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# Sexually Transmitted Diseases

## (Venereal Diseases)

5th Edition



JAYPEE

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Chapter 2

# Epidemiology of Sexually Transmitted Diseases/Infections

## INTRODUCTION

Sexually transmitted diseases have recently been replaced by a euphemistic term—Sexually transmitted diseases (STD). This has now been widely adopted all over the world. Several diseases form a part component of STD, but gonorrhea, chancroid, and syphilis are important, because of their higher prevalence and/or morbidity. Other venereal diseases such as *lymphogranuloma venereum* and *granuloma inguinale* are less frequently encountered, largely affecting groups at risk, living in poor socio-economic conditions. There are some infections like herpes progenitalis, tricho-moniasis, *condylomata acuminata, candidiasis, scabies,* and *pediculosis* which may also be transmitted sexually. Non-venereal treponematoses such as *yaws, endemic syphilis, bejel* and *pinta* are conventionally considered with *syphilis,* because they are clinically and immunologically interrelated.

The sexually transmitted diseases (STD) are of cosmopolitan distribution, infecting both sexes, occurring in developed as well as under-developed countries. *Gonorrhea* and *syphilis* are common all over the world, but other venereal diseases such as *chancroid, lymphogranuloma venereum* and *granuloma inguinale* are quite common in developing countries, while they are sporadic in developed countries. Similarly non-venereal treponematoses were/are endemic in some underdeveloped tropical and subtropical areas of the world, where poor living standards and hygiene compounded by climatic factors and humidity may determine their endemicity.

The incidence of venereal diseases is determined by various factors, built around an environmental, behavioral and ill-understood psychological background. These factors are exactly similar in all the countries of the world, rich or poor.

## YOUTH COMPONENT (TEENAGERS) AND SEX

The sexually transmitted diseases are commonly seen in the sexually active age of 20-40 years. But now the average age of STD patients is getting younger every year, more patients are applying for treatment in the age group of 15-19 and 20-24 years. Higher incidence in this age group has been attributed to several factors such as early physical maturity due to better nutritional standards, exposure to sex stimulating literature displayed in magazines, radio and television media. The incidence of STD in young people is, therefore, mounting higher and higher in the world population as a whole.

Both men and women suffer from the disease, but apparently the incidence is higher in men, for they invariably apply for treatment. The actual incidence in women may be much higher than that is generally noticed in day-to-day practice. It is attributed to the silent (symptomless) nature of the disease amongst them, coupled with their unwillingness to report for treatment. Hence they constitute the established reservoir and a salient link in transmitting and perpetuating these diseases.

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## EMERGENCE OF PERMISSIVE SOCIETY

There has been a considerable change in the moral standards and attitude of the society towards sex—a global feature—leading to greater permissiveness. It has, therefore, removed the traditional inhibitions imposed by the religion and the society on the sexual behavior. Similarly, explicit erosion of family influence and parental authority on the youth, have further deteriorated the situation. All these factors have been responsible for the so-called sexual" "revolution", which has sparked off the worldwide increase in sexually transmitted diseases.

### Role of Prostitution

*Prostitutes*

The traditional reservoir of venereal diseases (VD) infection—continue to play a dominant role in the spread of VD. The fast changing-heterogenous-pattern of prostitution namely the semi-prostitutes engaged in normal jobs to call girls, car-prowling girls, cabaret-girls and casual contacts like married women practising prostitution on the side, have added fresh dimensions to the existing problem. Moreover, the girl-friends are now fast replacing the traditional prostitutes as the source of contamination. On the other hand, prostitutes have divorced the "red light areas" to have wider ramifications in the rural as well as urban areas to evade the authority control and to get better returns of their profession. Consequently, the effective control and contact tracing of the reservoir have become extremely difficult.

### Homosexual Practice

Another important factor in the spread of venereal diseases is the practice of homosexuality by a sizable number of people in the larger cities of the world—the passive agent, acting as a reservoir of infection.

