This Section describes the impact of HIV and AIDS on young children and the extent of the problem. It also provides an overview of how HIV is transmitted to infants and young children.

HIV and AIDS can affect infants and young children in one of three ways. They may be:
- infected with HIV
- affected by HIV
- vulnerable to HIV.

### 1 Children infected with HIV

**KEY POINTS**

- Children can be infected with HIV through mother-to-child transmission, contaminated blood transfusions, unsterile medical equipment, or sexual abuse.
- A third of babies born to HIV-infected mothers will become infected.
- Children are most affected by HIV in settings where women are most affected by HIV.
- Children with HIV often have the same illnesses as children without HIV, but these may be more serious, frequent or difficult to treat.
- HIV infection is predicted to significantly increase infant and child mortality.

At the beginning of the AIDS epidemic, children were not considered to be at risk of HIV infection. This changed as it became clear that infants and young children had been infected with HIV by contaminated blood transfusions and by use of unsterile medical equipment. It also became clear that the virus could be passed from an infected mother to her baby during pregnancy, birth or breastfeeding.

### How are children infected?

Children can be infected with HIV through:
- pregnancy, birth or breastfeeding if the mother is infected with the virus
- receiving infected blood transfusions
- treatment with unsterile medical equipment such as needles, syringes or surgical instruments
- sexual abuse involving penetrative vaginal or anal sex.

Globally, the majority of infected children – about 90 per cent – are thought to acquire the

**Facts about HIV/AIDS and children**

- Every day an estimated 1,000 children become infected with HIV, mostly in the developing world.
- In 1996, 400,000 children under 15 became infected with HIV. UNAIDS estimates that a total of 2.6 million children worldwide had been infected with HIV by the end of 1996. More than half had died.
- One million children worldwide are HIV positive or have AIDS, most of them in sub-Saharan Africa but with numbers increasing rapidly in South Asia, South-East Asia, Latin America and the Caribbean.
- If current trends continue, between 5 and 10 million children will have been infected with HIV by the year 2000.
- The majority of young children with HIV are infected through mother-to-child transmission, the rest through contaminated blood transfusions and medical equipment, or, more rarely, sexual abuse.
- About four in 10 infected children die by the age of 12 months, many survive beyond two years of age, and some have reached adolescence.
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virus through transmission from an HIV-infected mother, either during pregnancy, birth or breastfeeding.

Contaminated blood transfusions and medical equipment are thought to be responsible for about 10 per cent of HIV infection in young children. In many countries, children are given blood transfusions to treat anaemia, caused by malaria and other illnesses. Blood transfusions are often given unnecessarily. If blood supplies are not screened for HIV, transfusion with contaminated blood may put children at risk of HIV infection.

A proportion of children with HIV are infected through sexual abuse, although the extent of sexual abuse of under fives and the numbers infected with HIV this way are difficult to estimate.

The relative importance of different modes of transmission in different countries varies depending on the quality of blood transfusion services and health care, and the numbers of women of childbearing age who have HIV infection.

However, in most parts of the world, the number of children with HIV infection is closely related to HIV infection in women of childbearing age. This, in turn, is affected by sexual transmission of HIV between men and women. Not every woman with HIV will pass the virus on to her child. On average one-third of children born to HIV-infected mothers will themselves become HIV infected. (See Section 2 for more detailed discussion of transmission from mother to child.)

Where are children most affected?
Children are most likely to be affected in countries where women are most affected. The number of women infected with HIV, mainly through heterosexual transmission, is rising rapidly throughout the world. It is estimated that for adults:

- in sub-Saharan Africa, half of all those with HIV are women
- in South-East Asia, a third of people infected with HIV are women of childbearing age, and HIV is spreading rapidly
- in the Caribbean, women account for about 40 per cent of HIV infection
- HIV/AIDS is a growing problem in Eastern Europe and the countries of the former Soviet Union, affecting increasing numbers of women.

The proportion of pregnant women who are infected with HIV varies from country to country and between urban and rural areas. In some urban areas of East and Southern Africa, one in three pregnant women is infected with HIV.

Rates of mother-to-child transmission have been shown to range from less than 15 per cent to around 48 per cent. Transmission rates seem to be lower in developed countries than in developing countries.

Lower rates in developed countries may be because of a number of factors, including antiretroviral treatment of HIV-positive pregnant women. Higher rates in developing countries may be because of poorer nutritional and immune status and higher rates of sexually transmitted diseases among women in these countries.

It is also not clear why some babies of HIV-positive women are infected and others are not. There are many unanswered questions about when the infection is transmitted from mother to child, and about the factors which may increase the risk of transmission during pregnancy, birth and breastfeeding. These are discussed in Section 2.

Infants and young children in developing countries with HIV infection also die at a younger age than those in developed countries. This may be because they are exposed to more infections, have poorer medical care and are more likely to be malnourished.

