

IMPROVING THE PERFORMANCE OF ACCREDITED SOCIAL HEALTH ACTIVISTS IN INDIA

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Working Paper No. 1
May 2011

WORKING PAPERS SERIES

Columbia Global Centers | South Asia, Columbia University

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 COLUMBIA UNIVERSITY
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EXECUTIVE SUMMARY

The objective of the Indian Government's National Rural Health Mission (NRHM) is to strengthen the healthcare delivery system with a focus on the needs of the poor and vulnerable sections among the rural population. One of the main tenets of the mission is to identify one ASHA (Accredited Social Health Activist) per 1000 population in the rural areas with the purpose of supporting the community to access public health services. She is expected to create awareness on health and its determinants, mobilize the community towards local health planning, and increase utilization of the existing health services.

The ASHAs represent the cornerstone of NRHM's strategy to address the millennium development goals (MDG) on health related indicators. As a result, in order to maximize India's potential to achieve these goals through the NRHM, it is essential to investigate methods to improve ASHA performance, specifically through the processes of recruitment, training, supervision, provision of incentives, and expansion to greater roles.

Findings from existing literature help provide context for our investigation into the performance of ASHAs in India. A study on community health workers (CHWs, called Shasthya Sebika) in Bangladesh, implemented through a programme to improve rural health in 1972, suggests that financial incentives are the primary motivating factor and that high drop-out rates are largely due to the dissatisfaction with the pay levels in proportion to the amount of time invested. Though China was early to adopt the concept of community health workers (called 'barefoot doctors') in the 1950s, structural reforms in 1978 resulted in a health workforce that was uneducated and poorly trained. As a result, the once flourishing community health worker system suffered from low quality healthcare. Iran is an example where thorough training of CHWs has been linked to positive health outcomes including decreased maternal mortality and increased life expectancy. A two-year, in-depth training has resulted in CHWs who can handle greater responsibilities efficiently while maintaining high quality standards in Iran. Overall, previous research suggests that thorough training, clear supervision structures, and increased economic returns are required for optimal CHW performance. With this context in place, the topic of how to improve ASHA performance in India is examined.

This paper presents findings from data collected through written questionnaires with ASHAs in Bihar, Chhattisgarh, Rajasthan, and UP concerning issues around recruitment, responsibilities, training, incentives, and supervision. Qualitative findings from the state of Assam are also presented. The selected states are regionally representative and are among the poorest and most populous states in the country.

The impact of NRHM and the ASHA is only as strong as the individual ASHAs who are chosen to advocate for use of health facilities and provide knowledge on healthy behaviours and dispense basic health products to their community. Key selection criteria such as education level and representativeness of the local community are extremely critical if we want the ASHAs to retain and communicate information to their community members. However, our findings indicate that selection processes and criteria are not being met in several areas, which leads to the recruitment of ASHAs who may not be able to perform to the level necessary.

The Ministry of Health & Family Welfare (MoHFW) has developed a 23-day training schedule to provide the necessary knowledge & skills to women identified as ASHAs. However, our

data shows that the quantity and quality of the training in practice must be improved in order to improve the performance of ASHAs.

While majority of the ASHAs who completed the questionnaire claimed to understand their roles and responsibilities, our site visits and qualitative data proved otherwise. ASHAs were unable to specify all their job responsibilities. Without a clear understanding of one's own responsibilities as an ASHA, performance and effectiveness cannot be improved. Furthermore, we also believe that there is potential for ASHAs to take on some additional roles outside those originally prescribed, such as helping develop village health plans, registration of vital events with the ANM/AWW, and community based new born care. Inclusion of these additional activities would increase associated financial incentives.

Additionally, ASHAs are currently claiming to work approximately 25 hours a week, which provides potential to increase her responsibilities, which would therefore increase her incentives as well. Additional responsibilities within her scope of capabilities should be considered.

Data analysis brought to the forefront that the ASHAs lack knowledge to perform their jobs, as most have not completed the stipulated 23 days of training as recommended by the MoHFW. This issue must be investigated further. It is recommended that an assessment of the information that ASHAs have retained from theoretical and practical training must be conducted before ASHAs are able to work in the field, so that valuable information is not provided in error or omitted when they are counselling pregnant women and mothers on healthy practices. Pictorial job aids and frequent refresher trainings are crucial to ensure that the ASHA retains her skills.

There are several key issues regarding incentives and compensation for ASHAs, which, if mitigated, would greatly contribute to an improvement in ASHAs' motivation and performance. At least 25% of ASHAs feel that the monetary compensation they receive isn't sufficient for the effort that they put in. Increasing incentives or adding additional incentives to activities should be looked into. Monetary compensation is not the sole motivation factors for the ASHAs. The desire to serve the community, increase their knowledge, becoming a part of the formal health system and the prestige associated with the position are additional reasons for becoming an ASHA. Keeping the above in mind a career progression for the ASHA to become a part of the formal health system should be considered.

The success of the ASHA initiative depends on regular and reliable supervision; however this is a weak link in the system. Clear strategies and procedure for supervision need to be defined along with a list of supervisory activities and the skills for supervision to be taught to the supervisors or personnel who will conduct these activities.

The ASHAs play a critical & effective role in bridging the gap between NRHM and the communities therefore it's important to keep the ASHA motivated to perform her duties efficiently and address issues related to provision of quality services. We hope that the learnings and recommendations shared in this paper will help in addressing issues related to the provision of quality services by the ASHA to the community and making an effective contribution to the health of their communities.

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ACKNOWLEDGMENTS

This paper was commissioned and funded by UNICEF-India. It was prepared for the International Advisory Panel of the National Rural Health Mission, Ministry of Health & Family Welfare, Government of India.

We are grateful to Karin Hulshof, Henri van den Hombergh, and Pavitra Mohan for discussions during the course of the project. We thank Henri van den Hombergh (UNICEF-Delhi), Pavitra Mohan, (UNICEF-Delhi), Ajay Trakoo (UNICEF-Assam), Samuel Mawunganidze (UNICEF-Rajasthan), and Gaurav Arya (UNICEF-Uttar Pradesh) for their written feedback on an earlier draft.

We are grateful to Sonia Ehrlich Sachs and Joanna Rubenstein, members of the International Advisory Panel, for reviewing an earlier draft and providing their comments and suggestions.

We thank Shreekant Iyengar, Hem Dholakia, and Prakash Parmar (IIM-Ahmedabad) for providing support in the field survey, data collection, collation, and analysis for this study and Salome Samant for providing support in the field surveying.

We thank Gursimran Grewal, Meg Towle, and Jyothi Vynatheya (Columbia Global Centers | South Asia) for providing support in the project analysis and report writing.

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ACRONYMS

ACM	Assistant Community Mobilizer
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
BCMO	Block Community Mobilisation Officer
BRAC	Bangladesh Rural Advancement Committee
CDPO	Child Development Programme Officer
CHC	Community Health Centre
CHW	Community Health Worker
DCM	District Community Mobiliser
DDK	Disposable Delivery Kits
DOTS	Directly Observed Treatment Short Course
FGD	Focus Group Discussion
FP	Family Planning
JSY	Janani Suraksha Yojana
HF	Health Facility
IFA	Iron and Folic Acid
IUGR	Intrauterine Growth Retardation
IMNCI	Integration of Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
LBW	Low Birth Weight
MCH	Maternal and Child Health
MDG	UN Millennium Development Goals
MMR	Maternal Mortality Rate
MoHFW	Ministry of Health and Family Welfare
MOI/C	Medical Officer in Charge
NFHS	National Family Health Survey
NRHM	National Rural Health Mission
ORS	Oral Rehydration Therapy

PHC	Primary Health Centre
PNC	Postnatal Care
PRI	Panchayat Raj Institution
RTI	Reproductive Tract Infection
SC	Sub Centre
SK	Shasthya Karmis
SS	Shasthya Sebika
STI	Sexually Transmitted Infection
TBA	Trained Birth Attendant
TSC	Total Sanitation Campaign
TT	Tetanus Toxoid
UNICEF	United Nations Children's Fund
UP	Uttar Pradesh
VHSC	Village Health and Sanitation Committee
VHND	Village Health and Nutrition Day
VHW	Village Health Worker

SECTION 1: INTRODUCTION

The Accredited Social Health Activist (ASHA) represents the pivotal part in the whole design and strategy of the National Rural Health Mission (NRHM), which, in turn, is a critical initiative of the central government to fulfil its promise on inclusive growth. The performance of ASHAs is, therefore, crucial for the success of NRHM and hence of the inclusive growth strategy of the government in India. In the primary healthcare sector, NRHM is the principal programme of the government to achieve the health related millennium development goals such as infant mortality rate (IMR), maternal mortality rate (MMR); as well as control of specific diseases, and improvement of nutrition status of children and mothers. NRHM was introduced in the year 2005 in the 18 high focus states in India and has been expanding in its coverage ever since. Several mid-term appraisals of NRHM have been carried out, the last one having been done by the present team (2009). The present paper is devoted to identifying and suggesting ways in the short to medium term to improve performance of ASHAs under NRHM in India. The purpose of this investigation is not to question the strategy based on ASHAs in the rural setting but to explore and evaluate alternatives. We believe that under the given circumstances it is not only prudent but also most practical and meaningful to concentrate on improving the performance of ASHAs. The present paper, therefore, examines the whole question in terms of current and potential provisions of the recruitment, training and deployment of ASHAs in India. Our paper presents data collected through written questionnaires with ASHAs in Bihar, Chhattisgarh, Rajasthan, and UP. Where appropriate, we have also provided key qualitative insights from the state of Assam, where we conducted a focus group discussion with 25 ASHAs and 4 ASHA facilitators.

