EXIT STRATEGIES STUDY: INDIA

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USAID FROM THE AMERICAN PEOPLE
FANTA III FOOD AND NUTRITION TECHNICAL ASSISTANCE
fhi360 THE SCIENCE OF IMPROVING LIVES
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Overview of India Study

- One program (CARE); one sector (health)
- Four states: AP, Orissa, Chhattisgarh, UP
- India contrasts with other case studies
  - Entire exit strategy involves phasing over to central government programs: ICDS and NRHM
  - CARE's last DAP (2007–09) focused entirely on exit
  - Food rations not phased out (Right to Food) but phased over to government

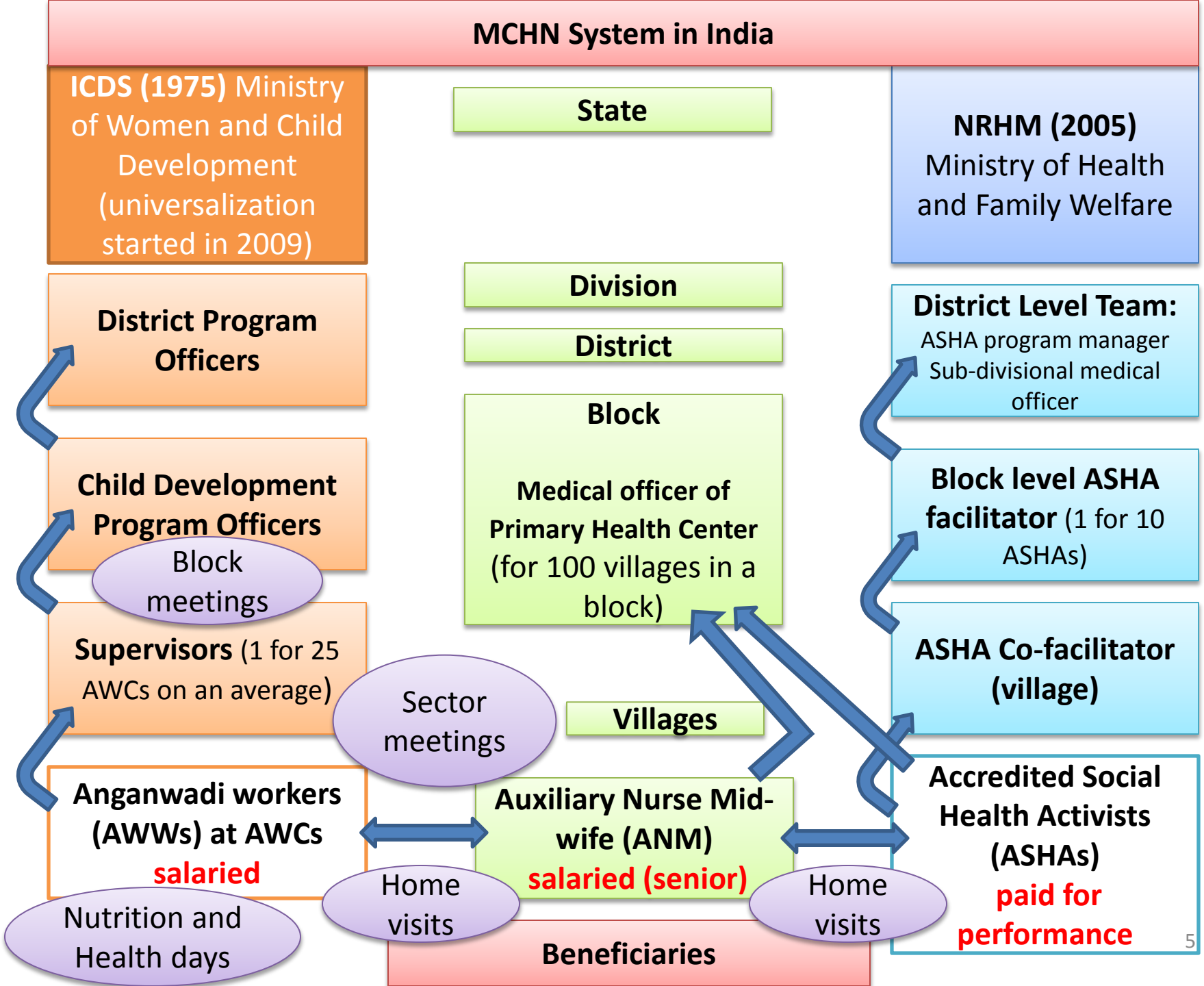
Overview of CARE's Title II Program

- Integrated Nutrition and Health Program (INHP) launched in 1996; INHP III (2007–09) focused on capacity building at district/sub-district levels
- CARE worked with national government-run Integrated Child Development Service (ICDS) to strengthen management, supervision, and monitoring
  - ICDS provides maternal and child health activities at community-level anganwadi (child care) centers (AWCs)
  - NRHM supported NHDs, created a cadre of ASHAs to promote hospital deliveries and immunization

CARE Model for Sustainability

- Assumption underlying CARE strategy was to improve frontline services through strengthening supervision and building capacity, to improve beneficiary practices and thus child nutrition

- Goal was to put management systems in place to ensure continued service provision and reliable food delivery to beneficiaries


MCHN System in India
ICDS (1975) Ministry of Women and Child Development (universalization started in 2009)
State
NRHM (2005) Ministry of Health and Family Welfare
Division
District
District Program Officers
District Level Team: ASHA program manager Sub-divisional medical officer
Block
Medical officer of Primary Health Center (for 100 villages in a block)
Child Development Program Officers
Block level ASHA facilitator (1 for 10 ASHAs)
Block meetings
Supervisors (1 for 25 AWCs on an average)
ASHA Co-facilitator (village)
Sector meetings
Villages
Anganwadi workers (AWWs) at AWCs salaried
Auxiliary Nurse Mid-wife (ANM) salaried (senior)
Accredited Social Health Activists (ASHAs) paid for performance
Home visits
Home visits
Nutrition and Health days
Beneficiaries

Methods

- Two rounds of qualitative data: 2009 and 2011
- Two rounds of quantitative data: Endline evaluation by agency and replication 2 years later (2009 and 2011)
- Design was repeat cross-section
- Conducted in four selected states
- Results are reported and analyzed by state due to large state-wise differences

Methods

Participant	Sample size (4 states) (2009)	Sample size (2011)
QUANTITATIVE:		
Mothers	11,875	5712
AWWs	842	433
ASHAs	672	416
Supervisors (of AWWs)	635	58
ANMs	559	124

- **Quantitative surveys:** Interviewer-administered questionnaires to beneficiaries and program staff at all levels.
- **Qualitative surveys:** focus groups and key informant interviews with similar respondents

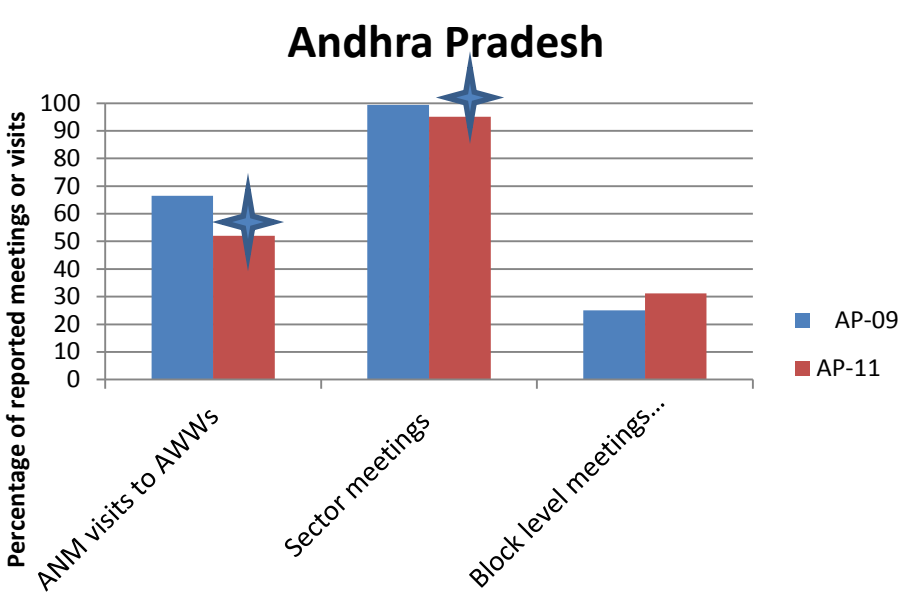
India: Results

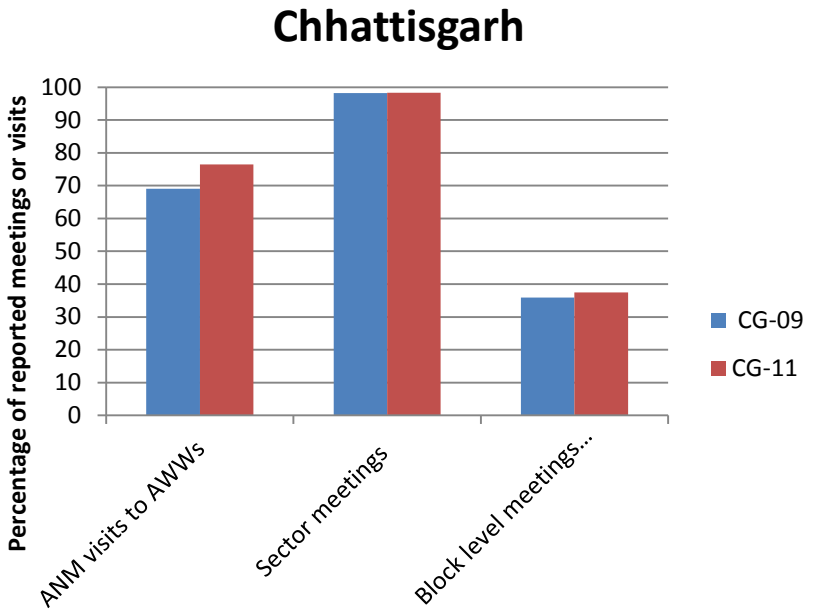
Supervision

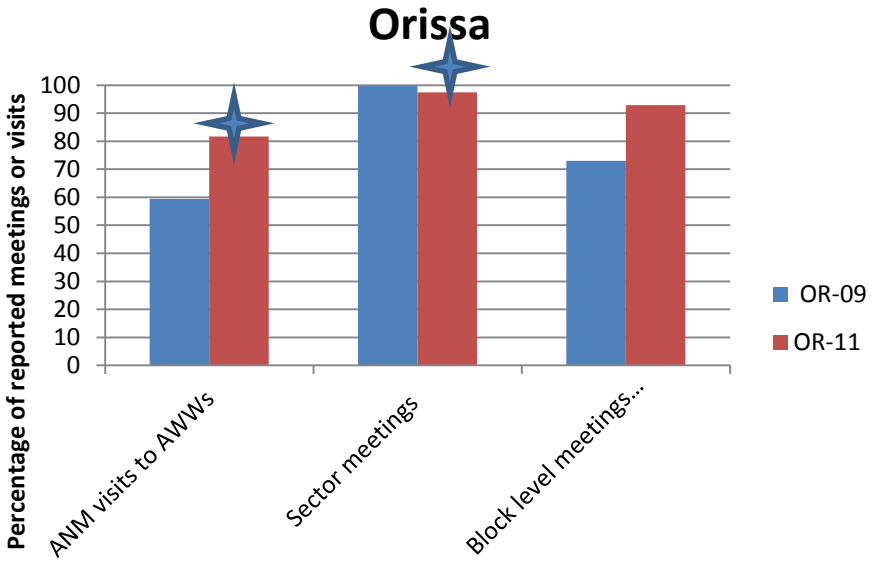
CARE focused on strengthening supervision—through sector meetings and supervisor visits

