Indicators for Maternal Health: Can we move from contact only to content and quality?

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Maternal Child Health Integrated Program
This work has been the work of many at MCHIP and has been led by Steve Hodgins and Cherrie Evans at MCHIP in conjunction with Matthews Matthai at WHO
Outline of Presentation

- Why might new indicators be needed?
- WHO/MCHIP Maternal Health Indicator working group - draft indicators
- MCHIP MNH indicator studies
  - Population Based Surveys: Maternal and Newborn Indicator Validation Study
  - Health Facility Assessments: Quality of Care Country Assessments
  - Health Information Systems: HMIS Country Assessments
Millennium Development Goal 5
Improve Maternal Health

Target 5A—Reduce by 3/4, between 1990 and 2015, the maternal mortality ratio

Indicators
- 5.1 Maternal mortality ratio
- 5.2 Proportion of births attended by skilled health personnel

Target 5B—Achieve, by 2015, universal access to reproductive health

Indicators
- 5.3 Contraceptive prevalence rate
- 5.4 Adolescent birth rate
- 5.5 Antenatal care coverage (at least one visit and at least four visits)
- 5.6 Unmet need for family planning
### An example comparing Maternal and Child Health Indicator Measurement

<table>
<thead>
<tr>
<th>CONTACT</th>
<th>CONTENT</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Health</td>
<td></td>
<td></td>
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<tr>
<td>ANC visits</td>
<td>IPTp</td>
<td>MMR</td>
</tr>
<tr>
<td>Skilled Birth Attendance</td>
<td>AMTSL</td>
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<tr>
<td>Child Health</td>
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<td>U5MR</td>
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<tr>
<td>OPD visits</td>
<td>Immunization coverage</td>
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</table>
What we *measure* is where we put our *efforts*
Is measuring “contact” enough?
Relationship between Skilled Attendant at Delivery and MMR for Countries with MMR >500

MHI working group
WHO/MCHIP: Global Benchmark Indicators for Maternal Health Working Group

Goal
Create a subset of meaningful indicators to be recommended for collection in countries to be used at global and national level for tracking overall program performance

Objectives:
- Measure quality and/or content of care
- Be collected routinely through HMIS whenever feasible
- Do not significantly increase burden on providers or HMIS systems
Global Benchmark Indicators - Purpose

- **Accountability** for countries and program managers
- **For prioritization and planning of services**
- For reporting in global fora:
  - Annual world health assemblies
  - Global publications (annual UNICEF reports)
- **For tracking progress on MDGs**
- **As a basis for “results-based” financing schemes**
List of draft MH Indicators

1. Components of ANC / PPC
2. Cesarean section rate
3. Assisted vaginal delivery
4. Uterotonic in 3rd stage of labor
5. Intrapartum stillbirths—Quality of Intrapartal Care
6. Prolonged labor
7. MgSO4 for PE/E
8. Partograph use (?)
## Components of ANC/PNC

<table>
<thead>
<tr>
<th>Definition</th>
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<th>Denominator</th>
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</table>
| **ANC** | Number of women receiving:  
- Iron  
- TT  
- IPTp  
- HIV/Syphilis | All women attending ANC clinics |
| • Aggregate measure of Iron, TT2, IPTp, HIV/Syphilis screening? | | |
| **PPC** | Number of women receiving PP checkup within 48 hours | All deliveries at a facility OR All deliveries in the community |
| • % of women receiving PP checkup less than 48 hours after delivery | | |

- Content of care? SNL’s signal functions of PPC?

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FROM THE AMERICAN PEOPLE

**MiCHIP**

Maternal and Child Health Integrated Program
Cesarean Section Rate in RHIS

MCHIP survey of 39 countries

- 20 responses
  - 20 stated that they report in their HMIS
  - 16 agreed to provide a last national report, and one did
  - 9 supplied data

- Indications? Quality?
## Assisted Vaginal Delivery Rate in RHIS

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<tbody>
<tr>
<td>% of women with forceps or vacuum assisted vaginal delivery</td>
<td>Number of women with assisted vaginal delivery</td>
<td>Number of women undergoing CS? <strong>OR</strong> Number of deliveries</td>
</tr>
</tbody>
</table>
Uterotonic Use in 3rd Stage in RHIS

- Uterotonic versus oxytocin?
- Timing?
- Facility or population coverage?

