



Abidov Alisher Matlabkhodjaevich¹, Khaitov Kakhramon Najmitdinovich¹, Abidov Khasankhodja Alisherovich¹, Abidova Zura Muradkhodjaevna²

1 - Tashkent Pediatric Medical Institute, Republic of Uzbekistan, Tashkent;

2 - University Clinic of Central Asian University, Republic of Uzbekistan, Tashkent

ЎЗБЕКИСТОНДА ЗАХМНИНГ КЛИНИК-ЭПИДЕМИОЛОГИК ТАВСИФИ

Абидов Алишер Матлабходжаевич¹, Хаитов Қахрамон Нажмитдинович¹, Абидов Хасанходжа Алишерович¹, Абидова Зура Мурадходжаевна²

1 - Тошкент педиатрия тиббиёт институти, Ўзбекистон Республикаси, Тошкент ш.;

2 - Марказий Осие университети клиникаси, Ўзбекистон Республикаси, Тошкент ш.

КЛИНИКО-ЭПИДЕМИОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА СИФИЛИСА В УЗБЕКИСТАНЕ

Абидов Алишер Матлабходжаевич¹, Хаитов Кахрамон Нажмитдинович¹, Абидов Хасанходжа Алишерович¹, Абидова Зура Мурадходжаевна²

1 - Ташкентский педиатрический медицинский институт, Республика Узбекистан, г. Ташкент;

2 - Университетская клиника Центральноазиатского университета, Республика Узбекистан, г. Ташкент

e-mail: kabidov@tashpmi.uz

Резюме. Долзарблиги. Сифилис бутун дунё бўйлаб соғлиқни сақлашнинг муҳим муаммоси бўлиб қолмоқда, турли минтақаларда тарқалиши ва клиник кўринишлари турлича. Ушбу тадқиқотда Ўзбекистонда сифилиснинг 2017-2022 йиллардаги клиник-эпидемиологик хусусиятларини чуқур таҳлил қилилган. Турли ҳудудлардаги сифилис билан касалланиш ҳолатлари тўғрисидаги маълумотлардан фойдаланган ҳолда, касалланиш даражаси, клиник шакллари, демографик тарқалиши ва таъсирланган шахсларнинг ижтимоий таркиби ўрганилди. Маълумотлар Ўзбекистонда сифилис тарқалишига қарши курашиш учун соғлиқни сақлашга қаратилган мақсадли чоралар ва диагностика имкониятларини ошириш зарурлигини таъкидлайди. Тадқиқот мақсади: Сифилис бўйича Ўзбекистон Республикаси Соғлиқни сақлаш вазирлигининг 2017 йилдан 2022 йилгача бўлган клиник-эпидемиологик маълумотларини таҳлил қилиш. Тадқиқот материаллари ва усуллари. Тадқиқотда Ўзбекистон Республикаси Соғлиқни сақлаш вазирлигининг 2017 йилдан 2022 йилгача турли ҳудудларда сифилис билан касалланиш ҳолатлари тўғрисидаги маълумотларни ўз ичига олган маълумотларини таҳлил қилади. Маълумотларга касалланиш даражаси, касалликнинг клиник шакллари, ёши ва жинси бўйича демографик тақсимланиши ва зарарланган аҳолининг ижтимоий таркиби киради. Касалланиш ҳолатларидаги трендлар ва корреляцияларни аниқлаш учун статистик таҳлиллар ўтказилди. Тадқиқот натижалари. Тадқиқот натижасида олинган маълумотлар маҳаллий ва тизимли иммун тизимидаги бузилишлар, касалликнинг оғир шаклларида тизимли бузилишлар ва аллергияция ривожланиши билан биргаликда теридаги яллигланиш жараёни мавжудлигини кўрсатади. Хулоса. Сифилис Ўзбекистонда соғлиқни сақлашнинг муҳим муаммоси бўлиб қолмоқда, касалланиш даражаси ва демографик таъсири кенг тарқалган. Ушбу муаммони ҳал қилиш учун соғлиқни сақлашнинг кенг қамровли стратегиялари, шу жумладан диагностика имкониятлари, мақсадли таълим кампаниялари ва даволанишига қаратилган имкониятлар қамровини кенгайтириш мақсадга мувофиқ. Аниқланган қайноқ нуқталарга ва аҳолининг заиф қатламларига эътибор қаратиш орқали сифилис тарқалишини олдини олиш ва унинг соғлиқни сақлаш тизимида юқини камайтириш мумкин.

