Improving PE/E and PPH care and using routine information sources to inform and track progress

An Unfinished Agenda in Maternal Health: Meeting the Needs of Women with PE/E and PPH

Washington, DC
June 13th, 2017
Outline

• PPH & PE/E Care: Common quality gaps
• Designing PPH and PE/E QI work for scale – leveraging WHO QED MNH Network
• Measuring to improve – routine data sources
• Maternal Death Surveillance and Response (MDSR) and QI linkages
Conceptual framework of pathways leading to adequate childbirth care options

Poor Quality of PPH and PE/E Care - critical gaps and contributors

**INPUTS**
- Non-standardized records; missing data
- Workforce shortages; low provider skills
- Unclear or absent local PE/E and PPH protocols
- Missing essential commodities (MgSO4, uteronic, Blood, antihypertensive, UBT)

** PROCESSES**
- Failure to assess/monitor
- Late symptom recognition
- Failure to diagnose correctly
- Ineffective Care
- Poor care organization (inefficiency, third delay)
- Non-functional referral systems

**OUTCOMES**
- Poor quality of care
- High incidence of PPH and severe PE/E
- High case fatality
- Poor satisfaction with care
- Low utilization of MH services

*Donabedien Framework*
MgSO4 Availability in MCSP-supported maternities in 8 countries
Provider Contributing Factors in Maternal Deaths: California U.S.

From detailed chart reviews of maternal deaths
(CA-Pregnancy Associated Mortality Review Committee; CDPH-MCAH)

We can make things better!
High-quality PPH and PE/E Care is…

• Equitable - does not vary with individual characteristics
• Timely - when and where needed
• Effective - evidence-based intervention bundles
• Safe - does no harm
• Coordinated - across time and system levels
• People-centered - respectful, compassionate
WHO Quality of Care Framework for Maternal and Newborn Health (2015)

Source: BJOG 2015
Each of 8 Domains has a Standard and Several Quality Statements and Measures

**Standard:** Description of what is expected to be provided to achieve high quality care around the time of childbirth (Aspirational Goal).

**Quality statement:** Concise prioritized statement designed to drive measurable quality improvements in the care around childbirth.

**Quality measures:** Criteria that can be used to assess, measure and monitor quality of care (input, process, outcome).
<table>
<thead>
<tr>
<th>WHO Quality Statement</th>
<th>Illustrative Input, Output and Outcome measures</th>
<th>Key Data Users</th>
</tr>
</thead>
</table>
| **WHO Quality Statement 1.3**  
*Women with PPH receive appropriate interventions according to WHO guidelines*  
*WHO Quality Statement 1.3*  
*Women with PPH receive appropriate interventions according to WHO guidelines* | ➢ **Input measures**: proportion of facilities with functional uteronic available 24/7 in delivery room  
➢ **Process/output measures**:  
• % women delivered who received immediate post-partum uteronic  
• % women with PPH treated with *therapeutic* uteronic  
➢ **Outcome measures**:  
• Proportion of women who developed PPH (incidence)  
• Proportion of women with PPH who died (case fatality) | Facility QI Team  
District Managers  
Facility QI team (District Managers)  
Facility  
District/Regional National |
WHO Quality Equity Dignity MNH Network -
launched in Malawi Feb 2017

Goals:

• Reduce facility maternal and newborn mortality in participating health facilities by 50% over five years
• Improve experience of care

Nine first-wave countries: Nigeria, Ivory Coast, Ghana, Tanzania, Uganda, Ethiopia, Bangladesh, India, Malawi

Strategic Goals:

• Leadership of quality – national, sub-national, facility
• Action – improving quality of care
• Learning – within and across countries
• Accountability – Government, civil society, communities
QED Supports
Drivers of Improvement across System Levels
(national, regional/district, facility)

Activated Leadership

Knowledgeable, skilled and activated health workers

Activated patients, families and communities

Bundles of key interventions reliably applied by QI teams

Regular tracking and use of quality process and outcome measures in real time

Bold Goals:
Reduce severe PE/E and PPH mortality by 50% in five years
Local adaption of PPH & PE/E WHO quality statements (aims), clinical guidelines, measures to design and implement QI work at scale (e.g. all facilities in a district)

<table>
<thead>
<tr>
<th>Phase 1 (9-12 months)</th>
<th>Quality Statement (Aim)</th>
</tr>
</thead>
</table>
| *Quick wins!*          | • Improve routine postnatal care for mother and newborn (1.1c)  
                        | • Improve detection and management of women with pre-eclampsia, eclampsia(1.2) |
| Phase 2 (6 months)     | ▪ Improve emotional support of women during childbirth (6.2)  
                        | ▪ Improve prevention/management of PPH (1.3) |
It’s all about the team-work – engaging District Managers and local clinical/QI champions to support front-line QI teams on continuing basis
Accelerating improvements in PPH & PE/E care through regular shared learning –cross-fertilizing learning, bringing QI teams together
Using Data to Improve Care – core principle of all QI

- Facility
- Sub-national
- National

Routine data sources:
- Patient record
- Facility registers
- HMIS (aggregated data)
- Vital registration
MH Measurement Gaps and Opportunities

- Most HMIS systems contain few quality measures
- Often facilities (even hospitals) do not have a standardized patient record – essential for point-of-care case management
- Some facilities do not even have a standardized register (e.g. regional hospitals, Madagascar)
- Health workers and managers often do not have experience (or confidence) in measuring and analyzing QoC indicators
- Emerging (still fragile) global consensus on priority MNCH quality of care measures - WHO MNH framework is a start!
- Widespread data quality issues
- Bringing women’s and families’ voices into monitoring systems
## What do we know about MH content in routine HMIS? MCSP review of HMIS MNCH Content in 24 Countries

