NIGERIA

AIDS Prevention Initiative in Nigeria (APIN)
Capacity Building for the Quality Management Programme
### Human Development Profile of Nigeria and HIV/AIDS

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td></td>
<td>150 million</td>
</tr>
<tr>
<td>Population growth</td>
<td>Percentage (NS)</td>
<td>2.8%</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>Rate per 1000 births (↑)</td>
<td>72/1000</td>
</tr>
<tr>
<td>HIV prevalence</td>
<td>Percentage (2008)</td>
<td>4.6%</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Amount (↓)</td>
<td>$260</td>
</tr>
<tr>
<td>Growth rate</td>
<td>Percentage (↓)</td>
<td>3.5%</td>
</tr>
<tr>
<td>Debt burden</td>
<td>Amount</td>
<td>$28.5 billion</td>
</tr>
<tr>
<td>Category</td>
<td>Value</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>No. of PLWIH</td>
<td>2.98 m</td>
<td></td>
</tr>
<tr>
<td>HCT coverage</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>PMTCT coverage</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Annual HIV+ Births</td>
<td>70,000</td>
<td></td>
</tr>
<tr>
<td>New infections</td>
<td>336,379/year</td>
<td></td>
</tr>
<tr>
<td>Number requiring ART</td>
<td>857,455</td>
<td></td>
</tr>
<tr>
<td>Number on ART</td>
<td>450,000</td>
<td></td>
</tr>
<tr>
<td>Annual AIDS Deaths</td>
<td>192,000</td>
<td></td>
</tr>
<tr>
<td>Cumulative AIDS Deaths</td>
<td>2.99m</td>
<td></td>
</tr>
<tr>
<td>Total orphaned by AIDS</td>
<td>2.17 m</td>
<td></td>
</tr>
</tbody>
</table>
Where we are now (2)

HIV Prevalence Trend

HIV Prevalence (%) vs. Year

- Y-1991: 1.8
- Y-1993: 3.8
- Y-1999: 5.4
- Y-2001: 5.8
- Y-2003: 5
- Y-2005: 4.4
- Y-2008: 4.6

- HIV Prev.
Burden of Care and Support

- 4 million infected, 1 million with symptoms
- Experts project $500-675 million for comprehensive prevention and care
- $194 million for limited scaling up of prevention
- $144 million for limited scaling up of Antiretroviral treatment
- Nigeria needs to spend between 30-40% of health budget to cope
HIV/AIDS Financial Sources in 2007 and 2008
APIN Quality Management Programme
Introduction

- History
  
  - APIN was established as a program of HSPH in 2000 with a grant from the Gates Foundation
  
  - The Harvard PEPFAR(APIN Plus) Program 2004
  
  - APIN LLC was incorporated as a local NGO in 2007 to gradually assume HSPH’s work in Nigeria.
Governance

- Two tiered structure

- HRSA’s recommendations on governance

- New board Composition
  - More diversified board
  - Meeting transition guidelines (85 % Nigerians)
  - Broadened scope of activities
    - E.g. Resource mobilization for sustainability
### Adult numbers as at December 2010

<table>
<thead>
<tr>
<th>Service</th>
<th>Total</th>
<th>Harvard</th>
<th>APIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMTCT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• CT and results</td>
<td>66,503</td>
<td>46,783</td>
<td>19,720</td>
</tr>
<tr>
<td>• Tested Positive</td>
<td>3,119</td>
<td>2,348</td>
<td>771</td>
</tr>
<tr>
<td>ART</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cumulative</td>
<td>94,478</td>
<td>56,935</td>
<td>27,543</td>
</tr>
<tr>
<td>• Current</td>
<td>57,996</td>
<td>39,187</td>
<td>18,809</td>
</tr>
<tr>
<td>CARE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cumulative</td>
<td>129,797</td>
<td>80,661</td>
<td>49,136</td>
</tr>
<tr>
<td>• Current</td>
<td>63,128</td>
<td>48,752</td>
<td>24,376</td>
</tr>
<tr>
<td>HCT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• CT and results</td>
<td>101,430</td>
<td>73,249</td>
<td>28,181</td>
</tr>
</tbody>
</table>
# Pediatrics numbers as at December 2010

<table>
<thead>
<tr>
<th>Service</th>
<th>Total</th>
<th>Harvard</th>
<th>APIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cumulative</td>
<td>3,988</td>
<td>2,578</td>
<td>1,410</td>
</tr>
<tr>
<td>• Current</td>
<td>2,998</td>
<td>1,945</td>
<td>1,053</td>
</tr>
<tr>
<td>CARE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cumulative</td>
<td>6,089</td>
<td>3,867</td>
<td>2,222</td>
</tr>
<tr>
<td>• Current</td>
<td>3,898</td>
<td>2,565</td>
<td>1,333</td>
</tr>
<tr>
<td>HCT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• CT and Results</td>
<td>7,981</td>
<td>5,077</td>
<td>2,904</td>
</tr>
</tbody>
</table>
QM Programme Background

- **Goal**: Ensure programme sites to provide the best possible quality of care to HIV positive patients using evidence based methods.

