Infant HIV Outcomes at 18 Months and PMTCT service factors at Lumumba Health Centre, Kisumu, Kenya

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Background

- Every year 3.2 million children get infected with HIV. Worldwide, 90% of the infections occur in Africa.
- In Kenya, of approximately 1.5 million children born annually:
  - an estimated 50,000 to 60,000 infants are exposed to HIV and in need of Prevention of Mother-to-Child Transmission (PMTCT).
- Nearly all infant HIV infections occur through mother-to-child transmission (MTCT).
- Without PMTCT interventions, 20% of infants infected with HIV will ultimately die before their second birthday.
Objectives

- To determine the HIV point prevalence among exposed infants born to HIV-infected mothers who attended a PMTCT clinic
- To evaluate predictors for HIV acquisition

Photo by Beth Novey
Methods

- Retrospective cross sectional study
- Lumumba Health Centre, Kisumu East
  - 80 women seen daily in antenatal (ANC)
- Sample randomly selected using STATA
  - Inclusion criteria: HIV exposed infants (HEI) who attended PMTCT clinic within 27 months retrospectively from the time of evaluation – Jan 2012
- Data abstracted from HEI electronic database, mother & baby patient charts and registers
Cont. Methods

- Infant HIV outcome
  - 18-month antibody test postnatally

- Predictors
  - Delivery location
  - Infant feeding mode
  - Infant ARV prophylaxis

- Analysis
  - Fisher’s exact
  - Epi Info
Results – Point Prevalence

- 138 HEI examined
  - Of which 12 (9%) were HIV positive
# Results - Predictors

## Table 1: Findings

<table>
<thead>
<tr>
<th>Predictor</th>
<th>HIV Status</th>
<th>Fisher’s Exact test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delivery Location</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>N=12 (9 %)</td>
<td>N=126 (91 %)</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>3</td>
<td>89</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Home</td>
<td>9</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td><strong>Infant feeding</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive Breastfeeding</td>
<td>2</td>
<td>100</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td><strong>ARV prophylaxis given to infant</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>96</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>
Conclusions

- Infants born to HIV positive mothers are significantly less likely to acquire HIV if:
  - Delivered in a hospital,
  - Receive ARV prophylaxis, and
  - Practice exclusive breastfeeding

- Uptake of these proven preventive interventions needs strengthening to accelerate elimination of MTCT
Limitations of the Evaluation

- The sample size was small, hence it is hard to generalize the findings
- The study was conducted in one facility
- There was no comparison group in this study
Acknowledgements

“I would like to acknowledge our donors, partners, staff and patients at FACES, KEMRI and UCSF, who continuously support the program at Lumumba”
Acknowledgements

- For more information on the FACES programme, please visit www.faces-kenya.org

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention