

A Study on
FRONTLINE HEALTH
HUMAN RESOURCES

Are the Capacities and Skills Adequate?



Save the Children®

A Study on Frontline Health Human Resources:

Are The Capacities And Skills Adequate?



Save the Children®

Save the Children works in 120 countries globally and across 15 states in India for children's rights – To inspire breakthroughs in the way the world treats children, and to achieve immediate and lasting change in their lives. It is determined to build a world in which every child attains the right to survival, protection, development and participation. We deliver immediate and lasting improvements to children's lives worldwide. Save the Children works for:

A world which respects and values each child.

A world which listens to children and learns.

A world where all children have hope and opportunity.

Save the Children, India

3rd Floor, Vardhaman Trade Centre,

9-11 Nehru Place, New Delhi - 110 019

Phone: +91 11 4229 4980, Fax: +91 11 4229 4990

Website: www.savethechildren.in

Facebook: <http://www.facebook.com/india.savethechildren>

Twitter: https://twitter.com/stc_india

© 2013 Save the Children

This publication is protected by copyright. It may be reproduced by any method without fee or prior permission for teaching purposes, but not for resale. For use in any other circumstances, prior written permission must be obtained from the publisher.

This study is wholly/partly financed by SIDA, the Swedish International Development Cooperation Agency. SIDA does not necessarily share the views expressed in this study. Responsibility for the content is solely the author's.

Contents

.....

Foreword	v
Acknowledgements	vii
Abbreviations	ix
Executive Summary	xi
Chapter 1: Introduction And Background:	1
Chapter 2: Objectives And Methodology	5
Chapter 3: State Of Frontline Health Workers And Institutions In Bihar, Odisha And Rajasthan	11
Chapter 4: Auxiliary Nurse Midwife [Anm]: Skills, Roles And Responsibilities	29
Chapter 5: Accredited Social Health Activist [Asha]: Skills, Roles And Responsibilities	59
Chapter 6: Anganwadi Worker [Aww]: Skills, Roles And Responsibilities	73
Chapter 7: Supervisors And Trainers	87
Chapter 8: Community And Beneficiary Perceptions	99
Chapter 9: Discussion	101
Chapter 10: Recommendations	111



Foreword



Frontline Health Workers are the backbone of efficient health systems. Health workers across the healthcare system play a critical role in improving the health and chances of survival of both children and mothers. Yet, the world today faces a shortage of over 3.5 million of these indispensable health workers, including 1 million community health workers. In India, nearly 63,000 women lose their lives every year due to pregnancy and childbirth related complications. 1.3 million children die before their 5th birthday, of which 780,000 in their first month, and 300,000 in their very first day. A skilled healthworker in the critical first day of life could make the difference between life and death, It is simply unacceptable that women and their babies continue to die in childbirth in the 21st century because of lack of skilled health workers and lack of access to these workers. Evidence shows that chances of survival increases five times when a health worker is within the reach of every mother and every child. Save the Children is committed to ending these needless deaths and create an environment where maternal and child survival is on top of political and public agenda. Our research is a step in the same direction. It assesses the knowledge, aptitude and skills of the existing frontline health workers in 6 project areas of Save the Children in Rajasthan, Odisha and Bihar which are a few of the states carrying the high burden of maternal and child mortality . It builds a case that addressing the shortage of frontline health workers, the gaps in training and skills are most critical if India is to deliver quality healthcare to those who need it the most. Investment in health human resources – especially those working on the frontline-is a key investment in the future.

Save the Children believes that this report will both provide strong evidence and build a greater understanding of the underlying causes of maternal and child morbidity, mortality, and the critical role that frontline healthworkers can play in saving children's lives. We also hope that the report will help to build greater political commitment and increased investment in those on the frontline of our health system.

Shireen Vakil Miller

Director- Advocacy, Campaign & Communication

Save the Children, India



Acknowledgements

We express our sincere gratitude to Public Health Resource Network (PHRN). and their team, who have conducted the purpose-driven research study with such efficacy and academic rigour. We are also thankful to our state program office team members and project team members of local partner organizations, who have helped during data collection and in putting the study together and have given key inputs at various stages of the development of the report. Special thanks to the Communications Team for ensuring the publication of the research and making it available for all to read, internalize and plan ahead.

The report has been jointly authored by the research team at PHRN and Save the Children India team. We would like to express our sincere gratitude to the following authors for writing and providing valuable suggestions and inputs in this report.

The Authors

The PHRN core team included

1. Dr. Ganapathy Murugan (Executive Director)
2. Dr. K. R. Antony (Principal Investigator)
3. Dr. Rajib Dasgupta (Advisor)
4. Ms. Dipa Sinha
5. Dr. Madhurima Nundy

The core team of PHRN was supported by a larger team of research associates, data processing staff and field officers.

Save the Children, India study team included

1. Santanu Chakraborty (Project Manager)
2. Dr. Isha Prasad Bhagwat (National Thematic Manager H&N)
3. Pradeep Kr. Mishra, (National M&E Coordinator)
4. Prasann Thatte (National Manager- Research)
5. Manabendranath Ray (Deputy Program Director)
6. Vishal Dogra (Research Coordinator)
7. Abhilasha Sood (Project officer)
8. Raghu Maharishi (Monitoring & Evaluation officer)
9. Mohammad Azam (Monitoring & Evaluation officer)
10. Vinay Kaushik (Communication Coordinator)
11. Indraneil Mukherjee (left)



Abbreviations

ANC	Antenatal Check-up
ANM	Auxiliary Nurse Midwife
ANMTC	Auxiliary Nurse Midwife Training Centre
ARI	Acute Respiratory Infection
ASHA	Accredited Social Health Activist
BCC	Behaviour Change Communication
CDPO	Child Development Project Officer
DLHS	District Level Household and Facility Survey
FRU	First Referral Unit
IEC	Information Education and Communication
IFA	Iron and Folic Acid
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
JSSK	Janani-Shishu Suraksha Karyakram
JSY	Janani Suraksha Yojana
LBW	Low Birth Weight
MDG	Millennium Development Goal
MoHFW	Ministry of Health and Family Welfare
NBCC	Newborn Care Corner
NBSU	Newborn Stabilization Unit
NFHS	National Family Health Survey
NID/ SNID	National Immunization Day/ Sub-national Immunization Day
NIHFW	National Institute of Health and Family Welfare
NHSRC	National Health System Resource Centre
NMR	Neonatal Mortality Rate
NRHM	National Rural Health Mission
NSSK	Navjaat Shishu Suraksha Karyakram
OPD	Out Patient Department
ORS	Oral Rehydration Solution
PHC	Primary Health Centre
PHRN	Public Health Resource Network
PIP	Program Implementation Plan
PNC	Postnatal Check-up
RCH	Reproduction and Child Health Program
SNCU	Special Newborn Care Unit
SRS	Sample Registration System
VHND	Village Health and Nutrition Day
VHSC	Village Health and Sanitation Committee



Executive Summary

I. Background

The role of frontline health workers in significantly contributing to reduction in mortality and morbidity among newborns and children is well recognized. Frontline health care workers are the single most important element of any health service to reach out directly to the community. Frontline health workers usually act as a point of referral that supports both the community and the formal health systems. Their roles are significant in providing expert care to mother and child population in any community and services such as prenatal and postnatal care, attended childbirth, voluntary family planning, health education, identifying danger signs for major childhood killers like malaria, pneumonia and diarrhea, treatment and prevention of diseases, immunization, basic nutrition, referrals and arranging logistics for accessing referral services. Ensuring that a frontline health worker is within reach, and is trained, equipped and supported, is crucial to the achievement of Millennium Development Goals 4 and 5 on reducing child mortality and improving maternal health. The World Health Organization estimates that there are over 1.3 million community/ frontline health workers worldwide. However, the health workers that do exist are often not working in the places where they are most needed, and many lack the information, skills, equipment and supplies they need for effectively performing their jobs.

In India, these services have been traditionally offered by AWWs and ANMs for several decades. Their conventional roles were supplemented by ASHAs with the inception of National Rural Health Mission [NRHM]. The cadre of ANMs, however, differs from ASHA and AWW because ANMs are not voluntary workers but a paid staff (not necessarily from the locality) and trained

to have a greater range of technical skills and competence. As per current estimates, more than 2 lakh ANMs, nearly 9 lakh ASHAs and more than 12 lakh AWWs (and Helpers) are in position.

Lives are saved and complications are averted through skills -- such as resuscitating a newborn, recognizing sepsis or referring a severely bleeding postpartum mother. Some probable reasons for poor performance of any health system are its health staff not being sufficient in numbers, or not providing care according to standards, and/or not being responsive to the needs of the community and patients. This study seeks to answer questions such as whether such skills are imparted, and if yes, to what extent they are retained and practiced. It also explores issues such as enabling conditions of facilities and community support through Village Health and Sanitation Committees (VHSCs) and other community based organizations.

II. Study Design

PHRN was commissioned by 'Save the Children', India (Bal Raksha Bharat) to undertake a study of the frontline human resources for health, their existing and required skill sets and their functional job analysis. The specific objectives of the study were:

- To study the availability and deployment of frontline health workers as health human resources
- To assess the existing and required skill sets of frontline health workers to effectively deliver health services to newborns and children below two years
- To undertake a functional job analysis of frontline health workers and understand the scope of rationalization of their jobs

A. Methodology

State	Bihar
Availability and deployment of health human resources	Review of government documents and reports; facility survey; key informant interviews.
Existing and required skill sets of frontline health workers to effectively deliver health services to the newborns and children below 2 years	Interviews with frontline health workers; key informant interviews with health and nutrition administrators, trainers, supervisors, at district and block levels; non-participant observation of the services rendered; assessment of training manuals. Assessment of training needs as well as existing capacity building systems and content of training manuals vis-à-vis the requisite skill sets.
Functional job analysis of frontline health workers	Study of job-descriptions; assessment of training manuals; literature review, in-depth interviews with frontline workers; time use survey; analysis of the time and inputs required to carry out the expected tasks; possibilities of role rationalization.

B. Study Sites

The study was carried out in three states, namely, Bihar, Odisha and Rajasthan, which are among the intervention states of the project 'Strengthening Maternal, Newborn, Child Health and Nutrition Services in India' of 'Save the Children', India. In each state, two districts and within each district, one block was covered. The districts and blocks

were pre-selected by 'Save the Children', India, based on their program priorities which included current engagement and future commitment:

C. Sampling Strategy

In all the blocks across the six districts of three states, six sub-centres and frontline workers within these sub-centres (SCs) were randomly selected:

State	District	Block
Bihar	Gaya	Mohanpur
	Sitamahri	Riga
Odisha	Kandhmal	Phiringia
	Nuapada	Boden
Rajasthan	Churu	Rajgarh
	Tonk	Wards



- In Odisha, there were 3 PHCs in Boden (Nuapada) and 4 PHCs in Phiringia (Khandamal). For the study, two PHCs were chosen in each block and within each PHC 3 sub-centres were chosen.
- In Bihar, there is one PHC each in Riga (Sitamarhi) and Mohanpur (Gaya). 6 SCs each were chosen from each of the PHCs.
- In Rajasthan, there are 11 PHCs in Rajgarh (Churu). Each PHC therefore covers a small population. 6 PHCs were chosen and within each PHC one SC was chosen for the study. In Tonk (urban) 6 dispensaries were selected; AWW and ASHAs were co-located at the AWC.

State	District	Stakeholders						Facility Observations		
		ANM (skill testing)	ANM	ASHA	AWW	Beneficiary	VHSC member	SC	AWC	VHND Session
BIHAR	Gaya	4	7	18	19	29	6	6	19	7
	Sitamarhi	10	8	18	18	30	6	6	19	7
RAJASTHAN	Tonk (Urban)		8	18	18	29	3	0	17	7
	Churu (Rural)	11	4	18	18	30	7	6	18	7
ORISSA	Kandhamal	8	6	18	18	30	5	6	18	7
	Nuapada	9	6	18	18	30	4	6	18	7
	Total	42	39	108	109	178	28	30	109	42

III. Results and Discussion

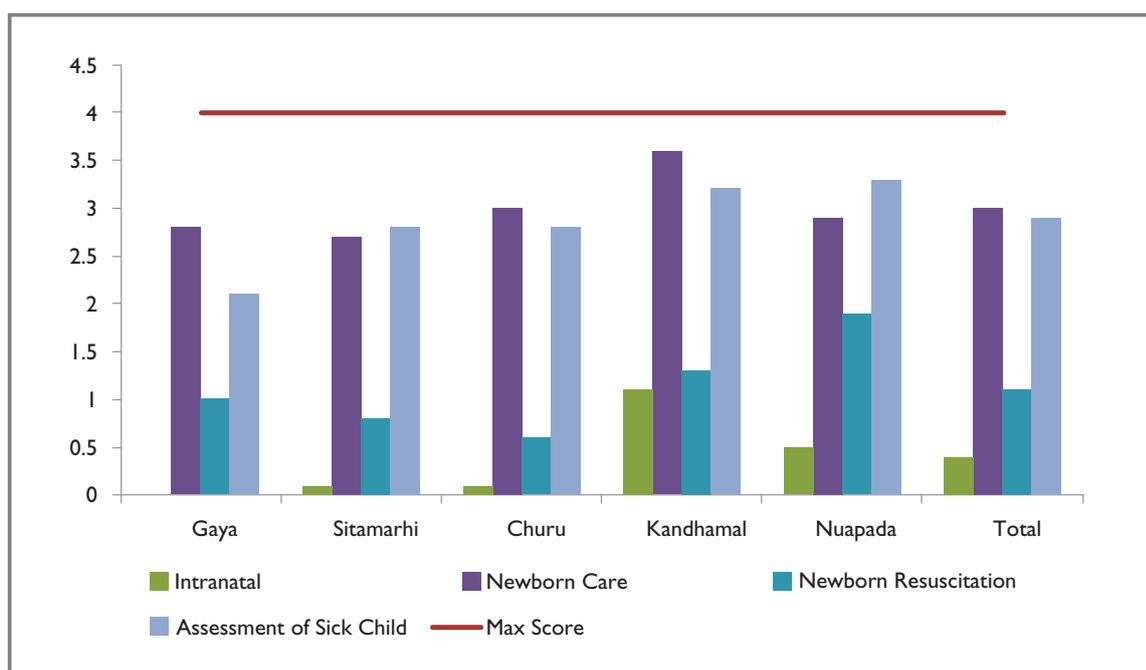
A. Are the numbers adequate ?

Data on the three cadres confirm that the number of vacancies have come down now that the NRHM has been functioning for nearly eight years. The study districts had very few vacancies of ANMs and nearly all posts of ASHAs and AWWs were filled. At

the state level, Bihar has more vacancies for ANMs than Odisha, both for 'first' and 'second' (NRHM) ANMs. ASHAs were in position in most of the urban wards in Tonk, as well as in rural settlements.

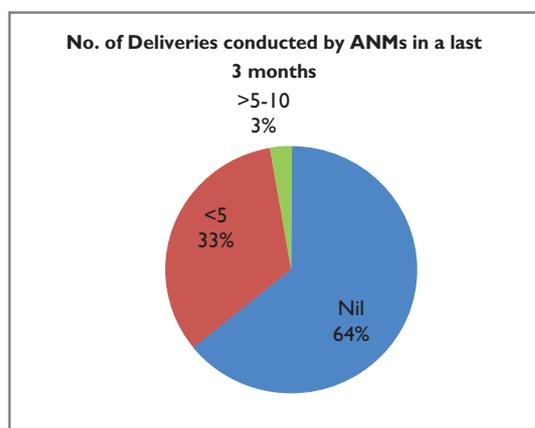
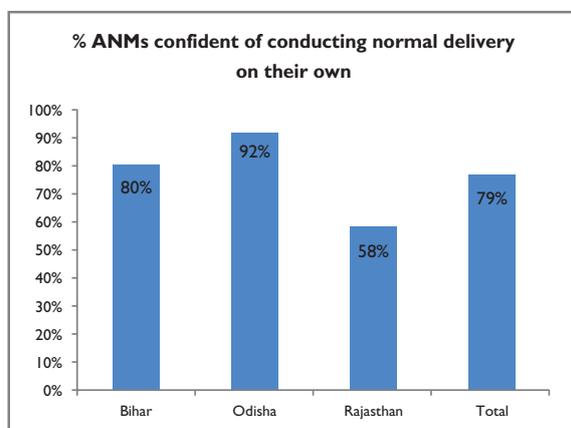
B. Are the knowledge and skills adequate?

I. ANM: Skills and Knowledge



Skill testing was done for 42 ANMs. They were found to have extremely poor intra-natal skills, scoring on an average 0.4 out of 4. Skills with regard to newborn resuscitation were also poor, an average score of 1.1 out of 4. The skills related

to newborn care and assessment of sick child were better, scoring an average of 3 and 2.9 out of 4 respectively. Most ANMs reported being confident of conducting delivery, but very few actually did so.

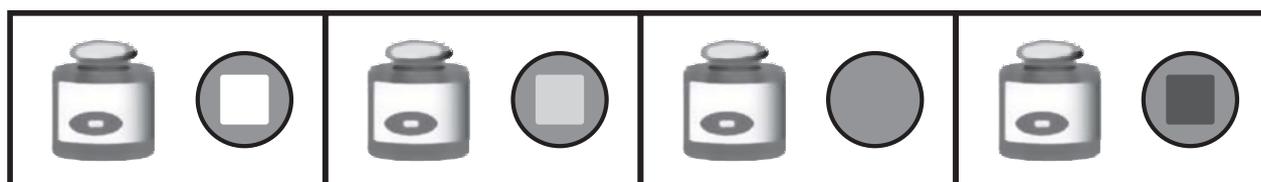


ANMs in Bihar reported an average of 1-2 post-natal visits, while those in Odisha and Rajasthan reported 3-5 visits. Very few ANMs checked for excessive bleeding and gave advice on urgent action if any. Advice on nutrition and rest were sub-optimal and very few mentioned advising on contraceptives.

heart rate and respiratory rate was extremely poor. Most ANMs from Bihar said that they did not know how to recognize neonatal sepsis. Despite the recent emphasis on home based neonatal care, knowledge of symptomatology of severe hypothermia was extremely poor in Bihar and Rajasthan. Knowledge levels of Kangaroo Mother Care (KMC) were very good across the three states. While ANMs were able to identify Severe Acute Malnutrition (SAM) correctly, relatively few in Bihar referred the identified children for nutritional rehabilitation.

While about 40% of the ANMs said that they knew how to resuscitate a newborn baby with Ambu Bag and mask, only one ANM reported actually doing so in the last one year. Less than 60% ANMs could recognize an Ambu Bag and face mask connected for testing before ventilation. Knowledge among ANMs in all three states was very poor on safe methods for stimulation for a newborn who was not crying after birth. Knowledge regarding some of the key elements of routine newborn care such as distance of umbilical cord for clamping/ cutting, postponing bath for 24 hours, and parameters that require to be monitored such as body temperature, pulse rate,

While all mentioned BCG as a vaccine to be administered at birth, about half the ANMs in Bihar and Rajasthan failed to do so. Nearly half of the ANMs in Odisha and Rajasthan didn't know about all possible interpretations in the matter of VVM (Vaccine Vial Monitor). Only about a fifth of the ANMs were proficient in questions related to injection safety.



Vaccine Vial Monitors: 59% of ANMs made rights decisions in response to 4 different scenarios shown to them

Eight out of the 39 ANMs were able to record correct messages for all the situations shown in the question related to administering of injections.



Scores and responses of ANMs related to skill-related questions based on case-scenarios, pictures as well as direct questions are as below:

Skill Related to	ANM Scores			
	Minimum	Maximum	Mean	Std. Deviation
VVM	1	4	3.4	0.8
Injection Safety	0	3	1.6	1.1
Suction	0	5	2.6	1.1
Breathing	0	4	2.6	1.2
Crying	1	6	3.6	1.4
Infection	0	3	1.1	0.8
Waste Disposal	0	4	1.5	1.1
Hypothermia	0	6	1.4	1.9
Breastfeeding	0	5	2.7	1.3

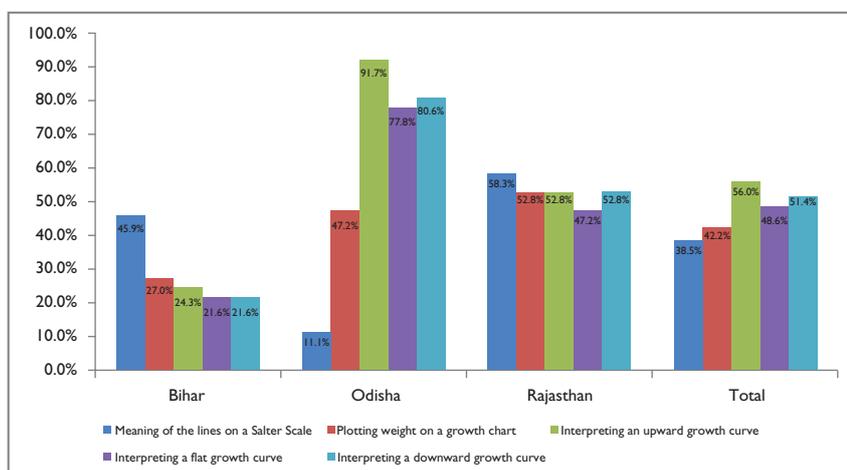
For a child with acute diarrheal disease:

- Almost all ANMs in all the states said that they would give ORS from their medicine kits
- About half of them also said that they would advise that the child be given extra fluids and boiled drinking water
- About a third of the ANMs said that they would also advise immediate referral to a health facility
- Almost all ANMs in Odisha also said that they would advise to continue breastfeeding children with diarrhea (in addition to administration of ORS), whereas very few in Bihar and Rajasthan said so

For a child with fever and cough and fast breathing i.e. Acute Respiratory Infection (ARI):

- Almost all ANMs said they would look for danger signs such as difficulty in breathing, chest in-drawing, constant high fever and refer the child to a public health facility
- Very few ANMs mentioned any other advice such as: keeping the baby warm, continuing feeding or giving nutritious diet
- While most ANMs recognized signs of ARI, only about 20% said they would administer antibiotics (more than 50% mentioned Paracetamol)

2. AWW: Skills and Knowledge



Half the AWWs could not interpret the weight readings in the Salter scale correctly. The performance of AWWs in reading the Salter scale in Odisha was the poorest. On the contrary, while 80% of the AWWs in Odisha interpreted weight curves correctly, 50% in Rajasthan and only about 20% in Bihar could interpret it correctly. AWWs fared worse in plotting- a little less than half of the AWWs in Odisha were able to correctly plot weight on a growth chart. Only 20% AWCs in Bihar had the new growth charts and very few AWWs (less than 20-25%) were able to plot weight on a growth chart or interpret the direction of the growth curve. In Rajasthan, while growth charts were present, due training was lagging. Only about half the AWWs were able to plot weight and interpret growth curve correctly.

None of the AWWs in any of the states were able to correctly report the amount of calories and proteins to be given under SNP to children in the age group of 6 months to 3 years or to severely malnourished children. Only about one third of the AWWs gave the correct response (administering ORS and immediate referral): highest in Bihar (55.5%) and lowest in Rajasthan (13.9%). In the case of severe dehydration, one-third of all ASHAs, including 45% in Rajasthan, did not advise ORS. Signs of ARI were recognized by most AWWs in Odisha and Rajasthan, but less so in Bihar. While almost all responded with advice about referral to a public health facility, very few mentioned other important ways such as keeping the baby warm and continuing feeding. Most of the AWWs in all the three states (80%) said they would give Paracetamol to this child. Very few mentioned antibiotics.

3. ASHA: Skills and Knowledge

Only 16.5% of ASHAs across the states reported about visiting the newborn on the very day of birth. The emphasis on visiting a newborn-mother pair on Days 0, 3, and 7-10 was not reflected at all in practice. Almost all ASHAs (around 95%) were aware of the correct breastfeeding practices (early initiation, colostrum feeding and exclusive breastfeeding). Very few in Bihar, in contrast

to those in Rajasthan and Odisha, helped by demonstrating how to breastfeed. About a quarter of ASHAs in Bihar responded that exclusive breastfeeding must be done up to one year.

The median number of sick children referred by ASHA in the last six months was 12 in Bihar, three in Odisha and three in Rajasthan. Common symptoms that led to referral were fever, diarrhea and lethargy. 75% of ASHAs in Bihar had not referred a single case of newborn or LBW (low birth weight) baby in the last six months. A large number of referrals of the sick children attended to indicated that either only seriously ill child was attended, or there was lack of confidence in managing sick children at home.

In cases of children with diarrhea, a quarter of ASHAs in Rajasthan did not mention administering ORS, while very few mentioned administering extra fluids. Signs of ARI were poorly recognized by ASHAs in all three states. They did not mention difficulty in breathing and chest in-drawing as danger signs to look for, and thus failed to recognize these as symptoms and signs of pneumonia. Almost all, however, referred these cases to public health facility, but no additional advice on feeding or keeping the baby warm was given.

C. Are the Trainings Adequate?

None of the states were following any systematic training calendar or plan for in-service trainings for ANMs. Post-training deployment was generally no different from pre-training deployment. ANM teachers in all states identified gaps in skills, related mostly to malnutrition and diarrhea management, along with lack of counseling skills. The other gaps included inadequate knowledge about use of injections, BP measurement and first-aid. Several ANM teachers considered ASHA training to be more effective. Others felt that there was an over-emphasis on maternal and child health issues and it was necessary to go beyond this traditional paradigm. The current ANM students in Bihar possessed the skills signifying that training was adequate in the ANMTCs. The older generation of ANMs attributed the attrition of skills to not having

conducted a normal labor during the last 15 to 20 years. ASHAs posted in maternity wards were better informed in newborn and postnatal care as they had the benefit of learning IMNCI/ HBNC components as part of the ASHA training. ANMs in Odisha had been trained in IMNCI and many of them had also completed SBA/ NSSK training; the results were evident in better knowledge, skills and practice. ANMs were performing immunization as their single-most important activity. Knowledge on vaccine schedules was adequate but knowledge of injection safety was poor in general and worst among ANMs of Rajasthan. So was the knowledge on waste disposal; ANMs of Odisha performed somewhat better in this domain. Their knowledge level about thermal protection of the baby was at about 60%, which was considerably higher than that of the others. ANMs of Rajasthan (Churu) fared the worst with less than a third having correct knowledge.

No selection procedure was being followed for in-service training of AWWs. There was no logical flow in the training calendars. Trainers felt that overloaded sessions, insufficient time slots and inadequate reiteration resulted in weak understanding and retention. There was insufficient time for field practicum or demonstration relevant to the trainings. There was also a lack of any structured monitoring framework for post-training performance appraisal.

The module based trainings for ASHA were generally adhered to. There was, however, no fixed calendar for training of AWWs in all three states. Trainers reported that the focus in trainings was more on 'convincing' skills than 'caring' skills and felt that there was a need to impart knowledge about maternal and neonatal care. They also criticized the modules for their inadequacy to help build counseling and negotiating skills.

D. Is Time Well Spent?

ANMs in Bihar and Orissa spent about an hour to reach their sub-center, in contrast to most ANMs in Churu (Rajasthan) who stayed either at the SC quarters or in the village. The median time spent

per day by each ANM on work is 6.75 hours, but was maximum in Odisha, clocking about 10 hours per day. Nearly all ANMs were assigned work for other government/ health programs during which their SC remained closed. On an average, majority of ANMs are spending about 2 hours (a third of their work time) on record keeping. Home visits, ANC/ PNC and treating minor illnesses were other major activities for which an average of 1-2 hours are devoted, while 4 hours are spent on each VHND session. ANMs in Gaya reported that deliveries were not being conducted since Skilled Birth Attendant (SBA) trainings had not been held. As with other frontline workers, targeted activities – JSY (Janani Suraksha Yojana), family planning and RNTCP-DOTS – were their main focus. In addition, ANMs in Tonk (urban) reported participating in vector borne diseases program and those in Bihar in the Lymphatic Filariasis elimination campaign. Little time was spent with supervisors; interaction with BPM and MO was not very frequent. Nearly all ANMs in Odisha reported support from beneficiaries, VHSC members, SHG members and teachers, but the experience of ANMs in Bihar and Rajasthan was exactly the contrary.

Most of the AWWs in all the three states took less than 20 minutes to reach the AWC from their homes, except in geographically difficult tribal areas. In Rajasthan, all workers said that they spent on an average of four hours a day on ICDS work. In Bihar and Odisha, most of the AWWs reported spending 5 to 8 hours on ICDS work. AWWs spent most time on pre-school education in Odisha and Bihar. Each day, AWWs also reported spending one to two hours on maintaining records and registers. Almost two-thirds of AWWs felt that they had to maintain too many records and registers. In Odisha, relatively more time was spent on feeding activities, but it was less than an hour in Bihar and Rajasthan. AWWs spent maximum time on home visits in Odisha and minimum in Rajasthan.

AWWS were asked to list three of their job

responsibilities that they considered 'most important' and a further three that they considered 'important'. The ranking by AWWs was not similar across the states. AWWs in Odisha listed more nutrition related activities such as detecting under nutrition and referring severely malnourished children as being most important for them, while in Bihar and Rajasthan, preschool education was reported as being the most important activity. Immunization was reported as being an important activity in all the states.

AWWs considered growth monitoring and feeding (cooked meals and distribution of Take Home Rations [THR]) their principal activity. Referral of under-nourished children for nutritional rehabilitation did not emerge as a critical activity. Lack of functioning weighing machines was reported by about a third of AWWs. Among all the three cadres of frontline workers, they were the ones most involved in post-natal and neo-natal care. Most AWWs recognized organizing meetings and engaging with mothers and adolescent girls as their duties but expressed their inability to do so on account of (i) cooking and serving meals, and (ii) incentivized and targeted services. Like ASHAs, the high-focus programs were JSY, family planning and polio eradication. Some of the other time-bound activities that AWWs got involved in included Public Distribution System (PDS) and disability surveys, measles elimination and Total Sanitation Campaign (TSC).

Nearly all AWWs reported close coordination with frontline health workers, particularly ASHAs since both were residing in the same village. Few reported a lack of interest and engagement of ANMs in nutrition related activities of AWWs; they, however, were provided full support for immunization activities and outreach sessions which were generally located in AWCs. Most AWWs met supervisors at least once a month; more frequently in Odisha and Rajasthan than in Bihar. Most AWWs met CDPOs monthly or quarterly, with almost a third of AWWs in Odisha meeting CDPOs "very often".

70% of ASHAs could reach the farthest household in less than 30 minutes; and another 16% within one hour. ASHAs in Odisha had to travel the farthest distances with districts being sparsely located; one-third took more than one to two hours to reach their distant hamlets. On an average, ASHAs were working for 4.1 hours a day on self reported activities; in the case of ANMs, this was relatively higher in Orissa (4.6 hours). ASHAs seem to be spending maximum time on Pulse Polio Campaigns (during NID/ SNIDs), followed by delivery (and JSY related work) and then other immunization. The time spent on deliveries by ASHAs in Odisha and Rajasthan was three to four times more than that in Bihar. The average time spent on campaigns such as pulse polio was far in excess in Odisha and Rajasthan than in Bihar. ASHAs were asked to list three of their jobs responsibilities that they considered 'most important' and a further three that they considered 'important'. The ranking was similar across all three states. Institutional delivery (JSY), immunization and ANC were amongst the top three most important responsibilities identified by ASHAs. Most ASHAs who did not mention these as being 'most important', listed them as being 'important'. Greater emphasis on institutional delivery was generally reported from among SC villages as compared to non-SC villages.

Targeted/ incentivised activities were rated as far more 'important' than activities related to communitization processes. Rajasthan ASHAs considered referring severely malnourished children to ICDS/ ANM as an important duty in comparison to their peers in Bihar and Odisha. This was due to their collaboration with AWW as 'Sahayoginis' before the NRHM era. Half the ASHAs reported being mobilized for work related to other Government schemes/ programs. When asked to give names of two children who were born in their area in the last six months to whom they provided any services, about 75% did so; nearly 20% gave no name at all.

Supportive supervision of ASHAs has been recurring in all these evaluations. In spite of the high concentration of sub-centres in the study

blocks in Bihar, and therefore fewer ASHAs per ANM, the frequency of meeting ANMs was lower than in Odisha. As many as 72% of the ASHAs in Bihar did not respond, despite ASHA Facilitators (generally the senior most ASHA in a group of 20 or so who was more engaged in fulfilling her targets or work rather than supervising) being in position. The Block Community Mobilizer (BCM) in Bihar supports ASHAs in various communitization processes. He is also entrusted with conducting monthly meetings and helps in capacity building of ASHAs and ASHA Facilitators. Interaction was most frequent in Rajasthan; ASHA facilitators were located at the Block-HQ but were engaged largely in data management and interacted mostly with ASHAs at PHCs and SCs. Interaction with BPMs (Block Program Managers) was most frequent in Odisha. There was very little interaction with the VHSC members. It was almost non-existent in Bihar, but somewhat better in Orissa and Rajasthan.

E. Is the Infrastructure Enabling ?

1. Anganwadi Centers

- Only a third of the AWCs have their own buildings
- Half the AWCs have no access to clean and safe drinking water; two-thirds do not have toilets
- While most AWCs have baby weighing scales, only 55% had growth charts (18% in Bihar)
- ORS and Paracetamol available in about half the AWCs, but less than 10% have a thermometer

2. Sub-Centers

- Two thirds of the sub centers have their own buildings
- More than half the SCs have no access to clean and safe drinking water; two-thirds do not have toilets
- Less than 20% of the SCs have an ANM quarter

- Only 20% of the SCs have a labor room
- Medicine supplies are very poor (around 20% across the states and almost non-existent in Bihar)

F. Is there Clarity in Roles ?

ANMs, in a departure from their 'multi-purpose' roles, identified ante-natal care, immunization (including polio eradication) and Village Health and Nutrition Days (VHNDs) as their main roles and responsibilities. Significantly, ANMs did not see themselves as 'basic' workers and considered themselves more as supervisors for ASHAs and AWWs. They were however not trained for any managerial role and were reportedly not to provide support to ASHAs. All ANMs however acknowledged receiving full support and cooperation from ASHAs. With ASHAs having their own Supervisors, the relationship between ASHAs and ANMs requires some re-positioning. Having said that most of the functional models of the ASHA Supervisors are hardly adequate to provide supportive supervision to ASHAs and need to be restructured.

All three cadres (with some obvious exception for AWWs) were focusing on targeted/ incentivized activities. ASHAs were minimally engaged with communitization processes and lacked many of the basic health worker skills; they wanted a greater range of skills including giving injections and measuring blood pressure. There was demand for more knowledge for non-communicable diseases including cancers. Though community mobilization is one of their principal tasks, the counseling skills were reported to be deficient and there was felt need for soft skills. Despite ASHAs being in position in all villages, AWWs were still being burdened with targets such as those for family planning. According to them, they were not able to devote adequate time to the entire range of ICDS activities.

VHNDs have emerged as a very important activity with all the three cadres committed to it. However, it is increasingly replacing some of the ‘clinical activities’ of ANM and her visits to villages. With ANC, immunization and family planning being the principal activities during VHNDs (led by the ANM), other components particularly nutrition related activities including nutrition counseling are becoming marginalized. With very little participation of VHSC members in VHNDs, except in Odisha, this is not acting as a platform for communitization either.

IV. Recommendations

A. Prioritizing Skills

This study has identified certain key danger signs (detrimental to survival) in pregnancy, child birth, infancy & early childhood and graded them as ‘Required and Highly Critical’ and ‘Required and Essential’. This framework can form the basis for periodic and regular assessment of the three cadres.

	Required and Highly Critical	Required and Essential
ANM	<ol style="list-style-type: none"> 1. Management of third stage of labour 2. Refer cases of difficult labour and newborns with abnormalities 3. Immediate resuscitation of asphyxiated newborn-use of suction, AMBU bag and mask 4. Recognition and management of birth trauma and neonatal sepsis, poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch 5. Recognizing complications during post-natal visits: severe bleeding, severe breathlessness, foul smelling discharge, high fever, and calf tenderness 6. Infant & young child: signs of pneumonia (fast breathing, difficulty in breathing, chest in-drawing), and dehydration (severe thirst, sunken eyes, dry tongue & lips, skin not turgid) 7. Refer children with Severe Acute Malnutrition and complications to the Primary Health Centre or Nutrition Rehabilitation Center 	<ol style="list-style-type: none"> 1. Importance of early registration in pregnancy 2. Quality antenatal checkup 3. Proficiency in testing hemoglobin, urine for protein and sugar 4. Newborn period: Care of the normal/ low birth weight newborn– keeping baby warm, demand feeding of early and exclusive breast feeding 5. Identification of cases of Severe Acute Malnutrition among infants and young children (zero to three years) 6. Nutrition advice and necessary treatment for minor illness of children with Severe Acute Malnutrition 7. Notifying timely any abnormal increase in community, cases of diarrhea/ dysentery, fever with rigours/ rash/ jaundice/ unconsciousness 8. Counseling women on contraception and prevention of common infections including Reproductive Tract infection/ Sexually Transmitted Infection (RTI/STI), HIV/ AIDS
ASHA	<ol style="list-style-type: none"> 1. Newborn period: signs of birth asphyxia (breathing difficulty, absent or poor cry and blueness of skin) and signs of sepsis (poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch) 2. Infant & young child: signs of pneumonia (fast breathing, difficulty in breathing, chest in-drawing), and dehydration (severe thirst, sunken eyes, dry tongue & lips, skin not turgid) 3. Danger signs in pregnancy: bleeding, giddiness & blackout, breathlessness, accelerated/ reduced fetal movements, swelling of legs and face, severe headache and convulsions 4. Delivery- difficult and prolonged labor (more than 12 hours), severe bleeding, retained placenta beyond 30 minutes 5. Post-partum period: Severe bleeding, severe breathlessness, foul smelling discharge, high fever 	<ol style="list-style-type: none"> 1. Newborn period: Care of the normal/ low birth weight newborn– keeping baby warm, demand feeding of early and exclusive breast feeding 2. Counseling women on importance of safe delivery and birth preparedness- identifying institution/ staff for delivery, planning transport and blood donor 3. Counseling women on early exclusive breast feeding, complementary feeding, immunization and care of the young children 4. Escorting pregnant women along with blood donors and children requiring treatment/ admission to the nearest pre-identified health facility 5. Providing newborn care and management of a range of common ailments among children

	Required and Highly Critical	Required and Essential
AWW	<ol style="list-style-type: none"> 1. Identification of cases of Severe Acute Malnutrition among infants and young children (zero to three years) and correct referral 2. 3 visits to newborn on days 0, 3 and 7-10: recognizing signs of sepsis for quick referral- poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch 3. Infant and young child: signs of pneumonia (fast breathing, difficulty in breathing, chest in-drawing), and dehydration (severe thirst, sunken eyes, dry tongue and lips, skin not turgid) 	<ol style="list-style-type: none"> 1. Provide health and nutrition education and counseling on breast feeding/ infant & young child feeding practices to mothers 2. Recognize growth faltering from plotted growth chart and advise family members on improved feeding 3. Newborn period: Care of the normal/ low birth weight newborn- keeping baby warm, demand feeding of early and exclusive breast feeding

B. ANM Training and Re-skilling to Focus on:

1. Identifying major complications related to pregnancy, child birth and post-natal period.
2. Conducting normal deliveries. States may consider re-training of Skilled Birth Attendant (SBA) modules.
3. Neonatal resuscitation and identifying danger signs in newborn baby especially neonatal sepsis.
4. Breastfeeding counseling to mothers and timely initiation of complimentary feeding.
5. Recognizing and referring a SAM child to NRC.
6. Appropriate referral criteria for a sick child.
7. Cold chain (peripheral level) quality monitoring, including correct use of VVM.

C. AWW Training and Re-skilling to Focus on:

1. Plotting weights in accordance with new WHO growth charts.
2. Monitoring growth trajectories and identification of growth lag and growth faltering.
3. Identifying danger signals in children with:
 - a. Acute diarrheal diseases
 - b. Acute respiratory infection.
4. Composition and content of supplementary nutrition components.
5. Counseling skills.