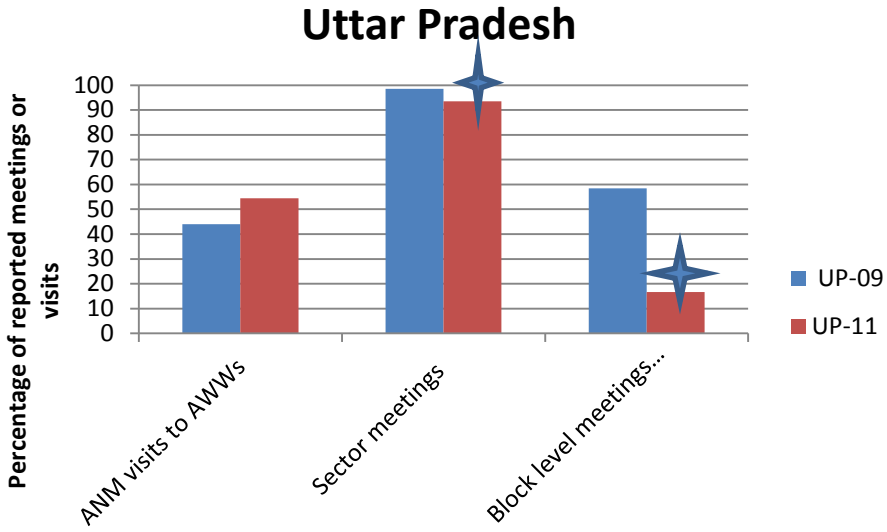
- Sector meetings: Slight decline, but still over 90% for all states; supervisor attendance high, but lower, variable for frontline workers
- Wide variability in use of tools, home visits, etc. despite consistent sector meetings
- ANM visits, but not supervisor visits to AWWs correlated with AWW home visits, register use, due lists (AP)

Supervision: Sector and Block Meetings





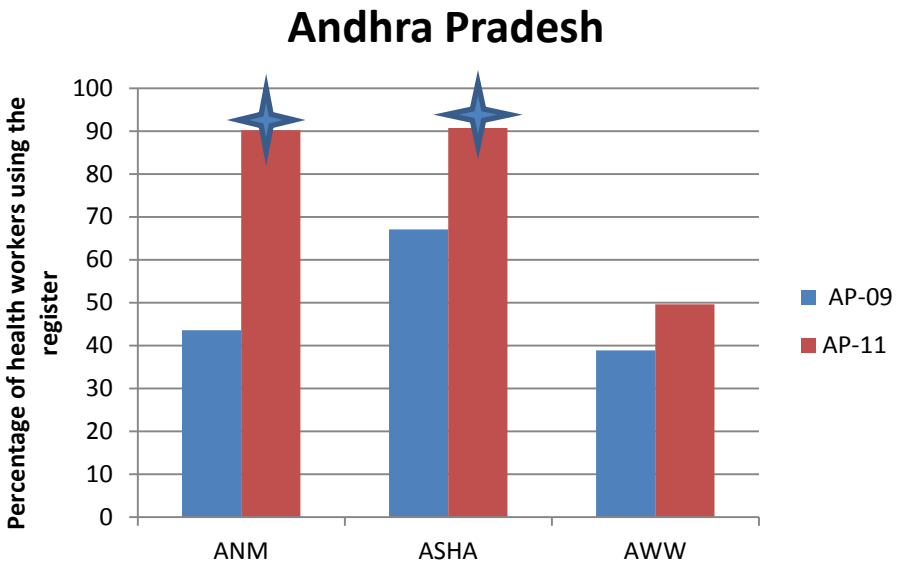


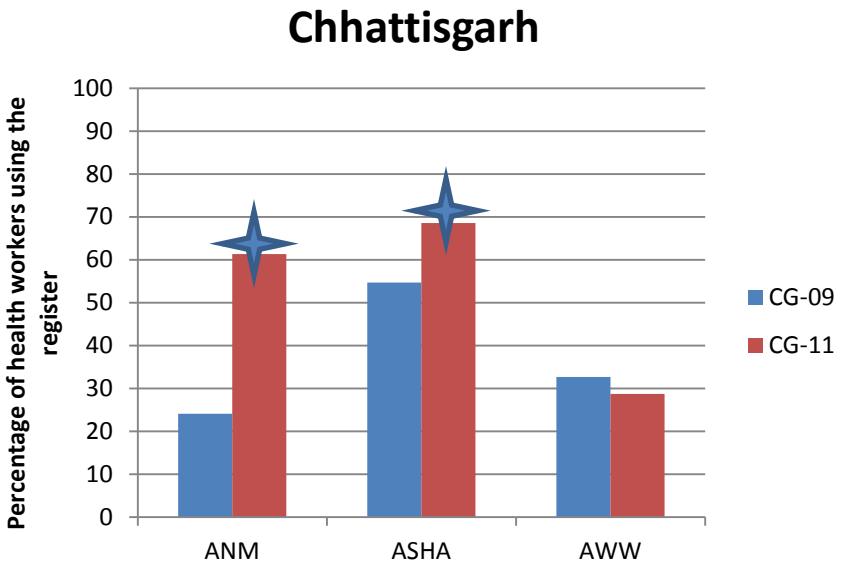


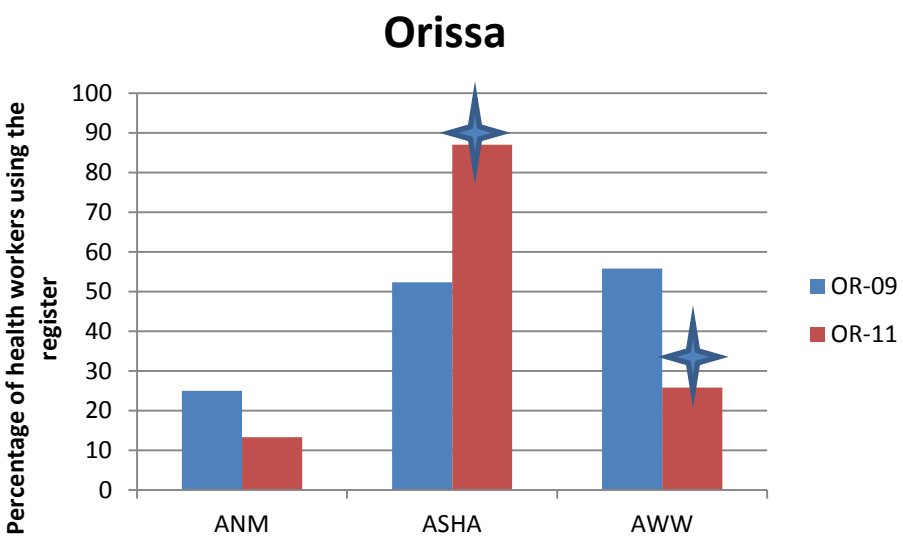
Supervision: Use of Field Tools

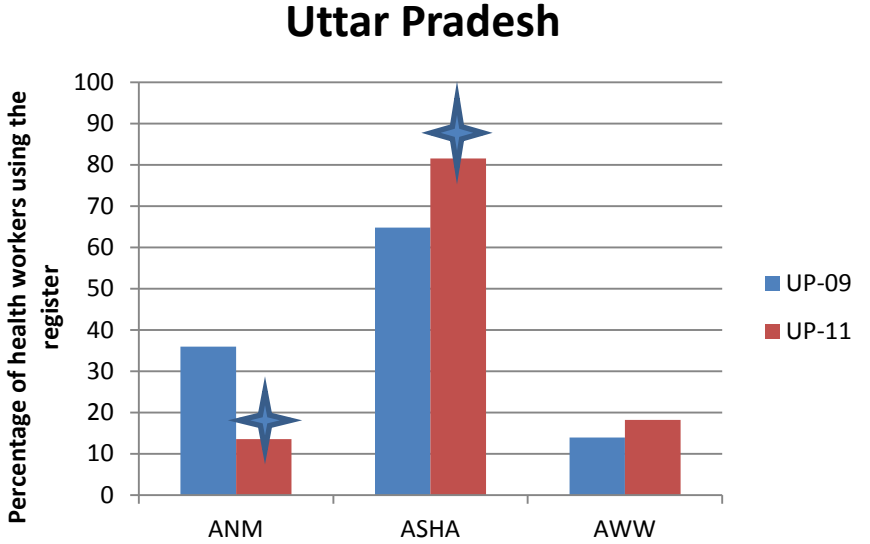
- CARE focused on use of tools, such as registers and due lists
  - Due list for immunizations are used by ANMs
  - Other uses low for frontline workers
    - Some frontline workers said they don't need registers or due lists because of their long experience
    - Some say increased paperwork, record keeping interferes with home visits and other services
  - Supervisors' use of field tools declining except for AP
  - Supervisor use of NHD checklist remains high

