All-Country Learning Network
Kampala, Uganda
March 26-30, 2012
Speke Resort and Conference Center
EXECUTIVE SUMMARY

May 2012

Dear Colleague,

The third All Country Learning Network - March 26-30, 2012, Kampala, Uganda - was attended by over 200 participants from 16 countries in Africa, Asia, South America, North America, the Caribbean and the South Pacific and included representatives from Ministries of Health, CDC country offices, CDC Atlanta, and the Health Resources and Services Administration HIV/AIDS Bureau.

The ACLN has become a catalyst for quality improvement spread through peer exchange, knowledge sharing and expert presentations focused on issues of critical importance in building sustainable national quality management programs.

This year’s topic, use of performance data to set national improvement priorities, challenged us to reflect on our programmatic progress and way forward as a fundamental goal of HEALTHQUAL. The sharing of successes, implementation barriers and strategies to advance this work is guided by our common goals to achieve national quality frameworks that improve patient care and overall population health.

Plenary presentations targeted cross-cutting public health topics including QI implementation and diffusion, a partnership for HIV-free survival using the nutrition assessment, counseling and support (NACS) platform to support PMTCT, using QI to improve the postnatal continuum of PMTCT care through NACS, retention in care in global HIV/AIDS programs, health information technology and QI, TB infection control through QI, Thailand’s transition from clinical care to a humanized healthcare model, and communities of practice to promote scale-up of national QI efforts.

As last year, Open Space sessions – a participant-driven and self-organizing model for group learning – generated diverse and highly relevant discussions on a wide-range of improvement topics. Some of these sessions included: data quality and validation, indicator development, health care worker motivation, development of non-HIV indicators for improvement, patient flow, retention, improving HIV quality of care for adolescents, QI coaching processes and data literacy among many others.

This year, for the first time, HEALTHQUAL also sponsored a full-day in-depth data workshop to build skills and knowledge in data analysis, interpretation, visualization and reporting.

As we watch the ACLN mature and expand, and as we welcome participation from new countries, I look forward to watching this community grow and accelerate learning in areas of interest and improvement.

I want to thank all participants and HEALTHQUAL staff for their unique contributions to this event, and acknowledge the truly remarkable work evident in each participating country. A special thanks to our colleagues in Uganda; we could not have achieved this success without your unwavering support and hospitality.

Best wishes,
Bruce Agins, MD, MPH
Director, HEALTHQUAL-International
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Opening and

Country Presentations
Summary of Presentation

Title: Putting Improvements into Practice at a National Scale: It's Not Just About Diffusion

Speaker: Bruce Agins, MD, MPH

Overview of presentation:
Dr. Agins’ opening plenary of the 2012 ACLN reviewed different approaches and models of effective implementation and diffusion of improvement efforts. The audience was encouraged to consider how to apply these models through planning and management at the national level. The overall aim of the presentation was to identify common elements associated with diffusion, spread, and implementation to drive large-scale improvement in a public health framework.
PUTTING IMPROVEMENTS INTO PRACTICE AT NATIONAL SCALE:  
It’s Not Just About Diffusion

Bruce D. Agins, MD MPH  
Director, HEALTHQUAL International  
ACLN III: Kampala  
March 2012
Diffusion of Innovation

- Everett Rogers: rural sociology
- Adopter characteristics of individuals
- Adoption curve is S-shaped

![Graph of adoption curve]

Correlates of Successful Spread (Rogers)

- Innovation needs to be better than status quo but also consistent with existing values and needs
- “The” intervention must be simple
- Success should be demonstrable on a small scale
- Communication channel must exist for spread to adopters; ideally change agents are homophilus
- Time is required for spread; spread may be discontinuous
- Structure of system will facilitate or impede diffusion
- Spread is easier through integrated systems

Limitations of Classic Diffusion Theory and Research

- The S-curve is descriptive and lacks explanatory power about how and why people adopt innovations
- Assumes innovations are fixed and not modified or adapted
- Pro-innovation bias: challenge to study those that do not spread, those that spread from center
- Results in “blame” towards slow adopters
- Does not examine consequences of the changes made
**Network Theory**
- Behavior is embedded in social relationships which drive adoption and diffusion
- Strength of weak ties
- Structural equivalence (homophily) promotes faster spread
- Threshold model still pertains (S-curve)
- Opinion leaders have strong influence by virtue of charisma and competence

**Communication and Marketing**
- COMMUNICATION
  - Involves a sender, a message and a recipient who acts upon information if persuaded
  - Areas of influence:
    - Source: credibility, likeability, power, quantity, demography (by whom)
    - Message: appeal, style, organization, quantity – "sticky" (what)
    - Communication channel: mass media/face-to-face/spoken/written (how and when)
    - Receiver: demography, personality, attitudes/beliefs (to whom)
  
- MARKETING
  - Conceptualization as a product: message design
  - Adoption depends on market potential influenced by mass media & interpersonal communication
  - Leads to social marketing strategies and consideration of market segmentation
  - Diffusion can be thought of as a "market share"

**Evidence-based Medicine: Guidelines Implementation**
- How to put scientific research findings into practice and get physicians to base decisions on evidence
- Often framed in metaphors of contagion but do not regard the "host" factors
- Assumes fixed and linear process of adoption with limited consideration of organizational systems or contextual variables

**Transition to Organizational Models**
- The organizational process is socially constructed
- Consideration of structural determinants
- Organizational culture
- Address the process of innovation
- Role of interorganizational networks
- Leads to consideration of drivers and barriers and understanding of implementation failure
Knowledge Utilization

- Innovation centers around the construction of and transmission of knowledge between organizations
- Explicit vs. tacit knowledge
  - Explicit: codifiable, easily transmitted
  - Tacit: embedded, situational, “sticky”, woven into situational contexts where generated, often attached to individual
- Social interaction important for both construction and transmission of knowledge
- Organizations are involved in “sense-making” and have an “absorptive capacity” for knowledge

Knowledge Utilization (2)

- Nonaka: Different processes needed within an organization depending on the kind of knowledge
  - Socialization needed for tacit to tacit
  - Internalization converts explicit to tacit
  - Combination allows for conversion of explicit to explicit
  - Externalization needed for tacit to explicit

- Learning Organization (Senge, others)
  - Knowledge is systematically captured and shared
  - Designated roles for knowledge workers who collect and transmit knowledge and knowledge managers who facilitate and plan these activities

Knowledge Utilization (3)

- Organizational Sense-making (Weick)
  - Framing of knowledge occurs through cognitive activities
  - Stakeholders have to understand and assimilate the new organizational framework and concepts triggered by the new knowledge or innovation

- Knowledge Management
  - Spans from a planned, controlled managerial initiative with formal infrastructure and management to a facilitative process through organizational sense-making

Narrative research Tradition

- Human purpose and meaning become the lenses for understanding phenomena, conveyed by storytelling
- Stories reveal the complexity of the process and celebrate while creating moral force for change
  - Humanization
  - Sense-making
  - Creative and adaptive while potentially subversive and innovative
- Events characterized through interplay of actions and contexts, inherently qualitative
- Appreciative inquiry; search for best stories, which when used systematically, shape organizational destiny

Complexity Theory

- Recognizes that organizations have multiple independent parts, dynamic relationships, patterns (not predictability) of behavior, adaptiveness, “meshwork of relationships”
- A complex adaptive system is defined as a “collection of individual agents who have the freedom to act in ways that are not always totally predictable and whose actions are interconnected such that one agent’s actions change the context for other agents”
- Individual creativity may spawn ideas that become innovations within an organization

Complexity Theory (2)

- Conversations between individuals is key to disseminate innovations; spread results from local, self-organizing interaction of actors and units (Fonseca)
  - Architecture: spatial congregation deliberately fostered

- Rational, planned, regulated approach works well when high certainty and high agreement are present (Pisek)
What does the field of quality improvement bring to the discussion?

What are we trying to spread?
- Must understand the nature of the intervention
- What is the optimal way to package it?
- What is the motivation of key stakeholders to spread it?

The nature of the intervention will determine how complex the strategy is.

To Whom Do We Want to Spread?
- Geography
- Number of clinics/hospitals/agencies
- Number of health professionals
- Number of patients
- Timeline for reaching full scale

How will we spread it?
What factors will influence the spread process?
- Social system: leaders, communication channels, champions, integration within the care system

- Framework for spread
- How will content be integrated into the process design?
  - Clear definition of the content: guidelines, standards, protocols
  - Motivate individual adoption/behavior change:
    - Social Learning and Cognition models
    - Create tension and discontent with existing situation

- Execution for system-level results
  - It is important to identify outcomes, but equally important to demarcate steps and processes since the sequencing can be critical to achieving the results
How will we spread it?

- What factors will influence the spread process?
  - Factors influencing rate of spread: compatibility with existing context; simplicity, triability; observability (from Rogers)
  - Measurement system
    - Measuring is necessary to determine whether improvements are made and to encourage slower adopters
  - Positive deviance: uncover factors leading to success and use them
  - Knowledge management system to support spread

Various Approaches to Spread

- Natural diffusion (adoption of idea or intervention by members of social system in absence of formal dissemination)
- Executive mandates
- "Extension agents" where mobile HCWs or community leaders spread ideas and best practices: "coaching and mentoring"
- Emergency mobilization
- Affinity group (2-3 clinics recruited to develop model)
- Wave sequencing
- Collaborative (structure learning around shared aims, measures & goals)
- Virtual collaborative
- Campaign

Approaches to Spread: Collaboratives

- Most useful for spread among peers within the collaborative
- Senior leaders are responsible for spread back at the agency
- Not as successful for spreading within the organization
- Planning for sustainability is not built into the model!

Wave Sequence

- Systematic approach to rapidly spread a large, nested system in which care is provided at multiple levels often in a hierarchical structure

QI Example: Preventing Post-Partum Hemorrhage in Niger: HCI/URC/USAID

- Background: Postpartum hemorrhage (PPH) is a leading cause of preventable maternal deaths. Active management of the third stage of labor (AMTSL) is a "high impact" evidence-based intervention that reduces postpartum hemorrhage by over 50%.
- WHO recommends that all women receive AMTSL administered by a skilled caregiver.
- AMTSL:
  - Administer a "uterotonics" drug such as oxytocin immediately after birth to help the uterus contract
  - Control the delivery of the placenta through careful traction on the umbilical cord while providing counterpressure to the uterus
  - Massage the uterus externally during and after the delivery of the placenta.
Preventing Postpartum Hemorrhage in Niger: Quality Improvement

- **Intervention:**
  - QI teams met weekly at 33 sites to identify, test, and measure the effects of specific changes, which were measured against a set of common indicators.
  - Agency teams met quarterly to share effective changes, synthesize best practices, and disseminate collective results.

- **Outcomes:** at one year after the Maternal newborn Collaborative
  - Percent of births covered by AMTSL increased from <1% to 99%.
  - The PPH rate decreased from 2.3% to 0.2%.
  - All 33 sites implemented AMTSL as part of a postpartum package, including newborn care.
  - Eight months after, the HCP Project found continued monitoring and compliance with AMTSL.

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**Approaches to Spread: Campaigns**

- Targeted social system connects with a shared, quantitative aim
- Builds on a platform of evidence-based interventions
- Simple measurement system
- Broad communication system
- Distributed field operations
- Effective when nature of intervention is easy to sell and aligns with other national initiatives and connects with public
- Organizational structure is often nodal

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**Lessons Learned from Spread: Tips**

- Impressive results from pilots can drive spread
- Modifications of interventions occur through adaptation to local context
- Enables people in health systems to make changes in their work
- Key to provide normative and regulatory resources, leadership
- Gather evidence of success and share it
- Well-managed logistics are important to coordinate spread with attention to detail

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**The in+care Campaign**

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Notes:

- Ensures effective dissemination of results.
- Enhanced engagement with stakeholders.
- Facilitates continuous improvement processes.
**Lessons learned from Spread: Tips (2)**

- Shared learning opportunities to further improve models will accelerate spread over shorter time periods
- Energize staff through TA-focused site visits
- Role modeling and leadership are key
- Homophily between spread agents and demonstrating early results help promote learning
- Leverage existing networks and identify partners to supply crucial resources to drive change at low cost
- Use many levers to stimulate change:
  - Positive incentives: recognition and rewards
  - Negative incentives: transparency, gentle chastising

**Sarah Fraser: NHS “Take home lessons”**

- Organizational spread requires adoption of complex behaviors
- Requires small changes continuously as opposed to discontinuous dichotomous change
- Healthcare innovation focuses more on ideas and behaviors as opposed to things

**Sarah Fraser: Critique of Spread**

- Beware “pilotitis” in which small numbers and extra funding do not necessarily portend sustainability
- Don’t stop at 20-25% (tipping point): improvement must be continuous
- Innovations are often not easily transferable between organizations
- Rogers’ adopter categories may lead to failure:
  - Laggards may be pragmatists who keep organizations going — “holding down the fort” while systems undergo alteration

**Nolan’s Checklist for Spread (Organization-focused)**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Is improvement in this area a strategic priority for the organization?</strong></td>
<td></td>
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<tr>
<td>Is there an executive responsible for spread of the improvement?</td>
<td></td>
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<tr>
<td>Is there a person or team in the leadership who will be involved in day-to-day spread activities?</td>
<td></td>
</tr>
<tr>
<td>Will leadership supply resources needed for success? (personnel, IT, tools)</td>
<td></td>
</tr>
<tr>
<td>Has the advantage of adopting the change been documented and communicated in an easily understood manner to all potential adopters?</td>
<td></td>
</tr>
<tr>
<td>Is there a successful site that has implemented the change in a way that is scalable throughout the organization?</td>
<td></td>
</tr>
<tr>
<td>Are there credible messengers who can persuade potential adopters to implement the innovation?</td>
<td></td>
</tr>
<tr>
<td>Is there a clear plan to communicate the innovation throughout the organization and to assist different sites in making needed changes?</td>
<td></td>
</tr>
</tbody>
</table>

**Sarah Fraser: Critique of Spread**

- “low hanging fruit” syndrome: approach might not apply to the entire population. Try changes where the greatest impact can occur: not just the quick & easy
- Avoid “spreading good practice” rather “implement better ideas” to avoid active to passive mindset: everyone is viewed as active

**Institute for Clinical Systems Improvement**

- Five models of spread (Mosser):
  - **Sales model** champion visits other sites to describe and persuade
  - **Parallel play**: when all sites produce similar results academic skeptics can buy in more easily
  - **Central driver**: pilot sites with strong likelihood of success achieve results following which leadership mandates change
  - **Billboard model**: broadcasting of success
  - **Mass movement**: leaders approach all units through inspirational messages and mass communications
- From spread, move on to changing organizational culture

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**Bodenheimer: Science of Spread**

**Conclusions**

- **Leadership:** Top-level leaders must create an institutional culture ready to accept change and spearhead spread, requiring both authority and breadth of vision.
- **Innovation champions:** Often create success by tireless effort but overreliance on them can create unrealistic expectations leading to failure.
- **Frontline caregivers:** Need to get their ideas, focus on contextualizing for their needs and overcome resistance.
- **Macro system vs. micro system change:** Strike a balance!

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**Bringing it home: Implementation**

- **Implementation:** Assimilating an innovation within a system.
- **Implementation literature similar to that on change management, organizational development, and QI.**
- Literature more often addresses role of the organization equally with the process of innovation, also recognizing impact of environmental factors.
- Leadership and responsiveness to both buy-in and “just-in-time” training are key factors for success.
- Leads to consideration of institutionalization or sustainability or routinization.

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**Implementation: The Whole Systems Approach**

- **Greenhain:**
  - Dissemination of ideas is a lengthy, staged process in complex adaptive systems such as a network or a healthcare system.
  - Prior predisposing activities & capacity building useful.
  - Synchrony between external incentives/mandates and internal activity foster success.
  - Long lead time for outcomes in a complex program.
  - Concern: competition with other initiatives (may change with IT?)

- **Pisels:**
  - Organizational context will influence transferability.

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**Aspects of the Adoption of Innovation in Health Care**

Eight Points For Implementation in Networks: Implications for HEALTHQUAL Teams

- Coaching System ("extension system")
- Spread has to be planned and then managed
- Flexibility: adaptive response to environmental change and survives central level change [provincial and district]
- Involvement of users throughout process ("consensual development") in both prioritization and design (patients and providers)
- Sharing of resources and knowledge: "communication plan"
- Fostering networks between user organizations: the power of peer learning
- Recognition for innovators within networks
- Close spatial contact between external agents and clients: Get into the field!

NATIONAL LEVEL

- Oversight of national QM program
- Quality integrated into health sector strategic plan
- Develops national quality indicators
- Convenes key national stakeholders
- Provides QI training
- National toolkit and training curricula
- Sets expectations for improvement activities
- Disseminates national benchmarks
- Recognizes and rewards top performers
- Oversees execution of national plan & workplan
- National improvement campaigns to improve outcomes
- Promotes communication of stories and share successes
- Facilitates regional and local improvement activities

Using both data and qualitative information we can refine this list by learning together as we implement ideas and change behaviors to improve quality through national programs.

Acknowledgements

- Special thanks to Claire McCullough
- Clemens Steinböck
- The HEALTHQUAL Team
- Rashad Massoud, Maina Boucar and the Health Care Improvement Project – USAID
- Institute for Healthcare Improvement
How to Implement a National Quality Improvement Campaign

March 27, 2012

Clemens Steinbock, MBA
Director, National Quality Center
Clemens@NationalQualityCenter.org

The first ever National Quality Improvement Campaign in HIV care should be... (Oct 2011)

- National reach based on voluntary enrollment by HIV providers
- Low cost, no extra funding for initiative
- Mostly virtual with local meetings organized by local participants
- Focus on improvement (less on measurement)
- National (and measurable) impact on a key aspect of HIV care, aligned with national priorities

Accomplishments of the U.S. Campaign to improve retention to HIV so far... (March 2012)

- 334 HIV providers in 218 cities across 42 states have joined the Campaign so far, caring for 441,267 people living with HIV (not unduplicated)
- Data for close to 120,000 HIV patients are self-reported every other month by participating providers
- Close to 50% of all federally funded HIV providers have signed up so far
- Largest voluntary QI initiative in the U.S. and the largest HIV performance measurement database

Retention Campaign Data – March 20, 2012

<table>
<thead>
<tr>
<th>Metric</th>
<th>Dec 11</th>
<th>Feb 12</th>
<th>% Change</th>
<th>Dec 11</th>
<th>Feb 12</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Visit Frequency</td>
<td>65.5%</td>
<td>64.8%</td>
<td>-0.6%</td>
<td>65.5%</td>
<td>64.8%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>New Patient Initiation</td>
<td>58.7%</td>
<td>62.4%</td>
<td>6.7%</td>
<td>58.7%</td>
<td>62.4%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Viral Suppression</td>
<td>60.6%</td>
<td>65.7%</td>
<td>8.8%</td>
<td>60.6%</td>
<td>65.7%</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

Tips for what to do even before you kick off the campaign...

