). Unfortunately, the number of condoms and lubricants provided by state organisations is quite low (no more than 150 per person who injects drugs annually) (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2020a). The decision to increase the number of preventive products issued (up to 300 units annually) is currently under consideration by the government. Given the low coverage of diagnostic testing among key populations (including MSM), the issues of distribution of rapid HIV tests through NGOs remain relevant (Alibayeva et al. 2019). At present, programmes for distributing rapid tests through trust points have been introduced across Kazakhstan. As additional options, international projects have supported the implementation of distribution saliva test systems through pharmacies, including online ordering and home delivery options.

A successful example is the HIV Flagship project funded by the United States Agency for International Development (USAID), which raised the capacity of NGO testing through teams of peer test navigators. They have extended HIV testing to nearly 10,000 individuals in the Pavlodar and East Kazakhstan regions by utilising rapid test kits. This effort led to almost 600 individuals receiving their first positive HIV test result through community-level testing, with over 500 of them subsequently becoming

clients of community case management. Moreover, more than 400 people initiated ART as a result of this initiative. Overall, the case management programme welcomed 1,347 former clients, and approximately half of them commenced ART (USAID 2020). In 2019, HIV testing was conducted by 23 stationary laboratories in all regions of the country. There are no mobile laboratories in the Republic of Kazakhstan; instead, there are 23 mobile trust points that travel to the points with the highest concentration of key group representatives and conduct rapid testing, among other services. In 2019, 1,224 self-test kits (saliva) were distributed, with 4,856 MSM getting tested in 2019 (Prilutskaya 2020).

In addition to MSM, people who use drugs are also at significant risk of HIV infection. As illustrated in research conducted by Strathdee et al. (2010), as well as Krüsi et al. (2010), various behavioural elements contribute to the spread of HIV among PWID. These factors encompass challenges such as limited access to clean needles and syringes, concerns about facing discrimination, arrest, or imprisonment, and encountering obstacles that hinder their ability to access HIV testing and drug addiction treatment services (Krüsi 2010; Strathdee et al. 2010). In 2017, the Republican AIDS Center of Kazakhstan estimated that the nation had 11,207 PWID living with HIV. Among them, 9,072 individuals (80.9%) were aware of their HIV-positive status. Nevertheless, less than half of these individuals, specifically 4,340 (38.7%) of them, were receiving ART, and only 2,318 (20.6%) of them had achieved viral suppression below 1,000 copies/mL (McCrimmon et al. 2019).

Despite the fact that a decrease in HIV prevalence among PWID has been registered in the last five years, the coverage of prevention programmes does not reach the target values. For example, in 2019, the direct coverage of three preventive services (syringes, condoms, and informational leaflets) was no higher than 52%. Systematic coverage of PWID with three preventive services (at least once a month during 2019) only amounted to 27% (Prilutskaya 2020). The quality and coverage of preventive programmes continue to be relevant for PWID. According to the study of El-Bassel et al. (2013), no more than 10% of PWID living in Almaty visited needle-exchange points (NEP). Overall, 25% has never been tested for HIV. Furthermore, another concerning fact was the high risk of bridge transmission of HIV in the non-drug-using injection partners of PWID. El-Bassel et al. (2013) found that HIV prevalence among non-PWID partners of PWID was as high as 10.4%. In this regard, the relevance of systemic preventive campaigns among discordant couples is on the rise.

An example of successful intervention for couples is Project Renaissance funded by the National Institute on Drug Abuse (NIDA), which showed positive results in the Almaty region with a reduction in the injection rate and an increase in condom use, achieved by implementing couple's counselling (Gilbert et al. 2010). The Project Renaissance showed that social enablers play an extremely significant role in curtailing the barriers to accessing HIV services among PWID, such as differentiated service delivery, decriminalisation, and destigmatisation, which was underlined by several regional HIV-policy experts (Deryabina/El-Sadr 2019).

