



**Key facts about
sexually transmitted infections
and HIV infection**

2021



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Sexually transmitted infections (STIs)

Sexually transmitted infections (STIs) are a major public health issue. They have high epidemic potential and can spread widely among adolescents. At the same time, any STI significantly increases the risk of HIV infection due to a similar transmission route and violation of tissue integrity. If left undiagnosed and untreated, common STIs can cause a range of complications and long-term health issues: infertility in women and men, ectopic pregnancy, stillbirths, recurrent pregnancy loss to neonatal and infant infections, cardiovascular and neurological damage, and genital cancer (first and foremost, cervical cancer). Physical, psychological and social consequences of STIs severely compromise the quality of lives of those infected.

The HIV epidemic has usually been addressed differently and separately than the other STIs because acquired immunodeficiency syndrome (AIDS), caused by HIV, has emerged as a fatal, untreatable and rapidly spreading disease. Thus, the focus was made on HIV and AIDS research, which accelerated the development of antiretroviral therapy (ART) and encouraged community activism aimed at dealing with the mounting HIV-related morbidity and mortality.

Today, the increasing ability to control the HIV epidemic by using life-time ART can guarantee people living with HIV long and healthy lives and the opportunity to give birth to healthy children.

STIs can cause a range of complications and long-term health issues:

INFERTILITY

ECTOPIC PREGNANCY

INFANT INFECTIONS

CARDIOVASCULAR DAMAGE

NEUROLOGICAL DAMAGE

GENITAL CANCER

Focusing on STI is essential for achieving Sustainable Development Goal 3 – Ensure healthy lives and promote well-being for all at all ages

SDG 3 Ensure healthy lives and promote well-being

End preventable deaths of newborns and children under 5

Reduce preventable maternal deaths to zero

Ensure universal access to sexual and reproductive health-care services

End the epidemics of AIDS and combat hepatitis

Achieve universal health coverage

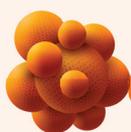
About 30 different bacteria, viruses, and parasites are known to be predominantly transmitted through sexual contact, including vaginal, anal, and oral sex. Some STIs can also be transmitted from mother-to-child during pregnancy, childbirth, and breastfeeding.

Nine of these pathogens are linked to the greatest incidence of STIs, and all

of them are spread in Kazakhstan. Of these, five are currently curable: syphilis, gonorrhea, chlamydia, mycoplasma genitalium, and trichomoniasis.

The other four are viral infections which are incurable: hepatitis B, herpes simplex virus (HSV), HIV and human papillomavirus (HPV).

Curable



GONORRHEA



SYPHILIS



CHLAMYDIA



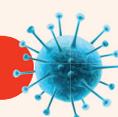
TRICHOMONIASIS



MYCOPLASMA GENITALIUM

Incurable

HEPATITIS B



HIV



HERPES SIMPLEX VIRUS

HUMAN PAPILLOMAVIRUS

STIs and HIV incidence and vulnerable populations

>1
mln

Everyday, more than 1 **million** people aged **15-49 years** old become infected with STIs worldwide, the majority of which are asymptomatic.

376
mln

According to World Health Organization data (WHO, 2019), more than **376 million cases** of contraction of four infections, chlamydia, gonorrhea, trichomoniasis and syphilis, are registered annually.

The reported incidences of gonorrhea, syphilis and trichomoniasis in Kazakhstan are rather low and comprised 10.6, 18,9 and 30.3 per 100,000 population in 2019.

In the same year, a study “Assessment of the prevalence of syphilis, gonorrhea and trichomoniasis among pregnant women living in the cities of Nur-Sultan, Almaty, Shymkent and Karaganda” was conducted by the Kazakh Scientific Center of Dermatology and Infectious Diseases (hereinafter KNCDIZ) of the Ministry of Health of the Republic of Kazakhstan with tech-

nical assistance of UNFPA in Kazakhstan. Taking into account the data of this epidemiological study, an expert extrapolation of the prevalence of syphilis, gonorrhea and trichomoniasis to the total reproductive population was carried out. It amounted to about 45,000 people, which is 3.5 times higher than official statistics.

The results of this extrapolation indicate that the burden of syphilis, gonorrhea and trichomoniasis is underestimated and does not reflect the real epidemiological situation in the country.

HIV infection remains a major public health concern. According to UNAIDS estimates, globally in **2020**, about **1.5 million** people were newly infected with HIV, about **37.7 million** people were living with HIV, and about **0.7 million people died** of HIV-related illness.