- Select a focus for the campaign that will generate momentum among providers
- Align with national priorities and funders of HIV services
- Reach out to stakeholders (talk/talk/talk/listen/listen/listen/...)
- Conduct online surveys and focus groups
- Conduct literature search
Importance of branding and marketing...

- Develop a consistent branding approach; signal a fresh and exciting image (it pays off!)
- Consider creating a logo, website, marketing materials, slide templates, etc.
- Find simple ways to make your point; you may need some external help
- Be creative

1 in 5 do not know their HIV status
2 in 5 have not seen an HIV primary care doctor
3 in 5 don’t regularly see their HIV doctor
4 in 5 are not viral load suppressed

Increasing awareness about the campaign...

- Collect as many email addresses as you can in advance or update what you have
- Develop a strategic communication plan, including an email marketing plan (we used Contact Contact)
- Conduct weekly ‘thank you’ emails to all stakeholders
- Include federal and other national leaders as stakeholders
- Openly share who has signed up on website
- Be creative and find ways to stand out (we developed a video...
How-to Guide

Thoughts about collecting data...

- Develop a small but relevant number of measures; engage expert group to develop these measures
- Outline reporting expectations and provide support to participants (we used weekly, virtual Office Hours)
- Incorporate indicator definitions in existing electronic data systems to facilitate data reporting
- Develop online reporting system and allow for immediate benchmarking opportunities
- Provide individualized feedback

How-to Guide

Ideas for activities for your campaign...

- Submissions of improvement updates by participants
- Recruitment of volunteer ‘local quality champions’ to facilitate meetings of local campaign participants
- Assignments of ‘QI coaches’ to each participating agency
- Journal Club with renowned researchers
- Monthly webinars with specific content areas
- Consumer engagement to create partnerships for alignment with consumer needs

How-to Guide

Expectations for pre-work by participants...

- During sign-up, gather as much contact information as possible and send out thank you email (we used SurveyMonkey)
- Conduct an online needs assessment to learn more about participant
- Give out pre-work assignments to participants
- Ask each participant to participate in kick-off webinar; invite senior leaders, give overview of literature and available performance data
- Be clear with expectations for participating and be flexible

How-to Guide

Costs for a campaign...

- Webinar platform: $ [less than $2,000]
- Office hours: $ [less than $500]
- Website: $ [7,500]
- Local quality champions: $ [less than $750]
- Marketing and design efforts: $ [15,000]
- Video: $5,000
- Consumer involvement strategy: $ [5,000]
- QI coaches: $5,000
- Staffing resources: $5,000 [full-time person]
Lessons learned for your campaign...

- Branding and messaging of campaign is important.
- Planning, planning, planning...
- Alignment of QI topic with national priority is important.
- Innovative and creative approaches to engage participants.
- Flexible way to interpret participation.
Greeting from the Health Resources and Services Administration (HRSA)

Presenter: George Tidwell

March 26, 2012
HRSA Global HIV/AIDS Program
System Strengthening – Training & Education

Medical Education Partnership Initiative (MEPI)

Grantees: Addis Ababa University, University of Botswana, Klinmanaro Christian Medical Centre, and Stellenbosch University
Coordinating Center: George Washington University

Focus:
- Improve the quality of clinical education and clinical care;
- Enable graduating medical students to remain in their home country to practice, serve as faculty, and/or conduct research related to the implementation of PEPFAR and other public health priorities; and
- Enhance the recruitment and retention of qualified academic faculty through partnerships and research opportunities.

HRSA Global HIV/AIDS Program
System Strengthening – Training & Education

Nursing Education Partnership Initiative (NEPI)

Focus:
- Strengthen nursing education systems and support innovative retention strategies;
- Conduct countrywide assessments of nurse training capacity and select three to five nursing schools in each of the countries to receive funding and technical assistance to carry out interventions;
- Implementing partners are BGAC, HRSA, USAID, WHO, CHAI, Columbia University, IntraHealth/Capacity Plus, and Elma Philanthropies;
- Develop evidence-informed global policy guidance on transformative scale up nursing education.

HRSA Global HIV/AIDS Program

- PEPFAR II October 2008 through September 30, 2013
- Healthqual International Cooperative Agreement June 1, 2011 through May 31, 2015

HRSA Global HIV/AIDS Program
Cooperative Agreement

Substantial involvement between the grantor and grantee is expected to carry out the activities in such an agreement.

HRSA Global HIV/AIDS Program

Project Officer

Ensure the effective and proper use of federal program funds;
Ensure that the grant is meeting the programmatic objectives;
Provide technical oversight and monitoring through site visits, and reviewing reports;
Assisting in programmatic challenges.
**Background**

- Measures related to HIV care were developed and implemented by MoH and multiple implementing partners
- Indicators were based on national guidelines and priority areas
- Indicators reflected HCT, PMTCT, Adult & Pediatric ART
- Data showed improvements in key quality indicators across multiple setting and multiple partners

**Opportunities Identified**

- Although there was a clear set of national guidelines there was no one set of corresponding measures
- Confusion at district and facility level
- Inability to compare facilities, districts and regions due to different indicator definitions

**Process**

- QoC technical working group (Core Team) was expanded to assure representative group with technical knowledge
- QoC coordination committee expanded to include wider Health Sector representation to guide QI scale up
- Analyzed data and current indicators to identify similarities and inconsistencies
- Developed and finalized new indicators
- Received approval from MoH
- Disseminated final indicators to all stake holders

**HIV QoC Indicators – HCT**

- HIV Status Disclosure
- HIV test outcomes
- HIV Testing
- Couple Counseling and testing
- Human Resource training
- HMIS Reporting
HIV QoC Indicators – PMTCT

- Baby ARV prophylaxis
- ARVs prophylaxis
- Effectiveness of PMTCT program
- Linkage into care (Baby & mothers)

HIV QoC Indicators – Adult (≥15 yrs)

- ART Clinical outcomes
- Retention of ART patients in care
- Clinical improvement
- ART initiation
- Adherence Assessment
- TB Assessment among HIV+

HIV QoC Indicators – Pediatric

- Continuity of care
- Monitoring HIV status
- Growth monitoring
- Cotrimoxazole Prophylaxis
- ART Access
- Adherence assessment
- TB screening & treatment

Active Patients

Sampling

- Sample size based on caseload to achieve precision of 90% CI + 8%

The HIV QoC Sample Size Chart indicates:
- The minimum number of records to be reviewed, and
- Replacement strategy

<table>
<thead>
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<th>Region</th>
<th>Caseload</th>
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<td>71482</td>
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<td>National</td>
<td>187,239</td>
<td>12,661</td>
<td>129</td>
</tr>
</tbody>
</table>
HIV QoC Indicators – PMTCT

- Baby ARV prophylaxis
- ARVs- prophylaxis
- Effectiveness of PMTCT program
- Linkage into care- (Baby & mothers)

Baseline PMTCT Indicators

<table>
<thead>
<tr>
<th>Exposed Babies initiated on ART</th>
<th>TTOT</th>
<th>Mother ARV Prophylaxis</th>
</tr>
</thead>
<tbody>
<tr>
<td>92.4%</td>
<td>92.4%</td>
<td>87.1%</td>
</tr>
</tbody>
</table>

HIV Counseling and Testing

<table>
<thead>
<tr>
<th>Level</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
<td>16</td>
</tr>
<tr>
<td>IV</td>
<td>37</td>
</tr>
<tr>
<td>District NGO</td>
<td>4</td>
</tr>
<tr>
<td>Hospital</td>
<td>22</td>
</tr>
<tr>
<td>Regional Referral Hospital</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
</tr>
</tbody>
</table>
**HIV QoC Indicators – HCT**

- HIV Status Disclosure
- HIV test outcomes
- HIV Testing
- Couple Counseling and testing
- Human Resource training
- HMIS Reporting

**Facility based HIV Prevalence**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>8.3%</td>
</tr>
<tr>
<td>Female</td>
<td>8.8%</td>
</tr>
<tr>
<td>Male</td>
<td>7.9%</td>
</tr>
</tbody>
</table>

**HIV test outcomes and linkage to care**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTN</td>
<td>125</td>
<td>50%</td>
</tr>
<tr>
<td>HIV+ linked to care</td>
<td>122</td>
<td>77%</td>
</tr>
<tr>
<td>Received HIV test results</td>
<td>154</td>
<td>74%</td>
</tr>
</tbody>
</table>

**National Quality Improvement Priorities**

- Missed appointment
- Adherence to ART
- Immunological Monitoring
- eMTCT
- Linkage of Mothers to care
- Couple Counseling
- Linkage in to Care of HIV+
Country Strategy

- Engagement of all Health sector stakeholders
- Coordination with MoH leadership
  - Core Teams at MoH HQ, depts, Regional and District levels
  - Coordination Committee at MoH HQ
- National QI Framework, dissemination & implementation

National QI Conference

NQIF Launch

Conclusion

- Performance Measurement is critical in identifying quality improvement Needs & Priorities
- Peer Learning at various levels; E.g. Held a National QI Conference (Theme; "Strengthening Leadership for QI")
- Utilization of a National QI Framework to address the identified Improvement Gaps is Key

Mwebale Nyo
Asante Sana
Republic of Namibia

PROJECT TITLE:
FOOD SECURITY SCREENING

Background and Introduction

- Nutrition remains one of the major factors which determine the clinical outcome in HIV care.
- Food insecurity was identified as a significant challenge to care and treatment by consumers and baseline data.
- Importance of proper nutrition management interventions:
  - Helps alleviate some of the side-effects
  - Helps maintain adequate food and nutrient intake
  - Improves adherence to treatment
- Therefore, nutritional counseling should be provided to all PLHIV.
- Appropriate referrals should be encouraged when HCW assess and find deserving clients with food insecurity.

Project Aim/Goal

To identify HIV patients with nutritional challenges and refer them for nutritional support or food services.

Food security indicator definitions (1)

Eligibility: All patients with at least 1 clinical visit during the past 6 months (adult only; age ≥15 years)

Part A
- Numerator: The number of patients assessed for nutrition or food security during the past 6 months
- Denominator: The number of patients with at least one visit during the past 6 months

Food security indicator definitions (2)

Part B
- Numerator: The number of patients identified with nutritional problems referred for nutritional support or food services.
- Denominator: The number of patients who screened for nutrition/food security and identified to have lack of sufficient food/nutrition.
Challenges/Causes

- Initially lack of food security screening tool in the HIV patient care booklet
- Poor documentation
- Lack of proper referral mechanism for patients identified with food security problems
- Lack of effective support groups to address food security
- Staff turnover with consequent high workload
- High national unemployed rate/poverty
- Alcohol abuse

Interventions (1)

To improve food security screening

- Training of HCWs on importance of the indicator/measurement
- Health education to patients/clients (specifically on alcohol abuse since it can affect food security negatively)
- Devise basic, simple food security screening tools
- Improve documentation system
- Reorganize patient flow in some sites to streamline food security assessment
- Identification of a focal person for assessing food security

Interventions (2)

To address food security

- Referrals, documentation/follow-up of patients needing food supplementation to other line ministries and NGOs
- Arrange with effective referral system
- Introduction of NACS (Nutritional Assessment Counseling and Support) programme Nationwide.
- Provision of food supplements from NGOs e.g. E-pap
- Work closely with social workers in assessing food security
- Initiation of nutrition gardens
- Soup kitchen corners (nutritional education)
Lessons Learned

- There is marked improvement in the food security indicator performance in most sites
  - This can be attributed to improved documentation and awareness on need to screen
  - Training of HCWs and clients/patients
  - Availability of nutritional support systems
- In most facilities food security screening and alcohol assessment are conducted together due to the close link
- QI program can help improve national M&E systems

Conclusions

- Proper nutrition management interventions can help PLHIV maintain adequate food and nutrient intake; and improve adherence to the regimen
- Therefore, nutrition assessment, counseling and education should be provided to all clients enrolled in HIV care at each and every clinic visit

Way forward

- Community projects aimed at tackling food security to be identified
- Improving referral systems for patients identified with food insecurity issues
- Roll out of a revised HIV patient care booklet which incorporates food security screening and other indicators

Acknowledgements

- MoHSS
- PEPFAR (CDC NAMIBIA)
- Global Fund
- HEALTHQUAL International
- All participating sites
- Consumers
- ITECH-NAMIBIA

Thank you
Country Profile

- Population – 41,070,34
- Pop. Growth Rate – 2.462%
- Birth Rate – 33.54 births/Woman
- Life expectancy at birth – 59.48 years
- TFR – 4.19 children born/Woman
- HIV Prev. Adult – 6.3%
- FLHIV – 1.5 M; on ART - 538,983
- ART sites – 1,200

Background of HIVQUAL

- Kenya has been implementing HIVQUAL model of quality improvement since 2009
- Started with 15 sites but has expanded to 35 sites as at end of 2011
- 22 performance measurement indicators covering adults, pediatrics, pregnant women and exposed infants
- Have had two rounds of data collection in 15 group one sites and one round for the rest (20 sites)

Background cont...

- Baseline data revealed low CD4 testing across all the sites
  - Lack of CD4 appointment system and a mechanism for tracking CD4 test results were identified as the main causes of the performance gap
- Some sites had difficulties identifying patients who may be falling on 1st line treatment and needed to be switched to 2nd line

Background cont...

- Main challenges identified during round one data collection included:
  - Lack of register to track HIV exposed infants (HEI) and HIV infected pregnant women enrolled in care
    - Information on HEI was captured in the mothers file
  - Although sites had diaries for booking patients, there was no mechanism in place to document patients who actually turned up for their clinic appointment
Background cont...

- Round one data collection produced little information on exposed infants and pregnant women owing to challenges with documentation.
- The results could therefore not be used at the national level; however, the experience revealed lack of a standardized medical record system across HIV clinics.

Improvements in Medical Records Systems

Daily Activity Registers

- NASCOP introduced Daily Activity Registers (DAR) to document patients who attended clinic daily.
- DAR has made it easy for clinic staff to know the number of active patients.
- It is now possible to generate an accurate case list for data abstraction.

HIV Exposed Infants Register and follow up cards

- In order to document follow up of HIV exposed infants (HEI) and determine the outcome of care, NASCOP introduced HIV exposed infants cohort registers and follow up cards.
- HEI registers help clinic staff keep a record of all HIV exposed infants being followed up.
- Follow up cards are used to document HIV care for HEI including HIV testing and growth monitoring.
- Sites can now use HEI registers plus clinic follow up cards for data abstraction.
Improving CD4 Testing

- Changes that were introduced to improve CD4 testing included:
  - Appointment for patients due for CD4
  - Merging CD4 appointment dates with clinic dates
  - Tracking of CD4 testing by date and results
  - Introduction of provider reminders for patients who are due for CD4 testing

Improving CD4 Testing cont...

- Some of the changes that worked well for some sites have been standardized in all HIVQUAL implementing sites. These include:
  - Having appointment system for patients who are due for CD4 testing
  - Merging CD4 appointment dates with clinic dates
  - Tracking of CD4 testing results by dates
- The same changes are being considered for national adaptation

Innovations for Improving CD4 Testing
Improving Treatment Failure Detection

Treatment failure

- Sites introduced mechanisms to help clinicians detect treatment failure early such as:
  - Tracking of CD4 results and body weight

Treatment Failure cont...

- These changes have worked well in sites that picked on treatment failure as their QI project and have been standardized in all other HIVQUAL implementing sites
- The same changes are being considered for nationwide adaptation
Lessons Learnt

- Understanding clinic level systems through flow charting can help identify bottlenecks for quality improvement
- Simple changes in processes of care can result in improved quality of care
- Innovative strategies such as pop up messages in EMRs, yellow/red stickers for cases of interest help drive quality
- Team work and feedback at all levels is key to quality improvement – clinic, regional, national levels
- Quality improvement is feasible irrespective of the setting – paper based, EMRs, public, private facility, etc

Next steps

- Further scale up to other regions/counties
- Partner engagement to support quality program expansion
- Strengthen decentralized structures – regional coaches
- Upload HIVQUAL indicators onto different EMRs in the country to automate performance measurement
- Transition to HEALTHQUAL

Acknowledgement

1. MOH/NASCO Kenay
2. CDC – Kenya
3. HEALTHQUAL Int.
**HIV Quality Improvement Initiatives in Mozambique**

**HEALTHQUAL INTERNATIONAL: ACLN 2012**

**Presenter:** Joe Lara

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**Country Presentation: Mozambique**

**March 27, 2012**

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**HEALTHQUAL INTERNATIONAL: ACLN 2012**

**Rapid expansion of HIV/AIDS care and treatment services since 2003. Currently >270,000 eligible patients receiving ART at >260 service delivery outlets.**

---

**HEALTHQUAL INTERNATIONAL: ACLN 2012**

**Key Challenges to HIV/AIDS in Mozambique**

- High Risk Behavior:
  - Multiple concurrent partnerships
  - Low rates of condom use
  - High mobility and migration among population
  - High rates of transactional sex
- Human Resource Shortage:
  - 332 Medical Doctors (1 per 26,000 inhabitants)
  - 3,397 Nurses (1 per 4,000 inhabitants)
  - 1,401 Physicians Assistants (1 per 9,000 inhabitants)
- Inadequate Infrastructure:
  - Shortage of laboratory equipment (CD4, biochemistry, PCR)
  - Continued reconstruction of IF network destroyed in Civil War
- Quality of HIV/AIDS Services:
  - Missed opportunities to offer integrated package of services
  - High attrition among pre-ART and ART population

---

**HEALTHQUAL INTERNATIONAL: ACLN 2012**

**Key Challenges to HIV/AIDS in Mozambique**

- Loss to Follow-Up in pre-ART/ART Programs:
  - 74% retention rate among ART initiates at 12 months
  - Higher rates of LTFU found among pediatric and male ART population
- Although no KPI system or study has examined pre-ART LTFU, attrition among this population suspected to be very high

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**HEALTHQUAL INTERNATIONAL: ACLN 2012**

**History of HIVQUAL QI Strategy in Mozambique**

- In order to assure the delivery of quality HIV/AIDS services and improve patient outcomes, the Mozambican MoH launched HIVQUAL QI strategy in October 2006.
- As conceived, HIVQUAL would:
  - Routinely define and collect QI indicators;
  - Analyze indicator performance and conduct root cause analyses at all levels of service delivery and program management;
  - Operationalize QI plans designed and implemented primarily at the health facility level (with support from district, provincial and national level QI teams);
  - Compile data at the national level and use indicator results to define MoH priorities and to design new norms and interventions.
- From 2007 to 2011, 3 HIVQUAL rounds conducted within a rapidly growing HIV/AIDS care and treatment program.
HEALTHQUAL INTERNATIONAL: ACLN 2012

