# 

Pack 112, Item

Type: Backgrounder

2019

**Backgrounder: Sexually Transmitted Infections (STIs)**

***Why is this subject important to listeners?***

* Sexually transmitted infections affect a large proportion of the population.
* Some STIs, including herpes and syphilis, can more than triple the risk of contracting HIV.
* STIs such as gonorrhea and chlamydia are major causes of pelvic inflammation and sterility.
* Most STIs can be cured when treated on time, and generally without side-effects. But delayed treatment can result in complications, including transmission to newborns, sterility, and cancer.
* Transmission of an STI from mother to child can lead to death at birth, neonatal\* death, low birth weight, premature births, and birth defects.
* Adolescents (15-19 years old) are particularly exposed and vulnerable to HIV and other STIs, as many of them are sexually active, change partners, and have limited knowledge of STIs.
* Because of the serious impacts of STIs, it is important to provide high quality information that will encourage people to protect themselves.

***Key facts***

* According to World Health Organization (WHO) data, more than one million people develop an STI every day.
* In 2017, 36.9 million people were living with HIV globally.
* An estimated 357 million people contract one of four STIs each year: chlamydia (131 million), gonorrhea (78 million), syphilis (5.6 million) and trichomoniasis (143 million).
* More than 500 million people live with an infection caused by the herpes simplex virus (HSV).
* According to WHO, more than 290 million women are infected with the human papillomavirus (HPV), one of the most common STIs. This causes small inflammatory tumors in the mucous membranes of the genital or anal area.
* Africa has the highest rate of STIs, particularly HIV. The prevalence of syphilis among pregnant women in sub-Saharan Africa is between 4% and 15%.
* In 2018, approximately 311,000 women died from cervical cancer, with more than 85% of these deaths in low- and middle-income countries. Cervical cancer is caused by STIs caused by certain types of HPV (human papillovirus).
* As of 2017, the AIDS epidemic was stabilizing in Burkina Faso, with a decline in prevalence to 0.8%).
* In 2016, vaginal discharge still represented 39.53 per 1,000, making it the fastest-growing STI syndrome, according to the yearbook.

*Data from the five target regions of the ADOSANTE project.*

* The ADOSANTE project covers five regions in Burkina Faso (Southwest, Cascades, Hauts-Bassins, Centre-Ouest, and Boucle du Mouhoun. The STI situation varies from one region to another. Syndromic reporting\* by region indicates that, in 2016, 20.5 per 1,000 inhabitants in the Southwest were affected by one of eight common syndromes (see section 3 below). The rate was 15.5 per 1,000 in Cascades, 8.1 per 1000 in Central West, and 8 per 1,000 in Boucle du Mouhoun. At the national level, it was 13.6 per 1,000.

**Key information about sexually transmitted infections**

**1. Definitions**

Sexually transmitted infections (STIs), formerly known as sexually transmitted diseases (STDs), are infections that can be transmitted during various forms of sexual intercourse (anal, vaginal, or oral) between two partners of the same sex or of different sexes. Some STIs can also be transmitted through blood and breast milk, including syphilis, herpes, chlamydia, gonorrhea, human immunodeficiency virus (HIV), and human papillomavirus (HPV).

Most cases are transmitted through sexual contact.

**2. What are the vectors\* of STIs?**

Infectious agents (pathogens) transmitted during sexual intercourse or breastfeeding cause STIs. These include viruses, bacteria, fungi, and parasites. There are about thirty pathogens, including the following:

* *Bacteria*: chlamydia, gonorrhea, *Gardnerella vaginalis*, syphilis, and *Chlamydia trachomatis*, a bacterium that causes the infection known as lymphogranuloma venereum or LGV
* *Viruses*: human papilloma virus (HPV), herpes, hepatitis B, hepatitis C, HIV
* *Fungi*: candida
* *Parasites*: *Trichomonas vaginalis*, scabies, crabs (pubic lice)

**3. What are the most common major STIs?**

Because diagnostic tests are often limited or unavailable and/or patient follow-up is uncertain, initial treatment is often syndromic—that is, it is directed at the infectious organisms most likely to cause the presenting syndrome of symptoms. This approach does not require prior diagnosis or additional check-ups and patients are examined by health workers, so there is no need to see a doctor or gynecologist. At this level, STIs are grouped into the following eight syndromes, which correspond to common symptoms:

* urethral flow in men
* genital ulceration
* painful swelling of the scrotum
* vaginal discharge
* pelvic pain in women
* inguinal bubo\*
* purulent conjunctivitis\* of the newborn
* venereal vegetation\*

Globally, the World Health Organization (WHO) has identified STIs that account for the majority of infections:

**1) Gonorrhea**

Gonorrhea is an infection caused by the bacteria *Neisseria gonorrhea*. Antiobitic creams are used to treat the infection.

