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Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India

Addressing Undernutrition in Odisha

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with inputs from

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Goals

- Examine nutrition and its determinants from a multisectoral lens
- Share key findings from POSHAN research for India and Odisha as they relate to closing key gaps for delivering on nutrition outcomes
  - Review on working multisectorally
  - Program and policy reviews
  - Costing study
  - Study on intersectoral convergence
  - Stakeholder mapping
  - District-level engagement for nutrition (led by PHRN)

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Undernutrition is the story of women and children living in challenging environments

Enabling environment: Society, culture, economy, politics, governance

Underlying home and community conditions

Food security and quality
Sanitation
Income
Women's empowerment and education
Health and other services

Immediate conditions

Food and feeding
Care
Hygiene
Illness prevention & treatment
Women's health

Photo: P. Menon, UP, 2013

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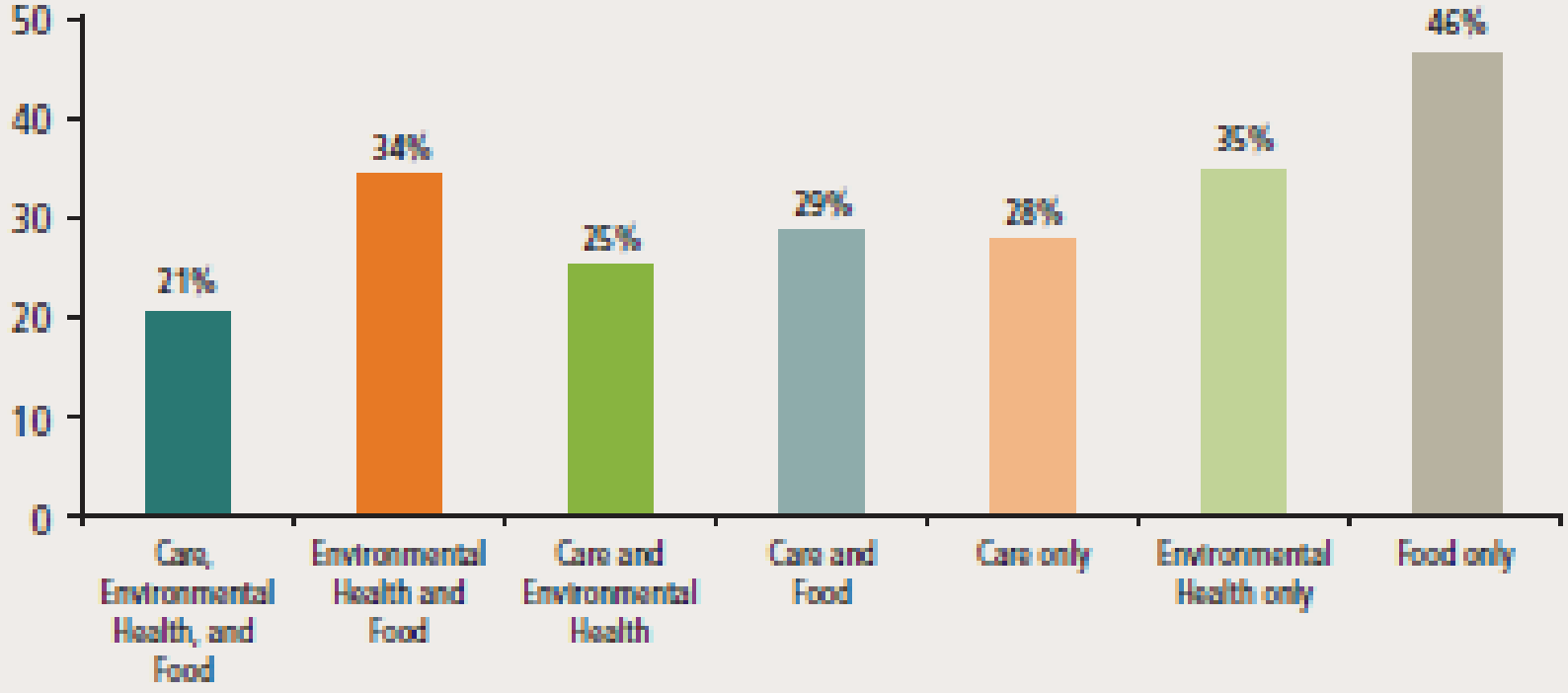
Working multisectorally is ultimately about ensuring adequacy of food, health and care

FIGURE 1 Percent of children between 6-24 months of age who are stunted by adequacy of care, environmental health, and food

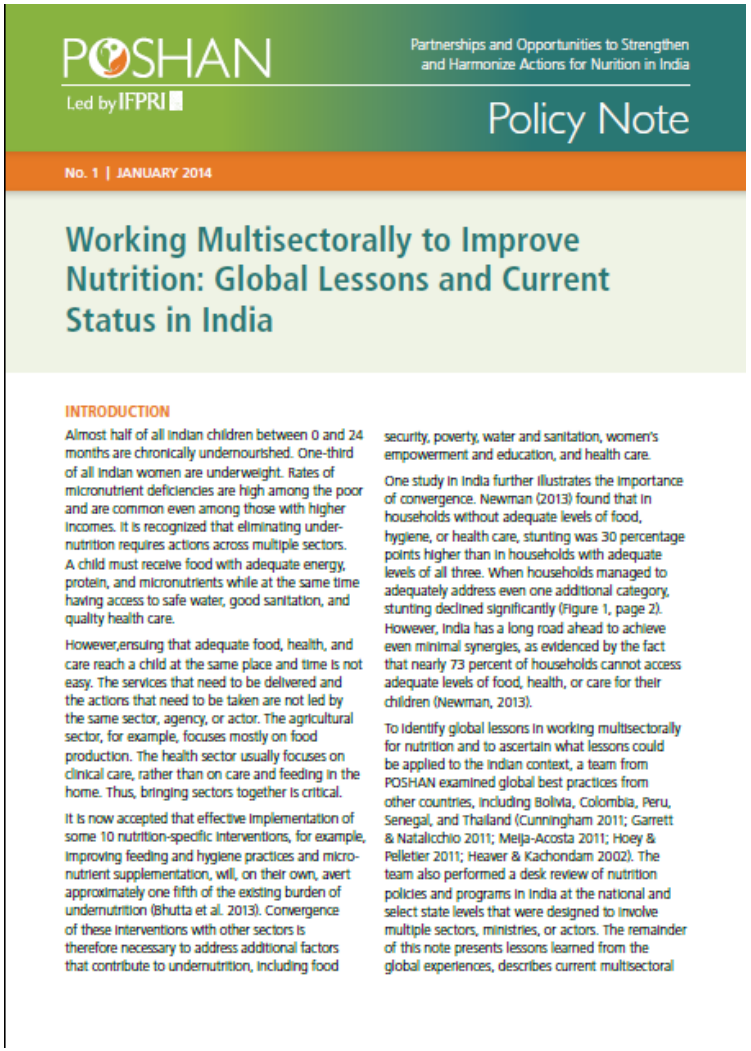


Source: Newman 2013.