D. ASHA Training and Re-skilling to Focus on:

1. Identifying dangers signs in children with:
 - a. Acute diarrheal diseases
 - b. Acute respiratory infections

E. Policy Issues

1. Reduce involvement of ASHAs and AWWs in non-health programs, and minimize their engagement in non-core activities.
2. Consider appointment of 2nd Anganwadi Worker and deploy one AWW exclusively for children under 3, for : (i) Identification and Nutrition rehabilitation of severely undernourished children and referral, and (ii) maintaining their records.
3. ASHAs to work exclusively with women and families.
4. Institutionalize training needs assessment of frontline health workers in District Health Actions Plans and train them accordingly.
5. Conduct periodic formal assessments of knowledge and skills of frontline workers.
6. Set up district-level Skills Labs at ANMTCs.
7. Improve physical infrastructure and supply logistics of Sub-centers and Anganwadi Centers, as well ANMTCs.



Introduction and Background

1

In the developing world, every year close to two million newborn babies die on the very first day of their life. It is an irony that 90 per cent of all child deaths under the age five are caused by easily preventable diseases (diarrhoea, pneumonia and infections) and life threatening conditions like birth trauma, birth asphyxia, prematurity, low birth weight and neonatal sepsis, which can easily be tackled or avoided. More than a fifth (22.3%) of the child deaths takes place in India¹. Although India launched the Universal Immunization Program (UIP) in 1985, full immunization reached only 43.5% by 2005-06. India also has the greatest number of undernourished children, with about 52 million stunted children under the age of 5².

Antenatal and postnatal care is inadequate, with nearly 63,000 women losing their lives each year due to pregnancy or childbirth related complications³. Coverage Evaluation Survey Report of 2009 from UNICEF shows that 32% of deliveries in rural areas in India still take place in homes and not in health institutions. There is a potential risk to life for the newborn as well as the mother during home delivery. Research indicates that 15% of all home births tend to have delivery complications.

A home delivery rate of 32% in 2009 is a great improvement over a decade as compared to 65.4% in 1998-99 (NFHS 2), owing majorly to the Janani Suraksha Yojana and institutional strengthening under National Rural Health Mission (NRHM). However, India still has a long way to go to reach the goal of 100% institutional delivery or skilled birth attendance, especially in high mortality and morbidity states of Central, Northern and Eastern regions of the country.

The report “State of India’s Newborns” published by Save the Children and National Neonatology Forum (2004) says that in India, 1.2 million out of 26 million newborns in a year die within four weeks of birth. This is the highest share by any single country in the world i.e. 30% of 3.9 million annual neonatal deaths worldwide. Indian Council of Medical Research data (2003) indicates that almost 40% of neonatal deaths in Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh and Odisha occur on the very first day.

According to the Society for Education, Action and Research for Community Health (SEARCH), an organisation that has done pioneering work on Neonatal survival, Birth Asphyxia is responsible for 20% neonatal deaths in rural/ tribal areas of Gadchiroli, Maharashtra. This has come out as the single highest cause for neonatal deaths. Deaths due to Birth Asphyxia could have been prevented by timely interventions at birth settings whether at institution or at home. This intervention can be done by any well-trained care provider at birth even if a formally qualified provider is not available. The policy makers and public health experts need to realise the scope of intervention considering over eight million home delivery scenarios in rural/ tribal areas in India.

The key to better health outcomes at grass root level lies in:

- Placing frontline skilled and functional staff closer to community, supported and encouraged by supervisors
- Building their capacities by skill up-gradation trainings
- Adequate provision of quality service and supplies

¹ UNICEF, 2011; Levels and Trends in Child Mortality

² ibid

³ SRS, 2011.

- A technical back up of a referral system consisting of emergency transport and functional referral unit for emergency care in case of complications

Frontline Health Workers (FHW)

There is an emerging role of frontline functionaries in health care, hitherto undiscovered, that they can significantly contribute towards reducing mortality and morbidity and improving quality of life of marginalised population. This is more so when they work as a team and not in competition. The team functioning of the troika- ASHA, AWW and ANM- has evolved over the last decade without threat or major conflicts through mutually complementing activities and roles. Their individual capacities as well as the capacities of working in a team need to be strengthened for effective and efficient service delivery.

Accredited Social Health Activist (ASHA)

Conventional roles of ANM/ AWW are supplemented by ASHAs since the inception of NRHM with the goal of boosting immunization coverage and promoting institutional deliveries. With more community participation in the affairs of the village, there is an increasing community expectation from ASHAs in the following areas:

- Improving supplementary nutrition in Anganwadi Centres (AWCs)
- Mid-day meals in schools
- Ensuring wages under Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA)
- Old age and widow pension
- Improving women's participation in Gram Sabha etc.

Under the 'Communitisation' agenda of NRHM, the role of ASHA was seen as an activist and

thereby the last letter stands for it. But this role of ASHA has been forgotten by the current managers and mentors of ASHA. A recent evaluation study on ASHAs conducted by NHSRC in 18 districts in six states concluded that "ASHAs are doing their job but do not have the skills to make an impact on saving lives". The skills required to save lives are many but few are trained in:

- Resuscitating a newborn with breathing difficulty
- Initiating colostrum feeding within one hour
- Recognising sepsis in a newborn and transporting for treatment
- Recognising and referring a severely dehydrated child
- Recognising and referring a child with signs of pneumonia
- Recognising and referring a child with signs of cerebral malaria
- Recognising and referring a severely bleeding post-partum mother
- Recognising and referring a pregnant mother with complication etc.

Equally important to save lives are her skills in recognising, timely reporting and initiating community action during a disease outbreak like cholera, falciparum malaria or measles.

It is important to know whether the above mentioned skills are taught and if taught, are retained and practised not only by ASHAs but also by AWWs and ANMs.

Anganwadi Worker (AWW):

The responsibilities of an AWW include regularly recording the weight of children and reporting it in the prescribed format of Monthly Progress Report (MPR). However, she has not been made accountable for reduction of malnutrition levels or reduction of deaths due to Severe Acute Malnutrition (SAM) with medical complications.

⁴ NHSRC (2011). ASHA: Which Way forward, available at http://nhsrindia.org/pdf_files/resources_thematic/Community_Participation/NHSRC_Contribution/ASHA%20Which%20way%20forward..._418.pdf

The very purpose of the Integrated Child Development Scheme (ICDS) and the program outcomes have been less imbibed by the AWW.

She needs to understand the importance of visiting a newborn and mother in their household on the very first day after home delivery even if it had taken place at home in spite of her best efforts to motivate the mother for institutional delivery. The importance of colostrum feeding within one hour of birth, exclusive breastfeeding for six months and initiation of complementary feeding thereafter are important messages that she should get across to the new mother and the family. Additional visits to the same mother-baby pair on day three and day seven are invaluable to ensure a smooth and uneventful post-partum period. It is important to weigh a newborn at birth and if found with low-birth-weight, to weigh again in the second and third week and also to weigh every month after three years of age. Similarly a joint visit by the ASHA and AWW to the same mother at six months is programmatically important to convince the mother about initiation of complementary feeding to avoid growth lag and onset of malnutrition and secondly to convince her on some form of birth spacing to avoid an unwanted early pregnancy which is detrimental to the care and survival of the current baby. These are part of the current job chart of an AWW and if practised are critical for young child survival. At field level we are yet to get any evidence of a Supervisor asking the AWW about this crucial visit at six months to ensure that baby started on complementary feeding and that the mother adopted a birth spacing method.

The quality of Integrated Management of Neonatal and Childhood Illness (IMNCI) and Infant and Young Child Feeding (IYCF) trainings and retention of skills and knowledge acquired during such trainings are crucial for better child survival outcome. However, unfortunately there is no system and practice of assessment of trainees Performing to Standards (PTS) at present.

Auxiliary Nurse Midwife (ANM)

Though the ANMs are primarily meant for midwifery work, over a period of time they have been burdened with several tasks related to various National Programs and the role as midwife has gradually become less important. Several studies have dealt with the reasons of this dilution in community based midwifery in India^{5,6}.

Today, the ANM has become more of an Immunization and Family Planning worker in the eyes of the public. She has forgotten how to assist a normal birth, leave alone births with complications. In order to reduce maternal and neonatal mortality, her skill and practice of Midwifery and Neonatal care is very important. Resuscitation of a newborn, recognising neonatal and maternal sepsis and risky haemorrhage in pregnancy and birth, recognising signs of pneumonia, severe dehydration, cerebral malaria, medical complications in severe malnutrition etc. are crucial for better outcomes in Reproductive and Child Health (RCH).

What the ANMs learn in Skilled Birth Attendant (SBA) and IMNCI trainings, and how much of it is practised in the field needs to be assessed to gauge how much she could possibly contribute to maternal, neonatal and child mortality reduction.

A comprehensive study of the level of knowledge, skill and practice of frontline functionaries in health sector is a programmatic imperative at this juncture.

⁵ Mavalankar D, Sankara Raman P, Vora K. (2011), Midwives of India: Missing in action, *Midwifery*, Oct; 27(5):700-6.

⁶ Prasad R, Dasgupta R. (2013), Missing Midwifery: Relevance for contemporary challenges in maternal health. *Indian Journal of Community Medicine* 38:9-14.



Objectives and Methodology

2

The study deals with the productivity of frontline health workers. Capacity (knowledge, skills and attitudes), motivation and organisational support are important factors that influence the efficiency and quality of service delivery. In our study, a mixed qualitative and quantitative study in addition to an observational competency-based assessment was done to assess the ANM cadre which is the most peripheral health worker of the Indian public health system. Competency is defined as possessing skills and knowledge, sufficient to comply with predefined clinical standards accepted nationally and internationally. The standards used were in accordance with the syllabus of the ANM course of the Indian Nursing Council for Midwifery and the Essential Newborn Care and Neonatal Resuscitation skill prescribed under the NSSK (Navajat Shishu Samrashak Karyakram- Newborn Protection Program) and IMNCI. Technical skill assessment was done with dummy models, mannequins, video-modules, instruments and materials like Lochia pads, filled partograph etc. by a Paediatrician and a Nursing College Principal. Competency was tested in non-clinical venues like class rooms or office rooms except for antenatal cases which were assessed in the maternity ward. Scoring was done on a scale of 0 to 6 based on the performance of ANM in a return demonstration of taught skills. Review of literature shows no

documentation of such a methodology used in India and this is being reported probably for the first time.

The objectives of this research were:

1. To study the availability and deployment of frontline health workers as health human resources
2. To assess the existing and required skill sets of frontline health workers to effectively deliver health services to newborns and children below two years
3. To undertake a functional job analysis of frontline health workers and understand the scope of rationalization of their jobs

Methodology

Availability and deployment against norms of health human resources (such as ANM, AWW, ASHA) in the targeted districts of Bihar, Rajasthan and Odisha, with special focus on the habitations of marginalised people, was analysed for gaps. An assessment of their training needs as well as the existing capacity building systems and the content of training manuals vis-à-vis the requisite skill sets were done. Possibilities of rationalisation of their roles were also identified.

Table I: Objectives and Methodology

Objectives	Methodology
To assess availability and deployment of health human resources	Review of government documents and reports, facility survey, key informant interviews in three chosen districts in each state apart from the total scenario of the state as a whole. A further detailing of the above frontline workers deployment among the poor performing districts was undertaken.
To assess existing and required skill sets of frontline health workers to effectively deliver health services to new-borns and children below 2 years	Field study through Survey Interviews with frontline health workers; Key informant interviews with health and nutrition administrators, trainers, supervisors, at district and block levels; Non-participant observation of the services rendered by ANMs, AWWs and ASHAs; Assessment of training manuals; Stakeholder consultation. Assessment of their training needs as well as the existing capacity building systems and the content of training manuals vis-à-vis the requisite skill sets.

Objectives	Methodology
To conduct functional job analysis of frontline health workers	Study of job-descriptions, assessment of training manuals, literature review, In-depth interviews with frontline health workers; time use survey; Non participant observation of the services rendered by ANMs, AWWs and ASHAs, etc. Analysis of the time and inputs required to carry out all the tasks expected from the frontline health workers and work burden. Possibilities of role rationalisation identified.

The focus of this research was on primary health care at block level. The focus was on ASHA, ANM and AWW. The NRHM-ICDS convergence was also reviewed to get a complete picture.

Study Sites

The study was carried out in three states, namely, Bihar, Odisha and Rajasthan which are among the

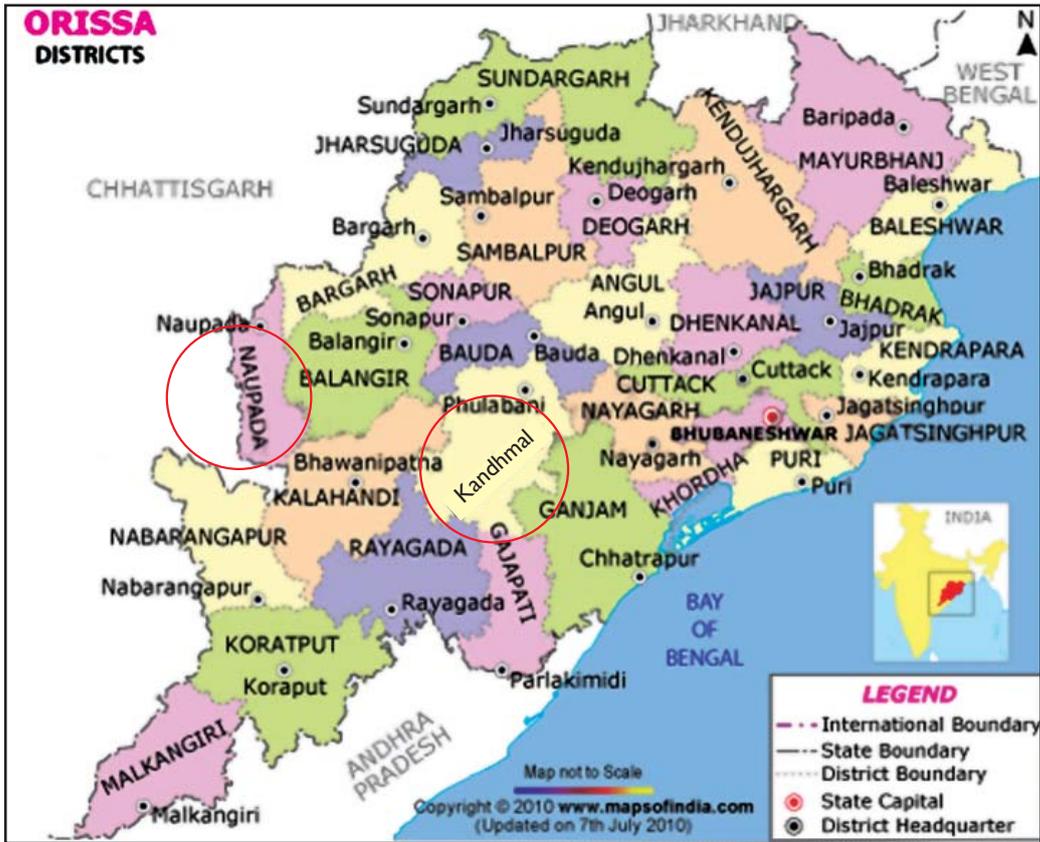
intervention states of the project 'Strengthening Maternal, Newborn, Child Health and Nutrition Services in India' of 'Save the Children', India.. In each state, two districts and within each district, one block was covered. The districts and blocks were pre-selected by 'Save the Children' based on their program priorities which include their current engagement and future commitment:

Table 2: Study Sites

State	District	Block	Population (app.)	No of villages/Wards
Bihar	Gaya	Mohanpur	44,260	55
	Sitamarhi	Riga	73,654	61
Odisha	Kandhmal	Phiringia	61,000	100
	Nuapada	Boden	72,379	63
Rajasthan	Churu	Rajgarh	69,421	51
	Tonk	Urban Wards	45,000	13

Figure 1: Study Sites in Bihar, Odisha and Rajasthan





Sampling Strategy

Levels:

Sub-centre [SC]: SC village (Sector AWC)

Non-SC village (Non-sector AWC)

The frontline workers included ASHAs, ANMs and AWWs. To get an understanding of the possible variation in the level of skills and ability to deliver services, frontline workers who were located at the sub-centre (Sector AWC) village as well as those at the non-sub-centre (correspondingly, non-sector AWC) village were included in the study. It is presumed that a frontline worker like ASHA/

AWW who has more regular interaction with higher level staff like ANM or Sector Supervisor will have more opportunities for on-the-job learning and application of skills. Conversely, peripheral village frontline workers are more susceptible to attrition of knowledge and skills.

Selection of Sub-Centres: six Per Block

A differential sampling strategy has been adopted for each state but because of variation in number of Primary Health Centres (PHCs), selection of SCs varied in the three states.

Table 3: Sampling Strategies

	No. Existing in selected Blocks (Block1/Block2)	Unit	Total No. per Block
Bihar			
PHC	1/1	1/Block	1
SC	11/21	6/PHC	6
Odisha			
PHC	3/4	2/block	2
SC	14/22	3/PHC	6
Rajasthan			
PHC	11/6 Dispensaries	6/PHCs in rural 6 dispensaries in urban	6
SC	78/Urban	1/PHC	6

In all the blocks across six districts of three states, six sub-centres were chosen in each block.

- In Odisha, there are three PHCs in Boden (Nuapada) and four PHCs in Phiringia (Khandamal). For the study, two PHCs were selected in each block and within each PHC, three sub-centres were selected.
- In Bihar, there is one PHC each in Riga (Sitamarhi) and Mohanpur (Gaya). Six SCs each were selected from each of the PHCs.
- In Rajasthan, there are 11 PHCs in Rajgarh (Churu). Each PHC, therefore, covers a small population. Out of 11 PHCs, Six were selected and within each PHC, one SC was selected for the study. In Tonk (urban), instead of PHCs, six dispensaries were selected; AWW and ASHAs were co-located at the AWC.

Table 4: Selection of Frontline Workers per Sub-centre and Sector area

	Per Sub Centre/Sector Area	
	SC/Sector Village	Non-SC/Non-Sector Village (2 per SC)
Sub Centre	1	
ANM	All (1 or 2, if second ANM is in position)	
AWC	1	2
AWW	1	2
ASHA	1	2

Stakeholders

Frontline Workers

ANM: All ANMs in the selected sub-centres were included in the survey. Assuming a second ANM at about 50% of the sub-centres, the planned coverage was 9 ANMs per Block. The actual number of ANMs covered depended on the actual number existing in the selected SCs. The tools used with the ANM included following the ANM and observing all her activities over a three day period and also an in-depth interview with her.

AWC: For each SC included in the sample, three AWCs were selected. Of these, one was from the SC/ Sector village and two from non-SC/ non-Sector villages. All activities in the AWC were observed on the same day.

AWW: All AWWs posted at the selected AWCs were included in the study. The AWW's activities over one day was observed (while observing everything at AWC) and all AWWs were interviewed. Since there is one AWW per AWC, three AWWs per SC were part of the study.

ASHA: ASHAs were similarly selected corresponding to the villages that were selected for AWC. Three ASHAs per SC were interviewed. Following the above sampling strategy, one of these is from a SC village and two from non-SC villages.

Beneficiaries

Mothers: To get the beneficiary perspective, mothers were also interviewed. In each of the sampled SCs a pooled sample of mothers were taken in such a manner that in each block, 30 mothers are interviewed. Of these, 10 mothers were from SC villages and 20 from non-SC villages. Half the mothers were those who have had a child in the last six months and the other half who had children who had recently fallen ill. The mothers were selected randomly based on a list gathered from AWW and ASHA, as well as by snowball sampling. Care was taken to locate mothers from marginalised sections.

Observations

Village Health and Nutrition Day (VHND): In each block, during the study, 7 VHNDs were observed. These 7 VHNDs were selected in such a manner that 3 of them were VHNDs in a SC village and 4 were from non-SC villages.

Village Health and Sanitation Committee (VHSC): On an average, corresponding to each VHND, one VHSC member of the community was also interviewed. It means that seven VHSC members in each block were interviewed.

Supervisory Levels

PHC / Block / District: Interviews were conducted with the help of supervisory staff such as the Medical Officers, Child Development Project Officer (CDPOs), ICDS supervisors, Block Program Managers (BPMs) and District program Managers (DPMs).

State: At the state level, program managers and trainers were interviewed. Wherever Secretaries of Health and Women and Child Development cooperated, they were interviewed about policy issues and capacity building of frontline functionaries and efforts undertaken by States for young child survival. Their perspectives on roles and responsibilities, training needs and current levels of skills were gathered.

Lessons from Piloting

Piloting of draft tools for frontline health workers was done in six districts of Rajasthan. A training workshop was conducted for the PHRN Community Health Fellows who volunteered in Rajasthan. Tools for trainers and teachers were piloted in Bihar. After two weeks of piloting, a feedback session was organised.

(i) Language: The initial draft of the tools was prepared in English and then translated in to local Indian languages. After piloting, it was realised that several questions were losing their essence and content. It gave us insight about appropriate examples and colloquial

terms that were culturally acceptable and linguistically framed into proper questions and examples. Keeping these issues in mind, the whole instrument was re-discussed and questions were framed in Hindi and Oriya languages.

(ii) Sequencing of questions: After piloting, several questions were re-positioned into a comfortable and logical sequence.

(iii) Qualitative tool: The The format of the draft qualitative tools for ANM, ASHA and AWW were found to be inappropriate during piloting. The tools were re-designed retaining the domains. A few items detailing roles and responsibilities were dropped as the list was found to be too long.

(iv) Tool for assessing knowledge: Draft tools were prepared in two formats; one with a facilitator guide which provided the answer keys, the other in which key was provided along with the questions. On the basis of the feedback which preferred separate keys, appropriate changes were made.

Quality Assurance Measures

Efforts have been made to establish a multi-stage quality control mechanism:

- The Advisory Group had experts from 'Save the Children, India' and other national bodies to provide local, regional as well as national perspectives to the study
- The tools were tested and piloted in different socio-cultural and geographic regions of the country. Some of them have been adapted from earlier studies done by National Institute of Public Cooperation and Child Development (NIPCCD) and National Health Systems Resource Centre (NHSRC)
- A National Methodology Workshop was organised at New Delhi, followed by a Formative Phase conducted in three districts of Bihar

- Hands-on training was given to research teams for field and hospital level interviews and observations during State Workshops at Patna and Bhubaneswar
- Supervisory visits were made to clusters by the Advisory Group / National Team members at the time of data collection to assess and ensure quality data collection
- A multi-disciplinary team did (on-going) data processing and analysis

Limitations and challenges

- After selection and obtaining their consent, ANMs were explained the complete process and only those who agreed to undergo complete assessment were selected. There was some loss of ANM respondents from Day 1 to Day 2 or Day 3
- Since the field sites were hard-to-reach with the prevailing inadequate infrastructure, there were logistic difficulties in completing all village level activities in three days
- In some cases, completion of all tools was not possible for various reasons including lack of cooperation by health workers and beneficiary mothers. All such cases were recorded
- Appropriate and adequate data for desk review was forthcoming from state authorities. 'Save the Children, India' offices in the respective states were approached to facilitate this Program



State of Frontline Health Workers and Institutions in Bihar, Odisha And Rajasthan

3

With more than one billion people, India is the second most populous country in the world accounting for 17% of the world's population. Since Independence, India had been pursuing a policy of planned economic development until the early 1990s, when it shifted to structural adjustment policies and liberalisation. Subsequently, the Indian economy grew at a fast rate, although concerns on equity and poverty still persist. The country also faces new public health challenges in the form of changing demographics and environmental conditions, emerging infectious diseases and microbial resistance, behavioural issues influencing health and an increasing focus on non-communicable diseases. But, globalisation and trade agreements, technological advances in genetics and medicine, and health informatics hold forth the potential for more rational, evidence-based management in health care.

India has witnessed major changes in public health in the recent decades. Post-independence, the country has made significant strides on several health indicators and these must be rightfully acknowledged. These are increased life expectancy, reduced maternal and infant mortality and eradication of smallpox. However, the country is still far from achieving Millennium Development Goals. Further, extremely low levels of public health spends place India at a considerable disadvantage in comparison to many of its Asian neighbours. High levels of maternal mortality, infant and child mortality and malnutrition continue to plague various parts of the country. The pressure of a burgeoning population, 72% of which is rural, with widespread illiteracy and social deprivation, poses a formidable challenge for the health sector's functioning.⁷

Maternal and Child Health indicators are crucial to evaluate the reach of effective public health services to the poor, and are regarded, as one of the composite measures to assess the state of development and transformation over time. India has, no doubt, progressed rapidly on several socio-economic indices after Independence, but improvement in maternal health indicators have been relatively slow. The maternal mortality ratio (MMR), though on the decline, is currently 212 per 100,000 live births with a lifetime risk of 0.6%⁸. As per the recently released report of the Sample Registration System (SRS), more than 60% of the deliveries take place in homes without skilled assistance at birth. Newer estimates are available from the Annual Health Survey (AHS) 2010-11, a special survey in 10 high focus states. SRS 2007-9 estimated MMR for Bihar and Jharkhand at 261 per 100,000 live births, while AHS 2011 estimated Jharkhand's MMR at 278 per 100,000 live births and Bihar's at 305. Madhya Pradesh's MMR is estimated at 310 per 100,000 live births and Chhattisgarh's at 275; the earlier combined figure was 269. Assuming the newer estimates are more sensitive, these state indicators are worse than previously thought. Uttarakhand's MMR is 188 per 100,000 live births much lower than Uttar Pradesh's (with which estimates were clubbed earlier) 345. India's maternal death accounts for 25% of the total global maternal deaths⁹ and the highest number of deaths occurs on the first day after delivery, mainly due to preventable causes such as haemorrhage, puerperal sepsis (infections after delivery), complications of abortion, obstructed labour and hypertensive disorders associated with pregnancy. Prevention, detection and timely management of these complications are a primary health care need of any country.

⁷ World Health Organisation(2007), Not Enough Here...Too Many There... Health Workforce In India, WHO, India.

⁸ Sample Registration System (2011). Special Bulletin on Maternal Mortality in India 2007-09. Office of the Registrar General of India, 2006.

⁹ Mavalankar D, Sankara Raman P, Vora K (2011),. Midwives of India: Missing in action, *Midwifery*, 27:700-6.

Table 5: Maternal and Child Mortality

Maternal and Child Mortality Indicators	India (SRS 2012)	Bihar (AHS 2010-11)	Odisha (AHS 2010-11)	Rajasthan (AHS 2010-11)
Maternal Mortality Ratio (MMR)	212	305	277	331
Infant Mortality Rate (IMR)	44	55	62	60
U5Mortality Rate	59	77	82	79

Inter State Variation in Maternal and Child Health Indicators/Programme Output

Maternal Health

The key indicator discussed in this section relates to basic maternal health care services which include antenatal care, delivery care and post-natal care in all the three states i.e. Bihar, Rajasthan and Odisha.

Antenatal Care

Maternal health care package of antenatal care (ANC) is the main program of NRHM to strengthen RCH care. ANC provided by a doctor, an ANM or other health professional, comprises physical checks, checking position and growth of foetus, and giving Tetanus Toxoid injection (TT) at periodic intervals during pregnancy. At least three check-ups are expected to complete the course of ANC to safeguard women from pregnancy related complications.

Table 6 reflects the status of ANC care provided in the three states. Despite a holistic approach adopted by the government for providing ANC services to all pregnant women, the full range of ANC services and care is yet to reach all pregnant women. NFHS III revealed that while any ANC service received by pregnant women was 77%, only 15% women received all recommended ANC services. The provisioning of ANC services in study states is similar as reflected in the Annual Health Survey 2010-11. All pregnant women were not registered for ANC; it ranged from 63% in Bihar to 68% in Odisha.

Among the three states, Odisha is better performing in terms of mothers receiving any ANC check-up (95.6%), 76% mothers received three or more ANC services whereas only 18.6% received all the ANC care. Bihar's performance is worst when compared with other states. Only 34% mothers received three or more ANC services.

Table 6: Inter State Variation in ANC services

Indicator	Bihar	Odisha	Rajasthan
Currently Married Pregnant Women aged 15-49 years registered for ANC (%)	63.0	68.7	66.8
Mothers who received any Antenatal Check-up (%)	84.5	95.6	84.8
Mothers who had Antenatal Check-up in First Trimester (%)	43.7	63.0	53.2
Mothers who received 3 or more Antenatal Care (%)	34.0	76.0	47.5
Mothers who received at least one Tetanus Toxoid (TT) injection (%)	84.4	95.1	84.3
Mothers who consumed IFA for 100 days or more (%)	10.0	21.6	12.3
Mothers who had Full Antenatal Check-up (%)	5.9	18.6	8.5
Mothers who received ANC from Govt. Source (%)	25.1	57.7	54.9
Mothers whose Blood Pressure (BP) taken (%)	46.1	79.1	68.6
Mothers whose Blood was taken for Hb (%)	30.1	61.6	51.5
Mothers who underwent Ultrasound (%)	16.4	32.4	38.8

Source: Annual Health Survey 2010-11

Sixth Common Review Mission (CRM) Report mentions about mismatch and over reporting by FHWs and elaborates that in Bihar, records of pregnant women registered for ANC were maintained in the MCH register, but the ID number for entering the details in Mother and Child Tracking System (MCTS) database was not mentioned in the register. At few locations in Bihar, a mismatch was found between the records and perception of the beneficiary. It was observed that the Maternal Child Health (MCH) register at sub-centre had recorded three ANC visits for majority of pregnant women, but during interaction with beneficiaries, all of them reported to have undergone at the most two antenatal check-ups. Similarly in Odisha, ANC registrations

are late and full ANCs is often not done. Lack of Mother Child Protection (MCP) resulted in inadequate recording and tracking ANCs.

Delivery and Post Natal Care

Institutional delivery and post-natal care in a health facility is promoted in NRHM through the Janani Suraksha Yojana (JSY) to prevent maternal deaths. Institutional delivery in India is only 41% and deliveries assisted by skilled personnel are 48.30% as per the NFHS-III. But, institutional delivery in all the three states is higher than the national average: Bihar (47.7%), Rajasthan (70.2%) and Odisha (71.3%). Home deliveries are, however, still very high in all states and very few of these home births are assisted by skilled personnel.

Table 7: Data regarding Delivery Care

Delivery care	Bihar	Odisha	Rajasthan
Institutional delivery (%)	47.7	71.3	70.2
Delivery at government institutions	32.9	61.7	55.2
Delivery at private institutions	14.8	9.2	14.6
Delivery at Home (%)	52.0	28.1	29.5
Delivery at home conducted by skilled health personnel (%)	18.4	20.5	32.3
Safe Delivery (%)	53.5	75.2	76.2

Source: Annual Health Survey 2010-11

Bihar's performance is poor as compared with Rajasthan and Odisha in providing delivery care to mothers and even the quality of care for institutional delivery in Bihar has been questioned in the Sixth CRM. Partographs were not plotted for women undergoing vaginal delivery at any of the health facilities. It was observed at Sadar Hospital Gopalganj that indication for most of the caesarean sections had been due to obstructed labour (as per OT register). On further probing

for the reason for high number of caesarean sections due to obstructed labour, it was reported that women coming with the obstructed labour already had IV bolus Injection of Oxytocin (usually of 2 ampoules), perhaps by private practitioners, having their own clinics outside the hospital. This misuse of Oxytocin can lead to rupture of uterus if there is a pelvic outlet obstruction and thereby an avoidable maternal death.

Table 8: Post Natal Services

Indicators	Bihar	Odisha	Rajasthan
Less than 24 hours Stay in institution after delivery (%)	66.6	53.5	38.0
Mothers who received Post-natal Check-up within 48 hours of delivery (%)	60.8	74.5	73.3
Mothers who received Post-natal Check-up within 1 week of delivery (%)	54.1	78.5	76.1
Mothers who did not receive any Post-natal Check-up (%)	30.4	19.6	23.0
Newborns who were checked up within 24 hours of birth (%)	52.6	74.9	70.0

The provisioning of delivery care and postnatal care services are not optimal in all three states. This is mostly due to inadequate health services at different levels. According to the Sixth CRM, in Odisha, 8% (700 facilities) of total health facilities are identified as delivery points. Of these, 145 (32 DHs +25 SDH + 88 CHC) are functioning as Level 3, 331 (240 CHC and 91 PHCs+ OH) as Level 2 and 224 as Level 1 (71 PHC +OH + 153 SCs). Prioritisation of delivery points is visible and most inputs are directed towards strengthening them. All delivery points had good infrastructure, equipments and reported increasing caseloads, but performance as per desired MNH standards is poor. Medical Officers (MOs) and Staff Nurses are available at the delivery points, but there is irrational posting of Lady Staff Assistants and Emergency Obstetric Care trained MOs in Level 2 facilities, making their skills redundant. Knowledge and skills of staff in management of basic obstetric complications is weak and needs to be strengthened. Services for safe abortion are available in very few facilities. In Bolangir, for

example, four MOs trained in Medical Termination of Pregnancy (MTP) have been placed in four facilities, but only one is providing the services.

Similarly in Rajasthan, 583 delivery points are Level 1, 220 are Level 2 and 31 are Level 3. Delivery points are fairly well distributed geographically. Essential medicines and equipment for safe delivery care were available at most facilities visited. Though there is a comprehensive plan for First Referral Units (FRUs), there were very few functional FRUs at district level (only one in Sawai Madhopur and three in Udaipur). Number of functional FRUs has come down from 223 in 2010–11 to 206 in 2011–12.

Performance of Janani Suraksha Yojana

It is important to understand the performance of JSY in terms of financial assistance availed by mothers in the three states. Table 9 has been drawn from the Annual Health Survey 2011.

Table 9: Mothers who Availed Financial Assistance under JSY

JSY- Financial Assistance	Bihar	Odisha	Rajasthan
Mothers who availed financial assistance for delivery under JSY (%)	30.4	61.6	53.9
Mothers who availed financial assistance for institutional delivery under JSY (%)	63.4	83.3	76.5
Mothers who availed financial assistance for Government Institutional delivery under JSY (%)	89.8	94.4	93.5

Source: Annual Health Survey 2011

Across all indicators of JSY, Bihar ranks lowest in terms of financial assistance availed by mothers. Bihar also ranks lowest for institutional delivery [47.7%]. Only 30.4% mothers availed financial assistance under JSY in Bihar as compared to 61.6% in Odisha and 53.9% in Rajasthan. In all three states, financial assistance availed for government institutional delivery show good performance. The Sixth CRM states that in Rajasthan, JSY payments through cheques are regular and made to mothers before they are discharged from the health facility.

The performance of JSY can also be attributed to the availability and performance of outreach services and availability and performance of human resource for health in all the states which

have been discussed later in this chapter. (Please increase the point size?)

Child Health

To promote child survival and prevent infant mortality, NRHM envisages newborn care, breastfeeding and initiation of complementary feeding at the right time and a complete package of immunization for children.

Breastfeeding

Table 10 shows the scenario of breastfeeding practices in the three states. NFHS – III reported that in India only 23.40% children were breastfed within one hour of birth. Comparing the NFHS III

data and AHS 2011 data regarding breastfeeding of children within one hour of birth shows a remarkable increase in all three states [Bihar- from

4% to 30.3%, Rajasthan from 13.30% to 48.6% and in Odisha from 54.30% to 71.5%].

Table 10: Breastfeeding

Indicators	Bihar	Odisha	Rajasthan
Children breastfed within one hour of birth (%)	30.3	71.5	48.6
Children (aged 6-35 months) exclusively breastfed for at least six months (%)	28.5	24.8	24.7

Although there is a remarkable rise in children being breastfed within one hour of birth, in all three states exclusive breastfeeding is not adequately practised. It is low at 24.8% in Odisha, 24.7% in Rajasthan and 28.5% in Bihar.

Immunisation Coverage of Children Aged 12-23 Months

Despite the renewed emphasis on Routine Immunization (RI), the immunization coverage is not optimal. In all the indicators related to child immunization, huge gaps are observed. Data from

three states revealed that the proportion of fully immunised children ranges from 55% in Odisha to 70.8% in Rajasthan. Although Rajasthan and Odisha have higher Measles coverage of 81.8% and 86.7 % respectively, the fully immunised score is low because of low DPT and Polio vaccine coverage.

More than one third of the babies are Low Birth Weight (LBW) in Rajasthan, while their number is less than a quarter in Bihar and Odisha. Practice of recording birth weight is poor, except in Odisha.

Table 11: Immunisation coverage

Indicators	Bihar	Odisha	Rajasthan
Children aged 12-23 months having Immunization Card (%)	82.4	94.0	71.5
Children aged 12-23 months who have received BCG (%)	93.9	97.5	90.6
Children aged 12-23 months who have received 3 doses of Polio vaccine (%)	79.9	74.7	78.1
Children aged 12-23 months who have received 3 doses of DPT vaccine (%)	78.7	72.9	77.0
Children aged 12-23 months who have received Measles vaccine (%)	75.7	86.7	81.8
Children aged 12-23 months Fully Immunised (%)	64.5	55.0	70.8
Children who have received Polio dose at birth (%)	62.7	76.9	74.9
Children who did not receive any vaccination (%)	2.9	0.9	5.9
Children (aged 6-35 months) who received at least one Vitamin A dose during last six months (%)	61.9	63.4	59.4
Children (aged 6-35 months) who received IFA			
Tablets/syrup during last 3 months (%)	29.0	23.3	9.4
Children whose birth weight was taken (%)	31.9	76.5	54.4
Children with birth weight less than 2.5 Kg. (%)	22.4	22.3	38.7

Diarrhoea and Acute Respiratory Infection (ARI) Management

Table 12: Diarrhoea and Acute Respiratory Infection (ARI) Management

Indicators	Bihar	Odisha	Rajasthan
Children suffering from Diarrhoea (%)	10.8	12.4	13.5
Children suffering from Diarrhoea who received HAF/ORS/ORT (%)	49.3	89.1	77.3
Children suffering from Acute Respiratory Infection (%)	20.8	18.3	6.5
Children suffering from Acute Respiratory Infection who sought treatment (%)	98.0	92.4	94.2
Children suffering from Fever (%)	34.9	33.2	19.2
Children suffering from Fever who sought treatment (%)	92.8	89.9	92.4

Less than 15% prevalence of diarrhoea is on the lower side as shown by the survey figures of all three states. This could be attributed to the non-seasonal period when the survey was conducted. This is not the case for ARI except for Rajasthan which is very low at 6.5%. Fever incidence above 20% is very high in both Bihar and Odisha. All three states show high percentage of treatment seeking behaviour for fever and ARI. But with regard to practice of giving increased fluids whether prepared at home or ORS to a child with diarrhoea is very poor in Bihar (less than 50%) as compared to Odisha and Rajasthan.

Maternal and Child Health- Inter district variation across study districts in three states

Table 13 gives an overview of key maternal and

child health indicators in the six study districts. Upon analysis of AHS data the variation in service delivery in the study districts is quite evident.

Antenatal care is poor in all districts and worst in both districts of Bihar as well as Churu. Except urban areas of Tonk, the institutional deliveries are less than satisfactory and most institutional deliveries are in the private sector in Bihar. In Bihar more than 80% of pregnant women who opt for institutional deliveries are allowed to stay less than 24 hours in the hospital for deliveries. 67% of mothers do not get any post-natal care from health staff.

While more than 80% newborns are breastfed within one hour of birth in tribal areas of Odisha, but less than one third of newborns get that privilege in Bihar. Exclusive breastfeeding for six months is poor in all six districts.

