

# Children and HIV

## Introduction

Despite a prolonged and dedicated campaign by doctors, aid workers, NGOs and governments against the virus, HIV/AIDS continues to kill children across Africa at an astonishing rate. In rich countries, paediatric AIDS is largely under control, but in Africa the war is far from won.

A recent World Health Organisation study in sub-Saharan Africa revealed that 70 percent of HIV-infected children died before reaching their second birthday. Treating HIV-positive children is complicated, but not impossible. Treated early, an African child born with HIV could enjoy a long life.

## The Numbers

AIDS kills about 1,400 children every day around the world - the majority in Africa - claiming the very young before they can even understand why they are sick.

Of the 640,000 children newly infected by HIV in 2004, almost 88 percent lived in Africa. An estimated 2.3 million children worldwide are living with the virus, 2.1 million of them in sub-Saharan Africa, where access to treatment for children is extremely limited.

AIDS accounts for about 6 percent of deaths in children under the age of five in sub-Saharan Africa, according to the World Health Organisation (WHO). In Botswana and Zambia, HIV accounts for about one-third of deaths in children under five.

## The Issues

### 1. Diagnosis

Accurately diagnosing children younger than 18 months requires expensive diagnostic tests costing about \$US40 each - a price too high for many poor families or resource-starved health clinics.

Even if a child is tested for the virus, health workers may have trouble correctly reading the results: a mother's antibodies remain in her baby for about 18 months, meaning the infant could test positive while actually being HIV negative and healthy. More expensive tests, known as 'PCR tests', test DNA rather than antibodies and therefore give accurate results.

Parents must also overcome psychological barriers: women are sometimes discouraged from having children tested because of the stigma attached to HIV/AIDS - and, some mothers might ask, if no treatment is readily and freely available, why bother testing a child?

### 2. How Are Children Infected With HIV?

Mother-to-child transmission is the main cause of HIV infection among children in sub-Saharan Africa, and can occur during pregnancy, delivery or breast-feeding. Blood transfusions or unsafe needles are other culprits, but cause only a small percentage of childhood infections.

In rich countries, preventing mother-to-child transmission (vertical transmission) is achieved by administering a combination of three antiretroviral (ARV) drugs to HIV-positive, pregnant women in the later stages of pregnancy and during delivery.

In resource-poor settings, most HIV positive women receive a single dose of nevirapine, an ARV drug, at the onset of labour. Their babies receive a second dose a few hours after birth. This method is less effective than combination therapy but easy to administer and much less expensive.

Doctors also recommend breast milk alternatives, such as formulas or animal milk, for HIV-positive mothers to

prevent transmission, though these substitutes are often too expensive or simply unavailable to millions of African women.

Diarrhoeal, respiratory or other infections caused by contaminated water or dirty bottles also pose a health risk for newborns. The WHO recommends replacement feeding only when it is acceptable, feasible, affordable, sustainable, and safe - a heavy burden of criteria to meet in some of the world's poorest regions.

*See: MALAWI: Mother to child transmission in Malawi*

[http://www.irinnews.org/report.asp?ReportID=56458&SelectRegion=Southern\\_Africa&SelectCountry=MALAWI](http://www.irinnews.org/report.asp?ReportID=56458&SelectRegion=Southern_Africa&SelectCountry=MALAWI)

### 3. How Are HIV-Positive Children Cared For?

As with any HIV-positive person, a balanced, nutritious diet is key to helping ward off the harmful effects of the virus and prolonging the patient's life. But good nutrition alone is not a cure. ARV drugs are known to be highly effective when administered to children, although this type of therapy can be problematic in resource-poor settings.

Health workers must assess a child's viral load and CD4 cell count (See the 'ARVs Fact File') before deciding to go ahead with ARV treatment. The dosage for ARV drugs must be calculated according to the child's ever-changing size, weight and metabolism. Even if trained health workers carefully make these calculations, not all ARV drugs approved for adults exist in appropriate, licensed, or approved forms for children.

Drug makers have developed syrup-based ARVs for children, but they tend to taste unpleasant, must be taken in large volumes, require refrigeration and have a short shelf life once opened - rendering them impractical in many parts of Africa.

Despite these problems, successfully administered ARV therapy results in survival rates for patients under age five of 80 percent and higher, according to the WHO. Other drugs, such as low-cost antibiotics, can protect children from opportunistic infections.

*See: KENYA: Caring for children affected by HIV*

[http://www.plusnews.org/AIDSReport.ASP?ReportID=6265&SelectRegion=East\\_Africa&SelectCountry=KENYA](http://www.plusnews.org/AIDSReport.ASP?ReportID=6265&SelectRegion=East_Africa&SelectCountry=KENYA)

*See: SOUTH AFRICA: HIV-positive kids falling through the cracks*

<http://www.plusnews.org/webspecials/ARVProgramme/6363.asp>

### 4. What Are The Costs?

The price of adult ARV drugs has dropped sharply in recent years, thanks largely to increased competition, the introduction of generic brands and pressure by lobby groups. The prices of drugs for children have remained stubbornly high.

For example, in 2005, the drug Retrovir (zidovudine) cost US\$260 per year for a 100mg capsule for children, but only US\$183 annually for the 300mg adult capsule -the price of the child's drug was more than four times as much as the adult one.

A one-year supply of a standard three-drug regimen (stavudine, nevirapine and lamivudine) for adults cost about US\$148 in 2005 in low-income countries, but the regimen for children cost US\$2,000 per child (US\$800 for a generic version).

### 5. Children In Crisis Situations

Children are at particular risk in times of crisis, when war or natural disaster have torn their communities apart. Health and education services might be weakened or even destroyed, and sexual violence is likely to be an increased threat.

The lack of resources mean those at the bottom of the pecking order - often the very young and very old - go without. Children are often forced into adult roles to survive during times of crisis, having to quit school and work, or care for siblings or injured parents. Young girls might be forced to sell sex to support themselves and their family. Stress and malnutrition increase vulnerability to infection.

### Key Documents and Web Sites

1. Save The Children:  
<http://www.savethechildren.org.uk/>
2. Study: WHO, HIV in children: The state of affairs:  
[http://www.who.int/entity/hiv/toronto2006/Children2\\_eng.pdf](http://www.who.int/entity/hiv/toronto2006/Children2_eng.pdf)
3. MSF fact sheet: Paediatric HIV/AIDS:  
<http://www.accessmed-msf.org/documents/FINAL%20paediatric%20HIV%20June%202005.pdf>
4. UNICEF: How does HIV affect young people?  
[http://www.unicef.org/aids/index\\_youngpeople.html](http://www.unicef.org/aids/index_youngpeople.html)
5. WHO: HIV and infant feeding: Guidelines for decision makers  
[http://www.who.int/child-adolescent-health/publications/NUTRITION/ISBN\\_92\\_4\\_159122\\_6.htm](http://www.who.int/child-adolescent-health/publications/NUTRITION/ISBN_92_4_159122_6.htm)
6. International HIV/AIDS Alliance: Situations in conflict  
<http://www.aidsalliance.org/sw3316.asp>
7. AVERT: Children, HIV and AIDS  
<http://www.avert.org/children.htm>
8. HIVinfosource: Children and HIV:  
<http://www.hivinfosource.org/basics/children.html>