All mid-term appraisals of NRHM in India have expressed concerns about role and performance of ASHAs. There is considerable literature and international experience in this regard. A brief review of the literature and international experiences is presented in the second section. The third section discusses current profile of ASHAs in the five selected states and their selection procedure. Further sections then consider the following five questions:

- a. Is the recruitment process for ASHAs appropriate to ensure proper selection?
- b. Are the roles and responsibilities assigned to ASHAs easily understood and appropriate? Are new responsibilities for ASHAs envisaged?
- c. Is the training that ASHAs receive adequate, appropriate for knowledge retention, and of high quality?
- d. Are ASHAs' current incentives and compensation structure consistent and adequate for them to perform as per expectations of NRHM?
- e. Are supervisory structures currently in place in the rural areas sufficiently detailed and do they effectively monitor/track ASHA performance?

The last section summarizes recommendations for the consideration of the International Advisory Panel. A quick sample survey of ASHAs, potential/actual beneficiaries (young mothers) and government officials was carried out during March – May, 2010 in selected states to get an idea about the ground reality for ASHA's role, training, incentives, supervision, effectiveness, etc. details about the sample survey are given in *the appendix*.

SECTION 2: REVIEW OF LITERATURE

The 1978 Alma Ata declaration highlighted the importance of Primary Health Care and the critical role played by Community health Workers (CHW) to link communities to the health system. The use of community members to render certain basic health services to their communities is a concept that has existed for at least 50 years. There have been innumerable experiences throughout the world with programmes ranging from large-scale, national programmes to community-based initiatives.

We now know that CHWs can play a crucial role in broadening access and coverage of health services in remote areas and can undertake actions that lead to improved health outcomes, especially, but not exclusively, in the field of child health. To be successful on a large scale, CHW programmes need careful planning, secure funding, and active government leadership and community support. To carry out their tasks successfully, CHWs need regular training, supervision, and reliable logistical support. CHWs represent an important health resource whose potential to extend basic health care to underserved populations must be fully tapped.

CHW programmes have been widely documented in health literature; this background section will review three international experiences in large CHW programmes, and comparatively, available studies on India's CHW experiences.

INTERNATIONAL CHW PROGRAMMING

For the purpose of this paper, we review three large-scale CHW programmes from Bangladesh, China, and Iran that have been relatively successful. While these programmes differ in some programme design from the ASHA, they are relevant in many ways: (a) India and China are rapidly growing economies with enormous populations, (b) Bangladesh shares its borders with India and faces similar health and economic problems as many adjoining states in India, particularly West Bengal and Bihar, and (c) Iran's programme has developed at considerable scale and has achieved remarkable coverage in the course of two decades.

CHW programmes around the world largely focus on primary care services like maternal and child health, nutrition, family planning, immunizations, water and sanitation, communicable disease control, and basic curative care for some common illnesses. Most CHW programmes enrol female health workers, due to the large importance of maternal and child health, but there are also notable programmatic examples of male community health workers in Iran, Egypt, Thailand, Bhutan, and Bolivia (Catalyst 2005, 2007; Brown 2006).

Selection criteria, especially education levels, vary widely between programmes; SEARCH in India employs largely low-literacy women, while Iran's national programme requires Class 11 pass. Quality and productivity of work depend on quality of training and support received by the CHWs in the field. However, both lack of sufficiently educated candidates and dissatisfaction of overqualified candidates are reasons for attrition. Incentives also vary widely, and include income-generation schemes and social prestige.

A Review of International Community Health Worker Programmes:

	BANGLADESH ¹	CHINA	IRAN
Concept	<ul style="list-style-type: none"> Established in 1972 by BRAC (NGO) CHW called Shasthya Sebika, (SS) 	<ul style="list-style-type: none"> Established in 1950s by Chinese government 'Barefoot doctors' early in primary health movement 	<ul style="list-style-type: none"> Established in 1979 by Iranian government Female (<i>behdahst yar</i>) and male (<i>behyraz</i>) CHWs
Coverage	<ul style="list-style-type: none"> 68,000 CHW provide care to over 90 million villagers 1 CHW per 150-200 households 	1 barefoot doctor per 1000 population	<ul style="list-style-type: none"> 30,000 CHW (16,000 women) 1 CHW per rural Health House covering 1200-1600 population (1 main village + satellites up to 12 km away)
Selection criteria	<ul style="list-style-type: none"> Married women over 25 years, with children under 2 years Some schooling (few years) Willingness to provide services voluntarily Community-nominated 	<ul style="list-style-type: none"> Usually men Mid-level education² Willingness to provide care, well-respected Nominated by village doctors 	<ul style="list-style-type: none"> Female over 16 years, male over 20 years Study under class 11 Community-selected, must reside in community
Training	<ul style="list-style-type: none"> 3 weeks residential; monthly refresher trainings (daylong) Special programme training provided later as required 	Varies: 3 months to year ³ , depending on shortage of workers and training availability	<ul style="list-style-type: none"> 2 years of training at established district centers, after 2 years receive certificate to practice Subsequent distance learning and regular M&E
Roles	<ul style="list-style-type: none"> Monthly household visits; works 6 days/wk, 2 hours daily Community and household education Treatments and referrals (BRAC centres or public system) Refers suspected TB cases, monitors DOTS 	<ul style="list-style-type: none"> Primary care Simple surgical operations Both traditional Chinese medicine and western treatments 	<ul style="list-style-type: none"> Female: ANC, child care, family planning, case-finding and follow-up (TB, malaria), mental health, diabetes Male: patient follow-up, sanitation, environmental
Monitoring & Supervision	<ul style="list-style-type: none"> Supervisor (Shasthya Karmis, or SKs) per 10 SS SKs paid BRAC workers, minimum 10 years schooling SKs organize monthly refresher training programme, enables session for addressing grievances and performance 	<ul style="list-style-type: none"> Inadequate supervision and related issues (e.g. irrational drug prescription, doctors working without certification) 	<ul style="list-style-type: none"> Physicians based at rural health centre visit Health Houses regularly on fixed schedule Maintain household logbooks and conduct follow-up
Incentives (financial and non)	<ul style="list-style-type: none"> No salary; some income generation from modest price markup of medicines and health products (e.g. paracetamol, iodized salts, sanitary napkins, contraceptives) In some pilots, SS receive performance-based incentives Eligible for loans through BRAC microcredit programme Provided branded uniform dress and bag 	<ul style="list-style-type: none"> Community medical service fund Services were free 	<ul style="list-style-type: none"> Some offered transportation (e.g. motorcycle) and housing facilities at Health House
Impact	Mobilization has played role in improving coverage of ANC, immunization, TB treatment, and treatment for child illness	First expansion of health system to rural poor; helped China eradicate smallpox and polio	Health system now reaches over 90% of population; past 3 decades have seen decrease in MMR, increased life expectancy, and other health indicators
Key lessons learned	Key incentives for SS are financial	<ul style="list-style-type: none"> Free services allowed wider coverage to poor rural areas Training and supervision of village doctors still deemed inadequate in some areas 	<ul style="list-style-type: none"> Demonstrated great training successes: comprehensive training programme, refreshers/distance learning, and strong supervision
Challenges	Poor retention	<ul style="list-style-type: none"> Burden of agricultural responsibilities Insufficient local political will (village leaders) Lack of medical knowledge and training/skills opportunities 	<ul style="list-style-type: none"> Shortage of doctors at rural health centers Lack of proper work space and lab facilities in community-based facilities

¹ Syed Masud Ahmed, 2008; Khan 1998; Mahjabeen R et al, 2008; Hashima-e-Nasreen, 2007; Rafi, 2008; 2006 Annual BRAC Health Report; 2008 Annual BRAC Report

² Study of 781 village doctors in 46 counties in 2001 showed that 70.4% had no more than a high school education.

³ 70.4% of village doctors received an average of only 20 months of medical training (Wang, Xu et al. 2003)

CHW INITIATIVES IN INDIA

The ASHA programme is the latest and largest of scale in a number of efforts to introduce CHW in India. While a national-level CHW scheme introduced in 1977 failed to take off (UNICEF 2004), a number of NGO and state-driven efforts have developed across the country.

SEARCH in Maharashtra state:

The SEARCH NGO (Society for Education, Action, and Research) pioneered home-based neonatal care in tribal districts of Maharashtra in the 1980s. Village health workers (VHW) conducted antenatal and postnatal counselling, birth attendance, and growth monitoring; research results (e.g. Bang et al 2005) attribute decreased neonatal mortality up to 20% compared to the control population. The nutrition counselling interventions led to a significant decrease in the birth of low birth weight babies, and other interventions resulted in a significant decrease in case fatality (60% decrease for preterm, 70% decrease for LBW babies) with a substantial decrease in the incidence of co-morbidities such as sepsis, asphyxia, hypothermia, and feeding problems.

Additionally, the SEARCH programme demonstrated how neonatal and childhood pneumonia can be detected and managed in a timely way at community level. SEARCH developed a tool for counting breaths and detecting fast breathing, and the interventions led to a 44% decrease in neonatal mortality attributable to pneumonia.

Mitanin in Chhattisgarh state

The government of Chhattisgarh, in partnership with civil society, launched the Mitanin programme in 2002; the programme served as a model to the ASHA programme. Mitanins were trained and supported to conduct household outreach, including essential care of newborns, nutritional counselling, case management of childhood illness, and rights-based activities (e.g. access to basic public services, women's empowerment activities, and mobilization around ICDS and mid-day meals). Mitanin are not salaried, but receive a piece of land for cultivation or by other means, as decided by the villagers. Over 60,000 Mitanin now serve in over 70,000 hamlets, and are supported by 3,000 women engaged as middle-level supervisors.

The Mitanin is widely credited for lowering state IMR from 85 in 2002 (the second highest in the country) to 65 in 2005. During the same time period, the state's proportion of underweight children has dropped from 61 to 52%, and full immunizations have risen from 22 to 49% in the 12-24 month age group.

