ICDS Bihar - Status Quo and Path Towards Improvement

Ronald Abraham & Dr. Neil Buddy Shah
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Agenda

• Context
• Quantitative assessment of Bihar ICDS performance
• Proposed policy interventions
• Learning and evaluation approach
  – Intervention design optimization
  – Rigorous impact evaluation (RCT) design
Context

• ICDS’ Supplementary Nutrition Programme - Rs. 1100 crore/year spent to provide food to children and pregnant and lactating mothers

• Strong desire among DSW and ICDS leadership to improve status quo of ICDS SNP

• Enlisted IDinsight’s support as a development partner to:
  – **Diagnose** and quantify shortcomings in status quo
  – **Refine design** of proposed policy interventions
  – **Perform rigorous impact evaluation** (RCT) of policy interventions
  – **Support scale-up** of policy interventions found to be impactful
Research Questions and Methodology

• **Questions:** What is the status-quo of public service delivery in Bihar ICDS? What is the nutritional health status of children and mothers in Bihar?

• **Methodology:**
  – Random unannounced visits to AWCs
  – Interviews of beneficiaries, Sevikas, shopkeepers
  – Testing SNP food samples from an accredited lab

• **Sample size:**
  – 200 AWCs, across 20 blocks, across 3 districts

• Districts chosen to be representative of Bihar
71% of budget on hot cooked meals at AWC lost in leakage
38% of THR funds lost in leakage

- Missing expenditure: 16%
- Additional expenditure: 38%
- Actual expenditure: 40%

Total: 60%
When fed, children get 77% of stipulated calories & protein

- Supreme Court of India SNP norms: 500 calories and 12-15 gm of protein per meal

- Children getting 77% & 78% of stipulated calories & proteins
Actual child attendance half of official enrolment at AWC

Observed and reported child attendance

- Child attendance when anganwadi centre is open but meal is not served: 12.8
- Child attendance when a meal is served: 22.4

- Attendance at arrival: 17.1
- Attendance at meal time: 20.3
- Recorded attendance, past 3 days: 37.1
Sevika & Sahaiyka both present at AWC 40% of the time

<table>
<thead>
<tr>
<th>Present</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Both present</td>
<td>40.0%</td>
</tr>
<tr>
<td>Only Sahaiyka</td>
<td>18.5%</td>
</tr>
<tr>
<td>Only Sevika</td>
<td>16.0%</td>
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<tr>
<td>Neither present</td>
<td>25.5%</td>
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No learning activity in 71% of AWCs

Child activities at AWC

- Idle: 39.5%
- Organized activity: 28.5%
- Playing: 8.5%
- Closed / children absent: 23.5%
Alarmingly high malnutrition levels amongst children & mothers

**Child nutrition levels**

- **Children**: 43.0% are underweight
- **Mothers**: 38.6% are underweight

Note: These levels are lower than those reported by the 2005 NFHS, but are almost identical to the data from the same districts in a 2011 survey conducted by the Nandi Foundation.
Reform is excruciatingly difficult: Supply side story

- ICDS is severely understaffed and under-resourced
- Accountability mechanisms are largely missing
- Entrenched equilibrium:
  - CDPOs and Sevikas used to 20+ years of non-performance
  - Many Sevikas reputed to have bought their positions
- ICDS leadership has limited maneuverability
Reform is excruciatingly difficult: Demand side story

- Beneficiaries are not aware of their rights and entitlements

- Beneficiaries keen on being on Sevika’s good books as she has discretionary control over AWC access

- Mothers do not consider malnutrition as a chronic problem. Only 7.6% had even heard of the term “malnutrition” in their local language (Hungama, 2011)
Yet ICDS is taking significant initiatives to improve status quo

- Technology for bottom-up & top-down monitoring of SNP
- SNP delivery by JEEViKA self-help groups (SHGs)
- Other initiatives
  - Exam-based selection of Sevikas
  - Pre-school education training to Sevikas with materials and support systems
  - Sourcing high-nutrition foods
  - Allowing flexibility in procurement pricing
Monitoring and SHGs may address some of the issues...

<table>
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<tr>
<th>JEEViKA SHGs handle SNP</th>
<th>Technology-based Monitoring</th>
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<tbody>
<tr>
<td><strong>Demand side</strong></td>
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<tr>
<td>Well functioning SHGs as a platform to inform beneficiaries of entitlements, importance of nutrition, and oversee SNP</td>
<td>Empowers beneficiary with information through a call centre; solicit beneficiary views on Sevika performance</td>
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<tr>
<td><strong>Supply side</strong></td>
<td></td>
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<tr>
<td>Replaces ineffective supply side for provision of nutrition services</td>
<td>Supervisors use smartphones to improve frequency, accuracy and actionability of data</td>
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But they may also fail...

- **JEEViKA SHGs delivery of SNP** – SHGs do not have experience administering a government program; potential conflict with Sevikas.

- **Technology-based monitoring** – has been tried and failed in many other contexts.

