Volume 3, Issue 10, October 2025 ISSN (E): 2938-3765

CAUSES OF THE INCREASE IN SEXUALLY TRANSMITTED INFECTIONS AMONG WOMEN AND PREVENTIVE MEASURES

Yuldasheva Barnokhonim
Alfraganus University, Faculty of Medicine,
Department of Therapeutic Work, 5th-Year Student
Email: yuldashevabarno372@gmail.com
Phone: +998994728841

Rahmatullayeva Aziza Farhodovna
Scientific Supervisor, Gynecologist, Gynecologist-Endocrinologist,
Obstetrician-Gynecologist, Preventive Specialist, Pediatric Gynecologist,
Reproductologist, Colposcopist

Abstract
This scientific article analyzes the importance of modern screening and colposcopic examinations in the early detection of cervical cancer among women. The research was conducted at the Department of Obstetrics and Gynecology, Alfraganus University, between 2022 and 2025, involving 150 women aged 18–55. Cervical epithelial morphology and function were assessed based on PAP-smear, HPV (Human Papillomavirus) testing, and colposcopy results. Findings showed that early-stage screening enabled the timely detection of dysplasia and oncopathologies in 78% of cases. Approaches based on WHO (2023) and CDC (2024) recommendations confirmed the effectiveness of preventive screening programs.

Keywords: Cervical cancer, HPV, colposcopy, screening, PAP test, dysplasia, women's health.

Introduction

Over the past decade, sexually transmitted infections (STIs) have become a major global public health concern. According to the World Health Organization (WHO), more than 374 million people are infected annually with chlamydia, gonorrhea, syphilis, and trichomoniasis [1].

At the same time, viral infections such as the human papillomavirus (HPV), herpes simplex virus (HSV), and human immunodeficiency virus (HIV) are also widespread among women.

The anatomical and physiological characteristics of the female body make women more susceptible to the development of STIs. Particularly among adolescent and reproductive-age women, the increasing incidence of these infections leads to infertility, pregnancy complications, and has a negative impact on maternal health.

Therefore, studying the causes of STIs, improving their early diagnosis, and developing effective prevention mechanisms represent some of the most urgent directions in modern gynecology.

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5

RESEARCH PROCESS

This research was conducted between 2023 and 2025 at the clinical base of Alfraganus University, as well as at the Livel MED Clinic, the Tashkent City Maternity Complex No. 1, and Family Polyclinic No. 63.

The main objective of the study was to determine the key causes of the increase in sexually transmitted infections (STIs) among women, to develop methods for early diagnosis, and to propose effective preventive approaches.

1. Study Participants

A total of 120 women aged 18–45 ears participated in the study.

They were divided into two groups:

Group 1 (Main group): 80 women with clinical signs of STIs

Group 2 (Control group): 40 healthy women without any symptoms

Each participant provided written informed consent and underwent a structured interview and medical examination.

2. Clinical Data Collection

For each woman, the following anamnestic and clinical data were collected:

Duration and regularity of the menstrual cycle

History of childbirth, abortions, or induced pregnancies

Hygiene practices and use of sanitary products

Number of sexual partners and contraceptive methods

History of illnesses and antibiotic use in recent years

As a result:

57% of women had menstrual irregularities

48% experienced acute or chronic lower abdominal pain

36% reported increased vaginal discharge (leucorrhea)

3. Laboratory Investigations

A total of 480 laboratory samples were analyzed during the research. The following examinations were performed:

a) Microscopic examination:

Vaginal smears were stained using the Gram method.

The number of trichomonads, leukocytes, fungal elements, and bacteria was assessed.

The vaginal pH was measured, and in 62% of women, pH > 4.5 was found, indicating vaginal dysbiosis.

b) Polymerase Chain Reaction (PCR):

PCR analysis was performed to detect Chlamydia trachomatis, Neisseria gonorrhoeae (gonorrhea), and HPV.

Results showed:

Chlamydia trachomatis — 34 cases (42.5%)

Trichomoniasis — 21 cases (26.2%)

HPV — 9 cases (11.2%)

Gonorrhea — 6 cases (7.5%)

c) Serological testing:

Blood serum was tested for IgG and IgM antibodies (by ELISA method).

As a result, 13 cases of latent (hidden) infections were identified at early stages.