Table 13: Key Maternal and Child Health Indicators in the Study Districts

Key Indicators	Bihar		Odisha		Rajasthan	
	Gaya (R)	Sitamadhi (R)	Kandhamal (R)	Nuapada (R)	Churu (R)	Tonk (U)
Mothers who received 3 or more Antenatal Care (%)	34.9	25.9	69.3	70.2	40.5	73.8
Mothers who had Full Antenatal Check-up (%)	2.9	5.7	18.0	29.2	6.1	16.1
Institutional Delivery	40.7	26.8	65.3	58.6	50.7	80.2
Delivery at government institution	26.2	17.9	54.9	55.2	42.2	60.1
Less than 24 hours stay in institution after delivery (%)	81.2	94.1	48.2	59.8	34.9	20.6
Mothers who did not receive any Post-natal Check-up (%)	34.4	67.4	25.0	29.0	36.2	15.9
Children breastfed within one hour of birth (%)	23.5	31.2	81.7	89.6	58.8	50.4
Children (aged 6-35 months) exclusively breastfed for at least six months (%)	22.7	35.1	59.3	48.8	17.8	33.6
Children aged 12-23 months who have received BCG (%)	91.2	92.5	98.0	98.1	86.6	93.3
Children aged 12-23 months who have received 3 doses of Polio vaccine (%)	75.9	82.1	40.7	62.1	83.4	66.3
Children aged 12-23 months who have received 3 doses of DPT vaccine (%)	75.1	82.6	48.9	54.8	82.5	60.6
Children aged 12-23 months who have received Measles vaccine (%)	67.4	71.8	91.7	89.4	83.6	74.1
Children aged 12-23 months Fully Immunized (%)	63.6	63.1	19.5	33.5	74.6	56.0
Children whose birth weight was taken (%)	20.8	31.5	86.0	86.2	50.0	69.1
Children with birth weight less than 2.5 Kg. (%)	29.6	10.2	29.1	26.5	18.2	40.7

Key Indicators	Bihar		Odisha		Rajasthan	
	Gaya (R)	Sitamadhi (R)	Kandhamal (R)	Nuapada (R)	Churu (R)	Tonk (U)
Children suffering from Diarrhoea (%)	7.0	8.1	20.3	8.5	6.2	10.1
Children suffering from Acute Respiratory Infection (%)	17.8	25.2	23.7	22.5	4.0	6.2

R= Rural, U = Urban

Source: Annual Health Survey 2010-11

With regard to routine immunization, Bihar districts follow the general trend seen in many low coverage states i.e. starting with a high coverage of BCG, lower coverage for DPT/OPV and finally the lowest coverage for Measles, thus bringing down the fully immunised child rate. In Odisha and Rajasthan there is an unusually high coverage for Measles.

In Rajasthan, more than a third of the babies are LBW, but their number is less than a quarter in Bihar and Odisha. Practice of recording birth weight is poor in Bihar districts whereas in Odisha districts it is very good (above 80%).

Incidence rate of diarrhoea is unbelievably low in all districts except Kandhamal district. Similarly incidence of ARI is unusually low in Churu district and Urban Tonk.

Inter State Variation in Health Service Delivery and Human Resource for Health

Outreach Services – Sub Centres, Mobile Medical Units

The Sixth CRM report has well described the outreach services in the sample districts. In the study districts it was found that: (N.B. Following are observations; hence they had to be changed into past tense.)

IN BIHAR

- Sub-centres provided essential packages of services. MCP cards and MCTS registers were maintained but the ANM did not receive any MCTS work plan. The Haemoglobin and urine examinations were not done due to non-availability of instruments

- The Mobile Medical Unit (MMU) scheme was implemented through public-private partnership (PPP) and, in Banka district, no MMU was present whereas Gopalganj had one MMU
- The emergency referral transport services had been introduced recently. The 102-ambulances were well equipped with GPS system and had emergency medicines.
- Each of the PHCs visited had an ambulance with records of usage.

IN RAJASTHAN

- 793 SCs were functioning as delivery points. Labour rooms in 383 SC delivery points had been upgraded.
- Residential facilities for ANM in 700 Sub centres were sanctioned in 2011-12.
- 1,014 AYUSH doctors had been employed under NRHM and they had conducted 15,331 (April to September 2012) normal deliveries.
- 49 Mobile Medical Units and 143 Mobile Medical Vans were operational. Janani Express vehicles were also operational and Emergency transport services (108 and 104) were also in place.

IN ODISHA

- The state has 6,688 sub centres against a requirement of 10,616 SCs. Of these, 153 SCs have been identified as delivery points and 76 SCs were conducting over three deliveries per month.
- 1,043 second ANMs had been deployed, mostly in SCs catering to larger population and those where deliveries were conducted.

- ASHAs were actively promoting social marketing of sanitary napkins for the menstrual hygiene of adolescent girls.
- Weekly IFA supplementation was also done.
- State had Mobile Health Units (MHU) in hard-to-reach areas but there was a need for linkage with VHND and SCs to provide services to pregnant women and adolescents.
- State used Janani Express (JE) ambulances and also empanelled vehicles for providing home-to-facility services.

Human Resources For Health – Adequacy In Numbers, Skills And Performance

IN BIHAR

- There was an increase in the number of nursing institutes, particularly in private sector from six General Nursing and Midwifery (GNM) schools with an annual intake of 376 in 2005, to 12 in 2012 with an annual intake of 660. Rational deployment of civil surgeons was done through Screening Committee and they were trained for LSAS and EmOC. MOs were deployed at FRUs and IMNCI trained nurses at SNCUs and NBCCs for optimal utilisation of manpower.
- Massive recruitment drives for contractual appointments of doctors, nurses, ANMs were in place to meet the shortage of staffs through online application systems and walk-in-interviews. A policy of stable tenure was followed and contracts were signed for a minimum of three years.
- Special incentive scheme was in place for difficult areas and incentives for rural postings was under consideration
- A structured performance appraisal system for contractual employees was in place and being conducted every year.

IN RAJASTHAN

- The vacancy rate of specialists was 62.1% and that for MOs, it was 2.9% at PHCs, but there were excess HR personnel (in position v/s sanctioned): pharmacist (152%), staff

nurse (211%), ANM (122%), and laboratory technician (145%).

- The scheme of Difficult Area Allowances had not been implemented by the health service causing great dissatisfaction among most service providers.
- An HRD cell had been created under NRHM headed by a Senior RAS officer but many of the HR policy directives had not been implemented. The recruitment of paramedical personnel could be decentralised.
- The recruitment of medical personnel had been handed over to Medical University to expedite the process.
- A data base of health personnel was also being created.

IN ODISHA

- State had introduced various retention strategies such as providing incentives for Medical officers and specialists posted in difficult districts, extending the retirement age of MOs to 60 years, and upgradation of posts along with compulsory rural postings.
- Yet 33% posts for gynaecologist, 69% for anaesthetist, 52% for paediatrician and 84% for staff nurses were lying vacant .
- For professional development of doctors, schemes such as in-service training, professional development course (PDC), exposure visits, as well as participation in conferences and workshops had been introduced. Law to prevent violence against medical personnel and institutions was also in place.
- The State was developing online software called ITEMS to assess the service delivery of trained human resources. An online Human Resources Management Information Systems (HRMIS) having database of all types of employees (contractual and regular) was already in place.

Community Processes: Asha, Panchayati Raj Institutions (PRIs), Village Health Sanitation and Nutrition Committee (VHSNC)

Bihar has introduced support structures for ASHAs at all four levels but still has to fill up 30-40% of the vacant positions at district and block level. In order to expedite the training and ensure quality, state has adopted an innovative strategy of combining training of Module 5, 6 & 7 and contracting four NGOs as state training sites. Each NGO supports the ASHA training in its respective region.

48% of ASHAs have received training in Round 1 of Module 5, 6 & 7 and have been provided with a communication kit. However, procurement of the essential Home Based Neonatal Care (HBNC) equipment kit is yet to begin in the state. Payment to ASHAs is made through bank transfers or cheques and even mobile transfers in one district. However, payment delays of three to nine months have been reported.

Cash awards of Rs.300, Rs.500 and Rs.1000 are given to three best performing ASHAs in each block at the District ASHA Sammelan (DAS). State has also assisted 1000 ASHAs by enrolling them with National Open Schools for completion of 10th grade. VHSNCs are formed at Gram Panchayat level and about 8,224 GPs out of 8,478 have VHSNCs. Participation of PRIs in VHSNC, RKS and DAS is reported to be very poor. State has developed a manual and a film for VHSNC training. Community based monitoring is being piloted in five districts through Population Foundation of India.

In Rajasthan, 46% ASHAs have completed training of Round 1 of module 6 & 7, but HBNC kit has not been provided to them. ASHAs manage with an income between Rs.1500 – Rs.2500 which includes the monthly honorarium of Rs. 1100 from WCD. But, delay in payment extending up to 2-3

months was observed in District Sawai Madhopur. State has set up a help line 104 for registering complaints about non-payments but the awareness about 104 was found to be poor among ASHAs.

Although 43,440 VHSNCs have been constituted at village level, the meetings were reported to be irregular. In case of more than one ASHA in a village, the incentive of Rs.100 for holding VHSNC meeting is paid to every ASHA in rotation in alternate months. Community monitoring process was carried out in 180 villages, 36 PHCs and 12 blocks of four districts, namely, Alwar, Chittorgarh, Jodhpur and Udaipur in the first phase.

In Odisha, ASHA program was found to be strong, with 458 ASHAs deployed in 11 urban slums and additional ASHAs deployed in difficult areas with one ASHA per 100 persons. Round 1 training of Module 6 & 7 has been completed in 18 High Focus districts and Round 2 is being initiated in these districts. However, there is no mechanism for training of newly selected ASHAs. ASHA Gruha is available in District Hospitals (DH) and Sub-Divisional Hospital (SDH) levels. ASHAs are also given award based on performance at block level. ASHAs receive incentives ranging from Rs.1000 to Rs.5000 or above, with a state average of Rs.1800. Non-monetary incentives include uniforms (given annually), cycle, umbrella and ID cards. District level ASHA grievance redressal committee has recently been setup.

VHSNCs are in place in 45,262 villages out of total 51,313 revenue villages. Well established VHSNCs with active involvement of PRIs are reported. Utilisation of untied funds has improved but it still stands at 68%. For the financial year 2012-13, an amount of Rs.7,200 was transferred to VHSNCs. District has prepared guidelines for VHSNCs to assist in fund utilisation.

In Odisha, there is proactive NGO involvement in several areas like Mobile Health Units in Left Wing Extremist (LWE) areas, logistic support for Modules 6 and 7 training, GKS training etc.

Knowledge Management: SIHFW, SHSRC, Training, Technical Assistance

In Bihar, the District Health Ranking System has been introduced on some of the key indicators to ascertain the performance of different districts on a monthly basis. As per the latest data available, on the State Health Society website (December 2012), Gaya ranked 16 whereas Sitamadhhi was at 38th position based on different health indicators set for district health ranking. ANMs reported not receiving any micro plans made by the MCTS software. ANM needs to fill the data on MCTS format and MCTS register at the sub-centre. These are then uploaded by the Data Entry Operator at PHC level and the forms are returned to the ANM with the 18 digit registration number for the beneficiary. It was, however, seen that a number of forms that were sent back to the sub-centres did not have the registration number.

Technical Assistance

As mentioned in the current Program Implementation Plan (PIP) for training support following institutes/agencies are involved in Bihar:

- Technical and Financial support for Vitamin A supplementation from
 - ◆ UNICEF (Rs. 1.9 crore) for development of training package for ANM/AWW/ASHA
 - ◆ Micronutrient Initiative (Rs. 54 Lakh) for orientation of ANM/ASHA/AWW
- **Plan India:** for imparting training on Urban Health issues
- **National Institute of Nutrition Hyderabad:** for conducting Nutrition Rehabilitation Centre (NRC) training
- **SIHFW:** for providing training on family planning counselling, and other trainings of MO at state level
- **Jhpiego:** for providing technical assistance in all ANM/GNM schools run by the state

to strengthen the educational and clinical standards in accordance with Indian Nursing Council standards. It is providing technical assistance in setting up state nodal centre for nursing at IGIMS.

- **UNFPA** has adopted two ANM schools at Gaya and Sehera for all round development.
- **UNICEF** is providing financial as well as technical support to all nursing schools and GoB in the field of nursing.

Approved Trainings, State PIP (2012-13)-

- Navjaat Shishu Suraksha batch– 68 batches
- Training under Mamta Program (three batches MO/ANM/Nurse and Mamta - 165 batches)
- Training of ANMs and Local Supervisor (LS) on NRC of two focused blocks in each of the 38 districts (50 participants in 76 blocks)
- Training of ASHA/AWW on NRC of two focused blocks in each of the 38 districts (300 participants in 76 blocks)
- A three-day training for master trainers on clinical care of severely malnourished children at NIN, Hyderabad
- A two-day training on clinical care of severely malnourished children for all
 - ◆ MOs in the PHCs and APHCs on clinical care (206 participants)
 - ◆ One staff nurse and one ANM from 206 PHC & APHCs (412 participants)
- ASHA(3,807) and AWW (7,960)
- ARSH training for ANMs/LHVs
- Training of MOs on contraceptive update (Nine batches for MO of 334 PHCs)
- Training to ANM/LHVs on contraceptive update (19 districts)
- Minilap training of Medical Officers (19 districts)
- NSV training of Medical Officers (10 batches)
- Training of ANM/LHV/SN in IUD insertion (Two batches/district)

- Training of MOs/ANMs/ASHAs/BHMs on ARSH
- Training of Health Workers of Urban Health Centre (Technical support Plan India)
- Basic Emergency and Obstetric Care (BEmOC) training (30 batches)
- EmOC training (Five batches)
- Training of Medical Officers in life saving Anaesthesia skills (Five batches)
- Comprehensive Abortion Care (CAC) Training Program (63 batches)
- Training of ANMs / LHVs in SBA (340 batches)
- Skill Lab training for MOs/Nursing Staff (100 batches)
- F-IMNCI training for ANMs/AWWs (36 batches)
- IMNCI training for AWWs/ANMs (800 batches)
- Post Graduate Diploma in Family Medicine for MOs (15 MOs)
- Continuing Medical & Nursing Education (Two CMEs)
- Post Graduate Diploma in Epidemiology (40 epidemiologists)
- Post Graduate Diploma in Public Health Management (50 Health Professionals)
- Orientation Workshops, Trainings and capacity building of PRI at State/District Health Societies, CHC, PHC (Capacity Building of VHSNC staff)
- RKS Capacity Building & Strengthening (Four batches)

In Odisha, SIHFW has been restructured into a Centre of Excellence for communication with well-equipped facility and trained manpower for health communication. Most of the core clinical trainings are outsourced to the Medical College and SIHFW is conducting mostly non clinical training and some FP training. State has substantial support from international technical agencies like DFID, UNICEF, NIPI and UNFPA. Mapping of areas of technical support is done by these

agencies, but there is a lot of overlap in this area. Despite large presence of donor partners, there is no district specific comprehensive ownership of any Donor Partner for building the capacities of the districts resulting in weak managerial capacity of the districts in planning, implementation and monitoring.

State Health Systems Resource Centre (SHSRC) provides overarching support to NRHM and Directorates in developing PIPs, monitoring and data analysis, systematising trainings, and developing guidelines. SHSRC members are often involved majorly in implementation and day to day management of the program, diverting them from their domain area of policy support and building. Facility wise data entry is being done. Irregular internet connectivity at the block level is a constraint in timely entry and data updates. Analysis of the Health Management and Information System (HMIS) data within the district is done through the data validation sheet innovated by the state. Functioning of MCTS is better at the block level than at the higher level. Use of information technology for health is well adopted by the state. Several software for Data management are in use, for example, HRMIS for HR management, Odisha Vaccine and Logistics Management Systems (OVLMS) for medicine logistics, Central Plan Scheme Monitoring Scheme (CPSMS) for finance. Online Special Newborn Care Unit (SNCU) application is functioning in 21 SNCUs (also in Bolangir).

In Rajasthan, district training centres are yet to be made fully functional. ANM Training Centre (ANMTC) buildings at districts are not being used to full potential. ANMTC at Sawai Modhopur was being used temporarily as a medicine store and in Udaipur students were found to be staying outside due to lack of basic amenities at the ANMTC. Faculty positions at ANMTCs were being filled through deputation from regular ANM and GNM cadre who were not trained in teaching students. State has active presence of Norway-India Partnership Initiative (NIPI), UNICEF, UNFPA, Ipas and Jhpiego.

Promotive Health Care, Action On Social Determinants And Equity Concerns

- In Bihar, Behaviour Change Communication (BCC) continues to be a stand-alone activity. There are no rigorous evaluations of BCC campaign impacts, and most development partners work in isolation with little or no sharing with other stakeholders.
- State reportedly has large number of SAM children but does not have adequate capacity to treat all of them. The main reason is that the facility based management of SAM through NRCs though effective is facing challenges of high bed occupancy.
- In Bihar, about 1,52,40,033 (pl. cross check this figure) children were screened in school health camps during financial year 2011-12. However there were no follow ups done after these camps.
- In Odisha, cash transfer scheme has been implemented for health and nutritional support to mothers.
- 16 NRCs are functioning but with relatively low effectiveness on account of non-availability of dedicated staff.
- Fortnightly screening and referral of severely underweight children on Pustikar Diwas at the CHC level is an innovation but lack of awareness and non-functionality of AWW is an area of concern.
- State has initiated Gram Sabha Sasaktiran Karyakrama campaign to disseminate messages on scheme entitlements of the community.
- School health coverage is 60% , but dedicated teams as per norms are not in place.
- Gender and Equity Cell with an Equity Advocacy Manager is functional under DoHFW, with funding from NRHM.
- Differential financial allocations have been made and extra 34% is provided to high focused districts since 2010.
- In Rajasthan, the declining child sex ratio (883, Census 2011) is a cause for concern. The Pre-conception and Pre-natal Diagnostic Techniques (PCPNDT) Act is being implemented in the districts and appropriate authorities have been appointed, however conviction rate of cases is poor (two conviction out of 469 complaints filed). Rajasthan Medical Council has suspended registration of 21 doctors pending trials.

Village Health and Sanitation Committees

Communitisation is one of the most important priorities and strategy under NRHM; envisioned through decentralization by transferring of funds and control over functions and functionaries to the local level. The states have made significant progress in setting up Village Health and Sanitation Committees (VHSCs), collaborating with frontline health workers at the village level, and the ANM and Sarpanch at sub-centre level. Under the purview of the Gram Sabha the Village Health and Sanitation Committee (VHSC) is expected to be formed in each village with proportionate representation from all hamlets, and, adequate representation from all the disadvantaged groups like women, SC/ST/OBC.

According to the Guidelines for Village Health Committee (MoHFW, 2006), the committee will analyze key issues and problems and give feedback on the related issues of the village level health and nutrition activities to the Medical Officer (MO) of the PHC. They will monitor all health activities conducted in the village including VHNDs and mothers' meetings. They will be responsible for conducting household surveys in the village along with ANM, and will ensure that ANMs visit the village on the fixed days and oversee their performance as per the work plan. VHSC will discuss ANM's bi-monthly village report submitted to them along with the plan for the next two months; the formats and contents would be decided by the committee. VHSC is also required to discuss every maternal or neonatal

death that occurs and suggest necessary preventive action after analyzing them. The committee shall also register these deaths with the panchayat. The committee will also organize regular monthly meetings to discuss various issues in the village and keep the minutes of the meetings. The committee is also required to play an important role for selecting and supporting ASHA from the community.

Some evaluation studies have noted that the constitution of VHSC did not always follow the norms of inclusion. There was no system in place from the government side which could have ensured that VHSCs are formed and groomed as it should be. In Jharkhand, Gram Panchayat elections were held at the end of 2010 and VHSCs were formed in such a way that the committee could be linked with the respective gram panchayats when it is created. Function and constitution wise its role is different from the other hamlet level committees such as Village Education Committee (VEC or Gram Siksha Samiti) and Mata Samiti (or Saraswati Vahini) and the members are also different. In Jammu & Kashmir the representation of socially backward classes or women representatives was not fulfilled. In Nagaland, the community based committees have been formed such as Village Health Committees (VHC) and Village Education Committees (VEC) and delegated the powers and responsibilities of management such as disbursement of salaries with power to enforce 'no work, no pay', control of attendance, grant of leave, maintenance of buildings and assets and purchase of essentials. In several states, Village Health and Sanitation Committees (VHSCs) have been renamed as Village Health Sanitation and Nutrition Committee (VHSNC). The description of functionality of VHSNC varied in different states; they were functioning relatively well in Andhra Pradesh, Sikkim and Odisha and are yet to mature in states like Bihar, Jharkhand and Uttar Pradesh. VHSCs in Goa and Odisha have undertaken initiatives such as cleanliness drive to control vector borne diseases. There are some progressive indications in addressing both the nutrition and social determinations of health in few states such as Bihar, Jharkhand, Andhra Pradesh, Gujarat and Odisha with the involvement of NGOs or programs such as Mahila Samakhya (in A.P.).

This section is contributed by:

Minashree Horo; Understanding Communitization within the National Rural Health Mission (NRHM): A Case Study of Village Health and Sanitation Committees (VHSC) in Jharkhand; Unpublished M Phil Dissertation; CSMCH, JNU (2013)

Table 14: Summary of Findings

Major Domains	Bihar		Odisha		Rajasthan	
	Strengths	Weaknesses	Strengths	Weaknesses	Strengths	Weaknesses
Recording and Tracking ANC	MCP cards and MCTS registers are maintained but the ANM did not receive any MCTS work plan.	The HB and urine examinations are not done due to unavailability of instruments	Full ANC (76%) is highest among all the study districts	ANC registrations are late and full ANCs are often not done. Lack of Mother Child Protection (MCP) cards resulted in inadequate recording and tracking ANCs.	Overall, ANCs have improved in the State MCTS is in place	Still ANC coverage is below 50 %.
Delivery & Post-natal Care Delivery points	Records of pregnant women registered for ANC were maintained in the MCH register	ID no. for entering the details in Mother and Child Tracking System (MCTS) data base was not mentioned in the register	Institutional delivery is very high as compared with the national average (71.3%) Safe delivery (75.2%)	Delivery at home conducted by skilled health personnel is only 20.5%.	Institutional delivery is very high as compared with the national average (70.2%) Safe delivery (76.2%).	Shortage of staff for delivery care. The gap analysis showed a huge shortage of HR (47.3 %), trained manpower (45.9 %) and LR equipment (36.7 %).
	The emergency referral transport services have been introduced recently. The '102' ambulance are well equipped with GPS system and have emergency medicines.	In Bihar, only 53.5% are safe deliveries.	153 SCs have been identified as delivery points and 76 SCs are conducting over 3 deliveries per month	1014 AYUSH doctors have been employed under NRHM and they have conducted 15,331 (April to Sep. 2012) normal deliveries.		

Major Domains	Bihar		Odisha		Rajasthan	
	Strengths	Weaknesses	Strengths	Weaknesses	Strengths	Weaknesses
		Delivery in government institutions is lowest (32.9%), compared to other study districts.	1,043 second ANMs have been deployed, mostly in SCs catering to larger population and those where deliveries are being conducted.		Specialists at the Sub centre on designated days. Quality ANC and PNC services available through the Sub centre.	
			State uses Janani Express (JE) ambulances and also empanelled vehicles for providing home-to-facility services.		Janani Express vehicles are operational. Emergency transport services (108 and 104) are also in place.	
				Home based visits for PNC care are not undertaken.		
	Newborn Care Corner (NBCC) functional at delivery points and ENBC Services being provided.	9,696 sub centres have two ANMs, however, delivery services are being provided only at 59 sub centres (0.61%).	Prioritisation of delivery points is visible and most inputs are directed towards strengthening the DPs. All delivery points had good infrastructure, equipment and were reporting increasing caseloads	Irrational posting of LSAS and EMOC trained MOs -in Level 2 facilities, making their skills redundant. Knowledge and skills of staff in management of basic obstetric complications are weak and need to be strengthened.	Delivery points are fairly well distributed geographically. There are 793 SCs functioning as delivery points. Labour rooms in 383 SC delivery points have been upgraded.	Very few functional FRUs. Numbers of FRU functional have come done from 223 in 2010 – 11 to 206 in 2011 – 12.
				Availability of Safe abortion services is available in very few facilities.	Essential medicines and equipment for safe delivery care were available at most facilities.	

Major Domains	Bihar		Odisha		Rajasthan	
	Strengths	Weaknesses	Strengths	Weaknesses	Strengths	Weaknesses
Performance of JSY		Only 30.4% mothers availed financial assistance under JSY in Bihar	Mothers who availed financial assistance for delivery under JSY is highest among the three states at 61.6%.		JSY payments through cheques are regular and found to be made to mothers before discharge from the health facility.	
Human Resources For Health – Adequacy In Numbers, Skills And Performance	MOs deployed at FRUs and IMNCI trained nurses at SNCUs and NBCCs for optimal utilisation of manpower	Skills of ANMs not up to the mark for Navjaat Shishu Suraksha Karyakram (NSSK)	State has introduced various retention strategies such as providing incentives for Medical Officers and specialists posted in difficult districts	State has a vacancy of 33% for gynaecologist, 69% for anaesthetist, and 52% for paediatrician and 84% for staff nurses	The recruitment of medical personnel has been handed over to Medical University to expedite the process.	The vacancy rate of specialists is 62.1% and 2.9% for MOs at PHCs while the state has excess HR (in position v/s sanctioned) - pharmacist (152%), staff nurse (211%), ANM (122%), laboratory technician (145%).
	Massive recruitment drives for contractual appointments of doctors, nurses, ANMs are in place to meet the shortage of staff.		For professional development of doctors, steps such as in-service training, skill development PDC course, exposure visits, participation in conferences and workshops have been introduced.		A data base of health personnel is being created	Difficult area allowances have not been implemented by the health service which causes great dissatisfaction among most service providers.
	A policy of stable tenure is followed and contracts are signed for a minimum of three years.		The State is developing online software called ITEMS to assess the service delivery of trained HR.			HR policy directives have not been implemented

Major Domains	Bihar		Odisha		Rajasthan	
	Strengths	Weaknesses	Strengths	Weaknesses	Strengths	Weaknesses
	Special incentive scheme is in place for difficult areas and incentives for rural postings are in pipeline. A structured performance appraisal system for contractual employees is in place and being conducted every year.					



Auxiliary Nurse Midwife [ANM]: Skills, Roles and Responsibilities

4

Skill Assessment: Observational

A total of 42 ANMs attended the skill assessment. Their break-up is as follows:

Skill assessment was conducted for ANMs in all the study blocks (except for Tonk which is an urban district and therefore has a different system).

Table 15:

State	District	Number of ANMs
Bihar	Gaya	4
	Sitamarhi	10
Rajasthan	Churu	11
Odisha	Kandhamal	8
	Nuapada	9
Total		42

Profile of the ANMs

Table 16: Qualification of ANM

		Bihar	Odisha	Rajasthan	Total
Class 10	Number	10	2	4	16
	Percent	66.7%	16.7%	33.3%	41%
Class 12	Number	1	4	5	10
	Percent	6.7%	33.3%	41.7%	25.6%
Degree	Number	4	3	3	10
	Percent	26.7%	25%	25.0%	25.6%
No information	Number	0	3	0	3
	Percent	0%	25%	0%	7.7%

Of the ANMs, those in Bihar had the least qualification with most of them having studied only until Class 10. In the other two states more than

half the respondent ANMs had completed Class 12 or higher.

Table 17: Type of Institution in which ANM Training was received

		Bihar	Odisha	Rajasthan	Total
Government	Number	12	12	12	36
	Percent	80.0%	100.0%	100.0%	92.3
Private	Number	3	0	0	3
	Percent	20.0%	0.0%	0.0%	7.7

Other than 3 ANMs from Bihar, all other ANMs have been trained in a government institution.

Table 18: Practical Training

No. of ANMs who receive practical training in ward / labour room		Bihar	Odisha	Rajasthan	Total
Yes	Number	13	10	6	29
	Percent	86.7%	90.9%	50.0%	74.4
No	Number	2	1	6	9
	Percent	13.3%	9.1%	50.0%	23.1

Overall, almost a quarter of ANM respondents did not receive any practical training. It is a matter of concern that half the ANMs in Rajasthan have not received any practical training in ward/labour

room. (None of the GNMs in Tonk have received practical training. The sample includes 4 GNMs from the urban wards of Tonk)

Table 19: Duration of Service

No. of Years of Service as an ANM in the government		Bihar	Odisha	Rajasthan	Total
< 5 years	Number	4	3	3	10
	Percent	26.7%	27.3%	25.0%	25.6
5 to 10 years	Number	0	2	0	2
	Percent	0.0%	18.2%	0.0%	5.1
10 to 20 years	Number	1	0	6	7
	Percent	6.7%	0.0%	50.0%	17.9
> 20 years	Number	10	6	3	19
	Percent	66.7%	54.5%	25.0%	48.7

Most of the ANMs in Bihar have been in service for more than 20 years. In Rajasthan, most of the ANMs have been in service for more than 10 years. In Odisha while about half have been in service for more than 20 years, the rest have been in service for less than 10 years.

ANMs were tested on 34 skills which were divided into 6 skill sets. For each skill, the ANM was given a score of 0-4. The interpretation of the score is as follows:

Table 20:

SCORE INTERPRETATION	Score
Doesn't Perform	0
Less Proficiency In The Skill	1
Average Proficiency In The Skill	2
Good Proficiency In The Skill	3
Performs Accurately	4

Table 21:

S No.	Skill Set	Number of Skills tested	Max. Score Possible
1	Ante Natal Care	8	32
2	Intra-natal Skill	9	36
3	Newborn Care	6	24
4	Newborn Resuscitation	1	4
5	Peuperium	6	24
6	Assessment of Sick Child	4	16
Total		34	136

Results of the Skill Assessment

The table below summarises the results of skill assessment across five districts and six sets of skills.

As mentioned above, the maximum score possible for each skill is 4. A weighted average of the score for each skill has been calculated to arrive at the average score across ANMs for the district as well as ANMs.

Table 22:

Skills		Antenatal Care	Intra natal Skill	Newborn Care	Newborn Resuscitation	Peuperium	Assessment of sick child	Overall
No of skills		8	9	6	1	6	4	
Gaya	Avg.	1.6	0.0	2.8	1.0	1.8	2.1	1.4
Sitamarhi	Avg.	1.9	0.1	2.7	0.8	1.8	2.8	1.6
Churu	Avg.	2.7	0.1	3.0	0.6	2.3	2.8	2.0
Kandhamal	Avg.	3.0	1.1	3.6	1.3	2.5	3.2	2.5
Nuapada	Avg.	2.5	0.5	2.9	1.9	2.1	3.3	2.1
Total	Avg.	2.4	0.4	3.0	1.1	2.1	2.9	1.9

Note: All averages are weighted, based on the number of ANMs. The scores are in the range of 0 -4 with 0 being the worst and 4 being the best

At Phulbani for Phyringia block of Khandamal district

Eight ANMs of Phyringia block were assessed at District Hospital Phulbani. In Antenatal care, skills to measure Blood Pressure (BP) and weight were good. ANMs were not very proficient in foetal lie, presentation and measuring Foetal Heart Sound (FHS). In lab tests, they had average skills; most of them reported using Uristix for urine tests and strips for Hb estimation. In intra-natal care, they had no knowledge of normal mechanism of labour. Even a self-explanatory dummy of normal mechanism of labour could not help them out. They were found to have poor skills in partograph. In postnatal care, they had average skills in Controlled Cord Traction (CCT), expulsion of clots and postnatal examination. They had no skills in postnatal exercise and lochia but skills were found to be good in breast care and breast feeding.

At Khariar for Boden block of Nuapada district

Nine ANMs were assessed. In Antenatal care, skills to measure BP and weight were good. They were not very proficient in foetal lie, presentation and measuring FHS. In lab tests, they had average skills; most of them reported using Uristix for urine tests and strips for Hb estimation. They lacked skill in conventional methods of lab tests.

In intra-natal care, they had no knowledge of normal mechanism of labour. The skills were poor in partograph. In postnatal care, they had average skills in CCT, expulsion of clots and postnatal examination. There were no skills in postnatal exercise and lochia but they had good skills in breast care and breast feeding.

At Bodh Gaya for Mohanpur block of Gaya district

Only four ANMs were available for assessment due to non-cooperation of Block Medical Officer. In Antenatal care, skills to measure B.P and weight were good. They lacked proficiency in foetal lie, presentation and measuring FHS. They also lacked skill in lab tests as only urine test for pregnancy is practised. In intra-natal care, they had no knowledge of normal mechanism of labour and skills were poor in partograph. In postnatal care, skills were poor in CCT, expulsion of clots and postnatal examination. They had no skills in postnatal exercise and lochia but they had good knowledge about breast care and breast feeding.

At Sitamarhi for Riga block of Sitamarhi district

Ten ANMs were assessed. In Antenatal care, skills to measure B.P were poor, but for weight it was good. They had average proficiency in

foetal lie, presentation and measuring FHS. They lacked skill in lab tests as only urine test for pregnancy is practised. In intra-natal care, they had no skill in normal mechanism of labour and poor in partograph. In postnatal care, skills were found to be average in CCT, expulsion of clots and postnatal examination and they had no skills in postnatal exercise and lochia. They had good knowledge in breast care and breast feeding.

At Rajgarh for Rajgarh block of Churu district

Eleven ANMs were assessed. Only three ANMs had undergone SBA training while none of them were trained in IMNCI and Janani Shishu Suraksha Karyakram (JSSK). Their skills were limited to what they had acquired in pre-service training. In Antenatal care, skills to measure B.P and weight were good. There was an average proficiency in foetal lie, presentation and measuring FHS. They lacked skills in urine tests for protein and sugar. All were thorough in measuring haemoglobin. In intra-natal care, but they had no skill in normal mechanism of labour and were poor in partograph.

In postnatal care, average skills were assessed in CCT, expulsion of clots and postnatal examination. They had no skills in postnatal exercise and skills were poor in assessing lochia. They had good knowledge about breast care and breast feeding. They were not at all well versed with the first 60-seconds management of an asphyxiated baby. Many of them had not seen or used an Ambu Bag and some of them had not used a mucus sucker. They were not proficient in cleaning the airway and even wrapping the baby. They were strong in the skills of initiating breast feeding and weighing the newborn. Their skill in Kangaroo Mother Care (KMC) was cursory. Skills in assessment of sick child were varying; though many could recognise pneumonia because of chest retractions and difficulty in breathing, most of them could not assess fast breathing. Counting breath was not practised. Severe acute malnutrition could be recognised by many, but where to refer correctly was not known to many. Almost all were thorough with preparation of ORS.

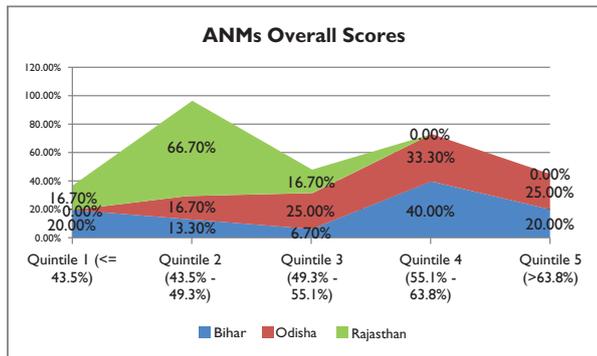
Table 23: Overall Performance of ANMs in Skill Assessment Questions

		Bihar	Odisha	Rajasthan	Total
Quintile 1 (<= 43.5%)	Number	3	0	2	5
	Percent	20.0%	0.0%	16.7%	12.8%
Quintile 2 (43.5% - 49.3%)	Number	2	2	8	12
	Percent	13.3%	16.7%	66.7%	30.8%
Quintile 3 (49.3% - 55.1%)	Number	1	3	2	6
	Percent	6.7%	25.0%	16.7%	15.4%
Quintile 4 (55.1% - 63.8%)	Number	6	4	0	10
	Percent	40.0%	33.3%	0.0%	25.6%
Quintile 5 (>63.8%)	Number	3	3	0	6
	Percent	20.0%	25.0%	0.0%	15.4%
Total		15	12	12	39

In all, ANMs were asked 69 questions which were directly aimed at assessing their skill levels. They were given one mark for each correct answer, and the percentage score was calculated on that basis. The ANM who received the highest score got 85% of the questions right. But there were very few ANMs who got a high score. Dividing the scores into quintiles, it is seen that almost 60% of the ANMs got less than 55% score in these skill

assessment questions. 44% of the ANMs got even less than 50%. Only six out of the 39 ANMs are in the highest score quintile which is a score above 63.8%. Of this, three are from Odisha and three from Bihar. None of the ANMs in Rajasthan is in the highest quintile or even in the fourth quintile. All ANMs in Rajasthan who were assessed in this survey got a total score of less than 55%. Further, consistent with the rest of the results, the ANMs

of Odisha performed the best as far as getting higher scores in this skill assessment is concerned. Overall, most of the ANMs across all the states

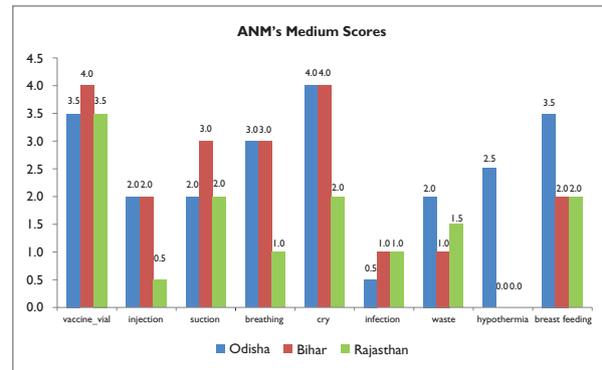


The figure above shows the median scores received by ANMs within different categories of skill related questions. It also shows a similar ordering where Odisha is the best in most of the skill categories, followed by Bihar and Rajasthan. While this is the general pattern, there are some exceptions. For instance ANMs in Bihar were better able to interpret vaccine vials than the ANMs of the other two states and ANMs in Rajasthan were better than those in Bihar as far as waste disposal is concerned.

Following are the summary findings:

1. ANMs in Bihar scored the lowest. The average score in Gaya was 1.4 and in Sitamarhi was 1.6 (out of a maximum possible of 4).
2. ANMs in Odisha were better than Bihar; average score in Kandhamal being 2.5 and 2.1 in Nuapada.
3. Newborn care and assessment of sick child were the skills practiced with a relatively higher degree of proficiency. In both these skills, the average score amongst all ANMs was high (3 and 2.9). Among the districts, the ANMs in Kandhamal district scored quite high in these two skills. Even among the poorer performing districts of Gaya and Sitamarhi, ANMs were proficient in these two skills.
4. Intra-natal skills were conspicuous by their absence among ANMs across all the districts.

performed poorly as far as responding to the skill questions was concerned.



5. Overall score amongst all ANMs across all skills was less than 2.5 which shows a poor level of skills amongst ANMs in relation to delivery and newborn care. The worst performance was in relation to intra-natal skills and newborn resuscitation.
6. Overall the ANMs showed a better skill level in newborn care and assessment of sick child.
7. Antenatal care and peuperium skills were better than intra-natal and resuscitation but worse than newborn care and assessment.
8. In all the skills, there was a state and district wise difference in the skill levels with the districts of Bihar being the worst, the districts of Odisha being the best and Churu in Rajasthan closely behind Odisha. Only in the case of newborn resuscitation, there is a slight difference to this general trend where the skill level of ANMs in Churu is on an average slightly behind the skills of ANMs in Sitamarhi in Bihar.
9. Table 24, 25 and 26 show that, within each set, there are some skills in which the ANMs are more proficient than in others; this pattern is similar across all districts.