Plan multisectorally

Implement sectorally

Review multisectorally



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Policy Note

No. 1 | JANUARY 2014

Working Multisectorally to Improve Nutrition: Global Lessons and Current Status in India

INTRODUCTION

Almost half of all Indian children between 0 and 24 months are chronically undernourished. One-third of all Indian women are underweight. Rates of micronutrient deficiencies are high among the poor and are common even among those with higher incomes. It is recognized that eliminating under-nutrition requires actions across multiple sectors. A child must receive food with adequate energy, protein, and micronutrients while at the same time having access to safe water, good sanitation, and quality health care.

However,ensuing that adequate food, health, and care reach a child at the same place and time is not easy. The services that need to be delivered and the actions that need to be taken are not led by the same sector, agency, or actor. The agricultural sector, for example, focuses mostly on food production. The health sector usually focuses on clinical care, rather than on care and feeding in the home. Thus, bringing sectors together is critical.

It is now accepted that effective implementation of some 10 nutrition-specific interventions, for example, improving feeding and hygiene practices and micro-nutrient supplementation, will, on their own, avert approximately one fifth of the existing burden of undernutrition (Bhutta et al. 2013). Convergence of these interventions with other sectors is therefore necessary to address additional factors that contribute to undernutrition, including food security, poverty, water and sanitation, women's empowerment and education, and health care.

One study in India further illustrates the importance of convergence. Newman (2013) found that in households without adequate levels of food, hygiene, or health care, stunting was 30 percentage points higher than in households with adequate levels of all three. When households managed to adequately address even one additional category, stunting declined significantly (Figure 1, page 2). However, India has a long road ahead to achieve even minimal synergies, as evidenced by the fact that nearly 73 percent of households cannot access adequate levels of food, health, or care for their children (Newman, 2013).

To identify global lessons in working multisectorally for nutrition and to ascertain what lessons could be applied to the Indian context, a team from POSHAN examined global best practices from other countries, including Bolivia, Colombia, Peru, Senegal, and Thailand (Cunningham 2011; Garrett & Natalicchio 2011; Mejia-Acosta 2011; Hoey & Pelletier 2011; Heaver & Kachondam 2002). The team also performed a desk review of nutrition policies and programs in India at the national and select state levels that were designed to involve multiple sectors, ministries, or actors. The remainder of this note presents lessons learned from the global experiences, describes current multisectoral

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Trends in undernutrition: little known about trend in recent years

	NFHS-2 (1998-1999) Children aged <3 years	NFHS-3 (2005-2006) Children aged <3 years	NFHS-4 (2014-2015) CCM
Underweight	50%	40%	?
Stunting	49%	44%	?
Wasting	30%	24%	?

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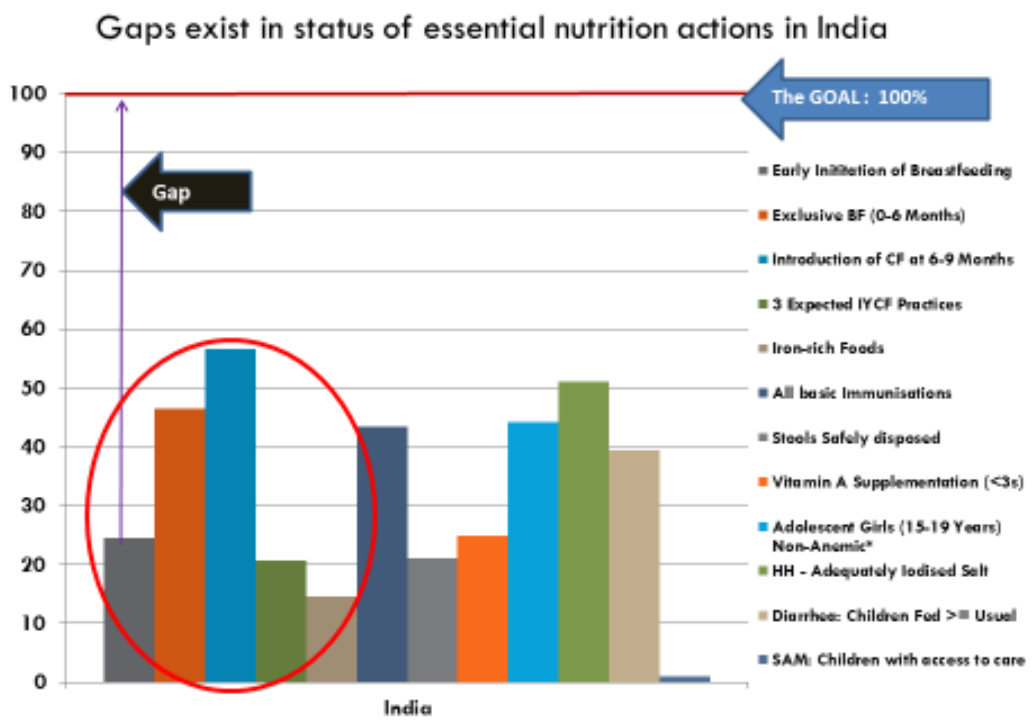
We know that coverage and linkage of nutrition-specific interventions to reach every mother-dyad across the continuum of care is crucial

Policy is mostly in place and evidence-based but strategy needs work

National programs include a good set of evidence-based interventions for most nutritional problems

Program funding outlays are impressive, but assessments of adequacy still need to be done

ICDS and NRHM have put frontline workers in place; service delivery is still limited



