

# ICDS Bihar - Status Quo and Path Towards Improvement

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# Agenda

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

# Context

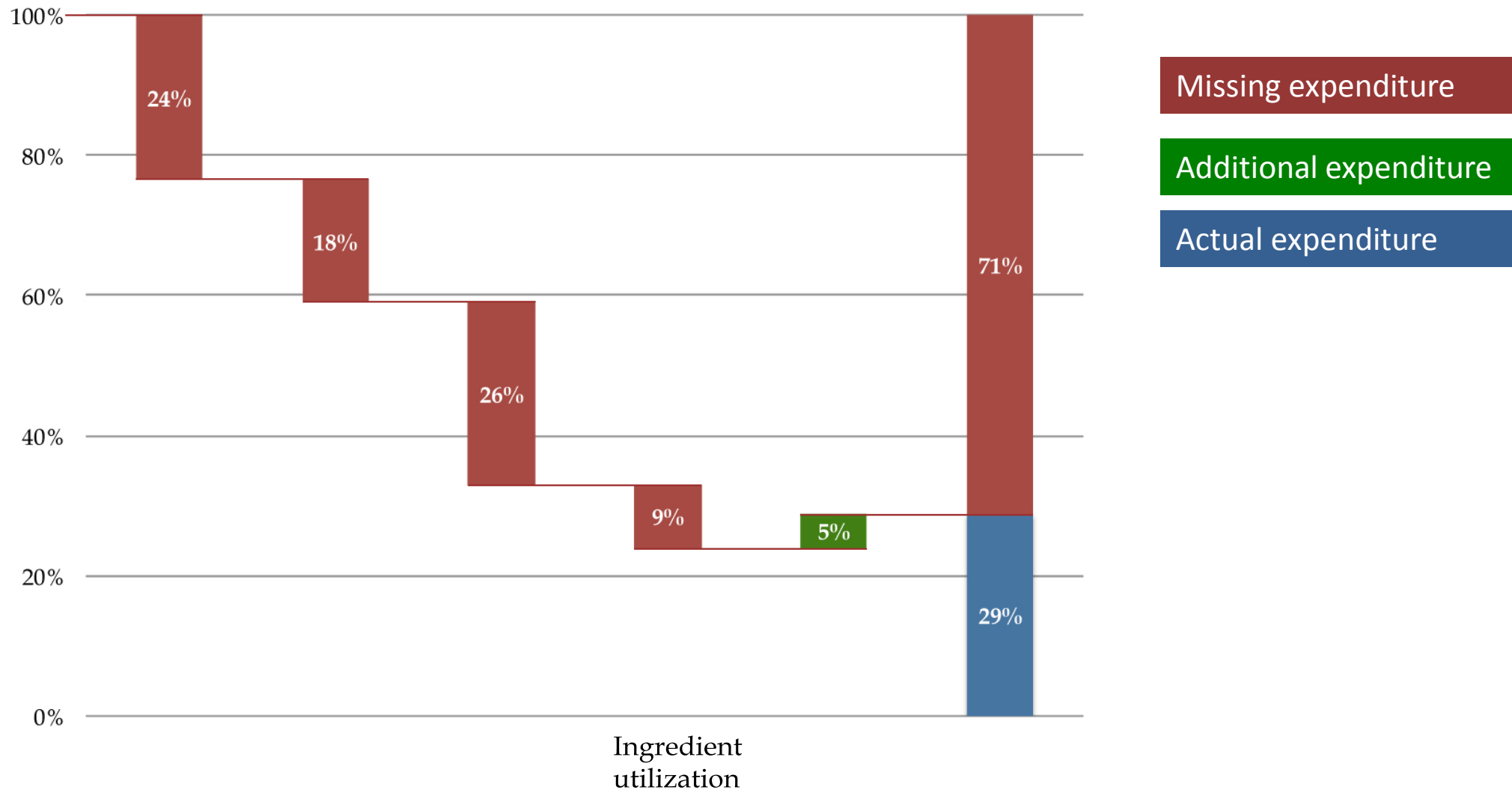
- ICDS' Supplementary Nutrition Programme - Rs. 1100 crore/year spent to provide food to children and pregnant and lactating mothers
- Strong desire among DSW and ICDS leadership to improve status quo of ICDS SNP
- Enlisted IDinsight's support as a development partner to:
  - **Diagnose** and quantify 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

