Linking communities and facilities to improve quality of care for mothers & newborns

Lessons from Uganda & Tanzania
Webinar on 9 November @ noon GMT/3pm EAT

Quality, Equity, Dignity
A Network for Improving Quality of Care for Maternal, Newborn and Child Health

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Linking communities and facilities to improve maternal and newborn health: *Lessons from the Expanded Quality Management Using Information Power trial in Uganda and Tanzania*

(4-years project - funded by a grant from EU FP7)
Background

• Quality improvement is a recommended strategy to improve implementation levels for evidence-based essential interventions, but experience of and evidence for its effects in low-resource settings are limited.

• We aimed to test a systemic and collaborative quality improvement approach covering an entire district from district management, to facility and community levels in order to inform scale up
Study setting and design

• Study area: Southern Tanzania and Eastern Uganda

  ▪ Design: Plausibility study
    ▪ 1 intervention 1 comparison district
    ▪ Continuous surveys (6 rounds) for evaluation + report cards (feedback mechanism)
    ▪ Process, coverage and practice/quality indicators
    ▪ Interrupted time-series analysis applying a difference-in-differences approach
QI teams formed at 20 / 32 health facilities & 65 / 157 CQITs formed (each parish 5-10 villages) 2 VHTs per village in Uganda and Tanzania, respectively.
Conceptual Framework: systemic & based on district health systems

- Decreased new-born and maternal mortality
- Improved quality of health services
- Increased utilization of health services
- QM process in health facilities overcomes local obstacles
- QM process in local community overcomes local obstacles

Policy Briefs on evidence and new technologies (e.g., cell phones, misoprostol)

QM structures in the national Ministry of Health, donors, and other development partners support local efforts

QM team of district managers support local QM process and overcomes higher-level obstacles (QM team includes existing managers, supervisors, and QM mentors)

District QM process

Local QM process

Improved quality of health services

Increased utilization of health services

Package data into Report Cards for:
1. Local community
2. Health facility
3. District managers

Continuous HH and linked HF survey & extraction from HMIS complemented by qualitative data

Feedback

Data

10/11/2017
• Quality improvement at community, health facility and district managers level

• Quality improvement teams (QIT) were working on defined problems to strengthen demand & supply of maternal and newborn health care
The starting point

• To support the implementation of essential intervention

<table>
<thead>
<tr>
<th>Improvement topics in health facilities</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health facility delivery/birth preparedness</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Syphilis screening</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Recognition and correct management of pregnancy induced hypertension</td>
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<td>✓</td>
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<tr>
<td>Intermittent preventive treatment of malaria in pregnancy in antenatal care</td>
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<tr>
<td>Active management of the third stage of labour</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Infection prevention for caesarean sections</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Improved asphyxia management/helping babies breathe</td>
<td>✓</td>
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<tr>
<td>Kangaroo mother care for preterm and low birth weight babies</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Postnatal care within the first week of birth</td>
<td>✓</td>
<td>✓</td>
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</tbody>
</table>

• Selection of topics was informed by international and national guidelines and reports

• We took a systemic approach by involving different levels of care including health managers

Improvement topics worked on within EQUIPI
Data driven / data feedback: Report cards

Topic were often introduced using report cards

Facility and community volunteers discussing report cards
What did we learn: Data makes the difference

Proportion of pregnant women with birth preparedness plans

- **Home visits**
- **Birth preparedness check list**
- **QI starts: sensitization**
- **Women's’ saving group**

% women with BPP

Median

Months:
- Jul'11
- Aug'11
- Sept'11
- Oct'11
- Nov'11
- Dec'11
- Jan'12
- Feb'12
- Mar'12
- Apr'12
- May'12
- Jun'12
- Jul'12
- Aug'12
- Sep'12
- Oct'12
- Nov'12

Month proprotion women with BPPs
## What did learn: Results

<table>
<thead>
<tr>
<th></th>
<th>Tanzania</th>
<th>Uganda</th>
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</thead>
<tbody>
<tr>
<td><strong>Difference in difference % between implementation and comparison district (95% CI)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility delivery</td>
<td>7 (-7 to 21)</td>
<td>-3 (-15 to 9)</td>
</tr>
<tr>
<td>Uterotonic &lt;1min birth</td>
<td>26 (25 to 28)</td>
<td>8 (6 to 9)</td>
</tr>
<tr>
<td>Immediate breastfeeding</td>
<td>-7 (-21 to 7)</td>
<td>-6 (-17 to -5)</td>
</tr>
<tr>
<td>Knowledge of danger signs</td>
<td>4 (-11 to 18)</td>
<td>-2 (-14 to 11)</td>
</tr>
<tr>
<td>Clean Birth kits</td>
<td>31 (2 to 60)</td>
<td>10 (-6 to 23)</td>
</tr>
<tr>
<td>Post-partum care &lt;7 days</td>
<td>17 (-8 to 40)</td>
<td>-3 (-8 to 2)</td>
</tr>
<tr>
<td>Wrapping pf babies after birth</td>
<td>7 (-21 to 36)</td>
<td>Not prioritized</td>
</tr>
<tr>
<td>Supervision to health facilities (past 6 months)</td>
<td>14 (0 to 28)</td>
<td>Not prioritized</td>
</tr>
</tbody>
</table>
What did we learn: Data makes the difference

