PMTCT Implementation in Uganda: Option B Plus Experience

Presentation in the International Prevention Trial Meeting: PROTEA Hotel Entebbe, 22nd January 2013

: Uganda

Dr. Esiru Godfrey
National PMTCT Coordinator
STD/ACP- Ministry of Health; Uganda
Introduction

Why B-Plus

Roll out experience

Ongoing Implementation— the way ahead
# Introduction: Uganda Demographics

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>34 Million</td>
</tr>
<tr>
<td>Fertility Rate</td>
<td>6.2 children/woman</td>
</tr>
<tr>
<td>HIV Prevalence in adults</td>
<td>7.3%</td>
</tr>
<tr>
<td>HIV Prevalence in Children 5 yrs. and below</td>
<td>0.7%</td>
</tr>
<tr>
<td>Number of PLHAS /In Care/Percent of HIV+ Population in Care</td>
<td>1.3m/540,592/45%</td>
</tr>
<tr>
<td>Number of ART patients</td>
<td>290,563</td>
</tr>
<tr>
<td>HIV+ pregnancies per year</td>
<td>91,000</td>
</tr>
<tr>
<td>HIV+ infants born in FY 2011/2012</td>
<td>16,000 in 2011 down for 22,000 in 2009</td>
</tr>
</tbody>
</table>
Regional HIV Sero Prevalence in Children under 5yrs Uganda AIS 2011

Total Infected                  150,000
Eligible for treatment    100,000
Uganda has a high HIV burden & an under-resourced health system. Despite this, it has made great progress on HIV response since 2000.

- **2000**: Uganda launched PMTCT Program on Sd NVP regimen
- **2005**: Scaled up coverage to all 112 districts
- **2006**: Introduced combination regimens for prophylaxis
- **2008**: Rapid intra-district expansion/ decentralization from 985 to 1596 health centers
- **2009**: Uganda adopts WHO Option A for PMTCT
- **2010**: Policy approved to transition to Option B+; PEPFAR commits $25m for Acceleration Plan
- **2011**: National Strengthening Program scaled; eMTCT Plan finalized
- **2012**: National Strengthening Program scaled; eMTCT Plan finalized
Agenda

Why B-Plus

Roll out experience

Ongoing Implementation – the way ahead
In March 2012, Uganda decided that Option B+ provided significant benefits and could eliminate Mother to Child Transmission of HIV and help the country achieve eMTCT.

<table>
<thead>
<tr>
<th>Advantages over Option A</th>
<th>Ease of use:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Universal regimen for all HIV positive mothers and new ART initiations.</td>
</tr>
<tr>
<td></td>
<td>• Better dosing and adherence as syrup is used for a shorter time - 6 weeks</td>
</tr>
<tr>
<td></td>
<td>• Less stigma associated with syrups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advantages over Option B</th>
<th>Lifelong ART:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Lower lifetime transmission rate</td>
</tr>
<tr>
<td></td>
<td>• Continuity of treatment throughout childbearing years, especially given the high pregnancy rate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disadvantages</th>
<th>Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Significantly higher cost (&gt;3X by year 4),</td>
</tr>
</tbody>
</table>
Making the switch to Option B+ was not easy but has addressed many programmatic challenges currently faced in Uganda.

<table>
<thead>
<tr>
<th>Initial situation under Option A</th>
<th>Situation under Option B+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Loss to follow up due to laboratory weaknesses** often led to lost mothers as they did not return for their CD4 test results**</td>
<td>Immediate initiation onto ART as CD4 test results are not be needed thereby reducing loss to follow up</td>
</tr>
<tr>
<td><strong>2</strong> Poor central and facility level stock management of Option A drugs, also led to poor adherence</td>
<td>Simplified drug provision by utilizing the current Adult based regimen (TDF) and reduced need for Nevirapine syrup</td>
</tr>
<tr>
<td><strong>3</strong> Poor linkage to chronic care as the mother must be passed to the ART clinic for treatment</td>
<td>Strengthened linkage to ART as mother are started and will be required to continue ART in the ANC and is transitioned after Delivery after establishing infant’s HIV status.</td>
</tr>
</tbody>
</table>
The phased rollout of Option B+ and regional placement in different phases was determined by the HIV prevalence rates.