Menon, Raabe & Bhaskar, 2009

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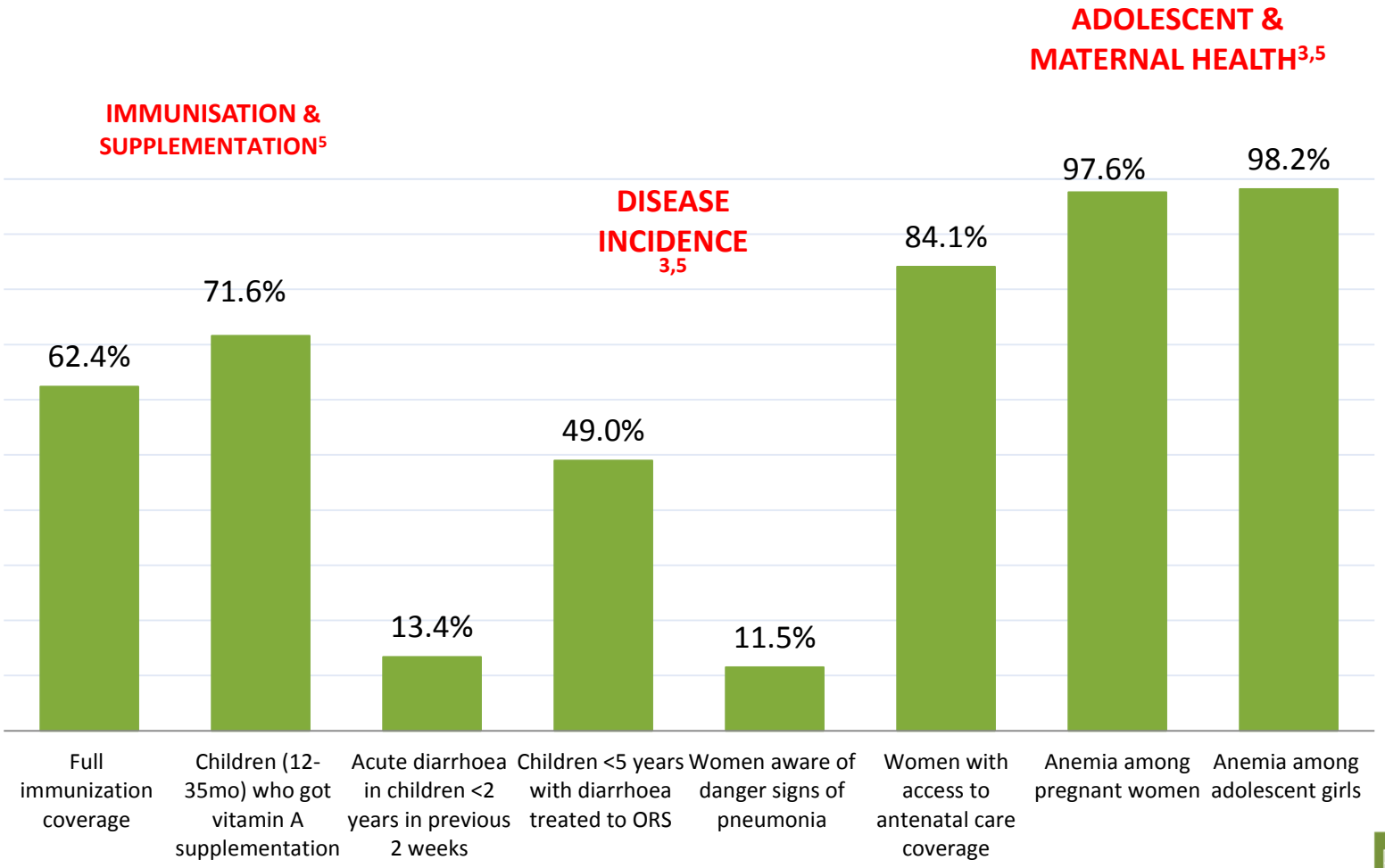
Immediate determinants in Odisha



Source: NFHS-3; DLHS-3

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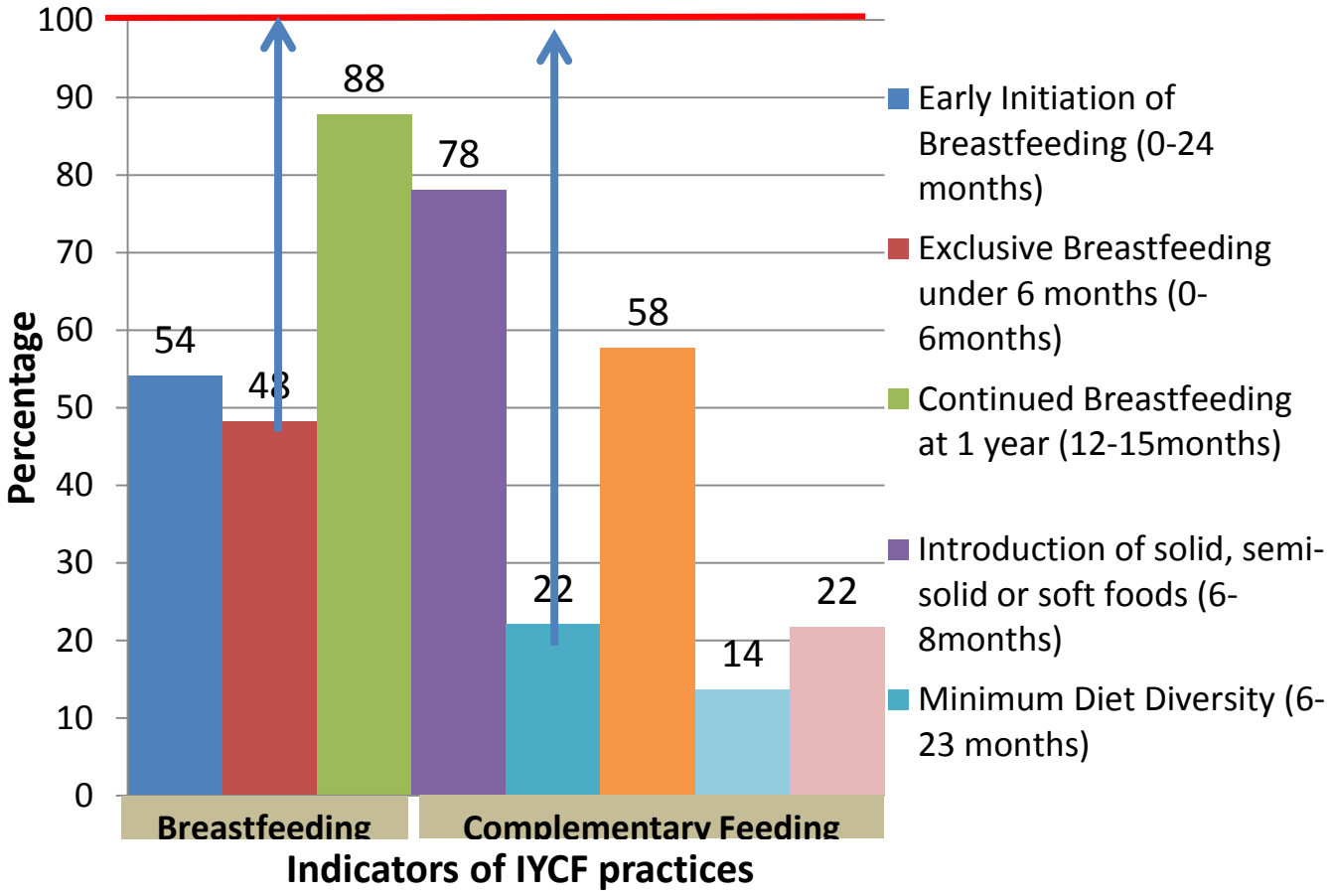
IYCF practices in Odisha, 2005-06