Sexual partners are treated at the same time to avoid re-infecting each other afterwards.

**2)** **Syphilis**

Syphilis is caused by the bacterium *Treponema pallidum*. It can be identified by the presence of chancre sores and can lead to other complications if not addressed on time.

**3)** **Chlamydia**

Chlamydia is caused by the bacterium *Chlamydia trachomatis*. It is the most common STI among young people, both girls and boys.

*How is it contracted?*

* During vaginal or anal penetration in unprotected sexual intercourse.
* When caressing or rubbing the genitals.

*Symptoms*

Sometimes chlamydia goes unnoticed, as there are no symptoms. Occasionally, there are burning sensations during urination, unusual discharge from the vagina, pain during sexual intercourse, stomachaches, or fever. In women, a poorly treated or unchecked chlamydia infection sometimes causes sterility.

*Advice*

Get tested immediately. For girls, the general practitioner, gynecologist, or midwife takes a painless swab at the entrance of the vagina with an instrument that looks like a cotton swab. For males, the medical practitioner inserts a thin swab into the end of the penis to retrieve a sample from the urethra. In some cases, the doctor may swab the anus.

*Treatment*

Antibiotics in pill form are very effective against chlamydia. The treatment lasts less than a week. Since chlamydia is often symptomless, people often do not seek treatment and transmit the disease unknowingly. Hence, it’s important to use condoms (male or female) during each sexual act.

**4) Trichomoniasis**

The parasite *Trichomonas vaginalis* is the infectious agent. Infection in women results in vaginal discharge with itching and burning sensations. Infection in men may result in discharge from the urethra, burning during urination or after ejaculation, and an urge to urinate frequently.

**5) Hepatitis B**

The hepatitis B virus (HBV) attacks the liver.

*How to protect yourself?*

There is a vaccine against hepatitis B.

Since hepatitis B is often symptom-free, it is transmitted unknowingly. Thus, condoms (male and female) and testing are useful.

*Symptoms*

Symptoms include fatigue, muscle and joint pain, fever, headache, nausea, diarrhea, dark urine, and a yellowish complexion. A doctor or a gynecologist screens for hepatitis with a simple blood test.

*Treatment*

People who are infected may heal without treatment. But they can also become lifelong carriers and are at higher risk of developing chronic hepatitis, which leads to cirrhosis of the liver. In rare cases, hepatitis B becomes acute and potentially fatal, so must be treated urgently.

**6) Genital herpes**

The herpes simplex virus, mostly type 2 (HSV-2), is the infectius agent and causes damage in the genital area. It's a highly contagious virus with a distinctive feature: after the initial infection, it stays in the body for life, and is typically forgotten. Herpes weakens the mucous membranes in the genital area, thus increasing the risk of HIV infection.

*Symptoms*

During herpes attacks, small painful blisters appear on the sexual organs, anus, mouth, and sometimes even the eyes. They cause itching, and sometimes fever, headache, stomachache, and pain when urinating.

*Treatment*

Screening is done through medical examination, blood sampling, or swabbing blisters with a cotton swab. Consult a doctor when symptoms appear. The doctor will prescribe pain medication and antiviral treatment to reduce the intensity and duration of the attack. But the drugs do not eliminate the herpes virus.

*Advice*

During attacks (especially when there are blisters on the sexual organs), abstain from sexual intercourse until blisters disappear, as the infection is even more contagious.

Wash hands thoroughly after touching blisters. This will prevent contamination of other parts of the body, especially the eyes.

**7) HIV and AIDS**

The human immunodeficiency virus (HIV) is responsible for the development of acquired immunodeficiency syndrome (AIDS). Before reaching the stage of AIDS, HIV develops in the body for several years without any visible symptoms. However, those infected with the virus are contagious and gradually weaken.

Symptoms often appear 15 days after infection, including fever, red patches on the body or face, headache, stomach aches, and diarrhea. Usually, the symptoms go unnoticed because they resemble diseases such as flu or tonsillitis.

**8) Human papillomavirus**

Human papillomavirus virus (HPV) has symptoms such as condylomas (small inflammatory tumours in the mucous membranes of the genital or anal area), and external genital warts. HPV is a causative factor in the development of almost all cases of cervical cancers.

