

**Track and Category Information: C: Prevention Science; C4: Increasing Coverage and Quality of PMTCT Programs**

**Title: Roll out of prevention of mother-to-child transmission (PMTCT) services in Tanzania using a District Approach; achievements, effectiveness, costs and lessons learned**

**Authors:** Jeroen van't Pad Bosch, Agatha Haule, Betty Muze, Atuswege Mwangomale, Gaspard Mbita, Werner Schimana, Patrick Swai, Lindsay Bonanno

**Background:** The Foundation began supporting Tanzania's national PMTCT program in 2002 through the USAID global Call-To-Action initiative. Following national decentralization policies, the Foundation supported capacity building and ownership of district health institutions through sub-grants and technical advice for the implementation of PMTCT services, integrated with Reproductive and Child Health Services (RCH), resulting in establishment of more than 1,000 PMTCT sites in five regions currently serving 368,000 women per year.

**Methods:** To evaluate program achievements, effectiveness and costs since the start of the program, we conducted a literature review and in-depth interviews with local stakeholders and reviewed routine service delivery data and data on the Foundation's actual program expenses; data from the different collection methods were triangulated.

**Results:** PMTCT services are accessed by 83%–91% of eligible women. Most sites have no C&T or PCR testing onsite. Twenty-two percent of HIV-positive women and 61% of HIV-exposed infants were not receiving HIV prophylaxis, where home deliveries, policy barriers and challenges in M&E and supply chain systems were identified as potential influencers. Based on 1,500 infant PCR results (2008 – 2010), HIV transmission rates were as follows:

- 15% (44/294) among infants whose mothers received no prophylaxis
- 9.2% (65/709) among infants of mothers who had received sdNVP
- 3.4% (13/387) among infants of mothers who had received more efficacious regimens
- 0.9% (1/110) among infants whose mothers were receiving ART

Using the EPSUM model, the cost per woman served was estimated at US\$31.00. Cost per infection averted varied with sero-prevalence (s.p.) and prophylactic regimen used, from US\$7,811 (5% s.p.; more efficacious regimens) to an exceptional US\$124,525 (1% s.p.; sdNVP).

**Conclusions:** A rapid scale-up of integrated PMTCT services is feasible, but ongoing effort and funding needs to be directed towards further health systems strengthening, policy changes, and increased availability of PCR testing, C&T and quality RCH services.