How does HIV/AIDS affect child health?
Although many cases in very young children are not recognised or reported, HIV and AIDS
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It is estimated that:

- In Malawi, HIV infection contributes to 17 per cent of the infant mortality rate (number of deaths of infants under one year of age per 1,000 live births) of 147 per 1,000 live births.
- Without AIDS, Kenya would have an infant mortality rate of 47 per 1,000 live births. With AIDS, the rate has increased to 55.
- In Zambia and Zimbabwe, infant mortality rates are 25 per cent higher than they would be without AIDS.
- Projected infant mortality rates for 2010 for Tanzania and Uganda are 40 per cent higher than they would be without AIDS.
- By the year 2010, deaths due to AIDS will more than double infant mortality rates in Zimbabwe and Botswana.
- Child mortality rates in Kenya and Zambia will double by 2010, to be three times higher in Botswana and four times higher in Zimbabwe. Out of every 1,000 children under five, nearly 100 will die because of AIDS in these countries.
- Child death rates will increase by 14 per cent in Brazil, 20 per cent in Guyana and 7 per cent in Haiti because of AIDS.
- In Thailand, the infant mortality rate will rise by 5 per cent due to HIV/AIDS.

Source: US Bureau of Census.
HIV-infected parents who are sick or dying, there are many who have been orphaned by AIDS. They may have lost a mother or a father or both. It is estimated that:

- nine million children have already lost a mother because of AIDS
- at least 30 million children in the world are living with HIV-positive parents and are at risk of being orphaned in the future
- by 2010, over 40 million under fives in Asia, Africa and Latin America will have lost one or both parents because of AIDS. By 2020, it is predicted that the largest number of AIDS orphans will be in South and South-East Asia
- by the year 2000 in Zimbabwe, 1 in 10 children will have lost one or both parents, and in South Africa there will be 500,000 AIDS orphans. In Thailand, over 200,000 children – a third of them under five – are expected to lose their mothers because of AIDS by 2005.

Loss of a parent or parents can affect young children in many ways. The effects vary from country to country and depend on culture, social and family structures, and legal systems. For example, in some countries, children may lose their rights to property or land. In others, where many children have lost their parents, family support systems are under great strain. Young children may be cared for by grandparents or older siblings who are unable to cope or to afford extra food and clothing, or they may be cared for reluctantly by relatives who already have too many demands. In these circumstances, young children are less likely to be sent to school and more likely to be expected to work at a very young age to contribute to household finances. They may be seen as a burden, especially young girls because they may need to be provided with a dowry or because they will marry out of the family and therefore not contribute financially.

As well as having to cope with loss, grief and confusion, children from families affected by HIV and AIDS may be stigmatised and rejected and not allowed to play with other children. They may be denied health care, either because it is assumed that they too have HIV infection or because carers cannot afford treatment costs.

Young children who are not infected are also more vulnerable to illness and death if they receive less adequate care either because their parents are sick or because their parents have died.

The health of under fives who do not have a mother is generally worse than that of those who do. The mother is relied on to bring a child for immunisations, to seek treatment for childhood illness and to ensure that a child is well nourished. Health education messages about all these issues are usually targeted at the mother. Grandmothers or siblings may know less about good nutrition, have less time, energy or patience to feed a young child or be less able to travel to clinics or immunisation centres. Future health education strategies will need to target a wider range of carers, or larger numbers of children will be at risk of illness and poor health.
Children vulnerable to HIV

**KEY POINTS**

- Children without parents and displaced children are more vulnerable to rape and sexual abuse, and the associated risk of HIV infection.

Children without parents or who are not living with their parents because of war or economic reasons, are more vulnerable to sexual abuse and exploitation. Refugee and displaced children are particularly vulnerable.

Sexual abuse of children is a taboo subject and rarely reported, and until recently was thought to occur infrequently in developing countries. However, there is growing evidence of very young children being infected with HIV and other sexually transmitted diseases (STDs) following sexual abuse and rape. Although it is usually older children, especially girls, who are most at risk of sexual exploitation, younger children are also vulnerable to sexual abuse.

Often it is only when a child needs treatment for an STD that people become aware that there is a problem of sexual abuse. One study in Zimbabwe found that, in 1990, 907 children aged under 12 years had been treated at the genito-urinary clinic in the capital city, Harare, for STD. In another Zimbabwean study of 54 sexually abused children in Bulawayo, one girl was only two years old. Twelve of these 54 children were tested for HIV and four were found to be positive.

Without family support, education or skills, orphaned children from families affected by AIDS may themselves grow up to be more vulnerable to HIV infection through starting sexual activity at a young age to support themselves. If orphans themselves become HIV infected, they have no parents available to care for them when they are sick or to act as grandparents to their own children.