The estimated number of PWID is currently decreasing due to the changing drug scene in the country. Official government estimates have stated that there were approximately 122,850 injection drug users (IDUs) in Kazakhstan in 2011, while that rate was just above 85,000 in 2020. In terms of ways of transmitting HIV, injecting has been overtaken by sexual transmission, including through increased unsafe sexual practices among synthetic stimulant users. The official data on HIV prevalence in users of new psychoactive drugs is lacking, although the scope of the problem can be observed through sporadic studies in the field. According to Prilutskaya et al. (2020), up to 10% of all hospital-based admissions for SUD were associated with problematic use of new psychoactive substances (NPS).

Selected research assessments in the country indicate that there are special needs for HIV prevention among people who use synthetic stimulants (Prilutskaya 2020). Sexual arousal following polydrug use and a binge mode of drug consumption are additional drivers of raised HIV transmission risks, even without drug injections (Su et al. 2018). International research data states the higher risks of HIV transmission among people who use synthetic stimulants, due to the lack of evidence-based information, rare use of condoms, higher likelihood of chemsex practices and commercial sex, and higher risk of stigmatisation, even among people who use traditional drugs. In parallel with HIV, stimulant use is associated with a higher prevalence of STIs (e.g. syphilis) (Chen et al. 2014; Sun et al. 2018). In Kazakhstan, HIV spread in NPS-using people can be accelerated by the lack of tailored HIV services for those subgroups of key populations. It should be noted that people who use stimulants in a form other than injections are not covered by regular preventive HIV services, being beyond the scope of three key groups (PWID, MSM, and sex workers).

The pilot study by Prilutskaya (2020) showed poor knowledge about HIV risks while using NPS, even among outreach peer-to-peer counsellors and NGO representatives. By 2019, no NGOs in Kazakhstan offered

any NPS-tailored services to communities. The multinational qualitative study, in which both Kazakhstan providers and patients participated, revealed that harm reduction should encompass the following range of new approaches and services: providing support and tools for non-injecting users of NPS, offering a wider array of supplies for those who do inject, delivering targeted education about NPS usage and the associated hazards, implementing peer-driven initiatives, providing drug-testing services, and offering training to healthcare professionals and harm reduction workers on NPS-related matters (Kurcevič/Lines 2020).

To date, the first steps have been taken towards web outreach harm reduction initiatives, supported by the United Nations Office on Drugs and Crime (UNODC 2023a) and the Global Fund (Kazakh Research Centre of Dermatology and Infectious Diseases 2022b). In 2019, the first harm reduction channel was launched in Kazakhstan through the Telegram platform. To date, six channels in four Kazakhstan regions have provided harm reduction counselling. Overall, eleven web-outreach specialists were trained and are now working successfully in this field. The current phase of the web-outreach project focuses on establishing the distribution of harm reduction kits for people who use NPS in three regions of Kazakhstan: Almaty, Karaganda, and Oskemen (Figure 2).

Figure 2: Harm reduction packages (kits) distributed among people who use synthetic stimulants (Valentina Mankieva, representative of the Kazakhstan Forum of people who use drugs)

According to a piece of expert information, in 2023, six online trainings were provided for NGOs, 217 consultations were provided online for

PWID, and 138 persons were tested, with one positive HIV case identified. Developing a relatively new direction in harm reduction, experts noted the need for systemic funding, capacity building for human resources, and security for web-based outreach in the context of severe criminalisation of all NPS distribution in Kazakhstan. Another important issue is the pressing need to establish an NPS early warning system with data triangulation to monitor the harms and risks of NPS, considering the best practices of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA 2023) and the United Nations Office on Drugs and Crime (UNODC 2023b). That requires the systemic modernisation of legal acts and operational standards, including those related to HIV monitoring (such as a national sentinel surveillance system).

The key role of NGOs in HIV prevention and treatment was acknowledged over three decades ago by the whole international community. Building the partnership between the governmental and non-governmental sectors is a critical step for the dissemination and implementation of state-of-art approaches and for transparency and equality in the distribution of services, especially in the context of the vulnerability of key population groups. NGOs provide critical support and care services to PLWH and key populations by offering counselling services to help PLWH and individuals at risk of HIV infection cope with the emotional and psychological challenges associated with HIV; by facilitating access to healthcare services, including ART and essential medical treatments; by ensuring that PLWH receive the care they need; and by employing peer educators and support workers who have personal experience with HIV or harm reduction. These peers build trust and provide practical guidance, making it easier for individuals to navigate the challenges of living with or preventing HIV.

