Impact of Integrating Family Planning within a Community-Based Maternal and Neonatal Health Program in Rural Bangladesh

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Study Context

TFR by Divisions, Bangladesh, 2004

![TFR by Divisions Map]

Selected FP indicators in Sylhet, BDHS 2007

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sylhet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmet FP need</td>
<td>26%</td>
</tr>
<tr>
<td>CPR (any method)</td>
<td>31%</td>
</tr>
<tr>
<td>TFR</td>
<td>3.7</td>
</tr>
<tr>
<td>Birth intervals</td>
<td></td>
</tr>
<tr>
<td>&lt;24 months</td>
<td>26%</td>
</tr>
<tr>
<td>&lt;36 months</td>
<td>57%</td>
</tr>
</tbody>
</table>
Evolution of MNCH packages

Designed a community-based maternal and newborn care intervention package and evaluated the effectiveness of the package using a cluster randomized design.

A home care package which involved CHW antenatal and postnatal home visits and management of sick newborn reduced NMR by 34% (Baqui et al., Lancet, 2008).

Newborn care

Postpartum FP counseling and contraceptive distribution
1. To develop and test an integrated Family Planning, Maternal and Neonatal Health (FP/MNH) service delivery approach

2. To assess the strengths and limitations of integrating FP into an ongoing community-based MNH care program

3. To assess the impact of the intervention package on contraceptive knowledge and practices including LAM during the extended postpartum period

4. To assess the impact of the intervention package on pregnancy spacing
Study Design

Study sites: eight unions in two sub-districts in Sylhet district, Bangladesh

Non-Random Allocation

Intervention unions: four
Enrolled women: 2247

Comparison unions: four
Enrolled women: 2257

Enrollment of women during <8 months of pregnancy

Intervention clusters:
MNH plus FP during ANC and Postpartum visit

Comparison clusters:
MNH ONLY during ANC and Postpartum visit

Follow the cohort through pregnancy to 36 months postpartum
Intervention Delivery Strategy

Service Delivery: Home visits by CHWs

- Conduct pregnancy surveillance and provide contraceptives
  - Conduct visits to all households every two months to identify new MWRA and pregnant women

- Counsel in antenatal and postpartum periods
  - Pills, condoms, and follow up doses of injectables
  - Refer for other methods
  - Messages on LAM and transition, return to fertility, healthy spacing, contraceptive methods

Community mobilization: Conduct meetings with husbands, mothers-in-law and community leaders to raise awareness about PPFP messages
Results
Starts in a Low Performance Area

Ever Used Contraceptive Method

- Intervention: 18.0%
- Control: 21.1%
Contraceptive Use Rate at 3, 6, 12, and 18 Months Postpartum by Study Arm

<table>
<thead>
<tr>
<th>Time</th>
<th>Intervention</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 months</td>
<td>36%</td>
<td>0%</td>
</tr>
<tr>
<td>6 months</td>
<td>37%</td>
<td>5%</td>
</tr>
<tr>
<td>12 months</td>
<td>42%</td>
<td>10%</td>
</tr>
<tr>
<td>18 months</td>
<td>47%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Intervention: Yearly contraceptive use rates increase over time, reaching a peak at 18 months with 47%. Comparison: Use rates remain low, peaking at 18 months with 27%.
Contraceptive Use Rate at 3, 6, 12, and 18 Months Postpartum by Study Arm

- Statistically significant improvement in the contraceptive use rate in the intervention area during the high risk period of first 18 months after delivery
  -- 18% ever user before the index pregnancy to 47% at 18 months postpartum
  -- 21% ever user before the index pregnancy to 34% at 18 months postpartum

- High number of new users and a trend towards increased early adoption
Probability of Contraceptive Adoption by Study Arm

Contraceptive adoption during PP period

\[ P<.001 \]

- Probability of Contraceptive Adoption during PP period
- Months since delivery
- Intervention and Control groups
- Probability range from 0.00 to 1.00
- Graph showing increasing probability over time for both arms

**Graph Details:**
- Y-axis: Probability
- X-axis: Months since delivery
- Two lines: Intervention (blue) and Control (red)
- P-value: \( P<.001 \)
Self Reported Pregnancy Incidence

Probabilities of Pregnancy Incidence during 18 months of postpartum follow-up period

The difference is statistically significant (P = 0.03)
Does integration of FP adversely affect MNH program?
# CHW Home Visit Coverage

## Table: CHW Home Visit Coverage

<table>
<thead>
<tr>
<th>Counseling Type</th>
<th>Intervention (n=1889)</th>
<th>Comparison (n=1838)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy counseling- 1</td>
<td>92%</td>
<td>97%</td>
</tr>
<tr>
<td>Pregnancy counseling- 2*</td>
<td>86%</td>
<td>90%</td>
</tr>
<tr>
<td>Newborn-1 counseling</td>
<td>74%</td>
<td>80%</td>
</tr>
<tr>
<td>Newborn-3 counseling</td>
<td>72%</td>
<td>76%</td>
</tr>
<tr>
<td>Newborn-6 counseling*</td>
<td>73%</td>
<td>75%</td>
</tr>
<tr>
<td>Newborn-9 counseling</td>
<td>73%</td>
<td>77%</td>
</tr>
<tr>
<td>Newborn-15 counseling</td>
<td>51%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*Integrated counseling
### Effect of Integration on MNH Care: Selected Newborn Care practices by Study Arm

<table>
<thead>
<tr>
<th>Practice</th>
<th>Intervention (%)</th>
<th>Comparison (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drying and wrapping of newborn within 10 minutes of delivery</td>
<td>50.4</td>
<td>44.1</td>
</tr>
<tr>
<td>Initiation of Breastfeeding within 30 minutes</td>
<td>56.6</td>
<td>46.8</td>
</tr>
</tbody>
</table>
Duration of Exclusive Breastfeeding by Study Arm

Duration of exclusive breastfeeding by study arm

- **Intervention**
- **Control**

Analysis time:
- 0.00
- 0.25
- 0.50
- 0.75
- 1.00
- 2.00
- 3.00
- 4.00
- 5.00
- 6.00
Lessons Learned

HFS demonstrates

1. The feasibility of integration of FP within a community-based MNH program.
2. The effectiveness of the model in increasing modern method use.
3. No notable negative effect on the delivery of MNH services.
4. The promotion of LAM had a positive effect on the duration of exclusive breastfeeding.
THANK YOU