Table 24:

	Bihar	Rajasthan	Odisha
Antenatal Care	Knowledge of urine and blood examination very poor. Knowledge of measuring BP and assessing foetal heart sound is only average, while for HB it is very poor; nil in Gaya and barely in Sitamarhi	Knowledge of urine and blood examination very poor.	Knowledge of urine and blood examination average; better than other states.
Intra-natal	Nil in all skills; except some minimum awareness amongst some on partograph in Sitamarhi	Nil in all skills; except some minimum awareness amongst some on partograph in Sitamarhi	Poor in all; but unlike other states not non-existent
Newborn Care	Covering the baby skill poor. Cord care relatively better in Gaya	Covering the baby skill average	Covering the baby 60%; other skills better. Even this is better than other states
Newborn Resuscitation	Very poor	Very poor	Average score 1.6 which is better than other states. Nuapada better than Kandhamal
Peuperium	Assessing lochia and encouraging post-natal exercises very poor. Breastfeeding very good	Assessing lochia and encouraging post-natal exercises very poor. Breastfeeding very good	Assessing lochia and encouraging post-natal exercises very poor. Breastfeeding very good
Assessment of Sick Child	Less than 50% score in identifying pneumonia and SAM (average score < 2) [in Sitamarhi better identification of SAM]	Less than 50% score in identifying pneumonia and SAM (average score < 2)	Overall average above 3
Districts	Overall Sitamarhi better		Kandhamal better in most skills and Nuapada in some

Detailed Skill-wise Results

Table 25:

S. No.	Skills	Gaya	Sitamarhi	BIHAR	RAJASTHAN (Churu)	Kandhamal	Nuapada	ODISHA
ANTENATAL CARE								
1	Measures blood pressure	3.75	1.7	2.3	3.45	2.75	3.11	2.9
2	Measures weight	4	3.9	3.9	4	4	4	4
3	Measures fundal height	1.25	3.6	2.9	2.73	2.75	3.11	2.9
4	Assesses foetal lie & presentation	2.25	3	2.8	3	2.88	3	2.9
5	Assesses foetal heart sound	1.5	2.7	2.4	2.55	2	1.89	1.9
6	Examines urine for protein	0	0	0	0.82	3.13	0.78	1.9
7	Examines urine for sugar	0	0	0	0.82	3.13	0.67	1.8
8	Examines blood for haemoglobin	0	0.4	0.3	4	3.13	3.11	3.1
Sub-Total	8 skills	1.59	1.91	1.8	2.67	2.97	2.46	2.7

S. No.	Skills	Gaya	Sitamarhi	BIHAR	RAJASTHAN (Churu)	Kandhamal	Nuapada	ODISHA
INTRANATAL SKILL								
9	Demonstrates the descent of foetal head	0	0	0	0	1.5	1.22	1.4
10	Demonstrates flexion	0	0	0	0	1.25	0.33	0.8
11	Demonstrates internal rotation of the head	0	0	0	0	1.25	0.44	0.8
12	Demonstrates extension of the head	0	0	0	0	1.13	0.78	0.9
13	Demonstrates restitution	0	0	0	0	1	0.33	0.6
14	Demonstrates internal rotation of the shoulder	0	0	0	0	1	0.33	0.6
15	Demonstrates external rotation of the head	0	0	0	0	1	0	0.5
16	Demonstrates lateral flexion	0	0	0	0	0.88	0.67	0.8
17	Monitors labour using Partograph	0	0.5	0.4	1.27	0.88	0.56	0.7
Sub-Total	9 skills	0	0.06	0	0.14	1.1	0.52	0.8
Newborn CARE								
18	Cleans the airway	1.75	3.1	2.7	2.7	3.75	2.44	3.1
19	Covers the baby	1.75	2.3	2.1	2.1	3	1.89	2.4
20	Cord Care	4	2.5	2.9	2.9	4	3.67	3.8
21	Initiates Breast Feeding	2.5	2.7	2.6	2.6	3.88	4	3.9
22	Kangaroo mother care	2.5	2.9	2.8	2.8	3.25	1.89	2.5
23	Weighs the newborn	4	2.9	3.2	3.2	4	3.78	3.9
Newborn RESUSCITATION								
24	Performs 60s management of asphyxiated baby	1	0.4	0.6	0.6	1.25	1.89	1.6
Sub-Total	1 Skill	1	0.4	0.6	0.6	1.25	1.89	1.6
PUERPERIUM								
25	Performs Controlled Cord Traction	2	1.8	1.9	1.9	3.13	2.56	2.8
26	Performs uterine massage to expel clots	2.75	2	2.2	2.2	3.25	2.33	2.8
27	Does postnatal assessment of mother	2	2.5	2.4	2.4	3.13	2.33	2.7
28	Assesses Lochia	0	0.6	0.4	0.4	1.5	1.33	1.4
29	Encourages Post-natal Exercises	0	0	0	0	0	0.33	0.2
30	Demonstrates Breast Care	4	4	4	4	4	4	4
Sub-Total	6 Skills	1.79	1.82	1.8	1.8	2.5	2.15	2.3

S. No.	Skills	Gaya	Sitamarhi	BIHAR	RAJASTHAN (Churu)	Kandhamal	Nuapada	ODISHA
ASSESSMENT OF SICK CHILD								
31	Can assess level of dehydration	2.75	3.2	3.1	3.1	3	3.44	3.2
32	Prepares ORS	3.5	3.6	3.6	3.6	3.75	3.67	3.7
33	Can identify signs of Pneumonia	1.25	2.1	1.9	1.9	2.88	3.22	3.1
34	Can identify Severe Acute Malnutrition	0.75	2.1	1.7	1.7	3	2.78	2.9
Sub-Total	4 Skills	2.06	2.75	2.6	2.6	3.16	3.28	3.2
Overall average		1.45	1.6	1.6	2	2.5	2.1	2.3

Knowledge Assessment: Interview Based

Knowledge on Maternal Health

Of all the complications during pregnancy, bleeding is the most dangerous and fastest killer of a pregnant woman or a woman who has just delivered. While all ANMs in Rajasthan and 92% of ANMs in Odisha recognized it, up to a third of ANMs in Bihar lacked this knowledge. Bleeding and swelling of legs were most commonly mentioned signs of complications. Swelling of legs is the early warning signal of Pregnancy Induced Hypertension (PIH) or Toxaemia of Pregnancy. Headache, as an associated important symptom of PIH, was recognised by all ANMs of Rajasthan but very few did so in Odisha and Bihar.

Loss of consciousness which is a severe sign of PIH did not seem to be of importance among ANMs (47% ANMs in Bihar, 75% ANMs in Odisha and 33% ANMs in Rajasthan). Convulsion, an even more serious sign of PIH, was not mentioned by nearly two-thirds of ANMs.

Hypertension as a specific antenatal complication was mentioned only by about 60% of the ANMs in all three states. Severe headaches were mentioned by all ANMs of Rajasthan and half of Bihar but only by one in Odisha. Similarly, dizziness was mentioned by many in Bihar and Rajasthan but not in Odisha.

Anaemia is an important antenatal complication picked up and managed by ANMs conventionally; only a quarter of ANM in Rajasthan mentioned it. But, it did not correlate well with extreme weakness as a sign mentioned by two-thirds in Rajasthan and about a sixth in Odisha. Similarly, blurring of vision (associated with anaemia) was mentioned by only one ANM in Odisha.

Only a quarter of ANM of all three states found prolonged labour as a complication that they actually faced; perhaps because very few of them conducted deliveries themselves (As seen in Table 28, 25 out of the 39 ANMs had not conducted a single delivery in the past three months).

Table 26:

Complications to watch out for during pregnancy or delivery listed by ANMs		Bihar	Odisha	Rajasthan	Total
Severe headaches	Number	8	1	12	21
	Percent	53.3%	8.3%	100.0%	53.8%
Dizziness	Number	11	1	8	20
	Percent	73.3%	8.3%	66.7%	51.3%
Blurring of vision	Number	6	1	3	10
	Percent	40.0%	8.3%	25.0%	25.6%

Complications to watch out for during pregnancy or delivery listed by ANMs		Bihar	Odisha	Rajasthan	Total
Convulsions	Number	5	3	3	11
	Percent	33.3%	25.0%	25.0%	28.2%
Bleeding	Number	10	11	12	33
	Percent	66.7%	91.7%	100.0%	84.6%
Prolonged labour	Number	3	4	3	10
	Percent	20.0%	33.3%	25.0%	25.6%
Fevers and chills	Number	5	1	8	14
	Percent	33.3%	8.3%	66.7%	35.9%
Extreme weakness	Number	11	2	8	21
	Percent	73.3%	16.7%	66.7%	53.8%
Hypertension	Number	10	7	7	24
	Percent	66.7%	58.3%	58.3%	61.5%
Anaemia	Number	14	10	3	27
	Percent	93.3%	83.3%	25.0%	69.2%
Swelling of legs	Number	10	10	9	29
	Percent	66.7%	83.3%	75.0%	74.4%
Loss of consciousness	Number	7	3	8	18
	Percent	46.7%	25.0%	66.7%	46.2%
Severe weakness	Number	6	3	1	10
	Percent	40.0%	25.0%	8.3%	25.6%
Other	Number	2	1	0	3
	Percent	13.3%	8.3%	0.0%	7.7%
Total		15	12	12	39

Note: Percentages do not add up to 100 because of multiple responses

The ANMs were asked to list conditions that could lead to death during pregnancy, delivery and post-delivery. Most ANMs were aware of severe vaginal bleeding as a factor causing maternal death. Around two-thirds of all ANMs noted prolonged labour as potentially fatal. Only around half the ANMs in Bihar mentioned retained placenta as a cause of severe bleeding and subsequent death.

Conventional correlation of severe headache, loss of consciousness and convulsion as a sign

of toxemia of pregnancy (leading to death if untreated) could not be inferred from the responses of ANMs in all three states. Very few in Bihar mentioned convulsions but more than half mentioned loss of consciousness and one-third mentioned headache which revealed lack of consistency in understanding the symptoms of complex toxemia.

Table 27:

Complications that could lead to maternal death according to ANMs		Bihar	Odisha	Rajasthan	Total
Severe vaginal bleeding	Number	13	11	12	36
	Percent	86.7%	91.7%	100.0%	92.3%
Labour prolonged more than 12 hours	Number	11	7	8	26
	Percent	73.3%	58.3%	66.7%	66.7%
Convulsions	Number	2	4	2	8
	Percent	13.3%	33.3%	16.7%	20.5%

Complications that could lead to maternal death according to ANMs		Bihar	Odisha	Rajasthan	Total
Retained placenta more than 30 minutes	Number	8	11	10	29
	Percent	53.3%	91.7%	83.3%	74.4%
Severe headache	Number	5	1	4	10
	Percent	33.3%	8.3%	33.3%	25.6%
High fever	Number	6	3	7	16
	Percent	40.0%	25.0%	58.3%	41.0%
Loss of consciousness	Number	8	7	2	17
	Percent	53.3%	58.3%	16.7%	43.6%
Other	Number	1	0	1	2
	Percent	6.7%	0.0%	8.3%	5.1%
Total		15	12	12	39

Conducting Delivery

Almost 80% of ANMs reported that they were confident of conducting a normal delivery. 42% of ANMs in Rajasthan and 20% in Bihar confided that they could not conduct a normal delivery by themselves.

However, very few ANMs had actually conducted any deliveries in the last three months; the least in Bihar. Although a significant proportion of ANMs

in Rajasthan reported their inability to conduct a normal delivery, the state was doing well in conducting deliveries at sub-centres. Almost all those who said that they could do it (6 out of 7) had conducted at least one delivery in the previous six months. Overall, nearly two-thirds of ANMs did not conduct a single delivery during three months prior to the survey period. Among those who conducted deliveries, most of them conducted less than five in the last three months.

Table 28:

		Bihar	Odisha	Rajasthan	Total
ANMs confident of conducting a normal delivery without assistance from a senior:					
Yes	Number	12	11	7	30
	Percent	80.0%	91.7%	58.3%	76.9%
No. of deliveries conducted in the last three months					
Nil	Number	11	8	6	25
	Percent	73.3%	66.7%	50.0%	64.1%
< 5	Number	3	4	6	13
	Percent	20.0%	33.3%	50.0%	33.3%
>5-10	Number	1	0	0	1
	Percent	6.7%	0.0%	0.0%	2.6%
Total		15	12	12	39

Neonatal Sepsis

12 of the 39 ANMs said that they did not know how to recognise neonatal sepsis. Of this, 11 were ANMs in Bihar (out of 15) and one from Rajasthan. This is a serious knowledge gap. ANMs from Odisha and Rajasthan were better in their

knowledge level compared to those from Bihar. Most ANMs in Odisha and Rajasthan were able to mention poor sucking or feeding, lethargy and poor cry as symptoms of neonatal sepsis. Three-fourths of ANMs in Rajasthan also mentioned “too hot” or “cold to touch” as a sign of neonatal sepsis.

Case Scenario: Response to Diarrhoea and Dehydration

Table 29:

Advice ANM would give to child with diarrhoea and symptoms of dehydration		Bihar	Odisha	Rajasthan	Total
Continue feeding the child	Number	1	11	1	13
	Percent	6.7%	91.7%	8.3%	33.3%
Give ORS from your medicine kit	Number	15	11	12	38
	Percent	100.0%	91.7%	100.0%	97.4%
Give extra fluids (dal kapaani etc)	Number	6	5	8	19
	Percent	40.0%	41.7%	66.7%	48.7%
Advice – boiled water for drinking	Number	2	11	6	19
	Percent	13.3%	91.7%	50.0%	48.7%
Immediate Referral to nearby public health facility	Number	4	5	5	14
	Percent	26.7%	41.7%	41.7%	35.9%
Immediate referral to the private provider	Number	1	0	0	1
	Percent	6.7%	0.0%	0.0%	2.6%
Referral after some time	Number	1	0	1	2
	Percent	6.7%	0.0%	8.3%	5.1%
Total		15	12	12	39

Almost all ANMs in all three states said that they would give ORS from their medicine kits. About half of them also said that they would advise that the child be given extra fluids and boiled water for drinking. This was more common in Odisha

and less so in Bihar. Almost all ANMs in Odisha also said that they would advise continued feeding whereas very few in Bihar and Rajasthan did so. About a third of the ANMs said they would also advise immediate referral to a health facility.

Case Scenario: Fever and cough since last 3 days and fast breathing

Table 30:

Other Signs ANM would look for		Bihar	Odisha	Rajasthan	Total
Difficulty in breathing	Number	7	11	2	20
	Percent	46.7%	91.7%	16.7%	51.3%
Chest in- drawing	Number	10	12	9	31
	Percent	66.7%	100.0%	75.0%	79.5%
Constant high fever	Number	10	6	11	27
	Percent	66.7%	50.0%	91.7%	69.2%
Running nose	Number	3	10	8	21
	Percent	20.0%	83.3%	66.7%	53.8%
Don't know	Number	1	0	0	1
	Percent	6.7%	0.0%	0.0%	2.6%
Total		15	12	12	39

In a child with fever and cough and fast breathing, the other signs that ANMs would look for included difficulty in breathing and constant high fever. Chest in-drawing which is an important symptom was also mentioned by most ANMs, including all in Odisha. On asking what advice the ANM would

give in such cases, almost all said that they would refer the child to a public health facility. Four ANMs in Bihar also said that they would refer the child to a private facility. Very few ANMs mentioned any other advice such as: keeping the baby warm, continued feeding or nutritious diet. In response

to what medicine they would give to such a child, while many mentioned Paracetamol (22 out of 39) very few mentioned antibiotics (8 out of 39).

Immunisation

The ANMs were asked which vaccines must be given to a baby at the time of birth. In response,

while a large majority mentioned BCG (all in Bihar and nine out of 12 each in Odisha and Rajasthan); many of the ANMs did not mention polio (zero-day dose). 11 out of 12 in Odisha mentioned OPV, but only eight out of 15 in Bihar and seven out of 12 in Rajasthan did so.

Table 31:

Vaccines that must be given at birth		Bihar	Odisha	Rajasthan	Total
OPV	Number	8	11	7	26
	Percent	53.3%	91.7%	58.3%	66.7%
BCG	Number	15	9	9	33
	Percent	100%	75%	75%	84.6%
Total		15	12	12	39

Further, with regard to measles vaccination, it was seen that all ANMs rightly mentioned measles vaccine as the vaccine to be given to the child at nine months of age. Two ANMs also mentioned measles vaccination to be given at the age of four months, which is not correct. Four ANMs (one in Bihar, two in Odisha and one in Rajasthan) also mentioned measles vaccine to be given at 16 to 24 months. This could be because only a few ANMs had

the knowledge about giving the catch-up measles vaccine which has been introduced recently. The recognition of Measles was tested. A history of fever with rash with cough or running nose or red eyes was interpreted as correct knowledge. All ANMs in Bihar and 83.3% in Odisha answered this correctly. The knowledge for administration of doses of Vitamin A was also satisfactory.

Table 32:

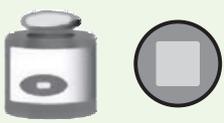
No./Percent of ANMs who		Bihar	Odisha	Rajasthan	Total
Recognise Measles Correctly	Number	15	12	10	37
	Percent	100.0%	100.0%	83.3%	94.9%
Know correct timing of measles vaccine if missed at 9 months	Number	9	6	7	22
	Percent	60.0%	50.0%	58.3%	56.4%
Know the correct minimum gap between two doses of Vitamin A	Number	15	11	12	38
	Percent	100.0%	91.7%	100.0%	97.4%
Total		15	12	12	39

ANMs were shown four different diagrams of vaccine vial monitors (VVM) and asked whether

they would use it or not. The following table shows the number of ANMs who made the right decisions.

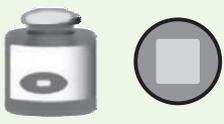
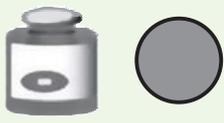
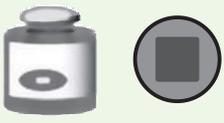
Table 33:

VVM Scenarios	Decisions		Bihar	Odisha	Rajasthan	Total
	ANMs who make one right decision (Score = 1/4)	Number	0	1	0	1
		Percent	0.0%	8.3%	0.0%	2.6%

VVM Scenarios	Decisions		Bihar	Odisha	Rajasthan	Total
	ANMs who make two right decisions (Score = 2/4)	Number	2	1	3	6
		Percent	13.3%	8.3%	25.0%	15.4%
	ANMs who make three right decisions (Score = 3/4)	Number	2	4	3	9
		Percent	13.3%	33.3%	25.0%	23.1%
	ANMs who make four right decisions (Score = 4/4)	Number	11	6	6	23
		Percent	73.3%	50.0%	50.0%	59.0%
Total			15	12	12	39

The following table reports each of the VVM scenarios and how ANMs scored on each one of them.

Table 33:

No/Percent of ANMs who reported correctly on whether or not to use the vial if monitor shows follows:	Bihar	Odisha	Rajasthan	Total
	15 (100%)	12 (100%)	12 (100%)	39 (100%)
	14 (93.3%)	8 (66.7%)	10 (83.3%)	32 (82.1%)
	12 (80%)	10 (83.3%)	8 (66.7%)	30 (76.9%)
	13 (86.7%)	9 (75%)	9 (75%)	31 (79.5%)

Injection Safety

Only 8 out of the 39 ANMs (none in Rajasthan) were able to record the right messages for all the situations shown in this question.

Table 34:

Injection Safety Scenarios	Decisions		Bihar	Odisha	Rajasthan	Total
	ANMs who don't know the answer for any (Score = 0/3)	Number	2	0	6	8
		Percent	13.3%	0.0%	50.0%	20.5%

Injection Safety Scenarios	Decisions		Bihar	Odisha	Rajasthan	Total
	ANMs who make one right decision (Score = 1/3)	Number	1	0	4	5
		Percent	6.7%	0.0%	33.3%	12.8%
	ANMs who make two right decisions (Score = 2/3)	Number	9	5	2	16
		Percent	60.0%	41.7%	16.7%	41.0%
	ANMs who make three right decisions (Score = 3/3)	Number	3	5	0	8
		Percent	20.0%	41.7%	0.0%	20.5%
Total			15	12	12	39

Hub Cutter

While most ANMs could correctly identify the manual hub cutter, very few in Bihar and Odisha

could recognise the needle destroyer and hub cutter (operated electrically). Rajasthan shows an inverse trend though.

Table 35:

ANMs who could correctly identify		Bihar	Odisha	Rajasthan	Total
 Needle Destroyer and Hub Cutter	Number	2	5	9	16
	Percent	13.3%	41.7%	75.0%	41.0%
 Manual Hub Cutter	Number	15	12	7	34
	Percent	100.0%	100.0%	58.3%	87.2%
Total		15	12	12	39

Newborn Resuscitation

To a general question, 16 out of 39 ANMs said that they knew how to resuscitate a newborn baby with Ambu Bag and mask. However, only one ANM actually reported resuscitating a baby with breathing difficulty in the last one year. It is pertinent to note that 25 out of 39 ANMs reported not conducting a single delivery (in the last one year).

More skill based questions were asked and the results are presented below. Most could recognise the suction apparatus. Knowledge about the correct length of the tube in mouth and nose as well as the downsides of vigorous suctioning emerged to be the weakest links. Only one ANM in Bihar could answer all the five questions correctly, and one in Rajasthan did not know the answer to any of the questions; overall, ANMs in Rajasthan could answer less questions correctly than those in the other two states.

Table 36:

ANMs who could correctly answer		Bihar	Odisha	Rajasthan	Total
	Number	10	8	5	23
	Percent	66.7%	66.7%	41.7%	59.0%
Not drying the baby leading to rapid decrease in temperature	Number	11	11	11	33
	Percent	73.3%	91.7%	91.7%	84.6%
Drying providing sufficient stimulation for breathing in mildly depressed situations	Number	12	10	11	33
	Percent	80.0%	83.3%	91.7%	84.6%
Nose and mouth both requiring to be suctioned	Number	14	12	11	37
	Percent	93.3%	100.0%	91.7%	94.9%
Mouth to be sucked first, followed by nose	Number	9	6	9	24
	Percent	60.0%	50.0%	75.0%	61.5%
Correct length of the tube in the mouth	Number	5	5	1	11
	Percent	33.3%	41.7%	8.3%	28.2%
Correct length of the tube in the nose	Number	7	5	0	12
	Percent	46.7%	41.7%	0.0%	30.8%
Ill-effects of vigorous suction	Number	9	3	6	18
	Percent	60.0%	25.0%	50.0%	46.2%
Total		15	12	12	39

Table 37:

Suction		Bihar	Odisha	Rajasthan	Total
ANMs who don't know the answer for any (Score = 0/5)	Number	0	0	1	1
	Percent	0.0%	0.0%	8.3%	2.6%
ANMs who give one right answer (Score = 1/5)	Number	2	1	0	3
	Percent	13.3%	8.3%	0.0%	7.7%
ANMs who give two right answers (Score = 2/5)	Number	4	6	6	16
	Percent	26.7%	50.0%	50.0%	41.0%
ANMs who give three right answers (Score = 3/5)	Number	3	2	5	10
	Percent	20.0%	16.7%	41.7%	25.6%
ANMs who give four right answers (Score = 4/5)	Number	5	3	0	8
	Percent	33.3%	25.0%	0.0%	20.5%
ANMs who give five right answers (Score = 5/5)	Number	1	0	0	1
	Percent	6.7%	0.0%	0.0%	2.6%
Total		15	12	12	39

Four scenarios, increasing in severity, were presented regarding a baby's crying and verbatim responses were recorded in the actions required for each of these scenarios. Most ANMs from

Rajasthan did not mention immediate resuscitation for complicated situations, when a baby is gasping or not breathing.

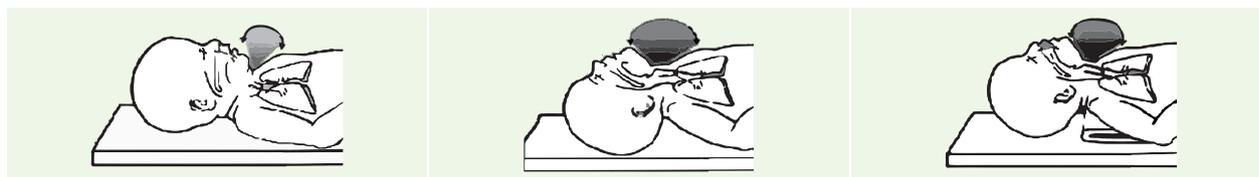
Table 38:

No./Percent of ANMs right about assessment of the following:		Bihar	Odisha	Rajasthan	Total
a. Baby is crying	Number	10	12	11	33
	Percent	71.4%	100.0%	91.7%	86.8%
b. Baby not crying; but chest is rising regularly between 30 to 60 times in a minute	Number	7	3	3	13
	Percent	50.0%	25.0%	25.0%	34.2%
c. Baby is gasping	Number	12	10	3	25
	Percent	85.7%	83.3%	25.0%	65.8%
d. Baby is not breathing	Number	14	11	4	29
	Percent	100.0%	91.7%	33.3%	76.3%

Table 39:

Breathing		Bihar	Odisha	Rajasthan	Total
ANMs who don't know the answer for any (Score = 0/4)	Number	1	0	1	2
	Percent	6.7%	0.0%	8.3%	5.1%
ANMs who give one right answer (Score = 1/4)	Number	1	1	6	8
	Percent	6.7%	8.3%	50.0%	20.5%
ANMs who give two right answers (Score = 2/4)	Number	3	1	1	5
	Percent	20.0%	8.3%	8.3%	12.8%
ANMs who give three right answers (Score = 3/4)	Number	4	7	3	14
	Percent	26.7%	58.3%	25.0%	35.9%
ANMs who give four right answers (Score = 4/4)	Number	6	3	1	10
	Percent	40.0%	25.0%	8.3%	25.6%
Total		15	12	12	39

Figure 35:



In response to the correct position for positioning the baby's head (they were asked to respond to each of the three scenarios) so that the airways could be opened, half the ANMs did not know the correct answer. Only 20 out of 39 ANMs gave the correct answer: eight out of 15 in Bihar, 11 out of 12 in Odisha and only one out of 12 in Rajasthan.

Questions were also asked on safe methods for stimulation for a newborn who was not crying after birth. Compared to some other questions,

knowledge level was relatively better to this aspect. More than 90% of ANMs in Rajasthan could not get more than three correct answers out of six.

Table 40:

Safe methods for stimulation		Bihar	Odisha	Rajasthan	Total
a. Slapping the back	Number	6	6	0	12
	Percent	40.0%	50.0%	0.0%	30.8%
b. Shaking	Number	10	6	2	18
	Percent	66.7%	50.0%	16.7%	46.2%
c. Gently rubbing the newborn's back or extremities	Number	13	10	4	27
	Percent	86.7%	83.3%	33.3%	69.2%

Safe methods for stimulation		Bihar	Odisha	Rajasthan	Total
d. Slapping or flicking the soles of the feet	Number	14	12	8	34
	Percent	93.3%	100.0%	66.7%	87.2%
e. Squeezing the rib cage	Number	9	7	6	22
	Percent	60.0%	58.3%	50.0%	56.4%
f. Using hot or cold compresses or baths	Number	11	8	10	29
	Percent	73.3%	66.7%	83.3%	74.4%

Table 41:

Safe methods for stimulation		Bihar	Odisha	Rajasthan	Total
ANMs who give one right answer (Score = 1/6)	Number	0	0	1	1
	Percent	0.0%	0.0%	8.3%	2.6%
ANMs who give two right answers (Score = 2/6)	Number	1	1	6	8
	Percent	6.7%	8.3%	50.0%	20.5%
ANMs who give three right answers (Score = 3/6)	Number	5	3	4	12
	Percent	33.3%	25.0%	33.3%	30.8%
ANMs who give four right answers (Score = 4/6)	Number	2	4	0	6
	Percent	13.3%	33.3%	0.0%	15.4%
ANMs who give five right answers (Score = 5/6)	Number	4	2	1	7
	Percent	26.7%	16.7%	8.3%	17.9%
ANMs who give six right answers (Score = 6/6)	Number	3	2	0	5
	Percent	20.0%	16.7%	0.0%	12.8%
Total		15	12	12	39

About one-third of ANMs (seven out of 15 in Bihar; two out of 12 in Odisha and five out of 12 in Rajasthan) did not know the normal heart/pulse rate.

A quarter of the ANMs could not answer any of the questions. Knowledge regarding some of the key elements of care such as clamping/cutting of cord and respiratory rate was extremely poor.

Care of the Baby at Birth

A series of questions were asked to test the basic knowledge about newborn care following birth.

Table 42

Newborn Care	Bihar	Odisha	Rajasthan	Total
Duration after which cord should be clamped at cut	7 (46.7%)	4 (33.3%)	6 (50%)	17 (43.6%)
Distance of blade from skin	6 (40%)	0 (0%)	4 (33.3%)	10 (25.6%)
Normal respiratory rate	8 (53.4%)	5 (41.7%)	4 (33.3%)	17 (43.6%)
Initiation of breastfeeding	6 (40%)	3 (25%)	7 (58.3%)	16 (41%)
Stimulating early breast feeding	14 (93.4%)	6 (50%)	12 (100%)	32 (82.1%)
Postponing bathing/sponging	10 (66.7%)	3 (25%)	4 (33.3%)	17 (43.6%)

Newborn Care	Bihar	Odisha	Rajasthan	Total
Monitoring during first hour of birth	4	0	10	14
	(26.7%)	(0%)	(83.3%)	(35.9%)
Parameters to be monitored after birth	13	1	9	23
	(86.7%)	(8.3%)	(75%)	(59%)
Wiping the baby's eyes	12	5	11	28
	(80%)	(41.7%)	(91.7%)	(71.8%)
Total	15	12	12	39

Preventing Infection

Two questions were asked regarding hand washing. Overall, a quarter of ANMs could not answer any

question correctly, including 50% of ANMs from Odisha. Knowledge levels were best in Bihar; one ANM answered all the questions correctly.

Table 43:

Preventing Infection		Bihar	Odisha	Rajasthan	Total
ANMs who don't know the answer for any (Score = 0/3)	Number	1	6	2	9
	Percent	6.7%	50.0%	16.7%	23.1%
ANMs who give one right answer (Score = 1/3)	Number	11	3	5	19
	Percent	73.3%	25.0%	41.7%	48.7%
ANMs who give two right answers (Score = 2/3)	Number	2	3	5	10
	Percent	13.3%	25.0%	41.7%	25.6%
ANMs who give three right answers (Score = 3/3)	Number	1	0	0	1
	Percent	6.7%	0.0%	0.0%	2.6%
Total		15	12	12	39

Waste Disposal

Questions were asked about colour coded bags and containers and the type of waste that they were

intended for. Overall knowledge was poor, ANMs from Bihar faring the worst; and, 20.5% could not interpret any of the colour codes correctly.

Table 44:

Waste Disposal		Bihar	Odisha	Rajasthan	Total
ANMs who don't know the answer for any (Score = 0/4)	Number	4	1	3	8
	Percent	26.7%	8.3%	25.0%	20.5%
ANMs who give one right answer (Score = 1/4)	Number	5	3	3	11
	Percent	33.3%	25.0%	25.0%	28.2%
ANMs who give two right answers (Score = 2/4)	Number	5	4	4	13
	Percent	33.3%	33.3%	33.3%	33.3%
ANMs who give three right answers (Score = 3/4)	Number	1	3	2	6
	Percent	6.7%	25.0%	16.7%	15.4%
ANMs who give four right answers (Score = 4/4)	Number	0	1	0	1
	Percent	0.0%	8.3%	0.0%	2.6%
Total		15	12	12	39

Thermal Protection

A series of questions were asked about thermal protection, preventing hypothermia and kangaroo care. Two-thirds of the ANMs in Odisha knew the

correct temperature of the newborn, but none knew in Rajasthan. Only a third of the ANMs knew the correct duration for which the thermometer needed to be placed before recording the temperature.

Table 45:

Thermal Protection		Bihar	Odisha	Rajasthan	Total
Normal temperature of a newborn?	Number	2	8	0	10
	Percent	13.3%	66.7%	0.0%	25.6%
Placing the thermometer	Number	12	10	9	31
	Percent	80.0%	83.3%	75.0%	79.5%
Duration for which thermometer is placed	Number	3	2	7	12
	Percent	20.0%	16.7%	58.3%	30.8%
Assessing temperature by touch	Number	8	5	2	15
	Percent	53.3%	41.7%	16.7%	38.5%
Total		15	12	12	39

Despite the recent emphasis on home based neonatal care, knowledge of symptoms of severe hypothermia was extremely poor in Bihar and

Rajasthan. Knowledge level among ANMs from Odisha was fairly high.

Table 46:

Severe Hypothermia		Bihar	Odisha	Rajasthan	Total
Warm abdomen but cold hands and feet	Number	0	6	1	7
	Percent	0.0%	50.0%	8.3%	18.4%
Temperature between 32-34°C	Number	0	8	2	10
	Percent	0.0%	66.7%	16.7%	26.3%
Fast breathing	Number	2	7	4	13
	Percent	14.3%	58.3%	33.3%	34.2%
Slow breathing	Number	2	5	3	10
	Percent	14.3%	41.7%	25.0%	26.3%
Slow heart rate	Number	2	7	2	11
	Percent	14.3%	58.3%	16.7%	28.9%
Bleeding	Number	1	2	1	4
	Percent	7.1%	16.7%	8.3%	10.5%
Total		15	12	12	39

Table 47:

Severe Hypothermia		Bihar	Odisha	Rajasthan	Total
ANMs who give one right answer (Score = 1/6)	Number	13	1	8	22
	Percent	86.7%	8.3%	66.7%	56.4%
ANMs who give two right answers (Score = 2/6)	Number	0	1	1	2
	Percent	0.0%	8.3%	8.3%	5.1%
ANMs who give three right answers (Score = 3/6)	Number	0	4	0	4
	Percent	0.0%	33.3%	0.0%	10.3%
ANMs who give four right answers (Score = 4/6)	Number	1	2	1	4
	Percent	6.7%	16.7%	8.3%	10.3%

Severe Hypothermia		Bihar	Odisha	Rajasthan	Total
ANMs who give five right answers (Score = 5/6)	Number	1	1	1	3
	Percent	6.7%	8.3%	8.3%	7.7%
ANMs who give six right answers (Score = 6/6)	Number	0	2	1	3
	Percent	0.0%	16.7%	8.3%	7.7%
Total		15	12	12	39

Kangaroo Mother Care (KMC)

Knowledge levels of KMC were very good across

the three states and 100% ANMs in Odisha answered all questions correctly.

Table 48:

Kangaroo Mother Care		Bihar	Odisha	Rajasthan	Total	
	Defining KMC	Number	9	12	11	32
		Percent	60.0%	100.0%	91.7%	82.1%
	Components of KMC	Number	11	12	11	34
		Percent	78.6%	100.0%	100.0%	91.9%
	Benefits of KMC	Number	10	12	11	33
		Percent	76.9%	100.0%	91.7%	89.2%
Total N		15	12	12	39	

Breastfeeding

Knowledge levels on breastfeeding were the poorest in ANMs from Rajasthan, followed by those from

Bihar, but much better for those from Odisha. ANMs in Bihar and Rajasthan lacked knowledge about basic issues such as number of feeds in 24 hours and time interval between each feed.

Table 49:

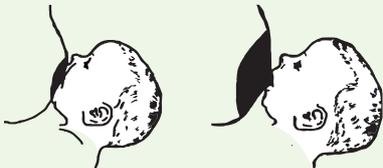
Breastfeeding		Bihar	Odisha	Rajasthan	Total	
	Correct position	Number	6	12	1	19
		Percent	40.0%	100.0%	8.3%	48.7%
	Good attachment	Number	13	11	12	36
		Percent	86.7%	91.7%	100.0%	92.3%
Usual time interval between each feed		Number	7	5	2	14
		Percent	46.7%	41.7%	16.7%	35.9%
Usual number of feeds in 24 hours		Number	3	7	6	16
		Percent	20.0%	58.3%	50.0%	41.0%
Usual number of urine passed in 24 hours		Number	5	11	3	19
		Percent	35.7%	91.7%	25.0%	50.0%
Total N		15	12	12	39	

Table 50:

Breastfeeding		Bihar	Odisha	Rajasthan	Total
ANMs who don't know the answer for any (Score = 0/5)	Number	1	0	0	1
	Percent	6.7%	0.0%	0.0%	2.6%
ANMs who give one right answer (Score = 1/5)	Number	2	0	3	5
	Percent	13.3%	0.0%	25.0%	12.8%
ANMs who give two right answers (Score = 2/5)	Number	7	0	7	14
	Percent	46.7%	0.0%	58.3%	35.9%
ANMs who give three right answers (Score = 3/5)	Number	3	6	1	10
	Percent	20.0%	50.0%	8.3%	25.6%
ANMs who give four right answers (Score = 4/5)	Number	1	2	1	4
	Percent	6.7%	16.7%	8.3%	10.3%
ANMs who give five right answers (Score = 5/5)	Number	1	4	0	5
	Percent	6.7%	33.3%	0.0%	12.8%
Total		15	12	12	39

Service Delivery

Table 51:

Time Taken by ANMs to reach HSC		Bihar	Odisha	Rajasthan	Total
Up to 10 minutes	Number	2	0	7	9
	Percent	13.3%	0.0%	58.3%	23.1%
10 to 15 minutes	Number	0	1	0	1
	Percent	0.0%	8.3%	0.0%	2.6%
15 to 20 minutes	Number	0	1	0	1
	Percent	0.0%	8.3%	0.0%	2.6%
20 to 30 minutes	Number	2	1	0	3
	Percent	13.3%	8.3%	0.0%	7.7%
30 to 45 minutes	Number	2	0	0	2
	Percent	13.3%	0.0%	0.0%	5.1%
45 to one hour	Number	2	0	1	3
	Percent	13.3%	0.0%	8.3%	7.7%
> one hour	Number	7	4	0	11
	Percent	46.7%	33.3%	0.0%	28.2%
No response	Number	0	5	4	9
	Percent	0.0%	41.7%	33.3%	23.1%
Total		15	12	12	39

In Bihar and Odisha, almost 60% of the ANMs took more than 45 minutes to reach the HSC. In contrast in Rajasthan, nearly 90% ANMs took only up to ten minutes to reach the HSC, since they were staying either at the quarters or in the village. The median time spent per day by each ANM on work was 6.75 hours; 7 hours in Bihar, 10 hours in Odisha and 6 hours in Rajasthan. 75% to 100% of the ANMs in the three states were assigned some special task associated with government

health schemes / programs during last one year; in such situations the sub-centres remained closed.

The most important activities ranked by ANM were: immunization, institutional delivery/JSY, ANC and family planning. On an average, majority of ANMs were spending about two hours on record keeping, but most ANMs in Bihar and Rajasthan did not feel that too many records and registers were being maintained. Home visits, ANC/PNC and treating minor illnesses were

other major activities on which an average of 1-2 hours was spent. Most ANMs spent more

than four hours on each VHND session. Detailed results are presented in Table 48.

Table 52:

Treating Minor Illnesses		Bihar	Odisha	Rajasthan	Total
Up to 1 hour	Number	9	4	1	14
	Percent	60.0%	33.3%	8.3%	35.9%
1 to 2 hours	Number	4	6	4	14
	Percent	26.7%	50.0%	33.3%	35.9%
2 to 3 hours	Number	2	1	3	6
	Percent	13.3%	8.3%	25.0%	15.4%
3 to 4 hours	Number	0	1	0	1
	Percent	0.0%	8.3%	0.0%	2.6%
ANC/PNC					
Up to 1 hour	Number	8	2	7	17
	Percent	53.3%	16.7%	58.3%	43.6%
1 to 2 hours	Number	3	8	0	11
	Percent	20.0%	66.7%	0.0%	28.2%
2 to 3 hours	Number	2	2	0	4
	Percent	13.3%	16.7%	0.0%	10.3%
3 to 4 hours	Number	2	0	0	2
	Percent	13.3%	0.0%	0.0%	5.1%
Maintaining records					
Up to 1 hour	Number	9	4	8	21
	Percent	60.0%	33.3%	66.7%	53.8%
1 to 2 hours	Number	3	7	0	10
	Percent	20.0%	58.3%	0.0%	25.6%
2 to 3 hours	Number	2	1	0	3
	Percent	13.3%	8.3%	0.0%	7.7%
3 to 4 hours	Number	1	0	0	1
	Percent	6.7%	0.0%	0.0%	2.6%
Home visits					
Up to 1 hour	Number	8	8	4	20
	Percent	53.3%	66.7%	33.3%	51.3%
1 to 2 hours	Number	2	3	3	8
	Percent	13.3%	25.0%	25.0%	20.5%
2 to 3 hours	Number	1	0	1	2
	Percent	6.7%	0.0%	8.3%	5.1%
3 to 4 hours	Number	0	1	0	1
	Percent	0.0%	8.3%	0.0%	2.6%
No response	Number	4	0	0	4
	Percent	26.7%	0.0%	0.0%	10.3%
Average Time Spent on a VHND Session%					
1 to 2 hours	Number	1	1	0	2
	Percent	6.7%	8.3%	0.0%	5.1%
More than 4 hours	Number	14	11	8	33
	Percent	93.3%	91.7%	66.7%	84.6%

Percentages are on the basis of Total N, including missing values.

The ANMs, in a departure from their ‘multi-purpose’ roles, identified ante-natal care, immunization (including polio eradication) and VHNDs as their main roles and responsibilities.

