Prevention and detection

Putting the message of STD prevention across to all schoolchildren is essential for all STD programmes. But many programmes are faulty in both concept and execution.

by Gavin Hart

Prevention of disease transmission and early detection of disease: these are the two activities which will have the greatest effect in reducing the impact of sexually transmitted diseases (STDs). And in practice these two activities should not be separated.

Although early detection is often aimed at preventing complications of infection in the individual, it may have a greater impact on disease transmission because it removes a source of infection from the community. Prevention of disease transmission to newborn infants may be achieved most effectively by early disease detection in the mother.

Health promotion activities in schools or health centres and to the general public need to emphasise both primary prevention of infection and early detection of disease. Although it is necessary for health planners to distinguish the individual sexually transmitted diseases when they draw up early detection programmes, expediency demands that educators treat these diseases as a group for health promotion programmes so as to ensure that the health message is sufficiently simple.

Getting the message to all schoolchildren is an essential part of STD programmes. Unfortunately many existing programmes are faulty in both concept and execution. Using specialised health workers or educators to teach schoolchildren is an extravagant use of scarce resources. These highly qualified personnel can be more profitably used to train teachers and primary care workers at one-day workshops and then to support these trainees in educating the general public.

Beside being simple, the health promotion message should be directed towards achieving specific goals. Students should understand the general symptoms which may indicate an STD (and the fact that infection is frequently asymptomatic), the ways in which the diseases may be transmitted, ways of preventing infection, when to seek medical care and where appropriate care is available. Common misunderstandings include the failure to associate patchy hair loss or generalised skin rashes with syphilis, or lower abdominal pain with gonorrhoea or chlamydial infections. The erratic way in which sexually transmitted infections are passed on during sexual activity may also cause confusion. Most infections can be transmitted by oral and rectal sex as well as by conventional heterosexual intercourse, but it frequently happens that some sex partners of an infected person become infected whereas others do not.

Patients at health centres are important targets for health promotion, but they in turn may also provide useful information to health workers. Posters or postcards can be used to illustrate the clinical features of various diseases, and subsequently patients can often identify individuals within the community who may have the symptoms or who behave in others ways which may suggest infection. For instance, aboriginals in many Central Australian communities often respond to the patchy hair loss caused by syphilis by wearing woollen caps.

Encouraging women to seek early antenatal care is an important educational priority for both schools and health centres. Testing pregnant women for syphilis has almost eliminated congenital infection in most parts of the world, but sporadic cases still occur in developed countries, usually in children of mothers who have had little or no antenatal care. Testing selected individuals who have recently visited the big cities can be a productive activity for rural health centres.

Many individuals who are at risk for STDs will be prepared to change their sexual behaviour to reduce that risk if they are given a range of realistic options. These options may include:

– avoiding sex with casual acquaintances;
– avoiding sex with individuals who have any signs of a sexually transmitted disease;
– avoiding group sex or anonymous sex in bath-houses or similar institutions;
– using a condom or other method of prophylaxis when having sex with a casual partner;
– practicing “safe sex” with casual partners. Safe sexual activities refer to

A prostitute calls for her regular medical check-up in an Asian port.

Photo WHO/T. Farkas
those in which there is no transfer of body fluids.

Complications of infection will be reduced if individuals seek medical care immediately after having unprotected sex with a casual acquaintance. The possibility of acquiring AIDS has caused substantial behavioural change in some groups. For instance, publicity about safe sex practices was associated with a sudden drop in anal gonorrhoea in San Francisco, USA. For the past year, many prostitutes in South Australia have insisted on all clients wearing a condom, regardless of the type of sex required, and this policy is often made a condition of employment by employers. Although it was triggered by the AIDS epidemic, this practice has resulted in a decrease in gonorrhoea among both the prostitutes and their clients. On the other hand, a number of prostitutes have acquired gonorrhoea from their regular boyfriends because they do not insist on condoms for social sex.

The most consistent protection

When used properly, the condom offers the most consistent protection against the majority of STDs. However, there is often a reluctance to use condoms among those at high risk of STDs because of impairment of pleasure, interference with sex or unavailability when the opportunity for sex arose.

A concerted campaign to improve the image of the condom and create a more open and frank sexual environment greatly increased the use of condoms in Sweden in the 1960s and there was an associated decrease in cases of gonorrhoea. Between 1964 and 1973, sales of condoms in Japan increased four-fold in response to sales strategies that included a variety of new designs, production of ultra-thin condoms to minimise any loss of sensation, and the introduction of vending machines which made condoms readily available at any time in meeting places where casual sex might occur. Door-to-door sales had no effect on the number sold, presumably because of saturation of sales by other innovative methods.

Urination or washing the genitals immediately after intercourse provide very little protection from STDs. Studies among Australian troops in Vietnam and United States naval personnel in Asia showed that these measures failed to prevent gonorrhoea.

A wide range of chemicals applied to the genitals before or after intercourse have been used for protection. Most of them have some protective effect, but often require painstaking application to obtain significant benefit. They are often very irritating and may produce serious side-effects. Thus a group of prostitutes from Nevada brothels discontinued one trial of a chemical prophylactic because of the degree of vaginal drying and irritation it produced.

Despite extensive research, no vaccines have yet been produced for the STDs. The sole success has occurred with hepatitis B, but the resultant vaccine is too expensive for routine use in developing countries where the need is greatest.

Although essential for the treatment of most STDs, even small doses of antibiotic used without medical supervision can be hazardous for both the individual and the community. A typical problem was observed in South Australian clinics among men who had had intercourse in South-East Asia and had taken some oral antibiotic as prophylaxis. Between one and three months later, they turned up at the clinics complaining of severe pain or abscesses in the genital region. The small dose of antibiotic had been sufficient to prevent any obvious early symptoms but was inadequate to eliminate the long-term complications of infection. The widespread use of low doses of penicillin to eliminate syphilis from South-East Asia in the 1950s (which was largely achieved) probably contributed to the marked resistance of gonorrhoea to penicillin in the 1960s.

As regards preventing STD in newborn babies, the use of chemical eye-drops (one per cent silver nitrate) is highly effective in preventing such babies from contracting eye infections from gonorrhoea. This treatment has some benefit against chlamydial infection, but certain other infections cannot be prevented after birth. On the whole, screening pregnant women for STDs and treating them before delivery will tend to offer more effective prophylaxis for the infant.

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Medieval monks receive instruction about the ways of a man with a maid. Illustration from a book about the classical Greek physician Galen.