*Symptoms*

Small warts sometimes appear and infect the vulva, vagina, cervix, penis, and anus with unbearable itching.

*Advice*

When there are warts, the infection is very contagious. Abstain from sexual intercourse until warts disappear because they can be transmitted through caresses of the genital area, even when condoms are used for intercourse.

In summary, for these STIs, it’s important not to neglect the following symptoms:

* Pimples, blisters, or warts on the genitals or anus.
* Itching, irritation, redness, or burning sensation on the genitals.
* Unusual and/or bad-smelling vaginal discharge, or discharge of pus—even minor—on the head of the penis.
* A burning sensation while urinating.
* Unusual, even minor, blood loss (other than menstruation).
* Diffuse pain in the lower abdomen (not related to menstruation).
* Pain and burning sensations during sexual intercourse.
* Fever, fatigue, jaundice, and digestive disorders.
* Redness in the palate and throat.

**4. Methods of transmission**

Although STIs usually occur after vaginal, oral, or anal sex with infected partners, genital penetration is not always necessary to spread the infection. Some STIs can be transmitted through other channels. including:

* Kissing or close physical contact—for pubic infestations such as lice, scabies, and *Molluscum contagiosum\**.
* From mother to child before birth or at delivery for syphilis, herpes, chlamydia, gonorrhea, human immunodeficiency virus (HIV), and human papillomavirus (HPV).
* Breastfeeding—for HIV.
* Contaminated medical instruments for HIV.

It should be noted that the client who consults health care professionals for an STI is not necessarily the one who initiated or passed on the infection in the couple or between sexual partners. If this is properly understood and communicated by health workers, it can encourage people to get tested. Health workers can trace the route of infection only after testing and determining which person spread the infection.

**5. Risk factors among adolescents**

Because there is a high prevalence of STIs among young people, it is important to identify risk factors which are specific to this age group. Here are four important kinds of factors:

*Psychological factors:*

* The feeling of invulnerability in young people (they believe that STIs only happen to others).
* The desire to try new experiences and the willingness to take risks, often changing partners or being with a partner who has many other partners.
* STIs have serious psychological effects on many adolescents. For example, those infected with an STI may feel guilt and shame.
* Some men divorce or abandon their female partners when they become barren as a result of an STI.
* Young people fear critical and disapproving reactions from health workers towards them.

*Behavioural factors*

* Many teens are sexually active. In some countries, sexual intercourse begins in early adolescence, either within or outside marriage. Having your first sexual intercourse at a young age is an important risk factor for STIs.
* Teens are less likely to seek adequate protection. Sometimes, the sexual act is accompanied by abuse or coercion, which is associated with early initiation into sex and multiple sexual partners, two risk factors for STIs.
* Young people tend to have more partners and shorter-term relationships. STIs are more likely to spread in these conditions.
* Young people may not know the symptoms of STIs and rarely consult a specialist.

*Biological factors*

* The immaturity of teen reproductive and immune systems makes adolescents more vulnerable than adults to some STI pathogens. For example, cervical ectopy\*, which is common among young girls, makes them more vulnerable to infections such as chlamydia, gonorrhea, trichomoniasis, herpes, and human genital papilloma virus (HPV).

*Social factors*

* Poverty, homelessness, political conflict, and forced displacement are increasingly part of young people’s daily lives in developing countries. Sexual abuse or sexual blackmail may also be prevalent in such circumstances.
* Providers of reproductive health services may be reluctant to welcome young people with open arms. Some health facilities do not respect the privacy of adolescents and staff can be morally disapproving.
* Young people may find it difficult or embarrassing to obtain or use condoms.

**6. Preventive measures**

* Abstinence from sexual intercourse (anal, vaginal, or oral) is the most reliable way to avoid STIs, but is often unrealistic.
* Adequate protection during sexual intercourse, including regular use of a male or female condom.
* Vaccination against some infectious pathogens, including the hepatitis B virus and human papillomavirus (HPV).
* Treatment of both sexual partners simultaneously if one of them is infected.
* Avoiding unsafe sexual practices, such as frequently changing partners or sex with sex workers.
* Male circumcision can reduce HIV transmission from women to men.
* Rapid diagnosis and treatment of STIs can prevent spreading the infection to others.