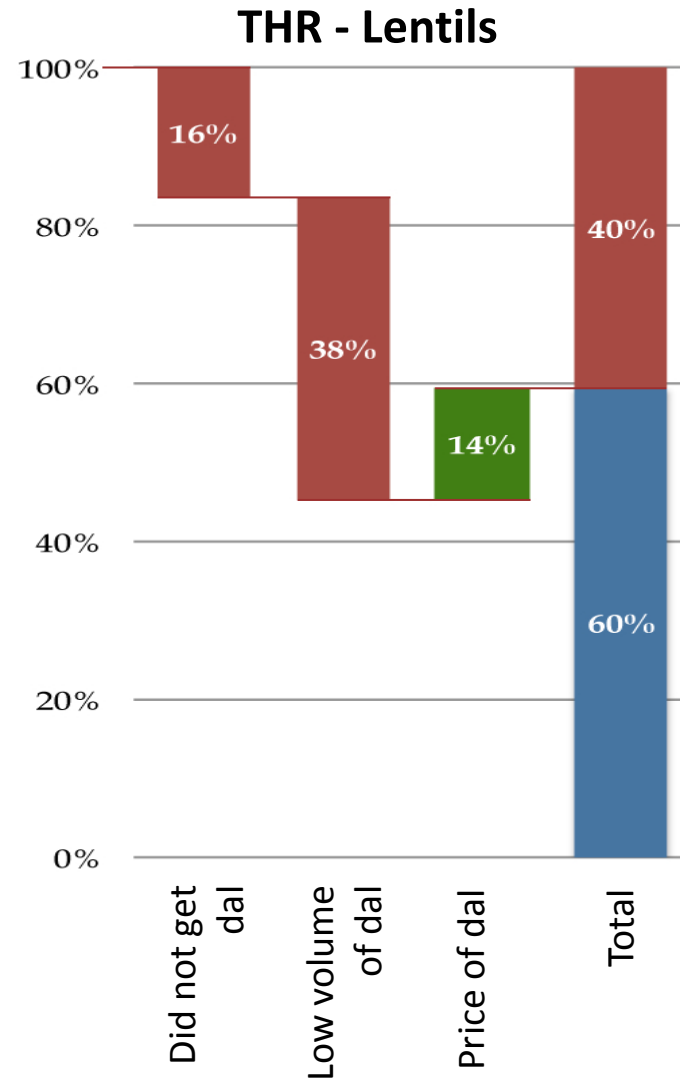


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- **Questions:** What is the status-quo of public service delivery in Bihar ICDS? What is the nutritional health status of children and mothers in Bihar?
  - **Methodology:**
    - Random unannounced visits to AWCs
    - Interviews of beneficiaries, 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

Additional expenditure

Actual expenditure

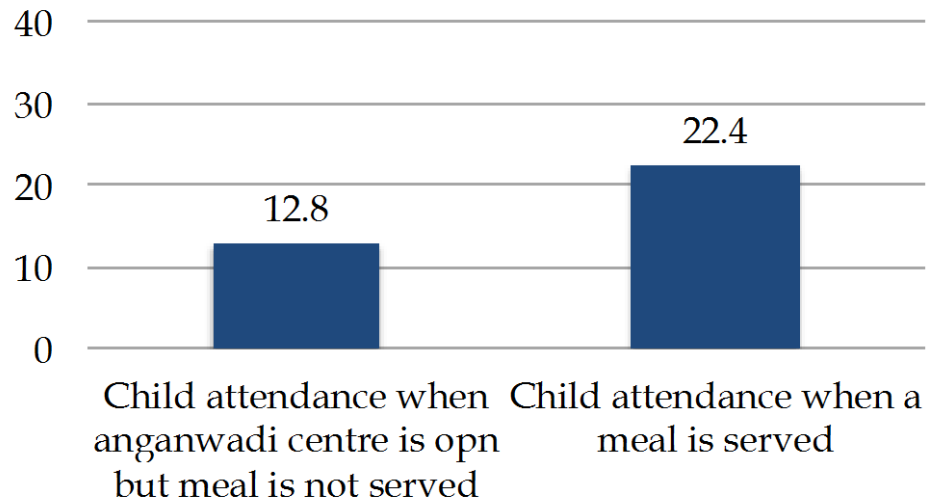
# When fed, children get 77% of stipulated calories & protein

