SCALING-UP NATIONAL PMTCT PROGRAM

Phasing more efficacious ARV regimen for PMTCT in resource limited setting

Lessons Learned from RWANDA

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Outlines

• Background
• National HIV/AIDS response
• PMTCT program milestones
• PMTCT program strategies
• Key results
• Lessons learned
• Challenges
• Way forward
Background - Rwanda

- East African country of **26,338 km²**
- Population: **9,100,000 inhabitants.**
- Rural population: **83 %** (DHS III, 2005)

**Administrative framework**
- 4 provinces and Kigali Council
- 30 districts
- 415 sectors/cells/villages.

**Economy**
- 52% live under the poverty line.

**Access to clean water**
- Urban area: **61%** (DHS, 2005)
- Rural area: **29%** (DHS, 2005)
Maternal and Child Health Indicators, Rwanda, (DHS 2005)

- Fertility rate
  - 6.1 children per woman

- ANC visit (2 or 3 in pregnancy)
  - 68% (95% with > 1 visit)

- Age at first ANC visit
  - 50% at 6.4 months
  - 9% after 8 months

- Delivery in a health facility
  - 56% (Urban) vs. 25% (Rural)

- Immunization coverage in children
  - 97% for BCG and DPT1
  - 86% for measles
HIV prevalence by Age and Sex
Rwanda, (DHS, 2005)

- HIV prevalence increases with age
  - Highest in women in age group 35-39 (6.9 %)
  - Highest HIV prevalence in age group 40-44 (7.1 %)

- HIV prevalence sex ratio (F/M):
  - 3.6/2.3

- HIV prevalence in pregnant women:
  - 4.8%

- HIV-exposed infants annually
  - 17,000 (TRAC 2005)
National HIV/AIDS Response

• 1987-2000:
  – National AIDS Control Program (NACP).

• 1999:
  – First PMTCT site opened.

• 2001:
  – National AIDS Control Commission (NACC)
  – Treatment and Research on AIDS Centre (TRAC)

• 2005:
2. TRAC defines National goals for PMTCT

1. PMTCT pilot project (Kichukiro)

3. Initial expansion of the Sd-NVP regimen to decentralized level

4. - Introduction of More Efficacious ARV regimens for PMTCT;
   - ART Scaling-up

5. - National expansion of PMTCT services;
   - Introduction of early infant diagnostic (DBS-PCR)
Package of services for Mother-infant pair in the PMTCT program, Rwanda

### HIV+ pregnant women
- Routine opt-out counseling and HIV testing (Promotion of partner testing)
- Laboratory investigation: FBC, CD4 count (when available), routine pregnancy check-up
- Routine pregnancy medications: Malaria prevention (IPT + Bednets), anemia prevention (Iron/Folic acid), etc..
- ARV prophylaxis
  - HAART for women eligible
  - Biprophylaxis (AZT+SdNVP; Tail AZT/3TC)
  - Sd-NVP ; Tail AZT/3TC (discordant couple, labor room CT)
- Safe practices delivery
- Infant feeding counseling and support
- Family planning services
- Psychosocial and adherence support

### HIV-exposed infants
- Post-exposure prophylaxis
  - Sd-NVP + AZT (4 weeks)
- Drug package (CTx prophylaxis)
  - CTx starts at 6 weeks
- Clinical monitoring
  - Growth monitoring
  - Symptoms of early HIV infection
- Early Infant diagnostic (DBS-PCR)
  - DNA-PCR
    - PCR1: at 6 weeks
    - PCR2: 6 weeks after end of BF
- Serology
  - 9 months (1rst)
  - 18 months (2nd)
Clinical and biological criteria for HAART initiation in HIV+ pregnant women in Rwanda

<table>
<thead>
<tr>
<th>WHO clinical stages</th>
<th>CD4 testing not available</th>
<th>CD4 testing available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do not treat</td>
<td><strong>Treat</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>if CD4 cell count &lt; 350 cells/mm³</td>
</tr>
<tr>
<td>2</td>
<td>Do not treat</td>
<td><strong>Treat</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>if CD4 cell count &lt; 350 cells/mm³</td>
</tr>
<tr>
<td>3</td>
<td>Do not Treat</td>
<td><strong>Treat</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>if CD4 cell count &lt; 350 cells/mm³</td>
</tr>
<tr>
<td>4</td>
<td>Treat</td>
<td><strong>Treat</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>irrespective of CD4 cell count</td>
</tr>
</tbody>
</table>
ARV prophylaxis guidelines for the PMTCT program in Rwanda (Since Sept 2005)

<table>
<thead>
<tr>
<th>Clinical scenario</th>
<th>Regimen for Mother</th>
<th>Regimen for Infant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant women with indications for ART (CD4 count&lt;350 cells/ul)</td>
<td>AP[1]: AZT+3TC+NVP</td>
<td>Sd-NVP + AZT x 4 weeks</td>
</tr>
<tr>
<td></td>
<td>IP[2]: AZT+3TC+NVP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP[3]: AZT+3TC+NVP</td>
<td></td>
</tr>
<tr>
<td>Pregnant women (28wks-34wks) who are not yet eligible for ART (CD4 count&gt;350 cells/ul)</td>
<td>AP: AZT starting at 28 weeks or as soon as feasible thereafter</td>
<td>Sd-NVP + AZT x 4 weeks</td>
</tr>
<tr>
<td></td>
<td>IP: Sd-NVP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP: AZT/3TC x 7 days</td>
<td></td>
</tr>
<tr>
<td>Pregnant women tested HIV+ after 34 weeks (late arrival)</td>
<td>AP[1]: AZT+3TC+NVP</td>
<td>Sd-NVP + AZT x 4 weeks</td>
</tr>
<tr>
<td></td>
<td>IP[2]: AZT+3TC+NVP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP[3]: AZT/3TC x 7 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>(Interrupt HAART after delivery if not eligible for life)</strong></td>
<td></td>
</tr>
<tr>
<td>HIV women seen in labor who have not received ARV prophylaxis/Women in discordant couple</td>
<td>IP: Sd-NVP</td>
<td>Sd-NVP + AZT x 4 weeks</td>
</tr>
<tr>
<td></td>
<td>PP: AZT/3TC x 7 days</td>
<td></td>
</tr>
</tbody>
</table>