EVALUATIONS OF ASHA PROGRAMME

The 2011 evaluation from the National Health Systems Resource Centre (NHSRC) emphasizes⁴, like a number of other evaluations, that while the ASHA programme has been established at great scale and now serves an integral role in the public health system, the ASHA's functionality and effectiveness must be further optimized. The NHSRC highlights low performance in some areas of work (e.g. newborn care, ANC, postnatal care, nutrition) due to lack of skills and support. States are ultimately responsible for revising training curriculum—though progress is slow due to poor institutional support and lack of trained human resources to support ASHA—and many have revised the selection norms to meet state needs.

A number of studies (e.g. Cuttack, Ranchi, Lucknow, Udaipur, and Gorakhpur) have examined incentives, recruitment, roles and responsibilities, supervision, and training for ASHA around the country. Many of these results reflect our own study, so we will briefly review them.

Incentives & motivating factors

Payments to ASHA are frequently delayed, often due to procedural issues (e.g. funds not transferred to sub-district, unfamiliarity with e-banking, confusion over what incentives are available). Some districts across the country are trying to introduce electronic transfers to counter delays and extortion. In studies ASHA frequently cite the financial incentives as a major motivating factor for the position. They also cite prestige and respect from their community, growing self-esteem and confidence, and interest in obtaining a government job. Several studies cite widespread demands for more compensation.

Supervision

ASHA most regularly interact with ANM, AWW, MOs, and PRI. The most regular forum for interaction in most states is the Village Health and Nutrition Day (VHND). States have organized different supervisory structures; in some cases, ASHA report to a third party facilitator, and in most states they will report to the ANM or AWW. Cited tensions are attributed to confusion around designated responsibilities. For example, the Ranchi study on SAHIYYASs emphasizes that AWW feel threatened by ASHA during immunization days, and there is lack of clarity around roles. MOs report in the same study that because they are not involved in the selection process, they are not always clear about the ASHA roles. ASHAs in the Cuttack study did not feel supported by the PRI, but ASHAs reported that they were both supervised by the ANM and AWW. Across studies, research emphasizes the need for stronger ASHA supervision and support, and clearly defined roles and responsibilities for all frontline health workers.

⁴ The findings and recommendations from NHSRC's report are largely corroborated by the data from our study and significant overlaps are indicated throughout this paper.

SECTION 3: METHODOLOGY

Overview

A field survey of ASHAs was undertaken to collect data relating to ASHA's perception about their roles, their training, their actual effective knowledge, their income, time disposal, their supervision, interaction with the PRI and health personnel in the region, etc. The purpose was not to generate a comprehensive dataset for interstate generalization and comparison, but to get more information on several factors and variables from the field that is not available from the secondary sources.

Four states within the NRHM high-focus states were selected for regional sampling: Bihar (East), Uttar Pradesh (North), Chhattisgarh (Central), Rajasthan (West). The southern states are not high-focus states for the NRHM programme. The selected states are among the poorest and most populous states in the country; populations in Bihar and UP are highly dense. In each state, one district was selected in consultation with programme officials. From the selected districts, two blocks were selected for geographical spread within the district. In Bihar and Chhattisgarh three blocks were selected. The same districts were also sampled for our accompanying paper about the integration of nutrition and health. Districts were selected in consultation with programme officials using criteria including population size, distance from capital, and proportion of special groups; blocks were selected under the same criteria.

Additional insights from our team's field visits to the district of Morigaon in the state of Assam are also included within relevant sections of this paper. These insights are valuable in the context of this paper as Assam presents some key examples of innovations and progress within the ASHA programme in this states; these qualitative findings can be used to compliment findings from our other four key states.

Methods

The questionnaire developed for the ASHA is included in the appendix. The questionnaire was translated into Hindi; in Rajasthan, Bihar, UP and in most part of Chhattisgarh, Hindi or a minor variant of Hindi is the local language. Questionnaires were circulated to all ASHAs separately, and as each question was explained, the ASHA was asked to fill in her answers. The survey work was carried out in the presence of the team members by non-governmental trained lady investigators to ensure better communication and truthful answers. For any clarifications on any word or phrase, women who could speak local languages were available to translate.

Sampling

ASHA lists were provided by PHCs (in Rajasthan the ICDS coordinator provided the lists), and a meeting was called, usually at the PHC, with randomly selected ASHAs from the list.

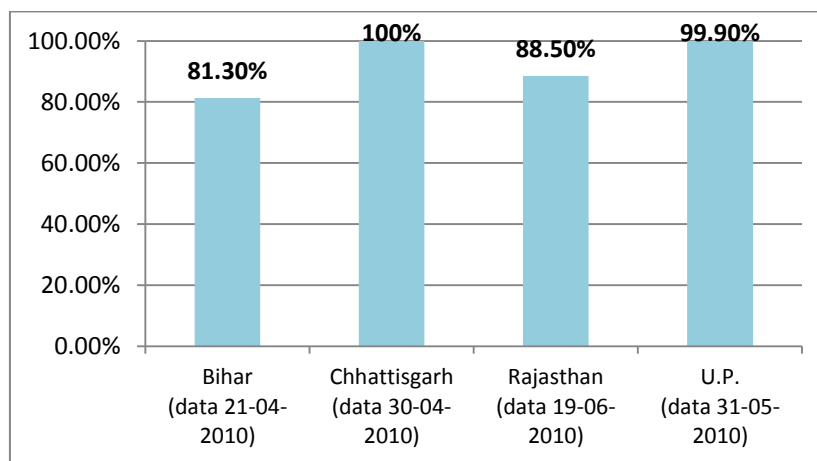
The survey sample of ASHAs was 135 from Jahanabad District of Bihar; 120 from Mahasamund District of Chhattisgarh; 124 from Dungarpur District of Rajasthan; and 123 from Unnao District of U.P. The state level officials involved in ASHA programme in each of the selected states were contacted for getting some structured information / data. With considerable follow up with most of them, we succeeded in getting most of the required information from them.

SECTION 4: RESULTS AND FINDINGS

4A. CURRENT PROFILE AND SELECTION PROCEDURES OF ASHAs

By August 2009, in the high focus states in India, a total of 462,466 ASHAs were selected against the target of 484,599. Thus, about 95% of the target was achieved. Out of these high focus states, the performance of the four selected states for the present study was: Bihar (81%), Chhattisgarh (100%), Rajasthan (89%), and UP (99%). **Figure 1** indicates the total number of ASHAs in each focus state (see Appendix for data table).

Figure 1: Proportion of ASHA targets in place in selected states.



Source: 2010 Earth Institute and IIM-Ahmedabad Survey of State level Officials.

The targets for ASHA recruitment have increased substantially during the year 2010 as compared to 2009, as have the absolute number of ASHAs in place. Thus, the effective coverage of the programme is increasing over time in all the selected high focus states.

BOX 1: Assam Snapshot—Recruitment

- Assam has recruited to date 25,975 against its target of 29,693 ASHAs. The backlog of 3% is due to an inability to identify suitable candidates (motivated, educated till class 8) in certain areas.
- Areas affected by insurgency, tribal & hilly terrains are some other reasons for an inability to identify suitable candidates for the position of ASHAs.

Standards for the selection of the ASHAs are as important, if not more, than ensuring that the appropriate number of ASHAs is in place. The following table (**Table 1**) provides broad profiles of ASHAs in our study sample. There are a few key issues to note among the ASHA study sample in each state. The most striking is that, in Chhattisgarh, the percentage of ASHAs not having passed 8th grade is as high as 28%. Secondly, almost a quarter of ASHAs in the state of Rajasthan do not reside in the same village that they work, posing significant barriers on their ability to perform their work. Furthermore, the majority of ASHAs in all states are Hindu, indicating that the ASHA population lacks religious diversity. Thus, it is evident that several criteria prescribed for selecting ASHAs may have been sacrificed in practice.

Table 1: Study Sample Profile of ASHAs in the selected states, 2010

Characteristics of ASHAs	Bihar	Chhattisgarh	Rajasthan	U.P.
1. No. of ASHAs Surveyed	135	120	124	123
2. Average Age of ASHAS (in years)	31	33	32	31
3. % OF Never Married ASHAs	4%	9%	2%	1%
4. % Educated below 8 th Grade	2%	28%	2%	2%
5. Average Monthly Household Income (in Rs.)	1074	2107	2584	1960
6. % Working in the Residence Village	97%	96%	76%	85%
7. Average No. of Years of Service	4	6	4	4
8. % ASHA - ST	2%(1%)	13%(38%)	54%(15.5%)	2%(0.1%)
SC	19%(16%)	15%(11%)	9%(18%)	29%(23%)
OBC	55%	66^	17%	25%
General Category	24%	6%	20%	44%
9. % Hindu ASHA	98%	97%	97%	93%

Source: Earth Institute and IIM-Ahmedabad Sample Survey of ASHAs, 2010 (Figures in brackets are % of SC and ST to State Rural Population)

The state level health personnel in charge of the ASHA programme in each of the selected states, except Chhattisgarh, maintained that the selection of ASHAs in their states was done as per the national NRHM guideline only. In practice, the selection process of ASHA differed in different states. In Chhattisgarh, the programme of “mitanin” (conceptually similar to ASHA) started 4 years prior to the implementation of NRHM and the state had developed its own specific guidelines / norms for their selection. Chhattisgarh is also the only state in our sample where Block Nodal Officers do not facilitate ASHA selection. District Health Societies are only effectively involved in ASHA recruitment in Rajasthan, but not in the other three sample states. Block Facilitators (1 for 10 villages) are trained in all four states, but are only actually involved in the ASHA selection process in Rajasthan and Chhattisgarh. However, even they have only been recently recruited and thus were not involved in the recruitment of ASHAs currently in existence.