- Supreme Court of India SNP norms: 500 calories and 12-15 gm of protein per meal
- Children getting 77% & 78% of stipulated calories & proteins

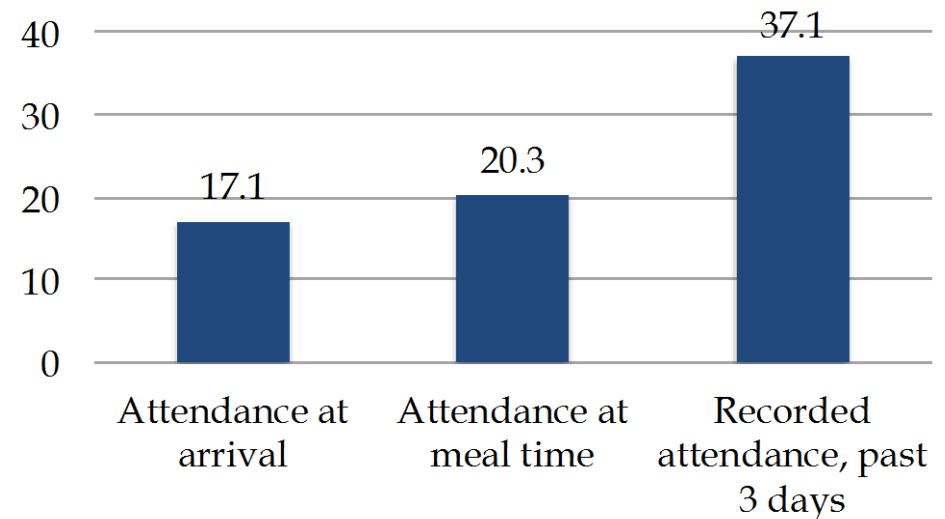


# Actual child attendance half of official enrolment at AWC

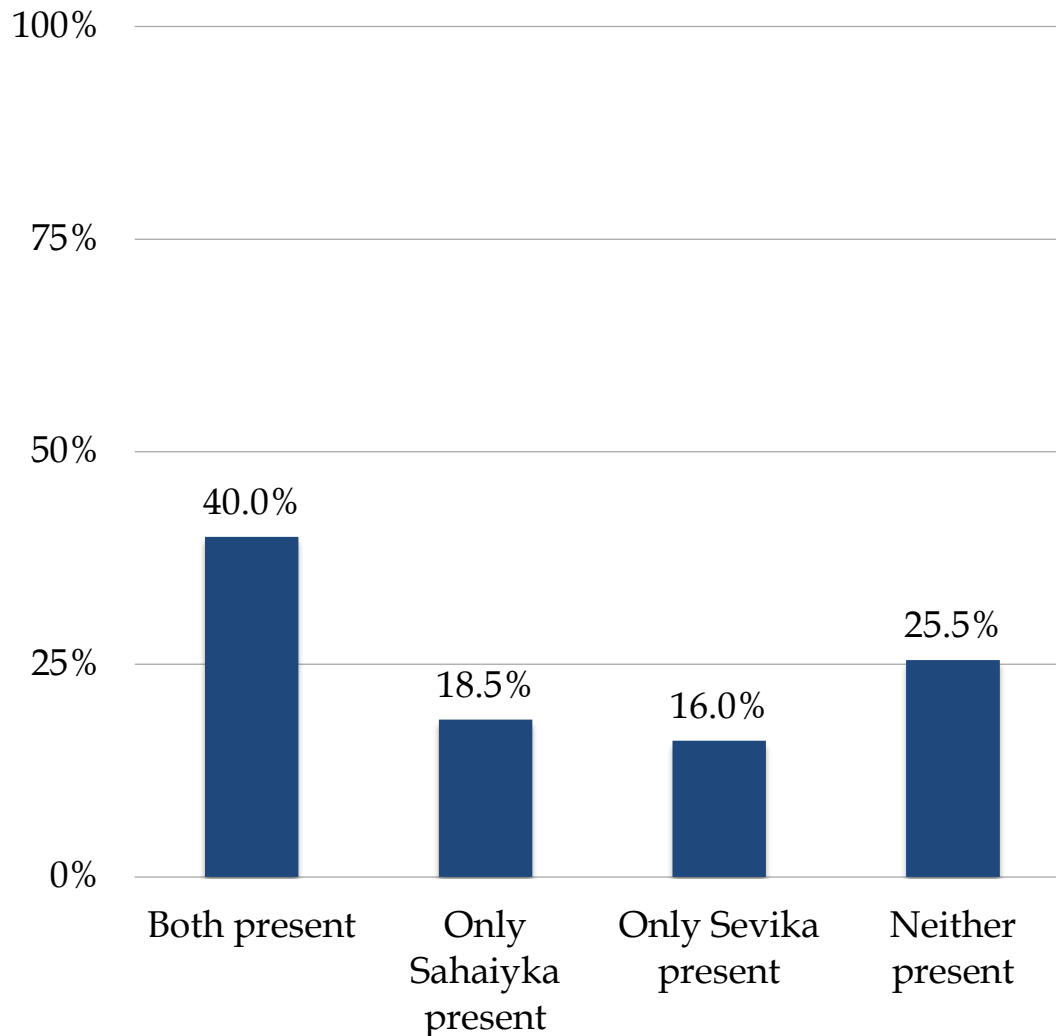
## Child attendance and meal provision



## Observed and reported child attendance

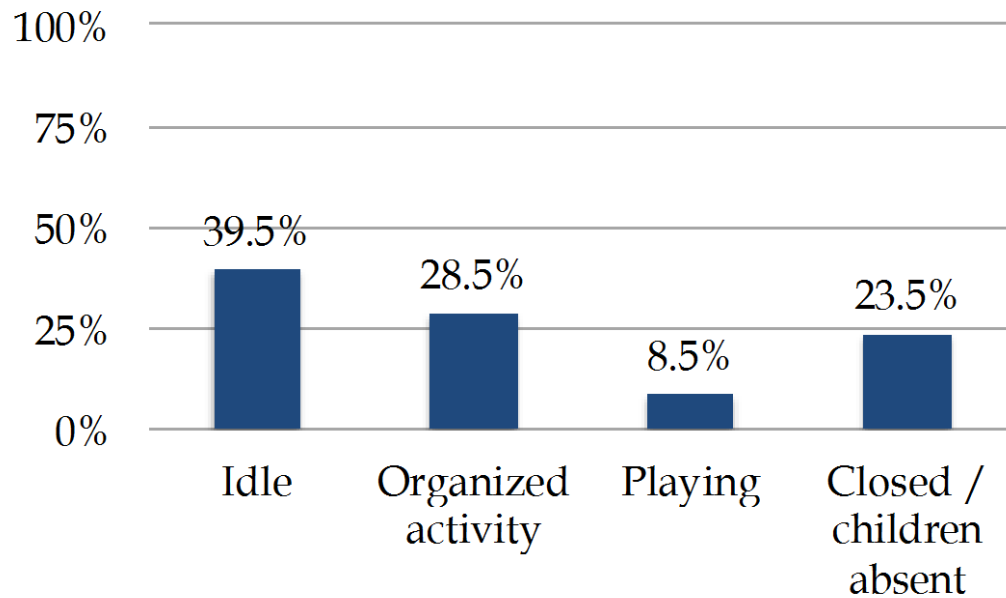


# Sevika & Sahaiyka both present at AWC 40% of the time



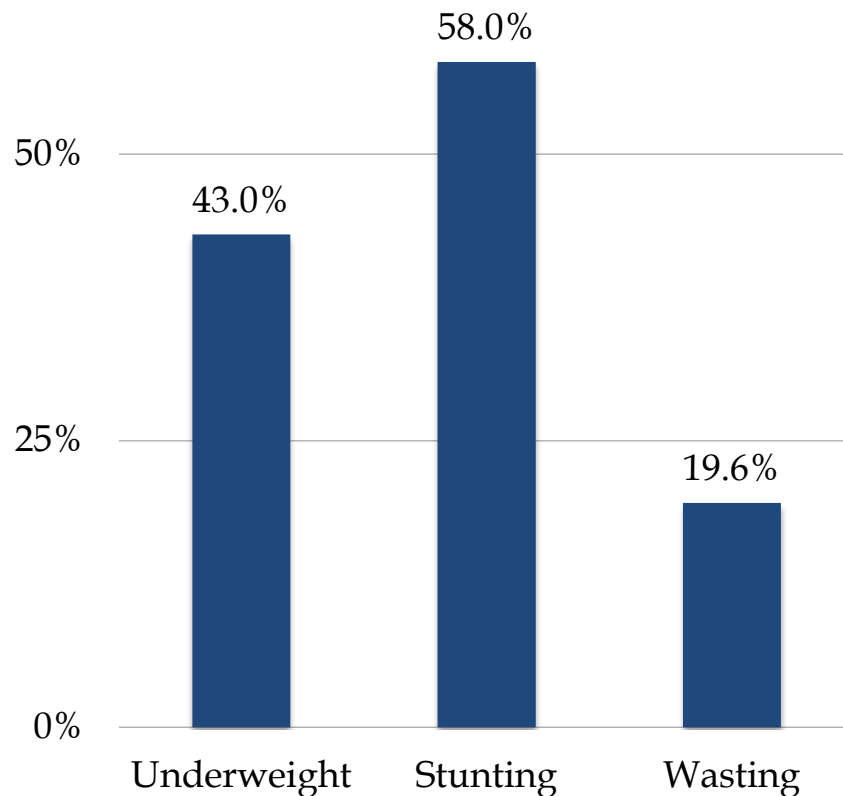
# No learning activity in 71% of AWCs

Child activities at AWC