Expansion of HIVQUAL QI Strategy in Mozambique

Round 1 (2007) 32 HF
Round 2 (2008) 45 HF
Round 3 (2009) 103 HF

HEALTHQUAL INTERNATIONAL: ACLN 2012

Approach to HIVQUAL implementation in Mozambique

- Organization of Data Collection and Analysis
  - Data collected at health facility by local staff (including clinicians and data clerks)
  - Data cleaning, analyses and report generation also conducted at HF level
  - Compilation of HF results conducted at the provincial level MoH officials
  - Compilation of HF and Provincial results conducted at central level MoH officials
  - Final reports validated and disseminated by the national STI-HIV/AIDS program
- Organization of Quality Improvement Activities
  - After data collection is completed, local staff identify priority indicators
  - for improvement and conduct root cause analysis
  - Based on identified root causes, local staff generates and carries-out strategies and activities for quality improvement
  - Provincial meeting conducted among participating HIVQUAL HF s to discuss common challenges, best practices, and share experiences regarding quality improvement

HEALTHQUAL INTERNATIONAL: ACLN 2012

Approach to HIVQUAL implementation in Mozambique

- Central-Level Role in QI Implementation
  - MoH STI-HIV/AIDS program responsible for data compilation and analysis and for identifying priority indicators for improvement
  - Presentation of HIVQUAL results at national and provincial level meetings
  - Development of new strategies designed to address priority indicators and improve quality of services delivered

HEALTHQUAL INTERNATIONAL: ACLN 2012

2010/2011 Reorganization of QI Structure within MoH

- Creation of a new “Humanization” Department within the National Directorate of Medical Assistance
- Former “ART Committee” management model eliminated in favor of a broader leadership model based on “Quality Management Committees”
- Quality Management Committees established at 4 Levels
  - National Quality Management Committee
  - Provincial Quality Management Committee
  - District Quality Management Committee
  - Health Facility Quality Management Committee
- MoH rebrands HIVQUAL as “CLINIQUEU”, reflecting the desire to extend the QI strategy to other health programs such as PMTCT and Chronic Diseases

HEALTHQUAL INTERNATIONAL: ACLN 2012

CLINIQUEU Results in Mozambique

- Primary Indicators Collected in Round 3
  - Clinical Consultation Follow-up
  - CD4 follow-up
  - Provision of ART Therapy to Eligible Patients
  - Adherence Evaluation and Counseling
  - Provision of Cotrimoxazole Preventive Therapy
  - TB Screening
  - Education for Prevention of HIV Transmission
  - Post Exposure Prophylaxis
Use of Data at Central Level for Quality Improvement

Example 1: Augmenting the CD4 Referral Network

Since the inception of HIV related QI in Mozambique in 2005, CD4 follow-up has always been one of the most preoccupying and under-performing indicators. However, as the greatest constraint has been lack of access to CD4 laboratory equipment, there have been difficulties in creating QI programs successful in addressing this issue. With results presented in Round 2 and 3, the Mozambique MoH began an aggressive plan to augment the CD4 laboratory referral network through the piloting and adoption of point of care CD4 technology (PIMA). Currently, Mozambique is in the process of distributing ~100 PIMA machines with an additional order to be placed 2013.

Example 2: Ensuring provision of CPT to eligible patients

Based on 2009 CLINQUAL findings that only 66% of eligible adults in HIV Care and Treatment received CPT (chemoprophylaxis preventative treatment), a work group was formed in order to create a job aid instrument that clearly diagrams the CPT eligibility decision making steps. The tool was then rolled out to all consultation rooms in 261 ART sites national-wide. Provincial and National level CLINQUAL meetings after Round 3 also provided qualitative information suggesting that low CPT provision rates were due to lack of documentation in patient charts. This finding led to new M&E tools (currently being rolled out) that facilitate documentation of CPT provision.

Example 3: Creating a Culture of QI in all MoH Programs

Based on improvement witnessed during the Quality Improvement cycle from 2007 – 2011, the Mozambican MoH extended CLINQUAL beyond HIV Care and Treatment services applying the same methodologies and processes to the national PMTCT program. Further demonstrating the MoH's commitment to CLINQUAL-based QI strategies, in 2011, the Mozambican MoH created a new department of Quality Improvement and Harmonization of Services within the National Medical Assistance Directorate. The creation of this new department effectively expanded QI activities beyond HIV/AIDS, moving for the first time into other service areas such as Infection control, MCH and laboratory services.

The Future of QI in Mozambique

Round 4 CLINQUAL activities currently in final stage of being completed:
- 120 HF participating
- Both Adult and Child performance indicator reporting and QI interventions scheduled
- Extension of CLINQUAL methodology to PMTCT program

Harmonization of partner [government QI approaches

- MoH, USG and PEPFAR partners currently in the process of finalizing newly operationalized QI strategy that will create one unified approach
- Strategy will link clinical mentoring program and routine surveillance activities with QI Implementation

OBRIGADO!
KANIMAMBO!
THANK YOU!
Country Presentation: Rwanda
Presenter: Alice Umuhongerwa

Outline
- Country profile
- Track 1.0 transition in Rwanda
- RBC/IHDFC/HIV division QI program overview
- QI program strategies & implementation
- Selected results
- Conclusions
- Recommendations & Lessons Learned

EMPOWERING MOH & HEALTH FACILITY STAFF TO IMPROVE & SUSTAIN HIV CLINICAL CARE QUALITY IN RWANDA

Alice Umuhongerwa, (BSc) Endris Mohammed Seid, (MD, MPH)
RBC/IHDFC/HIV Division

All Country Learning Network, Kampala, Uganda
March 27, 2012

Rwanda at a Glance
- Total Population: approx. 11 million
- HIV Prevalence: 3% (2010 DHS)
- Total on ART: 100,656 (> 94% of those in need)
- Total health facilities: 510
  - 412 PMTCT sites
  - 448 VCT sites
  - 396 ART sites

Track 1.0 Transition in Rwanda
- CDC-Rwanda began transitioning financial and technical responsibilities for HIV clinical services at 76 Health Facilities from international NGOs to MoH-Rwanda in 2010
  - All transitioned by February 2012
- Financial and clinical performance of transitioned sites monitored every 6 months
- MOH-Rwanda and HEALTHQUAL developed site-level QI program in March 2011 to help maintain the quality of clinical care

RBC/IHDFC/HIV Division QI Program Overview
- Goals:
  - Improve and sustain quality of HIV/AIDS clinical services at health centers and district hospitals
  - Build national capacity in quality management
  - Integrate QI in the existing clinical mentorship system
  - QI team
    - Coordinates, monitors implementation
    - Selects sites for inclusion based on transition monitoring data & priorities of MoH
  - Phased approach to implementation
    - 9 sites in first phase, 15 more to be added in May 2012

Program Strategies
- Basic QI & performance measurement training
- Collection of clinical performance data
- Validation of clinical performance data collected by site level staff
- Site-level prioritization, gap analysis & changes to improve care
- Coaching Visits
- Peer learning meetings
Coaching visits

- Onsite training to site level QI team members not trained during the offsite training
- Monthly & quarterly visits to facilitate implementation of QI activities through assessment of implementation status of QI projects
- Quarterly data validation exercises to ensure completeness & correctness of the report & support site utilization of performance data

Selected QI Clinical Indicators

- % infants born to HIV infected mothers who are tested for HIV using DNA PCR at 6-8 weeks
- % HIV infected pregnant women that receive ARV prophylaxis
- % lost to follow ups among patients in Pre-ART care who are enrolled into care 4-15 months prior to assessment period
- % ART patients still on treatment 12 months after initiation
- % patients on ART who receive CD4 control 6 months after being initiated on ART
- % patients who received ARVs for 12 out of 12 months

Examples of Site level Identified Gaps

- Appointment system for CD4 control, pharmacy pick up & clinical follow up not harmonized.
- Patients may be given two or three appointments in the same month
- Provider & patient appointment reminder system inefficient
- Patient tracing is not done immediately
  - Almost one month after the patient misses her/his appointment
- Waiting time in some clinics is long
- Patient-level service satisfaction is not conducted

Examples of QI Interventions

Site Level:
- Waiting time is reduced
- Patient with missed appointments called and/or visited 2 days after the date of appointment
- Solicited feedback from patients using suggestion boxes, FGDs & simple questionnaires
- Appointment system for CD4 control, clinical follow up and pharmacy harmonized

National Level:
- QI to be integrated in clinical mentorship guideline & program (process underway)
Conclusions
- QI program improves country capacity & ownership by supporting MOH staff & health workers to incorporate performance data, patient feedback and a systemic approach to improve quality of care
- The 6 month & 9 month follow up data show improved results on CD4 control indicator

Recommendations and Lessons Learned
- Sites need frequent follow-up & continued support to accelerate the implementation of QI programs
- Improvement goals can be achieved if sites are given the necessary technical support & time to implement
- Leadership is a key component to support site-level program ownership
- Patient feedback enhances improvement effort
- MoH-Rwanda
  - Scale-up QI to additional facilities
  - Develop district level pool of coaches, decentralization of program
  - Integrate QI into the existing clinical mentorship program – implementation of guideline

Acknowledgements
- MoH Rwanda
- RBC/IHDPC/HIV Division
- HQ-I
- CDC-Rwanda
- The pilot sites
- ICAP
- IHV/UMB

Thank You
Murakoze
Merci
Thai National ART Program and Utilization for HIV/AIDS Program

HEALTHQUAL ALCN III
25-31 March, Kampala, Uganda

Sorakij Bhakeeecheep, MD
Senior Manager
Fund Management of HIV/AIDS and TB:
National Health Security Office, THAILAND

Topics
1. Background: Thailand national ART program and the existing monitoring system
2. Overview of national ART Information System
3. Utilization of national ART Information System for program planning and improvement
4. Integration of national ART Information System and HIVQUAL system

ART Program, Thailand

Number of PWHA Currently Receiving Antiretroviral Treatment
(Exclude dead & drop out)

Overview of National ART Information System

Module Function

- NAP’s Operating modules
  - Registration
  - Follow up
  - Authorization of 2nd line ARV
  - Laboratory request & report
  - VCT
  - PMTCT
  - PEP
  - Reporting tools

Data source: UNAIDS and Health Sector response report

77% coverage in 2011 (According to CDR 200 inflation)
NAP Outputs
1. For Program Management and Planning

- National Level - National Health Security Office (NHSO)
  - Program management and administration
  - Reimbursement for service expenses to hospital and laboratory
  - Drug management and supply
  - Emergency responses, i.e., 2011 Flooding disaster

- Forecasting of ART needs (1st and 2nd line or more)
  → Annual program planning and budget allocation

- Evidence-based driven policy
  (e.g., CD4 initiation criteria and program plan, VCT strengthening, setting targets for 2012-2016 National Strategic Plan, etc.)

NAP Outputs
2. For Program Monitoring and Improvement at all levels

- NHSO, MoPH and Central Org.
- Regional Health Offices
- Provincial Health Offices
- Service Facilities Hospitals, Labs

Monitoring of key performance indicators and related information:
- Program/service delivery outputs
- Outcome indicators
- Impact indicators
- Early warning indicators of HIV drug resistance (EVI)
- etc.

Data Integration of NAP and HIVQUAL

- The objective of NAP and HIVQUAL are different
  - NAP focuses on reimbursing and program monitoring
  - HIVQUAL concerns about quality management
- Both systems have nearly half of data variables in common, so, some of HIVQUAL indicators can be obtained from NAP directly
- Transferring data from NAP to HIVQUAL system can reduce more than half of key-in workload at hospital level
- More data can be added from medical records

HIVQUAL-T Indicators: Core

 Obtained from NAP

 Need additional key-in

<table>
<thead>
<tr>
<th>Year</th>
<th>Data from 637 Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Case list: 14,200, New Case: 11,400</td>
</tr>
<tr>
<td></td>
<td>Sample: 4,904, Sample New: 9,854</td>
</tr>
</tbody>
</table>

National Health Security Office
Monitoring ART Outcome
Kaplan-Meier Estimated Survival Proportion
PLHA Registering with UC Scheme

General Early Warning Indicators

Case Monitoring
Follow up report on patient treatment outcomes

Awareness of data
## Awareness of data
- Competition results
- Work burden of providers
- Respect to patients

### HIVQUAL measurement data from 2002-2011

<table>
<thead>
<tr>
<th>Yr</th>
<th>No. Hospital</th>
<th>Caselist</th>
<th>Sample</th>
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<tbody>
<tr>
<td>2006</td>
<td>233</td>
<td>48,879</td>
<td>10,616</td>
</tr>
<tr>
<td>2007</td>
<td>651</td>
<td>93,639</td>
<td>35,448</td>
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<tr>
<td>2008</td>
<td>658</td>
<td>118,775</td>
<td>41,673</td>
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<tr>
<td>2009</td>
<td>701</td>
<td>138,844</td>
<td>48,624</td>
</tr>
<tr>
<td>2010</td>
<td>656</td>
<td>117,640</td>
<td>42,574</td>
</tr>
<tr>
<td>2011</td>
<td>529</td>
<td>104,166</td>
<td>63,071</td>
</tr>
</tbody>
</table>

### HIVQUAL measurement data from 2002-2011

[Graph showing data from 2002-2011]
Country Presentation: Vietnam
Presenter: Dr. Nguyen Kim Chi

Country profile
- Population: ~ 87 million
- 63 provinces
  - 712 districts
  - >11,000 communes
- Lower middle-income status
- Strong central authority
- Concentrated epidemic; high geographic & population variation
- Est. ~250,000 infected; 16-38,000 new infections annually

HIV Prevalence Among Various Groups 1994-2010
- Injection drug use is the dominant route of HIV transmission
- HIV prevalence in the general population is less than 0.5%


Care and Treatment Situation
- 314 outpatient clinics (OPCs) in 63 provinces
- 61,763 patients on active ART by Jan 2012
- Q1 was implemented by individual INGOs but lacked national coordination and leadership
- Recent National AIDS program and PEPFAR strategies emphasized quality improvement for C&T services
- PEPFAR/CDC introduced HIVQUAL to MOH in 2010

HIVQUAL Vietnam Leadership
- MOH/Vietnam AIDS Administration (VAAC) leadership:
  - Unified various Q1 efforts in the country and formed national TWG
  - Assigned national level Q1 coordinator and PM officer as focal points for Q1
  - Set up and led regular TWG meetings on HIVQUAL with participation of different partners
  - Collaborate with PEPFAR/CDC in providing guidelines and technical assistance for initiation of HIVQUAL in Vietnam

HIVQUAL Vietnam Organization
- HIVQUAL TWG consists of stakeholders who come from 5 international organizations in addition to 4 government agencies/institutes:
  - VAAC (MOH), HCMC PAX (Provincial AIDS Commission), Hanoi School of Public Health (HSHP), Pasteur Institute (PT)
  - CDC, Global Fund (GF), WHO, PEPFAR, HAVN
- Different organizations work together to achieve national goals of Q1 in an integrated national program that supports MOH:
  - Regular TWG meetings on selected topics, including indicator development
  - Group work to develop national Q1 work-plan, review progress and implement planned Q1 activities
  - Identify issues that need to be addressed and follow-up activities
- National subgroups of HIVQUAL TWG formed for data collection and curricula development:
HIVQUAL Vietnam Pilot Phase

- 11 clinics selected in 5 provinces (3 northern and 2 southern provinces) and supported by PEPFAR and Global Fund
- Pilot phase from April to September 2012
- Start with 10 clinical indicators

Performance Measurement (PM)

- Ten core QI indicators defined by care and treatment TWG and OPC staff
  - 3 pre-ART indicators, 4 ART indicators and 3 indicators for both
- Data abstraction tool developed
- MS Access application developed to:
  - Help with sampling
  - Document sample and sample size
  - Enter data
  - Standardize reporting for 10 core indicators
- Site-Level training in data collection and PM. TWG provides immediate on-site TA and feedback to sites, integrating data quality into the coaching process
- Data are used for site level quality improvement priority setting and planning

Data Quality Issues and Solutions: Integrating Data Quality into Routine Performance Measurement

- Sampling requires a list of registered "eligible" patients in the OPC
  - OPC patient lists are in different formats require modification for standardization
  - Standardization allows easy updating of patient list for next round
- Information feedback on routine data management and reports → data quality assurance (DQA) process
  - Patient records management: missing patient records and differences in how records are completed
  - Data management minutes: recording of data quality issues for discussion with OPC and PAC staff
  - Data verification: Periodic cross-checking of report on selected indicators with abstraction forms

Results of 10 indicators:
ART INITIATION

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Results</th>
<th>Percentage 25%-75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of new patients registered for treatment during the assessment period were tested for CD4 for the first time within 16 days</td>
<td>227</td>
<td>85.7%</td>
</tr>
<tr>
<td>Proportion of qualified-ARV patients have not been initiated for ARV in last 6 months</td>
<td>250</td>
<td>41.4%</td>
</tr>
<tr>
<td>Proportion of patients started on ART within 30 days of clinical eligibility</td>
<td>250</td>
<td>57.5%</td>
</tr>
<tr>
<td>CD4 counts of patients at initiation of the ARV treatment</td>
<td>235</td>
<td></td>
</tr>
<tr>
<td>CD4 &lt;100</td>
<td>235</td>
<td>41.9%</td>
</tr>
<tr>
<td>CD4 100-&lt;249</td>
<td>235</td>
<td>30.9%</td>
</tr>
<tr>
<td>CD4 250-&lt;350</td>
<td>235</td>
<td>20.4%</td>
</tr>
</tbody>
</table>
Results of 10 indicators (cont’)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>n</th>
<th>Mean</th>
<th>Percentile 25%-75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of patients not receiving the ARV came for regular medical re-checking</td>
<td>300</td>
<td>73.8%</td>
<td>67.9%-85.1%</td>
</tr>
<tr>
<td>Proportion of ARV patients came back the OPC for the medical visit as arranged at the last appointment</td>
<td>1170</td>
<td>94.8%</td>
<td>96.4%-96.5%</td>
</tr>
<tr>
<td>Proportion of ARV patients who are assessed for medication compliance in the last medical visit</td>
<td>1170</td>
<td>93.7%</td>
<td>91.0%-97.8%</td>
</tr>
<tr>
<td>Proportion of qualified patients were prescribed with CTX or DAPSFONE at the last medical visit</td>
<td>685</td>
<td>59.4%</td>
<td>36.3%-66.0%</td>
</tr>
<tr>
<td>Proportion of patients screened for TB in the last medical visit</td>
<td>1470</td>
<td>50.9%</td>
<td>-3.9%-47.5%</td>
</tr>
<tr>
<td>Proportion of patients are tested for CD4 at least once in last 6 months</td>
<td>1624</td>
<td>78.7%</td>
<td>75.7%-84.4%</td>
</tr>
</tbody>
</table>

HSPH & PI roles in HIVQUAL Vietnam

- Vietnamese government institutions trained in Vietnam Management and Leadership Training Program (VMLTP) and in QI (TQM), with management focus, since 2005
- Current role of HSPH and PI:
  - In 2011, participated in national HIVQUAL TWG to jointly develop curriculum and provide training in QI.
  - In 2012, involved as members in national coaching team.
  - Disseminate and share experiences and outcomes of the HIVQUAL program.
- Long-term sustainability plan for HSPH and PI:
  - Assume responsibility from international donors in providing QI coaching for provincial and facility levels.
  - Integrate HIVQUAL into VMLTP curricula of HSPH for post-graduate students.
  - Engage VMLTP alumni and trainers as coaches in the HIVQUAL training.

