

The HIV paradox: perinatal mortality is lower in HIV+ mothers. A case-control study in Ethiopia

Marco Fonzo

M Fonzo¹, T Dalla Zuanna¹, M Sperotto¹, C Resti², A Tsegaye², G Azzimonti², F Manenti², G Putoto², C Bertoncetto¹

¹Hygiene and Public Health Unit, DCTVSP, University of Padova, Padua, Italy

²Doctors with Africa CUAMM, Padua, Italy

Contact: marco.fonzo@unipd.it

Background:

In Ethiopia, HIV prevalence is 1.2% in 15-49-year-old women, peaking at 3% in aged 40-44. Nationally, efforts have made to provide HIV testing and treatment to all HIV+ subjects, and prevention of mother-to-child transmission. This may imply a

closer monitor of health conditions for HIV+ pregnant women. Moreover, antenatal care (ANC) in the third trimester of pregnancy is associated with lower perinatal mortality (PNM). Considering this, we aimed at comparing PNM between HIV+ and HIV- mothers.

Methods:

The study was conducted in Wolisso Hospital, Oromiya Region, Ethiopia, a second level hospital with a 1,000,000-catchment area. Cases were all mothers who experienced a perinatal death before hospital discharge. For each case, two mothers who gave birth to a baby alive until discharge were selected as controls. A regression model was built, considering maternal age, rural-urban residence, grand multiparity, twin pregnancy, maternal ongoing chronic/infectious disease and provision of ANC as potential confounders.

Results:

Overall, 1175 cases and 2350 controls were included. HIV+ women (n=71; 2,0%) showed a crude OR=0.44 (95%CI: 0.24-0.81) for PNM and an adjusted aOR=0.50 (95%CI: 0.25-0.98) when controlling for the aforementioned confounders, including provision of ANC. While 69,0% of HIV+ women

received specific ANC, only 24,2% of HIV- women did ($p(\chi^2)<0.001$).

Conclusions:

Our findings show how the risk of PNM is 50% less in HIV+ mothers. Because of their HIV-positive-status, they are more likely to be in contact with healthcare providers and, thus, to have higher chances to be addressed to ANC services. A large part of the contribution seems to reside in activities directly related to HIV control. This evidence supports national policies against HIV and suggests a considerable improvement of PNM by extending high quality ANC to all pregnant Ethiopian women. Paradoxically, HIV stands out for being a health threat that reduces PNM.

Key messages:

- In Wolisso hospital, a second level general hospital in Ethiopia, babies born to HIV+ women have a -50% risk of perinatal death.
- Extending high quality ANC is worth the effort: removing barriers to access and reaching all pregnant women would lead to a massive reduction in perinatal mortality.