

## □ AIDS: ADVICE TO TRAVELLERS □

*The subject of AIDS has received considerable attention in the past year. It is of particular concern to those of us who live and travel abroad. Liaison has asked Doctor Clayton, Director-General, Federal Center for AIDS from the Department of National Health and Welfare, to offer some advice on AIDS prevention for travellers.*

**A**cquired Immunodeficiency Syndrome (AIDS) is an illness caused by a virus that destroys the body's protection from other infections.

This virus is called the human immunodeficiency virus (HIV) and the cells that it infects and destroys within the body are called the T-4 or "helper" lymphocytes. These cells control the body's immune system and ultimately their destruction results in AIDS. With immunity destroyed, the body can no longer defend itself from invasions of many types of micro-organisms which are harmless for most people with a normal immune system but which, for persons without protection against them, are usually fatal. The diseases caused by these micro-organisms are called opportunistic infections. The combination of HIV infection and the opportunistic infections is defined as AIDS. Eighty per cent of those afflicted with AIDS die within two years, and over 90 per cent die within three years of diagnosis.

AIDS represents one end of the spectrum of HIV infection. The HIV can produce other clinical states prior to fully-fledged AIDS occurring. When an individual is first exposed to the virus, he or she may experience mild influenza-like symptoms but often initial infection causes no symptoms. During this time

the body attempts to fight off the infection and produces antibodies, which are proteins produced to respond specifically to the presence of an invading substance, in this case, HIV. Antibodies are usually detectable in the individual's blood within three months. The current so-called "AIDS test" demonstrates the presence of these antibodies, which are not protective and co-exist with the active virus. When a person has a positive AIDS test result, this means that he or she has been infected with the virus at some time in the past. It does not mean that the person will become ill because of infection. A person may carry the virus and remain completely healthy, although not everyone who has antibodies to HIV (a positive AIDS test) carries the virus. However, for practical purposes it is assumed that everyone who has antibodies probably carries the virus and is potentially infectious. With our present tests it is impossible to identify who is or is not infectious. Consequently, anyone who is antibody positive must consider themselves infectious and avoid exposing anyone else to the virus. Unfortunately it appears that up to 40 per cent of those who are antibody positive will develop full blown AIDS within seven years of being infected. This is the incubation period of AIDS. The first cases were diagnosed only six years ago, so our experience to date is limited. What will happen with longer experience of the disease is as yet unknown, but it seems likely that this percentage may increase. It is also possible that the incubation period could extend for many years and perhaps a lifetime.

### Transmission patterns

It is essential to recognize that AIDS cannot be spread socially or by casual contact. HIV infection occurs when

infected fluids or secretions are able to enter the body. The disease is not restricted to homosexuals or bisexual males, although the majority of cases in the developed world are presently in this group. Heterosexual transmission appears to be primarily responsible for the continuing spread of HIV in the developing countries. Infection can spread from male to female, and from female to male during sexual activity.

The second major method of transmission is the receiving of infected blood products from unsterile syringes and needles shared by intravenous drug users, and from unsterile practices when medication is given by a needle. It should also be recognized that the sterilization of needles and syringes in the developing world, even in established urban hospitals, is not always practised effectively.

The third clearly defined mode of transmission is from an infected mother to her child across the placenta or at the time of birth.

Once again, it must be emphasized that AIDS is not acquired through social or casual contact. There is no evidence that HIV is spread by close interpersonal contact of a non-sexual nature. There is no evidence that it is spread by food or food handlers or through ingestion of contaminated water or other beverages. It cannot be spread by the airborne route nor do insects, including mosquitoes, play any part in the transmission of this illness.<sup>1</sup> The concentration of cases in the more sexually active age groups supports sexual transmission as the major mode of transmission of HIV.

<sup>1</sup>Special Programme on AIDS. Report of the Consultation on International Travel and HIV Infection, Geneva, 2-3 March, 1987. World Health Organization — April, 1987.