To date, Kazakhstan has seen a rapid development of the civil sector in various aspects of social welfare service. HIV programmes are not an exception to this trend. Capacity building and increased representation of NGOs in the healthcare sector (including HIV prevention initiatives) are both on the agenda of current state policies. The main support is supposed to be provided through the local budgets of 20 Kazakhstani regions. In practice, the regional capacities of NGOs are not equal as they depend on the regional budgets and readiness of state bodies to invest in and prioritise civil actions at a regional level. The government has reported a decrease in the number of NGOs financed by state budgets, from 21 NGOs in 2019 to seven NGOs in 2023 (International news agency "Kazinform" 2023). In 2019, the share of state funding costs for NGOs did not exceed 0.2%

of the total HIV budget. In this regard, international grants play a key role in the sustainable development of the civil sector when it comes to providing transparent and timely HIV services for various representatives of key population groups in the country.

NGOs often collaborate with the Global Fund to access funding, technical expertise, and best practices. Kazakhstan's NGOs actively engage with UNAIDS to align their strategies with international standards and to access data, research, and policy guidance (UNAIDS 2023). The UNODC has been a vital partner in Kazakhstan's efforts to combat HIV/AIDS, particularly in addressing the intersection of drug use, harm reduction, and HIV prevention (UNODC 2020). On a national level, NGOs in Kazakhstan are active participants in regional networks that facilitate cooperation, advocacy, and resource sharing through several key stakeholders. These NGOs are as follows: the Central Asian Network of PLWH, the Eurasian Harm Reduction Network, and the Central Asia Program for AIDS Control and Prevention. NGOs in Kazakhstan have also played an active role in advocating for policies that prioritise HIV prevention and harm reduction. Their advocacy efforts include policy development, resource mobilisation, and community empowerment. Moreover, NGOs provide critical support and care services to PLWH and key populations through counselling, facilitating access to healthcare services, and peer-to-peer education.

The Role of Social Work in the Prevention and Treatment of HIV/AIDS

People living with HIV still face a number of challenges around the world. The role of social work is critically important in improving the quality of life of people living with HIV and their families.

Social work, as a relatively new profession, is going through a period of institutionalisation in Central Asian countries. At present, social work in the prevention and treatment of HIV is gradually developing in Kazakhstan. However, in most cases, the work is carried out with a focus on medical care, without due attention being paid to family factors or social and psychological needs. Today, professional social work in the field of HIV prevention is largely carried out by non-profit organisations (NPOs), which train outreach workers to provide targeted social work and carry out work with communities. Also, elements of social work for people living with HIV can be found in the primary healthcare system.

The results of the international research project InBeAIDS by the Frankfurt University of Applied Sciences (Frankfurt am Main, Germany 2018), entitled 'Prevention of Infectious Diseases and Treatment of HIV/AIDS and Hepatitis among Injecting Drug Users in Central Asia and the Contribution of Social Work to Serving Drug Addicts', show that the state of professional social work in the field of HIV prevention is unsatisfactory in terms of its state institutionalisation, if we talk about the state system of providing social services, as well as the development of education in the field of social work at the level of training qualified social workers (Bachelor of Social Sciences, 'pre-service' level) (InBeAIDS 2020).

Kazakhstan became the first country in the Commonwealth of Independent States (CIS) to introduce standards of psychosocial support for children and adolescents living with HIV. These standards were put into practice after a joint meeting of the United Nations Children's Fund (UNICEF), the Ministry of Health, and the Kazakh Scientific Center for Dermatology and Infectious Diseases in 2019. In 2020, in accordance with the action plan of the 2019–2021 grant of UNICEF in Kazakhstan, the Ministry of Labor and Social Protection of the Population of the Republic of Kazakhstan, experts from UNICEF, the National Alliance of Professional Social Workers, the Research Group on Social Work of the L.N. Gumilyov Eurasian National University conducted research into the needs of families with children and teenagers living with HIV. The purpose of this study was to monitor and supervise the implementation of the 'needs assessment' tool among families with children and adolescents living with HIV according to the methodology of the Standard of Psychosocial Support for Families with Children Living with HIV.