**Benefits of phased approach:**
- Reduced risk of Option B+ stock-outs and Option A expiries
- Consistent treatment at lower-level and referral facilities in same region
- Learning from initial Phases could be used to improve the other Phases

- **Kampala, Central I and II**
  - Oct 12 – Jan 2013
  - Fully transitioned in 12 months

- **South West, Mid Northern and Mid Western**
  - February – May 2013

- **East Central, Mid-Eastern, West Nile**
  - June – December 2013

- **Northeast and Karamoja**
  - June – December 2013
Why B-Plus

Roll out experience

Ongoing Implementation – the way ahead.
## B-Plus Implementation

B-Plus implementation has the following main components following the approval of the Policy:

### 1. Regional Sensitization and Coordination Meetings
- 1-day orientation meetings by MOH
- With the IPs, DHOs and PMTCT FP
- Includes 8-10 districts

### 2. Districts Entry Meetings
- 1-day orientation meetings by MOH and IPs
- Involves extended DHT (Technical and Political arms)
- Agreeing on roles and responsibilities and training plans

### 3. Initial B-Plus Transition Workshop for Health Workers
- 6-day and 13-day training, preferably residential
- Includes 5-7 facilities
- Mix of didactic modules and practical exercises

### 4. Mentorship Visits
- Continuous mentorship visits are vital to ensure program is functioning effectively — program will fail without it
- 4 visits per year — at 2 wks, 1.5 months, & then quarterly
B-Plus implementation components ...

<table>
<thead>
<tr>
<th>Step</th>
<th>Provision of Data tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>• Many new data tools, job aids, posters, and brochures have been made and sites need to access them to implement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step</th>
<th>Provision of medical equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>• Weighing scale, height board, head circumference tapes, etc Med equipment essential for integration of care into EID</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step</th>
<th>Follow-up for lost mother/infants</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>• Sites either receive airtime for phone calling, or support for home visiting, this is happening in various modes in different places.</td>
</tr>
</tbody>
</table>
The road to implementation has not been easy - a number of programmatic activities have been undertaken.

**Main Activities**

- Coordination of training activities for all implementing sites. Two training types are currently in use [6-day and 13-day trainings IMAI/IMPAC for ART and non-ART facilities respectively]
- 3 day training was stopped

- Ensuring adequate stock management: This has been effected through an initial push of ARVs for trained sites and follow on site based ARV pull from the warehouses. According to the rationalization plan

- Ensuring appropriate integration of B+ into existing facility infrastructure: This is an ongoing activity through integrated mentorships for all implementing sites.
1. Coordination of the training activities for all stakeholders

**MOH responsibilities:**
- Creation of training curriculum
- Executing a National Training of Trainers
- Monitoring and reporting on the implementation of Option B+
- Organizing stocks to be used in the trainings and provided immediately after the trainings to the facilities

**IP responsibilities:**
- Printing of all tools (ART register, HIV/ART card, Appointment books etc)
- Executing trainings and mentorships
- Reporting to MoH on progress

**Facility responsibilities:**
- Attend trainings and start implementation at their facilities
Of the 406 facilities in Phase 1, 86% had been trained by end of December 2012.

86% achievement of trained sites by the end of the phase 1 took the concerted effort of all stakeholders [IPS, HWs, District leaderships and national level teams]
2. Ensuring adequate stock management

Key Activities

Integrating new order forms into central stock management
• All ART accredited facilities use a pull system for ARVs
• With Option B+, a new form which integrates ordering of ARVs for eMTCT and for Adult treatment, was created and is now in use
• All warehouses that supply ARVs were required to integrate this form into their systems

Creation of procurement forecasts for new regimen
• MOH created a forecasts of ARVs required to serve current and future patients on Option B+
• Warehouses have integrated the forecasts into their procurement plans
• Adequate stock monitoring and management is needed throughout the implementation of Option B+, especially as the regimen is also currently the recommended 1st line for Adult patients

Ensuring ARVs are present during and immediately after trainings
• Trainings are most effective when there are the tools available to implement the knowledge health workers have gained. As a result, having the commodities available to implement Option B+ immediately is imperative to the success of the program. For all the phases of implementation
• Central warehouses have and will provide commodities directly to the Implementing Partners, to provide to the facilities immediately following the trainings.
3. Ensuring appropriate integration of Option B+ into facility infrastructure