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<tr>
<td>% of women receiving uterotonic in 3rd stage</td>
<td>Number of women receiving uterotonic immediately after birth</td>
<td>All women with vaginal deliveries in a facility <strong>Or</strong> All women giving birth in a facility</td>
</tr>
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</table>
Intrapartum Stillbirth Rate in RHIS “QUIP” (quality of intrapartum care)

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<td>% Intrapartum stillbirths</td>
<td>Number of normally formed stillbirths without signs of maceration</td>
<td>All births at a facility</td>
</tr>
</tbody>
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- Weight?
- Early neonatal death?
- Fetal heart in labor?
- GAPPS study
## Prolonged Labor

At term and in labor

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</thead>
<tbody>
<tr>
<td>% of women admitted to the labor ward who were delivered or transferred 12 or more hours after admission</td>
<td>Number of women admitted to the labor ward who were delivered/ transferred 12 or more hours after admission</td>
<td>All women giving birth in a facility</td>
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### Magnesium Sulfate for PE/E

- Routine logistic tracking (LMIS)
- Quick surveys
- Special studies

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</thead>
<tbody>
<tr>
<td>1. % of facilities with stock-outs of MgSO4</td>
<td>1. Number of facilities with stock-outs of injectable MgSO4</td>
<td>All facilities conducting deliveries</td>
</tr>
<tr>
<td>2. % of facilities that have MgSO4</td>
<td>2. Number of facilities that have injectable MgSO4</td>
<td></td>
</tr>
</tbody>
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Partograph Use?
Goal: To validate women’s self-report of indicators of maternal/newborn care during birth and immediate postpartum periods:

- To validate indicators under conditions similar to a DHS survey
- Generate evidence-based recommendations for indicators that measure the content or quality of care

Observations of 525 women in 46 selected HF
Maternal Care Indicators for Validation - Results

Maternal Indicator Validated
- % of women presenting for delivery who had their blood pressure taken on/near admission

Problematic
- % of deliveries for which the woman received a prophylactic uterotonic immediately after birth
MCHIP Maternal and Newborn Quality of Care Facility Assessments

- Ethiopia
- Kenya
- Madagascar
- Mozambique
- Rwanda
- Tanzania, including Zanzibar
- Zimbabwe
Facility assessment examining the Quality of Care for prevention, identification, and management of common serious Maternal and Neonatal Complications at the time of birth, including:

- Post-partum hemorrhage
- Severe pre-eclampsia / Eclampsia
- Prolonged / Obstructed Labour
- Sepsis
- Essential newborn care and Resuscitation
In Kenya, timing is based on data collector’s estimate. All other countries, data collectors recorded actual times for birth and uterotonic administration.

Practice of AMTSL According to FIGO/ICM Definition

- Any uterotonic given
- (+) correct timing 1 min
- (+) Controlled cord traction
- (+) Uterine massage = FIGO/ICM standard AMTSL

Kenya: 95%
Ethiopia: 56%
Tanzania: 45%
Zanzibar: 29%
Rwanda: 29%
Madagascar: 29%
Un-indicated Practices

- Manual exploration of uterus after delivery: 17%
- Routine use of episiotomy: 8%
- Routine aspiration of newborn mouth and nose at birth: 7%
- Restrict food and fluids in labor: 3%
- Other: 3%

* No “other” answer in Kenya. Values from Ethiopia may underestimate due to problem with the question.
Overall Conclusions

- “Skilled birth attendant” does not necessarily mean skilled care is being provided
- A combination of factors inhibit the provision of quality care
  - National policies generally in place but lacking in some areas (PE/E)
  - Medicines, equipment and supplies lacking in some service delivery areas, e.g., MgSO4, oxytocin
  - Provider knowledge and skills appear to be inadequate in key areas
  - Poor supervision
Country Assessments of HMIS

Now in the design phase

Objectives

- Assess HMIS readiness to measure key MNH interventions
- Introduce rapid assessment methods on key indicators

Facilities

- Teaching and referral, district hospitals
- Frontline facilities
Next Steps

MHI working group

- Incorporate feedback from stakeholders to finalize list of proposed indicators
- Expansion to include Newborn Care indicators?

Studies

- Disseminate Population Based Survey validation study
- Analyze QOC indicators for smaller proposed subset
- Finish design of country level assessment of HMIS MNH indicators