“Immunization is the only thing that we are made to do. Out-patient departments (OPDs) are few and far between. This is the only job we have”. [ANM, Gaya]

“Immunization is the main activity. Through the month that is the only thing we do.” [GNM, Tonk]

“We give priority to pregnant women. Immunization of pregnant mothers and children is a targeted activity. This is closely monitored and family planning too.” [ANM, Sitamarhi]

Targets were often set for these routine activities.

“I have been given the target to register three new ANC cases and immunize 28 children. We are monitored on these.” [ANM, Gaya]

“I have a target of two women, for Intra Uterine Contraceptive Devices (IUCDs).” [ANM, Sitamarhi]

“Due to other activities (incentivised) we are unable to do our sub-centre related activities. We are unable to make even home visits. Maximum time is spent on other activities,” [ANM, Kandhamal]

The polio campaign was reported to interfere with other routine activities.

“VHND dates have to be shifted during polio rounds.” [ANM, Sitamarhi]

Many ANMs were of the opinion that the targeted and incentivised campaigns had a positive role in contributing to children’s health and inspired communities to seek public health services.

“On account of these other programs, the health of mothers and children are taken care of; they inspire the routine child health programs. [ANM, Churu]

“The polio eradication campaign has been a great inspiration.” [GNM, Tonk]

ANMs in Gaya reported that there was no training on SBAs and they were therefore not conducting deliveries. As with other frontline workers, targeted activities – JSY, family planning and RNTCP-DOTS – were their main focus. In addition, ANMs in Tonk (urban) reported participating in the vector borne diseases program and those in Bihar participated in the Lymphatic Filariasis elimination campaign. Significantly, the ANMs did not see themselves as a ‘basic’ worker and considered themselves more as supervisors for ASHAs and AWWs. They were however not trained for any managerial role and were reported not to be providing support to ASHAs. All ANMs however acknowledged receiving full support and cooperation from ASHAs.

Interactions with BPM and MO are not very frequent. Nearly all ANMs in Odisha reported support from beneficiaries, VHSC members, Self-help Group (SHG) members and teachers. Respondents from Bihar and Rajasthan reported very little help from these stakeholders.

Severe Acute Malnutrition

All ANMs except two from Bihar said that they could identify cases of SAM among infants and young children (0-3 years). However, the service delivery linked practice of referral for SAM is yet to catch up in Bihar among ANMs even though awareness was there. Only five out of the 15 ANMs in Bihar had ever referred any case of SAM to any hospital or NRC/Malnutrition Treatment Centre (MTC). In Odisha almost all ANMs (except one) had referred cases of SAM to MTC/NRC and five out of seven in Rajasthan did so.

Post Natal Care

Almost all ANMs (all in Odisha) said that they visited homes of post-natal mothers. Rajasthan was less satisfactory on this service and one-fourth of ANMs in Rajasthan admitted that they did not undertake post-natal visits.

Table 53:

		Bihar	Odisha	Rajasthan	Total
ANMs visit homes of post natal mothers	Number	13	12	9	34
	Percent	92.9%	100.0%	75.0%	89.5%
No. of times of visit (usually):					
1	Number	7	0	0	7
	Percent	46.7%	0.0%	0.0%	17.9%
2	Number	5	1	0	6
	Percent	33.3%	8.3%	0.0%	15.4%
3	Number	1	5	0	6
	Percent	6.7%	41.7%	0.0%	15.4%
4	Number	1	5	6	12
	Percent	6.7%	41.7%	50%	30.8%
5	Number	1	1	5	7
	Percent	6.7%	8.3%	41.7%	17.9%
Total		15	12	12	39

Almost half the ANMs said that they visited the homes of post-natal mothers four to five times. While in Bihar many of them said they visited once

or twice, in Odisha it was three to four times and in Rajasthan, four to five, where a quarter of ANMs did not undertake post-natal visits at all.

Table 54:

Advice ANMs say they give to Postnatal mothers		Bihar	Odisha	Rajasthan	Total
Immediate initiation of breastfeeding / colostrum feeding	Number	15	12	8	35
	Percent	100.0%	100.0%	66.7	89.7
Advise for not bathing the child immediately	Number	5	11	6	22
	Percent	33.3%	91.7%	50.0	56.4
Keeping the baby warm	Number	8	12	9	29
	Percent	53.3%	100.0%	75.0	74.4
Counselling on exclusive breast feeding for first six months	Number	7	12	9	28
	Percent	46.7%	100.0%	75.0	71.8
Identify excessive bleeding after delivery	Number	1	2	2	5
	Percent	6.7%	16.7%	16.7	12.8
Advise for registration of birth	Number	11	10	8	29
	Percent	73.3%	83.3%	66.7	74.4
Taking nutritious food in adequate amounts	Number	10	2	5	17
	Percent	66.7%	16.7%	41.7	43.6
Rest for at least six weeks	Number	4	3	6	13
	Percent	26.7%	25.0%	50.0	33.3
Need for Contraceptive use	Number	5	0	4	9
	Percent	33.3%	0.0%	33.3	23.1
Immunisation advise for the newborn	Number	8	10	9	27
	Percent	53.3%	83.3%	75.0	69.2
Others (specify)	Number	2	0	0	2
	Percent	13.3%	0.0%	0.0	5.1
Total		15	12	12	39

Breastfeeding, keeping the baby warm, birth registration and immunization were the common issues on which ANMs advised during post-natal visits. Only 58% advised on not bathing the child immediately to prevent hypothermia, which is an important component. Advice on nutrition and rest

were sub-optimal and very few mentioned advising on contraceptives. A life-saving component in post-natal check-up for excessive bleeding was practised only by very few ANMs and was as low as 7% in Bihar.

Keeping the Baby Warm

Table 55:

Measures to keep baby warm according to ANM		Bihar	Odisha	Rajasthan	Total
Blanket	Number	12	11	12	35
	Percent	80.0%	91.7%	100.0%	89.7%
Kangaroo care	Number	8	11	11	30
	Percent	53.3%	91.7%	91.7%	76.9%
Baby warmer	Number	6	0	8	14
	Percent	40.0%	0.0%	66.7%	35.9%
Others	Number	11	5	0	16
	Percent	73.3%	41.7%	0.0%	41.0%
Total		15	12	12	39

Almost all ANMs mentioned using a blanket as a way to keep the baby warm. About half in Bihar did not mention Kangaroo care, but almost all in the other two states did. None in Odisha mentioned using a baby warmer. Probably they were not taught this or had not seen such equipment functioning in their institutions. The responses that said “Others” included using electric bulb and most said wrapping the baby in a clean cloth which was encouraging.

Training

In Odisha, almost all ANMs were trained in the last ten years on immunization, SBA and IMNCI. About one-third were also trained on IYCF. In Bihar, almost all ANMs were trained on immunization but trainings in IMNCI, IYCF and SBA were lacking. In Rajasthan, all ANMs were trained on immunization and IMNCI, but only about one-third on SBA and almost none on IYCF.

Most ANMs reported not having any refresher training on basic skills after graduating from ANM Schools.

“We have more or less forgotten all skills. There should be a training every year so that we can

have knowledge of new developments, and revise old ones.” [ANM, Gaya]

Midwifery was a forgotten skill for many and was articulated as an important training need through refresher sessions.

“I have very little knowledge on conducting deliveries. There should be training on SBA and family planning.” [ANM, Churu]

“There should be full-fledged trainings on conducting deliveries and detailed trainings on child health too.” [GNM, Tonk]

“There is necessity for MCH training; we haven’t been trained on MCH.” [ANM, Sitamarhi]

Some of the senior ANMs were trained under the India Population Project (IPP) in Bihar and appreciated the quality of those trainings as they dealt with a range of issues. The recent Skilled Lab training in Bihar was also mentioned as useful by several respondents.

“Skilled Lab training was very useful, particularly the sessions on immunization.” [ANM, Gaya]

Demands for further training / refresher courses were expressed for childhood diseases, TB, use of ORS and IMNCI.

“We are providing services on IMNCI, mother and newborn care and actively in VHND and Immunization but we need some re-training on IMNCI and SBA as we are less confident in it.” [ANM, Kandhamal].

“It will be better if we can be given training again on IMNCI, IYCF and identifying danger signs of newborn and mother.” [ANM, Nuapada]

Constraints

ANMs identified the lack of support for mobility as one of the principal constraints to their functioning that spread over several villages with population that was also widely spread, particularly in some SCs in all three states.

“I reach my SC at 11 am and have to leave by 2 pm. Even on days of VHND I have to leave the session unfinished; transport facilities are so poor.” [ANM, Sitamarhi]

Like ASHAs and AWWs, they were unanimous that little support was received from VHSC and PRI members. ANMs from Odisha reported the maximum support (90%), while it was lowest in Bihar (27%).

“The Panchayati Raj members do not help us; instead they create problems.” [ANM, Sitamarhi]

Almost all ANMs complained of lack of any supportive supervision of Medical Officers and much of the supervisory cadre was vacant.

All ANMs pointed out that infrastructure of SCs was deficient and equipment was non-functional. Supply of medicines was irregular which left many beneficiaries dissatisfied.

“SC building is in shambles. It gets worse during rainy season. All work nearly comes to a standstill.” [ANM, Sitamarhi]

‘SC has no building of its own. Both SC and the AWC are located in the same room and both are far away from the village. That’s why womenfolk or patients don’t come to SC’. [ANM, Churu]

“The building is in a poor state; there is no separate space or area for conducting delivery.” [ANM, Gaya]

“Supply of medicines to the SC, from the PHC, is very irregular. That’s why patients prefer to go to PHC though it is further away.” [ANM, Churu]

“How can we provide better service when sub centre does not have its own building (Sub-centre it is being run in a rented building); there is no proper safe drinking water facility; mucus sucker is not available; and there is no warmer or weighing machine for the newborn.” [ANM, Kandhamal]

“There is no ANM quarter so I am staying in sub-centre building; delivery table and other equipments are not in proper condition; baby warmer is not available and medicines are not available; then how to work here.” [ANM, Nuapada]

Payment of incentives, including that of JSY, was also reported to be irregular.

“Due to other activities (incentivised) our sub-centre related activities are getting hampered, and we are not getting even comparable incentive.” [ANM, Nuapada]

“Spending more time in incentivised activities but not getting comparable incentive.” [ANM, Kandhamal]

Frequent pulse polio round, particularly in districts of Bihar, were reported to be an important reason for disruption of services including those leading to missed immunization sessions.

“Vaccine carriers are in short supply. During pulse polio rounds immunization sessions of Wednesdays are affected and have to be done on other days.” [ANM, Gaya]

Table 56:

Problems/Constraints Faced by ANMs		Bihar	Odisha	Rajasthan	Total
Lack of time	Number	7	8	0	15
	Percent	46.7	66.7	0.0%	42.9
Lack of Funds	Number	3	10	2	15
	Percent	20.0	83.3	25.0%	42.9
Delay release of funds	Number	4	10	2	16
	Percent	26.7	83.3	25.0%	45.7
Non-cooperation from the VHSC members	Number	8	5	0	13
	Percent	53.3	41.7	0.0%	37.1
Lack of awareness from the community members to avail services	Number	11	8	0	19
	Percent	73.3	66.7	0.0%	54.3
Lack of support from the Supervisors and MO-PHCs	Number	4	1	0	5
	Percent	26.7	8.3	0.0%	14.3
Lack of equipment/drug kit	Number	4	10	1	15
	Percent	26.7	83.3	12.5%	42.9
HSC not easily accessible	Number	3	4	1	8
	Percent	20.0	33.3	12.5%	22.9
HSC does not possess its own building	Number	9	4	1	14
	Percent	60.0	33.3	12.5%	40.0
Poor condition of building/furniture	Number	4	4	7	15
	Percent	26.7	33.3	87.5%	42.9
Too much time invested in maintenance of records	Number	3	8	1	12
	Percent	20.0	66.7	12.5%	34.3
Too much time invested in meetings	Number	2	5	0	7
	Percent	13.3	41.7	0.0%	20.0
Lack of support from AWW	Number	0	2	0	2
	Percent	0.0	16.7	0.0%	5.7
Lack of support from ASHA	Number	0	1	0	1
	Percent	0.0	8.3	0.0%	2.9

Note: Multiple Responses so total of Percentages is not equal to 100

Facilities at the Sub-Centre

The facilities available at the sub-centre, reported in Table 53, are based on a sub-centre check list that

was filled after visiting SCs. Since there are no SCs in urban areas, there is no data from Tonk in Rajasthan. The data is based on observation of 30 SCs – 12 each in Bihar and Odisha and six in Rajasthan.

Table 57:

Type of building	Bihar	Odisha	Rajasthan	Total
Own	12	6	1	19
	(100%)	(50%)	(16.7%)	(63.3%)
Rented	0	6	1	7
		(50%)	(16.7%)	(23.3%)
Panchayat Bhavan	0	0	1	1
			(16.7%)	(3.3%)
Anganwadi	0	0	1	1
			(16.7%)	(3.3%)

Type of building	Bihar	Odisha	Rajasthan	Total
Not Known	0	0	2	2
			(33.3%)	(6.6%)
Total	12	12	6	30

All SCs in Bihar had their own buildings. In Odisha, half were in their own buildings and another half in rented premises. In Rajasthan, SCs were also

housed in Panchayat Bhavans and Anganwadi centres.

Table 58:

Availability of Facilities in Sub Centre		Bihar	Odisha	Rajasthan	Total
Clean Drinking Water	Number	6	2	5	13
	Percent	50.0%	16.7%	83.3%	43.3%
Toilet	Number	2	3	5	10
	Percent	16.7%	25.0%	83.3%	33.3%
Storage facility	Number	6	7	6	19
	Percent	50.0%	58.3%	100.0%	63.3%

Very few SCs in Odisha had drinking water facility. The situation was better in Bihar, while almost all had drinking water facility in Rajasthan. Toilet facilities were also not available in Bihar and Odisha,

while most SCs in Rajasthan had toilets. In three SCs, the condition of the drinking water facility was recorded as being poor, the toilet condition as well as storage facility was poor in five SCs.

Table 59:

		Bihar	Odisha	Rajasthan	Total
Availability of ANM quarter	Number	0	1	4	5
	Percent	0.0%	8.3%	66.7%	16.7%
ANM stays in ANM quarter	Number	0	3	1	4
	Percent	0.0%	25.0%	16.7%	13.3%
Availability of Labour Room	Number	0	3	3	6
	Percent	0.0%	25.0%	50.0%	20.0%
Deliveries conducted in Labour Room	Number	0	2	3	5
	Percent	0.0%	16.7%	50.0%	16.7%
Provision for government free referral transport	Number	1	1	2	4
	Percent	8.3%	8.3%	33.3%	13.3%

Very few sub-centres had ANM quarters, except in Rajasthan. None of the SCs in Bihar had a labour room, while one fourth in Odisha and half

in Rajasthan had. Most of the labour rooms were used for deliveries. Very few sub-centres had access to free referral transport facilities.

Table 60:

Facilities in SC		Bihar	Odisha	Rajasthan	Total
Ambu Bag and face masks	Number	0	3	3	6
	Percent	0.0%	25.0%	50.0%	20.0%
Mucus Sucker	Number	1	7	1	9
	Percent	8.3%	58.3%	16.7%	30.0%

Facilities in SC		Bihar	Odisha	Rajasthan	Total
Towels to wipe dry the baby	Number	0	5	6	11
	Percent	0.0%	41.7%	100.0%	36.7%
Source of warmth	Number	1	0	0	1
	Percent	8.3%	0.0%	0.0%	3.3%
Baby weighing scale	Number	6	9	6	21
	Percent	50.0%	75.0%	100.0%	70.0%
Sahli Hemoglobino meter	Number	0	11	6	17
	Percent	0.0%	91.7%	100.0%	56.7%
BP apparatus	Number	8	12	6	26
	Percent	66.7%	100.0%	100.0%	86.7%
Basin stand	Number	0	4	2	6
	Percent	0.0%	33.3%	33.3%	20.0%
Bed sheet	Number	5	2	6	13
	Percent	41.7%	16.7%	100.0%	43.3%
Macintosh Sheet	Number	1	0	6	7
	Percent	8.3%	0.0%	100.0%	23.3%
IV stand	Number	1	4	4	9
	Percent	8.3%	33.3%	66.7%	30.0%

With respect to the status of supplies in SCs, the condition was very poor in Bihar, with some facilities being available in Odisha and in most centres in Rajasthan.

Table 61:

Drugs and Supplies		Bihar	Odisha	Rajasthan	Total
Misoprostol	Number	0	5	2	7
	Percent	0.0%	41.7%	33.3%	23.3%
Oxytocin	Number	0	2	1	3
	Percent	0.0%	16.7%	16.7%	10.0%
Gloves	Number	5	8	5	18
	Percent	41.7%	66.7%	83.3%	60.0%
Syringes	Number	6	8	6	20
	Percent	50.0%	66.7%	100.0%	66.7%
IFA	Number	10	7	6	23
	Percent	83.3%	58.3%	100.0%	76.7%
TT shots	Number	4	11	6	21
	Percent	33.3%	91.7%	100.0%	70.0%

Medicine supplies were also poor in Bihar. It was relatively better in Odisha and Rajasthan. Same was the case with respect to gloves and syringes.

Table 62: Comparison of ANMs in the lowest (5 ANMs) and highest (6 ANMs) score quintiles

ANMs with score in Lowest Quintile (<43.5%)	Highest Quintile (> 63.8%)
Three from Bihar and two from Rajasthan, none from Odisha	Three from Bihar and three from Odisha
All three in Bihar are from Mohanpur	All three in Bihar are from Riga; in Odisha all three are from Boden

ANMs with score in Lowest Quintile (<43.5%)	Highest Quintile (> 63.8%)
All received some training in the last five years	All received some training in the last five years
All five have been in service for more than 10 years (four for more than 20 years)	Three in service for less than 10 years and three for more than 10 years
Highest qualification: three ANMs had completed Class 10, one had completed Class 12 and one had a Degree	Highest qualification: three ANMs had completed Class 10, three ANMs had completed Class 12
None received SBA training in the last 10 years	Three ANMs received SBA training in the last 10 years
Three ANMs received IMNCl training in the last 10 years	Three received IMNCl training in the last 10 years
One ANM received IYCF training in the last 10 years	One ANM received IYCF training in the last 10 years
All ANMs received immunization training in the last 10 years	All ANMs received immunization training in the last 10 years

None of the ANMs in the 1st quintile had attended SBA training in the last 10 years. Half of the ANMs in the 2nd quintile had undergone SBA training in the past 10 years. More ANMs seem to be in quintile 3 and 4 who had received SBA training in the past 10 years. This seems to indicate that

refresher trainings help to upgrade the skill levels of the ANMs. However, in the top quintile, number of ANMs who had undergone SBA training in the last 10 years versus those who hadn't is 50:50. This seems to indicate that SBA training alone cannot push an ANM into the top quintile.

Table 63:

		Received SBA Training in Last Ten Years		Total
		Yes	No	
Quintile 1 (<= 43.5%)	Number	0	5	5
	Percent	0.0%	100.0%	100.0%
Quintile 2 (43.5% - 49.3%)	Number	6	6	12
	Percent	50.0%	50.0%	100.0%
Quintile 3 (49.3% - 55.1%)	Number	4	2	6
	Percent	66.7%	33.3%	100.0%
Quintile 4 (55.1% - 63.8%)	Number	7	3	10
	Percent	70.0%	30.0%	100.0%
Quintile 5 (>63.8%)	Number	3	3	6
	Percent	50.0%	50.0%	100.0%

- The ANMs who scored lowest had a higher percentage than those who did not receive any practical training as compared to the ANMs who scored high scores.
- There is no difference in the scores whether the ANM was trained at a government institution or private institution. However, there were only 3 ANMs who received their training from a private institution.
- There is no relation between the scores of ANMs and their highest level of qualification
- Those with more years of experience tend to have lower scores.
- Receiving SBA training in the last ten years improves scores.



Accredited Social Health Activist [ASHA]: Skills, Roles and Responsibilities

5

Sample: 36 ASHAs in each state. Overall: 108

Knowledge Assessment: Interview Based

Table 64:

Feeds other than breast milk		Bihar	Odisha	Rajasthan	Total
Water	Number	1	0	0	1
	Percent	2.8%	0.0%	0.0%	0.9%
Nothing except breast milk	Number	33	35	35	103
	Percent	91.7%	97.2%	97.2%	95.4%
Honey & water	Number	1	0	0	1
	Percent	2.8%	0.0%	0.0%	0.9%
Bottle milk	Number	1	0	0	1
	Percent	2.8%	0.0%	0.0%	0.9%
Total		35	36	36	36

Knowledge level was very high; all ASHAs, except three gave the right answer in Bihar.

Table 65:

Initiating breast feeding		Bihar	Odisha	Rajasthan	Total
Within Half Hour	Number	29	35	35	99
	Percent	80.6%	97.2%	97.2%	91.7%
After Mother has taken proper nutrition and rest	Number	2	0	0	2
	Percent	5.6%	0.0%	0.0%	1.9%
Within One Hour	Number	7	1	0	8
	Percent	19.4%	2.8%	0.0%	7.4%
Total		36	36	36 (1 missing)	108

Knowledge levels were very high in Odisha and Rajasthan and relatively less in Bihar.

Table 66:

Adding fats and oils to diet of a 1 year old child		Bihar	Odisha	Rajasthan	Total
Not desirable	Number	19	5	5	29
	Percent	52.8%	13.9%	13.9%	26.9%
Highly desirable	Number	14	2	21	37
	Percent	38.9%	5.6%	58.3%	34.3%
Must be done some how	Number	2	28	6	36
	Percent	5.6%	77.8%	16.7%	33.3%
Desirable but cannot be done	Number	0	1	3	4
	Percent	0.0%	2.8%	8.3%	3.7%

In Bihar, about half the number of ASHAs felt that adding fats and oils was not desirable. In contrast, ASHAs in Rajasthan felt that it was highly desirable.

Table 67:

Exclusive breastfeeding		Bihar	Odisha	Rajasthan	Total
6 months	Number	27	35	35	97
	Percent	75.0%	97.2%	97.2%	89.8%
1 year	Number	8	0	0	8
	Percent	22.2%	0.0%	0.0%	7.4%
Don't know	Number	1	1	1	3
	Percent	2.8%	2.8%	2.8%	2.8%
Total		36	36	36	108

All ASHAs in Rajasthan and Odisha (except one) answered the question about breastfeeding correctly. Eight ASHAs in Bihar did not know

the correct answer and responded that exclusive breastfeeding must be done up to one year.

Case Scenario: One year old child is passing frequent watery stools and has not been passing much urine; the child is also very lethargic.

Table 68:

Number of ASHA's who would give following advice		Bihar	Odisha	Rajasthan	Total
Continue feeding the child	Number	1	5	7	13
	Percent	2.8%	13.9%	20.0%	12.1%
Give ORS from your medicine kit	Number	32	31	27	90
	Percent	88.9%	86.1%	77.1%	84.1%
Give extra fluids (dal kapaani etc)	Number	7	4	8	19
	Percent	19.4%	11.1%	22.9%	17.8%
Give boiled water for drinking	Number	14	12	8	34
	Percent	38.9%	33.3%	22.9%	31.8%
Immediate Referral to nearby public health facility	Number	16	30	26	72
	Percent	44.4%	83.3%	74.3%	67.3%
Immediate referral to the private provider	Number	0	0	2	2
	Percent	0.0%	0.0%	5.7%	1.9%
Referral after some time	Number	12	0	0	12
	Percent	33.3%	0.0%	0.0%	11.2%
Total		36	36	36	108

While acute diarrhoeal diseases are highly prevalent and the treatment approach relatively simple, only about half the ASHAs (54%) gave

the correct response (both ORS and immediate referral). It was highest in Odisha (72%) and lowest in Bihar (33%).

Three year old child is having fever and cough for the last 3 days and is breathing very fast.

Table 69:

No. of ASHAs who would look for following signs		Bihar	Odisha	Rajasthan	Total
Difficulty in breathing	Number	14	23	21	58
	Percent	38.9%	63.9%	58.3%	53.7%
Chest in-drawing	Number	7	20	19	46
	Percent	19.4%	55.6%	52.8%	42.6%

No. of ASHAs who would look for following signs		Bihar	Odisha	Rajasthan	Total
Constant high fever	Number	20	22	18	60
	Percent	55.6%	61.1%	50.0%	55.6%
Running nose	Number	15	21	8	44
	Percent	41.7%	58.3%	22.2%	40.7%
Don't know	Number	2	0	2	4
	Percent	5.6%	0.0%	5.6%	3.7%
Others	Number	20	1	9	30
	Percent	55.6%	2.8%	25.0%	27.8%
Total Respondents		36	36	36	108

Difficulty in breathing, constant high fever and running nose were the other symptoms mentioned. "Others" responses included "pneumonia" and "pasliyan chalna". The grave signs to look for in this case were difficulty in breathing and chest in-drawing. This has not been picked up well by ASHAs across the three states. Odisha presented the best scenario (57-65%) and Bihar the worst (21-42%).

Inconsistently enough, this question was answered correctly by ASHAs in Bihar in the context of signs for referral for newborns and LBW babies. 20 ASHAs in Bihar despite mentioning "pneumonia", "pasliyan chalna" – a correct expression of what to look for – failed to recognise difficulty in breathing and chest in-drawing as symptoms and signs of pneumonia.

Table 70:

Advising the mother		Bihar	Odisha	Rajasthan	Total
Refer to public health facility	Number	34	36	34	104
	Percent	94.4%	100.0%	94.4%	96.3%
Keep the child warm	Number	2	10	0	12
	Percent	5.6%	27.8%	0.0%	11.1%
Continue feeding the child	Number	0	5	0	5
	Percent	0.0%	13.9%	0.0%	4.6%
Advice on nutritious diet	Number	2	1	0	3
	Percent	5.6%	2.8%	0.0%	2.8%
Total		36	36	36	108

While all responded advising about referral to a public health facility (none mentioned private facility, which was an option) very few mentioned

other important advice such as keeping the baby warm and continuing feeding.

Service Delivery

Table 71:

State	Average Time Spent by ASHA in a day on work
Bihar	3.7 hours
Odisha	4.6 hours
Rajasthan	3.8 hours
Total	4.1 hours

ASHAs were working on an average for 4.1 hours a day. This was computed on the basis of self-reported activities. It was relatively higher in Odisha (4.6 hours) and almost same in Bihar and Rajasthan.

ASHAs were asked about the time they spent on different activities on an average in a week. A

caveat about certain periodic activities, in contrast to regular activities e.g. Pulse Polio is not done every week, but during National and Sub-national Immunization Days (NID/SNID). Thus, the average hours reported by ASHAs was the average hours they spent in a week during the NID/SNID.

Table 72:

	Bihar		Odisha		Rajasthan		Total	
	N	Mean Hrs	N	Mean Hrs	N	Mean Hrs	N	Mean Hrs
Campaigns – Pulse Polio	7	8.1	31	23.5	30	13.5	68	17.5
Delivery	16	4.5	35	18.4	35	6.6	86	11.0
Immunization	22	5.8	36	5.6	35	5.9	93	5.7
VHND	7	5.5	34	5.1	27	4.4	68	4.9
Coordination with ANM and AWW	27	2.1	34	2.9	28	6.2	89	3.7
Ante-natal care	36	3.5	36	2.4	34	3.0	106	3.0
VHSC	2	4.0	32	1.5	26	4.5	60	2.9
Social mobilisation and counselling	21	3.3	35	2.1	27	3.3	83	2.8
Post-natal care	33	2.7	36	2.2	34	3.3	103	2.7
Family Planning	34	2.3	36	1.9	33	3.4	103	2.5
Sanitation	25	1.4	32	1.8	33	3.1	90	2.2
Basic medical care	22	1.2	29	1.5	28	3.4	79	2.1

Amongst different activities, ASHAs seemed to be spending the most time on Pulse Polio, followed by delivery and JSY related work and then immunization. In Odisha and Rajasthan, the average time spent on campaigns such as pulse polio was far in excess to that of Bihar. In Odisha, ASHAs spent a considerable amount of time on delivery –

three to four times that in Bihar or Rajasthan.

The ASHAs were asked to list three of their job responsibilities that they considered ‘most important’ and a further three that they considered ‘important’. The ranking by ASHAs was similar across the states.

Table 73:

Tasks listed by ASHAs as being most important or important		Most important				Important			
		B	O	R	Total	B	O	R	Total
Institutional delivery / JSY	Number	23	28	25	76	6	2	6	14
	Percent	63.9%	77.8%	69.4%	70.4%	16.7%	5.6%	16.7%	13.0%
Immunization	Number	23	22	17	62	10	10	11	31
	Percent	63.9%	61.1%	47.2%	57.4%	27.8%	27.8%	30.6%	28.7%
ANC	Number	18	22	7	47	15	7	6	28
	Percent	50.0%	61.1%	19.4%	43.5%	41.7%	19.4%	16.7%	25.9%
Family Planning	Number	12	1	17	30	16	4	4	24
	Percent	33.3%	2.8%	47.2%	27.8%	44.4%	11.1%	11.1%	22.2%
Nutrition Counselling including Breastfeeding	Number	6	5	8	19	8	18	13	39
	Percent	16.7%	13.9%	22.2%	17.6%	22.2%	50.0%	36.1%	36.1%
Referring severely malnourished children to ICDS/ANM	Number	2	4	12	18	2	7	11	20
	Percent	5.6%	11.15	33.3%	16.7%	5.6%	19.4%	30.6%	18.5%

Tasks listed by ASHAs as being most important or important		Most important				Important			
		B	O	R	Total	B	O	R	Total
Detecting Under-nutrition	Number	0	9	6	15	2	9	7	18
	Percent	0.0%	25.0%	16.7%	13.9%	5.6%	25.0%	19.4%	16.7%
VHND sessions	Number	4	7	0	11	7	9	3	19
	Percent	11.1%	19.4%	0.0%	10.2%	19.4%	25.0%	8.3%	17.6%
Contraception (Distribution & Counselling)	Number	5	2	4	11	6	1	7	14
	Percent	13.9%	5.6%	11.1%	10.2%	16.7%	2.8%	19.4%	13.0%
Referring sick children to health facilities	Number	3	4	1	8	9	10	2	21
	Percent	8.3%	11.1%	2.8%	7.4%	25.0%	27.8%	5.6%	19.4%
Pulse Polio	Number	7	0	1	8	9	4	4	17
	Percent	19.4%	0.0%	2.8%	7.4%	25.0%	11.1%	11.1%	15.7%
Coordinating with ANM and ASHA	Number	3	0	3	6	6	0	10	16
	Percent	8.3%	0.0%	8.3%	5.6%	16.7%	0.0%	27.8%	14.8%
Treating Minor Illness	Number	2	2	1	5	3	7	3	13
	Percent	5.6%	5.6%	2.8%	4.6%	8.3%	19.4%	8.3%	12.0%
Health Education/IEC Campaign	Number	0	1	0	1	4	4	4	12
	Percent	0.0%	2.8%	0.0%	0.9%	11.1%	11.1%	11.1%	11.1%
VHSC Meetings	Number	0	0	1	1	4	5	2	11
	Percent	0.0%	0.0%	2.8%	0.9%	11.1%	13.9%	5.6%	10.2%
Coordination with supervisors	Number	0	0	1	1	0	8	3	11
	Percent	0.0%	0.0%	2.8%	0.9%	0.0%	22.2%	8.3%	10.2%
Maintenance of Records	Number	0	1	0	1	1	3	6	10
	Percent	0.0%	2.8%	0.0%	0.9%	2.8%	8.3%	16.7%	9.3%
Community Survey	Number	0	0	1	1	0	0	0	0
	Percent	0.0%	0.0%	2.8%	0.9%	0.0%	0.0%	0.0%	0.0%
Total		36	36	36	108	36	36	36	108

Institutional delivery (JSY), immunization and ANC were amongst the top three most important responsibilities identified by ASHAs. Most of the ASHAs who did not mention these as being 'most important', listed them as being 'important'. This priority listing by ASHAs matches with their reporting of the time spent on these activities as well. Amongst the other responsibilities that were listed by many ASHAs as being important included family planning, nutrition counselling including breastfeeding, referral of sick children and malnourished children and VHND sessions. Overall, targeted/incentivised activities were rated as far more 'important' than activities related to communitization processes.

Other Government Programmes

50.9% (55 of the 107) ASHAs said that they were mobilised for work related to other Government schemes/programs during the last one year – seven (19.4%) in Bihar, 29 (80.6%) in Odisha and 19 (52.8%) in Rajasthan.

Services to Newborn Children

ASHAs were asked to give names of two children who were born in their area in the last six months to whom they provided any service. In relation to these children, it was further asked when they first visited the newborn. 81 ASHAs gave two names and eight ASHAs gave only one name. 19 ASHAs gave no name at all. In all, ASHAs had visited 170 newborns during the recall period of six months.

Table 74:

	Bihar	Odisha	Rajasthan	Total
Number of newborns visited by ASHAs	64	39	67	170
Not visited a single newborn	2	16	1	19

Table 75:

Time of First Visit by ASHA to Newborn		Bihar	Odisha	Rajasthan	Total
On the day of Birth	Number	10	11	7	28
	Percent	15.6%	28.2%	10.4%	16.5%
One day after birth	Number	17	3	4	24
	Percent	26.6%	7.7%	6.0%	14.1%
Within first week (2nd day onwards)	Number	13	3	26	42
	Percent	20.3%	7.7%	38.8%	24.7%
After first week	Number	1	0	2	3
	Percent	1.6%	0.0%	3.0%	1.8%
Did not visit/no response	Number	23	22	28	69
	Percent	35.9%	56.4%	41.8%	40.6%
Total N		64	39	67	170

ASHAs were then asked the details of visits to the newborns. Although the least number of newborns were visited in Odisha, most were visited on the

day of birth. In all states, most children were visited within the first week of birth, with the greatest delay being in Rajasthan.

Table 76:

Timing of First Feed according to ASHA		Bihar	Odisha	Rajasthan	Total
Within one hour	Number	52	20	62	134
	Percent	81.25%	51.3%	92.5%	78.8%
Within 24 hours (after one hour)	Number	4	1	2	7
	Percent	6.25%	2.6%	3.0%	4.1%
More than 24 hours	Number	0	3	0	3
	Percent	0.0%	7.7%	0.0%	1.8%
Don't Know/No Response	Number	8	15	3	22
	Percent	12.5%	38.5%	4.5%	12.9%
Total N		64	39	67	170

Most of the ASHAs responded that breastfeeding was started within one hour after birth; responses were very few in Odisha.

Action taken by ASHAs on Breastfeeding

Table 77:

Action taken by ASHAs on Breastfeeding		Bihar	Odisha	Rajasthan	Total
Counselling/advice to mother/family	Number	30	31	29	90
	Percent	83.3%	86.1%	80.6%	83.3%
Demonstrated how to breast feed	Number	4	36	28	68
	Percent	11.1%	100.0%	77.8%	63.0%

Action taken by ASHAs on Breastfeeding		Bihar	Odisha	Rajasthan	Total
None/ No Response	Number	6	1	7	14
	Percent	16.7%	2.8%	19.4%	13.0%
Others	Number	1	0	0	1
	Percent	2.8%	0.0%	0.0%	0.9%
Total		36	36	36	108

Among the ASHAs playing a role in ensuring breastfeeding, action was mainly related to counselling/advice to mother/family. Very few in

Bihar, in contrast to those in Rajasthan and Odisha, helped by demonstrating how to breastfeed.

Table 78:

Time of Measuring Birth Weight		Bihar	Odisha	Rajasthan	Total
On day or next day of birth	Number	12	7	31	50
	Percent	18.8%	17.9%	46.3%	29.4%
Within First Week	Number	4	2	0	6
	Percent	6.3%	5.1%	0.0%	3.5%
After First Week	Number	9	0	3	12
	Percent	14.1%	0.0%	4.5%	7.1%
Don't Know/ No Response	Number	39	30	33	102
	Percent	60.9%	76.9%	49.3%	60.0%
Total N		64	39	67	170

Relatively fewer ASHAs played a role in weighing the children. Nearly half the ASHAs in Rajasthan weighed the children on the first day of birth. In

Bihar, there was a delay in weighing with nine out of the 25 children, according to the ASHAs, being weighed more than a week after birth.

Table 79:

Action Taken in Case of Child with Low Birth Weight		Bihar	Odisha	Rajasthan	Total
Referred to the health facility in case of a home delivery	Number	14	16	1	31
	Percent	87.5%	61.5%	10.0%	59.6%
Ensured support for starting timely breastfeeding	Number	12	16	6	34
	Percent	75.0%	61.5%	60.0%	65.4%
Ensured support for giving exclusive breast feeding for first 6 months	Number	10	8	9	27
	Percent	62.5%	30.8%	90.0%	51.9%
Did not take any action	Number	4	2	0	6
	Percent	25.0%	7.7%	0.0%	11.5%
Total N		16	26	10	52

This question on action taken in case of a LBW child had very few responses. The main help they provided was ensuring support for breastfeeding and referral.

Median number of sick children referred by ASHAs in the last six months was 12 in Bihar, three in

Odisha and three in Rajasthan. Only 61 of the 108 ASHAs responded to this question, and very few in Rajasthan (nine out of 36).

Recognition of serious illness and referral of such children for specialised care in health institutions is the life-saving professional role of an ASHA in a

village. That is the higher order functional output of a frontline health functionary. Less than one referral per month can be attributed to lack of knowledge or lack of faith in higher institutions linked to her area or even apathy or poor initiative by an ASHA. Number of ASHAs referring more than six cases during the recall period was 17 in

Bihar, three in Odisha and two in Rajasthan. That 27 out of 36 ASHAs in Bihar did not refer a single case of newborn or LBW babies is a matter of concern. Among those who did refer, most referred about one to five. In Bihar one-third of the ASHAs said they referred more than 20 children in the last six months.

Table 80:

Symptoms that led to decision to refer	Bihar (N=27)		Odisha (N=25)		Rajasthan (N=9)		Total	
	Freq	%	Freq	%	Freq	%	Freq	%
Difficulty in breathing	7	25.0	1	4.2	1	9.1	9	14.3
Bluish discoloration of skin fever	1	3.6	0	0.0	0	0.0	1	1.6
Chest wall in-drawing	5	17.9	1	4.2	1	9.1	7	11.1
Diarrhoea /frequent loose stools	13	46.4	4	16.7	1	9.1	18	28.6
Blood in stools	1	3.6	0	0.0	0	0.0	1	1.6
Abnormal movements/ convulsion	0	0.0	0	0.0	0	0.0	0	0.0
Reduced frequency of urination	1	3.6	0	0.0	0	0.0	1	1.6
Lethargic child	14	50.0	1	4.2	5	45.5	20	31.8
Child not taking feeds	8	28.6	0	0.0	1	9.1	9	14.3
Low weight apparently-not weighted	2	7.1	3	12.5	1	9.1	6	9.5
Low weight – below 1.8 kg	3	10.7	8	33.3	1	9.1	12	19.1
Low weight below 2.5 kg	0	0.0	2	8.3	3	27.3	5	7.9
Fever	17	60.7	8	33.3	4	36.4	29	46.0

Common symptoms that led to referral were fever, diarrhoea and lethargic child. Recognising a lethargic child as serious enough to refer is a good applied knowledge and skill seen among ASHAs of all three states. This is an encouraging clinical acumen displayed by a frontline health functionary. Similarly any fever not settling down in a couple of days of symptomatic treatment forms the largest denominator for serious illnesses that warrant antibiotic and specific treatment like anti-malarials. While making inter-state comparisons it is important to note that Rajasthan had only nine to compare with three times more or less similar number of ASHAs reporting on type of referrals. In (name of the state is missing; pl. do the needful) , one-third of the ASHAs who referred children mentioned very Low Birth weight as a reason for referral in comparison to other two states. A very critical life-saving clinical sign to be picked up is

the sign of pneumonia (difficult breathing and chest wall in-drawing) which is displayed better by Bihar ASHAs than in other two states, just in one case each.

Sick children between six months and two years of age

95 out of 108 ASHAs responded to the question of how many sick children they attended to in the last six months : all in Bihar, 29 in Odisha and 30 in Rajasthan. Median number of sick children was 10 in Bihar, and four each in Odisha and Rajasthan.