### Maternal and Newborn Mortality HMIS data points

<table>
<thead>
<tr>
<th>Domain</th>
<th>Data Elements</th>
<th>Facility Register</th>
<th>Facility reporting form (to district or national level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health outcome (mortality)</td>
<td>Maternal death*</td>
<td>95.8 (23)</td>
<td>95.8 (23)</td>
</tr>
<tr>
<td></td>
<td>Maternal death by cause</td>
<td>66.7 (16)</td>
<td>54.2 (13)</td>
</tr>
<tr>
<td></td>
<td>Maternal death audit conducted*</td>
<td>29.2 (7)</td>
<td>25 (6)</td>
</tr>
<tr>
<td></td>
<td>Newborn death*</td>
<td>75 (18)</td>
<td>79.2 (19)</td>
</tr>
<tr>
<td></td>
<td>Newborn death by cause</td>
<td>25 (6)</td>
<td>20.8 (5)</td>
</tr>
<tr>
<td></td>
<td>Stillbirths (disaggregated by fresh and macerated)*</td>
<td>66.7 (16)</td>
<td>54.2 (13)</td>
</tr>
</tbody>
</table>
## MCSP review of HMIS MNCH Content in 24 Countries: selected PE/E & PPH data points

<table>
<thead>
<tr>
<th>Domain</th>
<th>Data Elements</th>
<th>Facility Register</th>
<th>Facility reporting form (to district or national level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postpartum hemorrhage and pre-eclampsia/eclampsia (diagnosis and selected management)</td>
<td>Immediate postpartum uterotonic (AMTSL) – PPH prevention*</td>
<td>29.2 (7)</td>
<td>12.5 (3)</td>
</tr>
<tr>
<td></td>
<td>Antepartum Hemorrhage recorded</td>
<td>45.8 (11)</td>
<td>25 (6)</td>
</tr>
<tr>
<td></td>
<td>PPH recorded</td>
<td>45.8 (11)</td>
<td>37.5 (9)</td>
</tr>
<tr>
<td></td>
<td>PPH Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uterotonic treatment</td>
<td>8.3 (2)</td>
<td>12.5 (3)</td>
</tr>
<tr>
<td></td>
<td>Blood Transfusion</td>
<td>12.5 (3)</td>
<td>12.5 (3)</td>
</tr>
<tr>
<td></td>
<td>Pre-eclampsia/Eclampsia diagnosed</td>
<td>20.8 (5)</td>
<td>16.7 (4)</td>
</tr>
<tr>
<td></td>
<td>Anticonvulsant given for PE/E</td>
<td>12.5 (3)</td>
<td>8.3 (2)</td>
</tr>
<tr>
<td></td>
<td>Anti-hypertensive given for elevated BP</td>
<td>12.5 (3)</td>
<td>16.7 (4)</td>
</tr>
</tbody>
</table>
Maternal Death Surveillance and Response (MDSR)

• Primary Goal - eliminate preventable maternal mortality by obtaining and strategically using information to guide public health actions and monitor impact

• Form of continuous surveillance, linking health information system and quality improvement processes from local to national level

• WHO MDSR global technical guidance (2013)
Maternal Audit Cycle linked to Routine Information and Quality improvement systems

Surveillance → Response

1. Identify deaths
2. Collect information
3. Analyse results
4. Recommend solutions
5. Implement recommendations
6. Evaluate and refine

Vital registration
Mortality tracking (notification)
Review deaths (cause and circumstances)

Implementing sustainable changes to improve care

Source for audit cycle: Making Every Baby Count, WHO 2016
# Preliminary Findings of MCSP assessment of MPDSR implementation in 4 countries

|---------------|-----------------------------|---------------|-----------------------------------|---------------------|-----------------------------------------------------------------------------|
| Nigeria N= 10 | Not widely available        | Within 24 hours | Standardized forms not available | Cause of assignment varies | • Quality varies  
• No formal follow up  
• “No blame” not widely practiced  
• Weak community linkages |
| Zimbabwe N= 16| Not widely available        | Within 24 hours | Forms not widely available  
• Records incomplete | Cause of assignment varies | • Quality varies  
• No formal system for follow up  
• Weak community linkages |
| Rwanda N= 13  | Available                    | Within 24 hours | Standardized forms used across facilities | Cause of assignment varies | • Quality varies  
• No formal system for follow up  
• Available community linkages |
| Tanzania N= 16| Available                    | Within 48 hours | Standardized forms used across facilities | Cause of assignment varies | • Quality varies  
• No formal system for follow up  
• Weak community linkages |
Illustrative Case: correctly assigning cause – linking MDSR and continuous quality improvement

1. Hospital Gate
2. Emergency evaluation area
3. Operating theater
4. Labor & delivery room
5. Change & scrub room
6. Post-op ward
7. Maternity ward
8. Discharge

Ancillary services: Pharmacy, laboratory, blood bank, maintenance

Arrival → Evaluation → Stabilization → Treatment → Recovery → Advice and discharge
Thank you
OBSTETRIC HEMORRAGE BUNDLES

Creating a bundle is the easy part

safehealthcareforeverywoman.org
Supporting teams to assess local quality gaps, set measurable aims, identify/test changes and track priority measures to improve PPH and PE/E care.

The “Gap”

SUCCEED/SUSTAIN

PLAN

ACT

STUDY

SMALL TEST CYCLES THAT TAP LOCAL KNOWLEDGE

SYSTEM ANALYSIS

GREAT IDEAS
Thank you!!
For more information, please visit www.mcsprogram.org

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