Use of Field Tools: Home Visit Registers

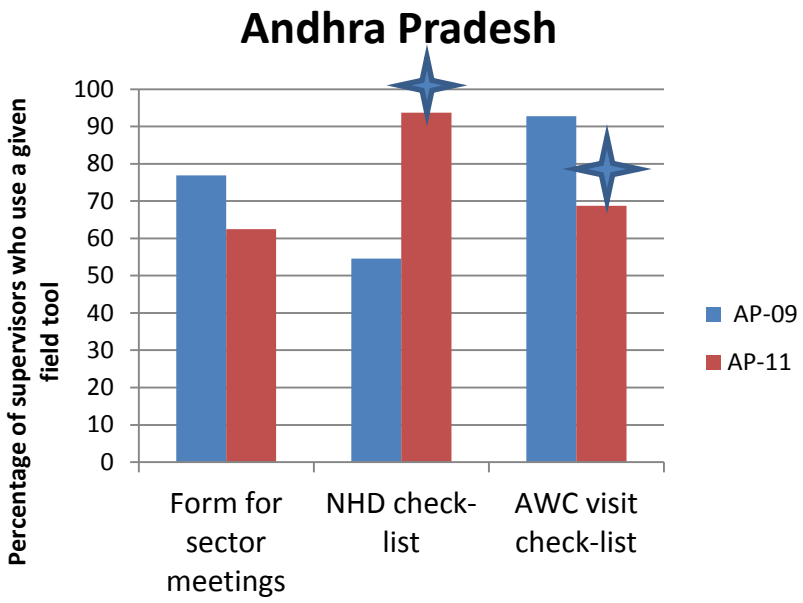


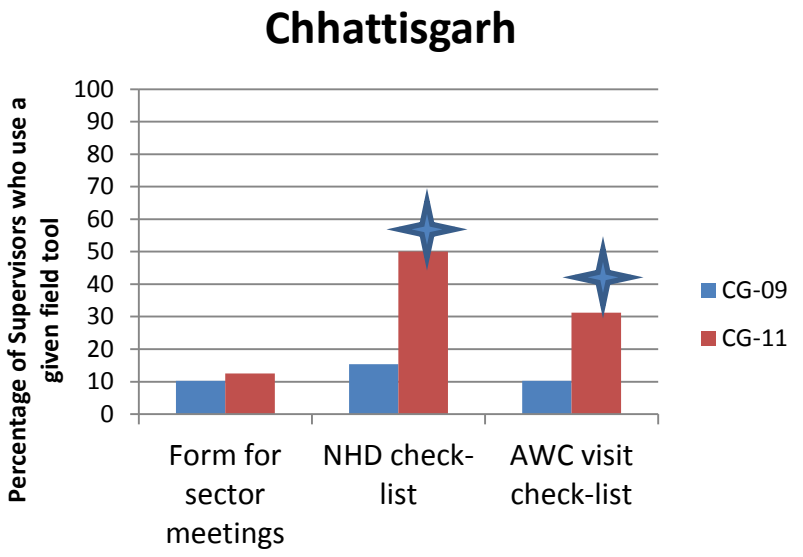


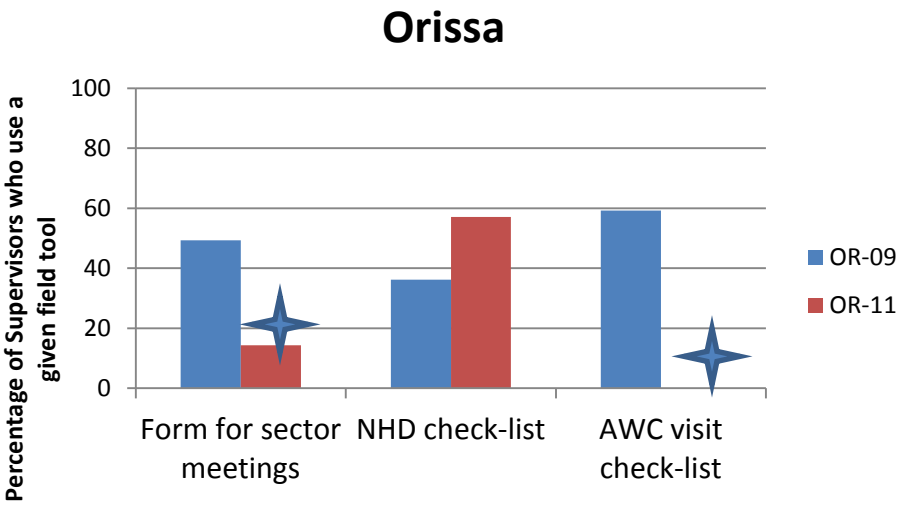


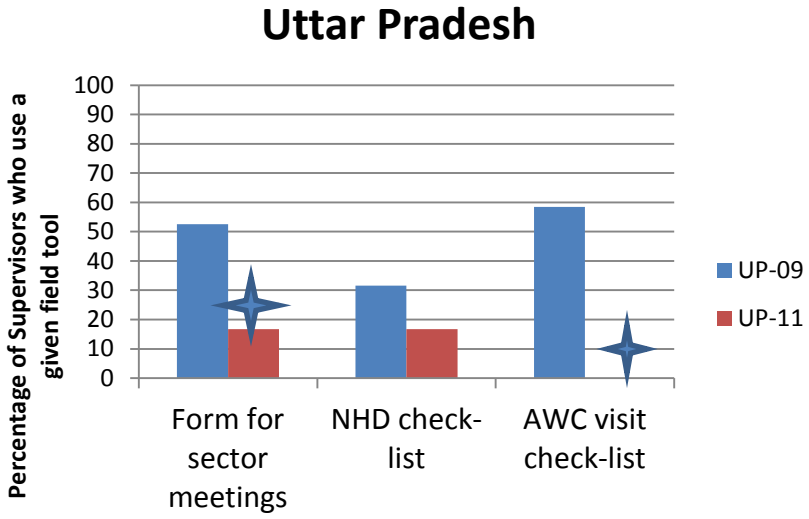


Use of Field Tools: Supervisors





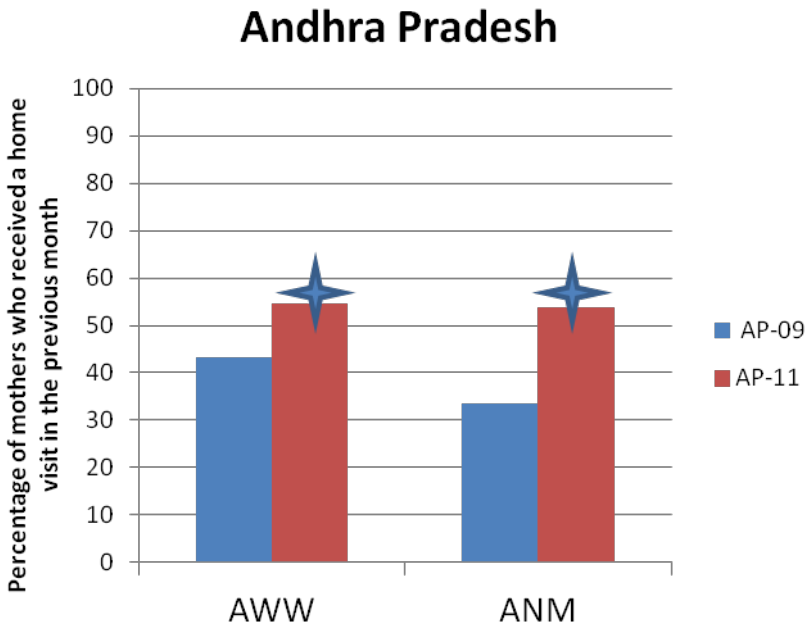


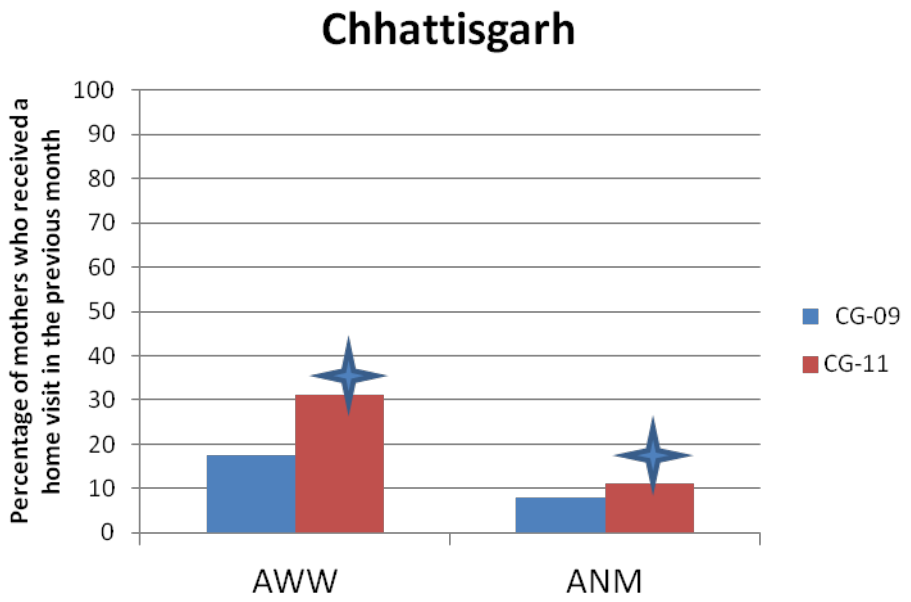


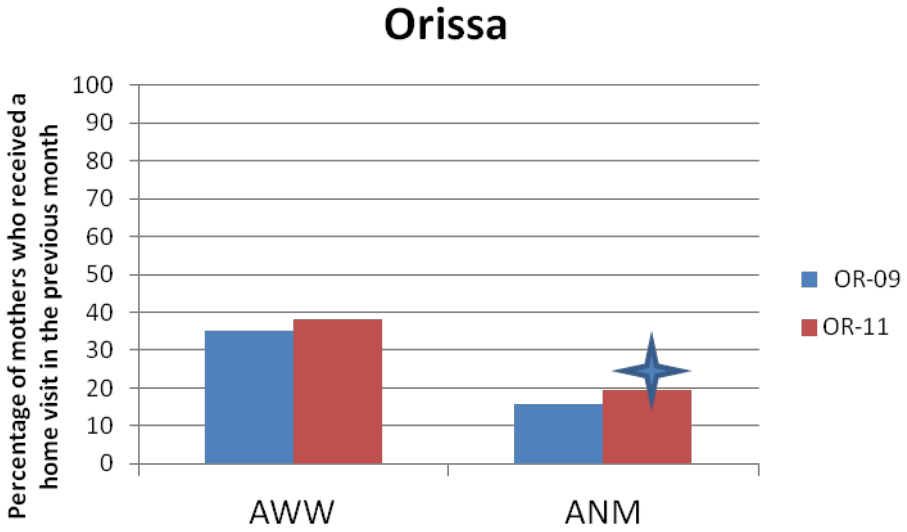
Frontline Services: Home Visits

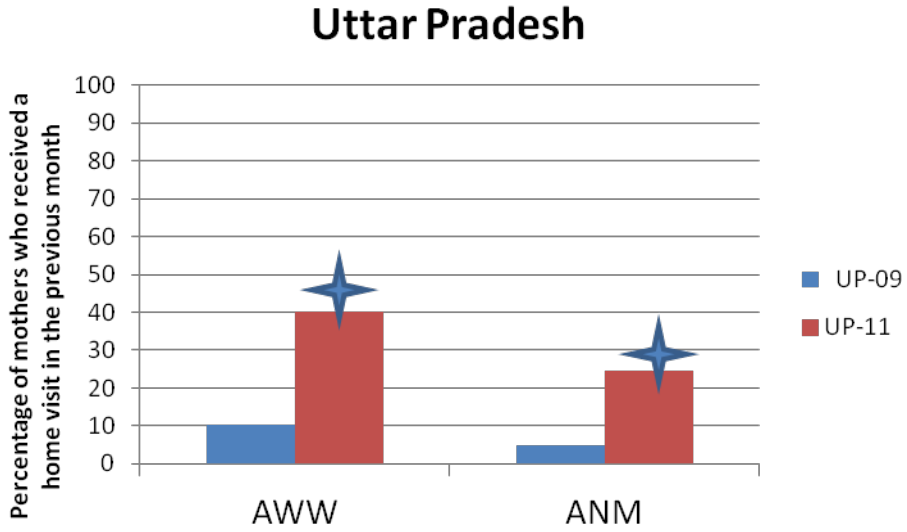
- CARE focused on increasing home visits by frontline workers to motivate beneficiary practices
  - Home visits by AWWs increased or stayed same; but almost nowhere were over 50% – far below target
  - ANM visits low except in AP
  - ASHA visits very low (they visit pregnant women- get incentive for hospital deliveries)

Frontline Services: Home Visits









Many respondents talked about the importance of home visits for behavior change (feeding practices and making use of AWC services).

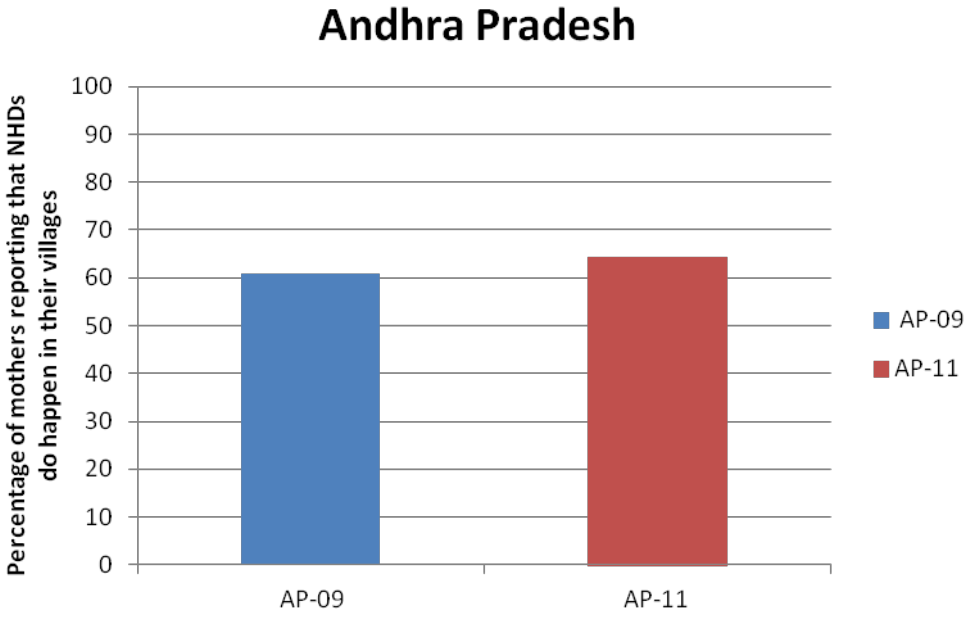
"The only thing that has led to the change in the community is the frequent home visits made by the frontline workers in the community. CARE has very obvious role in bringing these changes, as CARE was functioning as the hand-holding agency and used to [advise] us to make more and more home visits." – CDPO in UP