The study involved the Centers for the Prevention and Control of AIDS, the Centers for Primary Medical and Social Care, and the Departments for the Coordination of Employment and Social Programs of the East Kazakhstan, Almaty, and Turkestan regions and the cities of Shymkent and Almaty.

As this study shows, the functions of social workers are most often performed by quasi- professionals, i.e. employees with medical education, which significantly reduces the quality of services for the integrated management of family cases. This situation is due to the insufficient level of educational support from the state at both the bachelor's and master's levels. For example, in 2019, the Ministry of Education allocated just 80 educational grants for undergraduate programmes throughout the country

(Ministry of Labor and Social Protection of Population of the Republic of Kazakhstan 2020).

In general, it has been over the past two decades that the professional training of social work specialists has been carried out in Kazakhstan. In the country, one of the key roles in solving the problem of undertraining of social workers is played by the National Alliance of Professional Social Workers (NAPSW), which was established in 2019 and in 2022 initiated the creation and registration of the Association of Schools of Social Work (ASSOR) in Kazakhstan to promote and strengthen education in the field of social work. In December 2022, the NAPSW of Kazakhstan joined the International Federation of Social Workers.

Over the years, the Alliance has carried out work in several areas, such as improving the quality of education in the field of social work (for example, providing advanced training of social work specialists in various fields, including the social workers of AIDS centres and NGOs providing social support to people living with HIV; developing a curriculum for bachelor's and master's programmes in the fields of social work and social work in healthcare; and implementing advanced training programmes for social workers in social protection and healthcare), developing and maintaining the institution of supervision in the field of healthcare (since 2016, the Alliance experts have been conducting supportive monitoring of specialists of primary health care organisations and AIDS centres), and training trainers in social work technologies and case management.

In order to increase the role of social work and its impact on providing support and assistance to people living with HIV, it is recommended to develop training programmes at the bachelor's level in the field of social work with HIV, addiction, etc., at the postgraduate level (for students who already hold a bachelor's degree), and for paraspecialists who carry out the tasks of a social worker in NPOs. It is also necessary to conduct trainings for case management professionals that include information on assessment, intervention design, and how to evaluate social work practice, as well as specific courses for people living with HIV, with a focus on future outreach work (InBeAIDS 2020).

Legal Regulations and State Guarantees for PLWH

Compared to other Central Asian countries, Kazakhstan demonstrates the highest economic growth and intensification of modernisation processes

that embrace digitalisation, the decentralisation of administrative processes, and focusing on social policies. In this regard, economic growth is measured not only by the growth rate of financial well-being but also by the strengthening of socially oriented approaches and the expansion of institutions that provide social support for the population. The Constitution of the Republic of Kazakhstan (1995) states that 'citizens of the Republic of Kazakhstan have the right to health protection and are entitled to receive the guaranteed volume of medical care established by law free of charge' (Article 29). In addition, concealment of facts and circumstances threatening the life and health of people is punishable by law (Article 31). During the years of Kazakhstan's independence, from 1993 to the present day, about 2,000 normative legal acts were issued concerning policy issues on the reduction and treatment of HIV/AIDS morbidity, 848 of which are still in place today and regulate current standards in the field of HIV-related issues (Figure 3).