NFHS-3 Orissa, data, Author's estimations

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Findings from study on convergence and service delivery: Mixed results on the use of services along the continuum of care

Period	Use of interventions	Service delivery

Pregnancy	- 74% report >=4 ANC visits
	- Information received:
	  - 75% nutrition advice
	  - 82% on IFA tablets
	- Almost all reported receiving THR (ever) during pregnancy
	  - 93% consumed THR
		• Primary responsibilities and supportive roles clear for ANC and THR but ***not*** for nutrition counseling
		
		• Standard protocols for ANC and THR but ***not*** for counseling

0-6 months	- *Less than a third of households received information on* breastfeeding information *although 90% report visits from AWW and ASHA*	• Primary responsibilities *unclear: All the three workers report being* primarily responsible • No standard protocol

6-24 months	• 97% received THR (6-24 mo child)
	  • 80% feed THR to child
	• 83% full immunization; 98% at least 1 dose of Vitamin A
	• Received IFA tablets (6-24 mos):
	  -**2.5%** : at home
	  -**0.16%:** at AWC/SC/PHC
	- *Less than a quarter of households received information on complementary feeding* information *although 90% report visits from AWW and ASHA*
		• Primary responsibilities and supportive roles clear for *THR, immunization and vitamin A supplementation* but ***not*** for *IFA supplementation and CF counseling*
		• No standard protocols for counseling (*although the registers have the information*)

Source: Avula et al. IFPRI. 2014

Summary on delivery of essential interventions

- State of service delivery for essential nutrition interventions
  - Working well: THR, ANC, vitamin A and immunization
  - Not working as well: infant and child feeding (IYCF) counseling during home visits.
  - No data in the current study: SAM referrals, curative care during illness
- Gap in IYCF counseling
  - Recent focus on children <3 years; Ministry of Health issues IYCF guidelines in 2013; Training on IYCF practices launched in 2013 in Odisha
  - No monitoring indicators to track counseling
  - Frontline workers appear unclear about primary responsibility; multiple messaging is desirable but requires clear guidelines on roles and responsibilities
- Anemia (multi-etiology challenge)
  - Gap in IFA supplementation
    - National Iron Plus Initiative launched recently (2013)
    - Frontline workers unclear about primary responsibility
    - No data in the current study: supply issues; demand-side constraints (i.e., acceptability)

Source: Avula et al. IFPRI. 2014

What will it cost to deliver at scale all essential nutrition-specific interventions?

Step 1
- Described each intervention and define associated target population

Step 2
- Estimated the size of the target population (TP) in 2014 using India's 2011 Census, its Sample Registration System, and the National Family Health Survey III

Step 3
- Obtained local unit cost (UC) data for each intervention

Step 4
- Multiplied the size of the target population by the unit cost to arrive at a total cost of implementing each intervention at 100% coverage (Total cost = UC*TP)

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Menon, Chakrabarti, McDonald. IFPRI. 2014 (in preparation)

Costed interventions and target populations

Intervention	Target Population
Counseling actions	
Counseling during pregnancy	Pregnant women
Counseling for breastfeeding	Caregivers of children 0-6 months of age
Counseling for CF and hand washing	Caregivers of children 6-24 months of age
Supplementary food	
Complementary food supplements	Children 6-36 months of age
Supplementary food rations	Pregnant and lactating women
Additional food rations for severely malnourished children	Children 6-59 months of age with WAZ < -3
Supplementation and deworming	
Iron-folic acid supplements	Pregnant and lactating women for six months
IFA and deworming supplements	Adolescents 11-18 years of age
Iron supplements for children	Children 6-59 months of age
Vitamin A supplements	Children 6-59 months of age
ORS and zinc for diarrhea	Children 2-59 months of age with diarrhea
Deworming	Children 12-59 months of age
Health interventions	
Treatment of severe acute malnutrition	Children 6-59 months of age with a WHZ <-3
Insecticide treated nets	Pregnant women in malaria endemic areas
Miscellaneous interventions	
Maternity benefit for breastfeeding mothers	Six months after delivery

Menon, Chakrabarti, McDonald. IFPRI. 2014 (in preparation)

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Methods: Unit Costs: Counseling Activities

Counseling Activities	Cost per beneficiary per year (US$)	Cost per beneficiary per year (INR)*	Source of costing data	Assumptions
Counseling during pregnancy	0.80	41.6	Alive & Thrive costing study, Bangladesh**	Assumes 3.5 contacts
Counseling for breastfeeding for children 0-6 months of age	1.05	65.1	Alive & Thrive costing study, Bangladesh	Assumes 11.7 contacts
Counseling for complementary feeding and handwashing for children 6-12 months of age	4.72	292.64	Alive & Thrive costing study, Bangladesh	Assumes 11.6 contacts
Counseling for complementary feeding and handwashing for children 12-24 months of age	1.52	94.24	Alive & Thrive costing study, Bangladesh	Assumes 13.5 contacts

* Exchange rate as of October 10, 2013. US$ 1 = INR 62

**Khan, J., et al. *Implementation Costs for Alive & Thrive in Bangladesh. 2013.* This study uses an activity-based ingredients approach used for costing start-up and implementation costs of a package of interpersonal counseling services for infant and young child feeding. Cost here only includes costs of counseling and not of start-up activities or supporting social mobilization and mass media activities.

