Using a “Low-Dose, High-Frequency" approach to improve team & provider performance for PPH

Gaudiosa Tibaijuka, MS
Cherrie Evans DrPH, MSN

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Outline

Evidence for in-service training/capacity building through “Low-Dose, High-Frequency”

Evidence for in-service training/capacity building to prevent, detect, and manage PPH using LDHF through Helping Mothers Survive

LDHF in USAID Boresha Afya Project in Tanzania – improving provider and team competencies to improve quality of care for PPH
Evidence for in-service training

By Hannah H. Leslie, Anna Gage, Humphrey Nsanz, Lisa R. Hirschhom, and Margaret E. Kruk

Training And Supervision Did Not Meaningfully Improve Quality Of Care For Pregnant Women Or Sick Children In Sub-Saharan Africa

ABSTRACT In-service training courses and supportive supervision of health workers are among the most common interventions to improve the quality of health care in low- and middle-income countries. Despite extensive investment from donors, evaluations of the long-term effect of these two interventions are scarce. We used nationally representative surveys of health systems in seven countries in sub-Saharan Africa to examine the association of in-service training and supervision with provider quality in antenatal and sick child care. The results of our analysis showed that observed quality of care was poor, with fewer than

Limited Effectiveness of a Skills and Drills Intervention to Improve Emergency Obstetric and Newborn Care in Karnataka, India: A Proof-of-Concept Study

Beena Varghese,a Jayav Krishnamurthy, Blaze Correia, Ruchika Panigrahi, Maryann Washington, Vinodha Ponnuswamy, Prem Mory

Skills refresher training combined with emergency drills improved knowledge, skills, and confidence in service providers but was not sufficient to improve diagnosis and management of maternal and newborn complications. Systems-level changes, including consistent availability of equipment and supplies, adequate human resource staffing, and supportive supervision, are likely needed to improve maternal and newborn outcomes.

ABSTRACT Objective: The majority of the maternal and perinatal deaths are preventable through improved emergency obstetric and newborn care at facilities. However, the quality of such care in India has significant gaps in terms of provider skills and in their preparedness to handle emergencies. We tested the feasibility, acceptability, and effectiveness of “skills and drills” intervention, implemented between July 2013 and September 2014, to improve emergency obstetric and newborn care in the state of Karnataka, India. Methods: 55 skilled healthcare leaders were trained in 2 months. Combined with ongoing support, district teams implemented a series of in-service training modules on basic skills, followed by mock emergency drills, with feedback and debriefs. Training was repeated in the next month. Results: Interventions were well-received. A total of 207 healthcare providers were trained. Seventy-two providers participated in 48 drills, which resulted in a decrease of misdiagnosis and of unnecessary interventions. Conclusion: The intervention was effective in improving quality of emergency obstetric and newborn care. Overcoming barriers for dissemination and sustainability is needed.
Effective in-service training design and delivery: evidence from an integrative literature review

Julia Bluestone¹, Peter Johnson¹, Judith Fullerton², Catherine Carr¹, Jessica Alderman³ and James BonTempo¹

• Technique
• Location
• Dose & Frequency
Low-dose, High-frequency

A facility-based, hands-on approach that offers manageable amounts of learning (dose) at appropriate intervals (frequency) to the entire team followed by short & repeated skills practice or QI activities after training.
LDHF for Postpartum Hemorrhage
Onsite team training and deliberate practice to prevent, detect and treat postpartum hemorrhage and neonatal asphyxia:

A randomized controlled trial in 12 districts in Uganda
**Study Design: Cluster Randomized Trial with 3 Study Arms**

Data collection at baseline, after the intervention, and 6 – 9 months later

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Study Group</th>
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</thead>
<tbody>
<tr>
<td>1 day, facility based, simulation team training Followed by LDHF practice:</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>• PPH</td>
<td></td>
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<tr>
<td>• Neonatal resuscitation</td>
<td></td>
</tr>
<tr>
<td>Practice coordinator onsite</td>
<td>2, 3</td>
</tr>
<tr>
<td>Telephone support to practice coordinator from District Trainer</td>
<td>3</td>
</tr>
</tbody>
</table>
Low-Dose, High-Frequency for PPH & Asphyxia: Uganda

1-day BAB training

BAB/HBB District Trainer

HEALTH FACILITY

Practice coordinator
Low-Dose, High-Frequency for PPH & Asphyxia: Uganda

Shared facilitation of practice

1-day BAB training

Weekly Practice

Weekly Practice

Weekly Practice

Weekly Practice

Weekly Practice

Weekly Practice

125 Hospitals

> 700 Providers

> 70,000 deliveries

Repeated with HBB

BAB/HBB District Trainer

HEALTH FACILITY

Practice coordinator
Results: Outcomes

PPH ↓ 17%
Retained placenta ↓ 47%

Fresh stillbirth ↓ 34%
Newborn death ↓ 62%
Using LDHF in USAID Boresha Afya Lake and Western Zones Project in Tanzania

- USAID Boresha Afya – 5-year RMNCAH and malaria project in 7 regions 51 councils
- The zones are characterized by high MMR, NMR and GBV
- The Project provides technical assistance to the Government to increase access to quality integrated services, focusing on maternal, newborn, child, adolescent reproductive health outcomes.
- LDHF approach is practiced across all technical areas including PPH which causes 29% of maternal mortality (TDHS 2016)
Low-Dose, High-Frequency Approach for PPH in Tanzania

Facility-based learning combined with ongoing structured skills practice, assessment and feedback

1. Mentors are trained using the 5-day national training package followed by 1.5 days of BABC and orientation on how to conduct a similar training on-the-job for others

2. Mentor conducts BABC OJT at their facility first followed by surrounding facilities

3. Mentor orients two peer coordinators at each facility to oversee a series of weekly LDHF sessions and drills to reinforce competencies. During these sessions, each provider participates in an activity with peers including observed skills practice with birthing and newborn simulators guided by standard checklist and OSCEs

4. Learning corners are established at each facility and maintained for regular practices
Learning and reference documents and equipment:

- Instructional materials: BABC action plan, providers’ guide for practice sessions, PPH skills checklists, OSCES, and national guidelines,
- Soap or alcohol hand rub, PPE, delivery equipment and supplies, uterotonic, resuscitation bag and mask, etc
- Birthing and newborn simulators
- Logbook to document attendance to ensure all providers at the facility are practicing and to keep record of provider performance scores from OSCEs
Uterotonic Coverage Since Oct 2016 to date

Following OJT guided by data, LDHF using learning corners, mentorship, supportive supervision with other QI measures uterotonic coverage for PPH prevention has remained almost universal.
While PPH incidence has remained below 1% across sites, the addition of a region with poor indicators caused an increase in PPH case fatality rate for the project overall. However the trend is improving under the project.
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