For the identification of ASHA candidates, three Focus Group Discussions (FGDs) per village are held in Chhattisgarh and UP, but not in Rajasthan or Bihar. Out of the candidates shortlisted through the FGDs, the Gram Sabha or Panchayat Raj Institution (PRI) selects one ASHA. In Bihar, the Sarpanch or Pradhan first selects the ASHA and the decision is endorsed by the Gram Sabha. Similarly, in Rajasthan, a committee consisting of BCMO/CDPO of concerned block, MOI/C of concerned CHC/PHC, ANM/LS of concerned SC, a female PRI member, and a female local representative, shortlists ASHA candidates on the basis of merit and MOI/C makes the final decision.

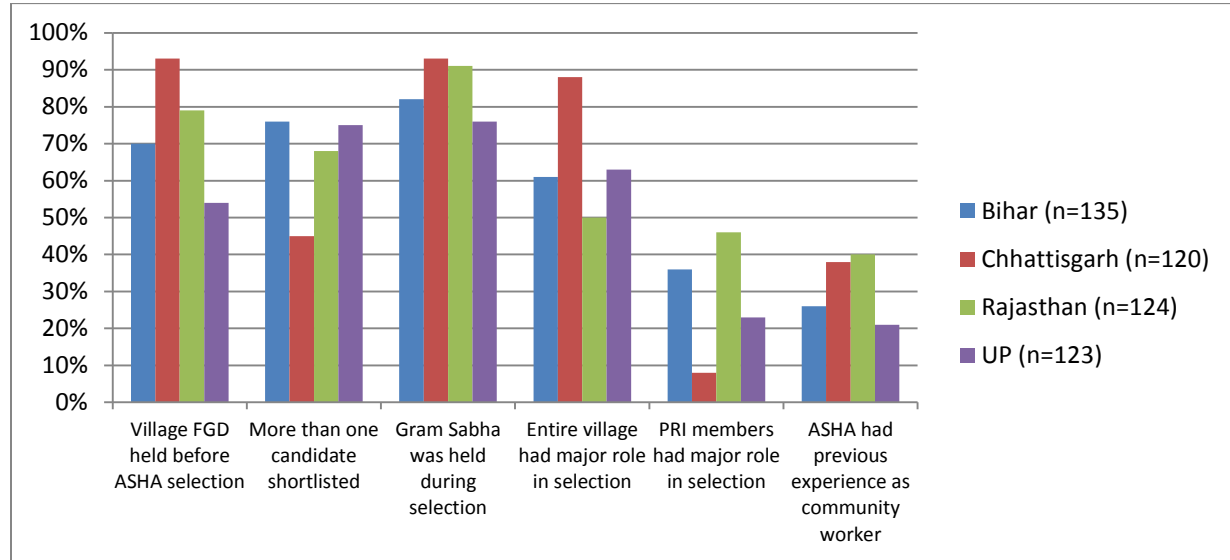
Thus, there are deviations and differences in the selection process of ASHA in the five selected states. In Bihar and UP, ASHA workers came into existence only after 2005 with introduction of NRHM. Although state level officials in these states have not mentioned any critical issues in ASHA selection, our field survey revealed that the selection of ASHA was often influenced by personal biases of members and Sarpanch/Pradhan of PRI. Prescribed qualifications and

criteria were often overlooked while recommending ASHA for appointment, and medical officers were often pressurized to approve such selections. For example, our survey team came across some ASHAs (3-4%) who could not read or write questionnaires in Hindi given to them. In Rajasthan, even the state officials recognized the problem of finding married females having passed 8th grade for appointment as ASHA workers. The relaxation of this qualification was considered essential to meet the target for appointments of ASHA.

In Rajasthan and Chhattisgarh, community health workers (CHW) with roles similar to that of ASHAs already existed prior to the implementation of NRHM. In these states, therefore, to avoid duplication, these CHWs became ASHAs and thus there were few new or additional health personnel. In Rajasthan, they were earlier employed as Sahyogini at the Anganwadi center (AWC) under ICDS receiving a regular salary. In Chhattisgarh, ASHAs were earlier employed as mitanin to support ANMs in their routine activities. In Chhattisgarh particularly, mitanin were selected without any explicit criteria for formal education like 8th grade. Hence, several ASHAs in Chhattisgarh (28%) do not fulfil the 8th grade requirement. However, we must also consider that there is reasonable evidence in the literature that the education level of CHWs do not make a significant impact on their performance. International literature on CHW selection emphasizes the role of community involvement or ownership in selection, and certain levels of literacy, with less focus on strict educational requirements.

Figure 2 presents the responses of ASHAs in the selected states on their selection process. The data suggests that responses provided by the state officials contradict ASHA responses regarding ground level practices for recruitment. See appendix for related data table.

Figure 2: ASHA reporting on components of their selection process.



Source: Earth Institute and IIM-Ahmedabad Field Survey of ASHAs, 2010

In several cases FGDs were not held before selection of ASHA, more than one candidate was not shortlisted, Gram Sabha was not held, etc. PRI members played major role in ASHA selection except in Chhattisgarh, where the entire village was likely involved in the selection process. The percentage of ASHAs with earlier work experience as a community health worker was no more than 40%, which was in Rajasthan. Overall, it is evident from our sample study that ASHA selection varies from state to state and often does not follow the prescribed recruitment practices, which is also corroborated by findings from an evaluation of the ASHA

programme conducted by the National Health Systems Resource Center (Ved, et al). It is essential that decentralised, participatory, and community driven processes are ensured during the selection process in order to maximize the productivity and consistency of ASHAs.

4B. ASHA’S CURRENT ROLES AND TRAINING

There are ten different responsibilities that ASHAs are expected to fulfill for community healthcare. **Box 2** presents these roles of ASHA as per the response by the state level officials in the five selected states. All ten responsibilities are mandated by state policy in all states, with one exception; the construction of toilets for TSC is not included in the UP state policy.

During our field survey of ASHAs in these selected states, however, we found that not all ASHAs are performing all these tasks. **Table 2** provides the data on the work done by ASHAs in the selected states.

Box 2: ASHA Roles and Responsibilities as per State Policies in Bihar, Chhattisgarh, Rajasthan, and UP

1. Create Awareness and provide information to community
 2. Counsel mothers on birth preparedness, safe delivery, feeding practices, immunization, family planning, RTI, etc.
 3. Facilitate community access to health care and health facilities
 4. Accompany pregnant women and children to health facility
 5. Provide care for minor ailments
 6. Act as depot holder for ORS, IFA, DDK, Oral pills, condoms
 7. Provider of DOTS
 8. Newborn care and treatment of childhood illness (IMNCI)
 9. Inform birth and deaths, disease outbreaks
 10. Construction of Toilets for TSC*
- * *Not included in UP state policy*

Table 2: Work reported by ASHAs in Selected States, 2010

	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
Information regarding ASHA Coverage, Work Hours, and Primary Activities				
1. Average Population served/ ASHA	1165	454	904	1431
2. Av. No. of Villages Served/ ASHA	2	1	1	2
3. Av. No. of HH visited/ ASHA/Week	59	21	59	23
4. Av. No. of Hours worked/ ASHA/Week	28	26	27	26
- For ANC	10	10	9	13
- Accompanying for Delivery	10	7	8	7
- Other	8	9	10	6
5. % ASHA who conducted group discussions/talks in previous 3 months	84%	94%	98%	98%
6. Av. No. of group discussions per ASHA in the previous 3 months				
- on Health	3	4	3	3
- on Nutrition	3	3	3	2
- on Sanitation	3	3	3	2
- on Family Planning	3	3	3	3

ASHA Activities for New Expecting Mothers	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
7. % ASHAs who register pregnant women	95%	94%	100%	98%
8. Av. No. of Pregnant Women Registered per ASHA	21	10	25	22
9. Of all Pregnant Women registered, % of pregnant women followed up by ASHA for:				
no ANC visits	5%	0%	12%	3%
1 ANC visit	5%	10%	16%	14%
2 ANC visits	24%	20%	20%	23%
3 ANC visits	33%	50%	28%	41%
4 ANC visits	14%	10%	12%	14%
More than 4 ANC visits	19%	10%	12%	5%
10. % of Women Accompanied by ASHA for TT shots				
- one shot	19%	30%	24%	18%
- two shots	71%	50%	64%	64%
- three shots ⁵	5%	20%	0%	5%
- Ignored	5%	0%	12%	13%
11. % of ASHA educating mothers on optimal breast feeding	96%	96%	98%	98%
12. % ASHA insisting on starting breast feeding soon after delivery	96%	96%	95%	98%

⁵ During field surveys, several ASHAs suggested that they would accompany women for three TT shots, which was required in the past (though only two are required today).

ASHA Activities During Delivery	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
13. % Deliveries of registered pregnant women that occurred at home	29%	33%	16%	32%
14. Av. % of Home Deliveries attended by each ASHA	67%	67%	67%	71%
15. % Deliveries of registered pregnant women that occurred at Health Facility (HF)	71%	67%	84%	68%
16. % Deliveries at HF accompanied by ASHA	93%	100%	56%	93%
17. Av. Distance to HF for Delivery (km)	10	7	8	19
18. Av. Time to reach the HF for Delivery (Minutes)	42	42	27	48

ASHA Activities for Newborns	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
19. % ASHA Registering births	97%	94%	97%	99%
20. % ASHA visiting Newborn within 1 week of Birth	95%	92%	98%	98%
21. % of Newborns visited by ASHA ⁶	71%	89%	79%	73%

ASHAs Role in Creating Awareness	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
22. % ASHA clear about their role for the following, when prompted ⁷				
(i) Providing Information On Existing Health Services	97%	98%	99%	97%
(ii) Creating awareness in community for Health, Hygiene & Nutrition	99%	100%	100%	98%
(iii) Mobilizing Community for ANC	95%	98%	96%	96%
(iv) Mobilizing Community for PNC	83%	88%	86%	90%
(v) Mobilizing Community for Immunization	85%	89%	97%	93%
(vi) Mobilizing Community for Sanitation	90%	94%	92%	99%
(vii) Mobilizing Community for Prevention of Illness	76%	90%	90%	95%
(viii) Counseling Women on Birth Preparedness	92%	97%	94%	100%
(ix) Creating awareness about New Born Care	90%	95%	98%	100%
(x) Creating awareness about Exclusive Breast Feeding & comp. feeding	84%	93%	89%	98%
(xi) Creating awareness about Immunization of Infants	88%	98%	97%	99%
(xii) Mobilizing Community for use of Family Planning Measures	85%	91%	96%	93%
(xiii) Creating awareness about Personal Hygiene & Sanitation for mother & child	95%	96%	96%	97%

⁶ Weighted average, calculated as Av. No. of newborn visited by ASHA divided by Av. No. of deliveries among registered women by ASHA.