Quality Improvement

- QI Subgroup of national HIVQUAL TWG:
  - Members: MOH/VAAC, CDC, FHID68, HAVN and HSPH
  - Develop training curricula and coaching plan
- QI training:
  - Each clinic selects two indicators
  - Analyze causes of variation
  - Introduction of QM infrastructure and reporting system
- QI coaching:
  - Assists provinces and clinics to develop facility work-plan to improve selected indicators
  - Provincial HIVQUAL plan covers QM, QI and PM

Quality Improvement: Coaching Plan

- To be implemented over next 2-3 years
- Local consultants and experts from international organizations who participate in national HIVQUAL TWG.
- External TA from HEALTHQUAL and others.
- Hanoi School of Public Health (HSPH) and Pasteur Institute (PI) work with national TWG to build capacity of provincial coaches

Peer Learning Plan

1. National Level
   - Web-based network:
     - A portal for PM database and QI projects
       - Regularly updated every 6 months
     - A forum for QI implementers to discuss projects
     - QI bulletin postings
   - Annual peer-learning workshop
2. Provincial Level
   - Quarterly QI meeting
   - Site visit exchange to well performing provinces
   - Storyboard, newsletter, bulletin,...
Training in HIVQUAL for provinces

Meeting with district clinic

Thank you for your attention!
Country Presentation: Zambia
Presenter: Dr. Jubra Muyanga

QI Program in Zambia
Dr. Jubra Muyanga, QA/QI Medical Officer

Zambia’s MOH Mission
“To provide equity of access to cost-effective, quality health care as close to the family as possible.”

To achieve this, Zambia needs to embrace key elements of healthcare delivery, such as strong health systems and structures, and availability of necessary inputs.

Zambia Country Profile
Area: 752,614 km²
Capital: Lusaka
Popn: 13 million
Popn growth: 3.35
HIV Prev.: 14.3
IMR: 70
< Mortality: 110
MMR: 591

QI Achievements
- 2005 Introduction of Performance Improvement Approach (PIA)
- Developed PIA training manuals
- Re-established QA/QI Unit at MOH
- Established National TWG led by MOH
- Developed QI Guidelines for Health Care Providers in Zambia

Focus for 2012
- Roll out of PIA trainings nationally
- Disseminate QI Guidelines
- Incorporate QI into pre-service training curriculum
- Strengthen data utilization for QI of programs
- Monitor and evaluate QI activities
- Conduct Operations Research
Epidemiology for Data Users (EDU)

- This is a training program to train NAC, CSO and MOH staff to improve data quality, and to summarize and use routinely collected data for local decision-making.
- Since 2011, 89 provincial staff were trained, who then trained 175 district staff.
- 250 more staff will be trained in 2012, covering each district and province in the country.
- The Epidemiology profile is the capstone for this training.

What is an Epidemiologic Profile?

- A document that uses epidemiologic principles to characterize the status of a disease in a population and the services available to address it.
- Involves extraction and summarization of data from key data sources for a defined:
  - Geographic region
  - Period of time
- Provides analysis and interpretation of these data in text and figures.
- Produces a written report that concisely describes findings and provides recommendations.
- Helps to identify priority needs and emerging problems.

Example of EPI Profile - North Western Province

- Located 578 kms from Lusaka
- Population = 837,055 (CSO, 2000)
- 7 Districts
- 154 Health Institutions (Dec., 2010)
- Mineral rich: Copper, Uranium, Gold
- Subsistence: Agric. & animal husbandry
- Vast forests, heavy rains and rich soils
Conclusion
By integration of EDU, HMIS roll-up and QI interventions, Zambia will move towards building a comprehensive program to improve quality and use data for decision making.

“Perfect care may be a long way off, but much better care is within our grasp.”

Acknowledgements
- HEALTHQUAL International Team
  - Dr. Bruce Agins
- MOH Leadership
  - Trust Mufune
- MOH QI Team
  - Rachel Lungwebungu
- CDC Zambia
  - Dr. Jonas Mwale
  - Dr. Melissa Marx
  - Dr. Bridget Mugisa
Using Early Warning Indicators to Improve HIV care & treatment services

Josephine, Joseph, Fabian, Lydia, John
Kampala, Uganda
March, 2012

Presentation Outline
- Background
- National QA/QI perspective
- EWI protocol
- EWI survey results
- Challenges
- Next steps

Background
- By the end of 2009, about 1.1m Zimbabweans were living with HIV and AIDS (2009 HIV Estimates)
- Estimated prevalence of HIV is 13.6% (2009)
- 1,090 patients dying weekly due to AIDS
- A total of 411,000 patients on treatment (69%)
- 590 sites accredited as ART sites to date

QUALITY ASSURANCE: NATIONAL PERSPECTIVE
- Vision: highest possible level of health and quality of life for all citizens of Zimbabwe.
- Mission: provide... equitable, accessible, and acceptable quality health services
- Established a department of Quality Assurance / Improvement (QA/QI) to coordinate the development and monitor performance of quality management systems.
- The context of QA / QI in the National Health strategy - Equity and Quality of the Health Services

Introduction to HIV DR Monitoring
- HIVDR Prevention and Assessment Strategy
  - 2008 – 2012 Strategic plan with all the elements
- Objectives of the strategy
  - To assess HIVDR emergence and transmission (HIV DR Monitoring Survey)
  - To assess ART program practices related to HIVDR prevention (EWI Survey)
  - To use results to minimize the emergence and transmission of HIVDR (HIV DR Threshold survey)
Introduction to HIVDR Early Warning Indicators

- Specific ART programme factors are known to be associated with the emergence of HIV drug resistance (HIVDR) during antiretroviral treatment (ART)
- Evidence-based actions to minimize preventable HIVDR requires monitoring of indicators at ART sites
  - WHO recommends the monitoring of a feasible set of HIVDR "early warning indicators" (EWI) from all ART sites, or a nationally representative subset of sites

Goals for EWI survey

- Assess the quality of Zimbabwe ART program
- To generate recommendations on how ART program design might be strengthened so that the survival and quality of life of HIV-infected adults receiving ART can be improved.
- To assess the extent to which the Zimbabwe ART program is functioning to optimize prevention of HIVDR

Design and Data Sources

- Retrospective cohort analysis of treatment outcomes
- Patient charts reviewed at selected health facilities,
- Clinic registers and logbooks,
- Interviews with senior health care workers at each site.

The Approach....

- Training of site staff
- Data extraction by site staff assisted by district staff
- Data verification by district and provincial staff
- Data dissemination to site, district, provincial staff and partners
- Data cleaning and analysis
- Data verification by the national staff
- Recommendations and report writing
- Support and supervision mentorship, technical working group meetings

List of early warning indicators (EWI)

1. Prescribing practices
2. Lost to follow-up during the first 12 months of ART
3. Patient retention on first-line ART at 12 months
4. On-time ARV Drug pick up
5. ART appointment-keeping
6. ARV Drug Supply Continuity

EWI Trends 2007-2010

<table>
<thead>
<tr>
<th>Early Warning Indicator</th>
<th>EW1a 100%</th>
<th>EW1b ≤ 20%</th>
<th>EW1c ≤ 50%</th>
<th>EW1d ≤ 50%</th>
<th>EW1e ≤ 50%</th>
<th>EW1f ≤ 50%</th>
<th>EW1g ≤ 50%</th>
<th>EW1h ≤ 50%</th>
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<tr>
<td>2007 (N=179,%)</td>
<td>69</td>
<td>70</td>
<td>72</td>
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<td>2009 (N=243,%)</td>
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<tr>
<td>2010 (N=479,%)</td>
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</tr>
</tbody>
</table>
### Initial analysis of EWI data 2006/2007/2008

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Achieved Results (Mean and Range) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost to follow up at 12 months</td>
<td>20 (0-38.6)</td>
</tr>
<tr>
<td>Retention on first line at 12 months</td>
<td>70 (47.1-93)</td>
</tr>
<tr>
<td>Months of Drug stock outs</td>
<td>86 (33.3-100)</td>
</tr>
<tr>
<td>Prescribing Practices</td>
<td>100</td>
</tr>
</tbody>
</table>

### Decision: HIVDR Monitoring
- HIVDR prevention and assessment strategy
  - 2008-2012 Strategic plan developed
- Establishment of:
  - 3 pilot HIVDR monitoring survey sites
  - 12 HIVDR threshold survey sentinel sites
- Expansion of EWI sites
  - Increase of EWI indicators from 4 to 6

### Preliminary results of HIVDR Survey
- 1166 HIV-naive patients enrolled in the HIV Drug resistance monitoring protocol
- In Zimbabwe as of October 2009 to March 2010, of whom
- 865 (73.9%) were females. Mean age was 38.5 (SD±10.5) years.
- A HIVDR mutation was present in 74 (6.3%, 95% confidence interval (CI): 5.0-7.9) samples.
- HIVDR per drug class was 1.3% (CI: 0.7-2.1) for NRTI, 4.8% (CI: 3.6-6.1) for NNRTI, and 0.9% (CI: 0.4-1.5) for PI.
- Four samples had anticlass resistance to NRTI and NNRTI.
- The most common drug resistance mutations were K103N (2.5% [24/1166]), Y181C (1.2% [14/1166]), Y106A/M (0.9% [5/1166]), K219E/N (0.3% [4/1166] and K101E (0.3% [4/1166]).

### Decision: Viral load monitoring for patients on ART
- National recommendation: viral load monitoring for ART patients
- Decision to use National AIDS Trust Fund to procurement viral load machines
- 5 Central hospitals chosen as initial sites
- Plans to expand the service to provincial hospitals

### HIVDR EWI Challenges
- Shortage of human resources and skills resulting in the need for continued training
- Poor record keeping at site level
  - M & E system is paper based
  - A number of tools are being used to track the same patient
- Poor quality (completeness, timeliness) of reports

### The Future
- Increase the number of sites
  - Number of sites increased to 150 in 2012
  - Capacitate health information department at site, district and provincial level
- Site level capacity development through training, mentorship and support
- Aim is to integrate EWI into routine M & E system and implement at all ART sites
**IMPACT OF HIVQUAL ACTIVITIES IN THE HAITIAN HEALTH SYSTEM**

**ACLNI-KAMPALA 2012**

**BACKGROUND**

- **HAITI**
  - Caribbean isle
  - **Area**: 27,000 km²
  - **Population**: 10,000,000
  - **Health facilities**: 900
  - **HIV Prevalence**: 2.2%
  - **PLWHA**: 180,000
    - (M: 40%, W: 60%)

**HEALTH CARE DELIVERY SYSTEM IN HAITI**

**MANAGEMENT MODEL OF THE PROGRAM**

- **Donors**: GF, MOH, PEPFAR
- **Role**: Financing Technical Support
- **Mechanisms**: MOH, UN/PEPFAR, Network, Network, Network
- **Implementation**: POS

**M&E TOOLS FOR HIV PROGRAM**

- Early in the program (2004-2005) we decided to build our M&E system on technology
- Two strong web-based electronic system financed by PEPFAR:
  - **MESI**: Monitoring Evaluation and Surveillance interface
  - **EMR**: Electronic Medical record
SNAPSHOT ON MESI AND EMR

- MESI: www.mesi.be

- EMR: Electronic Health Record. It contains longitudinal data about all cases received by patients in health facilities.

LIMIT OF THOSE SYSTEMS BEFORE HIVQUAL

- Mainly use for collecting and/or submitting data to donors
- Quality and completeness of these data were medium.
- The EMR was limited to HIV
- Lack of use of the data collected for decision making

HIVQUAL HAITI HISTORY

- In 2007, the MSFP adopted the HIVQUAL methodology as a national program for monitoring and improving systems of care delivery for persons living with HIV.

- Tea performance indicators to measure the quality of HIV services covering adult and pediatric care and treatment, and PMTCT were developed through a National Advisory Committee of PEPFAR partners and stakeholders convened by MSFP in late 2007.

- 19 HIV clinics were selected to begin HQ-HT, representing a mix of regions, clinic types and degree of support by partners.

- Data collection was expedited by the incorporation of the indicators into the EHR.

HIVQUAL-HAITI ORGANIGRAM

COACHING ACTIVITIES

- Each region/department is assisted by one Coaching Team
- The Coaching Team is responsible to conduct the Organizational Assessment
- It is also responsible to conduct if needed Training on Quality Improvement Methodology at regional or clinic level each year
- Due to the EMR the Coaching Team can have quickly an idea of the progress of each clinic.
- The regional Coaching Team identifies the leaders to be rewarded to reinforce the culture of quality at the clinic level.
- To date, 10 leaders at the clinic level have already attended at various international events on Quality Improvement

BENEFICENCE OF THE EMR

- Due to the EMR the Project Improvement Team in the clinics focuses more on Quality Improvement activities than to collect data
- With the EMR we can consider all the patients without sampling
- This last opportunity allow the National Level to use the HIVQUAL Report for performance purpose
SEMI ANNUAL HIVQUAL MEETING

- Each semester we organize a HIVQUAL meeting where the performance of clinic, department and National level are analyzed.
- We organize also a contest between clinics on their selected project and the winner is eligible for international events.
- Each project in the contest is submitted as abstract in all international Quality Improvement Conference.
- As a result we submitted this year 14 abstracts in IHI, AFRAVTH and IAS Conference.
- Finally this meeting allow the National level to set priorities.

IMPLEMENTATION GAP IN ARV ENROLLMENT AS OF JUNE 2011

- HIV Patients medically eligible for ARV by June 2011
- Total - 648 Patients
- Non Enrolled on ARV: 40%
- Enrolled on ARV: 60%

CONSEQUENCES

- For FY12 the National Target for ARV Enrollment is 10,000 patients.
- All Network will contribute depending of their number of eligible patients.
- All ARV clinic in HIVQUAL are required to work on ARV Project Improvement this year.
- Each ARV clinic has a specified benchmark.

NEXT STEPS

- As a result of the success of HIVQUAL Activities we are in process to implement a general patient chart integrated in the EMR which will allow to move to HEALTHQUAL.
- A large set of Quality indicators regarding TB, Malana, Maternal and Child Care will be followed to match the priorities of MOH.
- A full integration of all M&E tools and the care services provided in the health facilities will allow the MOH to improve the quality of life of the population.
Swaziland Ministry of Health
National Quality Assurance Program
Presentation in ACLN conference in Uganda 26th -30th March 2012

Presenter: Thulile Dlamini
Program Manager
Team Members: Dr Jabu Muvunila, Thongile Mndzebele, Gugu Masinga, Thulile Dlamini

Presentation Outline
- Introduction/Background
- Programs Key milestone
- Challenges
- Future Plans
- Lessons Learned
- Conclusion

Background
- Quality Assurance Program was established by the Ministry in October 2005 by COHLSASA in collaboration with SAHED & introduced to stakeholders in 2007.
- QA program has evolved in phases.
- Simultaneous with the evolution in the national quality assurance program, different aspects of the Swaziland Ministry of Health included quality assurance in their units. Notable programs include:

Background (cont’d)
- The National Clinical Laboratory Services, which initiated WHO’s Strengthening laboratory Management towards Accreditation (SLMTA) program;
- The National TB Program, which initiated a health care improvement program in conjunction with University Research Corporation
- The National AIDS Program, which initiated the HIVQUAL program in conjunction with UNICEF and HEALTHQUAL International
- Male Circumcision Quality Assurance was established to ensure that Male Circumcision services are delivered according to the WHO standards.
- The Swaziland National Blood Transfusion Services
  - Have Quality Assurance in place that ensures high standards of blood and blood products quality. This includes functional machinery and address customer care.

Key milestones
- Finalization of the QA Strategic plan
- Capacity building of Regional QA teams
- Selection criteria was developed (M&E officer, EHO, Clinic Supervisors, Pharmacists, & facilities QA focal persons).
- 1st phase training conducted & 2nd phase due 2nd-5th April 2012. QI Consultant facilitating.
Key Milestones........

- QI projects selection by each region & implementation of the projects in progress.
- 1st Coaching & Mentoring of the QI projects conducted 20th - 24th February 2012 by HQA team.
- QA - conducting baseline assessments in 2 health centres & 2 specialized hospitals.
- 100% public hospitals & health centres – baseline conducted.

Key Milestones........

- 21% clinics with quality improvement activities.
- Health Standards for hospitals and health centres finalized.
- QA Comprehensive tool developed – through harmonized existing tools and included standards & criterions.
- Established relationship with Corporate Partners to support Health Awards initiative.
- Conducted Health Awards for best performing health facilities, Regions & programs.

Key Milestone......

- MOH developed the Essential Health Care Package, Essential Medicines List & Standard treatment guidelines documents. These enhanced the work of health quality.
- Established link with M&E however, it needs to be strengthened.
- Expansion of the QA technical Working Group.

Lessons Learnt

- Health quality should be rebuilt within existing systems. This enhances its institutionalization.
- Health facilities have a positive attitude towards quality improvement concept even those where Quality has not been introduced.
- Team work is the best strategy towards achieving positive results & involvement of all relevant stakeholders.
- Sharing and learning experiences are very essential.
- The public’s awareness on Quality issues is vital.
- Monitoring & Evaluation and feedback is very essential.
- Consistent supportive supervision, coaching and mentoring.

Future Plans

- Launching, dissemination of QA standards & strategic plan documents.
- Orientation on the above documents.
- Training of the 1st RQA team & their Certification for continuous coaching and mentoring activities within regions.
- Strengthen and supporting regions to use the QI methodology in addressing existing gaps in all service areas and departments.

Future Plans........

- Expand capacity building on quality to health care workers in health facilities.
- Conduct a Comparative study on impact of Quality in the 3 levels of health care service delivery.
- Hold a Quality management Annual general meeting for reporting and sharing for all stakeholders.
Conclusion

- The Ministry of Health is engendered to incorporate quality improvement in all service areas in order to improve performance and service delivery at all levels and measure the performance regularly for sustenance. This will promote quality of life of the entire Swazi nation and reduce morbidity and mortality rate.

- The MOH appreciates that quality is a systems intervention thus quality is for all facilities, units, departments, programs etc in health.

QUOTE

"Most of the important things in the world have been accomplished by people who have kept on trying when there seemed to be no hope at all."