Menon, Chakrabarti, McDonald. IFPRI. 2014 (in preparation)

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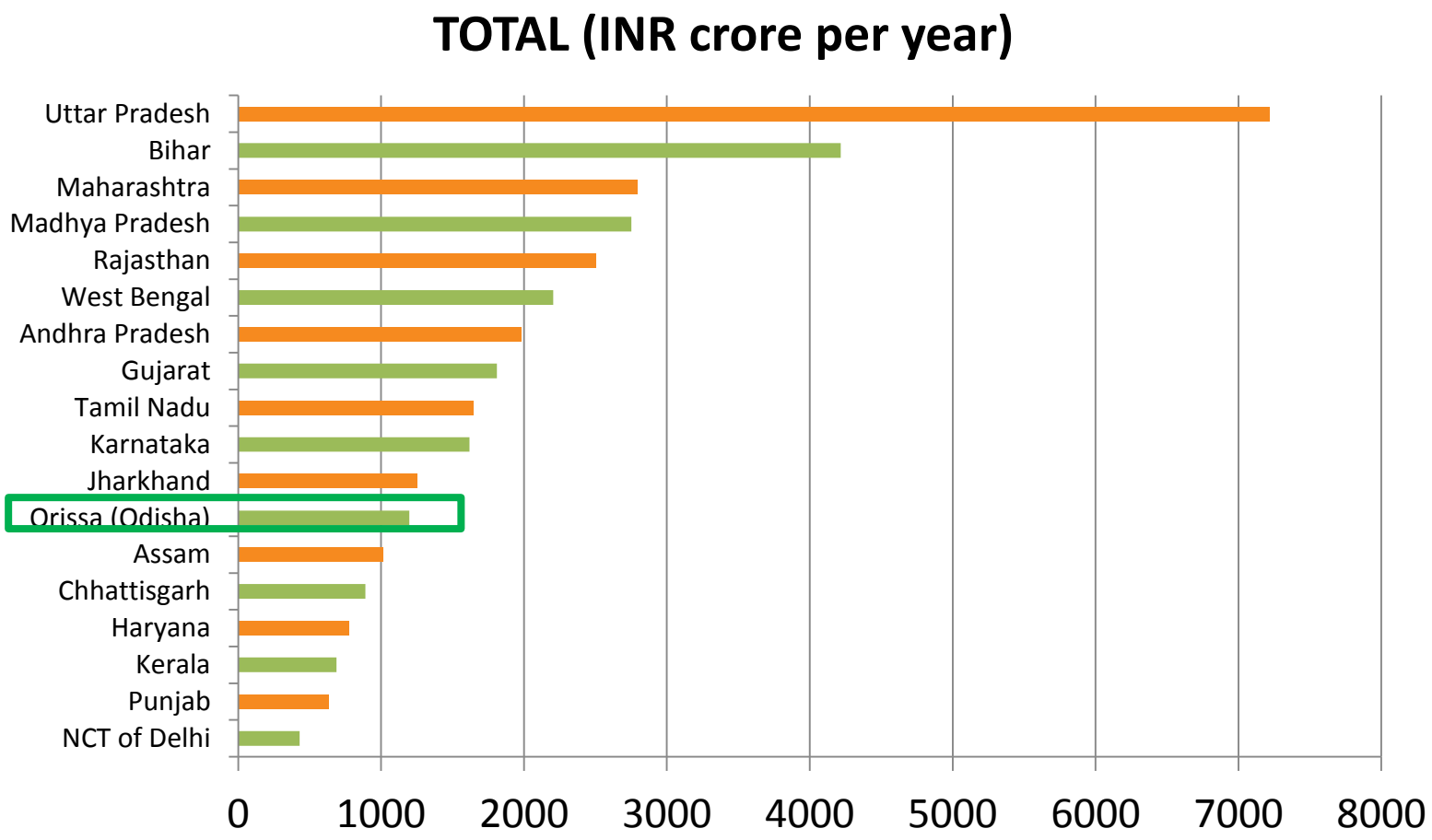
Methods: Unit Costs: Supplementary Food

Supplement	Cost per beneficiary per year (US$)	Cost per beneficiary per year (INR)*	Source of costing data	Assumptions
Complementary food supplements for children 6-12 mths	14.52	900	MWCD 2013 revised norms for supplementary nutrition	Rs 6 per day; Daily ration provided for 6 months, 6 days a week
Complementary food supplements for children 12-36 mths	29.03	1800	MWCD 2013 revised norms for supplementary nutrition	Rs 6 per day; Daily ration provided for 12 months, 6 days a week
Supplementary food rations for pregnant and lactating women	16.94	1050	MWCD 2013 revised norms for supplementary nutrition	Rs 7 per day; Daily ration provided for 6 months during pregnancy and 6 months during lactation, 6 days a week
Additional food rations for severely malnourished children	13.06	810	MWCD 2013 revised norms for supplementary nutrition	Rs 9 per day; Daily ration provided for 3 months. 50% of children 6-35 months with SAM are subtracted from the target population

* Exchange rate as of October 10, 2013. US$ 1 = INR 62

Cost of delivery of key nutrition-specific interventions, by state, in 2014



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Breakdown of costs for Odisha, 2014

Intervention	2014 cost, INR crores
Counselling during pregnancy	9.78
Counselling for BF (0-6 months)	3.62
Counselling for CF and WASH (6-12 months)	31.48
Counselling for CF and WASH (12-24 months)	13.93
Food supplements (6-12 months)	**31.48**
Food supplements (12-36 months)	**277.27**
Food supplements (pregnancy)	**94.10**
Food supplements (lactation)	**36.71**
Food supplements (children 6-36 months with WAZ <-3)	**18.12**
IFA for pregnant and lactating women	3.94
IFA+deworming for adolescent girls	8.56
Iron supplements for children 6-59 months	13.51
Vitamin A supplements (6-59 months)	1.50
Zinc for diarrhoea treatment in children 2-59 months	5.72
Deworming for children 12-59 months	4.43
SAM treatment for children 6-59 months with WHZ <-3	35.92
Insecticide treated nets for pregnant women	26.90
ORS for treatment of diarrhoea	8.36
Maternity benefits for breastfeeding	**571.64**
TOTAL	**1,196.98**

Nutrition-specific is not enough: we also know that improving underlying household conditions is key to nutrition success

