

Barriers to Prevention of HIV Type 1 Mother-to-Child-Transmission in Bahia, Brazil

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EDITOR: In Brazil, the AIDS epidemic has recently spread to small towns and the peripheral areas of large cities, involving mostly people younger than 21 or older than 50 years.¹ In addition, the number of infected women (through the sexual route) is also increasing, mostly in the poorest areas of the country (the North and Northeast regions), but also in some well-developed areas, such as the South region.¹ Brazil provides universal access to antiretroviral drugs, as well as to viral load, CD4⁺ cell count, and resistance tests. However, most of the patients are still being diagnosed late in the course of the disease, which increases hospitalization rates and morbidity/mortality.¹ This is especially important for pregnant women, since a delay in diagnosis may increase the likelihood of mother-to-child transmission (MTCT).²

In Brazil, around 3 million deliveries occur every year. Since the estimated prevalence rate of HIV-1 infection in pregnant women is 0.42%, we should expect at least 12,000 new cases of HIV infection per year in this specific population. However, only 4980 cases were reported in 2008, 125 of them in Bahia, a Northeast state of Brazil.³ This suggests that only half of the cases are diagnosed and/or reported. The incidence rate of HIV infection for children younger than 5 years is 3.0 cases per 100,000 inhabitants, in Bahia (over 90% due to MTCT).^{1,3}

As part of a study conducted to identify the prevalence and risk factors for acquiring HIV-1 infection, we interviewed 3300 parturient women who attended the main public maternity hospital of Bahia state from May 2008 to April 2009.⁴ The maternity hospital is used by about 40% of all parturient women in Salvador and the surrounding area, and is the referral hospital for complex cases, which includes parturient women with AIDS. As part of the routine care, all parturient women are tested for HIV-1 (two different rapid tests) when they are admitted to the maternity unit. Positive samples are retested by enzyme immunoassay.

We found an HIV-1 seroprevalence rate of 0.84% (28/3300, 95% CI: 0.57–1.24). Of note, 8 out of 28 (28.6%) women were already diagnosed as HIV positive before pregnancy and were receiving regular care in a public HIV referral center. The remaining 20 (71.4%) were diagnosed during pregnancy: 10/28 (35.7%) during prenatal care, 9/28 (32.1%) by rapid testing during admission for labor and delivery, and 1/28 (3.5%) immediately after delivery. Ten (35.7%) cases of HIV infection

were detected only on admission to the maternity hospital. Of concern, among those with a late diagnosis, only one (10%) received proper HIV-1 prophylaxis during labor. As a referral hospital for complex cases, antiretroviral drugs are readily available, and the staff was previously trained, as part of a national program for the prevention of HIV-1 MTCT. Moreover, after discharge from the hospital, 7/28 (25%) of the diagnosed women (and their newborns) were lost to follow-up. They never returned for scheduled medical visits, the home addresses and telephone numbers they provided when admitted to the hospital were not valid, and they could not be traced. As far as we could determine, they had not been reported to the Public Health authorities, and no effort to locate them was done by hospital/health authorities.

All 21 newborns tested for HIV-1 by b-DNA, and proviral DNA, were negative at 4 and 12 weeks of age. Among the seven lost mother–newborn pairs, six mothers (86%) were diagnosed only upon hospital admission. These data reveal that regardless of the great effort made by Brazilian health authorities to control the AIDS epidemic, several problems are still occurring, and many opportunities are lost.

Our report clearly identifies some serious failures in the process: most of the parturient women were diagnosed only at the hospital, and even among those already known to be HIV positive, antiretroviral drugs were prescribed in only 72% of the cases. Most importantly, barely 10% of late-diagnosed women received any type of prophylaxis for MTCT, and 86% of them were lost to follow-up, resulting in a likely increase in the chance of MTCT through breastfeeding, as well as the probability of transmission to their sexual partners. Better surveillance of HIV-1 infections in pregnancy and careful follow-up of positive mothers and their infants are mandatory.

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