

Introduction

Despite declining HIV mother-to-child transmission in South Africa, challenges still persist, including 4.3% transmission at 18 months, poor maternal retention and low infant testing uptake. To address these challenges, MSF, City of Cape Town Health and mothers2mothers developed postnatal clubs (PNC) in Khayelitsha, a low-income, high HIV prevalence area in South Africa.

Methods

We compared maternal and infant outcomes between PNC and a group of historical controls, in Khayelitsha:

| Postnatal clubs | Controls |
|--|---|
| The Mother-Infant Pairs (MIPs) were HIV positive mothers and their HIV-uninfected exposed infants | |
| MIPs enrolled in PNCs from June 2016-December 2018 | MIPs with babies born from November 2015 to June 2016 with a negative 6-week PCR |
| The model comprises of psychosocial support, early childhood development, and integrated maternal and child health | Infants tested with birth PCR through another study and referred back into standard of care. Results of subsequent infant tests and mother's viral load followed up |
| A peer mentor facilitates a group session of 3-11 MIPs and each MIP consults with a nurse | Mothers counselled on infant testing at birth and traced if infants were not known to have tested |

- We evaluated the additional cost burden to the health facility of PNCs

Definitions:

- **Maternal VL completion:**
 - 12 months: 7-365 days after delivery
 - 18 months: 12-18 months after delivery
- **Maternal viral suppression:** <400 copies/mL
- **Infant rapid test completion at 9 months (8-10 months old) and 18 months (17-19 months old)**
- **For both cohorts, we excluded babies that seroconverted from subsequent testing denominators.**

PNCs provided women with peer support and integrated care, and significantly improved maternal viral load monitoring & infant testing at a minimal cost.



Results

Table 1: Maternal VL completion and suppression and infant testing in postnatal clubs and historical controls

| | Historical controls n=221 | Postnatal clubs n=141 | Risk Ratio (95% CI) [PNC/controls] |
|---------------------------------------|------------------------------|--------------------------|--|
| Infants | | | |
| 9 months rapid completion (8-10mth) | 112/221 (51%) | 114/141 (81%) | 1.6 (1.4-1.9) |
| 18 months rapid completion (17-19mth) | 70/220 (32%) | 90/140 (64%) | 2.0 (1.6-2.6) |
| Seroconversions* | 2 | 1 | |
| Mothers | | | |
| 0-12month viral load completion | 149/221 (67%) | 140/141 (99%) | 1.5 (1.3-1.6) |
| 0-12 month viral load suppression | 141/149 (95%) | 134/140 (96%) | 1.0 (0.96-1.1) |
| 12-18month viral load completion | 65/221 (29%) | 107/141 (76%) | 2.6 (2.1-3.2) |
| 12-18 month viral load suppression | 63/65 (97%) | 101/107(94%) | 0.97 (0.9-1.0) |

*Control group: two infants seroconverted before 18 months.. *PNC cohort: one infant seroconverted (after exiting the PNC) before their 18 months test

Table 2: PNC costs to the health facility, on top of normal running costs

| | ZAR |
|--|----------------|
| Costs due to PNC | 1783.55 |
| HR | 0.00 |
| Fixed Costs (medical and non medical) | 995 |
| Consumable costs (medical and non-medical) | 788.55 |
| Total number of babies per PNC | 250 |
| Cost per infant per year | 7.13 |

- PNCs entailed minimal additional cost.
- To address the last mile towards elimination of MTCT, PNC is a cost effective integrated model.

PEE1635