1- AP: Ante-Partum; 2- IP: Intra-Partum; 3- PP: Post-Partum
1. 3 types of sites:

- ART and PMTCT sites: start directly and women follow up is done by Care & treatment personnel.
- New PMTCT sites: Start the PMTCT activities with the new regimen
- Old PMTCT sites without ART:
  - Training of providers by a team from the district hospital
  - After this training: samples are transferred for CD4 count and FBC before starting the treatment.
  - A Doctor from a District hospital has to go to the PMTCT sites every 15 days to give an ART to women in need.
2. To put in place a TOT agenda

3. To put in place an training agenda for Health Care providers.

4. To put in place a Doctors team to assist HC to initiate ART for HIV+ pregnant women and their follow up.

5. To develop M&E tools for the new ART regimen.
Trend in health facilities with PMTCT services, National PMTCT program, Rwanda (1999- May 2008)

Geographic Coverage: 71% (May 2008)
Uptake of HIV counseling and testing in ANC among women, National PMTCT program, Rwanda (2003 – May 2008)

- 2003: 84%
- 2004: 80%
- 2005: 90%
- 2006: 95%
- 2007: 95%
- May-08: 97%
CD4 Testing among HIV+ Pregnant Women in 18 health facilities in Rwanda, Jan - Sept 2007 (cumulative 613 HIV+ women) (as an example)
Trend in ARV prophylaxis among HIV+ mothers, National PMTCT program, Rwanda (2007)
Health facility deliveries among HIV+ women vs. all women, National PMTCT program, Rwanda (2005 – May 2008)

- % health facility delivery among all women
- % health facility delivery among HIV+ women

<table>
<thead>
<tr>
<th>Period</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>May-08</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47%</td>
<td>60%</td>
<td>68%</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>61%</td>
<td>87%</td>
<td>77%</td>
</tr>
</tbody>
</table>
Coverage of ARV prophylaxis among HIV-exposed Infants, National PMTCT program, Rwanda (2005- May 2008)

<table>
<thead>
<tr>
<th>Period</th>
<th># Expected children</th>
<th>% Expected children</th>
<th># Children received</th>
<th>% Children received</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>58%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>83%</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>2007</td>
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<td>May-08</td>
<td>87%</td>
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Infant feeding practice at birth among HIV+ mothers, National PMTCT program, Rwanda, (2005 – May 2008)

- **Period 2005:**
  - % Exclusive Breast feeding: 85%
  - % Exclusive Artificial Feeding: 15%

- **Period 2006:**
  - % Exclusive Breast feeding: 82%
  - % Exclusive Artificial Feeding: 18%

- **Period 2007:**
  - % Exclusive Breast feeding: 86%
  - % Exclusive Artificial Feeding: 14%

- **Period May-08:**
  - % Exclusive Breast feeding: 88%
  - % Exclusive Artificial Feeding: 12%
Lessons learned

• Coordination
  – Leadership of MOH (TRAC Plus)
  – An active technical working group

• Shifting to more efficacious ARV regimens requires
  – High political leadership
  – Decentralization of CD4 count system to district level
  – Reorganisation of services
  – Development of job aids and revision of monitoring tools

• Exposed infant follow-up need to be instituted and integrated within MCH to improve
  – CTX prophylaxis coverage
  – Early infant diagnostic
  – Infant feeding counselling and support

• Community-based Health Insurance schemes
Challenges

• Scaling up the more efficacious regimen will require more decentralized capacities for laboratory (CD$_4$ count, biochemistry, etc.),
  – Insufficient number of laboratories performing CD$_4$ count compared to the number PMTCT sites.
  – Means of transport
  – Samples for CD4 count don’t reach the laboratory the same day they are taken.
  – Delay of the results

=> DELAY IN TREATMENT FOR PREGNANT WOMEN
Challenges (cont’d)

• Scaling up early infant diagnostic will require more DNA-PCR laboratory capacities at the national level.

• Post-natal HIV transmission during breastfeeding remains a constraint to a successful PMTCT.

• ART prescription by Doctors only:
  – Lack of Doctors in the country

=> DELAY IN TREATMENT FOR PREGNANT WOMEN

• Treatment (ART) follow up in eligible women after delivery.
Way Forward

- Integrating the monitoring of the more efficacious regimen within the National electronic HIS (TRACnet).

- Strengthening the capacity of laboratory for CD4 testing at decentralized level

- Clinical mentoring to support scaling up of more efficacious regimens

- Scaling up early infant diagnosis (EID)

- Mothers2mothers approach to strengthen psychosocial support and adherence to programs

- Weaning food initiative:
  - Fortified porridge (6 months to 18 months for all HIV exposed infants)
MURAKOZE !!!
THANKS FOR YOUR ATTENTION!!!
MUCHAS GRACIAS!!!