Overview of the MCHIP Maternal and Newborn Health Quality of Care Facility Survey in Six African Countries

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Quality of Care Study Overview

Focuses on routine care, prevention and management of the most serious maternal and newborn complications.

Overall goal is to support quality improvement.

Core of assessment is direct observation of ANC, Labor & Delivery, and PPC

WHO guidelines used as the standard of care, especially the IMPAC series, including Managing Complications in Pregnancy and Childbirth.
Donabedian Model

Indicators measured:
- Availability of drugs, supplies and equipment,
- Staff-to-patient ratios
- Provider mix
- Staff training/experience

Methods used:
- Surveys, inventories, interviews

Indicators measured:
- TT 2+, SBA, uterotonic usage
- C-section rates
- EmONC signal functions performed

Methods used:
- Surveys, interviews, record reviews/HMIS

RARELY: Observation

Indicators measured:
- Maternal mortality
- Infant mortality
- Severe maternal morbidity
- Case fatality rates
- Patient satisfaction

Methods used:
- Clinical audits, death reviews, record reviews/HMIS

Graphic source: AHRQ
Seven QoC Assessment Countries

- MCHIP QoC assessments implemented in seven countries in 2010-2012 but findings shared from six sub Saharan Africa countries.

- Tanzania only country conducted the survey twice
Summary of Samples

Assessed close to 650 facilities in 6 countries; observed over 2,500 deliveries and close to 3,000 ANC consultations; interviewed over 1,000 health workers.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Kenya</th>
<th>Ethiopia</th>
<th>Tanzania</th>
<th>Zanzibar</th>
<th>Rwanda</th>
<th>Madagascar</th>
<th>Mozambique</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>409</td>
<td>19</td>
<td>52</td>
<td>9</td>
<td>72</td>
<td>36</td>
<td>46</td>
<td>643</td>
</tr>
<tr>
<td>-Hospital</td>
<td>52%</td>
<td>100%</td>
<td>23%</td>
<td>56%</td>
<td>58%</td>
<td>75%</td>
<td>46%</td>
<td>53%</td>
</tr>
<tr>
<td>-Health Center/dispensary</td>
<td>48%</td>
<td>0%</td>
<td>77%</td>
<td>44%</td>
<td>42%</td>
<td>25%</td>
<td>54%</td>
<td>47%</td>
</tr>
<tr>
<td>Observations of care</td>
<td>2035</td>
<td>318</td>
<td>880</td>
<td>274</td>
<td>604</td>
<td>670</td>
<td>4781</td>
<td>9562</td>
</tr>
<tr>
<td>-Deliveries</td>
<td>626</td>
<td>192</td>
<td>489</td>
<td>217</td>
<td>293</td>
<td>347</td>
<td>525</td>
<td>2689</td>
</tr>
<tr>
<td>-ANC consults</td>
<td>1409</td>
<td>126</td>
<td>391</td>
<td>57</td>
<td>311</td>
<td>323</td>
<td>303</td>
<td>2920</td>
</tr>
<tr>
<td>Health workers interviewed</td>
<td>249</td>
<td>79</td>
<td>206</td>
<td>51</td>
<td>146</td>
<td>140</td>
<td>186</td>
<td>1057</td>
</tr>
</tbody>
</table>
Study Procedure, use of checklists

Data collection done in one visit per health facility over a 3-4 day period

Smart phones/tablet used for data collection; sent directly to a centralized database
Screening for Pre-eclampsia in Labor & Delivery

- Asks about signs of PE/E (1)
  - 27%
- Initial blood pressure check
  - 77%
- Both PE/E screening elements
  - 22%
- Tests urine for presence of protein
  - 7%

Note: Bars represent average scores. High-low bars show the range.

1) headache/blurred vision or swollen hands/face (any danger sign Kenya and Ethiopia)

Bars represent average of mean scores for all countries and high-low bars show the by-country range.
Supplies and Equipment for PE/E

Bars represent average of mean scores for all countries and high-low bars show the by-country range.
Health worker knowledge of PE/E signs and management

Bars represent average of mean scores for all countries and high-low bars show the by-country range.
Partograph Usage

Bars represent average of mean scores for all countries and high-low bars show the by-country range.
Mrs. A (para 1) was attended by a nurse/midwife. During the initial assessment, the provider did not ask about bleeding during previous pregnancies. She had a spontaneous vaginal delivery at 4:30 p.m. AMTSL was not conducted: oxytocin was given 17 minutes after delivery and no CCT or uterine massage was performed. The provider did not assess completeness of placenta and membranes and did not check mother’s vital signs 15 minutes after birth. PPH occurred at 5:16 p.m. The provider massaged the uterus and gave incorrect dose of oxytocin at 5:16 p.m., checked and found a laceration that was repaired at 5:35 p.m., and bleeding stopped. Outcome: mother and baby went to recovery ward together.

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases of PPH observed</td>
<td>74</td>
</tr>
<tr>
<td>Type of treatment provided</td>
<td></td>
</tr>
<tr>
<td>- massage the fundus</td>
<td>33</td>
</tr>
<tr>
<td>- repair of lacerations</td>
<td>29</td>
</tr>
<tr>
<td>- manual removal placenta</td>
<td>22</td>
</tr>
<tr>
<td>- bimanual compressions</td>
<td>2</td>
</tr>
<tr>
<td>- blood transfusion</td>
<td>4</td>
</tr>
<tr>
<td>Medications provided</td>
<td></td>
</tr>
<tr>
<td>- oxytocin</td>
<td>36</td>
</tr>
<tr>
<td>Outcomes</td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>9</td>
</tr>
<tr>
<td>Maternal deaths</td>
<td>0</td>
</tr>
</tbody>
</table>
CONCLUDING THOUGHTS
Measuring QoC by Direct Observation

Gold standard
Eliminate some biases
Gather details that mothers don’t know

Rich data
• By facility level, provider type, etc.
• Management of complicated cases
• Observer comments
Measuring QoC

Cost & timing
Data collectors with clinical experience
Intensive training: role playing, observing simulations, inter-rater reliability testing, practice in field
L&D: waiting for cases, progress of labor
Hawthorne effect
Acknowledgments

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Ministries of Health, MCHIP/Jhpiego country offices, and providers and clients of the study facilities

Data collection teams in each country
THANK YOU!

www.mchip.net

QoC reports available at:
www.mchip.net/qocsurveys