ABSTRACT

Introduction: Government of India introduced guidelines on therapeutic supplementation of zinc for childhood diarrhoea management in 2007, but programmatic constraints delayed its implementation. In 2010 the Micronutrient Initiative initiated a demonstration project to facilitate the use of zinc through public sector in Bihar, India for further scale-up.

Methods: The demonstration project initiated in 15 districts (36 million population). Community Health Workers (CHWs) were trained, their capacities were reinforced, supply chain strengthened, robust reporting introduced, government’s continuous engagement was ensured and evaluation conducted.

Results: Over 2 years of implementation, nearly 50,000 health functionaries were capacitated; over one million children treated with both zinc and ORS; monitoring system was successfully integrated into the government HMIS; and adequate budget ensured. The state government thereafter initiated scale-up of the intervention.

Conclusion: It is feasible to scale-up zinc supplementation as an adjunct to ORS through the public sector. The community-based service delivery approach and proactive engagement with the government were critical for success.

BACKGROUND

- Prevalence of diarrhoea in children in Bihar was 16.5% at the start of the program in May 2011.
- The Government of India has issued guidelines on therapeutic supplementation of zinc as an adjunct to ORS for childhood diarrhoea management.*
- Coverage of zinc and ORS was low (zinc 3.6%, ORS 19.7%)†
- Community preferred getting treatment closer to home; but community health workers were not involved in diarrhoea management.

OBJECTIVE

To demonstrate the feasibility of delivering zinc as an adjunct to ORS for childhood diarrhoea management through the public sector in 15 districts of Bihar, India for further scale-up.

METHOD

1. Community health workers trained and equipped to provide treatment for childhood diarrhoea
   - Capacity building to equip CHWs to manage diarrhoea cases, including:
     - Providing supplies of zinc and ORS;
     - Providing skills of reporting;
     - Continuous handholding through supportive supervision. 42,336 CHWs involved in managing diarrhoea cases.

2. Supply chain mechanism was strengthened
   - Improving forecasting of zinc-ORS demand.
   - Developing distribution plan.
   - Tracking stock availability through regular supply audits.
   - Procuring Zinc-ORS combi-packs to ensure availability of both.

3. Rigorous training methods adopted
   - Training by professional trainers.
   - 1,155 health functionaries trained to date.

4. Supportive supervision to reinforce the knowledge and skills of CHWs
   - Through Block Community Mobilizers [block level govt. staff] in one-on-one and group interaction to reinforce capacity of CHWs.
   - Supportive supervisors during field visits meet 3 Frontline Workers (FLWs) and 4 caregivers.
   - Each month 1,428 FLWs and 1,904 caregivers are expected to be visited.

5. Monitoring for better program planning and feedback
   - Programme performance is tracked through following methods:
     - Routine monitoring by regular data collection from service delivery points;
     - Regular tracking of knowledge, skills and adherence through supportive supervision of FLWs;
     - Periodic supply audits to monitor supplies;
     - Regular reviews conducted using monitoring data.

RESULT

FIGURE 1. CARE SEEKING FOR CHILD DIARRHOEA AT THE PUBLIC SECTOR LEVEL HAS INCREASED

| Public sector care seeking has increased |
|---|---|
| Both community and facility based care seeking increased |
| Over 51,000 cases treated |
| Public sector (May 2011) | Public sector (Sep 2013) |
| Baseline (%) | Midline (%) |
| 4% | 8% |

FIGURE 2. COVERAGE OF ZINC AND ORS HAS INCREASED

<table>
<thead>
<tr>
<th>Cases treated with Zinc</th>
<th>Cases treated with ORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>42,336 CHWs involved in treatment</td>
<td></td>
</tr>
<tr>
<td>(11%)</td>
<td>(19%)</td>
</tr>
</tbody>
</table>

TABLE 1. KNOWLEDGE AND PRACTICES OF SERVICE PROVIDERS AND CAREGIVERS HAS INCREASED OR SUSTAINED

<table>
<thead>
<tr>
<th></th>
<th>Baseline (%)</th>
<th>Midline (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASHAs know correct dose of zinc for infants 6-59 months of age</td>
<td>44.2</td>
<td>48.3</td>
</tr>
<tr>
<td>ASHAs know correct dose of zinc for infants 6-59 months of age</td>
<td>42.4</td>
<td>46.4</td>
</tr>
<tr>
<td>Caregivers heard of zinc</td>
<td>10.4</td>
<td>26.3</td>
</tr>
<tr>
<td>Caregivers heard of ORS</td>
<td>66.9</td>
<td>85.6</td>
</tr>
</tbody>
</table>

CONCLUSION

Government has decided to scale-up the program across the state
- Govt. has involved ASHA in service provisioning to manage childhood diarrhoea in scale up.
- Govt. is conducting trainings of all health functionaries across the state.
- Govt. is procuring zinc and ORS for entire state.
- Project reporting has been integrated in the government reporting system (State HMIS form).
- Scale-up budget has been included in the state govt. PIP.

Lessons from programme scaling-up
- Collective reviews and regular progress sharing ensured government ownership.
- Evidence based advocacy facilitated govt. decision making for scale-up.
- Incorporating community level workers in service provisioning helped increase treatment of child diarrhoea cases.
- Professional trainer ensured quality of trainings and completion within stipulated time.
- Continuous handholding through supportive supervision helped maintain capacity levels of FLWs.
- Regular reporting from all service delivery points, including FLWs was critical for effective programme planning and management.
- Forecasting demand, timely procurement, distribution and regular tracking of stock helped regular availability of supplies.
- Combi-packs of zinc and ORS enhanced treatment of diarrhoea cases with both zinc and ORS.

ACKNOWLEDGEMENT

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