A Better Deal for Mothers and Children
Modelling the Cost-effectiveness of Civil Society Organizations for Delivering PMTCT Services in Kenya

Jonathan Call, Altea Cico, Aida Yemanberhan1, Stephen Musau, Sophie Faye, Carlos Avila1
1 Abt Associates, 2 John Snow Inc., 3 The Elizabeth Glaser Pediatric AIDS Foundation.

Background
- Civil Societies (CSOs) are non-governmental organizations (NGOs) that play a significant role in providing health-related services, especially in settings where the government or private sector may not be able to provide adequate coverage.
- The practice of contracting CSOs in Kenya is gaining momentum in order to improve the coverage and quality of services.

Objectives
- To assess the cost-effectiveness of PMTCT services provided by CSOs compared to those provided by the public sector.
- To inform decision-makers about the most cost-effective strategy for expanding coverage of PMTCT services in Kenya.

Summary Effectiveness of PMTCT Interventions by Ownership Model

<table>
<thead>
<tr>
<th>Intervention</th>
<th>CSO</th>
<th>Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART for Mothers</td>
<td>330.40</td>
<td>349.35</td>
</tr>
<tr>
<td>HIV Counselling and Testing</td>
<td>19.05</td>
<td>17.64</td>
</tr>
<tr>
<td>CTX prophylaxis</td>
<td>34.21</td>
<td>42.58</td>
</tr>
<tr>
<td>NVP prophylaxis</td>
<td>UA</td>
<td>UA</td>
</tr>
<tr>
<td>ART for Children</td>
<td>412.43</td>
<td>471.50</td>
</tr>
</tbody>
</table>

Costs of PMTCT Components by Ownership Model

Cost-effectiveness Analysis
- Overall, most PMTCT components were more costly in public facilities except for HIV counselling and testing.
- The applied summary ratios to effectiveness measures from public facilities cited in published literature.
- The ICER of CSO-PMTCT services compared to public PMTCT facilities is US$ 823.40 per life year saved.

Decision Model

Methodology
- Developed an activity-based costing approach dividing PMTCT into six components: 1. HIV counselling and testing, 2. antiretroviral treatment for the mother, 3. early infant diagnosis, 4. NVP prophylaxis for the infant, 5. CTX prophylaxis for the infant, and 6. ART for the child.

Conclusions
- The ICER of CSD-PMTCT services is below the QALY per capita in Kenya (US$ 1,246).
- This suggests that contracting CSOs in Kenya is a highly cost-effective strategy for expanding coverage of PMTCT services.
- CSOs could have an important role to play in preventing mother-to-child transmission of HIV and achieving an AIDS-free generation.

Data Sources
- National health facility costing exercise conducted in Kenya by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).
- Collected secondary costing data from both adult and child HIV programs.
- Developed an approach for converting the outputs of the probability tree model into an incremental cost-effectiveness ratio (ICER) that can be used by policymakers.

Note: This model is for demonstration purposes only.