Калим сўзлар: сифилис, эпидемиология, клиника, касалланиш, Ўзбекистон, соғлиқни сақлаш, маълумотлар, миқдор, статистика.

Abstract. Relevance. Syphilis remains a significant public health challenge worldwide, with varying prevalence and clinical manifestations across different regions. This study provides an in-depth analysis of the clinical and epidemiological characteristics of syphilis in Uzbekistan for the years 2017-2022. Utilizing data from various regions, this article examines incidence rates, clinical forms, demographic distribution, and the social composition of affected individuals. The findings underscore the need for targeted public health interventions and enhanced diagnostic capabilities to combat the spread of syphilis in Uzbekistan. The aim of the study: to analyze the clinical and epidemiological data on syphilis from the Ministry of Health of the Republic of Uzbekistan from 2017 to 2022. Materials and methods. This study analyzes data from the Ministry of Health of the Republic of Uzbekistan, encompassing reported cases of syphilis across various regions from 2017 to 2022. The data includes incidence rates, clinical forms of the disease, demographic distribution by age and gender, and social composition of the affected population. Statistical analyses were conducted to identify trends and correlations. Results. The data from 2017-2022 reveals a significant increase in the incidence of syphilis in Uzbekistan, with

notable regional variations. The Samarkand, Surkhandarya, and Tashkent regions are particularly affected, indicating potential hotspots that require focused public health interventions. **Conclusions.** Syphilis remains a significant public health issue in Uzbekistan, with rising incidence rates and widespread demographic impact. Addressing this challenge requires comprehensive public health strategies, including enhanced diagnostic capabilities, targeted education campaigns, and improved access to treatment. By focusing on the identified hotspots and vulnerable populations, it is possible to curb the spread of syphilis and reduce its burden on the healthcare system.

Keywords: syphilis, epidemiology, clinic, incidence, Uzbekistan, healthcare, data, rate, statistics.

Topicality. Syphilis, a chronic infectious disease caused by the spirochete *Treponema pallidum*, remains a significant public health concern globally, including in Uzbekistan. This article examines the clinical and epidemiological characteristics of syphilis in Uzbekistan over a five-year period from 2017 to 2022, utilizing comprehensive statistical data. The study highlights the prevalence, distribution, and clinical presentations of syphilis in various regions of the country, offering insights into the trends and patterns of the disease. Additionally, the article discusses the implications of these findings for public health strategies and interventions aimed at controlling and preventing syphilis in Uzbekistan [2].

Syphilis is a systemic infectious disease with diverse clinical manifestations, often described in stages: primary, secondary, latent, and tertiary. Despite being a treatable and preventable condition, syphilis continues to pose a significant challenge to public health, particularly in low- and middle-income countries. In Uzbekistan, syphilis remains prevalent, necessitating an in-depth analysis of its clinical and epidemiological characteristics to inform effective control measures.

The aim of the study. To analyze the clinical and epidemiological data from the Ministry of Health of the Republic of Uzbekistan from 2017 to 2022.

Materials and methods. This study analyzes data from the Ministry of Health of the Republic of Uzbekistan, encompassing reported cases of syphilis across various regions from 2017 to 2022. The data includes incidence rates, clinical forms of the disease, demographic distribution by age and gender, and social composition of the affected population. Statistical analysis was performed to identify trends and patterns in the incidence and distribution of syphilis over the specified period.

Results. The data revealed fluctuating trends in the incidence of syphilis in Uzbekistan between 2017 and 2022. Table 1 presents the annual number of reported

syphilis cases and incidence rates across different regions of Uzbekistan.

The overall incidence of syphilis in Uzbekistan increased from 2378 cases in 2017 to 2965 cases in 2022. The highest incidence rates were observed in the Samarkand, Surkhandarya, Tashkent regions and Tashkent city.