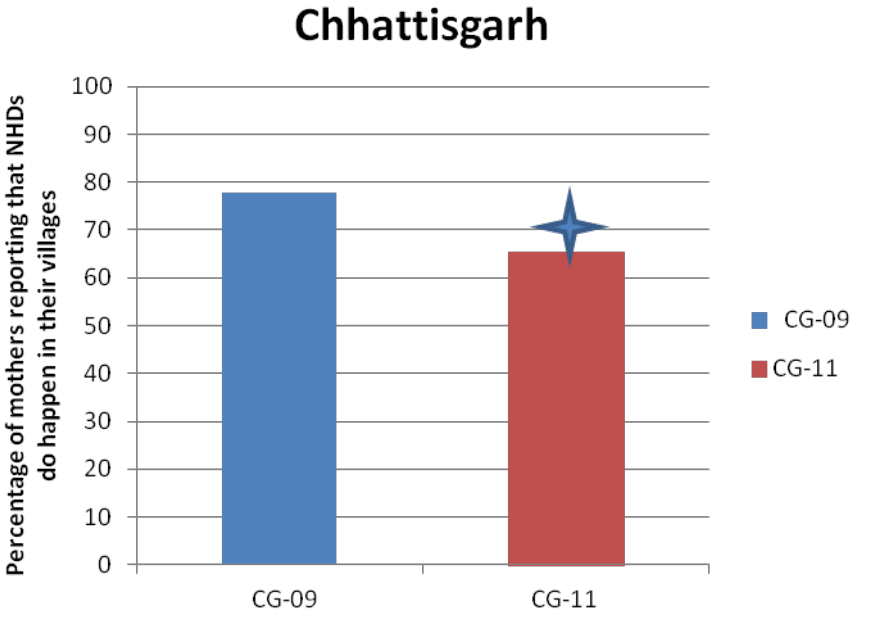
Frontline Services: Nutrition and Health Days

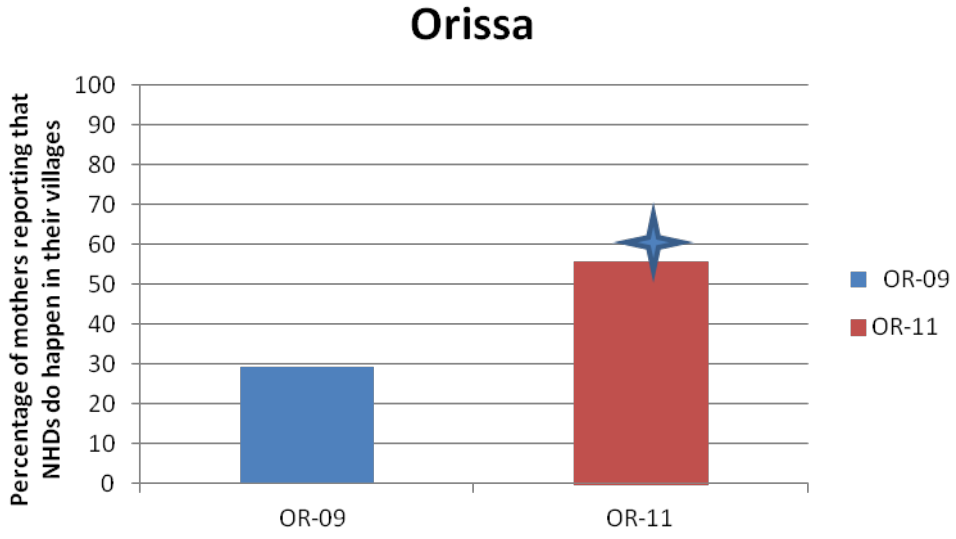
CARE focused on promotion of NHDs

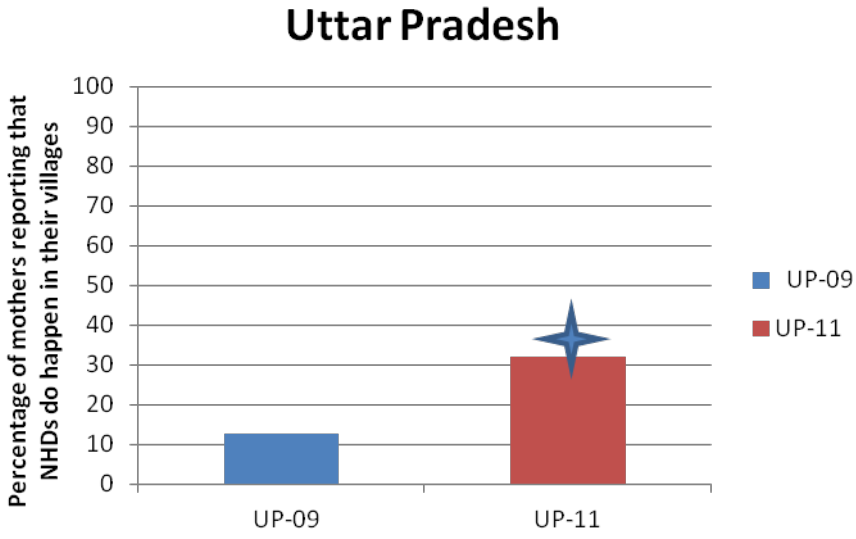
- Mixed results by state (two up, two same or down), but little dramatic decline
- Attendance high for AWWs, lower for ANMs and ASHAs; direction of change not consistent
- NHD is associated with use of growth monitoring
- NHD is where take-home rations are distributed

Frontline Services: Nutrition and Health Days (frequency)







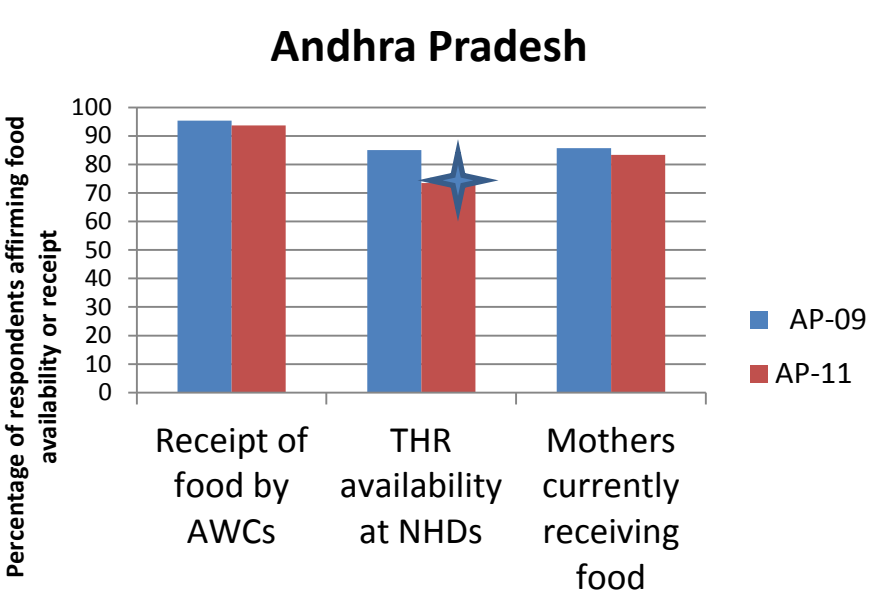


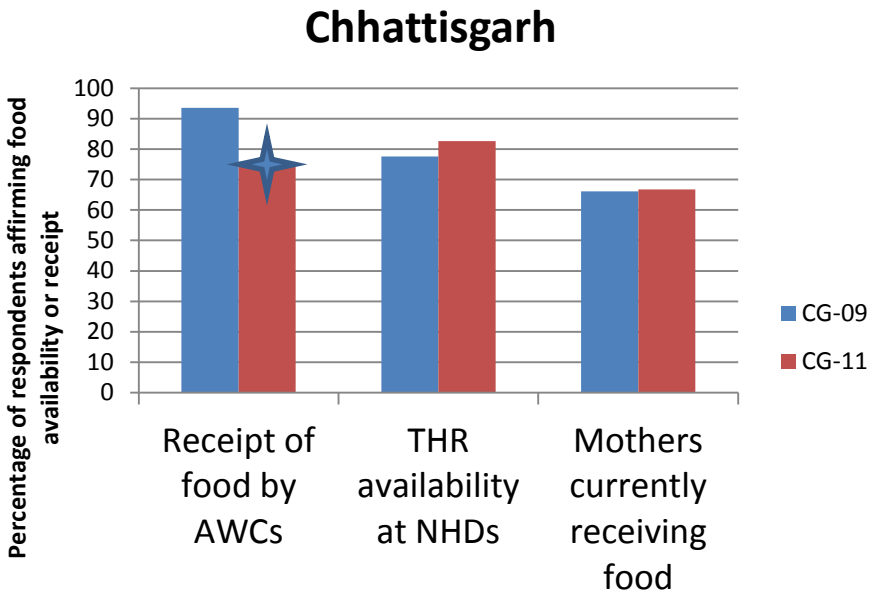
Supplemental Food

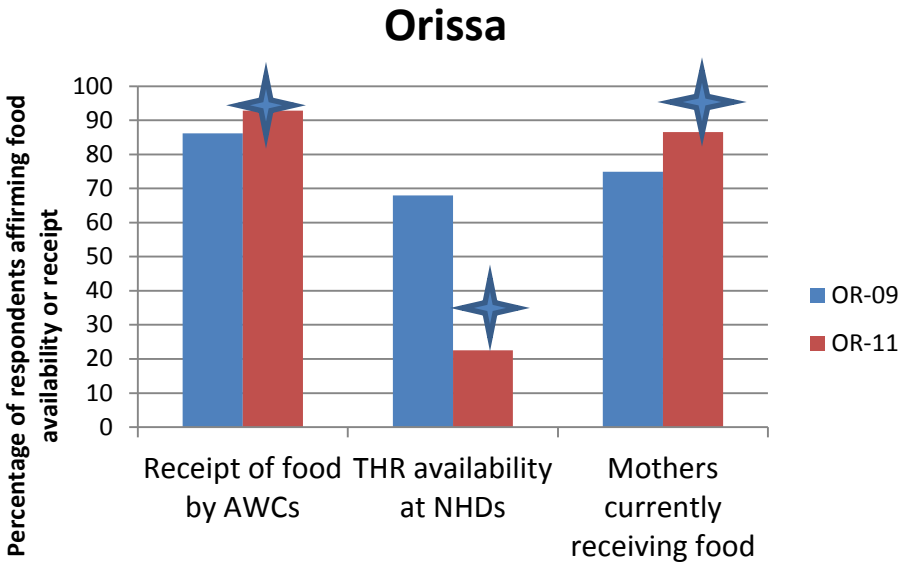
CARE focused on strengthening provision of supplemental food at AWCs and take-home rations

