Demand Side Interventions for the Prevention of Mother to Child Transmission of HIV

Halea Meese
Public Health
Mentor: Nancy Padian, Public Health
August 22, 2011

The rate of mother to child transmission of HIV/AIDS is 20–45% without any intervention, but effective prevention measures can drastically reduce the rate of transmission to 2% in non-breastfeeding populations and 5% in breastfeeding populations [6]. Treatment measures for the prevention of mother to child transmission (PMTCT) include the use of antiretroviral drugs (ARVs) by the mother during pregnancy, labor, delivery, and for the infant after delivery as well as the adoption of safer breastfeeding practices and the use of ARVs as prophylaxis. Despite the availability of prevention measures, roughly 370,000 children per year are newly infected with HIV [6]. Supply side problems are decreasing due to an expanded funding commitment from the global community, but demand side issues persist such as under-enrollment of eligible women in PMTCT programs and loss to follow-up (LTFU). PMTCT begins as a woman is offered an HIV test, accepts the opportunity to take the test and receives her results. In order to complete the PMTCT cascade, an HIV-infected pregnant woman must then accept treatment, adhere to it, and assuming her pregnancy is successful, adhere to infant treatment and adopt safe breastfeeding practices or replacement feeding [4].

Objective

Thus far, no reviews have summarized the various methods to increase uptake and retention of HIV positive women in PMTCT programs, known collectively as “demand creation interventions.”

Stage 1: In PubMed, systematically review all interventions focused on improving rates of uptake, retention rates, rate of completion of ARV therapy, decreasing rates of LTFU and if available MTCT rate of the participants.

Stage 2 (in progress): Conduct a search of other relevant databases, including ongoing trials and grey literature, scan reference lists.
Demand Side Interventions for the Prevention of Mother to Child Transmission of HIV

Halea Meese1
Advisor: Nancy Padian2
1College of Letters and Science, University of California, Berkeley 2School of Public Health, University of California, Berkeley

BACKGROUND

The rate of mother to child transmission of HIV/AIDS is 20-45% without any intervention, but effective prevention measures can drastically reduce the rate of transmission to 2% in non-breastfeeding populations and 5% in breastfeeding populations [1]. The rate of mother to child transmission of HIV is 20-45% without any intervention, but effective prevention measures can drastically reduce the rate of transmission to 2% in non-breastfeeding populations and 5% in breastfeeding populations [1].

METHODS

• Types of Studies
  - Types of Interventions
  - Types of Studies
• Criteria for Considering Studies for this Review
  - Primary Outcomes:
    - Number of pregnant women who:
      - completed a course of ARV prophylaxis for PMTCT
      - received infant doses of ARV during antenatal care
      - provided with a complete course of ARV prophylaxis for PMTCT
    - received HIV counseling and testing for PMTCT and received their test and results
    - an increase in the rate of ARV therapy completion and decrease in LTFU is reported

RESULTS

Stage 1 of the search strategy produced 906 studies, of which 627 titles and abstracts were screened after the removal of duplicates. Three full-text articles were screened while the remainder were excluded because they did not meet inclusion criteria. A total of one article was included in the systematic review (one article was excluded as it was ahead of print and one was excluded since the inclusion criteria for data were not met). The included study was a prospective cohort study conducted by Aluisio et al. in Nairobi, Kenya and focusing on partner invitation to antenatal care [1].

Discussion

Though extensive research has been conducted on the three included interventions, a dearth exists in that focused on mother to child transmission of HIV. Broader inclusion criteria of intervention types would provide a better summary of demand side interventions. Findings from qualitative studies may provide good starting point for future interventions and thus should be incorporated into analysis.
References


