Quality of Institutional Care (QuIC)

Luke Boddam-Whetham, April 30th 2014
What is QuIC?

- QuIC is a fast, low-cost telephone and app based approach to assessing the readiness of facilities to provide quality Emergency Obstetric and Neonatal Care services.

- It collects, analyses and presents data quickly, so results are available quickly for immediate action.

- Approach can be used to collect any data – E4A countries focusing on EmONC signal functions and/or “Enablers”
Key principles of QuIC:

- **Regular, up to date data** – what is happening now
- **Low cost/low resource approach**
- **Quick to administer** - data collected within 20 minutes/low burden on facility staff
- **Quick to enter** - entered directly by interviewer onto a mobile phone and analysed automatically
- **Quick easy to understand results** - results/scorecards auto-generated so stakeholders can quickly identify bottlenecks and take action to improve quality of care
- **Flexible approach** – easy to add/remove questions (e.g. extra questions to address a particular priority issue)
QuIC screenshots 1

Pre-Questionnaire

*Which district is the facility in?*

- Kenema
- Koinadugu
- Western Rural
- Bonthe

Pre-Questionnaire

*Is the facility BEmONC or CEmONC?*

- BEmONC
- CEmONC
QuIC screenshots 2

Last 24 hours

In the last 24 hours: Have maternity services been open all the time?

- Yes
- No

Essential Drugs

In the last 24 hours, did you have the following drugs, in date and in stock: IM/IV Ampicillin?

- Yes
- No
Scoring QuIC: Enablers (BEmONC)

- On non-signal functions (electricity, staffing, equipment, drugs etc) scores give a ranking
- On signal functions scores provide a yes/no outcome
### Example – Kasungu District Malawi

<table>
<thead>
<tr>
<th>Enabler</th>
<th>Kaluluma</th>
<th>Chulu</th>
<th>Santhe</th>
<th>Bua</th>
<th>St Andrews</th>
<th>Kasungu DH</th>
<th>Nkhamenya</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Referrals</strong></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td><strong>Staffing</strong></td>
<td><img src="#" alt="Orange" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td><strong>Laboratory</strong></td>
<td><img src="#" alt="Red" /> N/A</td>
<td><img src="#" alt="N/A" /></td>
<td><img src="#" alt="N/A" /> N/A</td>
<td><img src="#" alt="N/A" /> N/A</td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td><strong>Water and Sanitation</strong></td>
<td><img src="#" alt="Orange" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Orange" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td><img src="#" alt="Orange" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Orange" /></td>
<td><img src="#" alt="Orange" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td><strong>Drugs</strong></td>
<td><img src="#" alt="Orange" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
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</tr>
</tbody>
</table>

- **Insufficient staff on shift, lab tech away, no electricity last night, autoclave broken**, no assisted delivery >6 months
- **Ambulance took 12 hrs, no adult cannulas; insufficient syringes; no piped water (1 month)**
- **Ambulance took 12 hrs, broken autoclave (boiling instead); insufficient dressings**
- **Performing assisted delivery using suction machine**
- **MVA performed in women’s ward (how capture for QUIC call?), no elbow gloves**
- **No blood in blood bank, no calcium gluconate, no MVE, no elbow gloves**
## Example – Kasungu District Malawi

<table>
<thead>
<tr>
<th>Signal function</th>
<th>Kaluluma</th>
<th>Chulu</th>
<th>Santhe</th>
<th>Bua</th>
<th>St Andrews</th>
<th>Kasungu DH</th>
<th>Nkhamenya</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF1a: Parenteral antibiotics-mother</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF1b: Parenteral antibiotics-newborn</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF2: Parenteral oxytocics</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF3: Parenteral anticonvulsants</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF4: Manual removal of placenta</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF5: Removal of retained products</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF6: Assisted/instrumental vaginal delivery</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF7: Neonatal resuscitation</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF8: Blood transfusion</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF9: Perform surgery</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SF10: pre-term Corticosteroids</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>EmONC Status at time of call</td>
<td>Not performing BEmONC service</td>
<td>Not performing BEmONC service</td>
<td>Not performing BEmONC service</td>
<td>Not performing CEmONC service</td>
<td>Not performing CEmONC service</td>
<td>Not performing CEmONC service</td>
<td>Not performing CEmONC service</td>
</tr>
</tbody>
</table>
Example – Quality score screenshot

SCORECARD

CEmONC. Referral enabler: GREEN.
Staffing enabler: GREEN.
Laboratory enabler: GREEN.
Electricity enabler: GREEN.
Water sanitation enabler: GREEN.
Equipment enabler: AMBER.
Drugs enabler: GREEN.

☐ ok
What are some of the advantages of having QuIC as an app compared to its paper version?

- Data entry is faster
- Data entry is automatically checked and validated (if an inappropriate or wrong answer is given the user will not be able to move to the next question), this improves the quality of the data.
- The paper version had a relatively complex skip logic which is automated on the app and avoids errors.
- The relatively complex analysis to produce score cards is automated
- The app gives instant results and automatically generates score cards whereas before the paper forms had to be collected, analysed and results fed back to the provider.
- The app and updates are easy to share provided users have a good connection to upload new/revised versions.
Thank you!