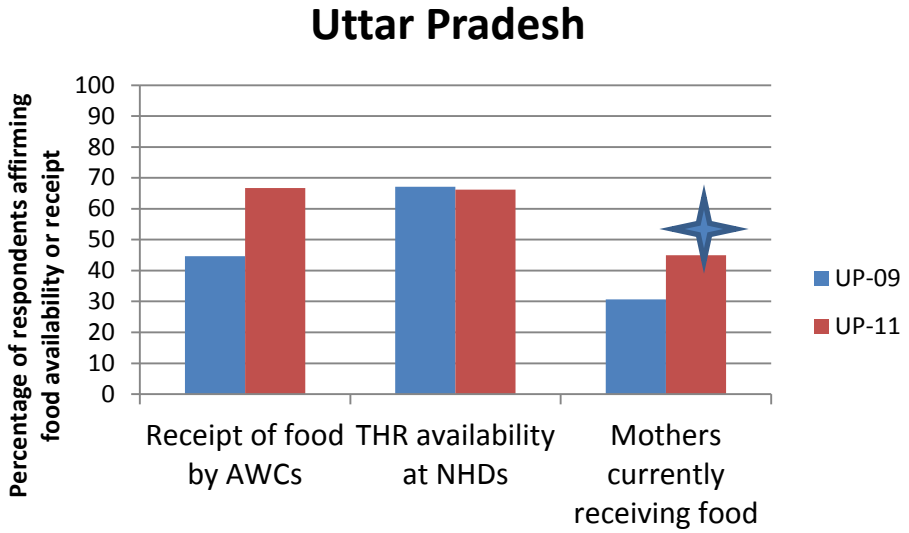
- Supplemental food provision at AWCs was good in all states, both in 2009 and 2011
- Supply difficulties up in two states; uninterrupted provision was high and improving (above 80%)
- Take-home ration availability at NHD declined
- Some reports of quality problems with take-home ration
- State-wise trends

Availability and Receipt of Supplementary Food









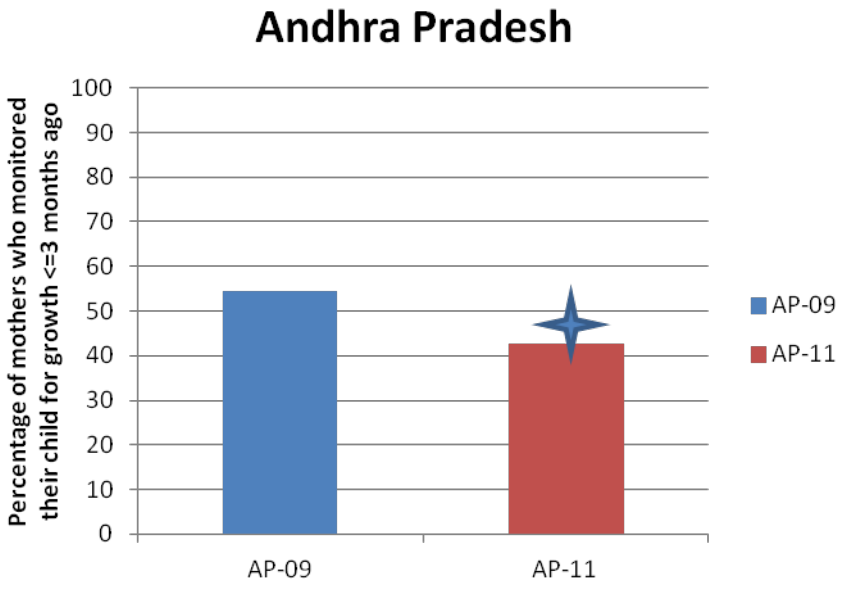
Timely provision of take-home rations is low in Orissa, but fairly good in other states.

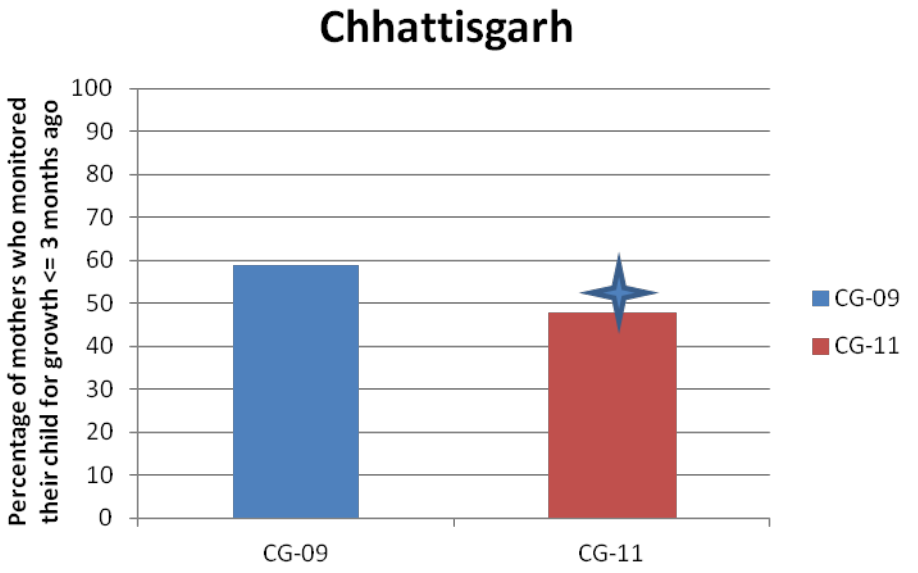
Beneficiaries in Orissa reported that they receive a take-home ration “once or sometimes twice in a month. But the supply is not regular. Sometimes we received this for two times in a year.” They asked the AWW about the ration and were told that the government stopped supplying it.

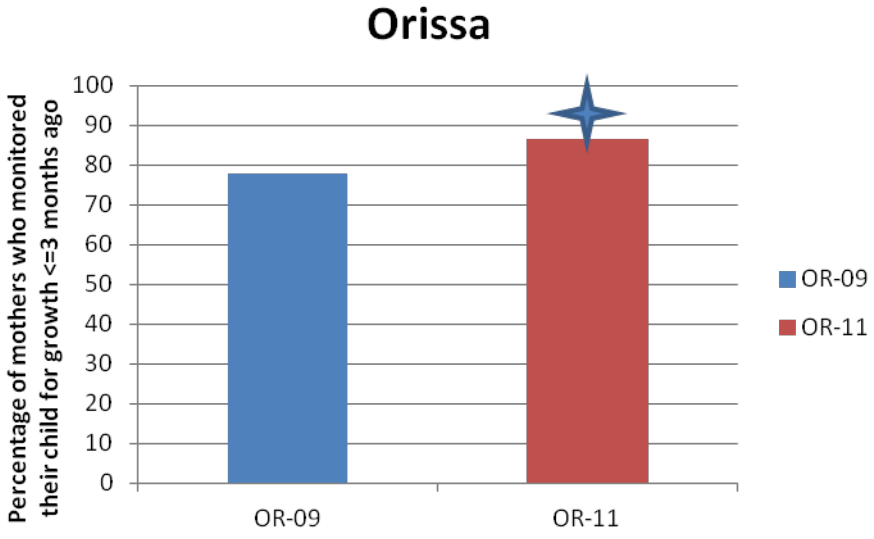
Growth Monitoring

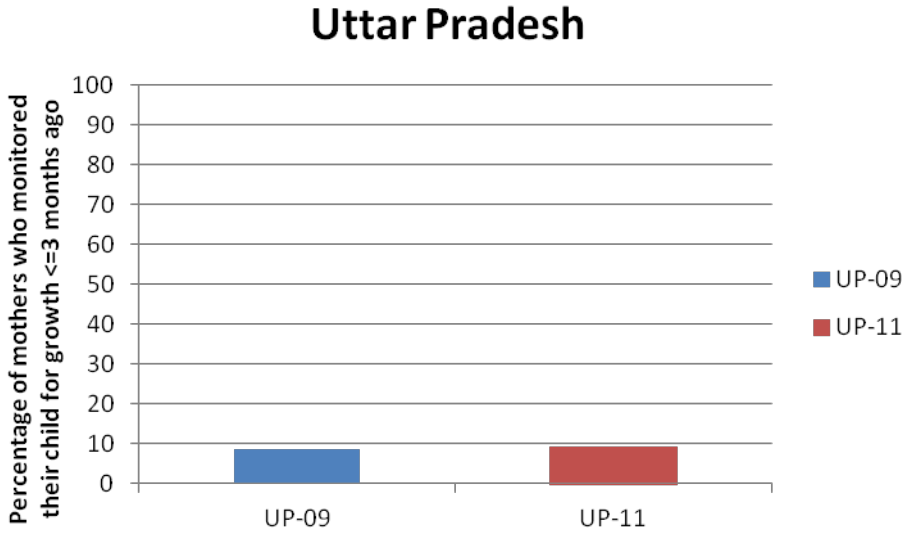
- Growth monitoring declining
  - Lack of food at NHDs may decrease incentive to participate
  - Absence of functioning scales limits ability to conduct growth monitoring
  - Often weight but not height is measured