*Safer behaviours to be encouraged among young people include:*

* Sexual abstinence.
* Delaying the onset of sexual activity.
* Learning to use condoms correctly and consistently.
* Adopting the system of dual protection\* to avoid both unplanned pregnancy and STIs.
* Limiting the number of sexual partners.
* Avoid high-risk sexual practices such as unprotected sex.
* Knowing how to recognize STI symptoms and seeking help immediately.
* Screening for and treatment of any STIs that may lead to complications.

**7. The consequences for health**

*a) Consequences for overall well-being:*

One of the immediate impacts on sexual activity as soon as an STI appears is a loss of confidence. In addition, the infected person must bear the economic burden of managing the infection and the stigma he or she may be subjected to by people in the community.

*b) Physical consequences:*

* For men: chronic pain is possible, but not necessarily anatomical damage. Difficulties may persist when urinating, due to tightening of the urethra or pain resulting from chronic prostatitis\*.
* For women: the main consequences are the risk of sterility or ectopic pregnancy. If recognized and treated late, salpingitis (inflammation of one or both Fallopian tubes) can cause a narrowing of the tube or adhesions which prevent the free movement of the ovum (egg). Another long-term risk is cervical cancer following infection with certain types of condylomas (small inflammatory tumours of infectious origin, located on the mucous membranes of the genital or anal areas).
* It is important not to let STIs develop in the body. In the long term, they can lead to complications: for example, syphilis attacks the nervous system while chlamydia infections can cause fertility problems. STIs weaken mucous membranes and increase the risk of HIV transmission. Also, gonorrhea can lead to the development of infectious (joint) arthritis.
* During the AIDS phase of HIV infection, the patient becomes vulnerable to multiple infections, especially of the lungs, nervous system, and digestive tract. These are referred to as opportunistic infections.

*c) Risks for others:*

* During pregnancy, the foetus may be infected through the placenta. This can occur with the HIV virus and the hepatitis B virus. During childbirth, this is the case for genital herpes, gonorrhea, HIV, and cytomegalovirus\*.
* During breastfeeding, HIV can infect the baby in the absence of sanitary measures.
* Transfusions with contaminated blood and sharing syringes are the main methods for transmission of some STIs.

*(d) Societal consequences:*

* The impact on society can be devastating—for example, there have been 33 million deaths worldwide due to AIDS alone, 90% of which are in poor countries. These countries generally do not benefit from advanced treatment because of the economic cost involved.
* STIs entail high costs to society from a strictly economic standpoint, which can be avoided in part by adopting preventive approaches.
* Lack of knowledge about the transmission of certain STIs creates negative biases and causes people to avoid individuals with STIs.

**8. Conclusion**

Everyone is susceptible to STIs, no matter their sexual orientation, social status, or origins. For sexually active persons, it is recommended to use a male or female condom. People should visit the nearest health centre at the first signs of STIs, and follow the instructions of health workers.

**Definitions:**

*Cervical ectopy*: An abnormality of the genital tract that does not require treatment but causes vaginal bleeding and painful sexual intercourse, vaginal discharge or vaginal infections that can lead to the development of cervical cancer.

*Cytomegalovirus:* A common virus that often has no symptoms in healthy people, and is normally only serious for newborns, infants and persons with weakened immune systems.

*Dual protection:* Dual protection systems provide protection against both STIs and unwanted pregnancy. This can be achieved through using a male or female condom alone, by using a condom along with a non-barrier contraceptive, or by using effective contraception in the context of long-term mutual monogamy.

*Inguinal bubo:* Localized enlargements of the lymph nodes in the groin area which are painful. Frequently associated with lymphogranuloma venereum.

*Meninges:* The three membranes that line the skull and vertebral canal and enclose the brain and spinal cord.

*Molluscum contagiosum:* An infection caused by the *Molluscum contagiosum* virus. Usually causes a benign, mild skin disease characterized by growths that can appear anywhere on the body.

*Neonatal:* Newborn child.

*Prostatis:* Inflammation of the prostate gland.

*Purulent conjunctivitis:* A form of conjunctivitis (an inflammation of the transparent layer of mucous membrane that covers the inside of the eyelid and the front surface of the eyeball called the conjunctiva), caused by organisms producing pus, especially gonococci bacteria.

*Syndromic reporting:* Reporting of symptoms associated with STIs, but which precede diagnosis and may suggest a sufficient probability of a case or an outbreak to warrant public health response.

*Vegetation:* A medical term for an abnormal growth.

*Vector:* An organism that transmits a disease or parasite from one animal or plant to another.

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