



MALAWI: DISTRICT HEALTH SYSTEM STRENGTHENING AND QUALITY IMPROVEMENT FOR SERVICE DELIVERY



TECHNICAL HIGHLIGHT
MARCH 2018

EVALUATING THE EFFECTIVENESS OF OPTION B+: A NATIONAL STUDY

Photo by Cindy Shiner / MSH

Background

In 2011, Malawi pioneered an ambitious test-and-treat approach for pregnant and breastfeeding women, known as Option B+. Under this strategy, all HIV-infected pregnant and breastfeeding women are provided with lifelong antiretroviral therapy (ART) regardless of their CD4 count or clinical stage. The District Health System Strengthening and Quality Improvement for Service Delivery (DHSS) Project, led by Management Sciences for Health (MSH) in partnership with Dignitas International, supported Malawi's Ministry of Health (MOH) in the development and roll-out of the approach. It contributed to a more than five-fold increase in the number of pregnant women enrolled on ART in the first quarter of full nationwide implementation.

Option B+, now endorsed by the World Health Organization and implemented in many developing countries, simplifies treatment guidelines and prioritizes the health of pregnant women and mothers. Understanding the impact of the approach

and factors associated with infant transmission in women on ART is increasingly important as countries apply Option B+ and seek to eliminate mother-to-child transmission of HIV

The MOH and CDC developed an evaluation of the effectiveness and impact of the national prevention of mother-to-child transmission (PMTCT) program in Malawi, which is based on the Option B+ approach. DHSS, funded by the President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Centers for Disease Control and Prevention (CDC), implemented the study, which is called the National Evaluation of the Malawi PMTCT Program (NEMAPP).

NEMAPP, the first nationally representative impact study of the Malawi PMTCT program, was necessary as Option B+ has many anticipated advantages, but was never tested before it was rolled out. The findings have been used primarily to inform the

management of Malawi's integrated ART/PMTCT program. In addition, the study provides critical insight into the impact and effectiveness of a test-and-treat approach at the population level.

Approach

NEMAPP was implemented in 54 health facilities—a representative sample of Malawi's health services—beginning in October 2014. The study examined mother-to-child transmission rates and HIV-free survival rates among approximately 3,400 HIV-exposed infants and young children. The mothers and infants enrolled in the study take antiretroviral (ARV) medication, which significantly reduces the risk of transmitting HIV during pregnancy, labor, delivery, and breastfeeding. NEMAPP followed the mothers and their babies until 24 months of age or weaning.

NEMAPP also compared the use of PMTCT services, including uptake of antenatal testing and ART, and mother-to-child transmission rates between adolescent and young mothers and their babies and examined factors related to disclosure between partners.

Results

This highlight examines the initial findings of NEMAPP as the study has not concluded and analysis of data and preparation of the final report is ongoing.

NEMAPP found that over 88% of HIV-infected pregnant women were on ART in pregnancy. Overall, early mother-to-child transmission was 3.7% in infants 4-12 weeks old. Transmission rates varied according to the timing of ART initiation by the mother; from 1.4% among women who started ART before pregnancy, to 2.5% among women on ART during pregnancy, to 19.0% among women who were not on ART during pregnancy.

Over half of mothers attending under-five clinics in Malawi are below the age of 25. HIV prevalence is much lower among young and adolescent mothers compared to older mothers, but the risk of missing antenatal HIV testing and uptake of early infant diagnosis appears higher among younger and adolescent women.

Routine monitoring in the HIV program shows that rates for retention in care among women starting ART as part of Option B+ are lower than for the overall population of people starting ART. After 12 months, 77% of adults starting ART are retained compared to 75% of women starting ART as part of Option B+.¹

NEMAPP also found that partner disclosure was central to women's decisions to start, continue, and adhere to ART. Women who have not openly discussed their partner's HIV

status were more likely to have poor PMTCT utilization, low treatment adherence, and transmit the virus to their child, indicating that disclosure between partners may mediate the effectiveness of PMTCT, potentially through the mother's adherence to ARVs.

Challenges

As in many countries, challenges remain with keeping HIV-infected mothers and their children in treatment over the long term and routinely testing HIV-exposed children. Because of HIV-related stigma, mothers fear that they and their children will be ostracized from their communities if their HIV status becomes known. In some cases, providers have observed that mothers stop taking medication because they feel healthy or because they don't want others to ask questions if it's discovered.

Project-supported health facilities have succeeded in improving retention by having defaulter tracing mechanisms in place. This has reduced the number of missed appointment dates, preventing defaulting, and ensuring success of the program through improved adherence to ART and hence greater success of HIV treatment.

Conclusion

Initial results of the NEMAPP study show that Malawi's PMTCT program is successful. HIV testing and ART uptake among pregnant women is very high, and vertical transmission is low. Young women need extra attention as the risk of missing antenatal HIV testing is higher among younger and adolescent women, even though HIV prevalence is much lower among these two groups compared to older mothers.

The qualitative study revealed that decisions around starting and remaining on lifelong treatment, breastfeeding, and reproductive intentions remain deeply entrenched within gender and cultural norms. NEMAPP recommends that additional efforts at balancing joint decision-making between women and their partners, and involving male partners at every step of the testing and care continuum, are essential to improving long-term retention in Option B+ and other test-and-treat programs.

Option B+ has given hope to mothers across Malawi that they can remain healthy for their children, and that their children will be able to live HIV free. However, their good health hinges on early uptake of PMTCT services, good adherence, and long-term retention in care—all of which the DHSS Project and NEMAPP have helped to address.

This summary highlight was prepared by Ernest Nkhoma, Monique van Lettow, and Erik Schouten.

1. Integrated HIV Program Report April - June 2017

Additional information can be obtained from:
Management Sciences for Health
Aziz Abdallah, Project Director, aabdallah@msh.org
Lilongwe, Malawi