### Demographic Factors

The rapid and progressive increase in population, especially of younger age groups has led to a considerable increase in the number of venereal diseases patients. It is a phenomenon, which is apparent in the developing countries, all over the world. In developing countries, in particular, economic development has not been able to keep pace with the rapid growth of population, thus causing all round-strain-on the exchequer, including medical services. Consequently, it has caused mushroom growth of over crowded slums, formed of poor or inadequate sanitation, scarce water supply and poor housing. Hence, an ideal environment is formed for the maintenance of the reservoir and the spread of sexually transmitted diseases.

### Family Planning

Various measures adopted to control the birth rate, e.g. the condoms, IUCDs and contraceptive pills have removed the fear of impregnation (pregnancy), and caused greater sex freedom for both men and women. Consequently, promiscuity is becoming a common phenomenon in the society. Hence, family planning is contributing in its own way to the increase of venereal diseases.

### Population Movement

Persons engaged in occupations involving frequent travel are the high-risk groups. This includes sailors, truck drivers, sales representatives, tourists and pilgrims. It also holds good for army troops during war time.

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## Urbanization

The migration of youth from the rural to the industrial urban areas in search of vocations along with overcrowding, loneliness and anonymity, augments the chances of contracting venereal diseases. Furthermore, a higher incidence of venereal diseases is noted in affluent industrial workers. Additionally; venereal diseases are found predominantly in large cities, to which majority of young immigrants move and where casual encounters, prostitution, and homosexual practices are common. The spread of STD is also influenced by deteriorating areas of slums, amongst socially disorganized groups of low socioeconomic status. Moreover, the disproportion of male–female ratio in big cities may predispose to pre-and extramarital contacts.

## Easy and Inadequate Treatment

Yet another and paradoxical reason for an increase in STD is the extreme simplicity and easy availability of treatment. The one-shot penicillin therapy of gonorrhea and syphilis has reduced the fear of the disease, and consequently increased the sexual contacts, under inadequate antibiotic cover, "antibiotics honeymoons" amongst the young. It is complemented by an emergence of antibiotic-resistant organisms—a feature frequently observed nowadays in response to inadequate and indiscriminate treatment.

## Lack of Control Measures

In many developing countries and also in others, the governmental (official) facilities for the diagnosis, treatment, contact tracing, follow-up and health education are very meagre. The consequence is the

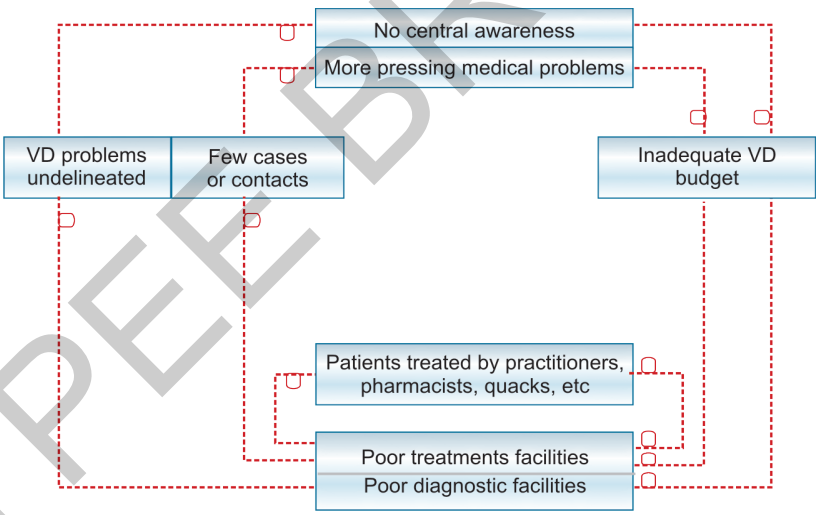



**Fig. 2.1:** 'Vicious circle', illustrating the sequence of events leading to the maintenance of reservoir and the perpetuation of STD in developing countries (Courtesy: RR Willcox, Brit J Vener Dis 1976;52:88)

setting in of the so-called 'vicious circle' (Fig 2.1), which illustrates the sequence of events leading to the maintenance of reservoir and the perpetuation of sexually transmitted diseases.

## FURTHER READING

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