Empirical studies on factors that have led to improvements in undernutrition, especially stunting, over time point to:

Global (Smith & Haddad, 2014)	Brazil (Monteiro et al., 2010)	Bangladesh (Headey et al., 2014)

• Women's education
• Sanitation
• Household assets
• Food security (energy and non-energy)
	• Equity in all underlying determinants
	  • Income
	  • Antenatal care
	  • Assets
		• Asset accumulation
		• Antenatal care
		• Fertility
		• Decreasing open defecation
		• Agricultural growth

The state of underlying determinants in Odisha is challenging, and could hold back progress in nutrition

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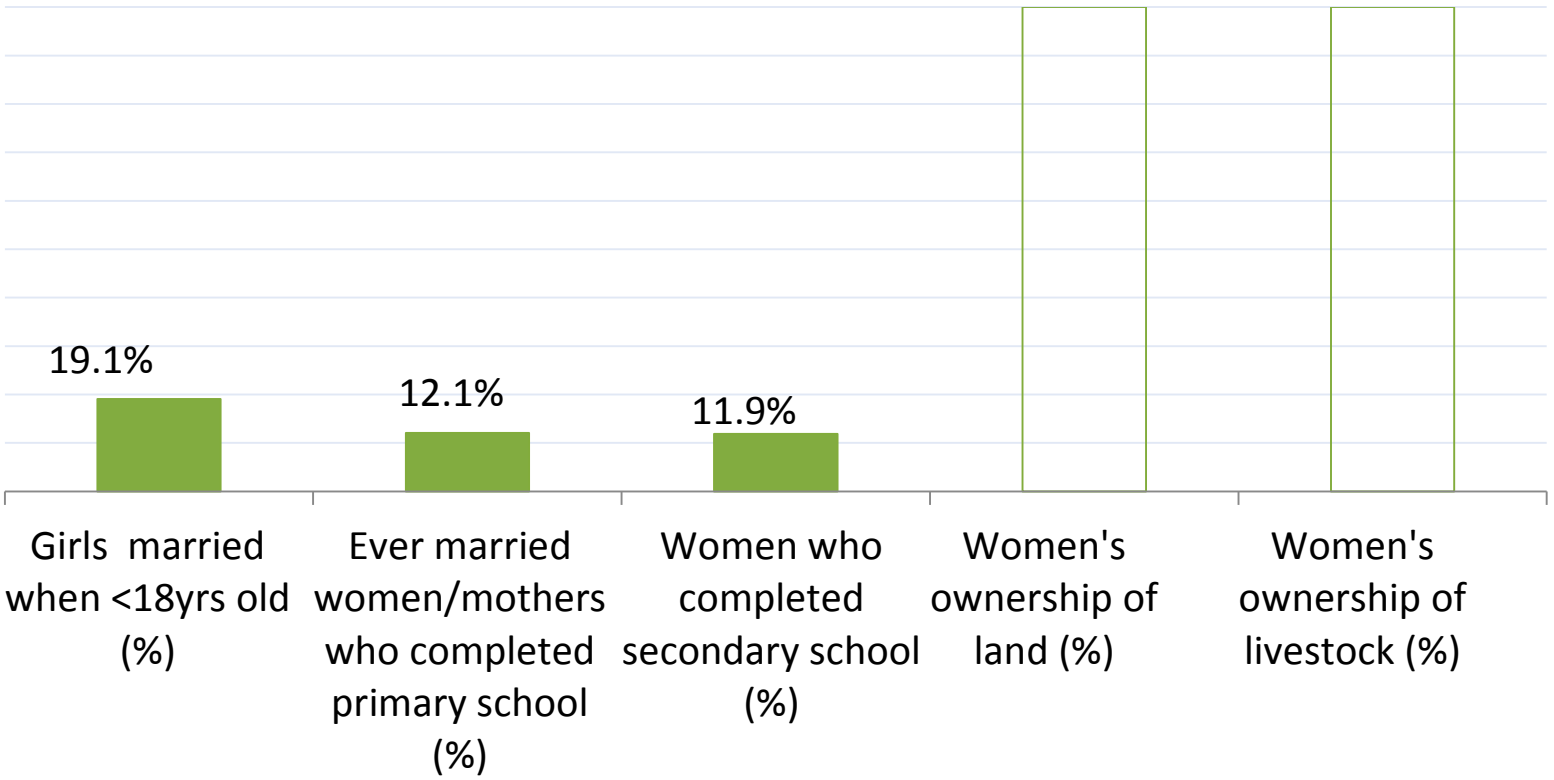
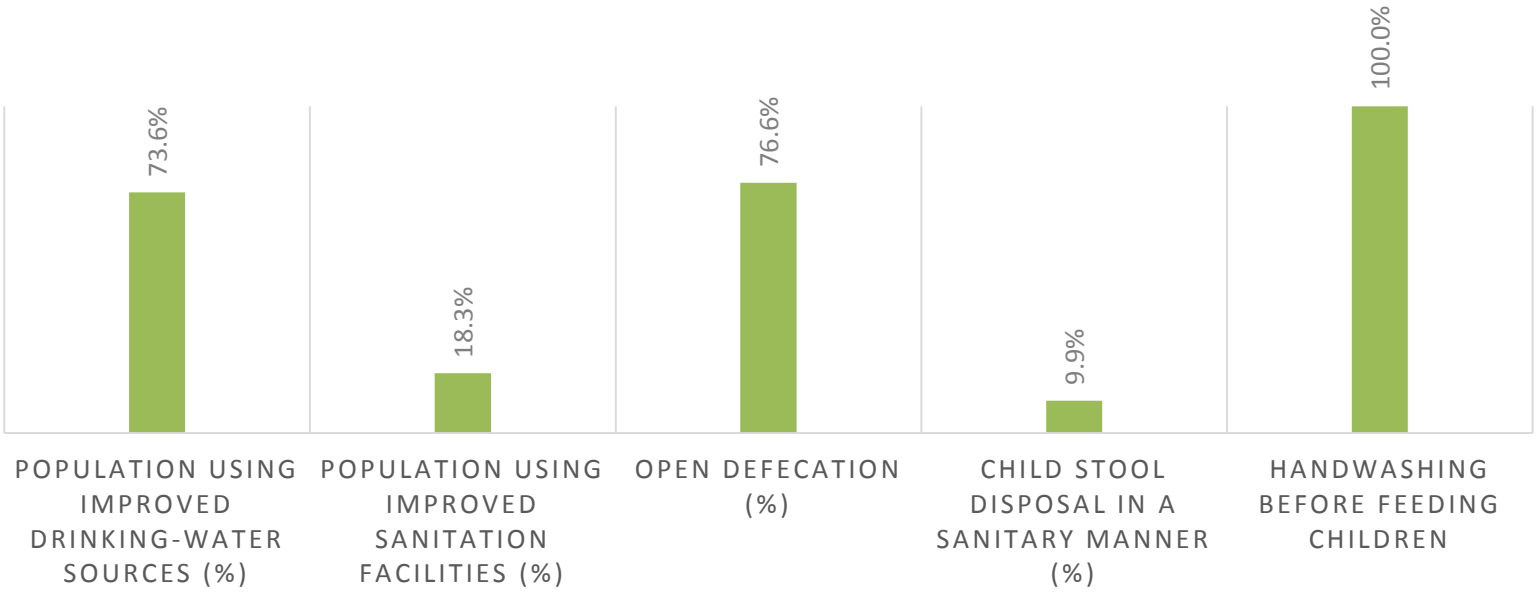
Women’s education and status



