Training providers to achieve better birth outcomes

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Innovative Training of Birth Attendants
Woodrow Wilson Center, Washington 30 September 2014
Ending Preventable Maternal and Child deaths: What will it take

Unprecedented Targets
Unprecedented commitment
New partnerships
Innovation
Coverage at scale
Quality at scale
Impact at scale
The reality is straightforward. The power of existing interventions is not matched by the power of health systems to deliver them to those in greatest need, in a comprehensive way, and at an adequate scale.”
Margaret Chan, Director General WHO
National Eclampsia Registry: India: Measure gaps in performance

<table>
<thead>
<tr>
<th></th>
<th>Number of Births</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normotensive</td>
<td>116,437</td>
<td>86.4%</td>
</tr>
<tr>
<td>All PIH</td>
<td>18,338</td>
<td>13.6%</td>
</tr>
<tr>
<td><strong>Mild PIH</strong></td>
<td>11,266</td>
<td>8.4%</td>
</tr>
<tr>
<td><strong>Severe PEE</strong></td>
<td>4,518</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Eclampsia</strong></td>
<td>2,554</td>
<td>1.9%</td>
</tr>
<tr>
<td>Total</td>
<td>134,775</td>
<td></td>
</tr>
</tbody>
</table>

**Eclampsia Management:**
Convulsion admission interval greater than 4 hours: 32%
Magnesium Sulphate used in 44% cases
Recurrent convulsion rate in facility: 24%
Case fatality ratio: not available

Courtesy: Sanjay Gupte, FOGSI 2012 NER
Screening for preeclampsia During labor

- Asks about signs of PE/E*: 29%
- Initial blood pressure check: 80%
- Both PE/E screening elements: 25%
- Tests urine for presence of protein: 8%
- BP recorded at least every 4hrs (when diastolic <90 mmHg): 31%

Kenya, Ethiopia, Tanzania, Zanzibar, Rwanda, Madagascar

Jhpiego
an affiliate of Johns Hopkins University

Innovating to save lives

CHIP
Maternal and Child Health Integrated Program
Target Gaps in performance
Training and Clinical Governance approach in Detecting, Preventing and Managing Eclampsia: Nepal

Intervention: 1 day on site whole facility orientation by NESOG
- Review of standards, practice of skills
- Baseline assessment, gap analysis, action plan
- Re-assess at 2, 4 months, Frequent contact by cell phone

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>2 months</th>
<th>6 months</th>
<th>1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>% facilities meeting standards</td>
<td>14%</td>
<td>36%</td>
<td>59%</td>
<td>85%</td>
</tr>
<tr>
<td>% facilities where no standard met</td>
<td>27%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Average score</td>
<td>26%</td>
<td>60%</td>
<td>63%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Standards Based Management and Recognition

<table>
<thead>
<tr>
<th>facility</th>
<th>Reached standard in 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBA training sites</td>
<td>87%</td>
</tr>
<tr>
<td>Government Hosp</td>
<td>50%</td>
</tr>
<tr>
<td>Private hospitals</td>
<td>17%</td>
</tr>
<tr>
<td>Med school</td>
<td>38%</td>
</tr>
<tr>
<td>PHCC</td>
<td>33%</td>
</tr>
</tbody>
</table>
Human resource barriers:
Midwives per 1,000 live births

Ref: SOWMY 2011; Michael & Garnett, 2011; US Census Bureau, 2009
Midwifery schools in Afghanistan: A commitment to supporting performance

Trend in Percentage of Standards Achieved by Programs 2004 - 2006

Accreditation Threshold: 85% of standards met
Empowering Women,
Not just training providers
PSE Strengthening
Performance Standards - Bihar

- Patna PMCH: 13.8%
- Darbhanga DMCH: 16%
- Muzafferpur SKMCH: 17.5%
- Gaya ANMMCH: 18.8%
- Bhagalpur JLNMC: 20%
- Patna IGIMS: 21.3%
Virtual Training: Bihar

2 instructor locations, 12 midwifery schools
Effectiveness of virtual classroom training

Virtual Classroom training Study

Knowledge and Skill assessment using OSCE (Student)

* In both baseline and endline students were from the final year of their coursework

Source: Virtual Classroom training study data of 2 GNM Schools of Bihar
## Virtual midwifery training student evaluation

(381 students, Bihar 2014)