- **Objectives**:
  - To assess quality of care provided to HIV/AIDS patients and promote accountability for patient care
  - To evaluate health outcomes of patients as related to clinical processes
  - To promote joint identification of strengths and weaknesses in clinical processes and systems
  - To constantly improve upon the quality of care delivered to patients by applying Continuous Quality Improvement (CQI) tools.
QM Programme Background (2)

- **Model**
  - Evidence Based Practice + Continuous Quality Improvement
  - **Evidence based practice**: treatment and care protocols in line with national and international guidelines
  - **Continuous Quality Improvement**: QI Infrastructure + Performance Measurement + Quality Improvement Activities
History and Evolution

- John Snow International (JSI) QA visits
  - Commissioned by HSPH in 2006 to assess the quality of care at some sites as part of its oversight functions.
  - Assessed the adult and pediatrics programme areas
  - 2 rounds of visits to 5 sites

- Internal Quality Improvement Efforts:
  - To provide on-going support to sites in identified areas of weakness, share strengths across sites and continuously monitor quality of care.
  - Started in 2007 with adult ART programme and expanded to include PMTCT and pediatrics ART in 2009.
  - Quality of care was evaluated during scheduled site assessment visits using a combination of methodologies including chart reviews and staff interviews.
History and Evolution (2)

- Internal Quality Improvement Efforts contd:
  - Chart review was done by entering data into a file maker based ‘site assessment database’ that allowed for rapid data analysis and immediate feedback.
  - Follow up action included trainings, programme area specific technical assistance and follow up assessment visits

- Collaboration with Federal Government of Nigeria
  - The Nigerian government piloted a national QI system with support from HIVQUAL in 2007 and 2008
  - APIN/Harvard PEPFAR was actively involved in all the processes including indicator development, training, site visits and debrief meetings
  - 4 of our sites participated in the 1st and 2nd pilot phases
  - APIN was actively involved in the development of national QI indicators - January 2010
History and Evolution (3)

- Harmonization of APIN QA indicators with the Federal Ministry of Health HIV Quality of care indicators
  - To prevent double reporting and increased work load on the sites
  - Included all indicators not on the original APIN list and adopted the Federal Government indicators in areas of overlap.
  - Original APIN QA indicators (Vial Load assessment and outcome monitoring) not part of the Federal Government list were retained.
  - The harmonized indicators now serve as the minimum indicator set to be reported against every 6 months
- Engagement with HEALTHQUAL (September 2010)
  - Engaged by Harvard Clinical Oversight Committee to support APIN QI efforts
APIN Quality Management Structure

- Programme management level:
  - 2 Quality Assurance staff: QA Coordinator and QA officer
  - Central QA Committee: provides strategic direction to APIN’s QI efforts

- Site (health facility) level
  - Quality improvement committee: led by QI focal person who is usually a clinician
    - Has terms of Reference adopted from the central office generic document
    - Initiates on-site performance measurement, quality gaps analysis and improvement projects to address identified gaps
    - Reports to the head of the ART programme on site and the central office through the QA Coordinator
Approach to Capacity Building

- Trainings
- Regular assessment using the site QM programme status check list
- Tools development
- Coaching
Trainings

- **Basic Quality Improvement Training**
  - Target audience: All Site QI committee members
  - Purpose: provide introduction to QI concepts and methodologies

- **Intermediate QI training/review meeting**
  - Target audience: Site QI focal persons
  - Purpose: Provide additional training to on Continuous Quality Improvement tools

- **Allow for periodic review of QM programme and peer learning**

- **Regional trainings**
  - Uses basic QI training curriculum
  - Aims to increase the pool of health care workers with QI skills and competencies

- **APIN/HealthQual TOT**
  - To provide participants a solid understanding of quality improvement (QI) theory and methodologies
  - To increase the pool of qualified quality improvement trainers to further build site specific and zonal capacity for quality improvement
Regular assessment using the site QM programme status check list

● **Purpose:**
  - Help programme office to understand the state and functionality of sites’ QM programme so that the most appropriate form of support in the different thematic areas can be provided.

● **Thematic Areas**
  - Quality Improvement Infrastructure
  - Quality Management Plans
  - Internal Performance Measurement
  - Quality Improvement Activities

● Administered in 2009 and 2010
Tools Development

- Results from the 2009 administration of the status check list revealed that processes were not uniform across sites with resultant inability to compare results or share best practices.
- Tools developed to harmonize processes and enable demonstration of improvement and processes

**APIN QI Tool Kit**
- *How-to’ document*
  - Step wise approach to quality improvement
  - Contains both narratives and tools for each step
  - QI Committee: Generic TOR, meeting records template, agenda template
  - Quality Management Plan: Template
  - Quality Improvement activities: steps and tools
    - Prioritization matrix, flow charts, tools for root cause analysis, improvement matrix, implementation plan template.
QA Report Generation Tools

- Quality Indicators (QuIC) tool:
  - Automated, file maker based utility. Has replaced manual report generation for adult indicators, reduce reporting burden and turn around time.
  - Increases reliability and accuracy of QA reports
  - Can be run at the smallest clinics
  - Displays individual IDs of patients meeting certain criteria in addition to generating percentages- helps with individual patient follow up and care

- Quality Improvement indicators SOP
  - Stepwise instructions on generating QA indicators manually (in use for pediatrics and PMTCT)
Innovation in Implementation

- Existing electronic utilities assist the sites to generate outcome data for patients on care and treatment.