⁷ The nature of these questions, given that they were prompted, leads to a limitation in this study. Further investigation is necessary to determine ASHAs unaided awareness of these roles.

(xiv) Escorting Pregnant women & sick child to HF	100%	99%	98%	95%
(xv) Informing CHC/PHC about Birth/Deaths in Village	88%	93%	100%	98%
(xvi) Dealing with Outbreak of Diseases	94%	94%	97%	96%
(xvii) Promoting Construction of Household Toilets	98%	97%	98%	99% ⁸
(xviii) Promoting Hand Washing after Toilet and Before Food Handling	96%	96%	98%	99%

Source: Earth Institute and IIM-Ahmedabad Survey of ASHAs, 2010

Following up with mothers for ANC visits and accompanying them for deliveries are the two primary activities taking up their time. It is revealing from our survey that ASHAs in all the states we visited worked only for 26 to 28 hours per week, which is at best 70% of the standard full-time employment.⁹ Thus, ASHAs do not have full time work. They visit on average 3 to 4 households per day in a village. Their working hours are almost invariant whether they handle one village or two, or whether they handle 450 people or 1500 people. In spite of the ASHA programme, in all states except Chhattisgarh, there are 3% to 12% pregnant women who are not visited by ASHA for ANC; and 5% to 15% pregnant women are visited only once for ANC. Again ASHAs are not accompanying all women for the required number of TT shots. Moreover, in spite of ASHAs, deliveries taking place at home continues to be high at around 30%, though about two thirds of such home deliveries are attended by ASHAs. Among the institutional deliveries, most of patients were accompanied by ASHAs. Whether this is a result of the monetary benefit associated with accompanying women during delivery or motivation and proper training is a distinction that cannot be wholly made from our data. However, it is likely that the 600 rupee incentive for institutional deliveries greatly contributes to this high percentage. Chattisgarh exhibits the highest percentage of ASHAs who visit new-born's at home because Mitanins are well trained in IMNCI and this falls under their roles and responsibilities specifically.

The knowledge of the ASHAs on the nature of the activities and job responsibility is the pre requisite for effective service delivery. Awareness among ASHAs about certain responsibilities like mobilizing community for PNC, immunization, sanitation and prevention of illnesses is lower than desired in many states. As a result, beyond improvements that need to be made in training, it is critical that a clear definition of roles and responsibilities must be provided to each ASHA (as well as an assessment of understanding) during induction.

⁸ Though toilet construction is not in UP State policy for ASHAs, the ASHAs are the primary motivators for toilet construction through various other government orders.

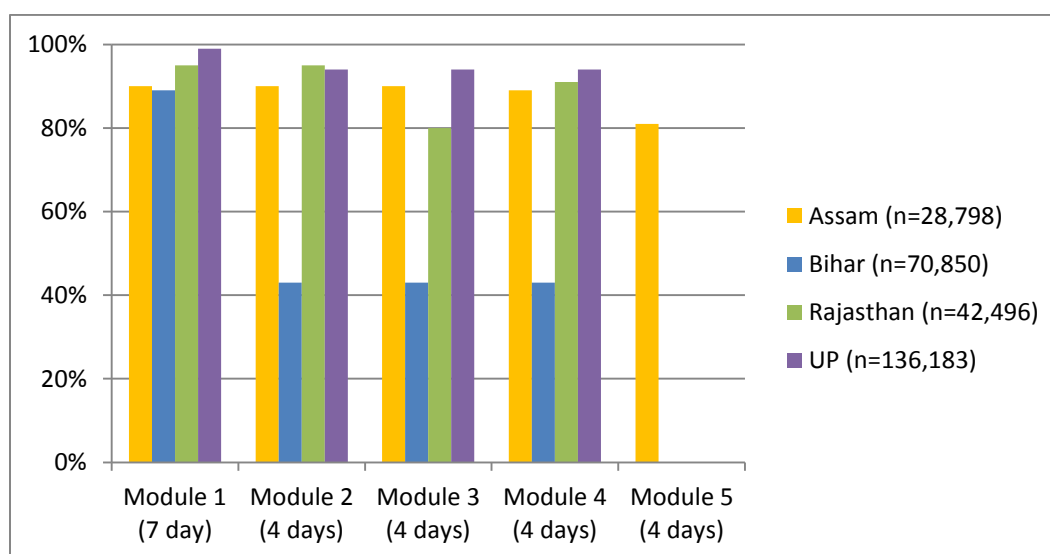
⁹ The amount of time the ASHA spends in the field on activities per day or in a week will depend on how the ASHA decides to divide her time to perform her tasks. The ASHA is not a full time employee and in absence of a formal reporting structure the hours of work will depend on factors related to the availability of work in the catchment area, distance she needs to travel within her work space as well as the time required for her to perform her household duties.

BOX 3: Assam Snapshot—Awareness of Responsibilities

- Discussions in Assam revealed that most ASHAs have comprehended accompanying pregnant women to hospital and counseling community on safe delivery, ANC/PNC, breastfeeding, immunization, contraception and prevention of RTIs/STIs as their role and responsibility. ASHAs also indicated their involvement in activities such as helping the AWW in preparation of food, distribution of ration and weighing babies at the AWC.
- However, nearly half of the respondents couldn't specify their job responsibilities such as creating community awareness on determinants of health, mobilizing the community to access healthcare services at different facilities, being a depot holder of medicine and DOTS provider and motivating the community for construction of household toilets.
- Most of the ASHAs also failed to specify assisting VHSCs (Village Health and Sanitation Committees) to develop village health plans and informing AWWs/ ANMs about births and deaths as job responsibilities. A strategy needs to be devised wherein the ASHAs develop expertise in other significant areas of her activity spectrum such as helping develop village health plans and registration of vital events with the ANM/AWW.
- A clear conveyance of ASHAs' roles and responsibilities must exist in order to a) ensure that women and children are receiving the benefits of having an ASHA in their village, b) ASHAs are motivated to continue work given that each activity directly links to financial incentives, and c) the relationship of work between ASHAs, AWW, ANM, and other healthcare providers exist.

Regarding the training of ASHAs, macro-level numbers for the state as provided by the respective state level officials in our selected states are reported in the following table (**Figure 3**, see appendix for related data table). **Note that state available was not available in Chhattisgarh.**

Figure 3: State data on proportion of ASHA completing training modules 1-5



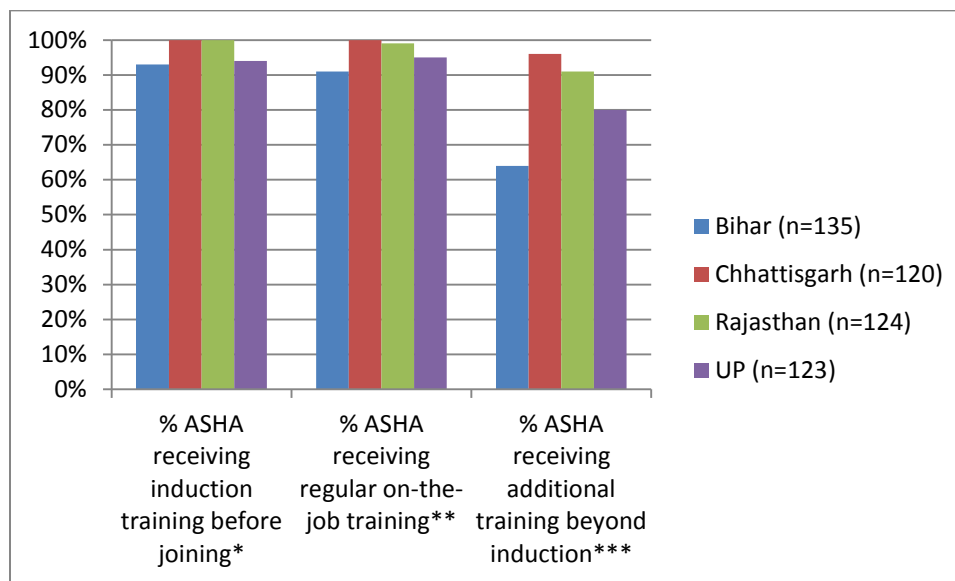
Source: Earth Institute and IIM-Ahmedabad Survey of State level officials.

As evident above, there are several gaps in the ASHA training programme. Bihar lags behind the training of ASHAs particularly for modules 2 onwards. Other states have not covered 100% ASHAs, but have covered 90% or more. Module 5 of the training had just started at the time of our survey and hence in most states the official response was incomplete. Given that

ASHAs are not consistently and thoroughly trained once inducted, it is difficult to expect their performance to be optimal. Training must occur on an on-going basis so as to ensure that all ASHAs recruited receive required training in order to ensure maximum productivity once they begin work on the field.