- THANK YOU!
- SIYABONGA!
Plenary Presentations
Summary of Presentation

Title: Creating a Partnership for HIV-Free Survival: Using the NACS Platform to Support PMTCT

Speaker: Amie Heap

Overview of presentation:

Amie Heap described the genesis of international integration of nutrition into HIV/AIDS programs through support from the WHO, PEPFAR and the World Health Organization. This support led to the implementation of Kenya’s ‘food by prescription’ program for nutrition assessment, counseling and support (NACS) for people living with HIV and AIDS (PLWHA) in clinical care and treatment services. NACS is a platform for integrating nutrition into the continuum of care through nutrition care and support, HIV-free survival, economic strengthening and health system strengthening and it is employed on a clinic, community and national level. NACS has been implemented in Kenya and Malawi and is being implemented in 12 other countries. Amie Heap further discussed the partnership for HIV-free survival, a component of NACS that focuses on implementing the 2010 WHO infant feeding guidelines. She also highlighted the importance of using performance data in the NACS platform to assess the effectiveness of interventions, identify successful approaches, inform and improve program design and to report results to national governments and other partners.
Plenary: Creating A Partnership for HIV-Free Survival
Presenter: Amie N. Heap, Nutrition Advisor, Office of HIV/AIDS, USAID

Creating A Partnership for HIV-Free Survival
Using the NACS Platform to Support PMTCT

Some Thoughts on QI and Nutrition...
“if you are not confused, you are not paying attention.”
— Steve Jobs

“True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information.”
— Winston Churchill

“We have an important opportunity to integrate nutrition into care, and we should get lost in the weeds.”
— Anonymous Colleague

PMTCT Session – Part I
• Define and describe the NACS approach
• Provide an overview of the Partnership for HIV-Free Survival
• Describe the project opportunities as they relate to quality improvement

Genesis of Integrating Nutrition within HIV/AIDS Programs
• 2005: WHO Consultation on Nutrition & HIV/AIDS in Durban, South Africa calls for “the integration of nutrition into the essential package of care, treatment and support for people living with HIV/AIDS and efforts to prevent infection.”
• 2005: Congress mandates PEPFAR to “develop and implement a strategy to address the nutritional requirements of those on antiretroviral therapy.”
• 2006: The World Health Assembly passes a resolution calling on Member States “to develop evidence-based policies and programs on HIV/AIDS and nutrition.”
• 2006: Kenya implements Food by Prescription as national program for nutrition assessment, counseling & support (NACS) for PMTCT in clinical care & treatment services.

NACS – Nutrition Assessment, Counseling & Support

GOAL: Improved health and quality of life

OBJECTIVES:
• Improve nutritional status
• Improve infant survival
• Reduce food insecurity
• Strengthen health systems

NACS: A platform for integrating nutrition into the continuum of care
Phased Implementation of NACS

- Program Expansion: Côte d’Ivoire, Ghana, Ethiopia, Uganda, Tanzania, Namibia, Zambia, Haiti
- implemented at National Scale: Malawi and Kenya

**GOAL:** Improved health and quality of life

**OBJECTIVE:** Improve infant survival

Partnership for HIV-Free Survival Plan

- Supported via Nutrition Acceleration funds at the HQ and country level
- Includes a consortium of technical partners (WHO, IHI, HIC, FANTA-3)
- Focus countries: Kenya, Lesotho, Mozambique, South Africa, Tanzania, and Uganda
- Open to other countries interested in participating
- Focus is on supporting the elimination agenda via implementation of puerperal nutrition and feeding support and ARVs
- **Opportunity to document best-practice, create learning network and inform national scale-up**

NACS and Performance Data

- Assess the effectiveness of interventions
- Identify successful approaches
- Inform and improve program design
- Report results to national governments, donors and others

**KEEP CALM AND CARRY ON**
Title: Improving HIV-Free Survival of Infants Born to HIV-Infected Mothers: Using Quality Improvement to Improve the Postnatal Continuum of PMTCT Care Through NACS

Speaker: Dr. Nigel Rollins

Overview of presentation:

Dr. Nigel Rollins continued the discussion of HIV-free survival and emphasized the need to utilize quality improvement to ensure the effective implementation and successful outcomes of NACS. NACS and the partnership for HIV-free survival are contributing to the Elimination initiative in its focus on post-natal PMTCT care. The WHO 2010 guidelines on HIV and infant feeding recommend that all women with CD4 counts less than 350 be on ARV medications for life, and that countries pick a consistent national strategy for breastfeeding. The national strategy must either ensure that all HIV+ women who are breastfeeding be prescribed ARVs or ensure that HIV+ mothers of infants do not breastfeed and follow a formula feeding plan. In countries where formula feeding is linked to a high rate of infant death, the country should adopt the national strategy of promoting breastfeeding for infants born to HIV+ mothers and ensuring that all women breastfeeding are on ARVs to prevent transmission. This approach to infant feeding is designed to ensure the greatest chance of HIV-free survival for infants. Specifically, the HIV and infant feeding guidelines set forth a breastfeeding plan that requires HIV infected mothers to exclusively breastfeed for the first 6 months of life and continue breastfeeding with the addition of complementary food until 12 months of life. An important component to this guideline is that breastfeeding should only stop when a nutritionally adequate and safe diet can be provided to the infant.

After explaining the WHO 2010 HIV infant survival guidelines, Dr. Rollins elaborated on data supporting the strategies outlined in those guidelines. He provided evidence to demonstrate that ensuring ARV treatment in breastfeeding mothers is the most efficacious way of preventing postnatal mother to child transmission. Further, he outlined the dangers of formula feeding in a study that evaluated formula in South African PMTCT sites and found 63% of formula to be heavily contaminated with *E.coli*, 28% of formula to be diluted, and supply issues preventing consistent access to formula. Dr. Rollins then discussed implementation challenges and presented data from implementation sites to demonstrate that the complexity of PMTCT systems allows for many steps where a mother and infant can fall out of care. The difficulties in fulfilling each part of the multi-step PMTCT continuum decrease the efficacy of child survival interventions. Looking ahead, Dr. Rollins stressed the need to collect data on the scale-up of child survival interventions and the need to bring quality improvement into the partnership for HIV-free survival. Dr. Rollins noted that the next steps in this scale up process are to engage Ministries of Health, key agencies, and in-country partners and to integrate with national Elimination, nutrition and MNCH scale-up plans. He also highlighted the importance of a common framework for QI intervention and evaluation to adequately monitor the scale-up process.
Improving HIV-Free Survival of infants born to HIV-infected mothers

Using Quality Improvement to improve the postnatal continuum of PMTCT care through NACS

Nigel Rollins
Department of Maternal, Newborn, Child and Adolescent Health

Maternal health and child outcomes

- The WHO 2010 Guidelines on HIV and infant Feeding, ART and PMTCT represent a major breakthrough;
- Little has been reported on the process of integrating and scaling up these interventions;
- Empiric evidence from well-designed and conducted and evaluated at scale would be a major contribution to guide future implementation and guidelines.

Mother and child survival in the context of HIV are inextricably linked

- 80% HIV-related maternal deaths are in women with CD4 counts <350/ml
- 80% infants who become HIV-infected are born to mothers with CD4 <350/ml
- Infants who are HIV infected are 17-30 times more likely to die
- When a mother with HIV dies, her children are at least 4 times more likely to die

Revised WHO Recommendations on the use of antiretroviral drugs for treating pregnant women and preventing HIV infection in infants (2010)

- Eligibility criteria for ART
  - CD4 count <350, irrespective of clinical stage
  - Clinical stage 3 or 4, irrespective of CD4 count
  - The 2010 recommendations provide two additional ARV options for women (not on ART) who breastfeed:
    - A daily NVP for infants from birth until the end of the breastfeeding period.
    - E) continued regimen of triple ARV therapy to the mother until the end of the breastfeeding period.
National (or sub-national) health authorities should decide whether health services will principally counsel and support mothers known to be HIV-infected to:

- breastfeed and receive ARV interventions, or
- avoid all breastfeeding.

as the strategy that will most likely give infants the greatest chance of HIV-free survival.

(Children of HIV-infected mothers remaining HIV uninfected and staying alive)

---

... in settings where national authorities decide to promote and support BF and ARVs:

Which breastfeeding practices and for how long?

Mothers known to be HIV-infected (and whose infants are HIV uninfected or of unknown HIV status) should exclusively breastfeed their infants for the first 6 months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life.

Breastfeeding should then only stop once a nutritionally adequate and safe diet without breast milk can be provided.

---

HIV free survival

- Policy, interventions and programmes (including cost-effectiveness) should be judged on their ability to promote HIV free survival among all children and the health and survival of mothers.

... and not just HIV transmissions averted.

---

Why does WHO recommends that national authorities promote a single infant feeding strategy for all HIV-infected mothers and their infants?

- High quality evidence that ARVs very significantly reduces the risk of HIV transmission through breastfeeding
- Documented evidence of increased mortality when replacement feeds are given inappropriately in the context of HIV
- Even with good protocols and training, difficult to assure high quality counselling and support for all infant feeding practices
- Cost effective interventions are available that improve survival of mothers and infants and reduce transmission

---

Kesho Bora: All infants: HIV-free survival

[Chart showing infant HIV-free survival rates by 52 months of age, with data points and statistical analysis]

---

Mma bana study

[Graph showing viral suppression rates, with different groups indicated]

Viral suppression >92% of groups
Breastfeeding, Antiretroviral and Nutrition (BAN) study (Chasea, IAS 2009)

- Mothers receive lamivudine/tenofovir for 26 weeks throughout BF period.
- Breastfeeding infants received daily NVP for 6 months.

Replacement feeding in PMTCT sites

- Sample of milk collected from bottles (n=94) being offered to infants brought by mothers to PMTCT clinic follow-up visits:
  - 65% heavily contaminated with E.coli
  - 25% diluted (based on protein concentration)

In spite of:
- All mothers having completed 12 years of education
- 75% having tracheostomy
- All received good counselling on IFP

- 15-20% of mothers reported free
- 11% being used for something other than index child
  - Solid
  - Exchanged
  - 20-25% reported running out
  - Mostly because of clinic supply

Knowledge of nurses and counsellors about risk of BF transmission

- Response to question: If 100 HIV-infected women breastfeeding until their children are two years old, how many children will be infected?
  - 25%

Effective interventions

Risk factors

Health system issues

How does a mother decide whether or not to attend for care and how she feeds her child?

- If she considers that health services serve her interests and those of her child
- If benefits of attendance are not prejudiced by the way she is received by health staff
- If the sentiments of families and communities are favourable towards the health services

While much is reported on implementing an intervention or package of interventions at scale, little is known about the process of scaling up, namely moving from delivery in one district to national coverage.

Interventions aimed at reducing financial or physical barriers needs to consider questions of affordability, equity and sustainability at scale.

Strategies taking health interventions to communities can increase the uptake and improve the quality of local services. Their impact on maternal, newborn and infant mortality has been promising though inconsistent, suggesting that each strategy will be context specific, and adaptation will be required to identify the most appropriate combination of approaches.

Implementing focused, or single interventions such as TB programmes or immunizations can be very successful. Integrated, comprehensive interventions such as those included in iCCM are more complex to introduce and scale up.

Knowledge and training need to be linked with establishing conditions that encourage health workers to change their practices—leadership, motivation, opportunity and accountability.

Developing and implementing prototypes that can be rapidly adapted may be a useful concept to include in formal scale-up plans.

What will it take to provide effective PMTCT at a population level?

- Easy access/high attendance
- Reliable health system performance
- Optimal care, improved outcomes

Gap between clinical trial and “real life” PMTCT implementation

The compounded effect of multiple losses in a multistep PMTCT system

The compounded effect of multiple losses in a multistep PMTCT system
Elimination of new HIV infections in children relies on the MNCH delivery system

- **IATT working group on child survival**
  - Partnership for HIV free survival
    - Focus on the postnatal continuum of PMTCT
    - Using QI
    - Commitment from several technical groups to support the effort
    - Intention to undertake an external evaluation

- **Immediate next steps**
  - Engage Ministries of Health, agencies, PEPFAR country offices that wish to participate and have resources available
  - Identify and link with technical partners in country
  - Integrate with national Elimination, nutrition and MNCH scale-up plans
  - Agree a common QI frame for intervention
    - Identify relevant performance data for improvement
  - Agree a common frame for evaluation

- **The HIV free survival partnership**
  - Significant contribution to the Elimination initiative and for improving delivery of other essential MNCH interventions
  - Major opportunity to learn about how to provide effective PMTCT care throughout the postnatal continuum and thereafter share
  - Opportunity to demonstrate the relevance of QI in improving maternal and child health in resource-limited settings
Title: Retention in Care in Global HIV/AIDS Programs: Measurement and Improvement

Speaker: Dr. Elvin Geng

Overview of presentation:

Dr. Elvin Geng from the University of San Francisco presented the global outlook of HIV/AIDS patient retention in resource-limited settings, providing an overview of current retention literature and on-going retention initiatives.

Technical definitions of patient retention are often based on a number of missed or made clinical visits during a specified review period. Dr. Geng and collaborators developed a conceptual framework for retention described by five main components: recognition and prioritization of health status by the patient, access to and monitoring of care by the health system and shared investment between the patient and health system. Absence of any of these components threatens patient retention.

In the current literature to-date, several studies focus on facility patient retention; however, there is a need to study the outcomes of those patients who are lost to follow-up and focus on patient retention in care. Different outcomes of loss to follow-up invoke different public health responses. The estimate from the literature is that 50% of patients who are lost to follow-up are in care, but the variation is great between different sites. Thus, there is a need to understand retention locally.

Barriers to retention include socio-structural, health care system and patient factors. Retention measurement systems may need to be improved before attempting to address causal factors for loss to follow-up. Once gaps in measurement processes have been filled, sampling methodology can be utilized to track a representative cohort of patients in a clinic. Using the sample, epidemiologic factors and specific, improvable problems within the systems and processes of health care delivery can be identified to guide program intervention and system improvements.

Dr. Geng ended with an overview of several on-going retention initiatives, which leveraged social capital to promote decentralization of health services and better utilization of health care infrastructure. Promising strategies were culturally and socially acceptable, generalizable in African settings and cost effective. Examples of current initiatives include organizing patient groups where individual members take turns retrieving ARV medications, utilizing community care coordinators to provide care and dispense medications to patients, and counseling healthy habits to both the patient and the patient’s self-identified social network.
Retention in Care in Global HIV/AIDS Programs: Measurement and Improvement

All Country Learning Network, HealthQual-Kampala, Uganda: March 25-30

Elvin H Geng, MD MPH
Assistant Professor of Medicine
University of California, San Francisco

Operational Definitions of Retention

Retention in Care is the Basis of Effective HIV Care

Linkage to care

HIV Care (ART, cotrimoxazole, counseling, etc.)

Rein in care

Improved health and survival in the real-world

Adherence to medication

Retention: Conceptual Definition

Quality Improvement for Retention: Two Cycles

Intervene

Measure retention in care

Identify reasons for the gap in retention in care

Quantity the gap in retention in care

Intervene

Identify reasons for the gap in information

Quantity the gap in information quality

Geng War 2012

Figure 2-4
Global prevalence of HIV, 2009

Source: UNAIDS
Assessment of Retention in Care

Is the global effort to deliver care and treatment for HIV a success or a failure?

Wanting what is measured...

Patients who have died shown in green

Lost to follow-up patients are those who have unknown outcomes and are depicted in red.

The clinic population is composed of all the patients who have enrolled in care. They are depicted in yellow.

Patients who have disengaged from care are depicted in blue.

Loss to Follow-up is not an Outcome

A Sampling Based Solution?

\[ P_e = \]
Tracking Study to Understand Retention in Care in Mbarara, Uganda

- Adults at immune suppression syndrome clinic in Mbarara, Uganda.
- Measurements from clinic database and "supplemental" tracking data in a sample of patients.
- Sampled-weighted estimates of retention in care.

What we want... Retention in Care

![Graph showing retention in care over time with various estimates and confidence intervals.]

What we want... "Connection to Care"

![Graph showing connection to care over time with various estimates and confidence intervals.]

- 26 year old woman - CD4 of 27/ul
- Completed counseling and ready to start ART
- Complains of headache and nausea
- Nevirapine and zidovudine/tamivudine

Retention in Care among Patients LTFU in "Tracking" Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>In Care, % (95% CI)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turenh et al., IAC 2005</td>
<td>0.18 (0.14, 0.23)</td>
<td>0.57</td>
</tr>
<tr>
<td>Lauzier et al., IAC 2006</td>
<td>0.54 (0.42, 0.73)</td>
<td>0.57</td>
</tr>
<tr>
<td>Brewer et al., IAC 2004</td>
<td>0.06 (0.01, 0.10)</td>
<td>0.57</td>
</tr>
<tr>
<td>Mather et al., JAMA 2007</td>
<td>0.20 (0.10, 0.23)</td>
<td>0.57</td>
</tr>
<tr>
<td>Veen et al., BHV 2005</td>
<td>0.25 (0.14, 0.35)</td>
<td>0.57</td>
</tr>
<tr>
<td>Bangma et al., JAMA 2006</td>
<td>0.50 (0.41, 0.59)</td>
<td>0.57</td>
</tr>
<tr>
<td>Tse et al., JAMA 2008</td>
<td>0.70 (0.54, 0.84)</td>
<td>0.57</td>
</tr>
<tr>
<td>Dale et al., JAMA 2005</td>
<td>0.72 (0.57, 0.95)</td>
<td>0.57</td>
</tr>
<tr>
<td>Ho et al., BMJ 2005</td>
<td>0.69 (0.56, 0.82)</td>
<td>0.57</td>
</tr>
<tr>
<td>Kenyon et al., BMJ 2005</td>
<td>0.69 (0.56, 0.82)</td>
<td>0.57</td>
</tr>
<tr>
<td>Khogali et al., BMJ 2005</td>
<td>0.20 (0.10, 0.30)</td>
<td>0.57</td>
</tr>
<tr>
<td>Other (assumed error of 5%)</td>
<td>0.47 (0.35, 0.60)</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Total: 1.00
Assessing Retention in Care

- Improving information about retention in care can improve assessment of retention
- Careful interpretation of existing data
  - Patient retention vs. clinic retention
- “All Epidemiology is Local”
  - Loss to follow-up is high almost everywhere
  - but outcomes among the lost differ markedly
- Quality improvement campaigns can consider adopting the tracking a sample of lost patients

Socio-structural Factors: Social Capital

- Adherence is generally better in Africa than in North America - why?
- Ethnography: 414 qualitative interviews in Nigeria, Uganda and Tanzania of adults on ART for 6-12 months, treatment supporters and providers
- Semi-structured interviews:
  - Specific experiences of taking ART (e.g., “stories” of the most recent dose taken, most recent dose missed)
  - Clinic visits
  - Help received from treatment partners

Explaning Adherence in Africa

- Prioritization of adherence to overcome economic obstacles
  - Resource scarcity requires patients to prioritize care
  - “Borrowing, begging and doing without”
- Prioritization explained by need to fulfill social relationships
  - “If he [patient] continues well, the work of caring for him will be over. If he continues well, I can visit him at the time I want. But if he is sick, I have to help him so he will be okay and everyone else can continue with their business. That’s why I insist, ‘my relative, don’t ignore what they instruct you to do.’”
- In social science, the use of relationships to obtain benefits and achieve desired ends has been termed “social capital.”