26 ASHAs in Bihar, 25 in Odisha and 30 in Rajasthan reported referring under-5 sick children (in addition to newborns); median numbers were: 15 in Bihar, and three each in Odisha and Rajasthan.

Table 81:

Advice given to mother on newborn care		Bihar	Odisha	Rajasthan	Total
Colostrum feeding	Number	31	34	27	92
	Percent	86.1%	94.4%	75.0%	85.2
Early initiation of breast feeding	Number	35	17	31	83
	Percent	97.2%	47.2%	86.1%	76.9
Keeping the baby warm	Number	23	27	20	70
	Percent	63.9%	75.0%	55.6%	64.8
I Immunization of the child	Number	31	19	18	68
	Percent	86.1%	52.8%	50.0%	63.0
Birth registration	Number	15	10	2	27
	Percent	41.7%	27.8%	5.6%	25.0%
Not to give immediate bath to the newborn	Number	4	29	7	40
	Percent	11.1%	80.6%	19.4%	37.0%
Exclusive breast feeding for 6 months	Number	22	15	27	64
	Percent	61.1%	41.7%	75.0%	59.3%
Weighing the child	Number	7	10	10	27
	Percent	19.4%	27.8%	27.8%	25.0%
Don't know	Number	0	0	1	1
	Percent	0.0%	0.0%	2.8%	0.9%
Others	Number	12	2	4	18
	Percent	33.3%	5.6%	11.1%	16.7%
Total		36	36	36	108

ASHAs advised mothers of newborn most frequently on breastfeeding, immunization and ways of keeping the baby warm.

The ASHAs were largely focused on institutional delivery, incentivised and targeted services. These included: ANC, institutional delivery, family planning, immunization and pulse polio campaigns. Greater emphasis on institutional delivery was generally reported from among SC sub-centre villages as compared to non-SC villages.

“Our incentive structure is as follows: immunization – Rs. 150; measles vaccination – Rs. 100; TT booster – Rs. 50; VHSC meeting – Rs. 100; institutional delivery – Rs. 150; family planning operation – Rs. 150; sector/PHC meeting – Rs. 100; pulse polio campaign – Rs. 75.” [ASHA, Tonk]

“I participated in the Filariasis campaign two years back. On completion of the full dose of medicines, Rs. 100 was given as an incentive.” [ANM, Sitamarhi]

“Muskan ek Abhiyan is also an incentivised program.” [ASHA, Sitamarhi]

“Our incentive structure is as follows: Polio-Rs. 75; Survey-Rs. 75; Accompanying for institutional delivery – Rs. 350.” [ASHA, Kandhamal]

“It would be good if higher incentives are given for different types of work.” [ASHA, Nuapada].

Despite incentives to beneficiaries in many cases, they were not that forthcoming for accepting the program.

“We really have to convince the people; even with incentives very few would agree to tubectomy operations.” [ASHA, Churu]

“Though family planning work is emphasised, nobody wants to do family planning.” [ASHA, Gaya]

In general, ASHAs were closely co-operating and coordinating with AWWs, for a range of each

other’s activities. Few ASHAs in Bihar and Rajasthan reported referring under-nourished children for treatment and nutritional rehabilitation.

They were assisting ANMs in organising routine immunization sessions; there was little interaction otherwise.

“I meet the ANM on every VHND. If there is something to ask, I call her on phone.” [ASHA, Sitamarhi]

While many of them were satisfied and enthusiastic about their jobs, few of them felt otherwise.

“We are just roaming from house to house through the day; nobody pays us any respect.” [ASHA, Gaya]

“There is hardly any acceptance; villagers often get us wrong.” [ASHA, Sitamarhi]

Training

Table 82:

Training Round		No. of ASHAs who said the training was held				No. of ASHAs who attended the training			
		B	O	R	Total	B	O	R	Total
1	Number	35	36	36	107	31	25	34	90
	Percent	97.2%	100.0%	100.0%	99.1%	86.1%	69.4%	94.4%	83.3%
2	Number	31	35	36	102	27	26	33	86
	Percent	86.1%	97.2%	100.0%	94.4%	75.0%	72.2%	91.7%	79.6%
3	Number	15	33	36	84	14	26	32	72
	Percent	41.7%	91.7%	100.0%	77.8%	38.9%	72.2%	88.9%	66.7%
4	Number	10	32	23	65	11	25	20	56
	Percent	27.8%	88.9%	63.9%	60.2%	30.6%	69.4%	55.6%	51.9%
5	Number	4	32	15	51	4	25	13	42
	Percent	11.1%	88.9%	41.7%	47.2%	11.1%	69.4%	36.1%	38.9%
6	Number	0	30	11	41	0	23	9	32
	Percent	0.0%	83.3%	30.6%	38.0%	0.0%	63.9%	25.0%	29.6%
7	Number	0	9	7	16	0	7	5	12
	Percent	0.0%	25.0%	19.4%	14.8%	0.0%	19.4%	13.9%	11.1%
8	Number	0	2	2	4	0	2	2	4
	Percent	0.0%	5.6%	5.6%	3.7%	0.0%	5.6%	5.6%	3.7%

Most sessions on maternal and child health were found to be very useful by ASHAs. Modules on IMNCI, breast feeding and diseases were reported to be the most useful ones. Few ASHAs in Sitamarhi mentioned the module on sanitation and hygiene as useful. ASHAs in Gaya mentioned the Pathfinder training as being very useful.

Most ASHAs felt that training sessions were overloaded with information and little could be absorbed or retained. They suggested that more time ought to be devoted to help in understanding of diseases and their basic management/treatment.

“We forget most of the things. We are not taught any skills – can’t give injections nor medicine. Our job is only to call children (for immunization). We should be taught things that have practical use in the field.” [ASHA, Sitamarhi]

“We were not taught to do anything; we are only expected to gather children for vaccination” [ASHA, Gaya]

“We got training in the beginning. Now I hardly remember anything.” [ASHA, Gaya]

“Second training (the one held for 12 days) was no good; nothing was explained well; there was virtually no utility of this.” [ASHA, Sitamarhi]

Trainings for ASHAs were organised across the state by NGOs/selected agencies. There was little or no scope of catch-up rounds for newly inducted ASHAs.

“I joined as ASHA 6 months before; there has been no training yet.” [ASHA, Sitamarhi]

“We are able to utilise the training but still sometimes feel less confident in IMNCI and providing medicines from the medicine kit.” [ASHA, Kandhamal].

“If we are provided training on injecting and conducting delivery, it will be more useful” ASHA [Nuapada].

Most ASHAs sought more training on: Kala Azar (in Bihar), illnesses of newborns, TB (they were often DOTS providers with very little knowledge of the disease and its complications), malaria, and neonatal problems. Great interest was evinced, across states, for a better understanding on symptoms and signs of non-communicable diseases (NCDs), including cancers, and in particular skills

for measuring blood pressure. Other training needs that were mentioned included: growth monitoring and diagnosis of Severe Acute Malnutrition (SAM), sexually transmitted diseases, conducting delivery at home, IUCD insertions, using rapid diagnostic kits for common illnesses, injection techniques and first aid/treatment for common bites and stings.

Refresher trainings on modules already transacted were in great demand and were articulated by many ASHAs. One ASHA (in Tonk) also identified the need for training on soft skills, including English language. ASHAs were thus seeking a wide range of knowledge and skills in order to be able to serve their communities better.

Constraints

Medicine Kit: 65% (67 out of 108) of the ASHAs said that they had a medicine kit – 25 (69.4%) in Bihar, 34 (94.4%) in Odisha and only 8 (25%) in Rajasthan.

Diary: 84.2% (91 of the 108) ASHAs said that they maintained diaries. This was the lowest in Bihar: 23 out of 36 ASHAs (63.9%). In the other two states 34 out of 36 ASHAs were maintaining diaries.

Interaction with supervisors and community representatives

Table 83:

ANM		Bihar	Odisha	Rajasthan	Total
Weekly	Number	13	1	1	15
	Percent	36.1%	2.8%	2.8%	13.9%
Fortnightly	Number	2	16	4	22
	Percent	5.6%	44.4%	11.1%	20.4%
Monthly	Number	17	3	22	42
	Percent	47.2%	8.3%	61.1%	38.9%
Frequently	Number	4	16	6	26
	Percent	11.1%	44.4%	16.7%	24.1%
No Response		0	0	3	3
Total		36	36	36	108

Interaction with ANMs was very frequent, with almost half the ASHAs saying that they meet the ANM frequently or at least once a week. The rest of ASHAs also meet ANMs at least fortnightly. In Bihar, in spite of the high concentration of sub-centres in the study blocks, and therefore

fewer ASHAs per ANM, the frequency of meeting ANMs was lower than in Odisha. However, one third of ASHAs in Bihar meet ANM weekly, 11% frequently and about 5% fortnightly. In Rajasthan, three ASHAs did not answer this question.

Table 84:

Health Assistant/ Supervisor/ LHV/PHN		Bihar	Odisha	Rajasthan	Total
Weekly	Number	2	0	0	2
	Percent	5.6%	0.0%	0.0%	1.9%
Fortnightly	Number	1	7	8	16
	Percent	2.8%	19.4%	22.2%	14.8%
Monthly	Number	4	15	22	41
	Percent	11.1%	41.7%	61.1%	38.0%
Quarterly	Number	0	1	0	1
	Percent	0.0%	2.8%	0.0%	0.9%
Frequently	Number	1	0	0	1
	Percent	2.8%	0.0%	0.0%	0.9%
No Response	Number	26	13	6	45
	Percent	72.2%	36.1%	16.7%	41.7%
Total		36	36	36	108

About 40% of ASHAs did not respond to the question on how frequently they interacted with the supervisors, as they did not interact with them at all. 72% of ASHAs in Bihar did not respond,

despite ASHA Facilitators being in position. Interaction was most frequent in Rajasthan; this could be because ASHA facilitators seemed to be working well.

Table 85:

BPM		Bihar	Odisha	Rajasthan	Total
Weekly	Number	1	2	0	3
	Percent	2.8%	5.6%	0.0%	2.8%
Fortnightly	Number	0	6	0	6
	Percent	0.0%	16.7%	0.0%	5.6%
Monthly	Number	24	23	0	47
	Percent	66.7%	63.9%	0.0%	43.5%
Quarterly	Number	0	1	7	8
	Percent	0.0%	2.8%	19.4%	7.4%
Frequently	Number	0	2	0	2
	Percent	0.0%	5.6%	0.0%	1.9%
No Response	Number	11	2	29	42
	Percent	30.6%	5.6%	80.6%	38.9%
Total		36	36	36	108

There was very little interaction with the Block Health Manager (BPM) in Rajasthan. In Odisha, a large number of ASHAs said that they meet BPM at least once a month. In Bihar, ASHAs were interacting with Block Community Mobiliser

(BCM) [who supervises ASHAs : one per block] on a regular basis. In Bihar, both BPM BCM met ASHAs on fixed ASHA Days. The post of BCM was vacant in Gaya during data collection.

Table 86:

VHSC Members		Bihar	Odisha	Rajasthan	Total
Weekly	Number	0	3	1	4
	Percent	0.0%	8.3%	2.8%	3.7%
Monthly	Number	2	5	20	27
	Percent	5.6%	13.9%	55.6%	25.0%
Quarterly	Number	0	1	1	2
	Percent	0.0%	2.8%	2.8%	1.9%
Frequently	Number	1	17	0	18
	Percent	2.8%	47.2%	0.0%	16.7%
No Response	Number	33	10	14	57
	Percent	91.7%	27.8%	38.9%	52.8%
Total		36	36	36	108

There was very little interaction with VHSC members; almost non-existent in Bihar, but somewhat better in Odisha and Rajasthan.

Time Taken

Table 87:

Time taken to most distant house/hamlet	Bihar	Odisha	Rajasthan	Total
Less than half hour	29 (80.6)	16 (44.4)	30 (83.3)	75 (70.1)
Half an hour to one hour	5 (13.9)	9 (25)	3 (8.3)	17 (15.9)
One hour to two hours	2 (5.6)	6 (16.7)	1 (2.8)	9 (8.4)
More than two hours	0 (0)	5 (13.9)	1 (2.8)	6 (5.6)
No response	0	0	1 (2.8)	1 (0.9)
Total	36	36	36	108

*Figures in brackets are Percentages

70% of ASHAs said they reached the farthest house in less than 30 minutes and another 16% reached within one hour. ASHAs in Odisha had to travel the farthest distances. 15 out of the 107 ASHAs took more than one hour to reach the farthest house. Rajasthan had the least distances

because one of the Rajasthan districts was urban. As seen in the table below, more ASHAs in (ANM? This seems to be incorrect?) took less than half an hour to reach the most distant house/hamlet as compared to Churu in Rajasthan.

Table 88:

Time taken to most distant house/hamlet		Mohanpur	Riga	Phiringia	Boden	Churu	Tonk	Total
Less than half hour	Number	12	17	3	13	13	17	75
	Percent	66.7%	94.4%	16.7%	72.2%	72.2%	94.4%	41.7%
Half an hour to one hour	Number	4	1	5	4	3	0	17
	Percent	22.2%	5.6%	27.8%	22.2%	16.7%	0.0%	94.4%
One hour to two hours	Number	2	0	6	0	1	0	9
	Percent	11.1%	0.0%	33.3%	0.0%	5.6%	0.0%	50.0%
More than two hours	Number	0	0	4	1	0	1	6
	Percent	0.0%	0.0%	22.2%	5.6%	0.0%	5.6%	33.3%
Total		18	18	18	18	17	18	107

Lack of medicine supply for the medicine kit was reported as a significant constraint. This was equally true of ASHAs located in SC villages. Shortage of medicines was reported at PHCs too. In most non-SC and also in some SC villages, ASHAs were operating from respective Anganwadi Centres (AWCs) of their villages. Thus, some of the infrastructural inadequacies of the AWCs were also reported by ASHAs. Lack of registers and stationery items emerged as one of the main constraints as ASHAs were increasingly having to do paperwork.

“There is no stationery; we are not being able to maintain children’s records.” [ASHA, Tonk]

In general, better co-operation was reported from mothers; in contrast, very little support was being rendered by social leaders, VHSC and Panchayat members. This portends serious messages for communitisation processes envisaged by the National Rural Health Mission (NRHM). Lack of support was also reported from Block Health Managers and ASHA Facilitators. As revealed by interviews, supervisory cadre was mostly engaged in data management and documentation at the Block level, thus negating the supportive role that they were expected to play.

“There is no support from anybody, not even the (VHSC) members; it’s tough to organize VHND sessions on our own.” [ASHA, Gaya]

In some cases, there was evidence of poor participation by communities including lower castes not being adequately included in the programs.

“There are about 30 lower caste families in the village. They do not participate in immunization or antenatal registration. They do not come despite making a lot of efforts. [ASHA, Churu]

“Everybody has to be called repeatedly for VHND sessions. This is despite visiting their homes again and again.” [ASHA, Gaya]

ASHAs pointed out the lack of travel support while traveling to PHC or Block levels; facilities at the PHC for ASHAs were also deficient.

“Travel to PHC is problematic. Even after reaching, there are no facilities at the PHC; we have to spend the night under trees; there is no place even to sit. There are no medicines either; patients have to buy from private medicine shops.” [ASHA, Sitamarhi]

“There is no support even after reaching the PHC.” [ASHA, Gaya]

“As the villages are far off and the cycle is also not given so it’s difficult for us to work and cover all the areas for regular home visit.” (ASHA, Kandhamal)

“Due to huge population coverage, we are unable to cover all the villages; so need another ASHA to work with.” (ASHA, Kandhamal)

The lack of a regular income and delayed payment of incentives (particularly for the JSY) were frequent complaints.

“We don’t have a regular, monthly earning” [ASHA, Sitamarhi]

“With a lot of hard work, the average incentive each month is about Rs. 1000.” [ASHA, Tonk]

Some ASHAs complained of the special campaigns where incentives were not paid – these included Census operations and the Lymphatic Filariasis Elimination Campaign.

(Repetition)

(Repetition) “. . . time to time medicine should be provided to us; this is not happening presently” [ASHA, Nuapada]



Anganwadi Worker [AWW]: Skills, Roles and Responsibilities

6

Profile

The total number of AWWs who participated in interview across the study states is as follows:

Table 89:

State			Total
Bihar	Odisha	Rajasthan	
36	35	36	107

Table 90:

Number of years of work as AWW		Bihar	Odisha	Rajasthan	Total
<5 years	Number	0	3	5	8
	Percent	0.00%	8.60%	13.90%	7.50%
5-10/	Number	21	10	15	46
	Percent	58.30%	28.60%	41.70%	43.00%
10-20/	Number	15	5	12	32
	Percent	41.70%	14.30%	33.30%	29.90%
>20 years	Number	0	17	4	21
	Percent	0.00%	48.60%	11.10%	19.60%

Overall, most of the anganwadi workers had at least five years of experience in this job. A large

number of anganwadi workers in Odisha had experience of more than 20 years.

Table 91:

AWW belongs to BPL category		Bihar	Odisha	Rajasthan	Total
Yes	Number	14	29	12	55
	Percent	38.9%	80.6%	34.3%	51.4%
No	Number	22	7	23	52
	Percent	61.1%	19.4%	65.7%	48.6%

On the whole, about half the anganwadi workers interviewed belonged to the BPL category. In

Odisha, 80% of the respondents were from BPL category.

Table 92:

AWW highest level of education		Bihar	Odisha	Rajasthan	Total
Class 12/	Number	10	22	5	37
	Percent	27.8%	61.1%	14.7%	34.9%
Degree/	Number	4	0	6	10
	Percent	11.1%	0.0%	17.6%	9.4%

AWW highest level of education		Bihar	Odisha	Rajasthan	Total
Class 10	Number	20	0	15	35
	Percent	55.6%	0.0%	44.1%	33.0%
Class 9 or less	Number	2	14	8	24
	Percent	5.6%	38.9%	23.5%	22.6%

The highest level of education of an anganwadi worker was usually class 10 or class 12. However, more than 20% of the respondents were not even class 10 qualified. In Odisha, 60% of the anganwadi

workers had completed Class 12. Ironically, Odisha also had the highest percent of anganwadi workers who had not completed even Class 10.

Table 93:

Refresher Training		Bihar	Odisha	Rajasthan	Total
None in last ten years	Number	14	20	14	48
	Percent	37.8%	55.6%	38.9%	44.0%
Received training in last 5 years	Number	7	14	15	36
	Percent	18.9%	38.9%	41.7%	33.0%
Received training in last 6 to 10 years	Number	16	2	7	25
	Percent	43.2%	5.6%	19.4%	22.9%

All anganwadi workers had received some training or the other. However, with regard to refresher training, 44% of the AWWs got no refresher training in the last two years, while one-third got some refresher training in the last five years, and 22% even later.

AWW Scores

There were 13 skill questions that anganwadi workers were asked. By giving each question one mark, the total marks that each anganwadi worker scored has been estimated. The maximum score of an AWW (ANM??) nine out of 13.

Table 94:

		Bihar	Odisha	Rajasthan	Total
0	Number	13	0	15	28
	Percent	35.1%	0.0%	41.7%	25.7%
1 to 3	Number	21	1	2	24
	Percent	56.8%	2.8%	5.6%	22.0%
4 to 6	Number	3	17	2	22
	Percent	8.1%	47.2%	5.6%	20.2%
7 to 9	Number	0	18	17	35
	Percent	0.0%	50.0%	47.2%	32.1%

Knowledge Assessment – Interview Based

Case Scenario: ONE year old child is passing frequent watery stools and has not been passing much urine. The child is also very lethargic.

Table 95:

Advice given to mother	Bihar		Odisha		Rajasthan	
	Number	Percent	Number	Percent	Number	Percent
Continue feeding the child	0	0.0%	12	33.3%	17	47.2%
Give ORS	36	97.3%	20	55.6%	20	55.6%
Give extra fluids (dal kapaani etc)	3	8.1%	4	11.1%	21	58.3%
Give boiled water for drinking	1	2.7%	14	38.9%	7	19.4%
Immediate referral to nearby public health facility	20	54.1%	25	69.4%	9	25.0%
Immediate referral to the private provider	0	0.0%	1	2.8%	0	0.0%
Referral after some time	3	8.1%	2	5.6%	24	66.7%
Don't know	0	0.0%	0	0.0%	0	0.0%
Others	13	35.1%	0	0.0%	2	5.6%
Total N	37		36		36	109

While acute diarrhoeal diseases are highly prevalent and the treatment approach relatively simple, only about one-third of the AWWs (36

of 108) gave the correct response (both feeding ORS and immediate referral). It was highest in Bihar (55.5%) and lowest in Rajasthan (13.9%).

Case Scenario: Three year old girl child is having fever and cough since last three days and is breathing very fast

Table 96:

Other signs AWW would look for	Bihar		Odisha		Rajasthan		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Difficulty in breathing	16	43.2%	23	67.6%	24	66.7%	63	55.8%
Chest in-drawing	8	21.6%	29	85.3%	22	61.1%	59	54.6%
Constant high fever	23	62.2%	12	35.3%	13	36.1%	48	44%
Running nose	11	29.7%	25	73.5%	12	33.3%	48	44%
Don't know	0	0.0%	2	5.9%	2	5.6%	4	3.7%
Others	8	21.6%	0	0%	15	41.7%	23	21.1%
Total	37		36		36		108	

Difficulty in breathing, chest in-drawing, constant high fever and running nose were the other symptoms mentioned. "Others" responses include "pneumonia". The grave signs to look for in this case: difficulty in breathing and chest in-drawing. This has been picked up by many AWWs in Odisha and Rajasthan but few in Bihar. Odisha

presented the best scenario (67-85%) and Bihar the worst (23-46%). 12 AWWs in Rajasthan despite mentioning "pneumonia" – a correct expression of what to look for – failed to recognise difficulty in breathing and chest in-drawing as symptoms and signs of pneumonia.

Table 97:

Advising the Mother (AWW)	Bihar		Odisha		Rajasthan		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Refer to public health facility	35	94.6%	35	97.2%	35	97.2%	105	96.3%
Refer to private facility	1	2.7%	0	0%	0	0%	1	0.9%
Keep the child warm	4	10.8%	7	19.4%	2	5.5%	13	11.9%
Continue feeding the child	1	2.7%	12	33.3%	1	2.7%	14	12.8%
Have nutritious diet	0	0%	3	8.3%	2	5.5%	5	4.6%
Total	37	36	36	109	15	41.7%	23	21.1%

While almost all responded advising about referral to a public health facility (only one AWW mentioned private facility, which was an option) very few mentioned other important advice such as keeping the baby warm and continuing feeding.

Most of the AWWs in all the three states (80%) said they would give Paracetamol to this child. Very few mentioned antibiotics

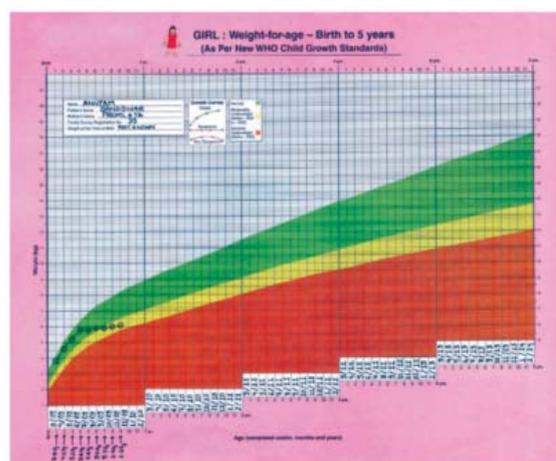
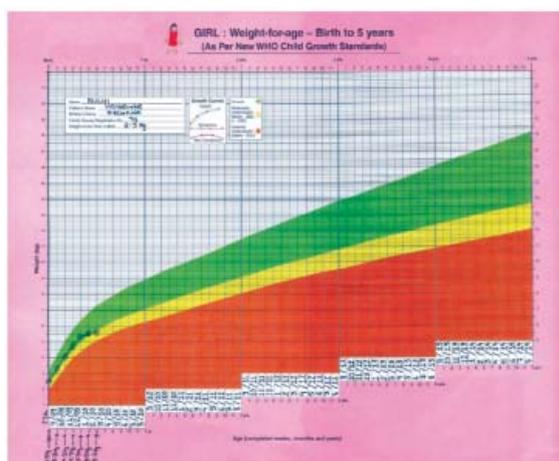
Table 98:

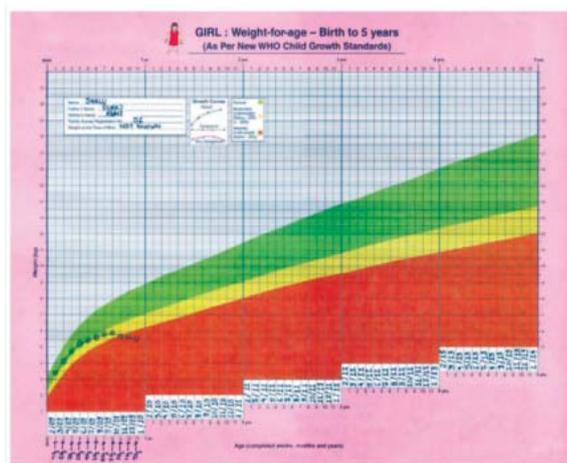
Number/Per cent of AWWs who got the following questions Correct		Bihar	Odisha	Rajasthan	Total
Meaning of the lines on a Salter Scale	Number	17	4	21	42
	Percent	45.9%	11.1%	58.3%	38.5%
Plotting weight on a growth chart	Number	10	17	19	46
	Percent	27.0%	47.2%	52.8%	42.2%
Interpreting an upward growth curve	Number	9	33	19	61
	Percent	24.3%	91.7%	52.8%	56.0%
Interpreting a flat growth curve	Number	8	28	17	53
	Percent	21.6%	77.8%	47.2%	48.6%
Interpreting a downward growth curve	Number	8	29	19	56
	Percent	21.6%	80.6%	52.8%	51.4%

Overall, in relation to this set of knowledge questions the AWWs in Odisha and Rajasthan performed better than their counterparts in Bihar. In Bihar, very few AWWs (less than 20-25%) were able to plot weight on a growth chart or interpret the direction of the growth curve. While in Odisha, most of the AWWs were able to interpret the meaning of different growth curves, a little less than half were able to correctly plot weight on a growth chart. In Rajasthan, about half the AWWs (47-52%) were able to plot weight and interpret growth curve correctly.

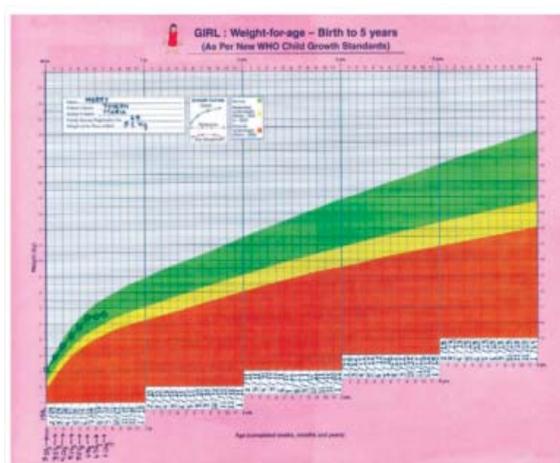
None of the AWWs in any of the states were able to report correctly the calories and proteins to be given under SNP for children in the age group of six months to three years or for severely malnourished children in this age group. Almost all of them said that they did not know.

AWWs were further shown four different growth-curves and respond on what action they would take for these children.





PICTURE S.13: GROWTH CHART OF SHALU



PICTURE S.14: GROWTH CHART OF AMRITA

Table 99:

Number/Per cent of AWWs who gave the response to different growth scenarios		Bihar	Odisha	Rajasthan	Total
Scenario 1	Number	0	28	17	45
	Percent	0.0%	77.8%	47.2%	41.3%
Scenario 2	Number	0	27	18	45
	Percent	0.0%	75.0%	50.0%	41.3%
Scenario 3	Number	0	28	18	46
	Percent	0.0%	77.8%	50.0%	42.2%
Scenario 4	Number	0	27	8	35
	Percent	0.0%	75.0%	22.2%	32.1%

Looking at the growth curves, all AWWs in Bihar responded saying that they did not know how to interpret a growth curve and what the follow up action should be. About three-fourths of AWWs in Odisha were able to correctly respond

to different case scenarios. On the other hand, in Rajasthan about half the AWWs were able to correctly respond to all the case scenarios, except for one which depicted growth faltering.

Service Delivery

Table 100:

Time taken in reaching AWC from home		Bihar	Odisha	Rajasthan	Total
Upto 10 mins	Number	17	22	18	57
	Percent	45.9%	61.1%	50.0%	52.3%
10 to 15 mins	Number	7	3	8	18
	Percent	18.9%	8.3%	22.2%	16.5%
15 to 20 mins	Number	4	3	6	13
	Percent	10.8%	8.3%	16.7%	11.9%
20 to 30 mins	Number	4	5	3	12
	Percent	10.8%	13.9%	8.3%	11.0%
30 to 45 mins	Number	1	1	0	2
	Percent	2.7%	2.8%	0.0%	1.8%
> 45 mins	Number	0	1	1	2
	Percent	0.0%	2.8%	2.8%	1.8%

Time taken in reaching AWC from home		Bihar	Odisha	Rajasthan	Total
No Response	Number	4	1	0	5
	Percent	10.8	2.8	0.0	4.6
Total		37	36	36	109

Most of the AWWs in all the three states took less than 20 minutes to reach AWC from their homes. This was not the case in geographically difficult tribal areas.

“There are many villages under a single AWC and the villages are far off and some are on the hill

and there are no transportation facilities so it is difficult to reach there.” [AWW, Kandhamal]

“Bicycle should be provided from ICDS, and some special provisions be made for us who are working in tribal areas.” [AWW, Kandhamal]

Time Spent by AWW

Table 101 :

No. of Hours spent by AWW on an average on work		Bihar	Odisha	Rajasthan	Total
2	Number	0	2	0	2
	Percent	0.0%	5.6%	0.0%	1.8%
4	Number	2	1	36	39
	Percent	5.4%	2.8%	100.0%	35.8%
5	Number	1	16	0	17
	Percent	2.7%	44.4%	0.0%	15.6%
6	Number	9	9	0	18
	Percent	24.3%	25.0%	0.0%	16.5%
7	Number	10	4	0	14
	Percent	27.0%	11.1%	0.0%	12.8%
8	Number	13	3	0	16
	Percent	35.1%	8.3%	0.0%	14.7%
9	Number	1	0	0	1
	Percent	2.7%	0.0%	0.0%	0.9%
No Response	Number	1	1	0	2
	Percent	2.7%	2.8%	0.0%	1.8%
Total		37	36	36	109

In Rajasthan, all workers said that they spent on an average four hours a day on ICDS work. In Bihar, most of the AWWs reported spending six to eight hours on ICDS work. In Odisha, most of the workers reported spending five to seven hours on ICDS work.

AWWs spent maximum time on pre-school education in Odisha and Bihar. Each day, AWWs also spent one to two hours on maintaining records and registers. Overall about 61% of the

AWWs felt that they had to maintain too many records and registers. In Rajasthan, about 22% of the AWWs felt so followed by 86% in Bihar and 75% in Odisha.

In Odisha, AWWs spent a lot of time on feeding pregnant and lactating mothers and children, whereas it was less than an hour in Bihar and Rajasthan. Maximum time on home visits was spent by AWWs in Odisha and the minimum in Rajasthan.

Table 102:

		Bihar	Odisha	Rajasthan	Total
Pre-school education					
Up to one hr.	Number	1	1	28	30
	Percent	2.7%	2.8%	77.8%	27.5%
1 to 2 hrs.	Number	2	2	8	12
	Percent	5.4%	5.6%	22.2%	11.0%
2 to 3 hrs.	Number	0	18	0	18
	Percent	0.0%	50.0%	0.0%	16.5%
3 to 4 hrs.	Number	32	11	0	43
	Percent	86.5%	30.6%	0.0%	39.4%
> 4 hrs.	Number	1	2	0	3
	Percent	2.7%	5.6%	0.0%	2.8%
No Response		1	2	0	3
Feeding children and women					
Up to 1 hr.	Number	35	1	36	72
	Percent	94.6%	2.8%	100.0%	66.1%
1 to 2 hrs.	Number	1	5	0	6
	Percent	2.7%	13.9%	0.0%	5.5%
2 to 3 hrs.	Number	0	5	0	5
	Percent	0.0%	13.9%	0.0%	4.6%
3 to 4 hrs.	Number	0	2	0	2
	Percent	0.0%	5.6%	0.0%	1.8%
> 4 hrs.	Number	0	20	0	20
	Percent	0.0%	55.6%	0.0%	18.3%
No Response		1	3	0	4
Maintaining records and registers					
Up to 1 hr.	Number	26	22	34	82
	Percent	70.3%	61.1%	94.4%	75.2%
1 to 2 hrs.	Number	10	8	2	20
	Percent	27.0%	22.2%	5.6%	18.3%
2 to 3 hrs.	Number	0	4	0	4
	Percent	0.0%	11.1%	0.0%	3.7%
> 3 hrs.	Number	0	1	0	1
	Percent	0.0%	2.8%	0.0%	0.9%
No Response		1	1	0	2
Home Visits					
Up to 1 hr.	Number	21	10	36	67
	Percent	56.8%	27.8%	100.0%	61.5%
1 to 2 hrs.	Number	14	14	0	28
	Percent	37.8%	38.9%	0.0%	25.7%
2 to 3 hrs.	Number	1	8	0	9
	Percent	2.7%	22.2%	0.0%	8.3%
3 to 4 hrs.	Number	0	1	0	1
	Percent	0.0%	2.8%	0.0%	0.9%
> 4 hrs.	Number	0	2	0	2
	Percent	0.0%	5.6%	0.0%	1.8%
No Response		1	1	0	2

AWWS were asked to list three of their job responsibilities that they considered 'most important' and a further three that they considered 'important'. The ranking by AWWs was not similar across the states. AWWs in Odisha listed more nutrition related activities such as

detecting under-nutrition and referring severely malnourished children as being most important for them. In Bihar and Odisha, preschool education was reported as the most important activity by almost all AWWs. Immunization was reported as being an important activity in all three states.

Table 103:

Tasks listed by AWWs as being most important or important		Most important				Important			
		B	O	R	Total	B	O	R	Total
Pre-school	Number	34	5	33	72	1	22	2	25
	Percent	94.4%	13.9%	91.7%	66.7%	2.8%	61.1%	5.6%	23.1%
Growth Monitoring	Number	4	10	18	32	18	10	8	36
	Percent	11.1%	27.8%	50.0%	29.6%	50.0%	27.8%	22.2%	33.3%
Nutrition & Health Education	Number	2	9	2	13	9	8	5	22
	Percent	5.6%	25.0%	5.6%	12.0%	25.0%	22.2%	13.9%	20.4%
SNP	Number	15	10	14	39	8	6	17	31
	Percent	41.7%	27.8%	38.9%	36.1%	22.2%	16.7%	47.2%	28.7%
Detecting Under nutrition	Number	11	25	1	37	11	4	3	18
	Percent	30.6%	69.4%	2.8%	34.3%	30.6%	11.1%	8.3%	16.7%
Referring severely malnourished children to NRC/MTC	Number	2	15	2	19	5	6	1	12
	Percent	5.6%	41.7%	5.6%	17.6%	13.9%	16.7%	2.8%	11.1%
Immunization	Number	20	11	29	60	12	10	6	28
	Percent	55.6%	30.6%	80.6%	55.6%	33.3%	27.8%	16.7%	25.9%
Referring sick children to ANM/ health facilities	Number	2	5	0	7	2	2	1	5
	Percent	5.6%	13.9%	0.0%	6.5%	5.6%	5.6%	2.8%	4.6%
Detection of disability	Number	2	1	0	3	1	8	0	9
	Percent	5.6%	2.8%	0.0%	2.8%	2.8%	22.2%	0.0%	8.3%
VHND sessions	Number	0	5	1	6	0	10	6	16
	Percent	0.0%	13.9%	2.8%	5.6%	0.0%	27.8%	16.7%	14.8%
VHSC Meetings	Number	0	1	0	1	0	5	2	7
	Percent	0.0%	2.8%	0.0%	0.9%	0.0%	13.9%	5.6%	6.5%
Coordinating with ANM & ASHA	Number					11	1	1	13
	Percent				0.0%	30.6%	2.8%	2.8%	12.0%
Home Visits	Number	5	1	0	6	16	5	16	37
	Percent	13.9%	2.8%	0.0%	5.6%	44.4%	13.9%	44.4%	34.3%
Health Education / IEC Campaign	Number	0	3	0	3	1	3	2	6
	Percent	0.0%	8.3%	0.0%	2.8%	2.8%	8.3%	5.6%	5.6%
Maintenance of Records	Number	9	2	5	16	11	2	24	37
	Percent	25.0%	5.6%	13.9%	14.8%	30.6%	5.6%	66.7%	34.3%
Nutrition Counselling including Breastfeeding	Number	0	3	2	5	0	4	11	15
	Percent	0.0%	8.3%	5.6%	4.6%	0.0%	11.1%	30.6%	13.9%
Community Survey	Number	0	0	1	1	1	3	2	6
	Percent	0.0%	0.0%	2.8%	0.9%	2.8%	8.3%	5.6%	5.6%
Pulse Polio	Number	2	2	0	4	2	2	2	6
	Percent	5.6%	5.6%	0.0%	3.7%	5.6%	5.6%	5.6%	5.6%
Total N		36	36	36	108	36	36	36	108
Missing		1	0	0	1	1	0	0	1

AWWs considered growth monitoring and feeding (cooked meals and distribution of Take Home Rations [THR]) their principal activity. Referral of undernourished children for nutritional rehabilitation did not emerge as a critical activity. Lack of functioning weighing machines was reported by about a third of all AWWs. Many mothers, particularly from lower castes were reluctant to have their children weighed. However, among all the three cadres of frontline workers, AWWs were the ones most involved in post-natal and neo-natal care.

Most AWWs recognised organising meetings and engaging with mothers and adolescent girls as their duties but expressed their inability to do so on account of (i) cooking and serving meals, and (ii) incentivised and targeted services.

“Pre-school education has become a targeted activity; it has led to reduction in number of meetings with mothers and adolescent girls; there is actually a need to have morw such meetings.” [AWW, Gaya]

“Unable to give time for pre-school education and home visit due to other government programs,” [AWW, Nuapada]

Like ASHAs, the high-focus programs were JSY, family planning and polio eradication. Some of the other time-bound activities that AWWs got involved in included Public Distribution System (PDS) and disability surveys, measles elimination and Total Sanitation Campaign (TSC).

“Due to unwanted involvement (maintaining records) with many non-ICDS programs, I am unable to give time for pre-school education, and home visit,” [AWW, Kandhamal]

“Unable to give time for pre-school education and home visit due to other government programs,” [AWW, Nuapada]

Nearly all AWWs reported close coordination with frontline health workers, particularly ASHAs, since both lived in the same village. Few AWWs reported a lack of interest and engagement

of ANMs in nutrition related activities of the AWW. They, however, provided full support to immunization activities; { (outreach sessions were generally held in AWCs): Is this statement really necessary? Can it be deleted?}.

“ANM comes only on immunization days; other than that she doesn't even step into the village.” [AWW, Sitamarhi]

“ANM comes to the village only on VHND, so mother and children with serious conditions do not get the treatment unless they go to sub-centre.” [AWW, Kandhamal]

“Except immunization, ANM does nothing in her area; ASHA and ANM have good co-ordination though.” [ANM, Gaya]

A few AWWs commented on the close working relationship with ASHA though ANMs were not engaging with them adequately.

“ASHAs and AWWs bring children to the AWC for VHND/ Immunization.” [AWW, Kandhamal]

“ASHAs bring pregnant women, children and mothers to AWC for immunization while ANM provides check-up services.” [AWW, Kandhamal]

“ANM has no contribution except on immunization days; it is the ASHA and the AWW together that takes care of every thing.” [AWW, Sitamarhi]

Training

All AWWs in all the three states have received some training (except two in Rajasthan). Of all the AWWs, 12 in Rajasthan (33.3%) and two in Bihar (5.6%) have not received any training in the last three years, while the rest of them have. 89% of the Anganwadi helpers have received any orientation (96 out of 108) – 33 in Bihar, 31 in Odisha and 32 in Rajasthan (total 36 helpers in sample cases in each state).