On the ground, we obtained the information about the training ASHAs have received in our field survey in the selected states. The findings are reported in **Figure 4**.

Figure 4: Self-reported training received by ASHA



* Average number of days of training: 7 in Bihar, 6 in Chhattisgarh, 12 in Rajasthan (presumably to cover additional topics), and 8 in UP.

** 80-90% ASHA reported that ANM provided this on-the-job training; others providing included NGOs, MO, or ASHA coordinators

*** Average number of days of additional training: 3 in Bihar, 6 in Chhattisgarh, 3 in Rajasthan, and 12 in UP.

Source: Earth Institute and IIM-Ahmedabad field survey of ASHAs, 2010.

There are several key points to note from the above information, suggesting that the improvement of training processes can be a significant way to improve the overall performance of ASHAs. First, all of the ASHAs in the surveyed states are receiving less than the prescribed 23 days of training. In Bihar, on average, ASHAs are only receiving a total of 10 days of training, less than half of the required amount, which certainly raises red flags about the knowledge that an ASHA is equipped with. Second, while most ASHAs have received on the job training, there are several different people/organizations through which the training is received, even within each state. However, it is clear that the majority of on the job training is conducted by ANMs, though they are never officially recognized as a supervisor or trainer of ASHAs. Inconsistencies in the involvement of stakeholders who conduct on the job training exists between states; while this is not necessarily negative and provides flexibility to individual districts and states, it is essential that the quality and consistency of on the job training be measured in a more systematic way. Without this, it is difficult to determine what methods are optimal to improve ASHA performance. Another issue is that NRHM has not formalized a refresher training module to be implemented for ASHAs. Beyond the initial training, it is important for any health worker to have refresher trainings so that gaps in

knowledge can be filled, doubts can be clarified (especially those that have arisen after being in the field for some time), and so that new strategies and information can be conveyed.

Overall, the key lessons learned from our ASHA survey in the area of training are that 1) ASHAs are not receiving the full 23-day training sessions as prescribed by NRHM, 2) the providers of on the job training varies and thus we cannot be sure that ASHAs are receiving the knowledge required, and 3) refresher training¹⁰ is extremely inconsistent and not a standardized practice. As a result improving the overall training programme is imperative.

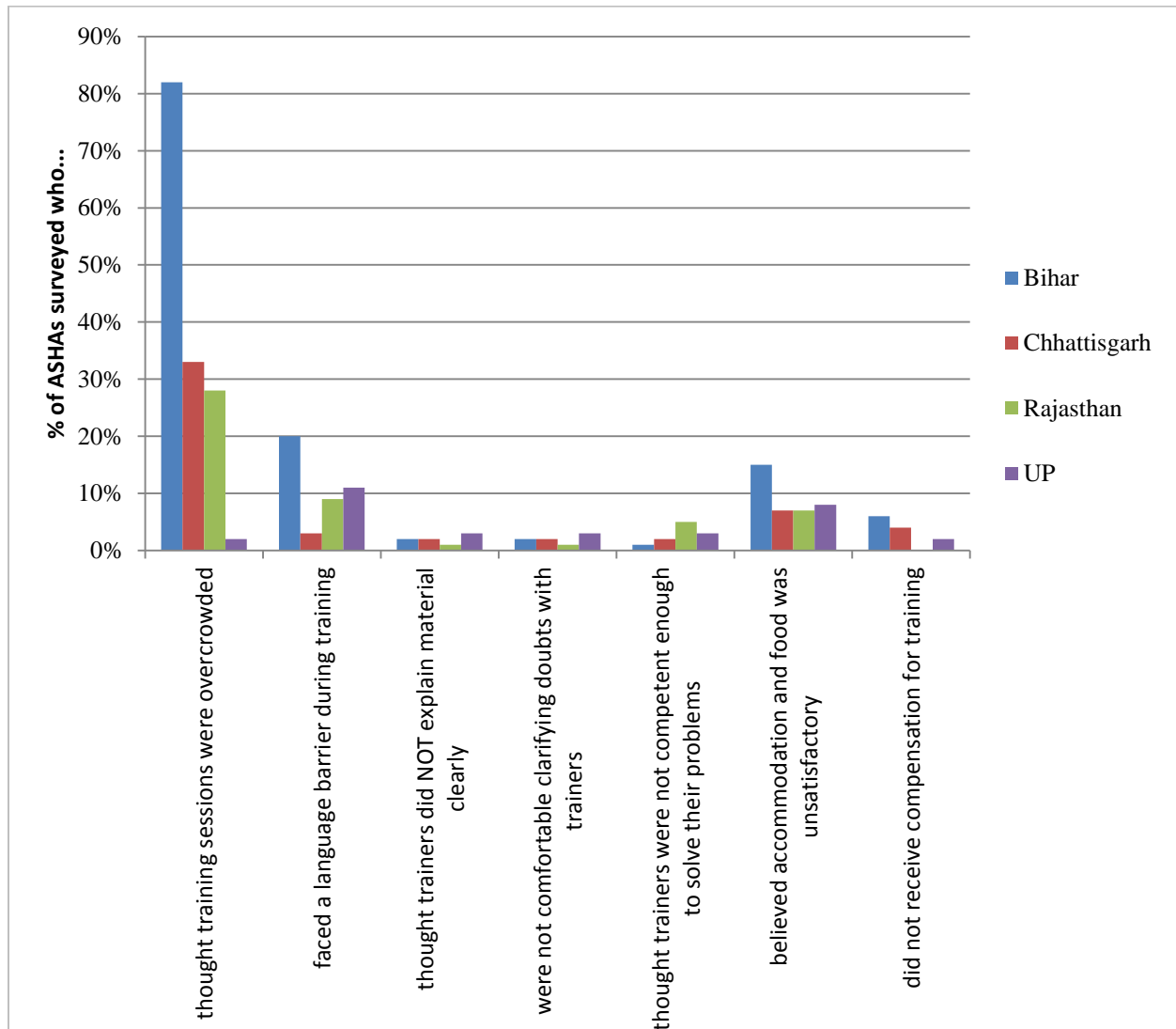
Feedback of ASHAs on the training received before joining is summarized in **Figure 5** (overall feedback); in **Table 3** (by theoretical content); and in **Table 4** (by practical content).

Figure 5 brings out the a few major drawbacks of the ASHA training programmes in these states as perceived by ASHAs. In Rajasthan, Chhattisgarh, and overwhelmingly in Bihar, ASHAs felt that the training sessions were too crowded, which results in an environment that is not conducive to learning. Furthermore, up to one-fifth of the ASHAs surveyed (as in Bihar) felt as though they weren't comfortable with the language of instruction. Proper translations into local languages and availability of trainers who speak these languages is imperative for success of the training programme. Finally, one of the most severe issues is that of uneven compensation. Though the overall percentage of ASHAs receiving compensation and accommodation may be high, it should be standard practice that 100% of ASHAs are compensated for the time spent in training. If ASHAs are not guaranteed timely payment for attending the training sessions, chances of low attendance and dropout are high. The amount of money received also varies drastically across states. However, it is important to note that this is likely due to the fact that the number of days of training varies as drastically.

Anecdotal evidence also suggest that training at regular intervals is lacking, and that newly hired ASHAs have to wait long periods of time before receiving introductory training. The NHSRC evaluation suggests that this is a result of limited capacity for human resources to be devoted to training at regular intervals (Ved et al.) and is a key problem in NRHM.

¹⁰ Refresher Trainings as a concept needs to be introduced and standardized. The refresher trainings could address the following issues 1) Opportunity to recapitulate what has been taught thus far 2) Serve as an opportunity to clear and address any misconceptions or issues encountered in the field 3) Impart additional in-depth knowledge and skills on important communicable diseases (TB, Leprosy, Malaria), emerging non communicable disease burdens 4) Provide an opportunity for the trainers to understand what issues are faced on the field and look at how these can be addressed 5) Help ASHA understand her importance and contribution into the health system by providing feedback on her activities

Figure 5: ASHA feedback on Training



Source: Earth Institute and IIM-Ahmedabad field survey of ASHAs, 2010

In **Table 3**, we examine ASHA perceptions regarding theoretical training in 11 different areas. The percentage of ASHAs needing to repeat training overall is lowest in Bihar, with percentages ranging from 2.4% to 8.8%, and is highest in Chhattisgarh, with percentages ranging from 8.3% to 88.8%. Perhaps some of this discrepancy in range is due to survey biases, but nevertheless it is clear that the understanding of the material differs from state to state. The topics that most ASHAs feel the need to repeat also differ from state to state. As a result, re-evaluation of the ASHA training programme must be done on a state-by-state basis, as there are different needs in each state. Perhaps a state adaptation of the training module is needed as well. What is glaringly obvious across the board, however, is that every single training topic in every single state needs to be repeated for at least some ASHAs. As a result, it is evident that a module and process for refresher training must be developed to improve ASHAs ability to retain key information.

Table 3: ASHA opinion on quality of *theoretical* training on various topics.

