

# CHILDREN AND HIV



# Stopping new HIV infections among children

As a result of scaled-up HIV prevention services there was a 70% decline in the number of new HIV infections among children between 2000 and 2015. Despite this significant progress, the number of children becoming newly infected with HIV remains unacceptably high. About 150 000 [110 000–190 000] children became infected with HIV in 2015, down from 490 000 [430 000–560 000] in 2000.

The risk of a mother living with HIV passing the virus to her child can be reduced to 5% or less if she has access to effective antiretroviral therapy during pregnancy, delivery and breastfeeding. In 2015, 77% [69–86%] of pregnant women living with HIV had access to medicines to prevent transmission to their infants.

#### Knowing a child's HIV status

Despite continuing progress in stopping new HIV infections among children there are still major challenges in ensuring access to effective antiretroviral therapy for children living with HIV. The challenges start with diagnosing HIV among children.

Four hundred children become infected with HIV every day; however, In 2015, only 54% of children exposed to HIV in the 21 highest-burden countries were tested for the virus within the recommended two months. This is largely because it requires complex laboratory technology that is often only available at central laboratories. Also, results can take a long time to come back, which means that families do not always return for the results and never learn of a child's HIV status.

Even though 2015 saw progress in the technology that can allow smaller clinics to conduct virological testing and to bring services closer to communities, it takes a while for this to happen as personnel have to be trained and facilities have to organize themselves.

Without knowing the HIV status of a child it is impossible to access life-saving treatment. Without

treatment, half of all children born with HIV will die by the age of two.

# Access to HIV treatment for children

In 2015, the World Health Organization (WHO) revised its guidelines and recommended initiating treatment for all people diagnosed with HIV regardless of symptoms or clinical stage. This bold recommendation means that all children diagnosed with HIV should be offered treatment. In 2015, an estimated 1.8 million [1.5 million—2.0 million] children under the age of 15 years were living with HIV, but just 49% [42–55%] had access to the life-saving medicines. While this was an improvement compared to 21% [18–23%] in 2010, it means that half the children in need of treatment do not have access.

The barriers to access to treatment for children are far-reaching. Clinics are often far from home; stigma and fear prevent carers from bringing their children to the clinics for HIV testing and treatment; treatment is difficult to administer for children; there is a lack of training and support for families, carers and health-care workers to provide HIV services for young people; and there are not enough HIV medicines developed specifically for a child's needs.

# HIV diagnostics and medicines for children

WHO recommends that infants exposed to HIV be tested at the first postnatal visit—usually when they reach four to six weeks of age—or at the earliest opportunity thereafter, and that infants who are infected start treatment immediately. Infants infected in utero or during labour and delivery have a poor prognosis compared to infants infected during breastfeeding, and they require urgent antiretroviral therapy to prevent early death. However, identifying those infants using the common antibody HIV test is a challenge due to the presence of maternal HIV antibodies, which may persist for as long as 18 months in a child's bloodstream.

Access to virologic testing for infants and rapid antibody testing in children over 18 months of age remains poor in many countries, creating a bottleneck for the scale-up of treatment for children, especially children younger than 18 months of age. Despite significant investment, only 54% of children exposed to HIV received HIV virological testing within the first two months of life in 2015, although this marks a slight increase since 2014 (51%).

HIV treatments for children work. However, they can be complicated, requiring pills and liquids, some of which are difficult to swallow and can taste unpleasant. The volume of medicines recommended for children under the age of three is a challenge.

Some of the medicines need to be kept cool. Refrigeration can be an issue if a health facility experiences electrical outages or has limited storage facilities. It is also a concern for families, especially in rural areas, who may not have refrigeration available. This requires the family or carer to return to the clinic, which may be far away, on a regular basis to pick up fresh supplies of the medicines.

Despite the scientific advances made in research and development for new HIV medicines for adults, the options for children lag behind significantly.

In high-income countries the market for HIV medicines for children has almost disappeared as new HIV infections among children have been virtually eliminated. As a result, the incentive for companies to develop formulations for children has reduced as children living with HIV in low- and middle-income countries represent a less viable commercial market.

However, there was a major breakthrough in May 2015, when the United States Food and Drug Administration gave tentative approval for an improved paediatric formulation in the form of small oral pellets. These pellets come packaged in a capsule that is easily opened, allowing them to be sprinkled over a child's food, or, in the case of a smaller infant, placed directly into the mouth or over expressed breast milk. Previously these formulations were only available in tablet form that could not be broken or a liquid that required refrigeration and had an unpleasant taste, making it extremely difficult to

administer to infants. However, there is still an urgent need for improvement in paediatric antiretroviral medicines, in particular to keep their costs low.

#### **Normalizing HIV**

When children living with HIV have access to treatment they do well and can live normal, healthy and happy lives, just like any other child. However, children living with HIV can face discrimination at home, at school and in the community.

Efforts to normalize HIV and ensure that adults and children have accurate information about the virus are essential. Children and families affected by HIV should not be afraid to openly access HIV testing and treatment services for fear of negative reprisals. Through being open about HIV and sharing experiences, the fear around the disease can be dispelled, making people less afraid to seek and access essential HIV services.

#### What needs to be done

A combination of efforts is needed to prevent new HIV infections among children, ensure that their mothers remain healthy and improve the diagnosis and treatment of HIV for children.

HIV diagnosis, testing and treatment needs to be available closer to where the children most affected live. Health workers need to be trained to provide effective HIV services for children living with HIV.

Community support systems are invaluable and need to be strengthened to allow them to effectively support children and carers to keep them healthy and ensure that they have access to the HIV services they require.

More medicines specifically adapted to the needs of children need to be developed, and kept at an affordable price. To achieve this requires political will and investment by industry. Government, nongovernmental organizations, research partners, health experts and civil society need to advocate strongly for the development of child-friendly fixed-dose combinations to ensure that simple and effective treatment becomes rapidly available and accessible for all children in need.

## 1.8 million [1.5 million-2.0 million]

children\* were living with HIV

### 150 000 [110 000-190 000]

children became newly infected with HIV

### 110 000 [84 000-130 000]

children died of AIDS-related illnesses

#### 400

children became newly infected with HIV every day

#### 290

children died of AIDS-related illnesses every day

## 49% [42-55%]

of children living with HIV accessed antiretroviral therapy

\*Children (<15 years)

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