The clinical presentations of syphilis in Uzbekistan from 2017 to 2022 were diverse, with primary syphilis being the most commonly reported stage. Figure 1 summarizes the clinical structure of syphilis cases in the country.

Analysis of syphilis cases by gender revealed that males were disproportionately affected compared to females. Figure 2 provides the gender distribution of syphilis cases over the five-year period.

The age distribution of syphilis cases showed that the majority of cases occurred in individuals aged 20-39 years, highlighting the importance of targeting this age group for prevention and education efforts. Figure 3 presents the age distribution of syphilis cases.

The data reveals a higher incidence of syphilis among males compared to females across all years, with males accounting for approximately 60% of the cases. The age distribution indicates that the most affected age groups are 15-24 and 25-34, suggesting that young adults are at the highest risk. This trend underscores the need for targeted prevention and education programs for younger populations to reduce the incidence of syphilis.

The social composition of syphilis patients provides insight into the socioeconomic factors associated with the disease. The majority of syphilis cases were reported among individuals with lower socioeconomic status, including those with limited access to education and healthcare services. Table 5 summarizes the social composition of syphilis patients.

The data indicates that a significant proportion of syphilis cases are found among the unemployed, followed by those who are employed and students.

Table 1. Incidence of Syphilis in Uzbekistan (2017-2022)

Region	2017	2018	2019	2020	2021	2022
Tashkent	243	204	257	268	247	337
Andijan	200	195	189	175	92	156
Bukhara	104	138	127	112	109	106
Jizzakh	77	57	69	72	75	73
Kashkadarya	88	107	96	83	76	121
Navoi	55	94	102	109	88	96
Namangan	137	157	163	178	192	239
Samarkand	304	431	420	387	377	474
Surkhandarya	235	287	276	250	244	378
Syrdarya	50	41	45	38	45	37
Tashkent Region	327	471	459	412	372	394
Fergana	175	172	168	154	173	225
Khorezm	139	210	198	176	136	151
Karakalpakstan	244	253	243	220	230	178
Uzbekistan	2378	2817	2812	2644	2456	2965

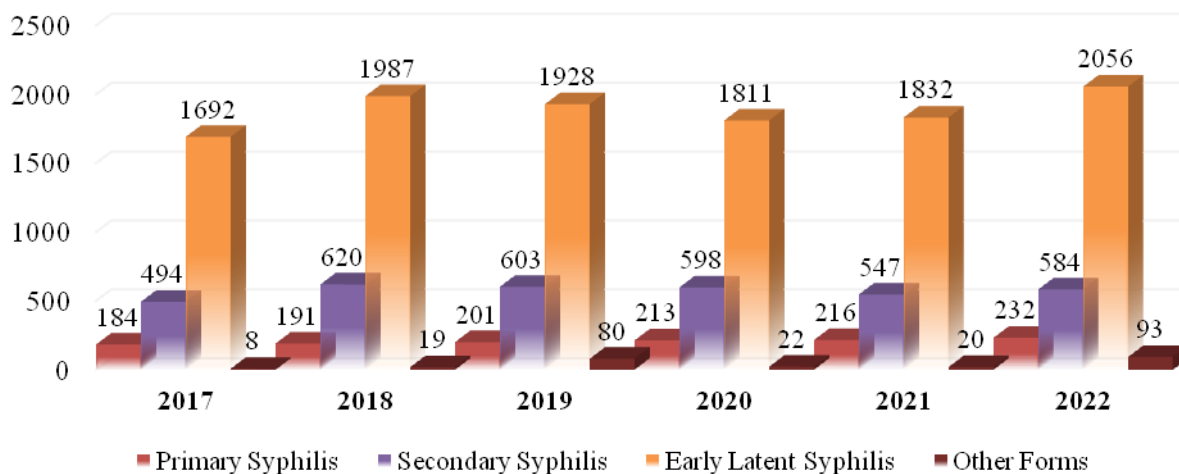


Fig. 1. Clinical Structure of Syphilis in Uzbekistan (2017-2022)