Structural: Transportation

- Urgenda, Mkhizo M et al. 2012

Implementing Antiretroviral Therapy in Rural Communities: The Laskowski Model of Decentralized HIV/AIDS Care

- Key Points: Value for Money, Efficient Use of Resources
Barriers and Facilitators to Retention

- Which ones are most important?
- How do we prioritize?
- Which barriers and facilitators are “actionable?”

Reasons for Transfer or Disengagement from Care, n=676

<table>
<thead>
<tr>
<th>Reason for Disengagement</th>
<th>Reason for Transfer or Disengagement</th>
<th>N</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation was too</td>
<td>284</td>
<td>57.2%</td>
<td>92</td>
</tr>
<tr>
<td>difficult</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Died before ART</td>
<td>49</td>
<td>13.7%</td>
<td>20</td>
</tr>
<tr>
<td>Did not have child ready</td>
<td>49</td>
<td>13.7%</td>
<td>20</td>
</tr>
<tr>
<td>Treatment support was</td>
<td>6</td>
<td>1.7%</td>
<td>1</td>
</tr>
<tr>
<td>too expensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work and Family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work involved with</td>
<td>100</td>
<td>29.1%</td>
<td>26</td>
</tr>
<tr>
<td>going to the hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had family obligations</td>
<td>114</td>
<td>31.7%</td>
<td>61</td>
</tr>
<tr>
<td>The family were</td>
<td>84</td>
<td>24.0%</td>
<td>25</td>
</tr>
<tr>
<td>unable to get</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the clinic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My HIV status was</td>
<td>62</td>
<td>17.8%</td>
<td>22</td>
</tr>
<tr>
<td>not good to be</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>discovered by my family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinic Factor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not have the</td>
<td>4</td>
<td>11.5%</td>
<td>16</td>
</tr>
<tr>
<td>clinic (or out of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>medication)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The waiting time was</td>
<td>14</td>
<td>3.7%</td>
<td>12</td>
</tr>
<tr>
<td>too long for no reason</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care is interrupted</td>
<td>11</td>
<td>3.0%</td>
<td>5</td>
</tr>
<tr>
<td>by another service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside clinic is</td>
<td>6</td>
<td>1.7%</td>
<td>5</td>
</tr>
<tr>
<td>more comfortable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My HIV status was</td>
<td>14</td>
<td>3.8%</td>
<td>5</td>
</tr>
<tr>
<td>not good to be</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>discovered by my family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other than above</td>
<td>4</td>
<td>11.5%</td>
<td>16</td>
</tr>
<tr>
<td>things which would</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>would make me want to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>go to the clinic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purification outside</td>
<td>6</td>
<td>1.7%</td>
<td>5</td>
</tr>
<tr>
<td>the clinic (or out of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>medication)</td>
<td></td>
<td></td>
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<tr>
<td>Other than above</td>
<td>4</td>
<td>11.5%</td>
<td>16</td>
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<td>would make me want to</td>
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<tr>
<td>go to the clinic</td>
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</tbody>
</table>

Multi-site Evaluation of Retention in Care using a Sampling Based Approach in the IeDEA Network, PEPFAR/NIH

FACES, LEMLE, Masisi

Moorese

Ampath, Eldoret

Morogoro, Tanzania

Reasons for Disengagement, n=312

<table>
<thead>
<tr>
<th>Reason for Disengagement</th>
<th>N</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>12</td>
<td>3.8%</td>
</tr>
<tr>
<td>I felt too sick to come to clinic</td>
<td>12</td>
<td>3.5%</td>
</tr>
<tr>
<td>I was experiencing side effects from the medicine</td>
<td>12</td>
<td>3.5%</td>
</tr>
<tr>
<td>I felt well and thought I didn’t need care</td>
<td>82</td>
<td>26.2%</td>
</tr>
<tr>
<td>I didn’t want to take drugs forever</td>
<td>15</td>
<td>4.8%</td>
</tr>
<tr>
<td>I was taking too many pills a day</td>
<td>8</td>
<td>2.6%</td>
</tr>
<tr>
<td>I didn’t have enough food</td>
<td>8</td>
<td>2.6%</td>
</tr>
<tr>
<td>I was drinking alcohol</td>
<td>7</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

Alternatively: Treatment and Advice

A family member or other important person told me to stop going to clinic | 12 | 3.8% |
My doctor or nurse told me to stop going to clinic | 1 | 0.3% |
Because I went to someone who told me to take care of my own health instead | 12 | 3.8% |
Because I saw / am using a traditional healer instead | 15 | 4.8% |
"At times you have missed your appointment date and when you come back, the doctor looks at you with such a bad eye that you even fear explaining more to her. She tells you “stop disturbing me, today is not your appointment date” and she stands and walks away leaving you there alone. At times I do not blame them, may be they are hungry or tied. If they could start providing lunch to the doctors at the clinic and have many doctors so that they do not have to be over worked, may be this would also help."

MSC 104 – Ware et al.

Site Experience from Kenya: Two Cycles

Public Health Data on Retention in Care

- Understand local retention in care problem
- Measure what you want...
- Sampling and tracking studies as an efficient QI strategy
- Epidemiologic factors and explanatory framework
- Identify problems in the health care delivery sector – the “domain” of public health
Characteristics of a promising retention in care interventions

- Cost effective
  - Case management used in North America
- Generalizable in the African setting
  - What resources can be used
  - Urban and rural
- Culturally and sociologically suitable
  - Social relationships
  - Responsive to context

Journal of the International AIDS Society

A model for extending antiretroviral care beyond the rural health center

- Community Care Coordinators
- Health care provider shortage, overburdened clinics
- Lay community PLA, received a month of training, PDA with symptoms screen, closely supervised
- Stable patients were seen every three months in the clinic and received dispensed pills instead of monthly clinic visits
- A community health workers intervention:
  - health workers who share a relationship with their community (e.g., shared language, ethnicity, geography, race, or disease condition) and the absence of professional training.

Characteristics of a promising retention in care interventions

- Cost effective
  - Case management used in North America
- Generalizable in the African setting
  - What resources can be used
  - Urban and rural
- Culturally and sociologically suitable
  - Social relationships
  - Responsive to context
Treatment at High CD4 and Retention

- Transportation is a major barrier to care.
- The closer the patient the farther the nearest appropriate treatment site.
- Better utilization of existing infrastructure.

Conclusions

- Patient retention vs. clinic retention
- Outcomes among non-retained and reasons for non-retention differ from site to site
- A sampling based approach to lost to follow-up can yield both the magnitude of retention in care and reasons for lapses
- Settings with “limited” material resources may be the ones with “replete” social capital

Thank you!

- San Francisco: Jeffrey N. Martin, Ingrid Bernheimer
- Kenya: Thomas Odeny, Dr. Elizabeth Bukusi
- Uganda: Mwebesa Bwana, Winnie Muyindike
- Boston: Norma Ware, David Bangsberg
- National Quality Center — Bruce Agins and HealthQual Team
- NIH
- iDeA
- PEPFAR
Title: Health Information Technology (HIT) and Quality Improvement

Speaker: Andrew Hamilton, RN, MS

Overview of presentation:
Andrew Hamilton’s plenary presentation focused on the use of electronic medical records (EMRs) and health information technology (HIT) to support quality improvement activities in areas including clinical decision support, electronic ordering/return of labs, medication prescribing, documentation, quality reporting and public health surveillance among others.

Mr. Hamilton has firsthand experience implementing an electronic medical record system at the Alliance of Chicago – a large network of community health centers. This application of health information technology has supported the development of a learning community among participating programs throughout the United States.

To optimize HIT adoption and implementation, Mr. Hamilton emphasized the need to develop a strong system-level vision and associated strategies to adequately support an advanced technical infrastructure, capacity building efforts, facilitate staff and leadership support, and funding. The responsibilities and implementation strategies at both the central level and the site level were delineated - highlighting HITs function at multiple levels from central management to individual knowledge management.

Mr. Hamilton went on to describe the potential for integration of HIT into quality programs, and cited clinic-level QI intervention categories including: point of care clinical reminders, use of data to support retention, and use of data to support public health program priorities. For example:

- development/sharing of monthly quality dashboards
- reminders to inform physicians when a particular patient was due for monitoring of CD4 or viral load
- capture of patient level data for follow-up and contact
- weekly extraction of influenza like illness symptoms to send to the health department for population-level surveillance

Andrew Hamilton closed by emphasizing that successful implementation and use of HIT requires attention to multiple variables beyond the system itself, including staff, processes, and technology selection – and can be a powerful tool to support clinical improvement.
Overview

- Background/Overview of the Alliance of Chicago
- Overview of Health Information Technology (HIT)
- Describe the Phases of HIT Adoption
- Provide examples of use of HIT for Quality Improvement

U.S. Community Health Centers

- Primary Care Health Care Organizations
  - Medical, Dental, Mental Health, Case Management
- One of every 19 people living in the U.S. rely on a Community Health Center for primary care
- Funded by US Department of Health & Human Services (HRSA)
- Uninsured and Underserved Populations
- Urban clinics serve special populations
- Rural clinics provide access points

Alliance Overview

- US Department of Health and Human Services funded (HRSA)
  network/collaborative of Community Health Centers
- Essentially a joint venture organizations with the desire and ability to work together on building some common infrastructure to improve service delivery and health status
- Dedication to quality and use of data to improve care
- Ability to access higher quality, efficiency and economy of scale
- Desire to ultimately share with others
Alliance Programs

Electronic Medical Records & HIT
Quality Improvement & Research
Consulting & Technical Assistance
Technology Innovations & Partnerships

Network Role in HIT Implementation and Support

Health Centers
Health Center Network
Product/Software

Health Centers Working Independently

A Learning Community

Examples of Technology in Health Care
- Databases/Electronic Registry Systems
- Personal Health Records/Smart Card Systems
- Electronic Medical Records Systems

OVERVIEW OF HIT
Capabilities of EMRs

Basic
- a storage and retrieval system

Advanced
- a sophisticated interactive database with computational & analytical capabilities

Examples of Full/Advanced EMRs
- Decision Support – Alerts/Prompts & Reminders
- Electronic ordering of labs and electronic return of results
- Electronic medication prescribing (eRx)
- Electronic notes or point of care clinical documentation
- Quality Reporting & Analytics (data visualization)
- Public Health Surveillance

STAGES OF HIT ADOPTION

Assessment & Planning
Assessment:
- Develop a Strong/Clear vision
- Educate and engage Clinical leadership
- Examine Experience with patient registry systems and quality improvement
- Evaluate existing IT infrastructure for readiness

Plan to obtain:
- Advanced Technical Infrastructure
- Technical expertise
- Funding

Product Selection
Process
- Involve clinical & administrative leaders
- Develop a core set of requirements
- Conduct site visits of those practices using EMRs
- Create test scenarios to “try/test” the software

Selection Criteria:
- Robust and logical/intuitive functionality
- History of use with satisfied users
- Ability to customize clinical screens
- Centralized data structure & scheme
- Experience with quality reporting
- Stability of company
**Implementation – IT Infrastructure**

- Store data on a system in a secure/safe facility
- Redundant servers and essential IT equipment
- Tested and secure backup strategy
- Ability to access system in exam room
- Scalable for expansion

**Implementation – Clinical Content**

- Clinical Screens including alerts/prompts
- Views of longitudinal patient data
- Medication and Lab Order Lists for electronic ordering
- Patient Education Material
- Quality Improvement Reports & Analytics

**Implementation – Clinical Content**

- Centrally manage, shared content
- Balance of Structured data and free text data
- Ease of data entry to encourage providers to capture needed information as part of care delivery
- Agreed upon protocols against which to benchmark care
- Content to include full spectrum of care (e.g., medical care, mental health, case management, nutrition)

**HIV Laboratory Data Monitoring**

**HIV Education and Self Management**
Central Level Responsibilities

- Procure equipment/software/other resources
- Set up and maintain core IT architecture
- Develop core clinical content
- Develop operating policy and procedure
- Maintain expertise to provide initial and ongoing training/support
- Set up infrastructure for quality reporting and data gathering

Site Level Implementation Strategy

- Workflow analysis and redesign
- Build site specific customizations
- Extensive training and education
  - Classroom
  - Go-live support (hand holding)
- "Big Bang" - full functionality of all providers at go live
- Incorporation of diffusion of knowledge "theory"
- Knowledge transfer approach (sustaining the change)

Implementation – Reporting/Quality

- Clearly defined numerators and denominators that utilize data elements in the HIT system
- Reporting algorithms that incorporate appropriate inclusion and exclusion criteria
- Ensure direct access to data by health care facility staff
- Develop a process to validate the aggregate data
- Ensure process in place to "prove" to clinical staff that the data is accurate

Monthly Quality Dashboard

USE OF HIT FOR QUALITY IMPROVEMENT
Link between Clinical Content & Quality Reporting (QI)

- Medical Visit
- CD4+ Cell Count
- Pneumocystis Infection (PCP) Prophylaxis
- Adolescent and Adult Patients with HIV/AIDS who are Prescribed Antiretroviral Therapy
- HIV RNA Control for all patients on Antiretroviral Therapy
- HIV RNA Control after Six Months of Antiretroviral Therapy
- Tuberculosis (TB) Screening
- Sexually Transmitted Diseases-Chlamydia and Gonorrhea Screenings
- Hepatitis B Screening
- Hepatitis C Screening
- Influenza Immunization
- Pneumococcal Immunization
- Hepatitis B Vaccination
- Screening for Injection Drug Use
- Screening for High Risk Sexual Behaviors

Three Basic Categories of QI Interventions
- Reminders and point of care
- Use data to support retention (after care)
- Use data for public health (population health)

Point of Care Reminder

Retention in Care

<table>
<thead>
<tr>
<th>% with CD4+ Test &gt; 30 Days Apart</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>10,000</td>
</tr>
</tbody>
</table>
Population Health

- On a weekly basis we extract influence like illness symptoms from the EMR and send to the health department.
  - Symptoms include:
- The data is compiled with data from other healthcare facilities in the City of Chicago.
- Data from our outpatient facilities show spikes in influence symptoms prior to other traditional surveillance systems.

Influenza-like Illness Surveillance

Considerations

- Successful implementation and use of HIT is more than the IT system—it’s requires people, process, & technology.
- HIT expertise is an important element for success; but are currently in short supply.
- Plan for expanded capacity and functionality.
- Successful system use requires on-going training and coaching.

THANK YOU
Title: Putting It All Together: TB Infection Control Through Quality Improvement

Speaker: Ginny Lipke, RN, MHA

Overview of presentation:

Ginny Lipke spoke about the continued need for integration of TB Infection Control (IC) and QI. Common elements associated with both TBIC and QI include measurement to improve care; enhanced communication, education and accountability; and strengthening of systems through process analysis. Ms. Lipke characterized TBIC and QI as parallel efforts characterized by good governance; improved care and safety; standards-oriented; with a focus on structure, process and outcomes of care; and transparency to stakeholders.

She described TBIC and QI as systems approaches to improve care, and stressed the need for harmonization and consistent implementation. Noted barriers to harmonization included the proprietary nature of differing models; different branding and terminology; different indicators and tools to measure outcomes; lack of communication between stakeholders; and need for knowledge management and sharing of strategies.

Ms. Lipke concluded with suggestions for harmonization of TBIC and QI, including increased internal program ownership; promotion of dialogue between infection control and QI staff on implementation of improvement models; cross-agency collaboration on key issues, such as screening and retention; and peer exchange through online resources, meetings, workshops and printed publications to reinforce development of an integrated national TBIC QI program.
Plenary: Putting It All Together: TB Infection Control Through QI

March 29, 2012

Presenter: Ginny Lipke, RN, MHA - CDC Atlanta

Overview

- Background
- Definitions and common elements of TBIC and QI
- Tools and trainings that support implementation
- Action items as indicators

Country-Specific TB Infection Control Guidelines

The TBIC Implementation Package

Risk assessment

- Risk assessment information from the TB Register
- Background information from the literature

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So why does IC work best with OJ?

"what gets measured gets done."

Dr. Margaret Chan,
Director General for WHO

Quality: A Definition

"the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

Infection Control: A Definition

- Collect, analyze, and interpret health data in order to track infection trends, plan appropriate interventions, measure success, and report relevant data to public health agencies
- Establish scientifically based infection prevention practices and collaborate with the healthcare team to ensure implementation
- Work to prevent healthcare-associated infections (HAIs) in healthcare facilities by isolating sources of infections and limiting their transmission
- Educate healthcare personnel and the public about infectious diseases and how to limit their spread


The Association of Practitioners in Infection Control, www.apic.org
Infection Control: A definition

- sharing best practices for preventing, identifying, monitoring, and treating healthcare-associated infections, as well as the collection of meaningful data for internal improvement and public reporting.

6 Aims for Quality Health Care

- Safety: avoid injury to patients.
- Effectiveness: evidence-based, have shown benefit
- Patient-centered: respectful of and responsive to individual patient preferences, needs, and values
- Timeliness: minimize patient waits and avoid harmful delays
- Efficiency: avoid waste
- Equity: not vary in quality because of patient gender, ethnicity, geographic location or socio-economic status

National Academy of Sciences. Crossing the Quality Chasm. 2001

The two disciplines

IC
- A discipline concerned with preventing healthcare-associated infection, a sub-discipline of epidemiology. It is an essential part of the infrastructure of healthcare. It employs the consistent use of certain measures to prevent transmission of disease.

CI
- CI involves reviews of the healthcare system and how care is delivered. It is aimed at improvement and efficiency within the structure, process and outcome using periodic sampling of selected indicators to monitor and improve health and eliminate waste and redundancy.

3 Aims of Infection Control

- Protect the patient
- Protect the healthcare worker, visitors and others in the healthcare environment
- Accomplish the previous goals in a cost-effective manner whenever possible

Society for Healthcare Epidemiology of America (SHEA), 1996

Similarities of TBIC and QI

- Measurements are used to improve care and direct program
- Involves direct participation of staff in the facility
- Enhances communication, education and accountability
- Strengthens the healthcare system through process analysis

Similarities of TBIC and QI

- They are a form of good governance
- They can improve care and safety
- They can safeguard our high standards
- They can assess:
  - the structure of care
  - the process of care
  - the outcome of care
- They allow for transparency to all stakeholders
TBIC and QI
- Are we doing the right thing?
- Are doing it the right way?
- Are we doing the right thing the right way consistently?

What Does IC and QI Really Do?
- They measure our practice against what we should be doing!