2020 year



Kazakhstan is one of the few countries in the world where the registration of new HIV cases is still on the rise. In 2019 and 2020, 3100 and 3470 new HIV cases were reported, respectively. Two-thirds of HIV transmissions occurred sexually.

Free HIV testing, as well as measures implemented in Kazakhstan to increase the availability of basic health services, are making a significant contribution to the increase in the registration of new cases of HIV infection.



STIs and HIV have high co-prevalence where- as socio-behavioral elements, especially in vulnerable populations, function as syndemics. Specific populations with high risk of STI transmission and acquisition include populations most likely to have a high number of sex partners, such as sex workers and their clients, men who have sex with men, transgendered people, and people with an existing STI, including people living with HIV. Other groups considered to be particularly vulnerable to STI include young people and adolescents, women, mobile populations, children and young people living on the street, prisoners, and drug users.

The development of the epidemic process of HIV infection in Kazakhstan is in the concentrated stage of the epidemic. The spread is observed mainly in populations vulnerable to HIV infection, such as injecting drug users (IDU), men who have sex with men (MSM), sex workers (SW), and prisoners. The prevalence of HIV infection among IDU, MSM and SW is 7.4%, 6.5% and 1.4% respectively.



At the same time, over the past 5 years (2016-2020), the prevalence of HIV infection among adolescents aged 15-19 years and people aged 30-39 years has increased. There is an increase in the absolute number of patients infected through sexual contact, namely adolescents aged 15-19 years (from 39 to 53 cases) and adults aged 30-39 years (from 1141 to 1304 cases).

Individuals at the highest risk of HIV and other STIs are frequently members of socially marginalized populations, whose life experiences and internalized stigma may cause high rates of concomitant depression, substance abuse, and decreased self-worth.

As a result, these individuals in many cases avoid health-care settings where discrimination may be anticipated and/or experienced.



With the support of UNFPA, the Kazakh Scientific Center of Dermatology and Infectious Diseases conducted a study to determine the recency of HIV infection. Approximately 80% of clients newly diagnosed with HIV in 2020 became infected long time before the diagnosis, which proves their delay in seeking care.

Proposed Strategies for the Prevention and Control of STIs in Kazakhstan

1

Integrating comprehensive sexuality education into the state standard curricula, as well as expanding the availability of youth-friendly services.

2

Risk assessment, education and counseling of people at risk of infection about ways to prevent STIs by changing sexual behavior and using recommended preventive services and products (including expanding the availability of pre-exposure (PrEP) and post-exposure (PEP) prophylaxis of HIV infection; provision of barrier methods of contraception and lubricants).

3

Expand coverage of pre-exposure vaccination against vaccine-preventable STIs: human papillomavirus, hepatitis B and A.

4

Implement testing methods to identify individuals with asymptomatic infection and those with symptoms that may be associated with STIs.

5

Effective diagnosis, treatment, counseling and follow-up for people with STIs.

6

Identification, treatment and counseling of sexual partners of persons with STIs.

Key policy principles to combat the spread of STIs, including HIV

Communication and learning strategies

- Building public awareness, and in particular young people's awareness of STI and HIV through school and extra-curricular education and communications
- Implementation of methods and means of primary prevention of STIs in the list of services provided by healthcare organizations.
- Promote knowledge about STI symptoms and behaviors through health and education organizations.

Based on the data of Kazakhstan sociological survey covering 1254 adolescents aged 15–19, conducted by UNFPA in 2018, about one-fifth of respondents, indicated their sexual debut at the age of 17 or younger; approximately half of them had two or more sexual partners during the last 12 months, and one-fifth of them did not use condoms during their last sexual intercourse.

Pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP)



PreP and PeP are antiretroviral drugs used before or after risky contact with an HIV-positive person or their body fluids or biological material containing HIV infection. These methods have demonstrated safety and a substantial reduction in the rate of HIV acquisition for different populations.



Genital hygiene methods (e.g., vaginal washing and douching) after sexual exposure are ineffective in protecting against HIV and STIs.

Treatment of HIV infection as prevention of the spread of the epidemic

- Early diagnosis and treatment of HIV infection are vital to both keeping the person with HIV healthy and preventing the spread of HIV
- Regular use of ART reduces and maintains a minimum viral load, which:
 - reduces the risk of HIV transmission to almost zero;
 - enables women living with HIV or who have a partner living with HIV to have a healthy baby.



According to the study conducted by UNFPA in 2019 in Kazakhstan, a regular use of contraceptives by a married couple costs about 1/12 of their annual income, with the recommended level of no more than 1% of annual income.

Contraceptives, including condoms, are inaccessible to many people, especially young people who do not have their own income.