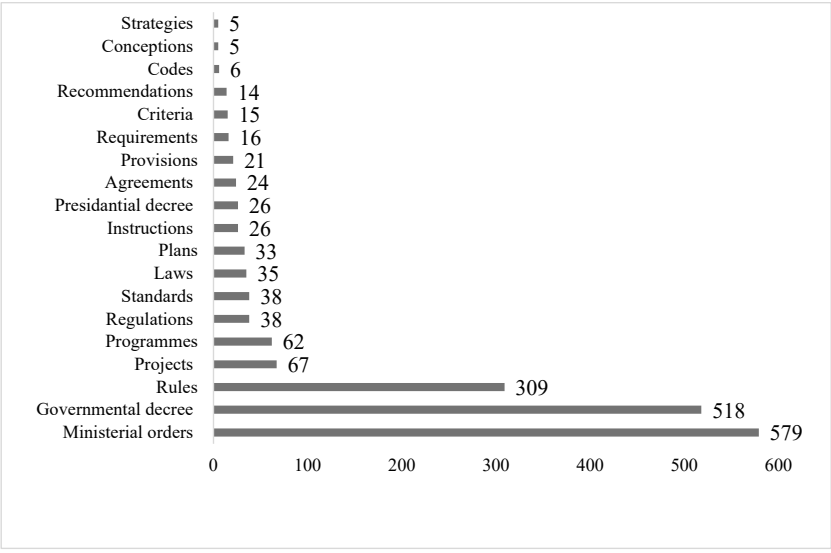

Figure 3: Legal documents regulating HIV-related issues in Kazakhstan (authors' compilation)

According to the Eurasian Harm Reduction Association (EHRA 2021), Kazakhstan has not yet adopted a comprehensive national HIV strategy. Instead, issues to improve HIV policy are presented at three levels: (i) the

long-term state strategy 'Kazakhstan-2050', (ii) documents on the strategic economic development of the country and regions, and (iii) operational documents on the implementation of the aforementioned strategies (EHRA 2021).

Legislation on HIV infection was established in Kazakhstan for the first time in 1994. The first edition of the law established legal definitions of a range of terms, including 'HIV', 'HIV-infected person', and 'HIV diagnostics'. It listed the responsibilities of state authorities to prevent HIV spread in Kazakhstan. Ten years later, the law was amended and articles about rights and guarantees for PLWH were introduced. Guarantees for the social security of medical workers in case of HIV infection were also enshrined (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 1994). Since 2007, social guarantees have been extended to other persons infected with HIV, especially education guarantees for minors living with HIV. Since 2000, issues relating to HIV prevention and response have become part of the state concept. The main principles of the state anti-HIV policy include the consolidation of the forces of the state and society as regards AIDS prevention; broad cooperation with international and public organisations; ensuring respect for human rights in the implementation of AIDS prevention programmes; encouraging healthy lifestyles; education and awareness-raising; and guaranteeing that vulnerable population groups receive basic healthcare at the same level as the rest of the population. The state concept named the following groups as the priority population groups when it comes to HIV prevention: people who use drugs, sex workers, and youth. This document underlined the need for NGOs in the field, as well as the importance of coverage with ART and preventive measures (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2000). In 2005, the Governmental Decree established the Country Coordinating Committee as the main governmental body responsible for regulating the Global Fund projects in Kazakhstan, modernising legal regulations, and controlling the implementation of national prevention and treatment policies. A significant political achievement and innovation for that time was the inclusion of representatives of non-governmental organisations in the Committee, which in essence provided an opportunity for a transparent dialogue platform for the government, civil society, and international organisations (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2004). The next step in

the area of health safeguards for HIV was the adoption of the Health Code in 2009. Four articles of the Code were dedicated to regulations and state guarantees for HIV prevention, testing, and social insurance for PLWH (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2009). The current version of the Health Code provides more advanced steps and guarantees in terms of HIV prevention and health promotion, not only for the general population but also for vulnerable key groups. Monitoring campaigns (epidemiological surveillance) have been introduced as a mandatory biennial procedure of the national HIV policy. The principles of peer-to-peer counselling and universal ART coverage (test and treat) are also declared by the current Code of the Republic of Kazakhstan (Institute of legislation and legal information of the Republic of Kazakhstan of the Ministry of Justice of the Republic of Kazakhstan 2020).

