

## SOUTH AFRICA: Improved PMTCT yields dramatic results



Photo: iThemba Lethu 

Dual therapy has slashed mother-to-child transmission rates

JOHANNESBURG, 10 December 2009 (PlusNews) - The percentage of HIV-positive mothers who pass the virus to their newborn babies in South Africa's KwaZulu-Natal Province has dropped by nearly two-thirds since dual antiretroviral (ARV) therapy was introduced for the prevention of mother-to-child transmission (PMTCT).

Before the national health department switched to [dual therapy](#) in January 2008, pregnant women testing HIV positive were given a single dose of the ARV drug, nevirapine, during labour, and their babies received a dose when they were born. But a 2005 study found that on the nevirapine-only regimen, one in five HIV-positive mothers were still transmitting the virus to their infants.

With dual therapy, HIV-positive women started receiving the ARV drug, zidovudine (AZT), from 28 weeks of pregnancy, as well as a single dose of nevirapine. Their babies received AZT for seven days after birth, and a dose of nevirapine.

Some provinces have been slow to roll out the new dual regimen, but a study conducted in six districts of KwaZulu-Natal between 2008 and 2009, revealed that the province rapidly implemented the revised PMTCT guidelines, bringing down transmission to as low as 4.3 percent in one district, and 7 percent on average.

"The study started in May 2008, which was only eight weeks after AZT was introduced, so it was actually quite a rapid rollout," said Dr Christiane Horwood, lead investigator of the study and deputy head of the Centre for Rural Health at the University of KwaZulu-Natal. "We spend a lot of time moaning about the [public] health service, but I think this really shows an incredibly impressive effort."

During the study, 38,000 mothers from a mix of urban and rural districts were interviewed; virtually all said they had been tested for HIV, but more than two-thirds were only tested in their final trimester, after the point when they should have started taking AZT.

As South Africa's PMTCT guidelines stipulate that pregnant women should be tested for HIV during their first visit to an antenatal facility, Horwood surmised that many women started using antenatal services very late in their pregnancies.

Of the 36 percent of women in the study who tested HIV-positive, only 65 percent received results from CD4 count tests, a measure of immune system strength essential for determining readiness to start ARV therapy. The government recently announced that all pregnant HIV-positive women with CD4 counts at or below 350 would qualify for ARVs, but at the time of the study the CD4 threshold for starting treatment was still 200.

South Africa's maternal mortality rate has remained stubbornly high, partly because of the number of women with low CD4 counts who die during childbirth; they are also more likely to transmit HIV to their babies, a factor keeping the infant mortality rate high.

Two-thirds of women in the study who tested positive received dual therapy, 14 percent received nevirapine only, and 13 percent started ARV treatment. The researchers took blood samples from 8,013 babies aged between four weeks and eight weeks at immunisation clinics, and found that of those whose mothers had received dual therapy, 5.6 percent were HIV-positive compared to 13.5 percent of babies whose mothers only received nevirapine.

Horwood predicted that the new higher threshold for starting HIV-positive pregnant women on ARVs could bring down mother-to-child transmission rates to below 2 percent, but warned that the new guidelines would place "a very major burden on the health system".

"The proportion of women who are going to be in that under-350 CD4 count is a lot, and already getting people to clinics in time is an issue, so it's going to be a big challenge," she told IRIN/PlusNews. "Many steps in the [PMTCT] programme may become overloaded."

Nevertheless, Horwood welcomed the effort to target this vulnerable group and congratulated the government on expanding its treatment programme. She also said there were plans to replicate the KwaZulu-Natal study in the country's eight other provinces, using the same methodology.

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