Transforming a Healthcare Organization Through Quality Improvement Projects.

Leonard Kabongo, MD, Msc GH
Gobabis District Hospital
Namibia
outline

- Setting
- The Birth of Quality improvement
- QI-1: Perioperative Safety
- QI-2: Maternal and New born outcomes
- QI-3: Linkages of PHC/HIV/ SRH services
- Next steps
- Conclusion
setting

Namibia Health system

- Pop: 2.3 Million (WB, 2013)
- 14 Regions (Health Directorates)
Setting

REFERRAL SYSTEM

Primary Health care

District Hospitals

Intermediate Hospitals

NH

REFERRAL SYSTEM
Gobabis District

- Situated in the East, in Omaheke Region bordering Botswana.
- Population: 72,668
- Density: 0.86/Km2
- One District in One Region
- One District Hospital: 172 beds
- PHC facilities: 14 (13 Clinics and 1 HC)
The birth of QI

- QI program Introduced in 2007 with HIVQUAL,
  - Focus on HIV program quality indicators.
  - Expanded through IMAI trainings and HIV rollout program at all PHC facilities
  - Using basic concept of QI: QI team, performance measurement, QI tools, QI strategies, post-intervention measurement.
  - Projects shared at annual National HIVQUAL forums.
QI: Perioperative Safety

Impact of WHO surgical Check list in peri-operative safety:
A STOC at Gobabis Hospital
(MDF, 2013)
A STOC

- SEE:
  - Lack of team work in theatre
  - Patients undergoing surgery for second, third time, could hardly tell the previous experience
  - Communication and roles challenges
  - Records on peri-op Checks
  - Lack of readiness for Intractable inadvertent events.
TRY:
- The WHO Surgical Safety Checklist
- Use QI tools
- May 2013–July 2013

Observe (What happened):
- 25% of perioperative risks events were averted.
- Majority before induction of anaesthesia.
CONTINUE: Way forward

- Implement WHO SSC at larger scale
- Share the experience

Impact of WHO Surgical Safety Checklist & a small test of change at Gobabis Hospital, Namibia
Presented by Dr L. Kabongo at the Forum, The WHO....

What problems does the checklist address?
- Correct patient, operation and operative site
- Safe Anaesthesia and Resuscitation
- Minimizing risk of infection
- Effective Teamwork

Additional resources available online at http://www.who.int/patientsafety/challenge/safe.surgery/en/

Advantages of the checklist
- Customizable to local setting and needs
- Deployable in an incremental fashion
- Supported by scientific evidence and expert consensus
- Evaluated in diverse settings around the world
- Ensures adherence to established safety practices
- Minimal resources required to implement a far-reaching safety intervention
Q I: Maternal and New born outcomes

- Project done in Maternity
- Team of Doctors and Nurses
- Problems:
  - Inconsistency use of Essential Birth Practices
  - High perinatal and maternal mortality

Nurses off duty - rotation
Lack of QI champion
Inadequate staff
Skills deficit
Low uptake of EBPs
Components of the WHO SCC

Antenatal period

Labor onset

Admission to birth facility

Delivery

Discharge from birth facility

Pause point #1
On admission

Pause point #2
Just before pushing (or before Cesarean)

Pause point #3
Soon after birth (within 1 hour)

Pause point #4
Before Discharge

Maternal & neonatal mortality risk

Time

28 days

42 days
The Safe Childbirth Checklist Programme: *Improving health outcomes for mothers and newborns*

A 22 weeks project using the Better Birth Model with the WHO safe childbirth checklist.
Improved SCC uptake

Variability in SCC use, over time

Pilot phase: 46% SCC

Implementation phase: 86%
Improved EBPs

- “Hand washing was not always systematically done before the Checklist. Now we wash our hands more often and are conscious about the alcohol spray being available in every room”

- “We didn’t wash our hands as many times as we do now with the Checklist”

- “With the Checklist we monitor soap better”

Were soap & water available and used at check1?

Weeks of SCC Implementation, Feb 17 - Aug 02, 2015
“After realizing through the Checklist that Oxytocin was not administered after delivery in a specific case, we understood why the woman experienced PPH. That scenario convinced us that using the Checklist was important.”

“Oxytocin was not available in the labor room before the Checklist. Now, each morning, we move the Oxytocin from the supply room to keep at the bed side in the delivery room.”

Was Oxytocin prepared at bedside

Weeks of SCC Implementation, Feb 17-Aug 02, 2015
Oxytocin prepared
Reduced Mortality

SCC Use and Neonatal Mortality (FSB & ND)

Weeks of SCC Implementation, Feb 17-Aug 02, 2015

Leadership - coach
QI champion
Peer-to peer coach

07-Jul-16
CAC-CQI-Aids Institute NYC
“The Checklist is very helpful – it reminds us when something has been forgotten”

“Initially, we used to keep the Checklist aside, but then we realized that it was important to attach it to the Maternity Record because items can be forgotten”
Poster presentation was shared at the International forum on quality and safety in healthcare, Gothenburg, Sweden April 2016

Paper submitted at BMJ, currently under review.
### QI: Integration of HIV/SRH into PHC services

**Before integration:** Services in silos

<table>
<thead>
<tr>
<th>HIV</th>
<th>SRH</th>
<th>TB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PHC Services
- **M**: EPI, PNC, FP
- **T**: ANC
- **W**: Cervical ca Screen
- **T**: General
- **F**: General,
- Reduced service accessibility
- High level stigma
- Long waiting time
- Lack of consumer involvement
STEP 4: Internal preparations in the clinic to start the new model
Integration Model: HIV/SRH/PHC

- Improved accessibility
- Improved staff productivity
- Increased service utilization
- One room-one patient-one Nurse, all care at a time, any time.
- Person-centered approach
Effect on HIV program

ARV pharmacy pickups

ARV picks

HIV related stigma

HIV stigma

Before | After

ARV picks

HIV stigma

780
760
740
720
700
680
660
640
620
600

0%
10%
20%
30%
40%
50%
60%
70%
80%

increased
decreased
no change
unknown

07-Jul-16

CAC-CQI-Aids Institute NYC
6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9 7

Before  After

ART Defaulters

7.7%

Retention on care

11.4%

Before  After

ART after

Retention
Effect on SRH services

Waiting time 1\textsuperscript{st} ANC visit

<table>
<thead>
<tr>
<th>Waiting time (hours)</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANC follow-ups per month

<table>
<thead>
<tr>
<th>Follow-up visits</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

07-Jul-16

CAC-CQI-Aids Institute NYC
Conclusion

- Quality improvement requires quality leadership
- Good application of simple adapted QI methods is potential for improvement.
- Problems may be complex
- Deal with one issue at a time in small teams is a gateway to improvement.
- Develop a culture of an improver to maintain sustainability.