MINISTRY OF HEALTH
National AIDS & STI Programme

Impact and economic evaluation of the Kenya Mentor Mother Program (KMMP)

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Background

Eliminating mother-to-child transmission of HIV is possible through ensuring that pregnant mothers know their HIV status, early ART initiation for the HIV-positive, adherence to treatment and retention in care of mother-baby pairs. The UNAIDS Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive (Global Plan) strongly advocates for the meaningful involvement of women living with HIV in the response and specifically in eMTCT (NASCOP 2012). Peer support is seen as critical for all these interventions. Kenya's Ministry of Health launched National guidelines for peer education and psychosocial support in PMTCT (The Kenya Mentor Mother Program -KMMP) in 2012. An external economic and impact evaluation was done of the KMMP in 2014.

Study Objectives

The study had three specific objectives, as below:

1. To compare the health outcomes and impacts of the KMMP intervention to the non-KMMP intervention.
2. To compare the outcomes and impact related to psychosocial wellbeing and empowerment of the KMMP intervention to the non-KMMP interventions. .
3. To conduct an economic evaluation of scaling up KMMP.

Methods

Quasi-experimental design was used. Eight KMMP intervention facilities were compared to eight implementing non-KMMP model matched on geography, HIV epidemiology and facility type. 2,997 mothers (1,541 in KMMP and 1,456 in non-KMMP facilities) with children aged 18 to 24 months were recruited. Facility ART, ANC and HIV exposed Infant (HEI) registers, HEI cards, and HIV care patient card were reviewed. Using standardized questionnaire patients' psychosocial wellbeing was assessed. Cost data were collected from stakeholders, patient and facility interviews, and a review of facility fiscal records. The effect estimates of KMMP intervention on MTCT were estimated using a multivariate logistic regression model, and generalized linear regression models were used to detect differences in the psychosocial well-being of pregnant and new mothers in the intervention and control groups. Three forms of economic evaluation were conducted namely; a) cost-effectiveness analysis; (b) cost- utility analysis (CUA); and (c) cost-benefit analysis.

Results

ASSESSMENT OF HEALTH AND PSYCHOSOCIAL IMPACT

The final mother-to-child transmission rate (at the 18 – 24 month infant test) was 49% lower in KMMP compared to non-KMMP facilities (AOR = 0.51, 95% CI 0.32- 0.81; p = 0.005), Figure 1. Maternal and infant ARV uptake was also 1.42 (95% CI 1.06-1.91; p=0.019) and 1.89 (95% CI 1.30-2.75; p= 0.001) times higher in KMMP facilities compared to non-KMMP facilities. **The risk of poor psychosocial adjustment to HIV among mothers in KMMP sites was 60% lower than that of mothers in non-KMMP sites (AOR = 0.4, 95% CI 0.2-0.8).**

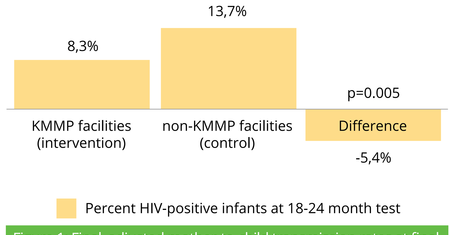
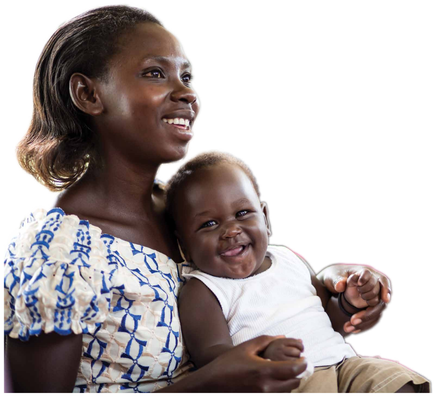


Figure 1: Final, adjusted mother-to-child transmission rates at final (18 - 24 month) infant test in KMMP versus non-KMMP facilities.

ECONOMIC EVALUATION

The annual cost incurred per client by the facility to provide KMMP intervention was estimated at KES 13,759.17 (USD 146.37) compared to KES 11,033.85 (USD 117.38) in non-KMMP facilities. The Incremental Cost per Disability Adjusted Life Year (DALY) averted using KMMP intervention compared to non-KMMP intervention was KES 20,327.74 (USD 216.25). **The observed cost-benefit ratio for KMMP was 7, thus a net savings in treatment costs of HIV positive children over their lifetime**



Conclusions & Recommendations

The KMMP model for peer education and psychosocial support in PMTCT results in greater reduction in 18 to 24month MTCT rate, positive maternal and infant health outcomes as well as improved maternal psychosocial wellbeing compared to non-KMMP forms of psychosocial support. The KMMP model is also more cost-effective and cost beneficial compared to PMTCT services provided in non KMMP facilities. The evidence generated provides a strong justification for the scale up of KMMP nationwide in Kenya.

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