### Major facility level changes

<table>
<thead>
<tr>
<th>Greater coordination between ANC and ART</th>
<th>Larger emphasis on adherence</th>
<th>Rapid Decentralization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Linkages and Referrals</strong> – The ANC and ART clinic stations must interact more frequently to link mothers immediately after delivery to the ART clinic</td>
<td><strong>Adherence counseling</strong> – Adherence counseling should be stressed in the training curriculum since non-adherence could result in multi-class resistance</td>
<td><strong>Rapid accreditation of facilities</strong> – Currently, only a fraction of facilities are ART accredited, but many are PMTT accredited. To provide chronic care to mothers, many facilities are being prepared to become ART accredited facilities.</td>
</tr>
<tr>
<td><strong>Use of tools</strong> – additional tools must be used, such as the triplicate referral form, which informs the ART that they are passing a mother from ANC to ART</td>
<td><strong>Ensuring mothers enroll in chronic care</strong> – Linkages and referrals is more important than ever to ensure adherence so that widespread resistance does not develop</td>
<td></td>
</tr>
<tr>
<td><strong>Dispensing of ARVs</strong> – ART and ANC clinics need to coordinate to ensure both areas are stocked with ARVs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Early Infant Diagnosis
Since the inception of the EID program in 2007, the volume of EID tests done nationally has increased by approximately 657%. However, still only 50% of the exposed infants...
Proportion of infants tested at 1st PCR by age group (N=43730, Source: CPHL 2012)

- <2 mths: 30%
- 2-8 mths: 50%
- 9-12 mths: 8%
- >12 mths: 12%
Early Infant Diagnosis: median age at first PCR by facility; cut off level 8 weeks

Average Age at 1st_DBS (Months)

2010 - 2011 Cohort of HIV exposed Infants at sites
Agenda

Why B-Plus

Roll out experience

Ongoing Implementation - the way ahead
Key Bottlenecks

• High program costs especially for capacity building

• Ensuring Quarterly district mentorships take place

• Bringing the districts on Board

• Monitoring of the program

• Ensuring high Quality of services offered
The way forward will be characterized by a focus on key major areas that include.

**Finalization of B-Pus transition**
- Three phases still remain to be conducted and are scheduled for completion in December 2013.

**Early infant Diagnosis**
- Strengthening EID through the centralized laboratory systems

**Follow up of mothers**
- Implement a phased national scale follow up programme to improved tracking at facility level by use of mobile phones & referral forms

**Strengthening Monitoring**
- DHIS2 SMS-based Reporting for Facility-based Aggregate Data for monitoring progress
- Support the district to use the Option B+ tracking tool in the HIMS for routine reporting
Immediate Solution for Option B+ reporting

At a facility
- Aggregate data
- Enter data - phone (sms)
- Send to DHIS2 central server
- Receive Automatic feedback

At a District
- Validate report
- Approve reports (Completeness)
- Follow-up on missing report

At a National
- League tables
- Follow-up on missing report and query data
- Further aggregation and analysis
The way forward...

Ensuring High Quality of services offered

- Working with IPS (ASSIST) to integrate QI into the trainings and mentorships, starting with the Trainers

Integrating Paediatric HIV & AIDS care in the option B+ roll out plan

- All facilities Trained to provide option B+ should be providing paediatric ART and related services

Strengthen EID lab Services

- Establish more transport Hubs form 23 to 59, install GSM printers and use SMS messages to caretakers to collect results

Ensure Reliable procurement and supply management

i. Integrate HIB test kits to the Rationalization of supply chain

ii. Coordination meetings to discuss orders and provide updates on consumption
GSM printers, placed at the sample transport hubs, will help cut further the delay in returning results to facilities, and will increase pediatric initiation

**Part 1 of the intervention:** Facility feedback to reduce loss to follow up and reduce TAT of results
This intervention provides facilities with a list of positive infants that require follow up and a report on their performance on following up children.
Acknowledgment

- GOU
- MOH
- ADP & PEPFAR
- Women and Children Living with HIV who keep our desire burning