Maternal and health system factors influencing intention to obtain Early Infant Diagnosis at 6 weeks among HIV infected mothers

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Best Practices and Innovations in Paediatric HIV and TB Care and Treatment Meeting

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• Early infant diagnosis (EID) of HIV infection is essential for ensuring timely ART initiation and reducing morbidity and mortality among HIV-infected children

• SA EID guidelines have evolved:
  – 2004 routine HIV PCR test of HIV exposed infants (HEI) at 6wks
  – 2015:
    • routine birth testing for HEI +
    • testing at 10 weeks, 16-18 weeks, 6-weeks post breastfeeding cessation and 18 months

• EID coverage is still low in most sub-Saharan African countries

• Missed opportunities for EID have been reported

• Maternal intention to obtain EID is an important measure of compliance with follow-up and retention
AIM

To evaluate patterns, and maternal and health system factors associated with intention to obtain EID at the 6 week visit
METHODS

Design
- Secondary data from 3 cross-sectional facility-based national PMTCT surveys in 2010, 2011-12, and 2012-13
- Multistage probability proportional to size sampling.
- 580 facilities per survey randomly selected to yield the desired sample size\(^1,2\)
- Mother/caregiver pairs enrolled during 6wk postpartum immunization visit

Analysis
- **Outcome** – intention to obtain EID, based on responses to the question (non-exclusive):
  - “why did you bring this child to the clinic today?”…
    - 1 “immunization” 2 “HIV test” and 3 “other reasons”
  - Response category 2 was considered as intention to obtain EID at the 6 weeks visit
- Analysis restricted to mothers with self-reported HIV+ status
- Multivariable logistic regression model used to estimate factors associated with outcome

METHODS

Framework: Theory of Planned Behavior (TPB)*

Results

8044 (28.8%) HIV+ mothers:
- 2010 – 2690 (28.2%)
- 2011/12 – 2557 (27.6%)
- 2012/13 – 2797 (30.4%)

Mean age: 26.04 years (SD: 6.3)
Education: 77.4% high school
Marital status: 78.4% single
Place of delivery: 78.8% hospital

Disclosed HIV status: 85.5%
Knows modes of MTCT: 59.5%
RtHB – maternal HIV recorded: 57.8%
RtHB – infant prophylaxis recorded: 57.7%
Proportion of HIV+ mothers who intentionally brought child to receive EID at 6-week immunization visit, stratified by year and province
### Factors associated with mother’s intention to request EID service at 6-week immunization visit among HIV+ mothers

<table>
<thead>
<tr>
<th>Selected characteristics</th>
<th>Adjusted OR (95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct knowledge of MTCT modes (ref=No)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td><strong>1.37 (1.13-1.65)</strong></td>
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<tr>
<td>Place of delivery (ref=hospital)</td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>0.75 (0.56-1.00)</td>
</tr>
<tr>
<td>Clinic</td>
<td><strong>1.22 (1.04-1.43)</strong></td>
</tr>
<tr>
<td>Received support from CHW (ref=No)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0.81 (0.71-0.92)</td>
</tr>
<tr>
<td>Infant PMTCT Prophylaxis Recorded in RTHB (ref=No)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td><strong>1.51 (1.33-1.73)</strong></td>
</tr>
<tr>
<td>Survey year (ref=2010)</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>0.89 (0.76-1.03)</td>
</tr>
<tr>
<td>2012</td>
<td><strong>1.59 (1.37-1.84)</strong></td>
</tr>
</tbody>
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*adjusted for maternal education, age, province and year significant factors in red
CONCLUSIONS

• The increase in intention to obtain EID during immunization visits is very positive
  – suggests improvements in the integration between routine MCH services and HIV-related care
  – However, the proportion was still below half (50%)

• **Best practices** identified that could be reinforced across provinces:
  ➢ *Improving maternal HIV knowledge,* and
  ➢ *optimizing use of RtHB through documenting infant PMTCT prophylaxis*
  – This is especially important in the context of new SA guidelines for EID, which recommend EID at birth, 10 weeks, 6 weeks post-breastfeeding cessation and at the 18-month immunization visit.
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