

Introduction to STI Prevention and Control



Sexually transmitted infections (STIs) are very common. The most widely known are gonorrhea, syphilis and HIV but there are more than 20 others. The World Health Organization (WHO) estimated that in 1999 there were 340 million new cases of curable STIs. In other words, almost one million new infections occur every day.



According to the Joint United Nations Programme on HIV/AIDS (UNAIDS) and WHO, in 2005 an estimated 4.9 million people were newly infected with HIV. Another 40.3 million people were already living with HIV.

Objective

To provide a foundational understanding of Sexually Transmitted Infections (STIs), including their causes, modes of transmission, different types of STIs, and impact on individual and public health.

Learning Outcomes: By the end of this article and video, individuals should be able to:

1. Define STIs and identify common types (e.g., chlamydia, gonorrhea, HIV/AIDS, syphilis).
2. Explain how STIs are transmitted and understand the factors that increase transmission risk.
3. Recognize symptoms and potential long-term health consequences of untreated STIs.
4. Understand the importance of early detection, regular testing, and treatment options.

How are STIs transmitted?

By far the most common mode of transmission of STIs is through unprotected penetrative sexual intercourse (vaginal or anal).


Other, more rare modes of transmission include:




from mother to child:


– during pregnancy (e.g. HIV and syphilis);



- at delivery (e.g. gonorrhoea, chlamydia and HIV);
- after birth (e.g. HIV);
- through breast milk (e.g. HIV);
-  through the unsafe (unsterile) use of needles or injections or other contact with blood or blood products (e.g. syphilis, HIV and hepatitis).

 It is important to remember that HIV is transmitted in the same ways as any other STI.

What factors increase the risk of transmission?

 Not all acts of unprotected sexual intercourse result in the transmission of an STI from an infected person to a partner. Whether or not a person will be infected depends on many factors, both biological and behavioral.

Biological factors

Certain biological factors influence the transmission of STIs. They are age, sex, immune status of the host and the virulence of the organism.

Age

The vaginal mucosa and cervical tissue in young women is immature and makes them more vulnerable to STIs than older women. This is due to cervical ectopy, a normal condition for young women, when cervical surface cells more readily allow infections to occur. Young women are especially at risk in cultures where they marry or become sexually active during early adolescence. On average, women become infected at a younger age than men.

Sex

Infections enter the body most easily through a mucosal surface such as the lining of the vagina. Since the mucosal surface that comes into contact with the infective agent is much greater in women than in men, women can be more easily infected than men.



Immune status

The immune status of the host and virulence of the infective agent affect transmission of STIs. As we will detail later in this module, certain STIs increase the risk of transmission of HIV – itself a sexually transmitted infection. HIV, in its turn, facilitates the transmission of some STIs and worsens the complications of STIs by weakening the immune system.

Behavioural factors

Many behavioural factors may affect the chance of getting an STI. Such behaviours are known as "risky". Risky behaviours include the following. Personal risky sexual behaviours include: changing sexual partners frequently; having more than one sexual partner; having sex with "casual" partners, sex workers or their clients:



Recent or frequent change of sexual partner, having more than one sexual partner or having sex with sex workers or their clients makes it more likely that a person will come into contact with someone who has an STI; having unprotected penetrative sexual intercourse in a situation where either partner has an infection; having had an STI in the last year:





People who have had an STI in the last year are at risk of getting infected again if they have not been able to change their sexual behaviour.

Social factors


A number of social factors link sex and behavioural issues and may affect a person's risk of getting an STI, for example: in most cultures women have very little power over sexual practices and , such as use of condoms; women tend to be economically dependent on their male partners and are therefore more likely to tolerate men's risky behaviour of multiple sexual partners, thus putting themselves at risk of infection; sexual violence tends to be directed more towards women by men, making it difficult for women to discuss STIs with their male counterparts; in some societies the girl-child tends to be married off to an adult male at a very young age, thus exposing the girl to infection; in some societies a permissive attitude is taken towards men allowing them to have more than one sexual partner.


Other personal behaviours may be associated with increased risk, including:

 **Skin piercing** - this refers to a wide range of practices including the use of unsterile needles to give injections or tattoos, scarification or body piercing and circumcision using shared knives;


 **Use of alcohol or other drugs before or during sex** - alcohol or drug use may negatively affect condom use; alcohol may diminish the perception of risk, resulting in not using a condom; or if a condom is used it may not be used correctly.


Risky behaviour of partner(s) includes:

 Having sex with others

 Having an STI

 Injecting drugs

 Male partner having sex with other men.

 A partner with one or more of these behaviours is more exposed to STIs, and in turn is more likely to transmit an STI.