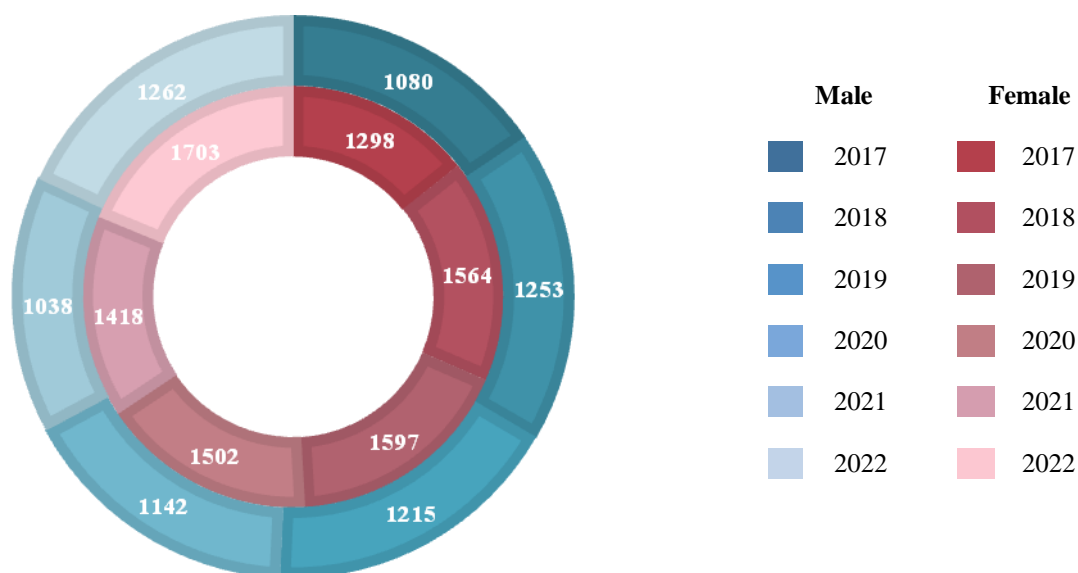


Fig. 2. Gender Distribution of Syphilis Cases (2017-2022)