System Approaches to Improving Health Care Quality
- Accreditation
- Certification
- QM programs with QI activities
- Improvement collaboratives
- Licensing
- Clinical mentoring
- Patient and community engagement
- Performance-based incentives
- Standards and evidence-based guidelines
- Standards-based management and recognition (SBM-R)
- Supportive supervision or inspection
- Training

Principle: "Most Problems are Found in Processes and Systems, Not in People"
Barriers to Harmonizing TBIC and QI

- The proprietary nature of differing models may lead to competition, not collaboration
- Different branding and terminology can be confusing for stakeholders
- Different indicators, tools, and software to measure outcomes are burdensome
- Lack of communication between stakeholders
- Lack of knowledge by management and sharing of best practices

Tools and Training

- Easy to use, with few steps
- Easy to incorporate into daily practice
- Easy to modify, if needed
- Ready access to results
- Provides documentation to share strategies and best practices

Suggestions for the Enhancement of TBIC and QI Harmonization

They can do this by:

- Taking ownership internally across program areas
- Supporting a regular dialogue between ICP’s and QI on the application of QI models (country-level collaboratives or local working groups)
- Working together and sharing practices to address service quality and IC issues (IE. Screening of all coughing patients, Retention of TB patients in DOTs)
- Sharing best practices and ideas via multiple venues: workshops, websites, newsletters, meetings

Detouring Evidence-based practice

- Avoid the “sacred cow”

Those practices blessed by time but not necessarily by science

How would a national QI program incorporate TBIC indicators?

Thanks!
Title: How HIVQUAL-T Is Moving Forward from Clinical Care to Humanized Health Care

Speaker: Sumet Ongwandee, MD, MS, MPH

Overview of presentation:

Dr. Sumet reviewed Thailand’s approach to Humanized Health Care (HHC). HHC encompasses a compassionate approach to medicine. This model is the antithesis to many modern management systems characterized by “machine-like” work, fragmentation of roles, and reduced compassion within the workforce. Strategies to enact humanized health care include: (1) consideration of the whole patient (spirituality, humanity, peace, and aesthetics); (2) deep listening; (3) concern for social and cultural sensitivity; (4) engagement of a diverse group of stakeholders; (5) emphasis on community involvement.

In Thailand, HIVQUAL-T began in 2003. Initial focus was placed on construction of the systems for quality management, improvement, and performance measurement. After these components were established, the program shifted focus to QI training, coaching, and improving clinical care outcomes. Currently, HIVQUAL-T is working towards humanized health care and empowerment of health care workers and patients.

The program has also developed and will continue to investigate specific quantitative and qualitative measurement components to understand the impact of the HHC approach. Suggested quantitative measurements include a satisfactory rating scale and investigation on the impact of HIVQUAL indicators. Qualitative measurements may come from focus groups or group interviews.

“The process of changing life or illness perception is a huge challenge in modern medicine. Humanization needs its place in today’s healthcare. We cannot improve quality without taking patients’ life into consideration.”

- Dr. Komatra Jungsatiensup
How HIVQUAL-T Moving Forward from Clinical Care to Humanized Health Care

The ACLN III, Kampala, Uganda
25-31 March 2012

Sumet Ongwandee, MD, MS, MPH
Director, Department of Disease Control, MOPH Thailand

Outline of Talks

• What is Humanized Health Care (HHC)?
• Why we use HHC?
• How to HHC? Perspective of HHC through HIVQUAL-T
• How can we measure success of HHC?

Humanized Health Care
or
Envisioning Compassionate Medicine

“Service machine”

• People working like a machine, less emotional
• Work is divided into fragment and lacks a linkage
• People is working with less thinking and functioning repeatedly

WHY WE USE HHC?

Modern Management system

What happens to Herbert?
“Reduce of Humanization”
• Human is becoming a tool, not a target of improvement
• Daily work is causing suffering
• People are harmed and, perhaps, do harm to others
• Gradual uprise of conflict and violence in an organization
• Good people eventually burn out and loss of enthusiasm

Humanized Health Care: Philosophy and Concept

How to HHC
• Expand the definition of health
• Holistic care approach
• Deep listening
• Concern of social and culture sensitivity
• Build up a culture of voluntary mind
• Adjust management and administration system to facilitate learning

HIVQUAL-T Evolution

Engage more stakeholders/Counterparts
Humanized Health Care
Components

There are three principle components
1. Ability to see holistically
2. Ability to see as humanity
3. Ability to perceive their suffering

* Courtesy by Dr. Komara Junsajansup

Not only HIV but their life

This thin girl has been taken care of by her aging grandparents. Her mother works in another province. She cannot eat much. The story of her life touches me so much, and I visit her almost every week. I promise to take her to see her mother if she gains more weight.

Ability to see Holistically

Ability to see as Humanity

Ability to Perceive their Suffering
"I love my mother. Even though I have HIV, that’s just the body sickness. I want to live on. I take care of my mother day and night at this time I don’t have a job. My siblings don’t care. My mother has little time left as she has cancer. If I can take away her pain, I will."

Measurements

- Quantitative
  - Satisfactory rating scale: Quality of life
  - High attainment of the HIVQUAL indicators
  - etc.
- Qualitative
  - Focus group or Group interview
  - etc.
- Touch happiness by your heart

ARV reached out under great flooding situation in Thailand

62 hospitals affected, 8,630 cases living on ARV in flood areas, some of them still living in their home, some of them evacuate to temporary shelters, fortunately most of them were accessible to ARV.

Tons of thank to local PLWHA network and health care staff

Can we Measure Success of HHC?

Happiness & Warmness overflowed from health care staff and shared to patients

Story from Lango Hospital
Quotation of HHC

- The process of changing life or illness perception is a huge challenge in modern medicine. Humanization needs its place in today's healthcare.

- We cannot improve quality without taking patients' life into consideration.

Dr. Komatra Jungsatiensup
Communities of Practice: Transcending Boundaries to Improve Quality

Bruce D. Agins, MD MPH
Director, HEALTHQUAL International
ACLN III, Kampala

Acknowledgements
- Misha Baker
- Claire McCullough
- Laura Fitzpatrick
- Joshua Bardfield
- Richard Birchard
- Dr. Ake
- Dr. Voravud

What is a CoP? [not a COP!]
- “a group of people who share a concern, a set of problems or a passion about a topic, and who deepen their knowledge and expertise on an ongoing basis.”
  - Etienne Wenger, Cultivating Communities of Practice, 2002.
- Communities of practice have been implemented in the health sector in the 1990s, initially formed in the business and development sectors, most commonly in Canada and the UK.

A quick aside
- Etienne Wenger
- Jean Lave

Why bother with Communities of Practice?
- Through genesis of a social infrastructure, communities of practice have the potential to further knowledge translation and sustain collaborative efforts across traditional health care jurisdictions and disciplines.

Communities of Practice
- Typically, communities of practice are characterized by three characteristics:
  - A common domain
  - A shared practice
  - A community
- They offer an opportunity to develop an “ideal knowledge structure—a social structure that can assume responsibility for developing and sharing knowledge”
Is HEALTHQUAL a Community of Practice?

- **Common domain:** the area of passion
  - Improving care?
  - Patient involvement?
  - QI methods?
  - Data management for performance improvement?
  - Retention?
  - Integrating QI and infection prevention & control?
  - Adoption of EHRs?
  - Preventing transmission of HIV to infants?
  - Nutrition?

Is HEALTHQUAL a Community of Practice?

- **Community** is defined as a set of interpersonal relationships arising out of people’s mutual engagement in learning through practice. Reciprocal ties of accountability, dependency, trust and communication develop.

  Bonds of connectivity, together with the community’s negotiated meanings and shared expertise, provide the cohesion that lends a community of practice its identity and coherence over time. Ideally, the community of practice engenders a strong sense of identity and belonging across members, even those who do not interact regularly or face-to-face. (Bentley 2010)

Why a CoP model?

- “Build more effective bridges between knowledge, policy and practice” (Hearn 2009)

What is a Virtual community of Practice (vCoP)?

- **Virtual Platform:** relies upon available technology which can be an enabler or an enhancer.

  - Initial or occasional face to face meeting allows for some familiarity and ease of virtual communication.
### Benefits of a CoP
- Interrelationships in the CoP provide continuing education for providers through ready access to data, experiences and mentors.
- Through the dynamics of shared learning, health professionals become more reflective about their practice when they subject it to peer-based critical scrutiny.
- Reflection on practice helps workers to contend with the changing medical, economic, political, and sociocultural environment that affects their work. (Parooosingh 2002)

### Benefits (2)
- May improve sense of ownership of work
- Egalitarian, ideally
- Enhance job satisfaction

### Experience in the health sector
- Improving surgical oncology practice in Canada (Fung-Kee-Fung)
- Improving patient safety and quality in Canada (Alberta province)

### Limitations
- No real published literature on the benefits of CoPs although value is recognized by participants where they can organize around content instead of management structures
- Control over agenda and content can lead to status quo and "clique" behavior
- Little known or studied about processes of CoPs

### Debate and Variations
- Planned or spontaneous?
- A tool for developing social identity among peers defined by their commonality or a structure for knowledge management within an organization?
- Can CoPs survive without dedicated resources?
- Once the community migrates into improvement and beyond knowledge-sharing is it still a CoP?

### Barriers and facilitators
- Waning interest
- Competing priorities
- Turnover of participants
- Perceived value
- Facilitation
Have international CoPs been implemented?

- International Center for Tropical Agriculture
  - 14 countries in Caribbean and Latin America

Knowledge Utilization

- Innovation centers around the construction of and transmission of knowledge between organizations
- Social interaction important for both construction and transmission of knowledge
- Learning Organization (Senge, others)
  - Knowledge is systematically captured and shared
  - Designated roles for knowledge workers who collect and transmit knowledge and knowledge managers who facilitate and plan these activities

How does a CoP relate to implementation?

- CoPs are a form of knowledge management where organizational memory, social capital, innovation, and knowledge transfer act as proxies for actual provider and organizational behaviors.
ACLN is a network through which we manage knowledge between ourselves. How can we leverage our collective knowledge sharing to spread knowledge further in countries and foster spread learning from our improvement work to further spread, disseminate, diffuse and implement?
Open Space
Open Space

HEALTHQUAL International
All-Country Learning Network
Kampala, Uganda
26 March, 2012

What is Open Space?
- Open Space is simple.
- A self-organizing method to facilitate participant-driven learning sessions.
- No pre-planned agenda. The session topics are developed by the participants and reflect what is important to them.
- Open Space ≠ Optional Space

The Principles of ACLN Open Space
- The power of the sessions is sharing of the collective expertise of the group.
- If it’s a concern of yours, it’s a concern of 10 others in the room.
- Go to where you can contribute and be engaged the most.
- It doesn’t have to end here. Think about how could you keep the discussion going.

The Theme
- Whatever helps you do the work and grow the program.

Developing The Agenda
1. Participants suggest topics for sessions at the agenda table. Participants sign up for sessions during registration, lunch, and breaks on Monday and Tuesday.
2. The top 15-20 sessions will be scheduled for Wed or Thurs.
3. New sessions can be added at any time.

How to start
- Go to your first session
- Decide in the first 10-15 minutes who will be the facilitator(s), the flip chart note taker, and who will develop the report back with the facilitator(s)
- Begin the lively discussion
- Move to another session whenever you want to.
- Other sessions will be added and announced

Report Back
- Group Facilitator, Notetaker, and HEALTHQUAL Staff to complete Report Back Template
- Components:
  - Topic, Title and Facilitator(s)
  - 3 Lessons Learned
  - 3 Outcomes
  - Does anyone in the session want to continue this discussion after the ACLN?
  - How?
  - How can HEALTHQUAL international help?
- We will share the individual session report back with all participants on the ACLN material USBs
Issues Discussed

• Reasons for interest in data validity and quality
  o Quality of facility-level data can be variable despite site-level performance measurement training and prepared training materials
  o Difficult for national quality manager to provide technical assistance at the facility-level (transportation, number of clinics, difficulty conducting TA over the phone)
  o Distrust/non-acceptance of performance measurement results by clinicians/service providers
    - Clearly demonstrating differences between data collection issues and quality of care issues
  o Additional challenges include: (1) high staff turnover of data manager staff; (2) time delay in data reporting and data validation; (3) service providers do not accept the data/take ownership; (4) number of indicators reported on; (5) systems to move data from facility to higher levels.

• What is quality data?
  o The group identified six components of quality data: (1) valid (clear definition of all data items), (2) reliable, (3) timely, (4) complete, (5) precise, (6) inclusion of a qualitative summary/narrative

• What is data validation?
  o Process to understand the quality of data
  o Important elements of data validation include: (1) understanding data source; (2) having clear definitions of measures; (3) comparison of reported data with actual records; (4) understanding sampling methodology

• What are the functional components associated with quality data?
  o Training of staff
  o Defining clear roles and responsibilities
  o Reporting guidelines
  o SOPs
  o Linkage of facility-level data with national level

Outcomes

• Data quality and validation strategies:
  o Harmonize quality indicators across programs (as possible/applicable)
  o Performance measurement training and technical assistance
    - Provide multiple trainings on performance measurement and how to operationalize indicators
  o Recognize that indicator development is a process
    - Pilot indicators and have all stakeholders review and test associated tools
  o Ensure data managers have appropriate training in data analysis
  o Ensure all staff have appropriate performance measurement job aids and mentorship/supportive supervision following trainings
  o Review standing data collection tools are easy to use and collect accurate information
  o Compare quality performance measurement findings to other information systems
  o Develop strategies whereby sites are able to validate their own data (self-validation)
    - Have the facility/data manager review different variables/parameters on a monthly basis to validate if reported quality data reflects the facility’s records. Rwanda uses this strategy.
    - Build in validation checks into electronic databases
    - Emphasize the importance of process indicators
    - Work toward real-time data validation
  o Technical Assistance
    - Leverage people closer to the clinics (within the region) to provide assistance in data quality
    - Peer learning

• Connect data managers throughout the region to provide TA to one another
  o Decentralize Data Quality Assessment
    - Create district-level capacity for performance measurement
  o Clearly define the levels of reporting and data aggregation
  o Incorporate the principles of quality improvement into the performance measurement process
    - Rely on periodic and systematic measurements and interventions in place to improve these findings.
  o Audit charts for patients who did not meet the indicator (failed indicator), to determine why did not get data (data collection error or quality error)
Issues Discussed
1. Definition of an Indicator
2. Characteristics and Types of an Indicator
3. Process for Developing an Indicator

Outcomes
1. An indicator is a statement/variable that measures performance and it can be quantitative or qualitative. If it’s quantitative, it can be an absolute number or it can be expressed by a percentage (numerator / denominator).

2. The characteristics of an excellent indicator can be described by the acronym SMART. An indicator should be (S)pecific or reliable so that interpretations of the indicator are unambiguous allowing for comparability between different clinics and rounds. It should be (M)easurable or quantifiable given the data sources. It should be (A)chievable or realistic, allowing for improvement given the resources and setting limitations. It should be (R)elevant, answering the right question and addressing the aims of your program. Lastly, it should be (T)ime bound by specifying the review period.

Types of indicators include impact, outcome, output, process and input indicators.

3. General steps in developing an indicator: 1. Investigate the area of concern. 2. Brainstorm the objective of that area. 3. Develop an indicator to address the objective. 4. Refine indicator to meet SMART criteria.
**Issues Discussed**

1. Definitions: The group discussed how to define technical assistance, identifying components necessary for good technical assistance. These include: (1) expertise, (2) well-defined needs, (3) specific assistance, (4) resource facilitation, and (5) timely completion. Technical assistance can occur at any level of an organization. The main challenge identified is deliverables that do not meet the needs discussed.

The types of TA identified were grouped into major categories, including: (1) capacity building, (2) laboratory support, (3) advocacy, (4) document creation or review, (5) epidemiology service, (6) strategic information, and (7) data quality assessment.

2. Measures: The group then discussed the importance of evaluating the TA provided. The importance of ongoing reviews to measure relevance, sustainability, and efficiency of TA, and setting specific TA goals was discussed. Specific ways to measure performance include: (1) impact evaluation based on data, (2) pre- and post-tests, (3) direct observation or clinical judgment, (4) examining how documentation and standards of care change, and (5) implementation and sharing of practices.

3. Indicators: The group determined that indicators are difficult to develop, but must be developed on a specific case-by-case basis.

4. Impact: The impact of TA can manifest in a number of different ways, including: (1) use of media, such as video, to publicize work, (2) data use to measure the quality of TA, (3) shared practices in other areas, including geographical and program areas, (4) publishing, and (5) appearing at regional or international conferences to share information.

**Outcomes**

1. Assessing the quality of TA is specific to the type of TA being provided.

2. Contracts or cooperative agreements should be very specific in terms of tasks and performance measures. Indicators that measure performance are very specific to the type of TA provided.

3. Measuring the impact of TA can be difficult, however it should be measured, it should be visible, and may include: publication, accreditation, spread of best practices, conference presentations or abstracts, adoption of guidelines, etc.
Issues Discussed
The discussion group identified the following issues affecting staff motivation: (1) salary; (2) burnout; (3) lack of incentives; (4) absence/lack of regional and ministry support; (5) performance measurement data not shared back to clinics; (6) lack of system for professional support/development; (7) data collection burden; (8) lack of ownership for additional quality improvement activities; (9) uncomfortable environment/poor facilities.