All AWWs found the job training to be very useful for their daily duties. The Sabla program in Bihar was considered to be a positive development.

GNM in Tonk reported trainings by ‘Save the Children’ and other NGOs to be useful. IMNCI and HBNC trainings were unanimously reported to be very useful and there was a great demand for refresher trainings on these components.

“We are able to look after the newborns and the mother, besides weighing and grading the nutritional status of the child.” [AWW, Kandhamal]

“Breast feeding techniques were taught best in the IMNCI training.” [GNM, Tonk]

In general, about half the AWWs reported not attending any refresher trainings in the last ten years or so. While stating growth monitoring as one of their key functions, about half the workers admitted growth chart interpretations as a weak area and identified this as a training need. More intensive training was also sought on issues of adolescent girls. About a quarter of AWWs

expressed the need to be equipped with more skills to be able to provide some treatment for common illnesses.

“If there was some training in the matter of handling illnesses, we could have helped the beneficiaries a bit more.” [AWW, Sitamarhi]

“It will be better if we can be given training again on IMNCI and for identifying danger signs of newborn and mother.” [AWW, Kandhamal].

Constraints

Three fourths of the AWWs said that they received some sort of support from other functionaries and community members. 85% of AWWs in Bihar and Odisha reported getting support from the ANM. A large number in Odisha also reported getting help from members of women’s SHGs, VHSC members and community leaders.

Table 104:

Frequency of Meeting CDPO		Bihar	Odisha	Rajasthan	Total
Weekly	Number	0	0	1	1
	Percent	0.0%	0.0%	2.8%	0.9%
Fortnightly	Number	0	2	0	2
	Percent	0.0%	5.6%	0.0%	1.8%
Monthly	Number	23	14	12	49
	Percent	62.2%	38.9%	33.3%	45.0%
Quarterly	Number	6	7	10	23
	Percent	16.2%	19.4%	27.8%	21.1%
Very often	Number	0	10	0	10
	Percent	0.0%	27.8%	0.0%	9.2%
No Response	Number	8	3	13	24
	Percent	21.6%	8.3%	36.1%	22.0%

Table 105:

Frequency of Meeting Supervisor		Bihar	Odisha	Rajasthan	Total
Weekly	Number	2	3	0	5
	Percent	5.4%	8.3%	0.0%	4.6%
Fortnightly	Number	2	9	8	19
	Percent	5.4%	25.0%	22.2%	17.4%
Monthly	Number	29	21	21	71
	Percent	78.4%	58.3%	58.3%	65.1%
Quarterly	Number	2	0	5	7
	Percent	5.4%	0.0%	13.9%	6.4%

Frequency of Meeting Supervisor		Bihar	Odisha	Rajasthan	Total
Very often	Number	1	0	1	2
	Percent	2.7%	0.0%	2.8%	1.8%
No Response	Number	1	3	1	5
	Percent	2.7%	8.3%	2.8%	4.6%

Most AWWs met supervisors at least once in a month; this was more frequent in Odisha and Rajasthan than in Bihar. Most AWWs met CDPOs monthly or quarterly, with almost 30% of the AWWs in Odisha meeting CDPOs “very often”.

Lack of funds was a constraint faced by almost all AWWs. Lack of own building, lack of teaching material/teaching aids, lack of time, too much time spent on maintaining records and too much additional work were the other constraints faced by many AWWs.

Table 106:

Problems/Constraints faced by AWWs		Bihar	Odisha	Rajasthan	Total
Lack of time	Number	9	25	12	46
	Percent	24.3%	69.4%	33.3%	42.2%
Lack of Funds	Number	34	34	31	99
	Percent	91.9%	94.4%	86.1%	90.8%
Non-cooperation from the beneficiaries	Number	9	10	13	32
	Percent	24.3%	27.8%	36.1%	29.4%
Lack of awareness of community members to avail services	Number	17	3	12	32
	Percent	45.9%	8.3%	33.3%	29.4%
Lack of support from Supervisors and CDPOs	Number	12	9	9	30
	Percent	32.4%	25.0%	25.0%	27.5%
Lack of teaching aids/ Material	Number	27	24	19	70
	Percent	73.0%	66.7%	52.8%	64.2%
Anganwadi Centre not easily accessible	Number	7	1	6	14
	Percent	18.9%	2.8%	16.7%	12.8%
AWC does not possess its own building	Number	31	15	16	62
	Percent	83.8%	41.7%	44.4%	56.9%
Additional work/ tasks	Number	28	17	9	54
	Percent	75.7%	47.2%	25.0%	49.5%
Too much time spent in maintenance of records	Number	26	23	5	54
	Percent	70.3%	63.9%	13.9%	49.5%
Lack of interest among beneficiaries	Number	6	11	10	27
	Percent	16.2%	30.6%	27.8%	24.8%
Transportation problems for Supplementary Nutrition / Referral / Circle meetings	Number	24	8	6	38
	Percent	64.9%	22.2%	16.7%	34.9%
Lack of support from ANM	Number	2	5	3	10
	Percent	5.4%	13.9%	8.3%	9.2%
Lack of support from ASHA	Number	3	2	0	5
	Percent	8.1%	5.6%	0.0%	4.6%

Infrastructure in AWCs based on a Checklist Filled at the Anganwadi Centre

Table 107:

Location of AWC		Bihar	Odisha	Rajasthan	Total
Own Building/Premises	Number	4	21	11	36
	Percent	10.8	58.3	30.6	33.0
Rented Building	Number	21	8	17	46
	Percent	56.8	22.2	47.2	42.2
AWW's Home	Number	3	1	0	4
	Percent	8.1	2.8	0.0	3.7
Panchayat Bhavan	Number	2	1	3	6
	Percent	5.4	2.8	8.3	5.5
Other	Number	7	5	4	16
	Percent	18.9	13.9	11.1	14.7

In Odisha, almost 60% of AWCs had their own buildings while in Rajasthan and Bihar a large number of AWCs were in rented spaces.

Table 108:

Facilities in AWC		Bihar	Odisha	Rajasthan	Total
Clean and safe drinking water	Number	19	9	28	56
	Percent	51.4	25.0	77.8	51.4
Toilet Facility	Number	5	21	16	42
	Percent	13.5	58.3	44.4	38.5
Separate Kitchen Shed/Cooking Facility	Number	13	17	10	40
	Percent	35.1	47.2	27.8	36.7

There were major gaps in the availability of basic facilities in the AWCs. Half the centres did not have access to clean and safe drinking water; the situation was worst in Odisha. Only 13.5% of the

AWCs in Bihar had a toilet facility. Overall, only about one-third of the centres had a separate kitchen shed/cooking facility; almost half in Odisha and less in the other two states had this facility.

Table 109:

Weighing Scales		Bihar	Odisha	Rajasthan	Total
Baby Weighing Scale	Number	33	36	35	104
	Percent	89.2	100.0	97.2	95.4
Adult Weighing Scale	Number	27	18	28	73
	Percent	73.0	50.0	77.8	67.0

Almost all the centres had a baby weighing scale and two-thirds of AWCs had an adult weighing scale. Of the baby weighing scales, eight were identified as being in a 'poor' condition with the rest being ranked as 'good' or 'fair'. In three cases,

the weighing scale could not be seen. Of the adult weighing scales, 16 were identified as being in a 'poor' condition with the rest being ranked as 'good' or 'fair'. In ten cases, the weighing scale could not be seen.

Table I I 0:

AWWs with:		Bihar	Odisha	Rajasthan	Total
Indoor Play Equipment	Number	18	32	32	82
	Percent	48.6	88.9	88.9	75.2
Poster/IEC Material	Number	7	25	35	67
	Percent	18.9	69.4	97.2	61.5
Take Home Rations	Number	18	32	35	85
	Percent	48.6	88.9	97.2	78.0
Growth charts	Number	7	28	25	60
	Percent	18.9	77.8	69.4	55.0

Bihar had very poor infrastructure in terms of even play equipment, posters, IEC material. Only 19% of AWCs had growth charts (separate for boys and girls). This could be the reason why none

of the AWWs in Bihar were able to answer the questions related to interpreting growth curves. Odisha and Rajasthan on the other hand were relatively better off.

Table I I I:

Medicine Kit		Bihar	Odisha	Rajasthan	Total
ORS available	Number	7	28	25	60
	Percent	18.9	77.8	69.4	55.0
ORS frequently used	Number	13	26	31	70
	Percent	35.1	72.2	86.1	64.2
ORS replenished on time	Number	0	24	7	31
	Percent	0.0	66.7	19.4	28.4
Paracetamol available	Number	15	9	30	54
	Percent	40.5	25.0	83.3	49.5
Paracetamol replenished	Number	0	7	11	18
	Percent	0.0	19.4	30.6	16.5
Thermometer	Number	0	5	5	10
	Percent	0.0	13.9	13.9	9.2

AWCs in Bihar were very poorly stocked on even essentials like ORS packets and Paracetamol. There was no thermometer in most of the AWCs and not a single one in Bihar.

Lack of adequate funds for preparation of cooked meals was reported by nearly all AWWs as the most important constraint to their smooth functioning. This was compounded by poor infrastructural conditions of building, cooking utensils, fuel and water supply. Lack of pre-school educational materials was reported by a majority of AWWs.

“Lack of the department’s own building is the main constraint.” [AWW, Sitamarhi]

“ AWC neither has its own building nor has minimum facility of drinking water, toilet and cooking room; so it is very difficult to provide quality service,” [AWW, Kandhamal]

Like ASHAs, lack of basic medicines was also reported by many AWWs.

“All medicines (for common ailments) are not available during immunization sessions.” [AWW, Gaya]

“Medicines are not supplied on time. Even first-aid for children – ointments, cotton and anti-septics are not available.” [AWW, Gaya]

“ Necessary materials in AWC are not available

and even medicines are not available in the centre,” [AWW, Nuapada]

Across the districts, nearly all AWWs complained of lack of co-operation from PRI and VHSC members; GNMs in urban Tonk reported better co-ordination with Ward Health and Sanitation Committees [WHSC]. Several AWWs reported poor interest from mothers.

“Beneficiaries come only for THR; they have no other interest; the time we spend on giving health-related advice is a waste for them.” [AWW, Sitamarhi]

“Even though there are a lot of groups in the village but neither of them help in any of the ICDS activities,” [AWW, Nuapada]

Monthly meetings with supervisors were reported to be irregular by few ANMs. Most AWWs in Tonk (urban) felt that male GNMs were a constraint in delivering maternal and child health services; women ANMs would provide better service.

With young children (aged three years or so) being increasingly sent to private schools/pre-schools, interest and attendance in Anganwadis was dwindling.

“People are sending their children from two-and half years of age to private schools. That is why the enrolment of children is falling.” [AWW, Tonk]

Performance of AWWs from Bihar was the worst in terms of overall scores. About one-third of the AWW respondents from Bihar got none of the questions right. On the other hand, in Odisha almost all of them got more than 4 questions right; but still it was only half of the AWWs in Odisha who scored higher than 50%. In Rajasthan, whereas a similar number scored more than 50% marks, almost as many also got none of the questions right. All those who scored zero in Rajasthan were from Churu.

- Those with longer experience as AWWs score better (more than 20 years)
- Scores have no relation with educational qualification of AWWs
- Receiving training in the last three years makes a slight difference (those who got a zero score were not trained in the last three years; but not much difference across other scores)
- As the score increases, the per cent of AWWs within that group who had refresher training in the last five years also increases.



Supervisors and Trainers

7

Qualitative Assessment – District and Block level functionaries and Trainers of frontline workers for Bihar, Rajasthan and Odisha

Responses from ANM, ASHA and AWW Supervisors

ANM, AWW and ASHA Supervisors were interviewed at the district and block levels. Supervisory level interviews at the district and block levels focused on issues related to training – content, method and quality, and subsequent deployment of frontline workers. Interviews also dealt with selection process of trainees, recruitment, performance appraisals, transfer policies, constraints and challenges faced in the entire process

This section is divided into responses received by supervisors of each frontline worker: ANM, ASHA and AWW separately.

ANM Supervisors

For responses on ANMs, the Block Health Manager (BHM), Medical Officer In-charge (MOIC) and District Program Manager (DPM) were interviewed in Bihar. In Odisha, the Sector Supervisor and MOIC at the block level and the DPM and District Public Health Nurse (DPHN) at district level were interviewed. In Rajasthan, the Block Chief Medical and Health Officer (BCHMO) and the Block Program Officer (BPO) at the block level and the DPM at the district level were interviewed.

Training calendar, In-service training content

In all states, no logical training calendar or plan was followed for in-service training in a year. It was largely dependent on need of the hour and the availability of funds. Maternal and child health were the most prominent theme of trainings and workshops.

In Bihar, ANMs had weekly meetings where they were trained in mother and child tracking system, diarrhoea, health and hygiene, hand washing and nutrition. Training in HMIS was introduced in 2010 which was now being imparted on a weekly basis.

In Rajasthan, major trainings in the annual training calendar were IMNCI, SBA, ARSH and Family Planning. Apart from these, IYCF and HBNC trainings were organised intermittently, depending on fund availability. Some other informal training sessions that were organised by the CMHO during monthly meetings with the frontline workers (ANMs and ASHAs) related to information on malaria control, IEC messages, provision of insecticide sprays and distribution of bed-nets during monsoon. Sometimes there were large-scale trainings such as the Village Health and Sanitation Committee orientation that was held in 2010.

In Odisha, major training in the annual training calendar included SBA training, IMNCI training, insertion of IUDs, Navajat Shishu Suaksha Karyakram (NSSK) and immunization training. The trainings related to maternal health included post-natal care, ante-natal care and Mother Child Tracking System (MCTS) training. Sometimes specific trainings, when required, like school health, VHND, HMIS etc. were also conducted.

Selection of workers for training and deployment

In Bihar, for any training at the district or state level, it was the PHC ANM who was given preference. For other trainings of ANM, names were usually suggested by BHM and approved by MOIC.

In Rajasthan, staff selection for training did not follow any particular criteria. Most of the training programs were for all workers. Some of the trainings, such as the SBA trainings were provided on priority basis to staff working in facilities that had enough provisions for handling deliveries.

Post training deployment did not necessarily see any alteration from pre training deployment of workers in all states. Only in case of special tasks, such as census survey, workers were deployed after the training.

Training needs assessment

There was no exercise to assess the training needs of frontline workers in any of the states though the supervisors felt the need for such an assessment.

In Rajasthan, need for refresher trainings on basic themes of maternal and child health was articulated. Infectious diseases were completely ignored area where both a need and demand for training was felt. In all states, there was also need for further training in maintaining correct records and making entries in data files.

Month-wise activities that ANMs

In Bihar, in major part of the year, the ANM was involved in family planning work especially from months of September to March, and Health and Hygiene work during April to July. The major morbidities that ANMs were dealing with in children were diarrhoea during April to August, and ARIs from November to February.

Skill gaps

In all states, the gaps in skills related mostly to malnutrition and diarrhoea management and linked to this was the lack of counselling skills. The other gaps were related to newer skills that were felt to be important; these included the use of injections and BP measurement and knowledge of first-aid.

Recruitment, selection and transfer policy

There was no laid down recruitment or transfer policy in any state. Although selection was as per government norms where qualifications were clearly stated, there was a lot of political influence in recruitments and transfers.

Most transfers took place either at the request of the employee or to fit the requirements of a particular area/facility as deemed fit by the administration.

ASHAS

Here, the BPMs, DPMs, ASHA Supervisor, ASHA Facilitator and District Community Mobilisers were interviewed.

Training content

ASHA trainings all over followed the ASHA modules that were conducted by District Training Agency. There was no other specific training scheduled for ASHA apart from the modules. Training imparted to ASHAs was mostly theoretical and demonstration facilities were absent.

In Bihar, block trainers were involved for refresher training of ASHAs every three months. Sitamadhi had rich infrastructure support for providing residential training.

Training Needs Assessment

There was no needs assessment done for training. Only the module based trainings were followed for ASHAs.

Month-wise activities

ASHAs were mostly engaged in family planning, immunization and diarrhoea management related activities as that was the major morbidity they had to deal with in children especially from June to September.

Recruitment, selection and transfer policy

There was no standard process through which ASHAs were selected across states. The community was not involved in the process of selection.

In Bihar, the Mukhiya selected the ASHA and it was found that personal influences mattered more in the selection of ASHA. MOIC /BCM acted as convenors but did not have much say in the process. ANM was sometimes involved in the selection.

In Odisha, it was the BPO who selected ASHA from the community.

There were no transfer policies anywhere as ASHAs come from the same village that they work in.

Supervision

There was no supportive supervision for ASHAs.

In Bihar, NIPI had prepared a checklist for supportive supervision but this was not implemented.

AWW supervisors

CDPOs and Sector Supervisor were interviewed here.

Training calendar and content for in-service training

There was no fixed calendar for AWW training in all three states but trainings were conducted on several issues from time to time and the instructions for such trainings came from the state level. Refresher training was given in Bihar and Odisha but not in Rajasthan. Supervisors felt the need for regular refresher courses.

In Bihar, AWWs were trained in SABLA scheme and refresher training was imparted to those who had undergone induction and job training. Apart from these, AWWs were also oriented in nutrition and health education in the monthly meeting held on every third Friday of the month.

In Rajasthan, there were special trainings organised by the Health Department or UNICEF. These were three to seven days residential trainings.

In Odisha, major training in the annual training calendar was the refresher training after two years

of work. The trainings in the year were related to IMNCI, Growth monitoring and Nutrition (Complementary feeding, THR etc.) training.

Selection of workers for training and deployment

In all three states, there was no selection procedure followed for in-service training of AWWs. It was generally random. For logistical reasons workers from one or few sectors were chosen at a time.

During training programs, the centre was managed by the Anganwadi Helper or the ASHA which was not suitable for more than a couple of days.

In all three states, there was no change in deployment of workers. AWWs returned to their pre-training posts.

Skill and knowledge gaps

There were several skill gaps identified by supervisors. It was felt that capacity building was required for issues beyond complimentary nutrition and pre-school education for AWWs. As they were from the community and interacted a lot with community members, there was a need for wider knowledge about new schemes which related to child health, health and nutrition training for adolescents etc.

Some of the skill gaps found in AWWs during and after training were the occasional inability to communicate properly with the community and inadequacy in counselling skills regarding nutrition. They were not provided with any training handouts during training to carry home because of which they usually forgot what was taught when not practised regularly.

Constraints and challenges for frontline workers as perceived by Supervisors

- Lack of coordination among frontline workers was cited by all three states and ASHAs felt that their work was not respected and there was lack of support from ANM/AWW.

- Concern was raised that because of undue focus on maternal and child health, infectious diseases got left out.
- There was lack of inter-departmental communication between the Department of Health and Department of Women and Child Development due to which training schedules clashed.
- In most states, it was felt that unlike the ASHA training which was more systematic and had better outcomes, ANM trainings have had less impact. The intensive training they received seldom gave them opportunity of exposure to rural health care. They were ill-equipped to handle a centre at a village level and there was no provision for refresher training on basic nursing skills. Program based training modules and workshops had created a skilled cadre to handle only certain programmatic requirements but they had lost touch of community health nursing and primary level care. ANMs were not conducting deliveries and hence the skills acquired during training were lost.
- There was no logical flow in the training calendars approved by the state. Trainings were randomly struck down or added and budgetary support kept fluctuating. Infrastructural support, hence, varied so did number of trainers that were mostly insufficient.
- Trainings were packed with information and concentrated into capsule like modules. For frontline health staff, this was the most ineffective way of skill building as the sessions were overloaded with information and shortened into insufficient time slots that did not give any space for adequate reiteration, understanding and retention. There was always insufficient time for field practicum or demonstration relevant to the trainings. Skill upgradation vis-à-vis trainings were rarely visible in their performance which resumed as before without any changes in work allocation or deployment.
- There was no structured monitoring framework for post training follow-up or for performance appraisal. PIP indicated that contractual appointments under NRHM would be renewed on the basis of their performance appraisal vis-à-vis achievement of target based indicators and other agreed benchmarks. According to supervisors, demotivation among all cadres of staff came out intensely in the context of appraisal, training and career development
- Only number of untrained workers was ascertained and there was no assessment of training needs.
- There was no focus on professional development or a systematic capacity building program of in-service frontline workers.

Responses from ANM, ASHA and AWW Trainers

ANM, AWW and ASHA Trainers were the next set of functionaries who were interviewed to gauge the method and quality of training in MCH, skills needed for newborn and MCH services, methods used for assessing skills, gaps and challenges in training faced by the trainers and amendments that, they felt, were needed in training modules.

ANM trainers

The interview focused on the course curriculum of ANM, changes in course curriculum, skills needed by ANM to manage normal deliveries and identification of complication in mother and newborn and gaps and challenges in training vis-à-vis practice.

Course Curriculum and changes in Course curriculum

In Bihar, the course underwent some changes 10-15 years back. The syllabus also got modified and subjects like biology, psychology, sociology, environmental sanitation, mental health, and paediatrics got included. Such reforms in course curriculum led to: better understanding of the symptoms of disease; better counselling skills; identification of signs and symptoms of the disease and better understanding of

pharmacology. Curriculum concerning newborn and child healthcare for the ANM included IMNCI syllabus that focused on growth and development of child, bacterial infection, newborn resuscitation, nutritional status diet plan, growth monitoring, physical assessment such as anthropometric measures, full body (head-foot) assessment, physical deformities, disease assessment, etc.

In Rajasthan, the course duration was a total of 18 months and consisted of 24 weeks of theory classes and 20 weeks of practical. Broadly one third time of 24 weeks of theory classes was dedicated to maternal and child health components.

The course had not undergone any upgradation for almost 20 years and with NRHM a new curriculum was developed but it had not been implemented.

NRHM related information and new topics relevant to today's health service delivery are informally taught by the ANM Training Centre staff through self-prepared notes on the topics.

In Odisha, the total duration of the course was 2 years (18 months + 6 months internship). During this duration, 695 hours were devoted to theory and (pl. cross check this figure?) 2785 hours to practicals. Skills mostly focused on maternal and child health.

Skills needed by ANM to manage normal deliveries and identification of complication in mother and newborn

Newborn care especially, thermal care and resuscitation skills, knowledge and identification of danger signs was said to be low. Measuring respiratory rate of newborn which is a critical component was not being practiced by ANMs. Partograph maintenance was also not a focus. Counselling skills and importance of health education was overlooked; skills needed for emergency care and management of complicated deliveries were lacking. All this was also linked to lack of infrastructure and inadequate supply of medicine and equipment that did not allow them to practice what they learned.

ANM's training, skills and motivation to manage postpartum care

ANMs were trained to make postpartum visits and had to ensure that they made these visits but in most cases these visits were limited to one visit or none at all. The reasons were attributed to administrative workload and other targets like FP and Immunization that took away much time. Since ASHA was mandated to make home visits, the ANMs avoided it.

Practice of ANM

In all states, ANMs were supposed to practice midwifery and paediatrics but due to lack of facilities/infrastructure support and lack of system support they were losing their skills in these areas. Training provided was generally lost due to lack of supplies where ANMs were posted.

Gaps and Challenges in training vis-à-vis practice

During job training the time spent on community posting was inadequate. The reason given was lack of funds. In Bihar, the proposed community posting of 90 days had been reduced to 20 days in the first year, and from 45 days to 15 days in the second year. This was clearly not enough. Library facilities were poor in ANM schools. Skills that they were trained in were not put to practice due to lack of equipments, facilities and delivery kits. ANMs also lacked residential facilities.

Data management had become a huge task for ANMs in field posting. They spent most of their time in maintaining data and record keeping.

In Odisha, there were insufficient tutors to cover all students. Equipments were also not enough for conducting practicum in the Private Training Centres. The trainers at these Centres were also not qualified enough.

Amendment/Improvements needed in course curriculum

There were similarities across states: It was felt that the course should be of two years duration

and examination system should be decentralised along with region/division-wise exams. Importance of community posting during the job course had to be stressed and re-emphasised. In Rajasthan, curriculum updating was important.

In Odisha, it was felt that practical training should be provided during first one and half years in an institutional set up to understand the technical nuances of their work.

ASHA trainers

The interviews with ASHA trainers focused on their perspectives on method and quality of training, skills required for maternal, newborn and child health services, gaps in selection, role clarity, methods of assessment of skills and training needs in the field, gaps and challenges vis-à-vis practice, and amendments needed in training module.

Method and Quality of training imparted

In all states, ASHA training modules were adhered to. Though the training was followed to the book it was done in breaks in all states keeping in mind logistical convenience. For example, the 20-day training for module six and seven, for instance, was divided into four rounds of five days each rather than finishing it at one stretch.

In Bihar, the training focused mostly on theory. Practical sessions were limited to sessions on hand washing, thermal care, breastfeeding and use of pregnancy kit. However, modules lacked field training. There was no provision for refresher course for ASHAs.

Skills needed for providing maternal health services

Here the trainers felt that home visits and counselling and inter-personal communication skills were essential, besides diagnosis and identification of disease at an early stage and prompt registration of pregnancy for ANC. It was equally important to counsel the pregnant woman and her family to take steps in safe pregnancy and delivery; information of services available and

preparing all records for the period of pregnancy. Birth planning and ensuring post-partum care through home visits were important skills of an ASHA, as also conveying to the community the importance of VHND/MCHN and escorting women to VHNDs.

In Rajasthan, the trainers were confident of the maternal and newborn health care skills of ASHAs and were generally satisfied with the quality of performance observed on the field, especially post training.

Skills needed in newborn and child health care services

According to the trainers, monitoring and weighing the child, breastfeeding counselling, time and duration of home visits and appropriate care and referral for diarrhoea and ARIs were important skills needed. Addressing malnutrition/ Infant and Young Child Feeding (IYCF), conducting examination of the child to diagnose any abnormality, measures to be taken for LBW and pre term child were equally important skills needed for child health care.

Trainers felt that home visits, ANC, counselling (which translates to 'convincing' in this case) for institutional delivery came at the top of the list, while more important 'care' functions generally ranked low. The trainers discussed this point candidly and admitted that the training did not give enough time to develop these skills as the information packed sessions left them overwhelmed. Although, they added that the modules were written well and the key messages were retained well by the workers, these were not enough to develop their counselling and negotiating skills. For newborn's health, initiation of breast feeding was the primary focus for ASHAs while the rest of the skills linked to identification of illness and care were lost.

Role clarity (independent and in coordination with ANM and AWW)

The trainers differentiated ASHA's role from other workers through the following activities that they felt were specific to her: her role as

a motivator for institutional deliveries and family planning; as a counsellor to pregnant women for ANC/PNC and institutional delivery; an escort for pregnant women for institutional delivery; calling people for VHND / MCHN Day for immunization and weighing of children.

There was a lack of conceptual clarity among the trainers regarding the role of ASHA in the context of the role that was envisaged for her at the launch of the program. This lack of clarity was passed on to ASHAs as well. She was seen as the frontline worker who had the 'burden' of direct community engagement. Moreover, this view was justified by stating that she had taken over a number of incentives from the other two cadres. However, this translated to a totally distorted work profile for the ASHA, who was saddled with the challenging work of taking care of the health needs of the population being the first contact point to the services and on the other hand she ended up doing a lot of paperwork and reporting. Further, she was also involved in a variety of other, need based and seasonal exercises to a greater extent than the other frontline workers. In a nutshell, ASHA was seen as a 'voluntary' worker who was supposed to master all trades, available for any work that the others would not do. This was leading to a total defeat of purpose of NRHM's flagship program of creating a health activist in the community.

Gaps in Selection

The trainers were not satisfied with the process of selection. They felt the selection did not follow a fair process and there was local level political interference.

In Bihar, in some instances it was found that the ASHA was illiterate and had furnished false certificate.

In Rajasthan, the trainers felt that the unfair selection had resulted in incompetent workers and there had been performance related complaints by the supervisory cadres. In addition, all the administrative staff agreed that the level of skill

and commitment expected from an ASHA was unrealistic and impractical. In many instances it was seen that ASHA was unable to reach out to the marginalised population. For example, in Tonk (Urban) the intervention wards had a community health volunteer who supplemented ASHA in negotiating with the majority Muslim population to come out for availing immunization check-ups, weighing and institutional deliveries.

Method of assessment of skills and training needs of ASHA in the field

There was no structured assessment of skills and training needs in any of the three states.

In Bihar the district health society was conducting some assessments but these were mostly focused on the efforts made by ASHA in meeting the JBSY, Family Planning and routine immunization targets. This was done on a quarterly basis. A format had been developed for this purpose. Discussion revealed that this assessment mainly helped the district to gather data on JBSY, FP and RI targets. Therefore, this did not contribute in assessing the skills or training needs of ASHAs.

Gaps and challenges vis-a-vis practice

The modules did not focus on how to develop her counselling skills. The trainers felt that Module 6 was very complicated and exhaustive given the skill sets of existing ASHA in their district. The practical challenge that remained unsolved was achieving balance in maintaining records and doing community work. There was also lack of availability of resources in terms of supply of medicine kits and so on. The mentoring and support system for implementing her work was missing and where it existed it was mostly data management work that was being supervised.

In Rajasthan, ASHA supervisor cadre was created initially to act as a coordination interface between the ASHA and the district level administrative staff but had been now given the profile of a data assistant engaged fulltime in feeding data. Therefore, supportive supervision did not exist in reality.

Amendments needed in training module

The trainers are universally happy with the content of the training modules, but the problem lay in the state regulated time for actual transaction of trainings. Each module was mostly broken up in to several rounds of training due to logistical and convenience reasons and this hampered the natural flow of the modules and thus became less effective than its potential.

AWW trainers

I Interview with the AWW trainers focused on the AWW training module, duration and types of refresher trainings, skills needed by AWWs for newborn and child care, role of AWWs as counsellor, role of AWWs in VHND, methods of skills assessment, quality of training and types of

trainers involved, gaps and challenges in training vis-à-vis practice.

Training Content and Duration

The AWW training in the states focused on immunization, breastfeeding (practice and time of feeding) , weighing and growth monitoring and cycle of development. Other areas were newborn and child health care, identification of diseases and management of low birth weight where AWWs developed skills for counselling parents on nutritional needs, Take Home Ration distribution, and referring the child to district hospital.

Other than the above mentioned areas, , in Odisha practical training was provided on HBNC and IMNCI also.

Table 112:

	Induction training	Job training	Refresher training
Bihar	6 days	26 days	5 days
Rajasthan	7 days	30 days	None
Odisha	Along with job training	32 days	7 days

The **induction training** focused on imparting knowledge to AWWs on the status of women and children in state/district, and policies related to women and child in India, ICDS program, and the role of frontline workers. During the induction course emphasis was given to sessions on immunization (4.5 hours) and preparation of monthly reports/records and maintenance of registers (4.5 hours) which was comparatively very high as compared with other sessions for induction training.

The **job training** was proposed to take place within 6 months of induction course but it usually took about two years for organising it. The job course was an in-depth training program that focused in detail on the constitutional provisions, laws and policies, issues related to ICDS directorate, convergence with departments/ministries and programs and services. There were very few sessions on understanding the child development process through audio video aids.

Most of the sessions were based on class room teachings.

The third phase of training of AWWs was **refresher course**. The significant sessions taken in refresher course were listing of training needs, communication and counselling skills of an AWW, management of childhood illnesses, demonstration and use of medicine kit, leadership and managerial skills, conducting survey, review of records, maintaining registers, filling up MPR and running of AWC for a day through supervised practice. On discussion with the trainers on session of listing of training needs it was noticed that there was no set pattern/format for doing this. Participants discussed their problems and constraints during this session and most of them were of administrative nature.

In Rajasthan, refresher training was not a formal, organised concept yet. The Multi-Level Training Centre at each division was supposed to conduct refresher training every year but the number of

workers was large and batch sizes had to be kept limited. However, theme based trainings were organised from time to time by the department.

Skills needed

The trainers pointed that essential skills included mapping of pregnant women, regular home visits by AWW, weighing a newborn within 24 hours, identification of illness in newborn, counselling mothers to breast feed their children, thermal care and skills to identify and refer children in case of any abnormality. Additionally, Home based Neonatal Care (HBNC) was one more area identified by the trainers to be a part of training for AWWs.

Method of Skill and training needs assessment

In none of the three states any formal assessment method was followed for skill assessment and training needs although the refresher training was supposed to include this.

The concept of needs assessment was limited to covering the untrained AWWs with training, so it was just a numerical assessment to see how many had been trained and who needed to be sent for training, without any consideration to what training was lacking and what sessions needed revision or improvisation.

On the last day of the training a session was kept for qualitative assessment of the training. AWW skills were not evaluated nor were training needs assessed through this.

Role of AWW in VHND/MCHN

In any VHND, AWWs had a critical role to play as the VHND was organised at their centres. Their role was critical in reminding community members to attend and counseling parents for meeting the nutritional needs of children, maintaining cleanliness and practicing hygiene in their locality and at home. They were to counsel mothers for institutional delivery as well. Coordination of skills with other workers is very essential for VHND. She also had to ensure the logistics for the day and also to ensure that the purpose for which VHND was organised was achieved.

Maintaining growth charts, weighing of mothers and children, ensuring immunization, distribution of supplementary nutrition (dry), counselling mothers and adolescents are the key functions of the AWW on this day. However, counselling mothers and adolescents was often the most neglected one.

Quality of training and types of trainers involved

In all three states, NIPCCD modules were followed for training but in most cases no hand-outs or handbooks were given. In Bihar and Rajasthan, AWW trainings were mostly in classrooms, through lectures. The centres lacked equipment to provide audio/video demonstration and there was no practical training or field work during this period. In Bihar, there were a total of four trainers [Principal+ 3 instructors] at the institution and all four were graduates. A notification had been recently issued stating that the instructors were supposed to be post-graduates or have a Masters degree in their subjects. In Odisha, the trainers were mostly graduates.

Gaps and Challenges in training vis-à-vis practice

Both in Bihar and Rajasthan, AWWs faced similar challenges at work - lack of funds for running the centres; no tools for demonstrating models/ illustrative charts/posters during training; library facility was not there at the training centres; the training did not focus on behavioural change in communication; AWWs were overloaded with other work; pressure by higher officials for maintenance of register and submission of reports; AWWs were unable to practice efficiently due to lack of equipment/supplies viz. weighing machine, ration, toys, charts, etc.

In Rajasthan, selection of trainers was made on the basis of availability and there were very few expert and exclusive trainers.

In Odisha, due to the skewed ratio of trainer to trainees, the training lacked quality.

Responses from State functionaries

Some state level functionaries and officials were interviewed and attempts were made to capture perceptions on recruitment, transfer, performance appraisal, evaluation of training policy of health workers.

In **Rajasthan**, state level interviews were conducted with the State Program Manager and State ASHA coordinator.

The module based ASHA training was being conducted on a regular basis, while the ANM in-service training had only recently picked up and they had been provided specific training on IMNCI and IYCF. Overall there was no planned or regular capacity building for frontline workers. There was also no transfer policy of frontline workers. They felt that for career advancement some of the better performing ASHAs could be considered for ANM training but nursing education needed to be revamped. On the quality front, private nursing colleges had to be regulated and state colleges had to be upgraded.

The selection of ASHAs had undergone some changes. Gram Sabha selected three ASHAs and their names were sent to the Medical Officer. They were then sent for the induction training and on successful completion they were appointed by the BMO and CDPO. The Sahayoginis introduced by DWCD, in the year 2004, to assist ANMs and AWWs in Rajasthan, were merged into the ASHA program in 2005. Minimum qualification for the ASHA was now being raised to 10th standard pass.

ASHA training was a regular event and the modules available were well-written but the trainings were intensive and loaded with information. Therefore it was unrealistic to expect them to retain everything and the training had to be spaced. On the work front there was a lot of workload on ASHA and too many expectations. There has been a clear shift from the original mandate of the ASHA to play a role of an activist to being a program worker as was now visible.

In **Odisha**, the Secretary, Health and the Director of Health were interviewed. They felt that high IMR and high malnutrition levels were the foremost challenges. There was a policy to focus on KBK and other tribal districts as a priority and on the program front, Maternal and Child Health as a policy was a priority.

Most ANM training centres in Odisha were with the private sector. There were 18 ANM schools and five government GNM schools. In addition 50 new ANM schools were started by the private sector. There was a state level task force to ensure quality of the training program. Skill sets available needed to be upgraded to meet new requirements. For vacancies, CDMOs were allowed to fill them up through walk-in-interviews within a 5- month time-frame. ANM was a district level cadre and they were not posted out of their home districts and hence there was no transfer policy. There was also no reward system or career advancement charted by the state for good ANMs, ASHAs or AWWs or good trainers.

Supportive supervision was missing in the field and hence ANMs had lost many skills taught to them. They get involved in management and technical inputs are limited.

The Secretary WCD, Odisha was also interviewed and some of the highlights from the interview are:

Four major interventions by the government had been introduced to address challenges of IMR, NMR and high levels of malnutrition: IGMSY, for the last one year, which involved e-transfer to beneficiaries; Annaprasann Ceremony for timely initiation of Complimentary feeding; IYCF Training and IMNCI Training to AWW. State budget allocation was there for all these new interventions but some gaps were filled by NRHM, DFID and UNICEF.

Since AWWs were recruited locally there was no major vacancy problem in Odisha. The norms of minimum educational qualifications for KBK and tribal districts like Mayurbhanj and Keonjhar were relaxed. The only issue was that enough candidates were not available to fill the ST quota.

As a career path, there was a 35 per cent reservation for AWWs in the selection ICDS Supervisors but they were yet not considered for ANM posts as career advancement.

Most (22 out of 30) of the MLTC /AWWTC were in private sector. They followed the conventional NIPPCD guidelines and tools of training. The faculty in these centres frequently had to be reoriented to the ICDS and the role of AWC.

Quality Assurance Cell was absent to oversee the quality issues of training infrastructure, amenities, food, accommodation, faculty, tools and teaching. There was no reward system for best AWWs or training centres. It was felt that since the selection mechanism was objective and transparent, such a reward system could dampen the morale of the workers who were not recognised (pl. check this statement?). For grievance redressal, AWWs had access to a toll free helpline.

In **Bihar**, State level Health Secretary was interviewed. Availability of staff nurses was a major issue and there were many ANM vacancies. There were 21 ANM schools and six government GNM schools; in addition, 10 new ANM and 10 new GNM schools were being opened. Inspection was being carried out in these schools, from time to time, to ensure quality but there was no quality assurance cell. 50 per cent seats in ANM schools are reserved for ASHAs who satisfy the minimum eligibility for career advancement. Cash Award of Rs.3,000 per AHSA per district have been instituted for maximum number of referrals through “102” Scheme.



Community and Beneficiary Perceptions 8

Village Health and Nutrition Days

All three states were currently emphasising on VHNDs but this was not perceived as among the important activities by most ANMs and ASHAs.

They focused on the targeted and incentivised components. AWWs in Odisha and Rajasthan ranked VHNDs as a high priority activity, but no AWW in Bihar mentioned this in the list of important activities. Key findings in 42 observed VHNDs are summarised below:

- Mostly organised in AWCs
- All three cadres present in all VHNDs
- VHSC members present in all VHNDs in Odisha; none in Bihar and Rajasthan
- Women's Self Help Group members present in about half VHNDs in Odisha; none in Bihar and Rajasthan
- AD syringes available in most sessions
- Shortage of diluents in several sessions across states
- Shortage of contraceptives: oral pills in Bihar; condoms in Bihar and Odisha
- Shortage of iron-folate tablets in Bihar and Rajasthan
- Some sessions in Bihar without weighing machines; none with growth charts
- Due list for vaccination, immunization cards and tally sheets used in all sessions
- Of 42 observations, meetings held in only 5:
 - ◆ Average duration: 1-2 hours
 - ◆ None had any IEC materials
 - ◆ Childhood illnesses, nutrition issues and RTI/STI not discussed at all
 - ◆ Family Planning and Sanitation discussed in about half
 - ◆ Sex selection and age at marriage not discussed

Beneficiary perspectives:

In order to get the perspectives of beneficiaries, interactions were undertaken with two groups of beneficiary mothers: (i) 90 with newborn children and (ii) 77 with children aged six months to two years. During pregnancy, ASHAs met the mothers on an average of four times; three times in Bihar, six times in Odisha and four times in Rajasthan. Mothers were most commonly advised on

institutional delivery and immediate initiation of breastfeeding. Neonatal care, JSY and consumption of IFA tablets were also issues on which mothers reported receiving advice from ASHAs.