Topic of Training (Theory)	Rajasthan (n=124)				Bihar (n=135)			
	% of ASHA who think training was							
	Incomplete	Optimal	Too Much	Need to Repeat	Incomplete	Optimal	Too Much	Need to Repeat
Pregnancy childbirth, PNC	1.61	71.77	16.13	10.48	8.00	80.00	5.60	6.40
New born care	1.61	68.55	18.55	11.29	5.60	83.20	8.00	3.20
Child health	2.42	70.16	12.90	14.52	2.40	79.20	12.00	6.40
Family Planning	0.81	60.48	34.68	4.03	1.60	84.00	9.60	4.80
Common diseases	1.61	55.65	31.45	11.29	7.20	77.60	6.40	8.80
Nutrition	0.00	61.29	28.23	10.48	10.40	81.60	5.60	2.40
Water, sanitation, personal hygiene	0.00	69.35	25.00	5.65	6.40	80.80	8.80	4.00
Human biology	0.81	77.42	14.52	7.26	11.20	75.20	6.40	7.20
Home remedies	1.61	69.35	19.35	9.68	8.00	82.40	4.00	5.60
Medicines commonly used	11.29	62.90	17.74	8.06	16.80	72.00	4.80	6.40
Responsibilities, incentives	10.48	75.00	14.52	0.00	5.60	82.40	5.60	6.40
Topic of Training (Theory)	Chhattisgarh (n=120)				Uttar Pradesh (n=123)			
	% of ASHA who think training was							
	Incomplete	Optimum	Too Much	Need to Repeat	Incomplete	Optimum	Too Much	Need to Repeat
Pregnancy childbirth, PNC	1.67	65.00	0.83	32.50	8.62	56.03	16.38	18.97
New born care	0.00	62.50	10.00	27.50	5.17	61.21	16.38	17.24
Child health	0.00	60.83	0.83	38.33	4.31	58.62	19.83	17.24
Family Planning	1.67	45.83	2.50	50.00	6.03	60.34	15.52	18.10
Common diseases	0.00	85.83	5.83	8.33	6.90	51.72	19.83	21.55
Nutrition	0.83	76.67	5.83	16.67	8.62	61.21	12.93	17.24
Water, sanitation, personal hygiene	0.00	80.83	4.17	15.00	1.72	59.48	18.97	19.83
Human biology	7.50	11.67	0.00	80.83	7.76	52.59	20.69	18.97
Home remedies	0.00	76.67	10.00	13.33	13.79	56.03	12.07	18.10
Medicines commonly used	0.00	67.50	9.17	23.33	12.93	55.17	12.93	18.97
Responsibilities, incentives	0.00	30.83	0.00	69.17	6.03	58.62	11.21	24.14

Source: Earth Institute and IIM-Ahmedabad field survey of ASHA, 2010

Regarding practical training, some similar conclusions can be drawn as those regarding theoretical training, as shown in **Table 4**. The highest percentage of ASHAs requiring a repetition of training is in Chhattisgarh, and every single area of practical training needs to be repeated in every single state. It is unclear whether the reason for repetition is a lack of understanding or a high prevalence of conscientious, hardworking ASHAs in this state. Large percentage of ASHAs in Rajasthan felt that the information given during practical training was too much, whereas many ASHAs in Bihar felt that the practical training was incomplete. Once

again, given that the percentage of ASHAs who feel that practical training was optimum ranges from roughly 45% to 80% across states, the improvement and standardization of practical training must be improved in all states in order to maximize ASHAs ability to learn practical skills.

Table 4: ASHA opinion on quality of *practical* training on various topics.

Topic of Training (Practical)	Rajasthan (n=124)				Bihar (n=135)			
	% of ASHA who think training was							
	Incomplete	Optimum	Too Much	Need to Repeat	Incomplete	Optimum	Too Much	Need to Repeat
Pregnancy childbirth, PNC	7.26	45.97	30.65	16.13	24.00	67.20	8.00	0.80
Newborn care	0.00	52.42	32.26	15.32	19.20	71.20	7.20	2.40
Child health	1.61	52.42	28.23	17.74	17.60	75.20	6.40	0.80
Family Planning	6.45	50.00	29.84	13.71	18.40	72.00	5.60	4.00
Common diseases	5.65	58.06	25.00	11.29	20.80	68.80	3.20	6.40
Nutrition	1.61	59.68	29.84	8.87	17.60	76.80	2.40	3.20
Water, sanitation, personal hygiene	0.81	48.39	40.32	10.48	17.60	75.20	4.80	2.40
Human biology	6.45	53.23	33.06	7.26	24.80	69.60	3.20	2.40
Home remedies	1.61	63.71	23.39	11.29	18.40	73.60	4.80	3.20
Medicines commonly used	7.26	53.23	24.19	15.32	32.00	58.40	4.80	4.80
Responsibilities, incentives	10.48	55.65	20.97	12.90	27.20	63.20	4.00	5.60
Topic of Training (Practical)	Chhattisgarh (n=120)				Uttar Pradesh (n=123)			
	% of ASHA who think training was							
	Incomplete	Optimum	Too Much	Need to Repeat	Incomplete	Optimum	Too Much	Need to Repeat
Pregnancy childbirth, PNC	0.83	76.67	0.00	22.50	7.76	62.93	8.62	20.69
New born care	0.00	69.17	0.00	30.83	3.45	62.93	12.07	21.55
Child health	0.00	72.50	2.50	25.00	6.90	62.93	10.34	19.83
Family Planning	1.67	42.50	0.00	55.83	3.45	68.97	9.48	18.10
Common diseases	0.83	83.33	4.17	11.67	12.07	57.76	6.90	23.28
Nutrition	0.83	50.00	1.67	47.50	5.17	65.52	12.93	16.38
Water, sanitation, personal hygiene	1.67	85.00	1.67	11.67	7.76	62.93	12.93	16.38
Human biology	4.17	18.33	0.83	76.67	6.90	61.21	10.34	21.55
Home remedies	0.83	83.33	5.83	10.00	9.48	62.93	9.48	18.10
Medicines commonly used	0.00	58.33	8.33	33.33	11.21	54.31	12.07	22.41
Responsibilities, incentives	0.00	28.33	2.50	69.17	12.93	56.03	11.21	19.83

Source: Earth Institute and IIM-Ahmedabad field survey of ASHA, 2010

BOX 4: Assam Snapshot—A New Innovation for Ongoing Training for ASHAs

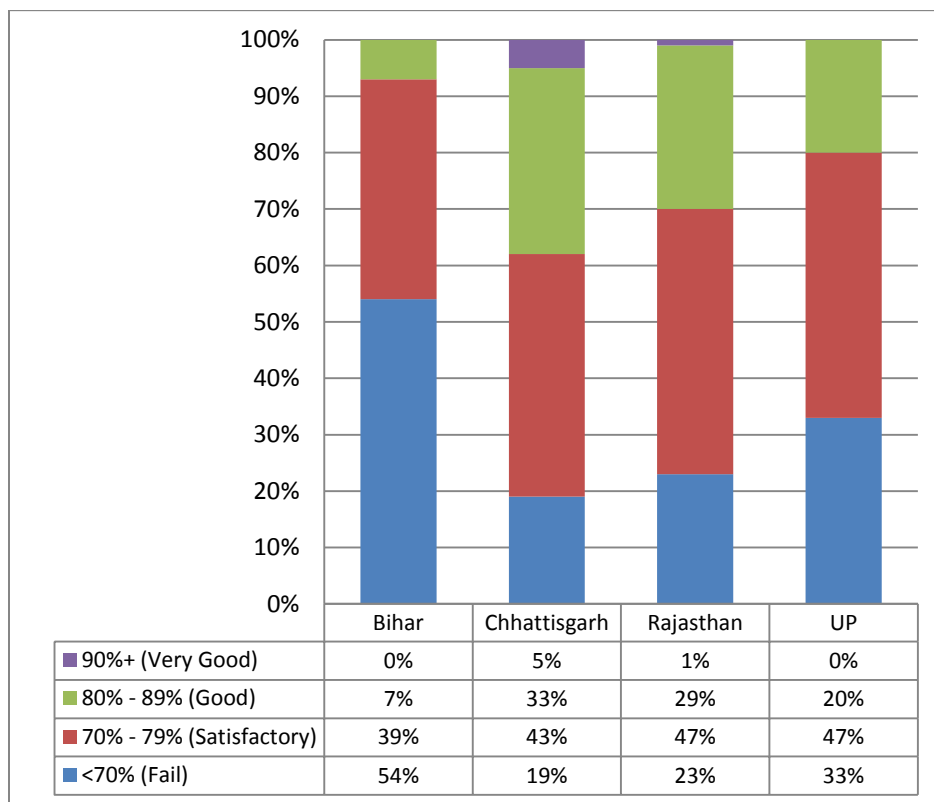
- ASHAs play a major role in the implementation of all MCH related schemes of NRHM, as they are the ones who directly communicate with the community that they belong to. Therefore, NRHM Assam recognizes the importance of keeping ASHAs updated with various kind of information related to MCH services and schemes, building communication capacity enabling them to effectively engage at the family level and hold dialogues with mothers. Keeping this communication need in mind, The ASHA radio programme an initiative of NRHM, Assam was launched in August 2007 to provide relevant and current information on NRHM activities to the ASHAs. Along with this, the programme also targets the health issues that are prevalent in the community keeping the community as the target audience. In this way, the ASHAs can work effectively as they are aware about the current programmes and health issues that need to be discussed with the community
- The ASHA Radio Programme is a useful tool to upgrade the knowledge level of ASHAs regarding various aspects of health (Importance of Immunization, Family Planning, Safe Drinking Water, Malaria, Anemia, Breastfeeding, Diarrhea, Sanitation, Measles, Tuberculosis, Anti-Tobacco and other health related issues prevalent in the community), communication and hygiene, practices. The state also runs health campaigns (anemia, Vitamin A, etc.) every month and this helps in getting the community to attend VHNDs to avail free services and freebies that are associated with the monthly health campaign.
- All the ASHAs have been provided with a radio set in Assam to encourage programme promotion. The programme is broadcast on Wednesdays during VHND sessions & this has further helped the cause as it provides an opportunity for the ASHA to have the village women listen to these programmes who have gathered at the Anganwadi centers for the VHND.
- The ASHAs can provide feedback as well as write into the programme if they have any questions on pre-paid postcards that are provided to them from the PHC. The queries received by All India Radio are shared with NRHM. This feedback mechanism is very useful way of obtaining information from the ground with regard to programme functioning. However it is also essential to address these queries over the next programme broadcast. Other feedback mechanisms such as SMS, Telephone complaint services could be looked at to increase the efficiency of receiving feedback.
- However, there are challenges due to poor radio signal in many areas of the state, which needs to be addressed along with sustaining the interest of the community & the ASHAs in the programme by innovative measures, and addressing the communication needs properly.