# 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

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- 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

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- 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

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- 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...



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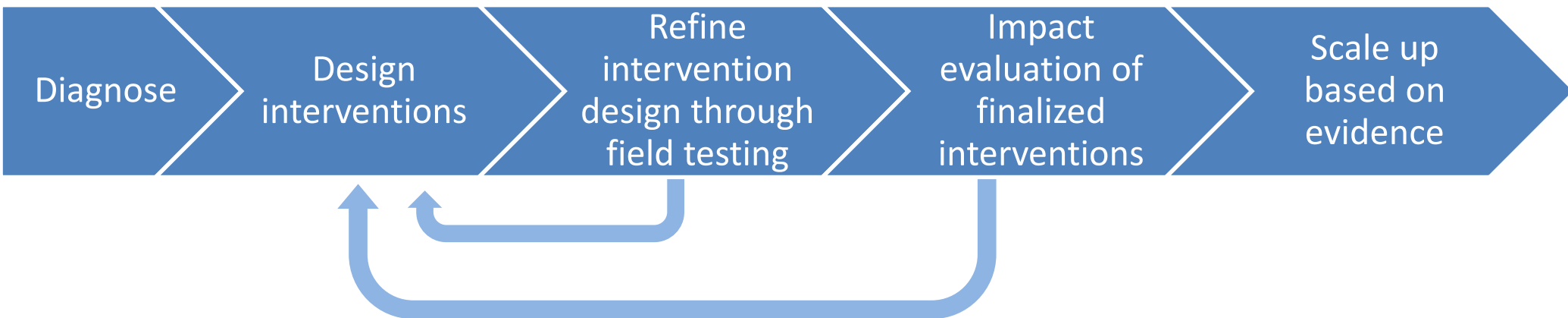
	<b>JEEViKA SHGs handle SNP</b>	<b>Technology-based Monitoring</b>
<b>Demand side</b>	Well functioning SHGs as a platform to inform beneficiaries of entitlements, importance of nutrition, and oversee SNP	Empowers beneficiary with information through a call centre; solicit beneficiary views on Sevika performance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

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# But they may also fail...

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- **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



Key Question: All in 12 months?