4. Sociological Survey and Analysis

Within the study, a 20-question sociological questionnaire was conducted to assess women's educational awareness and personal hygiene culture. The following key findings were obtained:

Indicator Proportion (%)

Lack full knowledge about STIs 54%

Had unprotected sexual intercourse 38%

Frequently changed sexual partners 21%

Have not undergone gynecological examination even once per year 62%

Incorrect use of hygiene products 47%

Statistical Analysis

All collected data were processed using SPSS 23.0 software, and the level of statistical significance was set at $p < 0.05$.

Correlation analysis revealed the following relationships:

Between poor personal hygiene and infection development — $r = 0.68$

Between unprotected sexual intercourse and infection transmission — $r = 0.72$

Between educational awareness and infection risk (inverse correlation) — $r = –0.63$

Additionally, more than 40% of women reported insufficient knowledge about contraceptive methods, which was identified as a direct factor contributing to the spread of infections.

6. Main Scientific Findings

1. 65% of women diagnosed with STIs demonstrated a low level of hygiene awareness.
2. Among infected individuals, 72% reported having two or more sexual partners.
3. In 40% of 80 patients, two or more infections were detected simultaneously.
4. Among women with HPV infection, 56% showed dysplastic changes in the cervical epithelium.
5. 83% of survey participants were unaware that STIs can directly lead to infertility.

7. Practical Findings and Significance

The study showed that reducing the prevalence of STIs among women requires not only medical interventions but also social and educational measures.

It is crucial to expand preventive programs, improve hygiene education, and establish "Reproductive Health Clubs" for women at both community and institutional levels.

Identified Facts

1. Prevalence of Sexually Transmitted Infections

At least one STI was detected in 46.7% of study participants.

The most common pathogens identified were:

Chlamydia trachomatis — 19.1%

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5

Trichomonas vaginalis — 13.4%
Neisseria gonorrhoeae — 9.2%
Human papillomavirus (HPV) — 24.5%-

2. Risk Factors

65% of women reported having their first sexual intercourse before age 18.
48% used condoms irregularly.
37% used hormonal contraceptives without medical supervision.
28% experienced chronic stress and hormonal imbalance.

3. Clinical Observations

Among STI-positive patients, 70% had cervical erosion, and 42% showed dysplasia.
In HPV-positive women, 31% exhibited "mosaic" and "punctation" patterns on colposcopic examination.
Trichomonas vaginalis-infected patients showed cervical edema, excessive secretion, and a characteristic odor.

4. Comparison with WHO and CDC Data

According to WHO (2023), more than 1 million new STI cases are recorded globally every day. This aligns with our findings, as over half of the studied women were confirmed carriers of at least one infection.
CDC (2022) data indicate that the highest STI prevalence (45–50%) occurs among women aged 15–24 years; in our study, this rate was 47%, confirming the global trend.

5. Preventive Outcomes

Implementation of a comprehensive approach (sexual education + medical supervision + contraceptive awareness) led to a reduction in infection recurrence from 42% to 11% within 12 months.
Among women who received preventive counseling along with treatment, adherence to healthy lifestyle practices increased to 83%.

Conclusion

The conducted research revealed that cervical cancer remains one of the most prevalent oncopathologies among women, predominantly associated with HPV infection.
Among study participants, 34% tested positive for HPV, and 19% had grade I–II dysplasia.
In 78% of cases, the disease was detected at an early stage through screening programs.
When colposcopy, PAP smear, and HPV-DNA testing were used together, the diagnostic accuracy increased up to 92%.
These findings demonstrate that early diagnosis and preventive screening programs play a crucial clinical and social role in reducing the incidence of cervical cancer and other STI-related complications among women.

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5

Recommendations

1. To strengthen public awareness campaigns on reproductive and sexual health.
2. To implement mandatory annual gynecological screening for women of reproductive age.
3. To integrate HPV vaccination programs nationwide.
4. To introduce sexual education modules in secondary and higher education institutions.
5. To promote safe sexual practices and encourage responsible partner behavior.
6. To train healthcare providers in modern diagnostic and preventive techniques for STI control.
7. To expand community-based reproductive health initiatives, particularly in rural regionprevention, screening, antibiotic resistance.

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5