- Hence the clear need for a robust learning and evaluation process that allows ICDS to scale-up the most effective intervention(s).
A learning and evaluation process to guide ICDS’ decision-making

Diagnose

Design interventions

Refine intervention design through field testing

Impact evaluation of finalized interventions

Scale up based on evidence

Key Question: All in 12 months?
Refine interventions through rapid field testing of design choices

Operational design choices (e.g., centralized vs. decentralized cooking by JEEViKA) → Pilot multiple versions in field → Observe & get stakeholder feedback

Multiple design modifications tested on a small scale in the field

**NOT** evaluated in a statistically robust manner – meant to get indicative sense of optimal design of interventions

Next step: rigorous impact evaluation of refined interventions
Impact Evaluation Design – JEEViKA administration of SNP

- **Evaluation question**: What is the impact of transferring administration of SNP to JEEViKA on (a) leakage of funds and (b) nutritional outcomes for SNP beneficiaries

- **Evaluation Design**: Randomized Controlled Trial in 200 panchayats across 20 blocks in 3 districts of Bihar

<table>
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<th>Control</th>
<th>Treatment</th>
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<tr>
<td>Status quo SNP</td>
<td>JEEViKA administration of SNP delivery</td>
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<tr>
<td>(100 panchayats)</td>
<td>(100 panchayats)</td>
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Impact Evaluation Design – Technology-based monitoring of SNP

- **Evaluation question**: What is the impact of different forms of monitoring on (a) leakage of funds and (b) nutritional outcomes for SNP beneficiaries
- **Evaluation Design**: Randomized Controlled Trial

- **Control**: Status quo SNP
- **Treatment #1**: Top-down monitoring
- **Treatment #2**: Bottom-up monitoring
- **Treatment #3**: Top-down + bottom-up monitoring
Main outcome indicators

• **Intermediate outcome - leakage of funds**
  – Measured by random, unannounced visits to AWCs (measured after X months)
  – Leakage of funds is main outcome indicator to guide scale-up decision

• **End outcomes - child malnutrition**
  – *Stunting and wasting* rates for child beneficiaries (measured after 18 months)
  – *May not change, even if SNP improves* – points to potential higher-level design issues with SNP (i.e., not targeted at first 1000 days of life, meals may serve as replacement rather than supplement)
Post-evaluation – ensuring sustainable scale-up of effective interventions

• Catalyzing scale-up of programs based on rigorous evidence is difficult - few examples internationally

• Steps

• Analytical insights into key design aspects that instrumental for scale-up success

• Operational roadmap on how to scale up, with support on:
  – Strategic planning; documentation; budgeting
  – Messaging on the ground
  – Establishing systems for constant learning and improving
IDinsight approach to public policy research:

**Demand-driven**
Questions sourced from policymaker. Experimental design optimized keeping in mind ground-level realities of client

**Rigorous**
Most rigorous field experiment approaches (including, but not limited to, randomized control trials)

**Timely**
Actionable results produced in line with policymaker’s decision-making deadlines

**Affordable**
Affordable for governments, large NGOs, foundations, and other organizations

IDinsight field experiments are practical decision support tools for practitioners
Discussion
Example IDinsight engagements

STIR, India → how to increase student learning?

DSW/ICDS, Bihar → How to reduce leakage?

Gates Foundation/iDE, Cambodia → how to increase access to improved sanitation?

MoH, Zambia → How to increase institutional delivery?

Agriculture firm, Zambia → How to increase farmer income?

MoH, Uganda → How to improve HIV/AIDS medication adherence
Impact Evaluation Design

- JEEViKA administration of SNP evaluation
  - Control (status quo SNP)
  - JEEViKA administration of SNP
  - Panchayat-level randomization
  - 200 panchayats across 20 blocks in 3 districts

- Technology-enhanced monitoring evaluation
  - Control (status quo SNP)
  - Top-down monitoring only
  - Bottom-up monitoring only
  - Top-down plus bottom-up monitoring
  - Lady supervisor level randomization

- Main outcome indicators
  - Intermediate – fund leakage
  - Ultimate – nutrition gains (may be difficult given design of SNP does not focus on first 100 days)
Impact Evaluation: What is the efficacy of the idea vs. the costs?

Impact Evaluation

Fund leakage vs. impact

Technology

CBOs

C    T  Impact
C    T  Impact
Reform is excruciatingly difficult: SNP Design

- Focus on child’s first 1000 days is missing: 98% of households report consumption of THR by all family members

- Hot cooked meals are not necessarily supplementary meals, but act as replacement meals
Do you want to keep this discussion slide?

• What are the potential innovations to improve on-the-ground performance for ICDS?
• What are the key bottlenecks?
• How can rigorous evidence be useful for taking innovations to scale?
The IDinsight model:

Keep this?

**Demand-driven** – exclusive focus on addressing the key challenges of policymakers with whom we are working. No separate research or publishing agenda.

**Rigorous** – use of most rigorous quantitative methods, including, but not limited to, randomized controlled trials (RCTs).

**Practical** – balance rigor with practical operational constraints of policymakers. Provide insights in line with policymakers’ decision-making timelines.
Operational choices

• JEEViKA
  – Cooking at VO and distribution to AWC
  – Cooking at AWC itself by SHG members

• Monitoring
  – How best to solicit information from and share information with beneficiary families?
    • Automated phone messages?
    • Live phone calls?
    • SMS?