- Harvard and APIN site networking allows for best practices to be readily adopted. E.g.
  - Dedicated space or hours for pharmacy pickups
  - Verification of patient contact info at each visit
  - Inter-site training and assessment activities
Patient Monitoring and Management Tools

Treatment Response Utility

Patient info

Pharmacy Pickups

Laboratory Values

CD4

Log of Viral Load

Each green triangle indicates one pickup of antiretroviral medications. Orange triangles indicate a change in regimen.
Quality Improvement Coaching

**Purpose**
- Serve as a bridge between didactic trainings and real life practice. Tailored to the needs of individual sites and sometimes individual members of the QA project specific teams.

**Eligibility for coaching based upon scores from QM output assessment**

**Measures 5 domains**
- QI Reporting, QM plan, QI committee structure, QI committee functionality and performance measurement.

**Maximum score is 20**
- Score bands 0-5, 6-10 qualify for coaching.
Results

- 2 dimensions of results:
  - QM system building: changes in site QM programme status check list parameters
  - Improving quality of care indicators: selected indicators between July 2009 and December 2010
<table>
<thead>
<tr>
<th>Quality Improvement Infrastructure</th>
<th>December 2009</th>
<th>September 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Committee</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Representative membership</td>
<td>74%</td>
<td>83%</td>
</tr>
<tr>
<td>Agenda Prior to QI team meetings</td>
<td>26%</td>
<td>53%</td>
</tr>
<tr>
<td>Appropriate content of agenda</td>
<td>33%</td>
<td>44%</td>
</tr>
<tr>
<td>QI Committee Terms of reference</td>
<td>22%</td>
<td>80%</td>
</tr>
<tr>
<td>Keeping meeting records</td>
<td>26%</td>
<td>53%</td>
</tr>
<tr>
<td>* Short term QA work plan</td>
<td>13%</td>
<td>60%</td>
</tr>
<tr>
<td>Evidence of work plan implementation</td>
<td>33%</td>
<td>27%</td>
</tr>
<tr>
<td>Work plan implementation on track</td>
<td>33%</td>
<td>40%</td>
</tr>
<tr>
<td>Additional 2010 indicator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>++Tangible meeting outputs</td>
<td>NA</td>
<td>19%</td>
</tr>
</tbody>
</table>
## QI Status Checklist Findings (2)

<table>
<thead>
<tr>
<th>Quality Improvement Infrastructure</th>
<th>Dec 2009</th>
<th>Sept 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Performance Measurement activity</td>
<td>39%</td>
<td>43%</td>
</tr>
<tr>
<td>Appropriate indicators</td>
<td>44%</td>
<td>69%</td>
</tr>
<tr>
<td>Evidence based choice of measurement area</td>
<td>44%</td>
<td>69%</td>
</tr>
</tbody>
</table>

### Quality Improvement Activities

<table>
<thead>
<tr>
<th>Past or current Quality improvement activities</th>
<th>22%</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate activities</td>
<td>40%</td>
<td>58%</td>
</tr>
<tr>
<td>Implementation tracking</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>Documentation of implementation</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>++Prioritization Matrix</td>
<td>NA</td>
<td>92%</td>
</tr>
<tr>
<td>++Root cause Analysis</td>
<td>NA</td>
<td>58%</td>
</tr>
<tr>
<td>++Improvement Matrix</td>
<td>NA</td>
<td>50%</td>
</tr>
<tr>
<td>++Process Indicators</td>
<td>NA</td>
<td>0%</td>
</tr>
</tbody>
</table>
Summary

- 2009: most sites were at comparable levels in understanding and implementation of QI, so a general approach could be employed: central training, QI tool kit etc
- 2010: sites are at different levels of implementation and understanding, hence a case by case approach is needed in 2011
  - QI committee strengthening
  - Support for QI processes at different levels
  - Support to develop QM plan
Changes in Quality of Care Indicators

% of patients with at least 1 CD4 count in 6 months

% of patients with CD4 ≤ 350 on CPT therapy during the review period
Challenges

- **Burden of work: quantity and type of work**
  - Work load of site staff especially with respect to other primary responsibilities in the hospital impact on ability to meet and carry out QI activities
  - QI requires a different set of skills, most of which health care workers do not receive as part of pre-service training

- **Funding for QI at Health Facility level**
  - Basic needs like stationery, refreshments
  - Programme careful not to create a special QI budget

- **Calls for 100% QI staff at Health Facilities**
  - Concerns that it might undermine the team approach to QI

- **Documentation**

- **Absence of a strong National QI programme**
Fitting into a National QM programme

- Treatment and care protocols in line with national guidelines
- Already using national QI indicators and reporting timelines
- Documented systems and processes that allow for comparison, sharing of best practices and alignments when necessary
- Pool of master trainers and coaches available who can support the national programme in its scale up
Thank You!