As of 1st January 2021, Kazakhstan had 17 state medical organisations in the field of HIV prevention, one republican umbrella organisation, and 29 so-called 'friendly clinics' (*druzhestvennye kliniki*) to provide preventive and therapeutic-diagnostic assistance to HIV-positive patients and key populations. Overall, 139 drop-in centres provided syringe exchange services and 485 outreach workers practised peer counselling (329 of them funded by local budgets and 156 funded by donors). In total, 39 HIV-service NGOs were registered in the country, of which nine NGOs received state social contracts. Preventive services that are spread across Kazakhstan, guaranteed and controlled by the government, are as follows: HIV awareness in all medical organisations, ensuring infectious safety as concerns organ donation and transplantation; the integration of HIV education into the education system and at the workplace; the surveillance of HIV prevalence among the population, including key groups; treatment and prevention services for key populations in drop-in centres and friendly offices on the principle of confidentiality and voluntariness; funding of NGOs through state social grants; the prevention of mother-to-child transmission of HIV; pre- and post-contact prophylaxis; and ART (EHRA 2021). In 2014, Kazakhstan adopted new initiatives presented by the WHO and the UNAIDS, such as '90-90-90'. In 2021, Kazakhstan ratified new '95-95-95' targets of the UNAIDS fast-track approach (Kazakh Research Centre of Dermatology and Infectious Diseases 2022a). According to the recent data (2021–2022), this indicator has reached the level of '87-84-87', which is significantly lower than the UN target of '95-95-95'. Reaching these targets will involve

systemic reforms in HIV prevention and treatment, changing a significant number of policy approaches and funding.

A phased increase in funding for HIV treatment and prevention is an important component of government policy in this area. In 2017, expenditure on HIV services in Kazakhstan totalled USD 34,816,918 (UNAIDS 2018). Budgets and the amount of funding allocated are key, as the Global Fund estimates that funding has the potential to directly impact population losses from HIV. By 2030, through a more efficient allocation of resources, it should be possible to prevent an extra 52,000 disability-adjusted life years (DALYs) (Optima Consortium for Decision Science 2020). HIV/AIDS services are covered by a guaranteed finance package, with free provision for all citizens across all regions of Kazakhstan. For medical and social assistance and HIV/AIDS prevention services, the financial coefficient is calculated per person infected with HIV and is supposed to cover specialised medical care in outpatient settings, medical and social assistance for persons infected with HIV, and preventive measures to reduce the risk of HIV transmission from mother to foetus and child. An additional budget is allocated to preventive services provided in friendly offices and trust points, which is directly dependent on the type of service and the likelihood of receiving it. In 2019, according to the data obtained from in-depth interviews with experts of the Kazakh Scientific Center of Dermatology and Infectious Diseases, USD 3.5 million were spent on the prevention and treatment of HIV infection, which amounted to 9.3% of the state expenditure on healthcare in general (the total public health budget of Kazakhstan in 2019 was approximately USD 33.5 million). The share of the expenditure allocated to financing NGOs working in the field of HIV/AIDS amounted to 0.2% (approximately USD 70,000) of the expenditure on prevention and treatment. According to estimations from the Global Fund, in order to meet the '95-95-95' targets, it will be necessary to increase the HIV programme budget for 2019 to 2030 to 160% of the most recent reported budget level, requiring an extra USD 13 million each year. This increase should be carefully directed towards enhancing and prioritising ART, as well as focusing on HIV testing and prevention initiatives for PWID, HIV testing and prevention programmes aimed at MSM, and broad-scale HIV testing for the general population (Optima Consortium for Decision Science 2020).

In 2019, more than USD 35 million was spent on the HIV response in the Republic of Kazakhstan. More than USD 30 million was covered by the state budget (95%), while the remaining 5% were funds from international partners. The international assistance provided to the Republic of Kazakh-

stan includes funds allocated by the US government (USAID/PEPFAR, CDC/PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria, UN agencies, and other partners. International cooperation between Kazakhstan and donor organisations has made a significant contribution to improving national policy over three decades of HIV epidemics. Kazakhstan became the first country in the post-Soviet region to receive stable funding from the Global Fund. From 2003 to 2014, the Global Fund committed five grants to the Republic of Kazakhstan, with USD 89.5 million for the first decade and USD 111.8 million later (The Global Fund. Office of Inspector General 2015). The share of Global Fund investments allocated to the HIV response from 2016 to 2020 amounted to about 51.1% of the total amount of international donor funding (UNAIDS 2021). It was with the support of the Global Fund that the procurement of ART became possible in 2006. After achieving upper-middle-income country status in 2006, Kazakhstan has recently experienced a decrease in HIV funding from international donors (EHRA 2021). However, the donors continue to show their support in terms of advocacy, anti-stigma campaigns, capacity-building programmes, and research initiatives that explore new factors as regards the spread of HIV epidemics. According to the estimations of the Global Fund, if the HIV support programme had not been put into action between 2015 and 2017, by 2018, there could have been nearly 170% more new HIV infections (almost 8,300 more cases) and over 220% more fatalities related to HIV (roughly 2,800 more deaths) during that time frame (Optima Consortium for Decision Science 2020). To date, Kazakhstan has the resources to cover its own ART needs for all citizens. According to Aktayeva (2021), ART coverage increased fifteenfold between 2010 and 2020 (going from 1,336 PWLH in 2010 to 20,177 PWLH in 2020).