Male and female condoms are key in protecting against STI, including HIV

Every sexually active person at risk of STIs - regardless of age, culture, economic situation, gender, marital status, religion or sexual orientation - must have access to good quality condoms and lubricants when and where she/he needs them. When used consistently and correctly, male latex and polyurethane (external) condoms are effective in preventing the sexual transmission of HIV infection and other STIs. Female vaginal condoms (for internal use) also provide protection against infection and transmission of STIs.

Sexually active women, who use contraceptive methods other than condoms, should be counseled about STI and HIV infection prevention measures. Contraceptive methods that are not mechanical barriers offer no protection against HIV or other STIs.

Vaccination

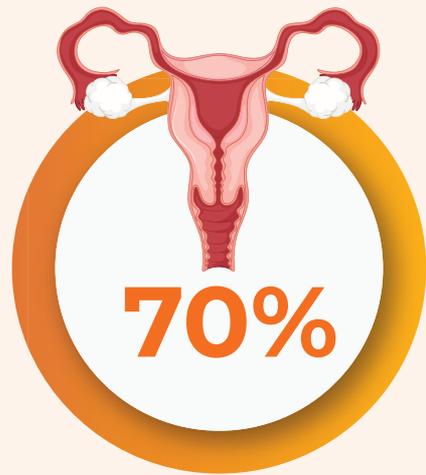
○ Young adolescent girls, **aged 9–14**, are the primary target group for HPV vaccination, preventing infection with virus types 16 and 18, which are together responsible for approximately **70%** of cervical cancer cases. There is compelling evidence that HPV vaccination of adolescent girls is the most effective long-term strategy to reduce HPV infections and prevent cervical precancerous lesions and cervical cancer.

○ For optimal protection, WHO currently recommends that adolescent girls aged **9 to 14** receive two doses of the HPV vaccine six months apart. High HPV vaccination coverage provides herd immunity, thereby providing protection to unvaccinated individuals, and therefore increasing the benefit to society as a whole.

In Kazakhstan, on average, two women die of cervical cancer each day.

○ WHO recommends that all infants receive the hepatitis B vaccine as soon as possible after birth, preferably within 24 hours, followed by 2 or 3 doses of hepatitis B vaccine at least 4 weeks apart to complete the vaccination series. The hepatitis A vaccination is recommended for men who have sex with men.

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STIs and HIV in pregnant women

○ All pregnant women and their sex partners should be asked about STIs, counseled about the possibility of perinatal infections, and provided access to reliable STIs screening (including cervical cancer screening) and treatment, if needed. Intrauterine or perinatally transmitted STIs can have debilitating effects on the health of mother and child.

○ Testing of pregnant women for HIV and syphilis, with subsequent treatment of those who are infected, are key elements of the strategies to eliminate congenital syphilis and HIV transmission from mother to child. Timely diagnosis and antiretroviral treatment of a pregnant woman with HIV and follow-up antiretroviral prophylaxis for a newborn ensures that the child born to the mother with HIV is free of HIV.



In Kazakhstan, dozens of cases of congenital syphilis acquired from mothers are registered annually in children.

HIV testing

○ There is a need to provide a range of HIV testing options that are affordable, accessible and acceptable to different population groups in order to reach out to people with HIV who are not aware of their status. In addition to various forms of facility-based testing, HIV testing services should include self-testing and community-based testing. Testing should be offered to sexual partners and family members of people who have been diagnosed with HIV infection (index testing).

HIV treatment cascade

○ The “**95-95-95**” treatment cascade, which has gained international recognition, intends to **eliminate the HIV epidemic** by 2030. The goal is that 95% of all people living with HIV know their status, 95% of all people diagnosed with HIV infection should receive consistent antiretroviral therapy, and 95% of people on antiretroviral therapy should have viral suppression. An interim target of **90-90-90** has been set for **2020**.

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In 2019, almost a third of medical facilities treating HIV infection experienced shortages of medicines due to delayed supplies of antiretroviral drugs.

While Kazakhstan has made some progress in expanding coverage of HIV testing and antiretroviral therapy, the corresponding figures for 2020 were **78-73-84**. At the same time, the treatment cascade in 2020 was “**78-57-48**”. This means that only **48%** of people with HIV were provided with effective antiretroviral therapy, instead of **>70%**, as it was planned in accordance to international commitments. At the same time, in a fifth of cases, HIV infection was detected at the stage of AIDS. In 2019, almost a third of medical facilities treating HIV infection experienced shortages of medicines due to delayed supplies of antiretroviral drugs.