Sanitation: a major challenge



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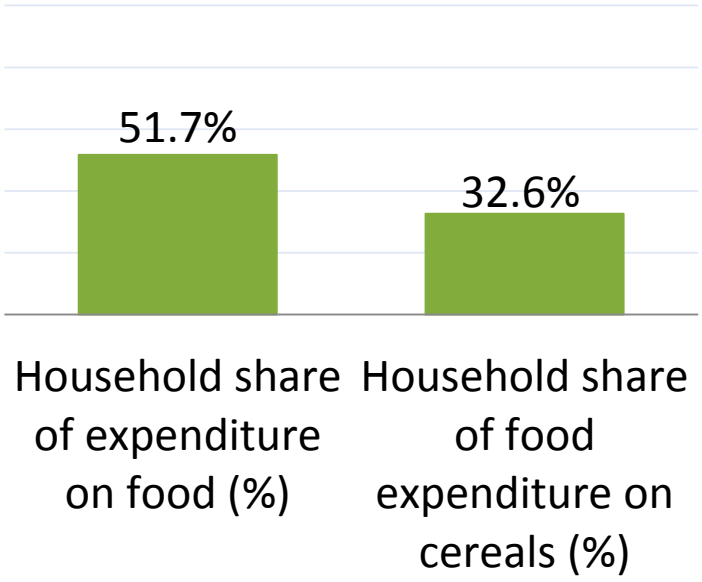
Food security in Odisha



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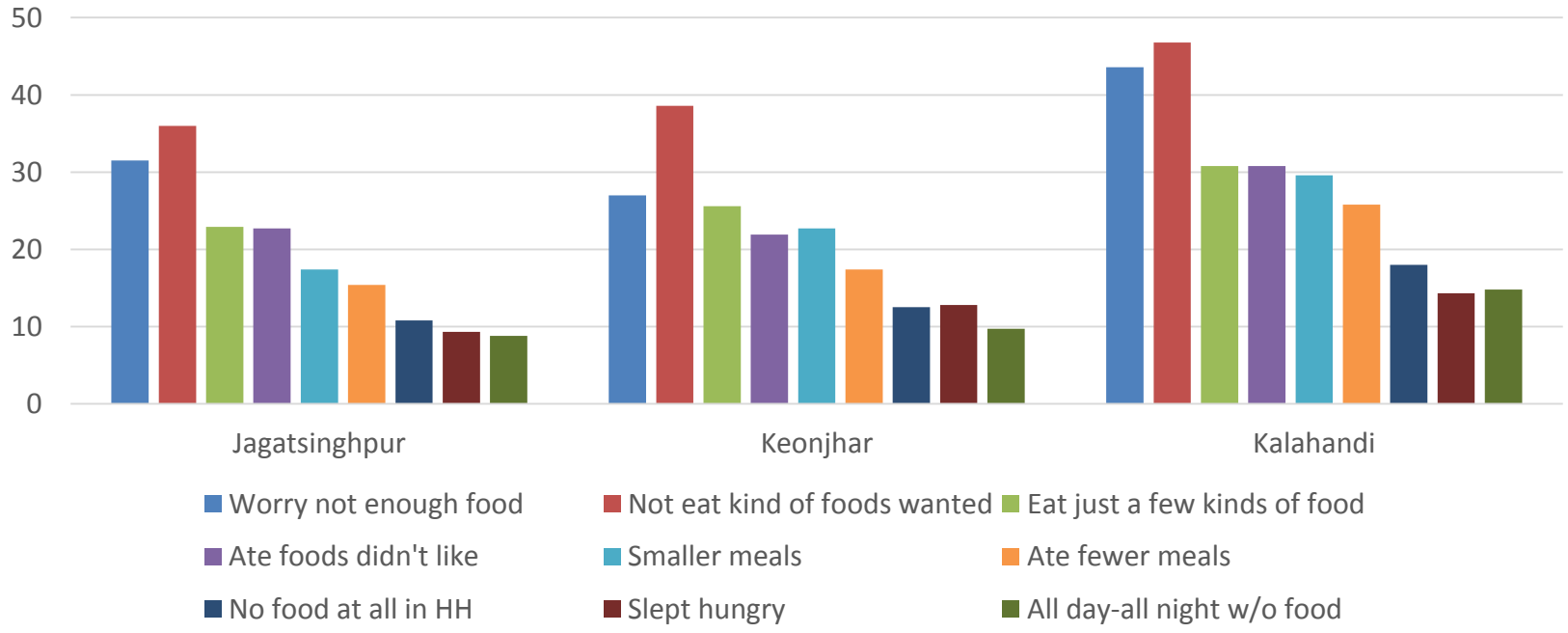
Substantial challenges of household food insecurity



Source: Avula et al. IFPRI study on convergence, 2014; authors' estimates

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Substantial challenges of household food insecurity

	Jagatsinghpur	Keonjhar	Kalahandi
	N=397 (%)	N=395 (%)	N=399 (%)
Households experienced condition at any level of severity in each domain			
Anxiety	31.49	27.11	43.61
Insufficient quality of food	40.6	50.9	55.1
Insufficient food intake	21.4	31.0	38.4
Access prevalence			
Food secure	57.4	45.3	38.6
Mildly food insecure	17.6	17.9	19.1
Moderately food insecure	10.3	15.9	18.1
Severely food insecure	14.6	21.0	24.3

