

## SOUTH AFRICA

### **Scaling Up HIV Prevention, Diagnosis and Treatment for Mothers and Babies in Southern Africa**

In Southern Africa, where HIV prevalence rates reach as high as a third of the adult population, scaling up HIV prevention along with diagnosis, treatment and support for HIV-positive mothers and their infants is critical to saving lives.

In 2007 alone, the global total of children who died of HIV-related causes was an estimated 270,000, over 90 per cent of whom lived in sub-Saharan Africa. Many of these children never received an HIV diagnosis, much less the antiretroviral therapy that is so critical to survive the first few years of life; and many mothers were never tested for HIV or if they were, did not get the drugs they needed to save their lives.

Recent evidence shows that the HIV infection follows a more aggressive course in infants than it does in adults, thus emphasizing the importance of early diagnosis and access to treatment for babies. Globally, 370,000 children became newly infected with HIV in 2007, 90 per cent of them through mother-to-child-transmission (MTCT). Without care and treatment, about one-third of these infants will die within their first year of life, and almost 50 per cent before their second birthday.

In many countries in sub-Saharan Africa, the average age at which children living with HIV begin treatment is between five and nine-years-old. Yet for infants born with the virus, waiting this long can severely compromise their immune system. According to current WHO clinical guidelines, all infants living with HIV under one year of age should receive antiretroviral treatment, regardless of their clinical or immunological stage.

Thanks to the introduction of a sophisticated virological test that can screen an infant's DNA for HIV using dried blood spots, many countries in southern Africa have been able to scale up early diagnosis and ART for young children. Unlike antibody testing, which can only establish a definite diagnosis at 18 months, the virological test can be performed on infants as young as six-weeks. Another advantage of this test is that the dried blood spots can be collected in remote areas and stored or transferred to labs for analysis without cold-chain systems.

This makes it an attractive option for countries in sub-Saharan Africa, many of which have already introduced the test – including Botswana, Cote d'Ivoire, Kenya, Malawi, Rwanda, South Africa, and Zambia.

In **Malawi**, for example, the Ministry of Health – with support from UNICEF and other partners, including the Center for Disease Control, Baylor School of Medicine and Howard University – purchased lab equipment and supplies, trained nurses and lab technicians, and supported private courier services to transport the samples from health facilities to the labs for testing. Since introducing the Dried Blood Spot tests in 2007, more than 5000 infants have been tested.

In **Rwanda**, nearly one quarter of all infants born to HIV-positive mothers receive the virological test within two months of birth, and the number of children in need who receive ART tripled between 2005 and 2007.

The **South African** government – with support from UNICEF, the Center for Disease Control and other partners – has rapidly expanded testing for early infant diagnosis. This, in turn, has led to tremendous progress in scaling up antiretroviral treatment for children; between 2005 and August 2008 there was a four-fold increase in the number of HIV-positive children receiving ARV treatment.

These are promising signs, yet scaling up early diagnosis and treatment for infants is only part of the equation. Primary prevention of HIV among girls and women is critical to prevent HIV transmission to infants – particularly in southern Africa, where adolescent women are 2 to 4.5 times more likely to be infected with HIV than males of the same age. And pregnant women who do test positive for HIV need access to the best possible regimens for their own health, for the survival of their children, and to prevent transmission of the virus to their infants. This should be provided through a strengthened continuum of care that offers prevention, diagnosis, treatment and support services at the home, community and facility level.

Currently, far too few pregnant women benefit from medical interventions that will prolong their own lives and prevent transmission to their unborn children. In 2007, only 18 percent of pregnant women in low and middle-income countries where data was available were tested for HIV, and of those who tested positively for HIV, only 12 per cent were further screened to determine the status of the HIV disease and the type of treatment they require.

In 2004, only ten percent of all pregnant women living with HIV received anti-retrovirals to prevent mother-to-child-transmission. This number has risen steadily since, increasing to 33 percent in 2007. Indeed, because of the progress in preventing transmission from mother to child, the number of new infections in children is starting to decline.

In **Botswana**, for example, over 95 percent of all HIV-positive pregnant women received anti-retrovirals for PMTCT in 2007, and the number of infected children receiving ART increased by 75 percent since 2005. In South Africa, the percent of HIV positive pregnant women receiving antiretroviral prophylaxis increased from 30% in 2005 to 57% in 2007 and HIV prevalence among young mothers

15-19 declined from 15.9% in 2005 to 12.9% in 2009. In **Swaziland**, the number of HIV-positive pregnant women receiving PMTCT services jumped from 4780 in 2005 to 8772 in 2007, when 67 percent of all pregnant women in need were receiving antiretrovirals for PMTCT. And in **Zambia**, HIV incidence rates are falling, thanks in part to that country's efforts to increase access to PMTCT and ARV treatment for pregnant women living with HIV.

Figures such as these offer hope – hope that countries struggling with high HIV prevalence rates can make rapid progress in a short period of time. Yet at the same time they reflect the challenges of the immediate future. It only takes a short period of time for HIV to claim the life of an infant who does not have access to diagnostic tests or ARVs to protect and preserve her life. Only by scaling up these services for both mother and child can we reverse the burden of HIV in southern Africa.