Thus, the above data shows the progress Kazakhstan has made in the field of HIV response and the full range of results achieved. However, an analysis of the situation among key populations would not be complete without taking into account the parallel spread of viral hepatitis C and the challenges that require solutions in this field.

HCV in Kazakhstan: Epidemiology, Policies, and Services

According to WHO statistics from 2019, approximately 58 million individuals are afflicted by persistent hepatitis C infection, leading to approximately 400,000 fatalities annually (WHO 2023d). The Ministry of Health's official

figures show a population-wide prevalence of hepatitis C of up to 3.1%. In 2022, there were 27,835 patients registered as having hepatitis B and 30,862 patients registered as having hepatitis C (WHO 2023c). According to an independent NGO assessment, just above 8,000 new HCV cases were identified in 2022, whereby the prevalence was higher among women (53.2% of new cases) than men (46.8% of new cases) (Biryukov/Rastokina 2023). According to national experts, epidemiological data on viral hepatitis in Kazakhstan is scattered and inconsistent (Ashimkhanova et al. 2022). In most cases, the data were obtained either from several research projects among PWID or from several different transplant clinics. Notably, the HCV seroprevalence among PWID fluctuated between 14% and 90%, depending on the research methodology and the region of Kazakhstan where the fieldwork was focused (Davlidova et al. 2021). The study by Mukhatayeva et al. (2021) identified the coinfection of HIV and HCV in 43% of the 500 PWLH who took part. According to official statistics, in 2018, among PLWH in Kazakhstan, 62% and 63% were found coinfected with, respectively, HBV and HCV funding (UNAIDS 2021). In the study by Mukhatayeva et al. (2021), the significant factors of HIV and HCV coinfections were described: male gender, age group of 30–49, a more than ten-year duration of HIV infection, and residence in the Kostanay region.

WHO's global hepatitis strategy, endorsed by WHO Member States, aims to reduce new hepatitis infections by 90% and deaths by 65% between 2016 and 2030. As a country that supports the WHO 2022 international strategy, Kazakhstan is aiming to develop new strategies for HCV screenings among the general population, including rolling out the HCV test campaigns piloted in Astana city. To date, free HIV screenings are available for medics who provide invasive procedures, patients who need surgical procedures, patients in haemodialysis, oncology, transplantology, or oncology departments, pregnant women, and a population of key groups. The latter receives all HCV services through an HIV-service organisation. The other groups can be tested for HCV at general hospitals or primary healthcare units. Since 2011, Kazakhstan has covered all its treatment needs with the state budget within the framework of the guaranteed package of free medical help. Since 2018, internationally acknowledged direct-acting antiviral (DAA) treatment regimens, consisting of a combination of sofosbuvir, daclatasvir, and ribavirin, have been available under the state insurance programme (Figure 4). The cost of a single course of DAA therapy ranges from USD 450 to USD 1,200 (Public Foundation "AGEP'C" 2023). In 2022, 6,590 patients received DAA therapy with an effectiveness rate of 96.5%.

Figure 4: Antiviral medications used for HCV treatment in Kazakhstan (authors' compilation)

However, in practice, all the testing procedures to identify and officially diagnose HCV and qualify someone for free antiviral treatment are available only for those citizens who are insured. This is a significant issue, given the fact that many individuals with HCV are from vulnerable population groups that are underinsured. Another major practical barrier is limited treatment options for people who continue to use drugs. Based on an expert interview undertaken to gather information for this chapter, it appears to be normal practice for hepatologists to request special notification about stable remission from a psychiatrist for those patients who have experienced any drug use. According to expert opinions shared in the interviews, the reason for this is that hepatitis therapy becomes unsafe for the patient when active drug use is present.