In Bihar, ASHAs influenced the choice of institutional delivery for most mothers. In Odisha and Rajasthan, it was mostly the quality of the facility and the JSY incentive that motivated institutional deliveries. In both these states about

40% reported referral by ASHA also as one of the reasons for opting institutional delivery. The beneficiary sample was selected from a list given by ASHA herself. Nearly all women who gave birth in institutions confirmed being accompanied by ASHAs in Bihar and Odisha, but somewhat less so in Rajasthan. Most respondents also reported having received advice from the ASHA on delivery and newborn care. However, very few in Bihar and Rajasthan reported getting any advice from AWW or ANM. On the other hand around 70-80% of the beneficiaries in Odisha reported getting advice from AWW and ANM as well. 85-90% of the respondents in all the three states reported facilitation by ASHA for colostrum feeding. Very little support for this from AWW or ANM was reported. The main advice given about breastfeeding related to its early initiation (about 75%).

About one-third of the babies who fell sick in the first month were identified by the ASHA in Bihar and Odisha; very few in Rajasthan. In all three states, very few or none of the sick babies were identified by AWWs or the ANMs. In Odisha, in the case of 30% of the sick babies the help of ANM was sought. In other states beneficiaries did not seek help from ANMs. They mostly went to the PHC, district hospital or private facilities.

Most respondents in all the three states reported that ASHA, followed by AWW and ANM, facilitated immunization of the child. The role of the frontline workers in facilitating immunization was highest in Bihar followed by Rajasthan and Odisha. ASHAs were generally found to facilitate the index child's enrolment to AWC, varying from about 75% in Bihar to about 95% in Rajasthan.

66 of the respondents' children had diarrhoea in the three months prior to the survey. 61 children received some help from the ASHA – mostly ORS and advice for referral. Most mothers in Bihar and relatively fewer in Odisha and Rajasthan reported receiving nutrition counselling or advice to attend growth monitoring sessions from ASHAs.



Discussion 9

Ensuring Child Survival in India is the key issue addressed here and what needs to be done through frontline health functionaries to ensure Child Survival which is the overall goal of this study. An effort has been made to contextualise the available frontline health and nutrition functionaries in the country against the background of various Community Health and Nutrition Volunteers in many developing countries. Cutting across two main departments viz. Health and Women and Child Development, their grass root level functionaries like AWWs, ASHAs and ANMs were assessed on quantity and quality in detail.

Are their availability and deployment in numbers adequate? Are they effective by way of capacities in both technical knowledge and skills? Even if they have knowledge and capacities, do they have right attitude to make significant change in child survival and development?

Knowledge of life threatening scenarios of a newborn and child is very important for a frontline health functionary for two actions; firstly to intervene to save that baby from death if you possess the skill, tools and supplies; secondly to refer to a specialised centre for appropriate intervention.

We have identified certain key danger signs (detrimental to survival) in pregnancy, child birth, puerperal period, infancy and childhood. These are as follows:

- **Pregnancy:** bleeding, giddiness, black out, breathlessness, swelling of legs and face, severe headache and convulsions.
- **Delivery:** difficult and prolonged labour, bleeding, retained placenta
- **Post-partum period:** severe bleeding, foul smelling discharge, high fever
- **Newborn:** signs of birth asphyxia: breathing difficulty, absent or poor cry and blueness of skin.
- **Sepsis:** poor feeding, lethargy, hot or cold to touch
- **Infant and Young Child:** pneumonia-fast breathing and difficult breathing(chest in-drawing)
- **Dehydration:** severe thirst, sunken eyes, dry tongue & lips, skin not turgid.

We then graded them as ‘Required and Highly Critical’ and ‘Required and Essential’ for different categories of frontline health functionaries as illustrated in the table below.

Table 109:

	Required and Highly Critical	Required and Essential
ANM	<ol style="list-style-type: none"> 1. Conduct normal delivery-Skilled Birth Assistance- and use of partograph. 2. Proficient in active management of third stage of labour. 3. Refer cases of difficult labour and newborns with abnormalities 4. Immediate resuscitation of asphyxiated newborn by suction, Ambu bag and mask. 	<ol style="list-style-type: none"> 1. Importance of early registration in pregnancy 2. Quality Antenatal check-up: Weight, blood pressure, abdominal examination for size of uterus and presentation of foetus, tests for haemoglobin, urine for protein and sugar 3. Newborn period- Care of the normal/low birth weight newborn –keeping baby warm, demand feeding of early and exclusive breast feeding.

	Required and Highly Critical	Required and Essential
	<ol style="list-style-type: none"> 5. Recognition and management of birth trauma and neonatal sepsis- poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch 6. Importance of post-natal visits and how to recognise complications- severe bleeding, severe breathlessness, foul smelling discharge, high fever, calf tenderness. 7. Infant and Young Child: signs of pneumonia- fast breathing and difficult breathing(chest in-drawing) 8. Infant & Young Child: signs of dehydration- severe thirst, sunken eyes, dry tongue & lips, skin not turgid. 9. Refer children with Severe Acute Malnutrition and complications to the Primary Health Centre or Nutrition Rehabilitation Centre. 	<ol style="list-style-type: none"> 4. Identification of cases of severe acute malnutrition among infants and young children (zero to three years) 5. Give nutrition advice and necessary treatment for minor illness of children with Severe Acute Malnutrition. 6. Notify timely any abnormal increase in community, cases of diarrhoea/dysentery, fever with rigors, fever with rash, fever with jaundice or fever with unconsciousness. 7. Counselling women on contraception and prevention of common infections including Reproductive Tract infection/Sexually Transmitted Infection (RTI/STI), HIV/AIDS
ASHA	<ol style="list-style-type: none"> 1. Newborn period- signs of Birth asphyxia- breathing difficulty, absent or poor cry and blueness of skin. 2. Newborn period: -signs of sepsis-poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch 3. Infant and Young Child: signs of pneumonia- fast breathing and difficult breathing(chest in-drawing) 4. Infant and Young Child: signs of dehydration- severe thirst, sunken eyes, dry tongue & lips, skin not turgid. 5. Pregnancy-bleeding, giddiness and black out, breathlessness, accelerated/reduced foetal movements, swelling of legs and face, severe headache and convulsions. 6. Delivery-difficult and prolonged labour (more than 12 hours), severe bleeding, retained placenta beyond 30 minutes 7. Post-partum period- severe bleeding, severe breathlessness, foul smelling discharge, high fever 	<ol style="list-style-type: none"> 1. Newborn period- Care of the normal/low birth weight newborn –keeping baby warm, demand feeding of early and exclusive breast feeding. 2. Counselling women on importance of safe delivery and birth preparedness-identify institution/staff for delivery, plan transport and blood donor. 3. Counselling women on early exclusive breast feeding, complementary feeding, immunization and care of the young children 4. Escort pregnant women along with blood donors and children requiring treatment/ admission to the nearest pre-identified health facility 5. Providing newborn care and management of a range of common ailments among children
AWW	<ol style="list-style-type: none"> 1. Identification of cases of severe acute malnutrition among infants and young children (zero to three years) and the correct place to refer 2. Importance of three prioritised visits to newborn on day 0, 3 and 7-10 days. – recognising signs of sepsis for quick referral- poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch 3. Infant and Young Child: signs of pneumonia -fast breathing and difficult breathing(chest in-drawing) 4. Infant and Young Child: signs of dehydration- severe thirst, sunken eyes, dry tongue and lips, skin not turgid. 	<ol style="list-style-type: none"> 1. Provide health and nutrition education and counselling on breast feeding/infant and young child feeding practices to mothers. 2. Recognize growth faltering from plotted growth chart and advise family members on improved feeding 3. Newborn period- care of the normal/low birth weight newborn –keeping baby warm, demand feeding of early and exclusive breast feeding.

Our assessment on capacity of frontline health functionaries to save children was focused on whether they knew these danger signs and what action they would take. For strategic actions for better outcome of child survival they need retention of critical skill sets or application of knowledge to effectively respond to such danger signs when they occur. We also attempted to validate whether the retained critical skill sets were demonstrated or not, currently or in the recent past. Similarly whether the acquired knowledge was applied or not, recently was also validated.

How many interventions have they been able to successfully implement like facilitating early initiation of breastfeeding or administering ORS etc.? How much of identification of an effective referral of newborn with sepsis or young child with signs of pneumonia has taken place?

If they do not know, why is it so? We have tried to throw some light on this aspect by interacting with their trainers and supervisors. We have also attempted to highlight the lack of enabling factors for not practicing what they were taught.

Another aspect of the study was to do a functional job analysis of frontline health workers (work load, working conditions and rights) and whether there was a shift of roles of front line functionaries. Are they responding to emergencies? What is their prioritisation of activities? Whether sick newborn are taken care of with as much seriousness as immunization and tubectomy campaigns?

Findings and quantified data as well as reflections of stake holders on the issues have already been presented in previous sections.

What was the adequacy of numbers of frontline functionaries for an effective child survival in those blocks and districts or states?

Health Workforce–Numerical Adequacy

Table 114: Placement and vacancy status of ANMs, both contractual and regular, district-wise variation, rural/urban, tribal-non-tribal area differences

Sl. No.	District	Required and Highly Critical			Required and Essential		
		Sanctioned	Position	Vacancy	Sanctioned	Position	Vacancy
1.	Kandhamal	185	170	15	34	34	0
2.	Nuapada	116	113	3	25	25	0
3.	Total Odisha	7607	7082	525	979	979	0
4.	Gaya	583	524	59	541	432	109
5.	Sitamarhi	300	202	98	341	115	226
6.	Bihar	11794	9419	2375	11264	8146	3118
7.	Rajasthan	14348	17638	+3290	Not applicable		

Reference:- NRHM, State offices (2012-13)

With regard to the status of placement of regular ANMs, in the sampled districts, the above table reveals that placement status in terms of sanctioned vs. in-position is good in both districts (above 90%) but in Nuapada district it is slightly better than in the Kandhamal district. Whereas, full appointment of additional ANMs have taken place in both districts and there is no vacancy as of now. So also in the whole of Odisha state but 7% posts of regular ANMs are lying vacant.

On the contrary, in Bihar, 20% posts of regular ANMs and 27.7% posts of additional ANMs are lying vacant. In Gaya district, 10% posts of regular ANMs and 20 % posts of additional ANMs are lying vacant. This is better than the state scenario. In Sitamarhi district the situation is worst where 32.6% posts of regular ANMs and 66 % posts of additional ANMs are lying vacant.

Rajasthan has the best scenario among the three states; There is 122% placement of regular ANMs, with 3290 ANMs appointed in excess already.

Table 115: Placement and Vacancy status of ASHA- Variation across States

Sl. No.	State	Proposed # as per 2001 Census	# Selected so far	Shortfall	% of short fall	# of VHSC
1	Bihar	87135	82522	4613	5.3	7978
2	Odisha	41102	42597	1495 Excess	Nil	45469
3	Rajasthan	54915	50287	4628	8.4	43440

Source: Update on the ASHA Programme Jan 2012 and CRM Report 2011, NRHM Gol.

Table 116: Placement and Vacancy status of ASHA Variation across districts in Bihar and Odisha

Sl. No.	District	Proposed	In Position	Vacancy	%
1.	Gaya	3514	3352	162	4.6
2.	Sitamarhi	2919	2781	138	4.7
3.	Kandhamal	2232	1237	995	44.5
4.	Nuapada	643	740	97 excess	

According to the numerical figures given by NRHM, ASHAs in Kandhamal and Nuapada vary in proportion to VHSCs because of far flung hamlets with lesser population and thereby requiring more

number of ASHAs. Selection and placement of ASHAs are severely lacking in Kandhamal district.

Table 117: Placement and vacancy status of AWWs, both contractual and regular, district-wise variation, rural/urban, tribal-non-tribal area differences

Sl. No.	District	AWWs by GOI			AWCs		
		Sanctioned	Position	Vacancy	Sanctioned	Position	Vacancy
1	Kandhamal	2331	1633	698	2331	2331	0
2.	Nuapada	1232	1184	48	1232	1232	0
	Total Odisha	71134	66384	4750	71134	71134	0

Reference:- WCD, Odisha, Aug'2012 (ICDS, MPR)

With regard to status of AWW placement in the sampled districts, the above table shows that placement status in Nuapada district is better than Kandhamal district in terms of sanctioned vs. in-position, with Government of India (GOI) funding. As per GOI funding in Kandhamal district there is 29.9% vacancy of AWWs and in Nuapada district it is 3.9%. But the State government of Odisha has made all AWCs operational in all districts in the state.

Capacity of frontline health workers-Knowledge and Skills

What are the capacities of frontline health workers by way of both technical knowledge and skills to be effective in the field?

The Skill assessment of ANM done under this study was an opportunity to know the state of affairs in the field. It could revalidate and reassess the quality of existing ANM training, work environment and expected outcomes.

Rigorous training in knowledge and skill regarding midwifery is an exclusive part of ANM training covering about 12 months of the program schedule. We have found severe inadequacy in imparting midwifery skills during basic training of ANMs. Even if the skills were imparted, they were not retained due to chronic non-use by ANMs; also due to the lack of positive reinforcement by their supervisors in the field. Though government has tried to fill this skill gap through an intensive 21 day Skilled Birth Assistance (SBA) training, we observed wide disparity in the provision of

SBA training in different districts. There were lacunae in the quality of training. The motivation of the candidates was also poor in some cases. For example, poor initiative by the trainees to do night duty in the labour rooms during the training, to learn from the limited number of midwifery cases available during the SBA training period. Lack of coercive supervision and periodical feedback to trainees after the refresher training also add up to the skill gap existing at field level.

The relieving fact is that currently skills are being taught and students are well versed in the application of those skills. For example, during the skill assessment process in Sitamarhi, six ANM students posted in Maternity Ward were asked to demonstrate the same antenatal, intra-natal and postnatal skills which were tested on older ANMs in service. These skills were demonstrated with absolute perfection without exception.

While the current students of ANM course do possess the skills, the older generation of ANMs whose assessments were done reported of not having conducted a normal labour during the last 15 to 20 years! The attrition of the skills was clearly attributable to non-use for such a long period and lack of supportive supervision in the field. To further reinforce this point, ASHAs posted in maternity wards of Sitamarhi were also better informed in newborn and postnatal care as they had the benefit of IMNCI/HBNC components as part of their training.

In contrast, ANMs in Odisha had been trained in IMNCI and many of them had also completed SBA/NSSK training; the results were evident in assessment by way of better knowledge, skills and practice.

ANMs were generally proficient in activities that they performed most: ANC, diarrhoea management including use of ORS, immunization and some aspects of PNC. The activities that were clearly not being performed as stated were delivery, and related newborn resuscitation and care.

Quantitative analysis of data shows that midwifery at sub-centres was hardly being performed.

Consequently, skills in newborn resuscitation and management were deficient in general. Knowledge and skills in resuscitating newborns was extremely poor, the worst among ANMs in Rajasthan (Churu) compared to ANMs of Odisha. ANMs performed poorly on cord care, full and correct advice on breastfeeding, monitoring of vital signs including breathing of newborn.

Given its current emphasis, thermal protection/hypothermia of the baby was explored in considerable details: knowledge about normal temperature of a newborn, measuring and interpreting temperature by a thermometer and symptoms and signs of hypothermia. ANMs of Odisha had knowledge levels at about 60%, which was considerably higher than that of the others. Surprisingly, almost everybody had correct knowledge of Kangaroo Mother Care (KMC). Regarding practice of postnatal care, nearly all ANMs in Odisha and Rajasthan reported that they were providing this service, in contrast to only 50% ANMs in Bihar although about 80% had correct knowledge on post-natal care.

Advising mothers correctly on breastfeeding is a key responsibility of ANMs but ANMs from Rajasthan had the poorest knowledge, those from Odisha had the best knowledge. In contrast, ASHAs had much better knowledge. All ASHAs had correct knowledge on initiating breastfeeding. Knowledge on exclusive breastfeeding was nearly 100% in Odisha and Rajasthan; but this was surprisingly poor among ASHAs from Bihar (only 20%).

ANMs were performing immunization as their single-most important activity and their knowledge on vaccine schedule was adequate. The ANMs in Bihar performed best on deciding on VVM colour change; this could in all likelihood be attributed to the frequent rounds of pulse polio in that state compared to the other two. But knowledge of injection safety was poor in general, the worst among ANMs of Rajasthan. So was the knowledge on waste disposal and segregation of waste in colour coded bins or bags.

Knowledge on assessing dehydration and managing with ORS was very good among all ANMs. But on correct knowledge on “continuing feeding in diarrhoea”, ANMs from Bihar and Rajasthan had hardly any knowledge and only about 10% ASHAs had correct knowledge on this. Nearly half the AWWs in Rajasthan, a third in Odisha and none from Bihar had correct knowledge on continuing feeding. Responses on referral were appropriate across all workers, except the AWWs in Rajasthan, in all three states. .

ANMs from Odisha were able to best identify the danger symptoms and signs in ARI. They were able to get the referral criteria right too. ASHAs in Odisha mostly gave correct answers on identification and referral followed by those in Rajasthan and Bihar. AWWs showed the same patterns as ASHAs.

Concerns in Nutrition Sector

Sub-optimal capacities of knowledge and skills of ANMs and ASHAs was not only limited to Health sector alone, but in Nutrition sector also. After 35 years of program operation and training by ICDS, half the AWWs interviewed across three states could not interpret the weight readings in the Salter scale correctly; the performance of AWWs in Odisha being the poorest. They could not give the excuse of unfamiliarity due to non-availability of instrument as facility observation results confirmed that nearly 100% of weighing scales were in working conditions in AWCs.

Regarding application of knowledge on growth monitoring, while 80% of AWWs could correctly interpret different weight curves in Odisha, only 50% in Rajasthan and about 20% in Bihar could do so. As an enabling factor for growth monitoring only about 20% AWCs in Bihar were found to have the new growth charts during facility observation. In Rajasthan, while growth charts were present, training was lagging behind. What was most worrying about AWWs was the fact that none were able to correctly tell the calories and proteins to be given under SNP to children

(six months to three years) or to the severely malnourished.

ANMs had reasonably good knowledge for identifying Severe Acute Malnourished (SAM) children; however, as a service linked practice, referral for SAM is yet to catch up in Bihar among ANMs. Only a third of the ANMs in Bihar reported referring such children to any hospital or Nutrition Rehabilitation Centre (NRC)/ Malnutrition Treatment Centre (MTC) in contrast to about 80% in Odisha and Rajasthan (Churu).

What do we want the ANM to do?

It's important at this stage to have a revised role clarity of ANMs at Sub-centre level. Is she expected to perform as a Public Health Nurse alone, or as a full-fledged midwife at the community/ Sub-centre level, or both? If the program requirement is 100% institutional delivery at institutions of PHC level and above, then there is no role of ANM as a midwife at Sub-centre Level. In that context, relevance of acquiring extra midwifery proficiency in ANM training stands nullified.

The recent revision of ANM syllabus adding 6 months internship to improve their midwifery skills by Indian Nursing Council need to be re-evaluated. Why, because there is a recent delegation of responsibility to the frontline health care workers to enhance the quality of first contact level primary health care. If curative care and control of communicable as well as non-communicable diseases are given as much or more importance than midwifery as the tasks to be performed by an ANM, then this extension of course curriculum seems to be wastage of time and manpower resources. The reality in Bihar and in many areas of other states is that the Sub-centres are no longer sites of institutional delivery and ANMs are less expected to perform as midwives. If midwifery skills are not applied and not required to be used then why to extend the course by six months is a pertinent question. A skill learned during the training period doesn't become a habit if there isn't an environment for its use and re-enforcement.

So it doesn't make sense for extension of ANM training to 24 months to acquire midwifery skills as per the latest recommendation of Indian Nursing Council.

Training

As a means to build capacities of frontline health workers, both initial and subsequent need based training, and 'on-the-job' training assumes paramount importance. Data and information on training was triangulated from responses from frontline workers, their supervisors, trainers/teachers and state level respondents in all three states.

None of the states was following any systematic training calendar or plan for in-service trainings for ANMs. Critical determinants of trainings undertaken were either the fact that the theme is a high focus component of health program or the availability of funds. The trainings were largely as per the need of the hour.

ANM Training Centres (ANMTC) had severe constraints in terms of infrastructure and human resources. Some were without the post of a regular principal even. Other than what was organized in ANMTCs, there was no logical training plan or calendar followed for in-service training during a year.

For district/state level trainings, ANMs posted in PHCs were commonly nominated; for other trainings, the BHM usually suggested names and the MOI/C approved. Selection in Rajasthan did not follow any particular criteria. Post-training deployment was generally no different from pre-training deployment; this was true of all the three states.

There was no exercise to assess the training needs of frontline workers in any of the states though the supervisors strongly felt the need for such an assessment. Maternal and child health emerged as the most prominent theme of trainings and workshops. ANM teachers in all states identified the gaps in skills related mostly to malnutrition and

diarrhoea management and linked to this was the lack of counselling skills. The other gaps included were the use of injections and BP measurement and knowledge of first-aid. Teachers were aware that knowledge and identification of danger signs related to components of newborn care, especially thermal care and resuscitation skills, was low. Some other important deficiencies in teaching and training as reported were health education, emergency care and management of complicated deliveries.

Several ANM teachers considered the ASHA training to be more effective. Others felt that there was an over-emphasis on maternal and child health issues; it was necessary to diversify beyond this traditional paradigm.

The ANM curriculum had last been revised more than 10 years back in Bihar. Similarly, in Rajasthan, the course has hardly ever been upgraded in the last two decades; a new curriculum was developed after the formulation of the NRHM but is yet to be implemented. NRHM related topics and issues were generally transacted informally without any formal curriculum. Several teachers reported using self-prepared notes. Many workers, both AWW and ASHA, demanded carry home simple notes and work books.

During initial job training the time spent on community posting was inadequate. Quality guidance by trainers on the conduct of home visits, client interaction and counselling was also inadequate.

Many senior-level respondents claimed weekly meetings as the opportunity and location for training ; in contrast, worker-respondents were of the opinion that most of the queries and discussions during refresher courses consisted of queries and clarifications on administrative matters and reporting formats rather than new knowledge or skills.

ANMTCs often lacked adequate residential facilities. Equipments were inadequate for conducting hands-on training in private ANM

schools. Though it was generally opined that the course should be of two years with more time given for midwifery, we may have to re-think on whether our ANM should be proficiently taught midwifery but not strictly demanded to practice it.

With the increasing demand for additional ANM in every sub centre, there is a temporary market demand for ANMs. The move by the government and the INC to liberalise giving sanction to open new training centres with inadequate infrastructure and teaching faculty in the private as well as government sector would be a set back to the quality of ANMs to come.

State Nursing Councils are expected to oversee standards of Nursing education. Unfortunately these councils are not empowered enough to discharge that function. The observations of the Health Commissioner of Bihar marked a step in the right direction - "State Nursing Council is functioning very poorly in our State. We are planning to create a separate Nursing Directorate and promote indigenous leadership development in every cadre." Mission Director of Odisha had gone further "We are the first State in India after West Bengal to establish a separate Directorate of Nursing to manage all the affairs of Nurses by themselves with full autonomy of decisions and budgetary power".

The module based trainings followed for ASHAs were generally adhered to; altered only for logistical convenience. The 20-day training for Modules 6 and 7 was being divided into four rounds of five days each.

There was no fixed calendar for AWW training in all three states but training was conducted on several issues from time to time and the instructions for such training came from the state level. ASHA selection did not follow any uniform process across the states. The beneficiary communities were hardly involved. Personal influences were reportedly a critical determining factor. The ANM was sometimes involved in the selection though. Refresher training was there in Bihar and Odisha but not in Rajasthan.

Supervisors felt the need for regular refresher courses. Trainers reported that the focus in trainings was more on 'convincing' skills than 'caring' skills and felt that there was a need to impart more skills. On the other hand, they criticised the modules for their inadequacy to help build counselling and negotiating skills.

Supportive supervision for ASHA was weak. The supervisory cadre in Rajasthan was generally located at the block level and involved in computer-based data management, with very little time for field supervision. In contrast, in Bihar, the senior-most among a group of 20 or so ASHAs was designated as the supervisor, but she was more concerned with her targets and incentives than supportive supervision.

There was a lack of conceptual clarity among the trainers regarding the role of ASHAs. They were seen as frontline workers who had the 'burden' of direct community action. The trainers labelled ASHA's roles as distinct from other frontline workers on account of the following specific activities: motivator for institutional deliveries and family planning; counsellor to pregnant women for ANC/PNC and institutional delivery; escort for pregnant women for institutional delivery; mobilising people for VHND / MCHN Day for immunization and weighing of children.

No selection procedure was being followed for in-service training of AWWs; it was largely random. Workers from one or few sectors were chosen at a time for logistical convenience. There was no logical flow in the training calendars approved by the state. Only numbers of untrained workers were counted and there was no effort to assess training needs of workers deployed in the field. Training programs were randomly struck down or included as budgetary support kept fluctuating. Trainings followed the modular patterns which were packed with information. Trainers felt that overloaded sessions, insufficient time slots and inadequate reiteration resulted in weak understanding and retention. There was insufficient time for field practicum or demonstration relevant to the trainings. There

was lack of any structured monitoring framework for post-training performance appraisal. Trainings were mostly held in classrooms through lecture mode. Audio-video equipments were conspicuous by their absence and there was hardly any scope for practical training or field work. With a lack of focus on professional development and systematic capacity building program, demotivation was reported to be high.

Service Delivery

Availability of ANM round the clock in sub-centre quarters is a significant factor in earning the confidence and cooperation of the community members with regard to utilisation of health services from sub-centres. But at least half of the ANMs in Bihar and Odisha travelled for an hour or more to reach their SC. In contrast most ANMs in Churu were living in the sub-centre village. Only one ANM actually resided in the Sub centre quarters in Rajasthan, though a third of the SCs had residential quarters.

With regard to services in the sub-centre, the ANMs were clearly focused only on targeted and incentivized activities: ANC and institutional delivery (JSY), immunization, family planning and polio eradication. Pulse polio campaigns were consistently reported to disrupt other activities. Record keeping and paperwork demanded at least a quarter or more of the working hours. These were also equally applicable to ASHAs.

Analyses of post-natal care activities revealed that relatively little attention was paid to the mother, particularly in monitoring/advising about bleeding, nutrition, rest and contraception. Delivery of PNC was somewhat better in Rajasthan. Far greater attention was given to the newborns particularly about keeping the baby warm (though knowledge was poor), immunization and birth registration. Despite the focus on preventing neonatal mortality and improving PNC, less than a third of ASHAs were visiting the newborn within the first 24-48 hours; Rajasthan fared the poorest.

In an average working day of six hours, AWWs spent up to two hours on paperwork and

record keeping. While pre-school education was receiving the maximum attention in Bihar (both reported and observed) this was the weakest component in Rajasthan. The AWWs in Bihar felt that owing to the recent added emphasis on pre-school education the counselling activities were compromised. In contrast, AWWs in Odisha were spending more time in monitoring, detecting and referring under-nourished children; far less time than required was given to pre-school education. Significantly, AWWs were most focused on immunization and did not rank detecting under-nutrition in their top three priorities.

About one-third of the babies who fell sick in the first month were identified by the ASHA in Bihar and Odisha while very few were identified by ASHA in Rajasthan. In all three states, very few or none of the sick babies were identified by AWWs or ANMs. This shows ASHAs as a true frontline functionary identifying sick newborns and facilitating specialised care and salvaging lives. Yet, when they accompany a sick child or a pregnant woman to the hospital, they do not have even a place to rest and often have to hang around under trees.

Odisha has Nutrition Rehabilitation Centres (NRCs) in every district. 24 out of 31 districts have functional Intensive Newborn Care units at district hospitals. Soon, it will be expanded to all district hospitals. If timely referrals are facilitated by frontline functionaries in the periphery, these referred babies will have a real life time chance to survive.

As a long term strategy of community empowerment, Odisha state is also emphasising on influencing parents for bringing about changes in family behaviour and also on women's group for this purpose through sensitisation of SHGs under "Mission Shakthi". These are opportunities where ASHA and AWW at village level can make significant difference.



Recommendations

10

A. Policy level

1. State Nursing Councils should be made completely autonomous with adequate staff and a registrar as per Indian Nursing Council (INC) norms. A nursing management support unit should be set up in every state.
2. Government and INC should have periodical check on the standards of ANM training centres using a quality assurance cell.
3. Quality assurance cell may be constituted by bringing together eminent nursing teachers and experts in various areas of infrastructure and management and the cell should be totally autonomous.
4. Administrative set up should be progressively detached from all nursing related issues from the control of Directorate of Health Services, and an independent Directorate of Nursing should be allowed to take over to ensure autonomy and better outputs in nursing sector.
5. All nursing training centres should be mandatorily made to go through INC inspection every year, be it in the government or private sector as well as to have accreditation from one of the accrediting agencies such as JACHO, NAAC, ISO etc.
6. ASHAs and AWWs should not be involved in non-health programs.
7. Institutionalise the system of training needs through assessment and planning of training accordingly.
8. Inter-departmental communication is important to see what the synergies in training would be possible for all frontline workers; Wherever possible joint training of frontline

functionaries should be preferred to foster team functioning and camaraderie.

9. Some formal assessment method should be developed to assess knowledge and skills of frontline workers from time to time.
10. All currently given in-service training such as SBA, NJSSK, IMNCI, IYCF etc. should be part and parcel of pre-service training of respective cadres.

B. Systems Strengthening

Physical infrastructure of sub-centres and Anganwadi centres should be improved along with provision of water and toilets. The kitchen room must be separate in AW Centres so that smoke does not enter the play and living area of children. Sub-centres should have facilities to enable ANMs to conduct deliveries.

2. There should be provision for weighing machines and growth charts at Anganwadi Centres, and prompt replenishment of medicine kits of all three cadres
3. Communication facilities, including reimbursement for mobile phone charges, for referrals etc. should be provided. .,
4. Referral transport linkages should be strengthened; in case of emergencies, untied funds should be used to organise local transport.
5. ANMs should be given cash allowance for mobility to reach remote villages.
6. All equipments required for practicing the skills taught as well as an enabling infrastructure support should be provided.
7. A rest room for ASHAs in the district hospital or any referral institution should be provided

so that while coming from far off villages and accompanying patients, they do not face any difficulty.

8. Return referral slips or instructions for follow up should be given to ASHA/AWW for any baby discharged from SNCUs and NRCs in district hospitals.

C. Training process

1. Infrastructure and teaching faculty should be strengthened in private as well as government ANM training centres/AWTC / ASHA training centres including supply of necessary mannequins, teaching aids and LCD projectors.
2. Posts of supervisory and teaching/training cadres should be filled on a priority basis including walk-in interviews and contractual appointments. As far as possible, subordinate cadres should be promoted as a career advancement option.
3. There should be an approved annual calendar of trainings with adequate funds.
4. A state level cell to ensure quality of trainings should be constituted.
5. Trainings for ASHA/AWW should be made more interactive and contents should be made easy to understand.
6. Take-home handouts and simplified reference materials should be provided to all frontline health workers.
7. Supportive supervision should be treated as an opportunity for 'on the job' training and to strengthen technical as well as communication and counselling skills.
8. Hands-on training of all technical and soft skill components should be given to all cadres.
9. SBA as well NJSSK training should be accelerated and completed at the earliest with uniformity of standards of training in all the states.
10. All in-service skill training must have an assessment of skill retention at six months and

one year post training to assess the percentage of trainees performing to standards (PTS).

11. It may be made compulsory to have PTS assessment for master trainers (of the trainees) and adequate financial incentives may be budgeted for this.
12. All refresher trainings for ANMs should be associated with coercive feedback supervision during the post training period.

D. Training and re-skilling focus

A. ANM Training and Re-skilling to focus on:

1. Identifying five major complications related to pregnancy, child birth and post-natal period.
2. Conducting normal deliveries. States may consider re-training of Skilled Birth Attendant (SBA) trainees if skills acquired are inadequate.
3. Neonatal resuscitation skills and identifying danger signs in newborn baby especially neonatal sepsis.
4. Breastfeeding counselling to mothers and timely initiation of complimentary feeding.
5. Recognising and referring a SAM child to NRC. Direct exposure to NRC will be helpful for learning and rapport building.
6. Appropriate referral criteria in a sick child. Reinforce the red zone in IMNCI classification.
7. Cold chain (peripheral level) quality monitoring, including correct use of VVM
8. Importance of birth preparedness and complication readiness by families who should be taught during initial training and reinforced during field visits by supervisors.

B. AWW Training and Re-skilling to focus on:

1. Plotting weights in accordance with new WHO growth charts
2. Monitoring growth trajectories and early identification of growth lag and growth faltering

3. Recognising and referring a SAM child to NRC. Direct exposure to NRC will be helpful for learning and rapport building.
4. Identifying danger signals (for early referral) in children with:
 - a. Acute diarrheal diseases
 - b. Acute respiratory infection
 - c. Neonatal sepsis.
5. Composition and content of supplementary nutrition components
6. Counselling Skills especially on Complimentary feeding on essential aspects during post-natal visit to mother-baby pair including colostrum feeding and exclusive breast feeding.
7. Importance of birth preparedness and complication readiness by families who should be taught during initial training and reinforced during field visits by supervisors.

C. ASHA Training and Re-skilling should focus on:

1. Identifying danger signals (for early referral) in children with:
 - a. Acute diarrheal diseases
 - b. Acute respiratory infection
 - c. Neonatal sepsis.
2. Importance of birth preparedness and complication readiness by families who should be taught during initial training and reinforced during field visits by supervisors.

STUDY ON FRONTLINE HEALTH HUMAN RESOURCES: ARE THE SKILLS AND CAPACITIES ADEQUATE?

A Study Report from the Public Health Resource Network

A study was conducted in two districts each in Bihar, Orissa and Rajasthan. The study assessed skills and capacities of frontline workers, i.e. ANMs, ASHAs and AWWs, through a mix of quantitative and qualitative methods. This note summarises the main recommendations arising from the study.

Recommendations

A. Prioritizing Skills

This study identified certain key danger signs (detrimental to survival) in pregnancy, child birth,

puerperal period, infancy & early childhood and graded them as 'Required and Highly Critical' and 'Required and Essential'. This framework can be adapted for periodic and regular assessment of the three cadres. (N.B. Entries from serial no. 1 to 9 are not reflected in the following table?)

	Required and Highly Critical	Required and Essential
ANM	<ol style="list-style-type: none"> 1. Management of third stage of labor. 2. Refer cases of difficult labor and newborns with abnormalities 3. Immediate resuscitation of asphyxiated newborn-use of suction, AMBU bag and mask. 4. Recognition and management of birth trauma and neonatal sepsis- poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch 5. Recognizing complications during post-natal visits: severe bleeding, severe breathlessness, foul smelling discharge, high fever, and calf tenderness. 6. Infant and Young Child:-signs of pneumonia-fast breathing and difficult breathing (chest in-drawing), and dehydration-severe thirst, sunken eyes, dry tongue & lips, skin not turgid. 7. Refer children with Severe Acute Malnutrition and complications to the Primary Health Centre or Nutrition Rehabilitation 	<ol style="list-style-type: none"> 1. Importance of early registration in pregnancy 2. Quality Antenatal checkup 3. Proficient in testing hemoglobin, urine for protein and sugar 4. Newborn period:- Care of the normal/low birth weight newborn –keeping baby warm, demand feeding of early and exclusive breast feeding. 5. Identification of cases of severe acute malnutrition among infants and young children (zero to three years) 6. Nutrition advice and necessary treatment for minor illness of children with Severe Acute Malnutrition. 7. Notify timely any abnormal increase in community, cases of diarrhea/dysentery, fever with rigors, fever with rash, fever with jaundice or fever with unconsciousness. 8. Counseling women on contraception and prevention of common infections including Reproductive Tract infection/Sexually Transmitted Infection (RTI/STI), HIV/AIDS
ASHA	<ul style="list-style-type: none"> • Newborn period: signs of birth asphyxia-breathing difficulty, absent or poor cry and blueness of skin; signs of sepsis-poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch • Infant and Young Child:-signs of pneumonia-fast breathing and difficult breathing (chest in-drawing), and dehydration-severe thirst, sunken eyes, dry tongue & lips, skin not turgid. • Pregnancy: bleeding, giddiness & black out, breathlessness, accelerated/reduced fetal movements, swelling of legs and face, severe headache & convulsions. 	<ol style="list-style-type: none"> 1. Newborn period- Care of the normal/low birth weight newborn –keeping baby warm, demand feeding of early and exclusive breast feeding. 2. Counseling women on importance of safe delivery and birth preparedness-identify institution/staff for delivery, plan transport and blood donor. 3. Counseling women on early exclusive breast feeding, complementary feeding, immunization and care of the young children

	Required and Highly Critical	Required and Essential
	<ul style="list-style-type: none"> • Delivery-difficult & prolonged labor (more than 12 hours), severe bleeding, retained placenta beyond 30 minutes • Post-partum period: Severe bleeding, severe breathlessness, foul smelling discharge, high fever 	<ol style="list-style-type: none"> 4. Escort pregnant women along with blood donors and children requiring treatment/admission to the nearest pre-identified health facility 5. Providing newborn care and management of a range of common ailments among children
AWW	<ul style="list-style-type: none"> • Identification of cases of severe acute malnutrition among infants and young children (zero to three years) and correct referral • Three visits to newborn on days 0, 3 and 7-10: recognizing signs of sepsis for quick referral-poor feeding, lethargy, limp or poor muscular tone, too hot or cold to touch • Infant and Young child:-signs of pneumonia-fast breathing and difficult breathing (chest in-drawing), and dehydration-severe thirst, sunken eyes, dry tongue & lips, skin not turgid. 	<ul style="list-style-type: none"> • Provide health and nutrition education and counseling on breast feeding/infant & young child feeding practices to mothers. • Recognize growth faltering from plotted growth chart and advise family members on improved feeding • Newborn period- Care of the normal/low birth weight newborn –keeping baby warm, demand feeding of early and exclusive breast feeding.

B. ANM Training And Re-Skilling should Focus On:

1. Identifying major complications related to pregnancy, child birth and post-natal period.
2. Conducting normal deliveries. States may consider re-training of Skilled Birth Attendant (SBA) modules.
3. Neonatal resuscitation and identifying danger signs in newborn baby especially neonatal sepsis.
4. Breastfeeding counseling to mothers and timely initiation of complimentary feeding.
5. Recognizing and referring a SAM child to NRC.
6. Appropriate referral criteria in a sick child.
7. Cold chain (peripheral level) quality monitoring, including correct use of VVM

C. AWW Training And Re-Skilling should Focus On:

- a. Plotting weights in accordance with new WHO growth charts
- b. Monitoring growth trajectories and identification of growth lag and growth faltering
- c. Identifying danger signs in children with:
 - i. Acute diarrheal diseases
 - ii. Acute respiratory infection.
- d. Composition and content of supplementary nutrition components
- e. Counseling Skills.

D. ASHA Training And Re-Skilling should Focus On:

1. Identifying danger signs in children of:
 - a. Acute diarrheal diseases
 - b. Acute respiratory infections

E. Policy Issues

1. ASHAs and AWWs should not be involved in non-health programs, and their engagement in non-core activities be minimized.
2. Appointing a second Anganwadi Worker may be considered and one AWW be deployed exclusively for children under 3, including: (i) Identification and Nutrition rehabilitation of severely undernourished children and referral, and (ii) maintaining their records.
3. ASHAs should work exclusively with women and families
4. Training needs assessment of frontline health workers should be institutionalized in the District Health Actions Plans and they should be trained accordingly.
5. There should be periodic formal assessment of knowledge and skills of frontline workers.
6. District-level Skills Labs should be set up at ANM Training Centers.
7. Physical infrastructure and supply logistics of sub-centers and Anganwadi Centers, as well ANM Training Centers should be improved.



3rd Floor, Vardhaman Trade Centre, 9-10-11
Nehru Place, New Delhi - 110019 Tel: 011-42294900,
Fax: 011-42294990, Email: info@savethechildren.in