Using Community-Based Service Delivery to Reduce Maternal Anemia in Nepal

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Presented by Phil Harvey, Consultant to A2Z
In 1998

Anemia was a severe public health concern.

Proportion of women with anemia

- Pregnant women: 75%
- Non-pregnant women: 67%

Hookworm infection was 80% in some areas

Source: NMSS, 1998
Universal IFA Supplementation of pregnant and post-partum women

- Policy “On the books” a long time – Daily IFA from second trimester through 45 days after delivery
- In 2001, out of 100 pregnant Nepali women:
  - 23 took iron supplements
  - Just one took the recommended daily dosage
Development of Program
Brief History

• **1993**: Female Community Health Volunteers (FCHVs) mobilized and motivated through the 10-year scale up of national VAS program of children 6-59 months

• **1997**: Operational research established that FCHVs could also effectively deliver IFA to pregnant women

• **2001**: Iron Intensifications Program (IIP) designed using evidence on causes & efficacy of interventions, together with program experiences from Nepal and other countries

• **2003**: Integrated IIP launched in 5 districts
Nepal’s Administrative and Health Structure

Each VDC has nine ward & Health Facility

Each district consists of VDC

Each ward has 80-100 households and there is a Female Community Health Volunteer (FCHV) who provides maternal and child care services in the community. In each ward there is also a mother group coordinated by FCHV for community mobilisation.
Program Implemented at District Level

- Local NGO (NTAG) provides orientation/awareness raising that engages District Public Health Office (DPHO) with other ministries – education, agriculture, local development
- DPHO becomes responsible for program implementation
- 2-day training is skills-based, involves all health staff & FCHVs
- “Modified cascade” approach where ‘external’ trainers ensure training quality is maintained
FCHVs Expand Service Delivery

• FCHVs were excited to expand their service to include mothers

• After skills training, FCHVs inform the community about importance of IFA & other interventions through mothers’ group

• Immediately start distributing IFA & supplement IFA available from HPs

Key messages for the Community:

• “Eight of ten pregnant women suffer from lack of blood”

| Low intake Iron | Inadequate blood | Deprives of oxygen and nutrients to mother and fetus | Maternal complication and poor metal development of the baby |
FCHVs Provide Comprehensive Micronutrient Package

- Encourage pregnant women to visit health facilities for antenatal check-ups, de-worming medicine
- Provide IFA to pregnant and lactating women
  - Repack IFA in small bottles
  - Counsel when needed
- Provide high dose vitamin A to women soon after deliver
- Encourage pregnant women to consume iodized salt, an additional meal, and to rest more
- Maintain a register to monitor women they are supporting
National Support Enhancing Program Effectiveness

• Regularly monitoring implementation/key program components in each district
  - Telephone calls made to verify IFA stocks/annual stock planning, HMIS reports, and any constraints being encountered
  - Initially needed a person full-time, since 2007 person needed only part-time

• Drew attention to uneven quality of IFA. Government responded in 2010 by moving to procurement of IFA in blister packs from GMP certified company.

• Enhancing access to IFA in largest urban hospitals where initially prescriptions only (not IFA) had been provided
Iron Intensification Program Status

2003: Initiated from 5 districts
May 2011: Covered 70 districts
### Coverage with ANC anemia interventions, selected districts, Nepal, 2001-2009

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Zone</th>
<th>Year of Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2006</td>
</tr>
<tr>
<td><strong>% attending ANC</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mtn/Hill</td>
<td>38^</td>
<td>64^</td>
</tr>
<tr>
<td>Terai</td>
<td>56</td>
<td>81</td>
</tr>
<tr>
<td>National</td>
<td>49</td>
<td>75^</td>
</tr>
<tr>
<td><strong>% receiving any iron</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mtn/Hill</td>
<td>19^</td>
<td>51^</td>
</tr>
<tr>
<td>Terai</td>
<td>25</td>
<td>66</td>
</tr>
<tr>
<td>National</td>
<td>23</td>
<td>61^</td>
</tr>
<tr>
<td><strong>% receiving dewormer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mtn/Hill</td>
<td>15^</td>
<td></td>
</tr>
<tr>
<td>Terai</td>
<td>25</td>
<td>65</td>
</tr>
<tr>
<td>National</td>
<td>22^</td>
<td>60</td>
</tr>
</tbody>
</table>

*NFHP mid-project survey in 40 selected districts

^Approximate numbers for illustrative purposes only
Decrease in prevalence of anemia in women of reproductive age, by ecological zone, Nepal, 1998 and 2006

<table>
<thead>
<tr>
<th>Zone</th>
<th>Prevalence of anemia (%)</th>
<th>% Decrease</th>
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<tbody>
<tr>
<td></td>
<td>1998</td>
<td>2006</td>
</tr>
<tr>
<td>Mtns</td>
<td>67%</td>
<td>22%</td>
</tr>
<tr>
<td>Hills</td>
<td>61%</td>
<td>21%</td>
</tr>
<tr>
<td>Terai</td>
<td>74%</td>
<td>51%</td>
</tr>
<tr>
<td>Total</td>
<td>68%</td>
<td>36%</td>
</tr>
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</table>
Conclusions

• Nepal program increased coverage and compliance with IFA & other anemia interventions. Success resulted from:
  - Community-based delivery platform of motivated FCHVs
    - Near-peers, community trust in health system, constant monitoring
  - Increased awareness of anemia in health system & community
  - Improved logistics (including packaging)
  - Promotion of complimentary anemia measures

• Multiple causes of anemia make attribution difficult. 2011 DHS will provide the data required to determine impact of the program on prevalence of maternal anemia.

• Nepal program likely to join those of Thailand & Nicaragua in demonstrating that programs CAN be implemented effectively, and when they are, maternal anemia is reduced
Acknowledgements

Female Community Health Volunteers in Nepal - the key factor the success!!

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Thank You