# Refine interventions through rapid field testing of design choices



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

## Control

Status quo SNP  
(100 panchayats)

## Treatment

JEEViKA  
administration of  
SNP delivery  
(100 panchayats)

# 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

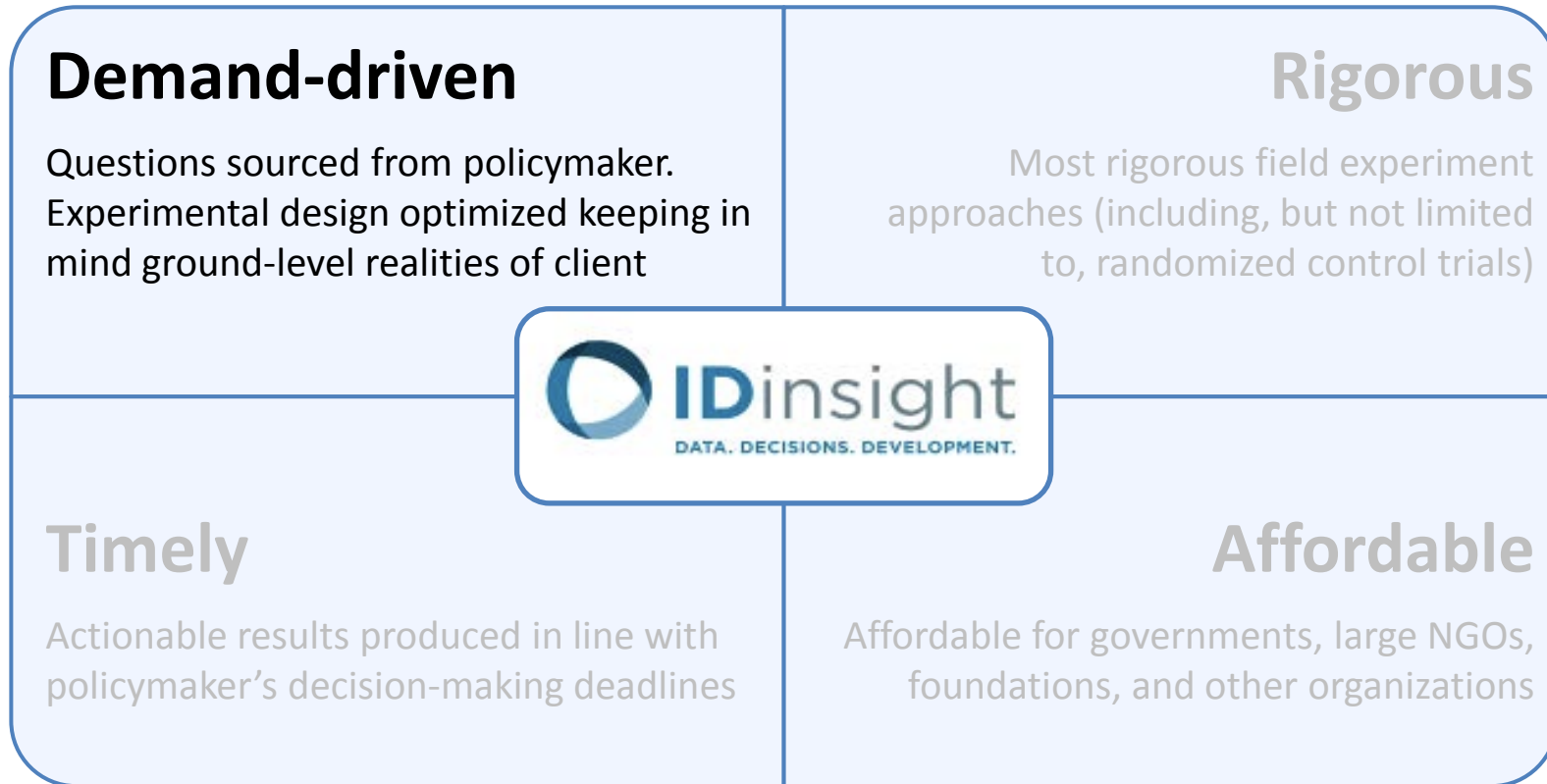
- **Intermediate outcome - leakage of funds**
  - Measured by random, unannounced visits to AWCs (measured after X months)
  - Leakage of funds is main outcome indicator to guide scale-up decision
- **End outcomes - child malnutrition**
  - *Stunting and wasting* rates for child beneficiaries (measured 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

