Primary prevention of HIV among HIV-negative pregnant and breastfeeding women

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BACKGROUND
Programmes supporting the prevention of mother-to-child transmission of HIV often focus on HIV-positive women after the initial HIV test, resulting in minimal support for HIV-negative pregnant and breastfeeding women, and a dearth of information on sero-conversion rates during the PMTCT period.

mothers2mothers (m2m) employs, trains, and helps to empower HIV-positive women as lay health workers. These “Mentor Mothers” work in local communities and at understaffed health facilities to ensure that women and their families get the health advice and medication they need, are linked to the right clinical services, and are supported on their treatment journey towards health and wellbeing.

Mentor Mothers provide a multitude of services to HIV-negative women:
- Group education sessions including HIV prevention messaging
- Pre-test education and linkage to re-testing services
- One-on-one and couple education sessions based on client needs (including risk reduction education)
- Education on other relevant maternal and child health topics including infant and child feeding, child spacing and family planning.

AIM
The aim of the study was to assess HIV prevention practices and the sero-conversion rate among HIV-negative pregnant women and breastfeeding mothers supported by the m2m program.

m2m’s ELECTRONIC CLIENT APPOINTMENT DIARY (APP1)
During each session with a client, the Mentor Mother records services delivered and health outcomes in m2m’s mobile health application, known as App1.

The App is instrumental in enhancing the scheduling of appointments and flagging missed appointments for active client follow up, particularly with regards to follow up for HIV re-testing according to country protocols.

METHODS
Sample
The sample consisted of 4,180 pregnant women and new mothers who were HIV-negative when they enrolled with m2m between January and June 2017, and attended at least two sessions with a Mentor Mother between enrolment and the end of 2017. Women who were HIV-negative at enrolment but opted out of m2m support were excluded from the analysis.

The sample was drawn from Eswatini, Lesotho, South Africa and Uganda. Use of the app varies by country, resulting in the geographical distribution of the sample shown below.

Analysis
All data for this analysis comes from the electronic client appointment diary.

Outcomes and behaviour among the cohort were analysed for an observation period of up to 12 months in a retrospective cohort analysis.

RESULTS
Maternal and infant sero-conversion
Three of 4,180 women (0.07%) sero-converted during the period - one from Eswatini and two from Lesotho. Both of these countries recorded lower rates of compliance to national testing guidelines.

All women were placed on ART, and their infants were given Nevirapine. Only the mother in Eswatini who sero-converted during the postnatal period transmitted the virus to her infant, who was initiated on ART.

CONCLUSIONS AND NEXT STEPS
Low sero-conversion rates among m2m clients demonstrate that there is a low risk of mother-to-child transmission of HIV amongst women who are HIV-negative when enrolling with m2m.

However, a substantial proportion of women have no knowledge of their partner’s HIV status (41%), placing them at high risk of HIV infection. Mutual disclosure of HIV status among sexual partners, routine HIV testing and adoption of a comprehensive package of combination HIV prevention remain critical among this group.

Furthermore, in order to better understand the full impact of the effect of lay health worker support in HIV prevention among pregnant and breastfeeding women, further research is required into the proportion and characteristics of HIV-negative women who decline m2m support, as well as those who sero-convert while in care.

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