• Locally data are available but quality issues
• Data availability in itself is not a means to an end. Data use need training and facilitation
• Team work is critical for data to be used productively
• Participation of district managers important for the system to be sustained
• Use of data can be a basis for health system improvement for maternal and newborn health (QI, advocacy, engagement)
• Need to focus on a few relevant and simple indicators

I like [collecting data] because it guides me to do what I am supposed to do. However, it is not easy to calculate the percentages and plot the graphs, even if we can read and write.”
(In-depth interview, Ugandan community-level QI volunteer)
What did we learn: community and facility complement each other

• Increase in demand created by the community component must be positively countered by an improvement in the quality of services provided at community level

“They have helped because now all pregnant women attend the health facility. They also tell traditional midwives not to help pregnant women to deliver at home, but to take them to the hospital for delivery.” (In-depth interview, Tanzanian health facility staff, female)

Graph: Run-chart of proportion of health facility deliveries in a health centre
What did we learn: mentoring and coaching drive QI but needs continuous availability of resources

• Regular focused mentorship has the potential to improve skills and practice

• For effective mentorship, there should be adequate resources in terms of funds, time, human resource

• Major challenge was competing activities (from the mentees), heavy work load at the health facilities

• For sustainability, districts need to be empowered (and need the funds) to take charge and include mentorship in their work plans
What did we learn: The PDSA cycle is not so easy to understand

- Health workers and community volunteers found it challenging to understand the PDSA cycle

“At first it was very difficult to understand and use the cycles because we are slow learners, but due to monthly mentoring sessions, we continued using the cycles and finally grasped it.” (In-depth interview, Ugandan community-level QI volunteer)
What did we learn: the costs

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<tr>
<th></th>
<th>Tanzania</th>
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<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Per capita</td>
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<tr>
<td>Community QI</td>
<td>40,399</td>
<td>0.18</td>
</tr>
<tr>
<td>Facility QI</td>
<td>50,348</td>
<td>0.33</td>
</tr>
<tr>
<td>District QI</td>
<td>5,604</td>
<td>0.03</td>
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- The main costs drivers were the mentoring and coaching activities to facilities and communities
What did we learn

• This suggests that a systemic approach to QI, concurrently addressing bottlenecks in uptake of care, availability of drugs and health worker practice might yield better results.

• QI at the district level and supports the need to combine district improvement work with national health system strengthening.

• Reasons for the lack of effects included limited implementation strength as well a relatively short follow-up period in combination with a 1 year recall period for population-based estimates and a limited power of the study to detect changes smaller than 10 percentage point.
What did we learn: Strong district management and resource availability critical for QI

• A systemic approach to QI – i.e concurrently addressing bottlenecks in uptake of care, availability of drugs and health worker practice might yield better results.

• Reasons for the lack of effects at population level included limited implementation strength (short period) in combination with a 1 year recall period for population-based estimates and a limited power of the study to detect changes smaller than 10 percentage point.
Conclusion

• EQUIP was able to overcome selected low implementation levels for essential maternal and newborn health interventions
• QI is a complex intervention with a potential to strengthen quality of care, but it takes time
• QI is feasible to implement at community and primary facility levels if a strong management and support system – but costs
• EQUIP demonstrated potential for concurrent improvement in both demand and supply side indicators
• Effects were most pronounced in Tanzania probably because district-own funds were available to support improvement work
• Health workers and communities appreciated EQUIP “They don’t abandon us, these people”
Acknowledgements

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• EQUIP study group:
  (Karolinska): Stefan Peterson, Claudia Hanson, Goran Tomson, Ulrika Baker
  (LSHTM): Joanna Schellenberg, Tanya Marchant
  (Evaplan): Michael Marx
  (Makerere): Peter Waiswa, Monica Okugga, Mandu Rogers, Darious Kajjo, Hudson Balidawa
  (Ifakara Health Institute): Fatuma Manzi, Jennie Jaribu, Yovitha Sedekia, Godfrey Mbaruku, Silas Temu

• Scientific advisor:
  (CDC): Alex Rowe

• District teams, health workers, CHWs and communities in Ug and Tz