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- 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:



**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?

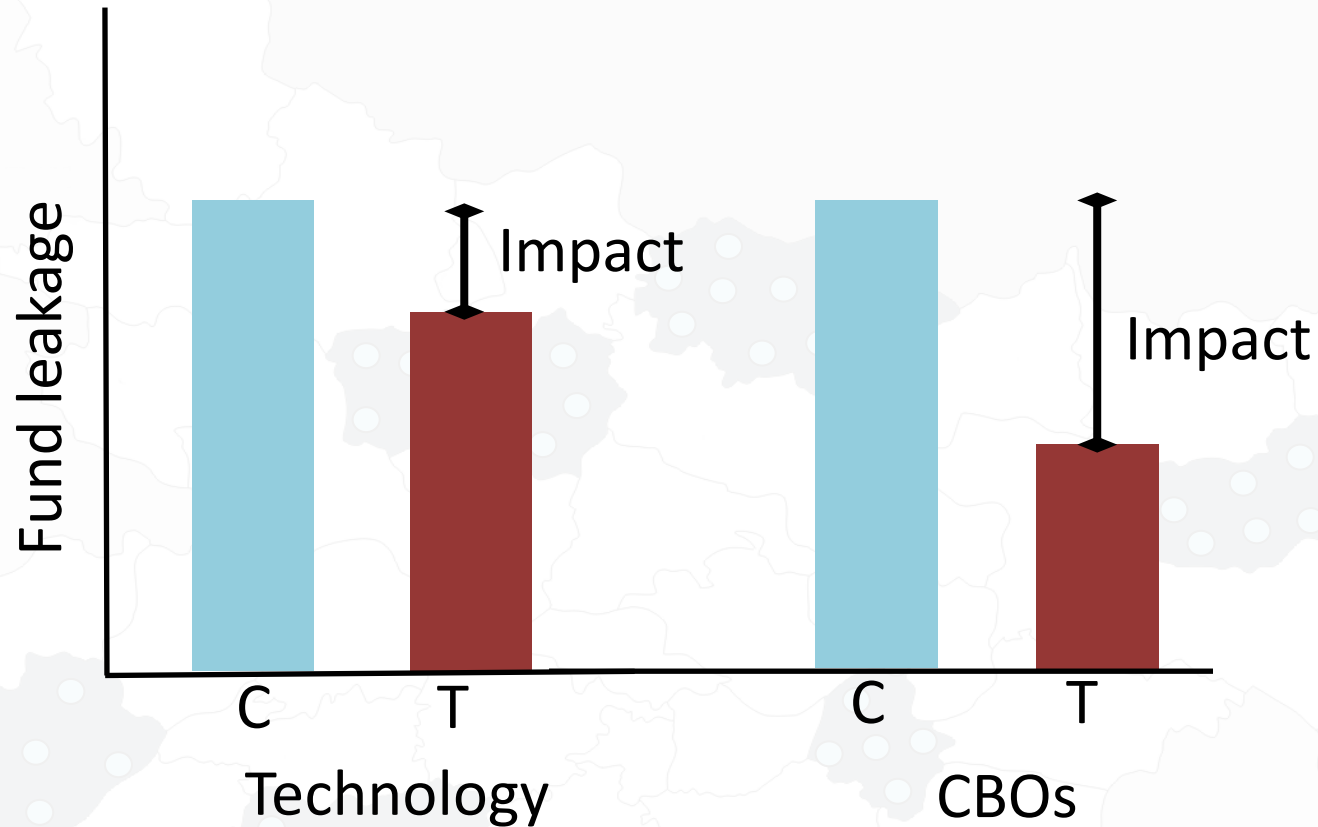
**Agriculture firm, Zambia**  
→ How to increase farmer income?

**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?



# Reform is excruciatingly difficult: SNP Design

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- 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?



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- 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?

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**Demand-driven** – exclusive focus on addressing the key challenges of policymaker 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 policymaker. Provide insights in line with policymaker's decision-making timelines.

# Operational choices

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- 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?