A vast landscape of schemes and programs

GIRLS, GENDER	
Improve the Child Sex Ratio in 100 Gender Critical Districts	Beti Bachao (2015); Ministry of Women and Child Development
Improve education of adolescent girls	Rajiv Gandhi Scheme for empowerment of Adolescent Girls Sabla (2011 valid up to March 2015) under Ministry of Women and Child Development
Improvement of skills to enable women to enter the job market	Support to training and employment programme for women (The scheme is intended to benefit women who are in the age group of 16 years and above, by providing skills that give employability to women)
Provisions of maternity benefits to women	Indira Gandhi Matritva Sahyog Yojana (2010) under the Ministry of Women and Child Development (Mamata Scheme in Odisha)
WASH	
Use of (improved) sanitation facilities	Swachh Bharat Mission (2014) under the Ministry of Drinking Water and Sanitation (AIM: 100% open defecation free India by 2019)
Improving sanitation	Total Sanitation Campaign (1999) under Ministry of Rural Development
Improving Sanitation	Nirmal Gram Puruskar (2003) under Ministry of Rural Development
Improving access to safe water	National Rural Drinking Water Program under Ministry of Rural Development
Improving access to quality water	National Rural Drinking Water Quality Monitoring and Surveillance

A vast landscape of schemes and programs

Food Security	Public Distribution System under the Ministry of Food and Civil Supplies
Food Security for BPL households	Antyodaya Anna Yojana (2000)
Food Security for children in schools	Mid Day Meal Scheme (1995) as part of Sarva Sikshya Abhiyan under Department of Education, Ministry of Human Resources
Livelihoods (safety net)	NREGA under the Ministry of Rural Development
Livelihoods (general, women)	National Rural Livelihoods Mission (women's self-help group focused program)
Access to Services	
Financial inclusion	Jan Dhan Yojana (2014) under Ministry of Finance
Household access to primary school/middle school	The Right of Children to Free and Compulsory Education (RTE) Act, 2009 (Ministry of Human Resources)
Agriculture	
Improving consolidated agricultural planning	Rashtriya Kirishi Vikas Yojana (2007) under Ministry of Agriculture
Promotion of non-farm crops	National Horticultural Mission (2005) under Ministry of Agriculture
Housing and infrastructure	
Ensuring housing	Indira Awaas Yojana (1996)
Improving Urban Infrastructure	Jawaharlal Nehru National Urban Renewal Mission (2006)
To provide all weather road connectivity in rural areas	Pradhan Mantri Gram Sadak Yojana under the Ministry of Rural Development (Bharat Nirman)

But what does this mean for action?

Shaping enabling environment: leadership, commitment, capacity, accountability

Improving underlying home and community conditions through *strengthening and linking up key sectors that are <u>already</u> ramping up programs:*

Women's empowerment and education
Health and other services

Economic growth <u>must continue</u> because it puts more resources in the hands of families.

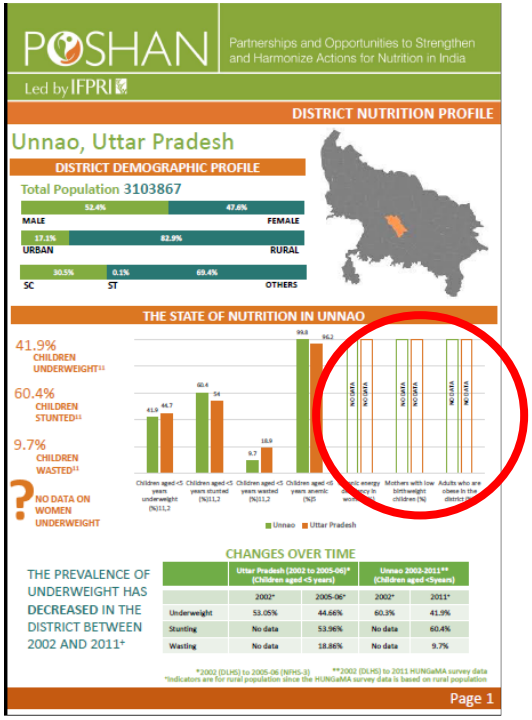
Improving immediate conditions *By scaling*

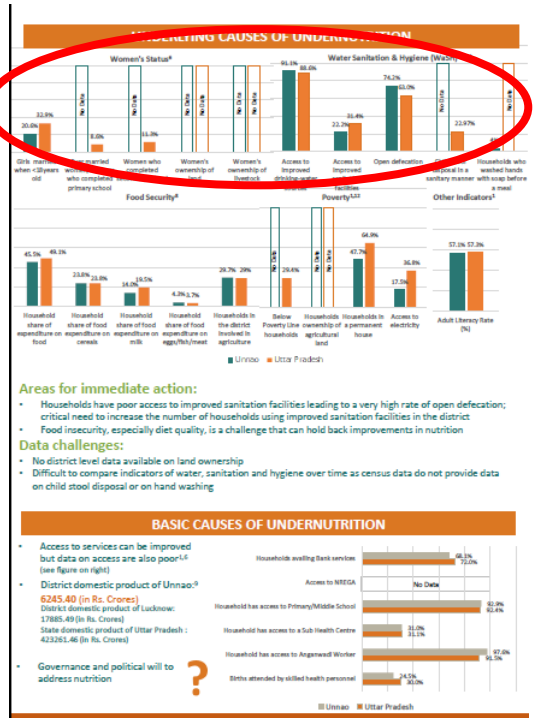
interventio ns to improve **essential actions**

How to reach at the same time, at the same place, for the same mother, same child , same household

Photo: P. Menon, UP, 2013

Experiences with use of District Nutrition Profiles indicates that facilitated dialogue at district-level can help but requires building understanding of nutrition challenges, potential solutions and immediate actions.





Menon & Cyriac, 2014. Panel in *Global Nutrition Report 2014.*

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Key questions on simultaneously addressing immediate and underlying causes of undernutrition in Odisha

- Do we know enough about the extent of the challenge?
- Are we doing enough about ensuring a full continuum of care for nutrition-specific interventions?
- Is spending adequate to deliver a full package, at least of nutrition-specific interventions?
- How can “tight” multisectoral convergence be done at the level it matters – household, woman, child?
- What approaches can be used to track adequacy of food, health and care?

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