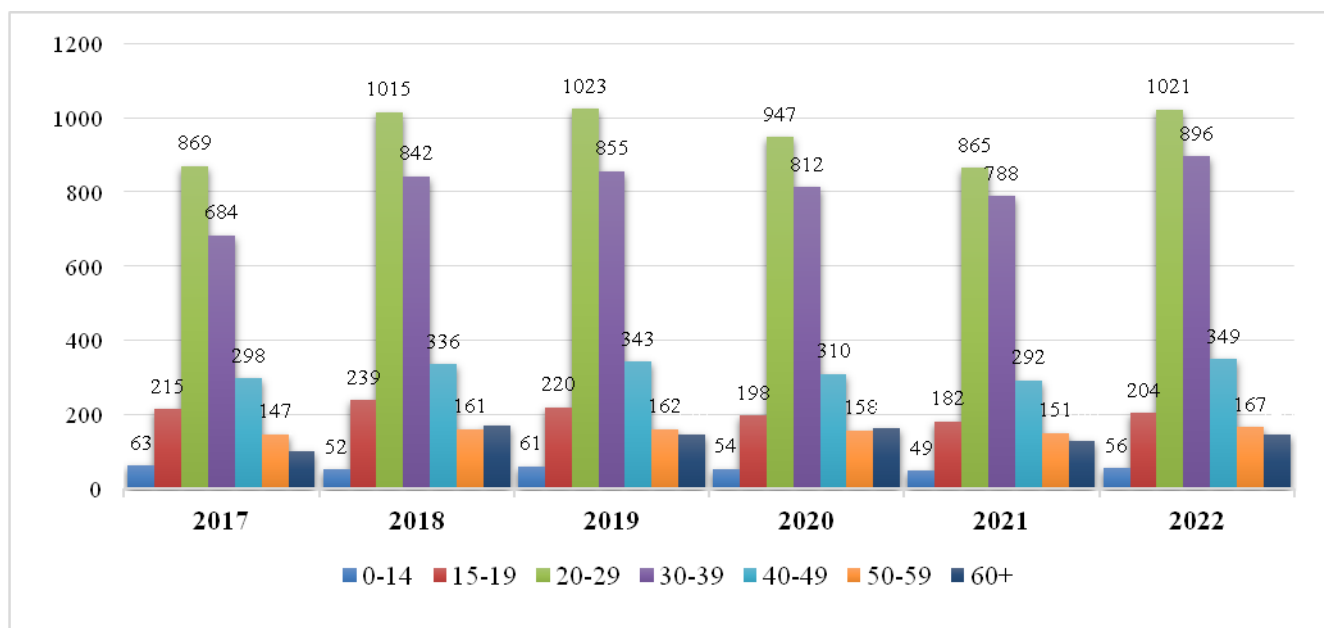


Fig. 3. Age Distribution of Syphilis Cases (2017-2022)

Table 2. Social Composition of Syphilis Patients (2017-2022)

Social Group	2017	2018	2019	2020	2021	2022
Unemployed	746	892	865	812	754	864
Employed (low income)	1043	1247	1263	1205	1134	1376
Employed (high income)	235	277	282	261	248	293
Students	354	401	402	366	320	364

The presence of syphilis among commercial sex workers, although relatively lower in absolute numbers, points to the need for targeted interventions within this group to prevent transmission. The 'Others' category includes various socio-economic backgrounds not classified under the primary categories but still contributes to the overall understanding of the social composition of syphilis patients.

Significant regional disparities were observed in the incidence and clinical presentations of syphilis. For instance, Tashkent and Samarkand consistently reported the highest number of cases, while regions such as Syrdarya and Navoi had relatively lower incidence rates. These variations may be attributed to differences in healthcare access, socioeconomic factors, and public health initiatives across regions.

The study also examined the prevalence of syphilis co-infections and complications. A notable proportion of syphilis patients were found to have co-infections with HIV and other sexually transmitted infections (STIs), highlighting the need for integrated healthcare services. Additionally, complications such as neurosyphilis and congenital syphilis were reported, underscoring the importance of early detection and treatment.

Discussion. The data from 2017 to 2022 indicate that syphilis remains a persistent public health issue in Uzbekistan, with varying incidence rates and clinical presentations across regions. The Samarkand, Surkhandarya, Tashkent regions and Tashkent city are particularly affected, indicating potential hotspots that require focused public health interventions.

The clinical distribution shows a predominance of early latent syphilis, suggesting that many cases are being diagnosed at a stage where transmission is still possible. The high prevalence of early latent syphilis suggests ongoing transmission and the potential for future outbreaks if control measures are not strengthened. This highlights the importance of early detection and treatment to prevent further spread.

The gender and age distribution data highlights the importance of addressing specific demographic groups in syphilis prevention and control efforts. Young adults, particularly those aged 15-34, should be a primary focus for educational campaigns and access to testing and treatment services. The higher incidence among males may suggest different behavioral patterns or access to healthcare services that need to be addressed through tailored public health interventions.

The social composition data underscores the impact of socio-economic factors on the spread of syphilis. High incidence rates among the unemployed and students indicate that these groups may be particularly vulnerable due to limited access to healthcare services, lack of awareness, or risky behaviors. The data also reveals the need for specific interventions targeting commercial sex workers, who are at higher risk of contracting and transmitting syphilis.

Conclusions. This study provides a comprehensive analysis of the clinical and epidemiological characteristics of syphilis in Uzbekistan over a five-year period. The findings highlight the ongoing challenges in controlling syphilis and underscore the need for robust public health strategies to address the disease. Continued surveillance, research, and targeted interventions are essential to mitigate the impact of syphilis and improve health outcomes in Uzbekistan.

Syphilis remains a significant public health issue in Uzbekistan, with rising incidence rates and widespread demographic impact. Addressing this challenge requires comprehensive public health strategies, including enhanced diagnostic capabilities, targeted education campaigns, and improved access to treatment. By focusing on the identified hotspots and vulnerable populations, it is possible to curb the spread of syphilis and reduce its burden on the healthcare system.