Mothers' Participation in Growth Monitoring

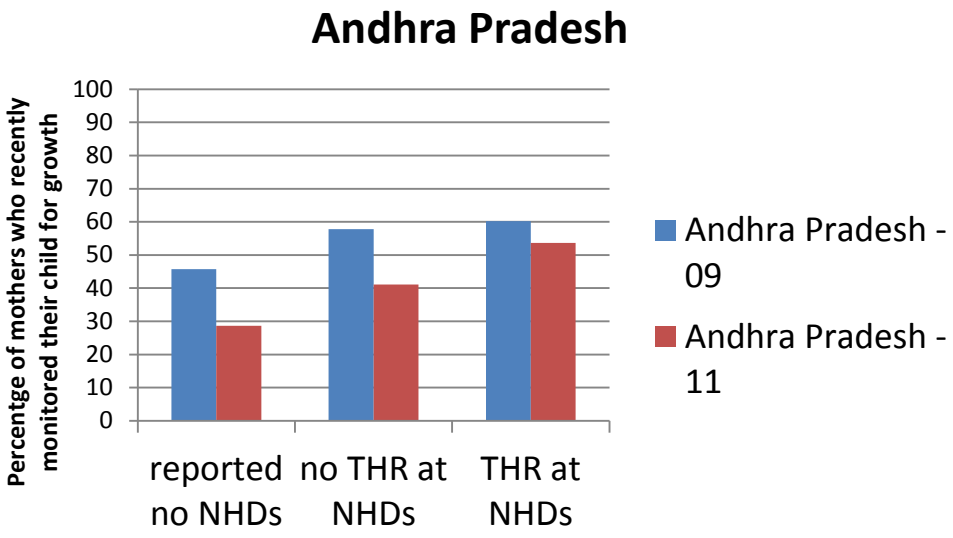


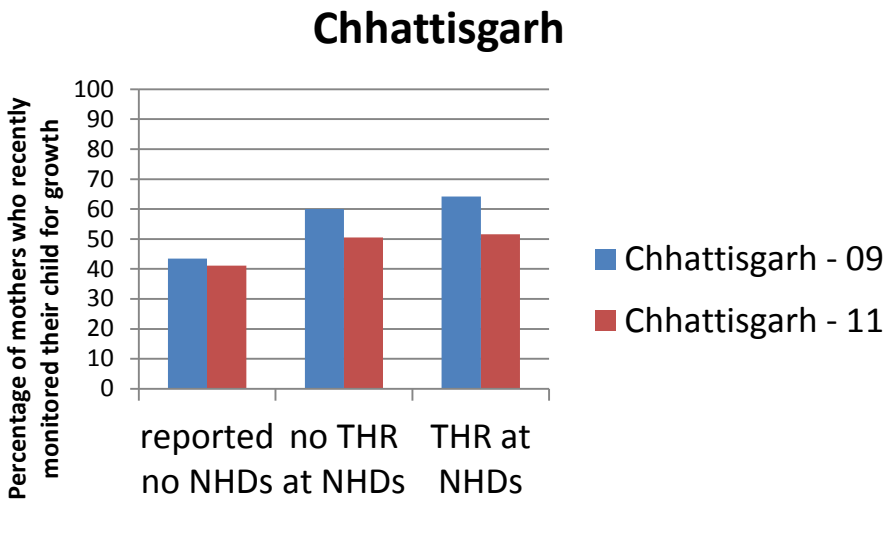


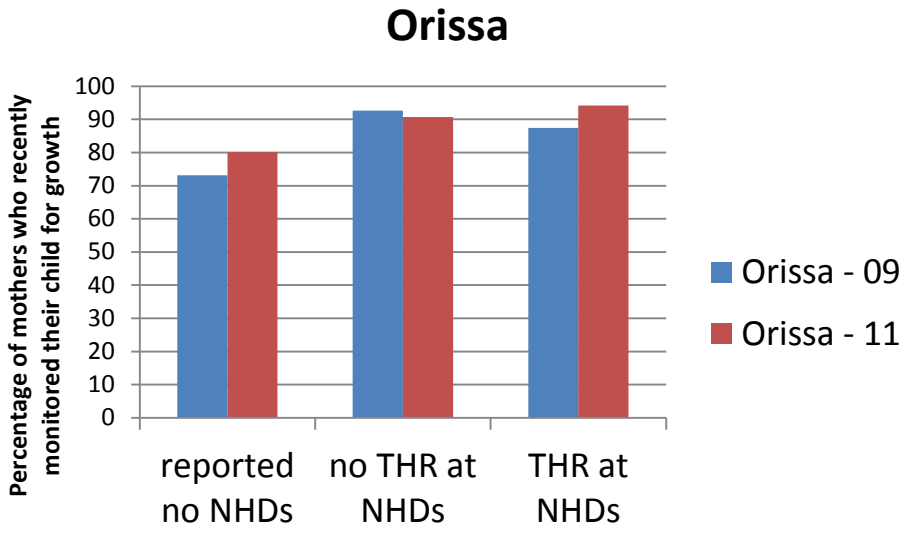


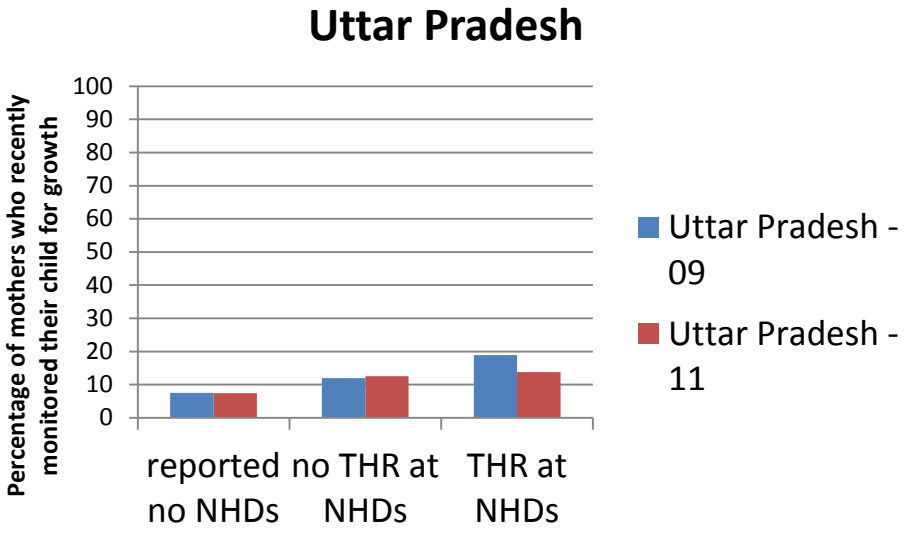


Mothers' Participation in Growth Monitoring, by NHDs and Availability of Take-Home Rations