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Good</th>
<th>Acceptable</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall satisfaction with virtual training</td>
<td>85.7</td>
<td>13.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Rate today's virtual class with routine training</td>
<td>91.0</td>
<td>7.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Level of interactivity, demonstrations and return demonstrations</td>
<td>83.6</td>
<td>13.1</td>
<td>3.3</td>
</tr>
</tbody>
</table>
Emergency Simulation and Drills

Emergency Trolley

Emergency Drills

Improve Emergency Response

innovating to save lives
an affiliate of Johns Hopkins University

18/12/2013 13:47
## Delivery Room Dashboard

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Activity</th>
<th>Work force</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal delivery</strong></td>
<td>70</td>
<td>&gt;70-&lt;85</td>
<td>≥85</td>
</tr>
<tr>
<td><strong>C-section</strong></td>
<td>30</td>
<td>&gt;30-&lt;40</td>
<td>≥40</td>
</tr>
<tr>
<td><strong>Referred patient</strong></td>
<td>35</td>
<td>&gt;35-&lt;45</td>
<td>≥45</td>
</tr>
<tr>
<td><strong>Midwife:patient</strong></td>
<td>1:2</td>
<td>1:3</td>
<td>1:&gt;3</td>
</tr>
<tr>
<td><strong>CL : student</strong></td>
<td>1:3</td>
<td>1:4</td>
<td>1:&gt;4</td>
</tr>
<tr>
<td><strong>Response time for decision-to-knife is 30’</strong></td>
<td>100%</td>
<td>90%-&lt;100%</td>
<td>&lt;90%</td>
</tr>
<tr>
<td><strong>Skin to skin contact</strong></td>
<td>90%</td>
<td></td>
<td>&lt;90%</td>
</tr>
<tr>
<td><strong>Family companion during vaginal delivery</strong></td>
<td>100%</td>
<td>80%-&lt;100%</td>
<td>&lt;80%</td>
</tr>
<tr>
<td><strong>All preterm labor given ACS</strong></td>
<td>100%</td>
<td>90%-&lt;100%</td>
<td>&lt;90%</td>
</tr>
</tbody>
</table>

**Note:** The table highlights the performance metrics across different time periods (Wk 1 to Wk 4) and indicates areas for comment and action plan.
Measuring inputs and outcomes
EMAS Program, Indonesia

% of deliveries with PPH compared to % of women who received uterotonic in the 3rd stage of labor (EMAS supported hospitals, n=23) 2013

- % of deliveries with PPH
- % of women receiving uterotonic

YR1 Q4: 3.2%
YR2 Q1: 85%
YR2 Q2: 93%
YR2 Q3: 93%
YR2 Q4: 93%
YR3 Q1: 93%
Percentage of preterm deliveries provided dexamethasone in comparison to facility achievement on related performance standard (neonatal, tool 4) (EMAS supported hospitals, n=23), October 2012 – December 2013
Not just acquiring skills but maintaining them

Saving lives at birth

Helping Babies Breathe

Helping Mothers Survive

Bleeding After Birth

Evaluation at birth
Is the baby crying?

Compress uterus
Helping Mothers Survive

Bleeding After Birth

- Birth
- Care for newborn
- Give medication to expel placenta
- Control removal of placenta
- Placenta out?
- Out
- Out now
- Not out
- Repeat controlled removal of placenta
- Not out or incomplete
- Get advanced help
- Transport if necessary
- Bleeding normal?
- Normal
- Normal now
- Excessive
- Massage uterus
- Uterus hard?
- Soft
- Hard
- Look for laceration
- Uterus hard?
- Soft
- Massage uterus
- Compress uterus
- Transport to advanced care
- Keep warm

UNFPA
International Confederation of Midwives
FIGO
Strengthening Midwifery Globally
Immediate post placental contraception
Improving Labor management with low cost technology: the E-Partogram

- Stores multiple patient data in one device
- Reminds and prompts providers to take critical measurements
- Automatic graphing
- Provides alerts and alarms for decision-making support if complications are predicted or occur
- Transmits all observations to central level remote supervisor for guidance and support (telemedicine supervision module)
Unfinished agenda

- Ensure graduates of midwifery leave fully skilled
- Focus on Respectful Care
- Fix largely unaddressed gaps in clinical skills (better decision making in labor, assisted vaginal delivery, family planning, PMTCT)
- Clinical governance
- Ensure the rights of providers
What have we learnt

- Didactic training has low to no impact
- Simulation practice is highly effective
- Practice and feedback ‘dosage’ matters
- Virtual feedback works
- Make courses shorter, more often
- Workplace-setting better for skills
- Combine training with clinical governance