Outcomes
1. Strategies to engage and motivate health care workers
   a. Promote quality work of clinics and staff
      i. Hold national or regional forums to promote quality improvement (QI) and exchange strategies
      ii. Provide awards to support the quality work of both clinics and staff
      iii. Provide technical assistance to build staff confidence in quality improvement
         1. Support staff to analyze the data and share their story in writing
      iv. Highlight quality improvement work (magazines/newsletter/booklet)
   b. Development and implementation of staff appreciation strategies
      i. Examples: retreat, “Staff of the Year”, wellness center for HCWs, provision of lunch/snacks
   c. Provide professional development/upward movement strategies
      i. Build staff skills in technology
      ii. Accreditation/curriculum for quality improvement training for staff
         1. Modular trainings with associated recognition involved
      iii. Provide training opportunities for staff to allow for professional development/promotion
         iv. Pre-service and in-service trainings
      v. Provide/support mentorship opportunities
   d. Task shifting and task sharing-using a team approach
      i. Use of expert clients and outreach workers to share work
   e. If possible, implement new technology (e.g. EMRs) and provide appropriate technical support for staff to gain ownership of these new systems to help best manage their work
2. Institutionalizing quality improvement-develop leadership at the Ministry of Health and government to ensure support for quality from national level
   a. Priority shift at national level
      i. Integration of quality into the MOH to build MOH and staff ownership of quality
      ii. National level to support both in-service and pre-service trainings in quality
   b. Avoid parallel/vertical quality structures
   c. Allow for organization accreditation
Open Space: Developing non-HIV Indicators
Facilitator: Ginny Lipke (USA)

Issues Discussed
1. Non-HIV Indicators
2. Measuring non-HIV Indicators
3. Challenges in implementing and integrating non-HIV indicators

Outcomes
1. Non-HIV Indicators
   - Non-HIV Clinical Indicators
     - TB, Malaria, STIs, Growth indicators, Non-communicable disease indicators, e.g. hypertension and Diabetes
   - Non-HIV Non-Clinical Indicators
     - Waiting time, post-surgery complications and infection, lab turnaround, supply stock, transport, provider ongoing education

2. Measuring non-HIV Indicators
   - TB
     - Screen for cough, screen for sputum, ppd, chest x-ray
   - Malaria
     - Track presence of malaria net in the home
   - STI
     - VDRLs, gram stains, urinalysis, kOH prep, pap smears
   - Growth indicators
     - Document height for weight in adults
     - Document height for weight, weight for age, height for age and head circumference in children and be sure to chart these comparisons
   - Hypertension
     - Blood pressure screening

3. Challenges in implementing and integrating non-HIV indicators
   - Methods of measuring non-HIV indicators are not established
   - Non-clinical indicators measurement parameters are difficult to define
     - Waiting time is a specific example of a non-clinical indicator that is tough to define
       i. There is a debate about whether waiting time should be measured from a patient’s arrival at the clinic or from their scheduled appointment time.
       - Group members suggested that both measures be used because both have value
       ii. It is predicted that the WHO upcoming guidelines will establish measurement of weight time from patient arrival to health facility
   - Supply issue
     - Some facilities do not have blood pressure cuffs or other necessary resources for screening
     - Modifications to screening methods were suggested
       i. In resource-limited settings, symptomatic STI screening can replace laboratory tests.
       ii. Screening for cough is an effective method of TB screening and does not require extra resources
   - Difficult to transition from HIVQUAL to HEALTHQUAL
     - There is a tension between HIV care workers and other types of health care workers since HIV care has become a national focus. HIV work receives more funding and support.
Issues Discussed
1. Patient Flow and quality issues in TB/HIV clinics
   - Efficient patient flow in TB/HIV clinics may jeopardize quality of care.
     - TB and TB/HIV patients should be segregated from HIV patients in clinic
     - Facility limitations may not allow it
     - Even where “waiting room” segregation is possible, complete segregation in the clinical facility may not be

   - Poor patient flow is a leading cause of lengthy wait time
   - Lengthy wait time is leading cause of patient dissatisfaction
   - Patient dissatisfaction is a common cause of loss to follow-up

3. Organization of clinic space, scheduling, and allocation of staff efforts. Efficient organization of clinic space can dramatically improve patient flow. Flow can be further enhanced by strategically aligning staff efforts/functions with the particular flow demands of a given clinic, and by implementing staggered appointment scheduling.

Outcomes
1. A potential remedy to patient flow and quality issues in TB/HIV clinics is HIV-only clinic sessions. Participants suggested that resource limitations could preclude the possibility but they would explore feasibility further.


3. Task shifting/rotating responsibilities. Participants recognized the potential for task shifting/rotating responsibilities to improve patient flow. For example, participants suggested that data clerks and triage nurses could serve as pharmacy assistants during down times in order to ensure that all prescriptions are pre-packaged.
**Issues Discussed**

1. Challenges to monitoring PMTCT Care
   a. Difficult to retain HIV-exposed infants in postnatal care
   b. Monitoring care across multiple programs/PMTCT cascade of services
      i. Lack of common identification systems
         1. Difficult to identify unique clients across services
         ii. Difficult to track longitudinal information
         iii. Difficult to track information across home, public, and private sectors
   c. Staff turnover and workload burden
   d. Lack of electronic medical record systems
   e. Shifting deliveries to primary care settings is not always accepted by the client
   f. Male involvement in ANC

**Outcomes**

1. Solutions identified include:
   a. Give each patient a unique identifier, either through an EMR or on a physical card.
      i. Possible challenge: information stays with the patient/client
   b. Child health passports. Issued in labor and delivery and carried with the child until 5 years of age. These capture HIV and PMTCT data.
   c. A midwife case manager is responsible for monitoring PMTCT care at each facility.
   d. Offering comprehensive care/one-stop shopping. Full HAART and lab tests are available where women are receiving care for their pregnancy.
   e. Consumer involvement.
      i. Use “mentor mothers,” or expert patients, to provide support and guidance to new patients
      ii. Hold support groups that include children and families
   f. Define male and community involvement in a specific, concrete way.
      i. Encouraging couples’ testing, and not only in ANC, which is often not male-friendly.
   g. Provide government health insurance for mothers to encourage them to come to the hospital or clinic for delivery

2. Identified/suggested quality indicators for PMTCT care:
   a. Partner testing
   b. ARV eligibility
   c. Retention
   d. PCR done at 6 weeks for exposed infant (measuring timeliness)
   e. Feeding practices
   f. ART prophylaxis for exposed infants
   g. HIV testing of “unbooked” mothers in labor ward
   h. Syphilis screening for mothers in ANC and L&D
      i. Malaria prevention in ANC
   j. CD4 monitoring
   k. Hb levels
   l. Family planning
   m. Number of deliveries per health facility
   n. Linkage to HIV care
Issues Discussed

• Size of facility and viability of tracking systems (computerized or manual) in place to document total number of patients in and out of care annually and associated entry points in and out of care. Some patients may change facilities (ex: switch to private or other public health facilities).

• Stigma
• Economic Factors
• Transferring facilities
• Rural settings of health care facility
• Documenting other health factors (weight loss/gain)
• No contact with facilities to address treatment failure
• Addressing, monitoring, and measuring Pre-ART patient follow-up activities

Outcomes

• Improved documentation and record keeping
  o Develop a tracking system (tracking/tracking registers) that can capture patients in and out of care across facilities (public and private) and the entry points.
• Follow-up on patients who possibly transferred
  o Call facility to follow-up on transferred patients to identify if they are engaged in care at another location
  o Use peer educators/expert patients to bring patients back into care
  o Reports back to facility on who he/she was able to engage via home visits to deliver ARVs and/or to facilitate re-entry into clinic. (emergency hotline available to schedule emergency care visits to facility). However, clinical assessment and counseling sessions are best ways to address adherence, more objective than getting feedback from patient. Approach has shown to facilitate higher community retention rates. Agents obtain ART from facility Pharmacy. The Pharmacy Management Information System tracks total number of clients in community and community ART distribution points (accountability mechanism is in place to determine who received and who did not receive ARTs).
  o Clients engaged in care at facility level are provided with options to access care at sites centrally located in community (closer to home/village).
  o Utilizing community counselors or peers that can address treatment failure and adherence (ex: CD4/VL testing, monitoring other health conditions, and other medications, etc).
  o Pre-empting self transfer: Mapping to determine where patients live, transferred out and where they are referred, and follow-up via calls to determine if those transferred out are receiving care.
  o Self-forming adherence groups (are cost effective/cheap, self-motivated, and reduce stigma). The group consists of 6 persons in communities who are stable. One community/peer is identified monthly for submitting documentation with patient identification number, name, age, treatment regimen, dates of appointments, and prescribing/medication distribution history and file is signed. Patients must be seen every 6 months.
  o Implement system to screen every six-months to check CD4 for pre-ART patients
  o Identify stable patients every 6 months and ask them where they want to receive care (in their village or in another location).
  o Using pre-ART patient support groups linked at facility to community (resources to convene support are provided by local government and NGOs)
  o People are confident about disclosing HIV status and talking about being on treatment. Government has integrated HIV into all health sectors.
Issues Discussed
1. Characteristics of high volume clinics
2. Challenges of QI in high volume facilities
3. Solutions to the challenges

Outcomes
1. Characteristics of high volume clinics included:
   - Understaffed
   - Busy because of high patient load
   - Documentation challenges due to high patient volume

2. Challenges of QI in high volume facilities:
   - Shortage of staff
   - Scheduling challenges
   - Patient preference for clinic
   - Lack of resources

3. Solutions to the challenges of QI in high volume clinics:
   - Strong clinical information system (EMR if possible)
   - Leadership buy-in and involvement
   - QI focal person needed in absence of committee
   - Consumer involvement
   - Task-shifting
   - Integrating QI roles in all job descriptions
   - Introduction of QI in pre-service training
   - Capacity building for staff and consumers
   - Incorporating QI into all supportive supervisions
   - Improve organization and appointment systems
   - Implementing quality management plan
   - Coaching and mentorship
   - Motivating staff through methods like positive reinforcement, feedback, and tea breaks.
## Issues Discussed

1. Challenges faced in adolescent HIV care
2. Achievements in adolescent HIV care
3. Potential solutions to challenges faced
4. Prioritizing strategies for improving adolescent HIV care across countries

## Outcomes

1. Challenges faced in adolescent HIV care
   The group identified key challenges they have faced in caring for HIV+ adolescents.

<table>
<thead>
<tr>
<th>1. Partner, public, parental disclosure to children</th>
<th>7. Staff training</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Transmission/ risk behaviors</td>
<td>8. Social support for orphans and vulnerable children</td>
</tr>
<tr>
<td>4. Developmental delays due to illness/treatment</td>
<td>10. Adolescent specific data collection and analysis</td>
</tr>
<tr>
<td>5. Transitioning from adolescent to adult care</td>
<td>11. Increasing public awareness and decreasing stigma</td>
</tr>
<tr>
<td>6. Reproductive health and sexuality</td>
<td>12. Adherence issues related to treatment fatigue and self weaning off medications</td>
</tr>
</tbody>
</table>

2. Achievements in adolescent HIV care
   Representatives from various countries discussed their success stories in adolescent HIV care that begin to address some of the challenges identified.

| 1. Identification of unique populations that require distinct types of care (ped., adult and adolescent) | 4. Adolescent friendly clinics |
| 2. Establishment of peer groups and clubs to improve adherence and disclosure | 5. Adolescent counseling and training |
3. Potential solutions to challenges faced

<table>
<thead>
<tr>
<th>1. Partner disclosure and public disclosure</th>
<th>8. Staff training in adolescent care</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Testimonies and peer motivation for testing</td>
<td>a. Development of curriculum in-service training (with help from ITECH)</td>
</tr>
<tr>
<td>b. Utilizing drama and performance groups to address topics of disclosure</td>
<td>b. Integration into pre-clinical training</td>
</tr>
<tr>
<td>c. Coaching and counseling to ensure self-preparedness and self-readiness</td>
<td>c. Development of job aides</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>2. Parental disclosure to children</th>
<th>9. Social support for orphans and vulnerable children</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Allow for a system of emergency disclosure when necessary</td>
<td>a. Financial support for education</td>
</tr>
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<thead>
<tr>
<th>3. Transmission and risk behaviors</th>
<th>10. Identifying sources of infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Improve adherence to prevent transmission</td>
<td>a. Data quality from PMTCT program and strong linkages from PMTCT program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Absence of WHO guidelines</th>
<th>11. Adolescent specific data collection and analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Bring to attention of national political leaders so they can advocate for adolescent health</td>
<td>a. Encourage collaboration by national HMLs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Developmental delays due to illness and treatment</th>
<th>12. Increasing public awareness and decreasing stigma</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Allow patients to stay in adolescent clinic until a later age (into early 20s) and ensure they are prepared for transition to adult care</td>
<td>a. Improve data collection, analysis and interpretation for use in awareness campaigns</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>6. Transition from adolescent to adult</th>
<th>13. Adherence issues related to treatment fatigue and self weaning off medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Periodic exposure to adult care providers at adolescent clinic</td>
<td>a. Improve disclosure so that adolescents have ownership over their status and understand the importance of their medication</td>
</tr>
<tr>
<td>b. Visits to adult clinic before transition</td>
<td>b. Treatment education</td>
</tr>
<tr>
<td>c. Integration of pediatric, adolescent, adult services</td>
<td>c. Continuous counseling (before adherence and treatment fatigue occurs and throughout)</td>
</tr>
<tr>
<td>d. Pre-transition counseling</td>
<td></td>
</tr>
</tbody>
</table>

| 7. Reproductive health and sexuality | |
|-------------------------------------| |
| a. Ensure there is access to condoms | |
| b. Inclusion of all stakeholders in messages to adolescents to ensure consistent advice (home, school, church, clinic) | |
| c. Rights based training in sexual health with emphasis on personal responsibility | |
| i. The World Population Foundation is an organization that has supported this adolescent training | |

| 4. Prioritizing strategies for improving adolescent HIV care across countries | |
|-----------------------------------| |

The group discussed the tools they can share to strategize the process of improving adolescent HIV care.

1. Develop national guidelines and share guidelines amongst countries.
   a. Past countries have had support from UNICEF
   b. Namibia and Rwanda already have established adolescent HIV care guidelines

2. Share best practices across countries

3. Share partners who have helped with adolescent services so other countries can approach that partner.
   a. Examples with UNICEF for national guidelines and World Population Foundation for training

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**Issues Discussed**

1. Training of coaches at different levels
2. Tools for Coaching
3. Expectations at the site level from coaches.
4. Harmonization of QI coaching and clinical mentoring
5. Staff turnover

**Outcomes**

1. Different countries have different approaches to coaching, which depends on the structure of the existing health system and the resources available. For example, in Mozambique, three national level staff provide coaching to 5 provincial level staff. The provincial level coaches train district level coaches and district level coaches train individual sites. A coach from national level will participate in the training at the site level with the district coach. In Swaziland, HIVQUAL team trains regional level QI focal people who then train staff at the site level. Across most countries, coaches are trained in basic QI, coaching skills and data collection. All members of healthcare team can be coaches, not necessarily physicians; however, in some cases coaches with lower credentials may be hesitant to approach higher level clinic staff.

2. It is difficult to create a standardized tool because of site variation; however, basic tools may provide a systemized guide to make sure sites have basic QI infrastructure in place and an advanced tool could be used to address different components of QI.

3. Coaches should provide supportive supervision. Coaching should be done in a friendly manner and site visits should be scheduled at the convenience of the facility. In some countries, coaches train clinic staff in QI related activities only. In others, coaches integrate QI coaching into a comprehensive supervisory visit that includes all departments of a clinic, not just the HIV/AIDS department.

4. HIVQUAL shouldn’t be vertical. Ideally, clinic staff should be trained on QI processes and clinical skills simultaneously. This would harmonize clinical mentoring and QI coaching to give clinic staff the skills necessary to both identify problems and address clinical skill-related gaps.

5. At site level, there should be a record of QI activities (diary). Frequent QI training for clinic staff should be available. Multiple members of clinic staff should be trained in crucial QI activities such as data collection so that QI activities can continue despite high staff turnover.
Issues Discussed

- Defining data literacy
  - The group defined data literacy as how the facility and region understand the role of data in quality improvement at all levels of utilization
- Ultimate goal: data needs to be useful both to the clinician at point of care and at different aggregate levels (e.g. district, regional, national)
- Challenges of data literacy
  - (1) Clinicians and data managers do not understand/find utility the data reporting system/importance; (2) separation between clinical management and data entry; (3) electronic data systems are not always found useful

Outcomes

- Strategies to improve data literacy
  - Develop ownership of data quality
    - Provide a measurement and evaluation 101 training for data managers and clinic staff
    - In trainings, guidance materials, and job aides provide specific examples of how data quality affects decision making
    - Make the levels of data collection, aggregation, and analysis transparent and responsive to one another
  - Peer coaching
    - Data quality evaluation results can be used to identify well performing facilities. Staff from these sites can help coach other sites within the region.
  - Quality improvement education/trainings on data
    - A data quality education strategy was shared by Zambia. The country has developed and implemented a training for district-level staff on “Epidemiology for Data Users”. This training includes the following components:
      - Overview of epidemiology, data quality, measurement and evaluation, data systems in the country, how to summarize and display data, how to write reports
      - This training emphasizes the importance of looking at one’s own data
    - The training is currently being adapted for facility level staff
    - Zambia shared the importance of including a diverse group of stakeholders in the development of these materials. (e.g. representatives from MOH, NGOs, local university). The curriculum should be piloted and revised as appropriate.
  - Include quality within roles and responsibilities of data managers, clinicians, and different members of the clinic staff
  - Investigate strategies to include a data quality plan within the countries National Quality Management Program. Andrew Hamilton will provide resources to the group on different international examples.
**Issues Discussed**

1. Impact Evaluation Design. A general discussion of evaluation design was framed in terms of the following specific questions:
   - What is the purpose and importance of evaluation of QI impact
   - How is the impact of QI evaluated
   - What is the core difference and relationship between impact and outcomes evaluation
     - The causal chain: Inputs > Activities > Output > Outcome/Effect Impact
     - How does outcomes evaluation roll-up to impact evaluation
   - When should QI impact be evaluated
   - What are the challenges and barriers to the evaluation of QI impact

2. Who is evaluating and who is evaluated:
   - Who is evaluating
     - Ministry of Health
     - Funders
     - Implementers
     - Development partners
     - Beneficiaries/consumers
     - Consultants
   - Who is being evaluated
     - Depends on
       - Who is evaluating
       - What is being evaluated
       - The scope of the evaluation
     - May include
       - Ministry of Health
       - Implementers
       - Facilities/sites

3. Challenges and barriers to impact evaluation. Limitations on QI utility of quantitative process improvement indicators: basic quantitative indicators for process improvements may not provide sufficient information to drive or contribute to actual QI impacts. Alone, quantitative data may not answer questions about why processes do or do not function effectively.

**Outcomes**

1. Qualitative experiential data must be used to fill “gaps” in quantitative impact analysis in order to inform QI.

2. None of the participants had actually been directly involved in conducting an impact evaluation prior to the session. At the session’s conclusion, virtually every participant expressed an interest in conducting one in the future.

3. QI may be integrated into many different aspects of a program and implemented across multiple programs. Assessing the impact of QI in isolation is consequently very challenging. HEALTHQUAL may wish to give some consideration to the issue and provide appropriate TA.
Issues Discussed
1. Setting up a national QMP: The necessary steps needed for setting up a national Quality Management Program were discussed. These include: (1) strong leadership commitment, (2) stakeholder consultation, (3) development of national QI policies, guidelines, and standards, (4) identification of focal persons, (5) development of Performance Measurement, (6) identification of priority areas, (7) development of indicators, (8) development of tools for data collection, analysis, and report generation, (9) trainings, and (10) a pilot program.

In addition to these steps, it is important to create linkages among different program areas, harmonizing processes, indicators, and priorities.

2. Implementation of a national QMP: When a QMP is launched, it is important to: (1) train implementers, (2) develop mentorship and coaching opportunities, (3) promote peer learning, (4) conduct performance measurement, and (5) seek patient involvement.

3. Sustainability of a national QMP: A sustainable national QMP requires: (1) ownership by institutions at all levels, (2) financial, human, and material resources, (3) a transition plan for vertical programs, (4) frequent M&E, and (5) effective documentation and communication.

Outcomes
1. When setting up a national QMP, it is necessary to have strong leadership commitment and national broad-based quality management framework based on key identified priorities.

2. Joint annual operational planning, monitoring and evaluation are integral to the implementation of a QMP.

3. There is a need for institutionalization on all levels of setting up a national QMP.
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