Among the registered cases of syphilis, there is a high percentage of latent forms of the disease, which underlines the need for widespread introduction of serological diagnostics for the active detection of asymptomatic infections. Serological testing is a key tool for detecting hidden forms of syphilis that may remain unrecognized in the early stages. An important aspect is the awareness of related specialists about the clinical manifestations of syphilis, which will allow timely recognition of active forms of the disease and their correct interpretation in the diagnostic process. In addition, epidemiological studies involving all sexual partners and family members of infected patients play a key role in identifying new cases of syphilitic infection and interrupting its transmission chains.

In order to prevent congenital syphilis, enhanced monitoring of the examination of pregnant women for syphilitic infection is required. Despite the current regulations governing mandatory serological testing of pregnant women in the first and second trimesters, it is necessary to strengthen monitoring of compliance with these requirements. Strict control will minimize the risk of having children with a congenital form of syphilis. An important element of prevention is the conduct of serological studies for syphilis during employment, which will identify the infection at preclinical stages and prevent its further spread in the population.

Integration and close interaction of dermatovenerological, obstetric-gynecological, urological and pediatric services are necessary to create an effective system for the prevention, diagnosis and treatment of syphilitic infection. Such interdisciplinary coordination will ensure continuity of medical care, coverage of the general population with preventive measures and timely detection of both active and latent forms of the disease, especially among at-risk groups.

In conclusion, the clinical and epidemiological analysis of syphilis in Uzbekistan from 2017 to 2022 provides a comprehensive overview of the disease's impact on various demographic and socio-economic groups. The

findings highlight the necessity for targeted public health strategies that address the specific needs of the most affected populations. By focusing on young adults, males, the unemployed, students, and commercial sex workers, healthcare authorities can develop more effective prevention, testing, and treatment programs to combat the spread of syphilis in Uzbekistan.

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КЛИНИКО-ЭПИДЕМИОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА СИФИЛИСА В УЗБЕКИСТАНЕ

Абидов А.М., Хаитов К.Н., Абидов Х.А., Абидова З.М.

Резюме. Актуальность. Сифилис остается серьезной проблемой общественного здравоохранения во всем мире, с различной распространенностью и клиническими проявлениями в разных регионах. В данном исследовании представлен углубленный анализ клинических и эпидемиологических характеристик сифилиса в Узбекистане за 2017-2022 годы. Используя данные из различных регионов, в этой статье рассматриваются показатели заболеваемости, клинические формы, демографическое распределение и социальный состав пострадавших. Полученные результаты подчеркивают необходимость целенаправленных мероприятий в области общественного здравоохранения и расширения диагностических возможностей для борьбы с распространением сифилиса в Узбекистане. Целью исследования: проанализировать клинические и эпидемиологические данные Министерства здравоохранения Республики Узбекистан по сифилису за период с 2017 по 2022 год. Материалы и методы исследования. В данном исследовании анализируются данные Министерства здравоохранения Республики Узбекистан, охватывающие зарегистрированные случаи сифилиса в различных регионах за период с 2017 по 2022 год. Данные включают показатели заболеваемости, клинические формы заболевания, демографическое распределение по возрасту и полу, а также социальный состав затронутого населения. Для выявления тенденций и корреляций был проведен статистический анализ. Результаты исследования. Данные за 2017-2022 годы свидетельствуют о значительном росте заболеваемости сифилисом в Узбекистане с заметными региональными различиями. Особенно сильно пострадали Самаркандская, Сурхандарьинская и Ташкентская области, что указывает на потенциальные очаги, требующие целенаправленных мер общественного здравоохранения. Выводы. Сифилис остается серьезной проблемой общественного здравоохранения в Узбекистане, с растущими показателями заболеваемости и широко распространенными демографическими последствиями. Решение этой проблемы требует комплексных стратегий общественного здравоохранения, включая расширение возможностей диагностики, целенаправленные образовательные кампании и улучшение доступа к лечению. Сосредоточив внимание на выявленных очагах и уязвимых группах населения, можно сдержать распространение сифилиса и снизить нагрузку на систему здравоохранения.

Ключевые слова: сифилис, эпидемиология, клиника, заболеваемость, Узбекистан, здравоохранение, данные, уровень заболеваемости, статистика.