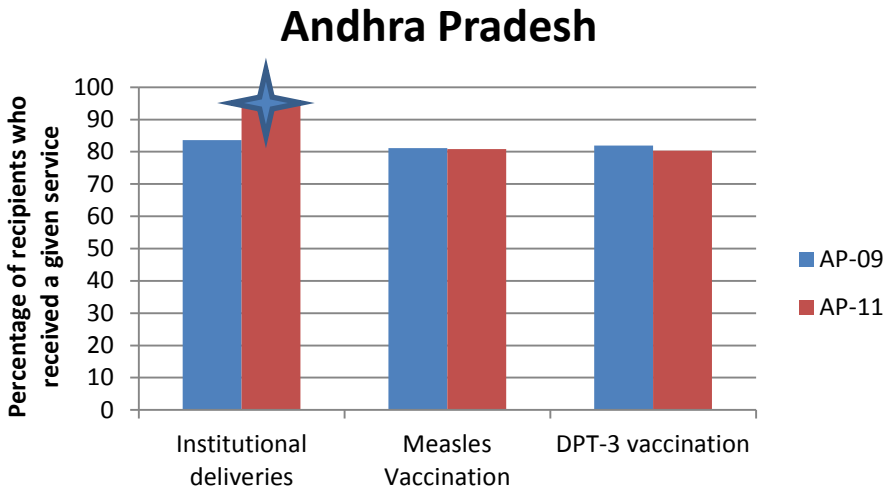


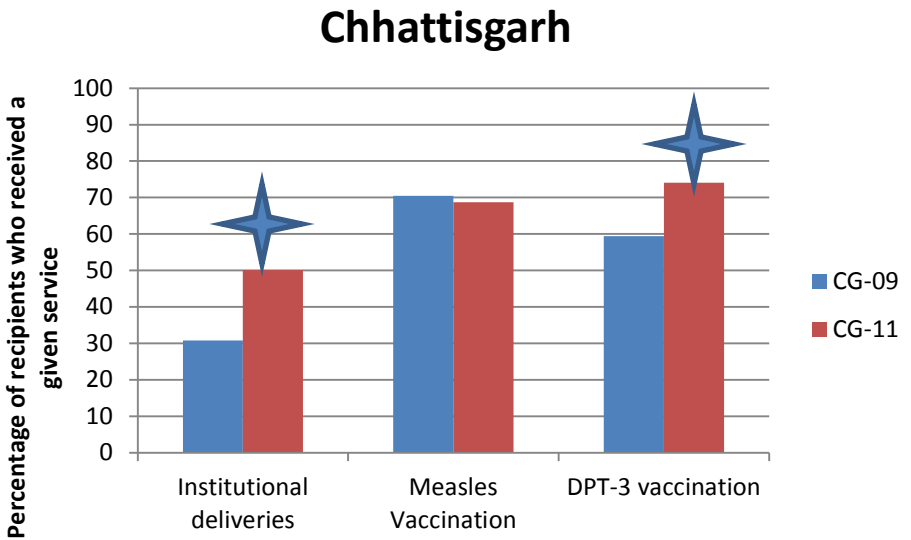


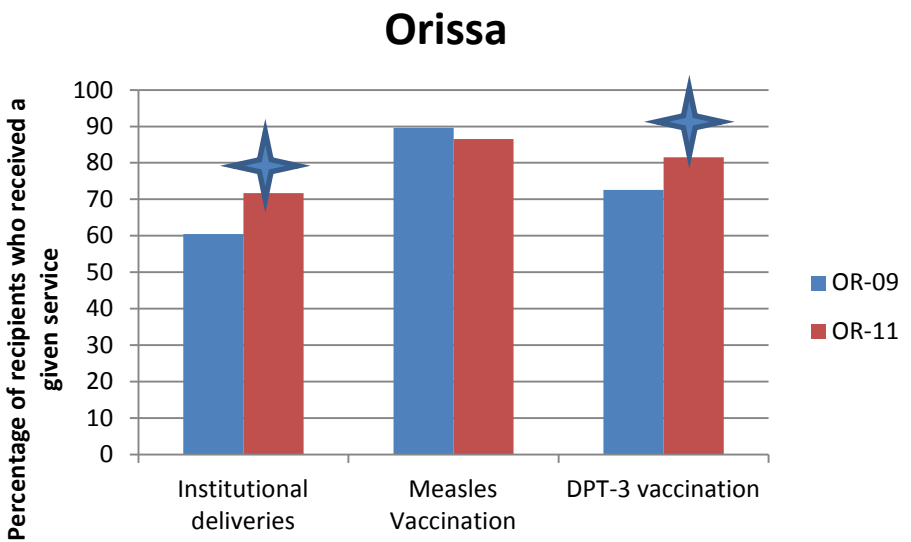


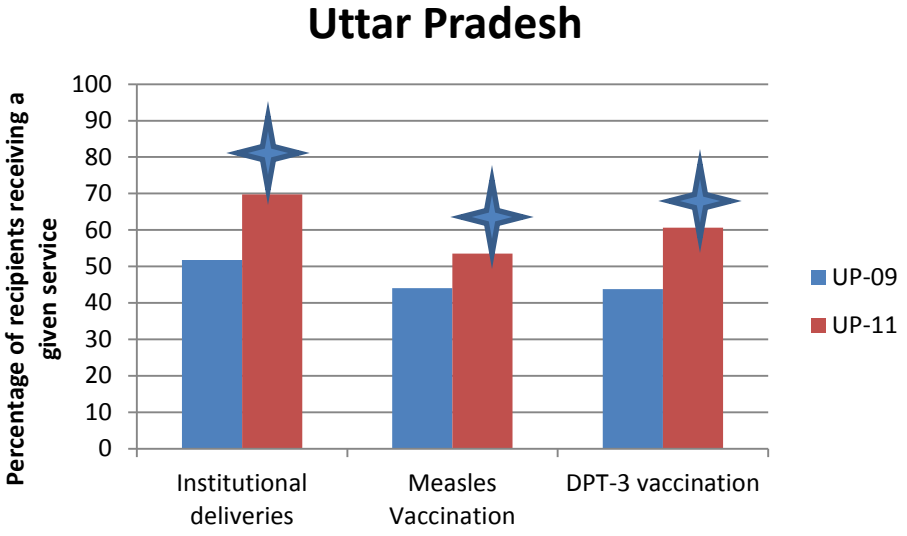


Institutional Deliveries and Immunization





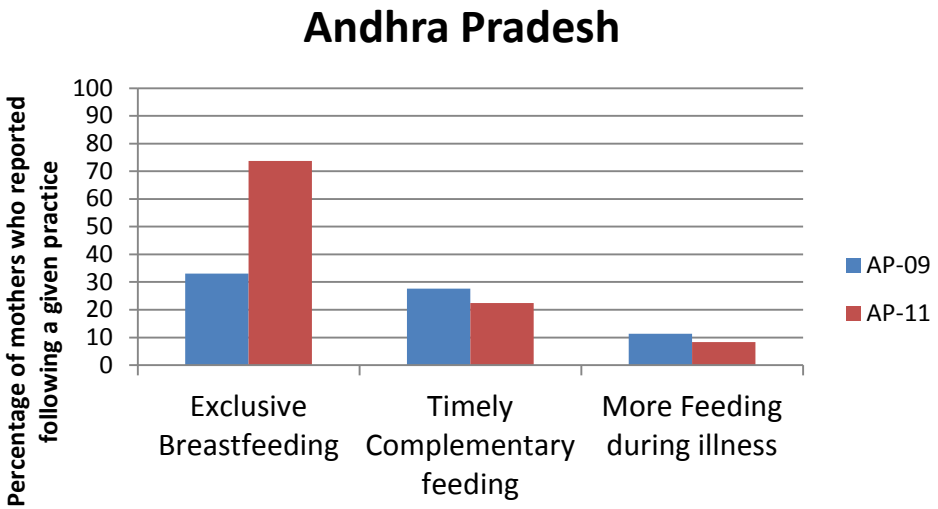


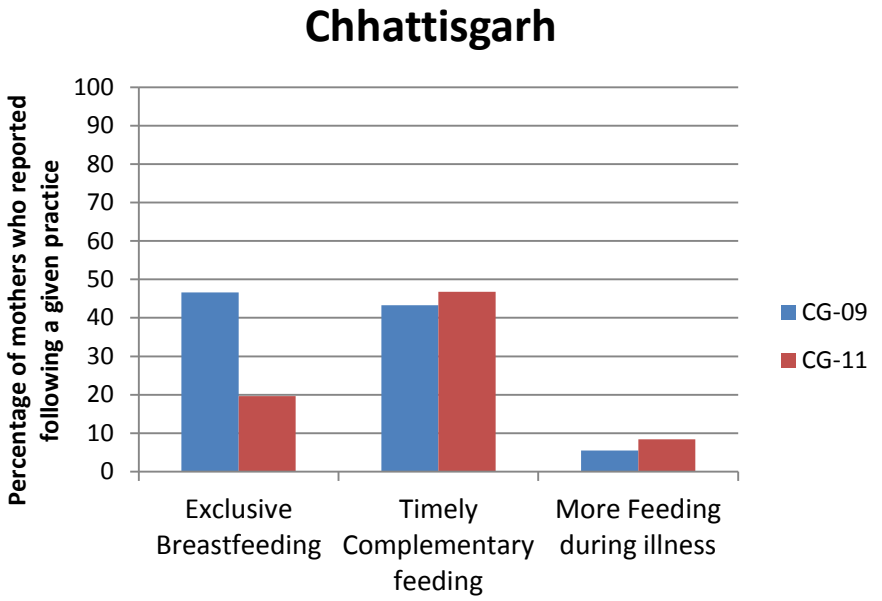


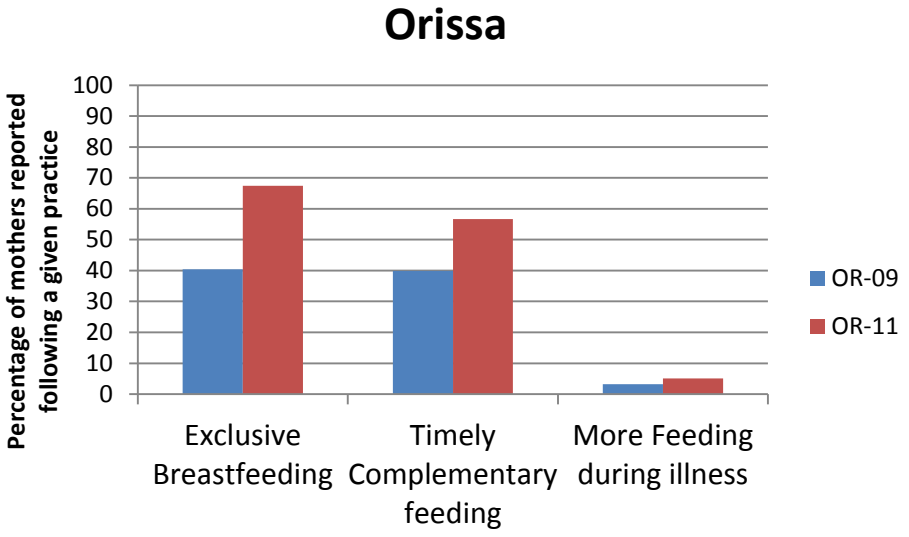
Beneficiary Practices

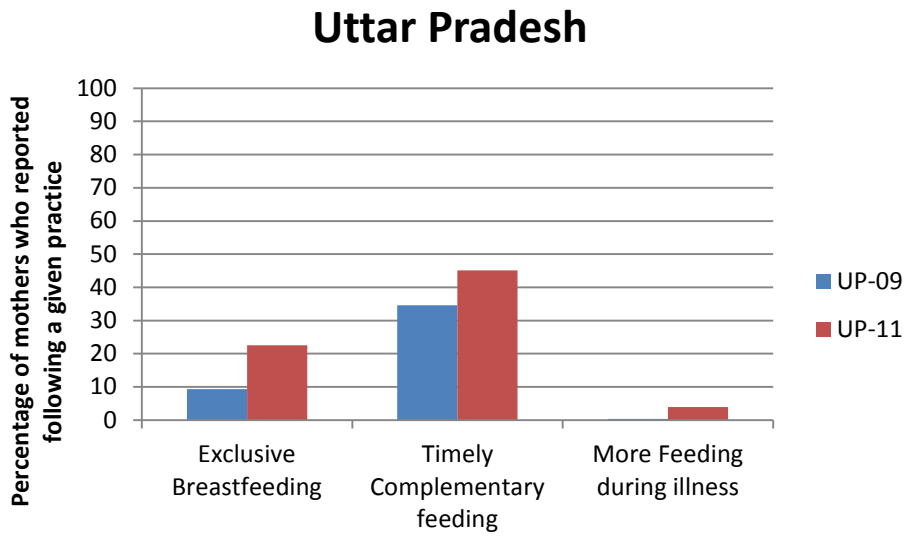
- Take-up of key practices by beneficiaries generally poor, with some statewise differences
  - Exclusive breastfeeding – AP really good; CH fell; Orissa really good; UP up but still very low (22%)
  - Complementary feeding onset – low in all states, very low in AP
  - Feeding during illness very low in all states

Beneficiary Practices









Resource constraints reportedly limited beneficiaries' ability to follow optimal practices. For example, AP beneficiaries said that eating green leafy vegetables was not possible all days of the week.

Beneficiaries in Orissa reported "AWW gives so many advices like taking nutritious food 3 to 4 times a day . . . . But as we are poor we are unable to do most of these, like taking nutritious foods and fruits, taking rest after meal . . . ."

Relationship between Home Visits by AWWs and Practices

Association of "mother having received a home visit by AWW in the previous month (0 = no, 1 = yes)" with measures of beneficiary practices

Adjusted Odds ratios and corresponding p values in parentheses **(p values in bold are < 0.05)**

Outcomes (0 = no, 1 = yes)	Andhra Pradesh		Chhattisgarh		Orissa		Uttar Pradesh	
	2009	2011	2009	2011	2009	2011	2009	2011
Exclusive breast-feeding	0.91 (0.5)	1.41 (0.11)	1.29 (0.4)	0.66 (0.13)	0.98 (0.9)	1.39 (0.27)	1.04 (0.8)	0.96 (0.8)
Recent growth monitoring	**1.80 (0.00)**	**2.9 (0.00)**	**1.58 (0.02)**	**1.84 (0.001)**	**2.31 (0.000)**	**4.6 (0.00)**	**4.63 (0.001)**	1.61 (0.15)

Relationship between Home Visits by AWWs and Practices

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Adjusted odds ratios and corresponding p values in parentheses

Outcomes (0 = no, 1 = yes)	Andhra Pradesh		Chhattisgarh		Orissa		Uttar Pradesh	
	2009	2011	2009	2011	2009	2011	2009	2011
Onset of solid feeding	1.00 (0.9)	0.91 (0.67)	1.09 (0.6)	0.78 (0.16)	1.06 (0.6)	1.21 (0.23)	**1.37 (0.044)**	**1.66 (0.01)**
Feeding during illness	0.77 (0.26)	1.28 (0.43)	1.38 (0.36)	1.06 (0.82)	1.7 (0.058)	0.99 (0.98)	1.36 (0.787)	0.85 (0.74)

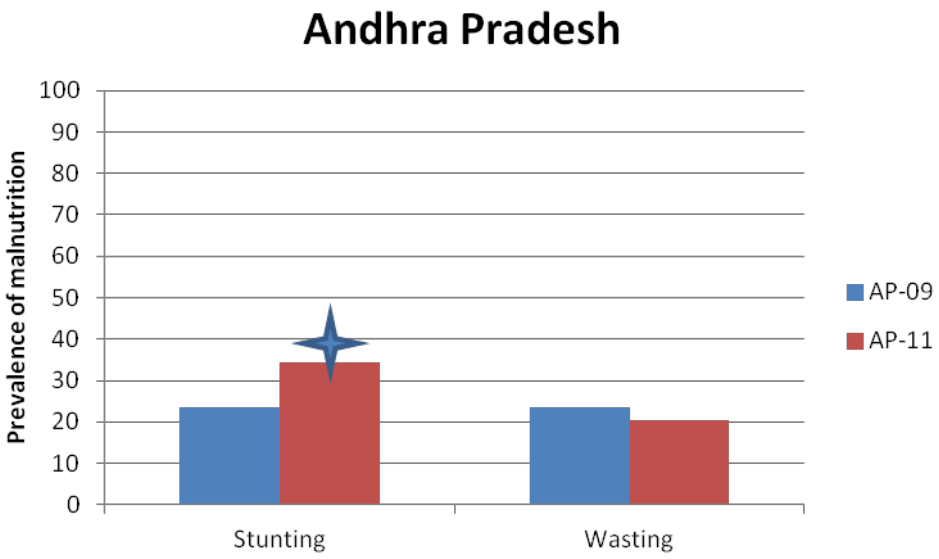
Home Visits and Beneficiary Practices

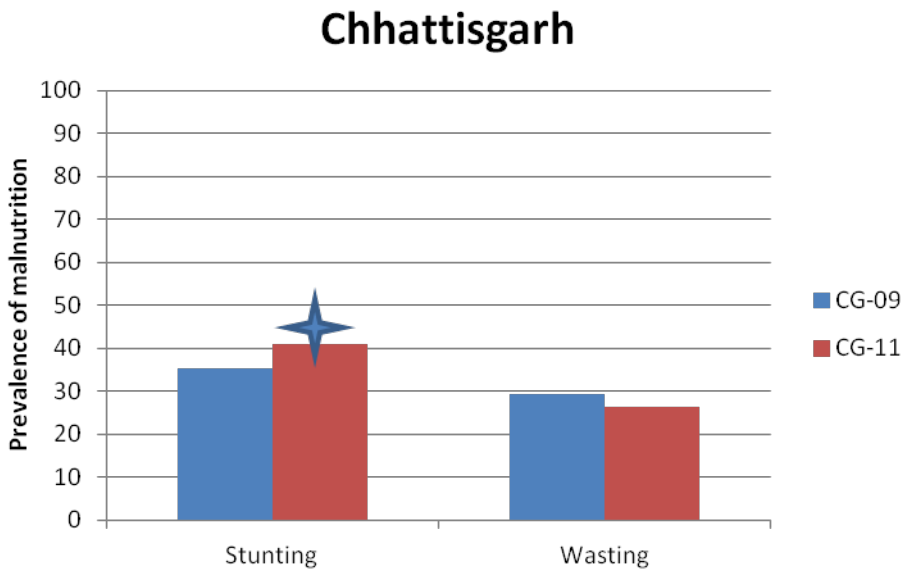
- Home visits important to motivate some beneficiary practices, but not others; some practices may be so strongly cultural, home visits are not enough to make a difference
  - Significant relationship between home visits and growth monitoring attendance
  - Not significant – breastfeeding and home visits
  - Initiation of complementary feeding only associated in UP
  - Home visits were associated with good handwashing behaviors