These barriers to accessing HCV treatment are not unique to Kazakhstan, but can be observed in many countries of the world (Rodríguez Torres 2006). Most of them are related to social factors such as poverty, homelessness, infrequent contact with healthcare providers, and unreliable follow-up treatment. These barriers and pitfalls cannot be overcome without multidisciplinary efforts, including harm reduction interventions implemented by NGOs, HIV-service organisations, and social work specialists. Our investigation for this chapter revealed the paucity of information about NGO

activity in combating HCV. To the best of our knowledge, there is only one NGO that focuses its work on issues of viral hepatitis and facilitates the implementation of patient-oriented approaches in general populations. Their activities include also key populations but only tangentially, in collaboration with HIV-service NGOs. 'AGEP'C' projects aim to distribute evidence-based information and consultations about free treatment options for HCV. Other than that, in 2020, only four NGOs implemented harm reduction projects with HCV information campaigns as an element of their initiatives (Public Foundation "AGEP'C" 2023).

Conclusions

This analysis of the situation regarding HIV and HCV in Kazakhstan has revealed the gradually shifting trends in parenteral infections over the thirty years of Kazakhstan's independence. The policy focus on infection prevention in the general population and key populations remains on the agenda. The standards of treatment and approach to preventing infections are in line with international protocols and recommendations. A significant achievement is the possibility for all citizens of the country to receive these services free of charge.

ART and DAA regimens are implemented throughout the country. However, the '95-95-95' indicators have not yet been achieved in Kazakhstan. There is a need to expand systemic measures for multidisciplinary efforts that address various barriers for vulnerable populations. The key element of HIV and HCV prevention policies should lie in the decriminalisation of drug use and in focusing on a public health approach in the field, while promoting equity and fairness in the provision of care. This is desirable in order to expand the range of services available by coordinating the efforts of state organisations and the civil sector, where social work can be a powerful bridge. The principle of equity in the services received should not only address the transfer of prison health issues to the general healthcare system but also aim to improve access to treatment, prevention, and harm reduction for other key populations. This need is particularly strong in the area of access to HCV testing and treatment among people who use drugs.

Given the changing drug markets in Kazakhstan, it is increasingly important to monitor the epidemiological situation of hepatitis and HIV in the context of NPSs It is also crucial to continue efforts to introduce bundled services for the prevention and treatment of parenteral infections,

tailored to the needs of key populations. For example, there is no experience in the country of providing opioid substitution treatment (OST) concurrently with hepatitis C therapy. The approach of providing ART together with OST has not been implemented as a publicly available service. The state's approach to harm reduction policy remains ambiguous. Although some measures are enshrined in legislation, they cannot be assessed as systemic. Meanwhile, sufficient scientific material has been accumulated to demonstrate the importance of all eight harm reduction principles for Kazakhstan (National Harm Reduction Coalition 2021).

It is important to continue to build the capacity of NGOs as key actors in reducing stigma and discrimination and changing public attitudes towards HIV and viral hepatitis. Transparent communication and advocacy of community efforts should be the key to policy change at the level of standards and laws as a bottom-up principle. In a top-down manner, funding opportunities for civil society should be expanded. HIV and hepatitis policies should not only focus directly on public safety issues but also become more comprehensive, whereby common access to services among vulnerable populations should be promoted under a single umbrella. At the same time, a promising step towards achieving the UN Sustainable Development goals could be to more actively support social work institutes in countries like Kazakhstan, where social work is still a developing profession.

One of the recommendations from the external assessment of eight AIDS centres in Kazakhstan carried out by local UNICEF initiatives was the recommendation to establish new positions for social worker in multidisciplinary teams that currently do not include social workers. Furthermore, social work tools can be improved in HIV prevention, folloing theUNAIDS strategy. Another area for further smart interventions relates to the question of professionalisation of outreach workers who provide the majority of harm reduction services in fields of HIV. If the next decades are more supportive of professional social work in Kazakhstan, in terms of achieving the UN Sustainable Development goals, then Kazakhstan will be able to make progress in HIV prevention and treatment.

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