Efficient management of common STIs requires decentralization of STI services, treatment administration on the same day of the visit, and using updated medical technologies

○ WHO advocates the establishment of settings in which STI treatment is based on quality-assured molecular assays (nucleic acid amplification tests – NAAT e.g. polymerase chain reaction - PCR) in laboratories with a fully operational quality management system and results available on the same day of the visit wherever possible. The availability of modern laboratory technologies is a prerequisite for accurate diagnosing both asymptomatic and symptomatic STIs cases and treating STIs in more targeted and effective ways.

Kazakhstan has not yet provided free public access to PCR diagnostic services, the most sensitive methods for diagnosing STIs.

○ Implementation of rapid testing for STIs at the primary health care level may serve as an alternative until PCR diagnostics are introduced nationwide.



○ WHO, UNFPA, and UNAIDS promote accessibility, affordability, acceptability, and effectiveness in the case management of people with STIs through public and private healthcare systems, including at the primary healthcare level and other first-level healthcare facilities, such as maternal and child health, antenatal, family planning, and other sexual and reproductive healthcare facilities. WHO, UNFPA, and UNAIDS advocate for the accessibility, affordability, acceptability and effectiveness of services for treating patients with common STIs. These services should be provided in public and private healthcare organizations, including primary healthcare organizations and other primary healthcare organizations such as youth health centers, maternal and child health, antenatal care, family planning and other organizations that provide sexual and reproductive health services.

○ One of the guiding principles is upholding and protecting the human rights of people who need services for STI care, including ensuring prevention of stigma and discrimination in providing such services and promoting gender equality. Effective STI care services must be made accessible to populations identified as being especially vulnerable to or at higher risk of STIs, including HIV infection.



○ In Kazakhstan, private health clinics provide factually anonymous STI diagnosis and treatment. Such services are expensive, and as a result, they are **not affordable for low-income people**, including but not limited to young people.

○ At the same time, the financial capacity of the guaranteed volume of free-of-charge medical assistance and mandatory social health insurance still does not meet the full need for free STI diagnostics. Meanwhile, the diagnosis and treatment of STIs provided within the framework of the GVFMA and (MSHI) are not anonymous, which means that the conditions for their provision are unacceptable for many people.



STIs and HIV infection epidemiological surveillance



○ WHO recommends keeping on top of the causes of the STI syndromes emerging by regularly conducting etiological studies from sentinel sites using molecular assays (NAAT).

○ STI surveillance should become an integral part of the syndromic approach, linked with periodic assessment of the antimicrobial resistance of key pathogens. **(Drug resistance has increased rapidly in recent years and has reduced treatment options e.g. gonorrhea has developed resistance to nearly all of the antibiotics used for its treatment).** Routine STI surveillance should incorporate monitoring of complications within STI.

○ STI surveillance in key populations remains fundamental. **For this, the collaboration of non-governmental organizations should be sought and strengthened to harness these stakeholders as sources of data.**

○ All four main components of STI surveillance must be implemented: case reporting; prevalence estimation; assessment of the etiology of STI syndromes; and monitoring of antimicrobial resistance.

Of particular importance are cross-sectional studies of HIV prevalence (as measured by serum tests) and behaviors that contribute to HIV infection among key populations at regular intervals.



The system of epidemiological surveillance of STIs in Kazakhstan needs to be strengthened in the following areas:

- 1 replacement of current research methods with amplification tests;
- 2 inclusion of antimicrobial susceptibility testing in the epidemiological surveillance program;
- 3 ensuring a stable and regular exchange of medical data between all medical organizations and laboratories.

Universal access to quality health services is essential for achieving the desired results in the STI and HIV response

○ Public health approach to STIs control is based not only on standardized, simplified clinical protocols and guidance. It presumes integrated people-centered health services; decentralized service delivery; focus on equity; community participation with meaningful involvement of people most affected by STIs and HIV, including communities of key populations, leveraging public and private sectors; ensuring that services are free or affordable; and moving from an individual clinical focus to population-based national plans.

○ It is recommended to overcome barriers that hinder access to HIV and STI health services for key populations. The critical success factors include:

- 1 creating a conducive legal environment (including decriminalizing the unintended HIV and other STIs transmission, and reviewing the age of consent for receiving health services: minors should be allowed to give consent sufficient to receive services for the STIs treatment);
- 2 reducing stigma and discrimination;
- 3 violence prevention;
- 4 empowering the communities.



UNFPA resources in Kazakhstan:

www.kazakhstan.unfpa.org

 @UnfpaInKazakhstan

 @UNFPAKAZ

 @unfpakaz

Other resources:

Kazakh Scientific Center of Dermatology and Infectious Diseases: <http://kncdiz.kz/>

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