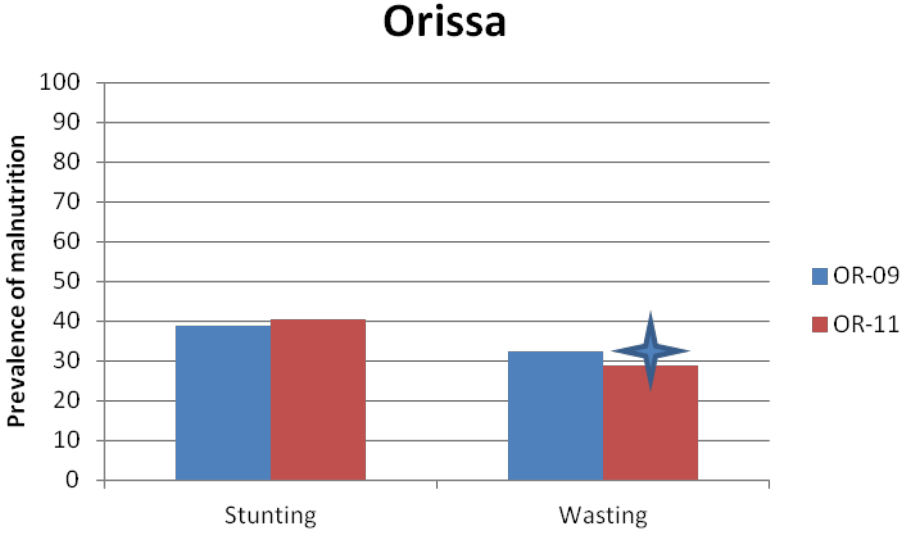
Malnutrition

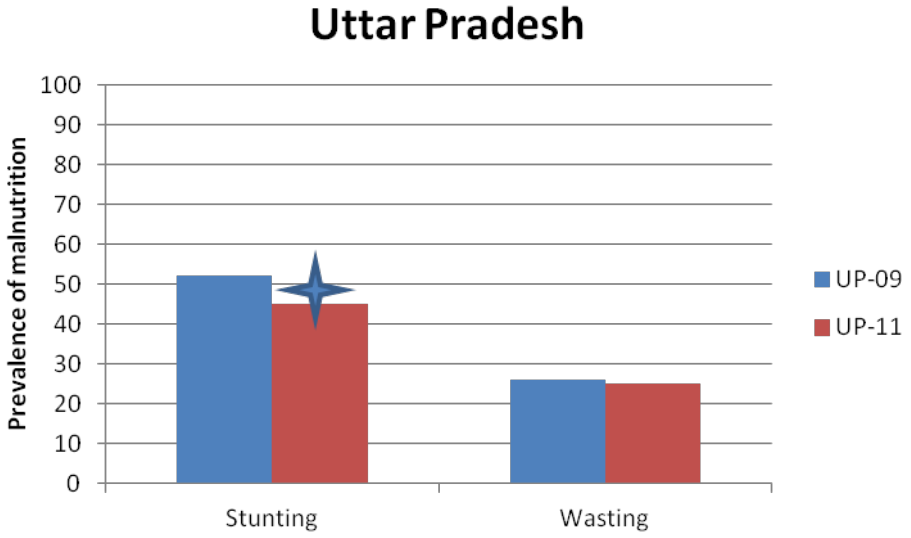
- Goal of CARE was to improve service delivery and beneficiary practices; underlying purpose was that nutrition status of children would improve
- Stunting increased or unchanged since 2009 in 3 states and remains high in all
- Statewise differences persist – larger than within-state changes over time
- Links of service delivery, food distribution, and beneficiary practices with nutritional outcomes were not demonstrated in this study

Impact Indicators (children 6–24 months of age)



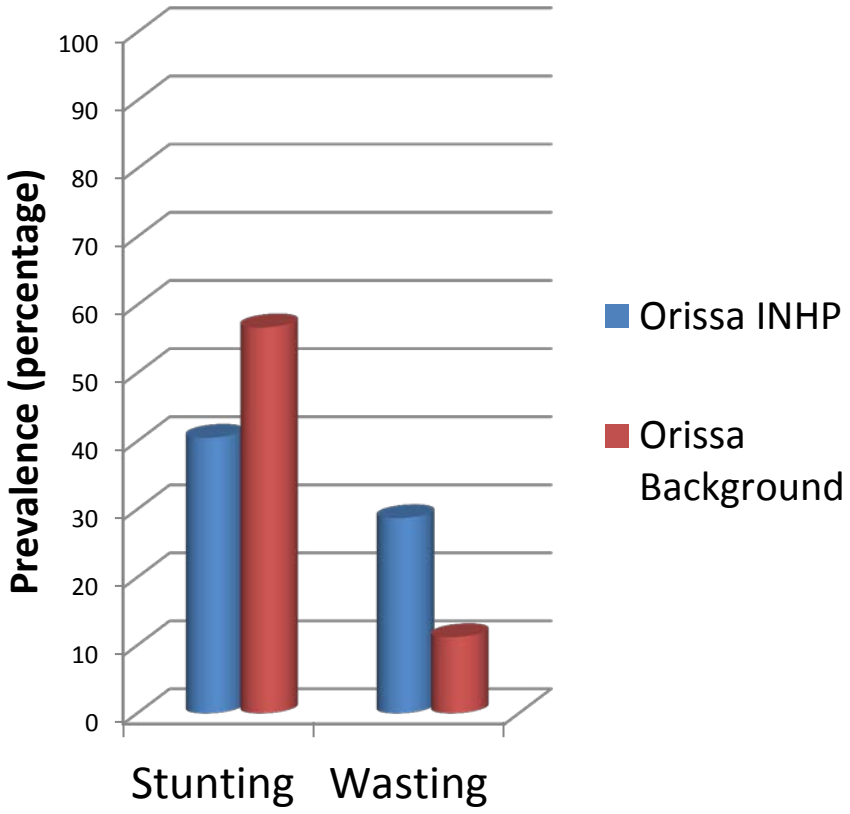




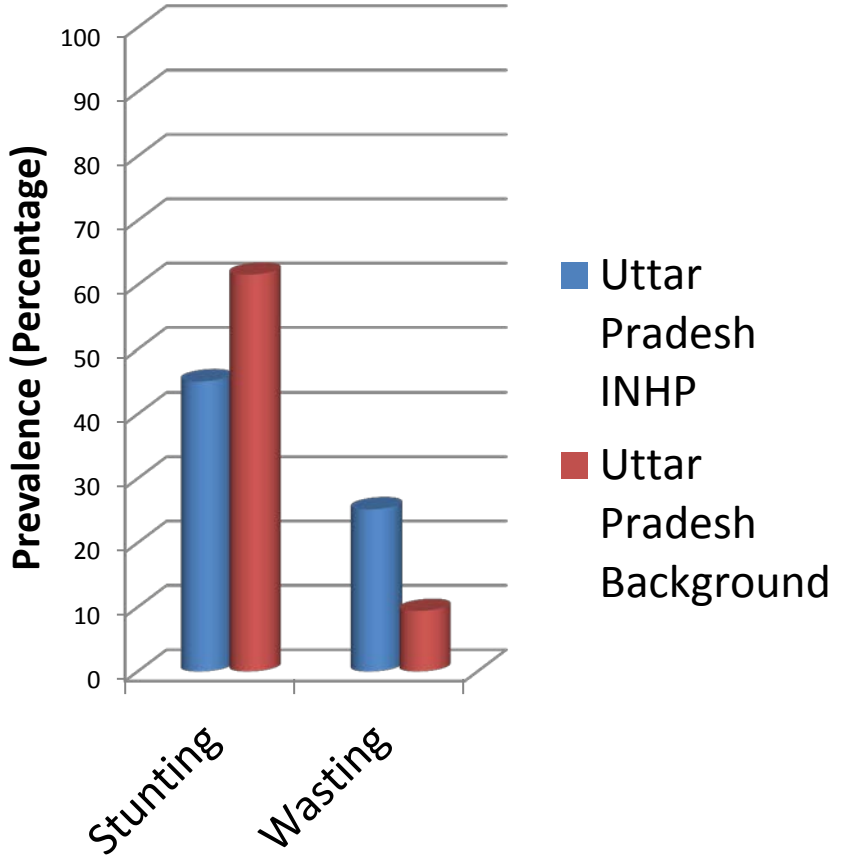


Comparison of Malnutrition in INHP Areas at Follow-Up with Secondary Data

Malnutrition: INHP and Statewide data, Orissa 2011



Malnutrition: INHP and Statewide data, UP 2011



Relationship between Practices and Stunting (6–24 month children)

Association of "mother following a practice (predictors below: 0 = no, 1 = yes)" with her child being stunted (0 = no, 1 = yes)

Adjusted odds ratios and corresponding p values in parentheses **(p values in bold are < 0.05)**

Predictors (0 = no, 1 = yes)	Andhra Pradesh		Chhattisgarh		Orissa		Uttar Pradesh	
	2009	2011	2009	2011	2009	2011	2009	2011
Exclusive breast-feeding	1.24 (0.12)	0.91 (0.63)	0.98 (0.93)	0.95 (0.82)	0.80 (0.066)	1.08 (0.6)	0.77 (0.13)	1.15 (0.49)
Appropriate onset of comple-mentary feeding	0.92 (0.69)	0.85 (0.36)	0.77 (0.1)	1.07 (0.66)	1.01 (0.88)	0.96 (0.8)	0.99 (0.96)	1.01 (0.94)

Relationship between Practices and Stunting (6–24 month children)

Association of "mother following a practice (predictors below: 0 = no, 1 = yes)" with her child being stunted (0 = no, 1 = yes)

Adjusted odds ratios and corresponding p values in parentheses **(p values in bold are < 0.05)**

Predictors (1 = yes)	Andhra Pradesh		Chhattisgarh		Orissa		Uttar Pradesh	
	2009	2011	2009	2011	2009	2011	2009	2011
More feeding during illness	0.91 (0.67)	0.95 (0.87)	0.78 (0.47)	0.95 (0.85)	1.27 (0.43)	0.82 (0.54)	2.00 (0.33)	2.00 (0.32)

Relationship between Supplementary Feeding and Malnutrition

Association of "mother currently receiving supplementary food for her child (cooked or take-home ration) – (0 = no, 1 = yes)" with current nutritional status of her child (6–24 months)

Adjusted Odds ratios and corresponding p values in parentheses

Outcome (1 = yes)	Andhra Pradesh		Chhattisgarh		Orissa		Uttar Pradesh	
	2009	2011	2009	2011	2009	2011	2009	2011
Stunting	1.34 (0.203)	1.45 (0.13)	0.9 (0.7)	0.76 (0.14)	**1.46 (0.007)***	**0.50 (0.003)**	1.03 (0.792)	**1.51 (0.018)***
Wasting	1.03 (0.86)	0.98 (0.9)	**1.61 (0.005)***	0.79 (0.21)	0.9 (0.4)	1.02 (0.92)	1.09 (0.47)	0.86 (0.35)
Under-weight	1.56 (0.065)	1.16 (0.49)	1.26 (0.14)	0.89 (0.49)	1.14 (0.26)	1.14 (0.5)	1.14 (0.30)	0.99 (0.95)

Conclusions

Supervision

- High-level supervision was maintained (sector meetings), but the relationship to frontline services and use of field tools was not demonstrated.
- Use of field tools was also low (except ANMs using due lists) and inconsistently maintained.

Conclusions

Frontline Services

- Home visits for ANMs and ASHAs have declined; for AWWs have increased, but still at/below 50%
- NHDs were variably maintained (increased in 3, declined in 1), but are at or below 60% for all states
- Availability of supplementary food at AWCs was well maintained and high (over 60% in all, over 80% in two)
- Provision of take-home ration at NHD declined in 3 states; remains over 60% of NHDs except Orissa

Conclusions

Service Use

- Growth monitoring use has declined in 3 states, slightly increased in 1, and is below 60% in three states (80% in Orissa)
- Big differences among the states persist

Conclusions

Practices

- Exclusive breastfeeding increased in 2 states and fell in 2 states and is highly variable
- Timely complementary feeding is close to or below 50% in most states
- Feeding during illness is close to or below 10% at follow-up despite slight increase over time
- AWW home visits are associated with some improved practices, but NOT with feeding in illness, EBF, or complementary feeding (3 states)

Conclusions

Impacts

- Stunting rates increased in 3 states and decreased to 45% in UP; state differences persist despite changes over time within states
- Wasting has declined in all states but is still high
- Despite this, stunting rates in 2011 are, in Orissa and UP, lower in CARE focus areas than in the states as a whole (from secondary data), though wasting is higher

Conclusions

- Basic assumptions about the relationship of supervision, services, and outcomes were largely not substantiated in this study, though a few of the relationships were observed. Pay for performance model provides a useful comparison.
- Goal of maintaining or increasing supervision and some service provision was achieved
- Food provisioning to AWCs was maintained at a high level and take-home ration provision was relatively high in three states
- Differences among states are striking, and persist despite any changes from 2009 to 2011

Conclusions

- Stunting remains high in all states; however, rates of stunting in CARE focus areas in 2011 are lower than in the state as a whole (2 states)
- Malnutrition is an intractable issue; these services may be important in themselves but are not sufficient to reverse trends in malnutrition

Thank You!!

Acknowledgment and Disclaimer

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