In order to evaluate competence on the topics covered in state training, ASHAs were provided a simple knowledge test with two answer choices for each question.

A distribution of ASHAs by their percentage scores in the knowledge test is provided in **Figure 6** (See appendix for related data tables). [An assessment of functionality of ASHAs (indicated by utilization of services and health outcomes) is included in the NHSRC evaluation of the ASHA programme.] Given no negative marking, a score of 50% can be obtained by chance alone. For the purpose of this exercise, therefore, 70% marks are considered as passing; 70% to 79% as satisfactory; 80% to 89% as good; and 90% + as very good. Data reveals that over half the ASHAs in Bihar scored below passing, or below 70%. While very few ASHAs were able to score above 90% in any state, ASHAs in Chhattisgarh have the highest scores when compared to other states. This is despite the fact that in Chhattisgarh, ASHAs reported having only an average of 6 total days of training (less than any other state surveyed), 28% of ASHAs haven't completed 8th grade, and many of the ASHAs cited a need for repetition of training. This further substantiates the argument that formal education may not necessarily be a predictive criteria for performance among community health workers. It is imperative that we assess the relationship between knowledge score and quality of training, ongoing mentoring, and perhaps the use of an aptitude test during the selection process draw accurate conclusions about the selection criteria and ASHAs' knowledge. Overall, barring

survey errors and/or biases, given that at least one out of every five ASHAs and up to half in some states have a below passing score, data suggests that many ASHAs lack the essential knowledge to perform their jobs well and that this issue must be investigated further. An assessment of the information that ASHAs have retained from theoretical and practical training must be conducted before ASHAs are able to work in the field, so that valuable information is not provided in error or omitted when they are counselling pregnant women and mothers on healthy practices.

Figure 6: Relative distribution of ASHAs by score on knowledge test



Source: Earth Institute and IIM-Ahmedabad field survey of ASHA, 2010.

Figures 7a-7f consider 6 different selection criteria and compares the average knowledge scores of the ASHAs meeting those criteria with ASHAs not meeting those criteria in each selected state. (See Appendix for associated table with data as well as standard deviations.)

***Note:**

- Source for Figures 7a-7f: Earth Institute and IIM-Ahmedabad Field Survey of ASHAs, 2010.
- Size of circle depicts percentage of ASHAs who fulfil criteria noted on the X-axis.
- Colour of circle indicates states as in the key to the right

- Chhattisgarh
- Rajasthan
- UP
- Bihar

Figures 7a-7f: Average Knowledge Test Scores of ASHAs According to Key Selection Criteria and Recruitment Processes

Figure 7a. Fulfilment of Education Criteria

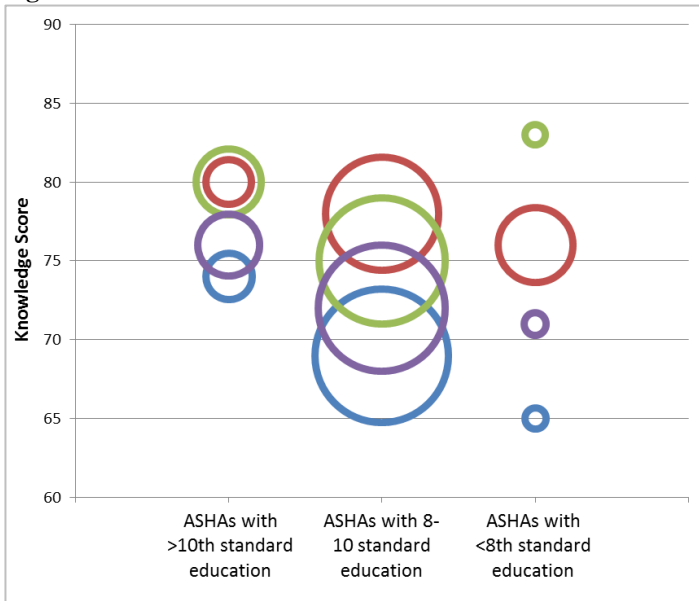


Figure 7b. Selection through FGD

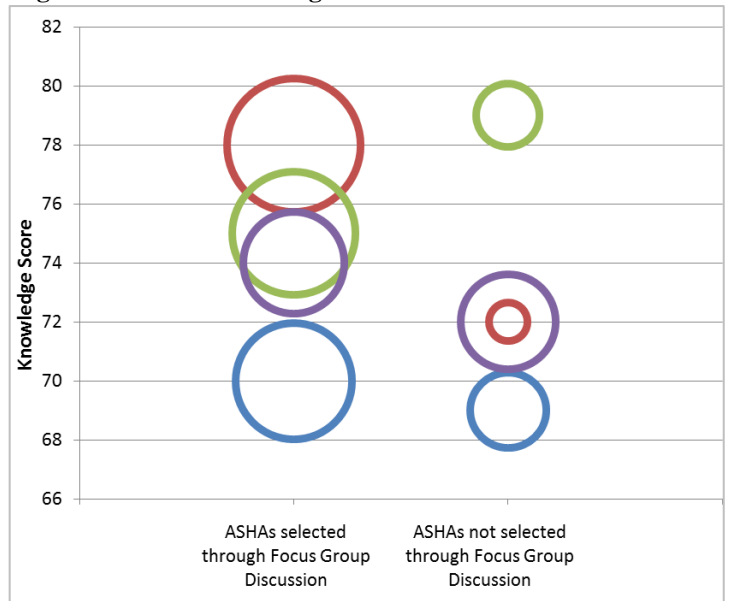


Figure 7c. Selection through Gram Sabha

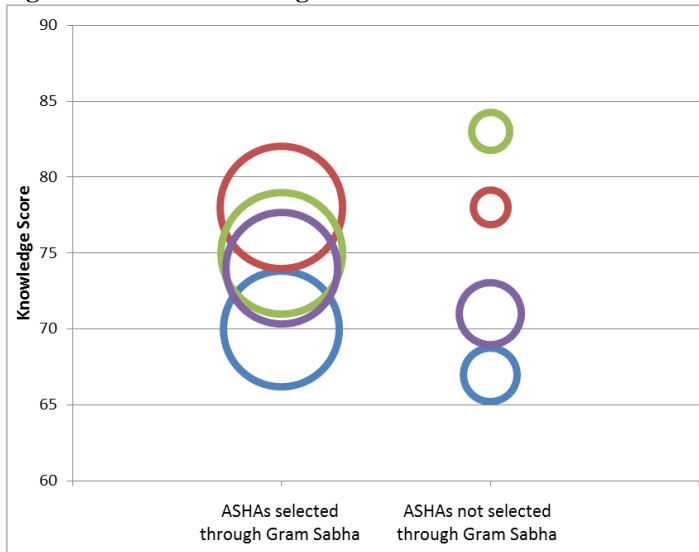


Figure 7d. Selection from shortlisting of candidates

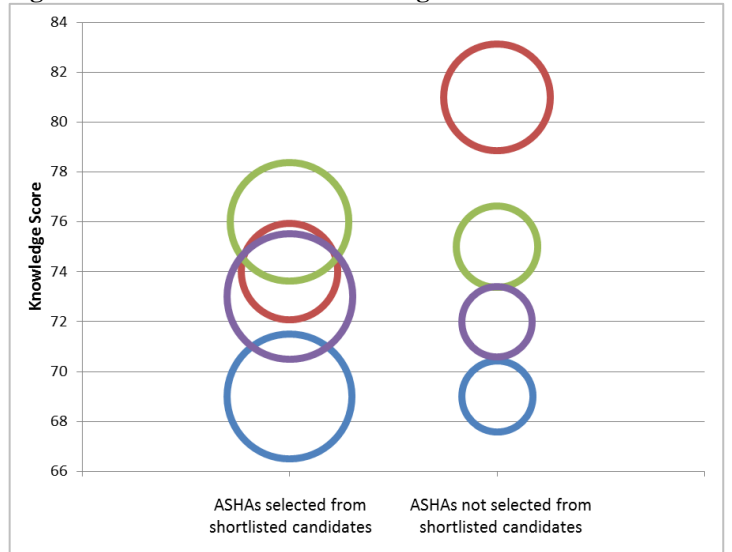


Figure 7e. Prior Work Experience

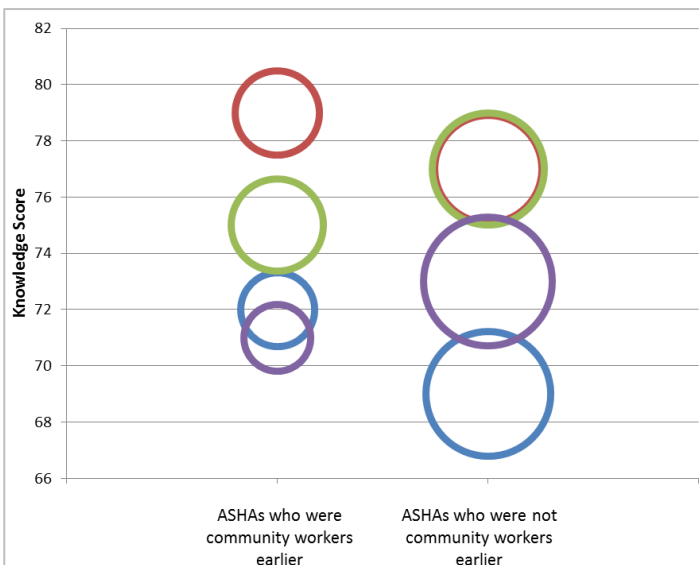
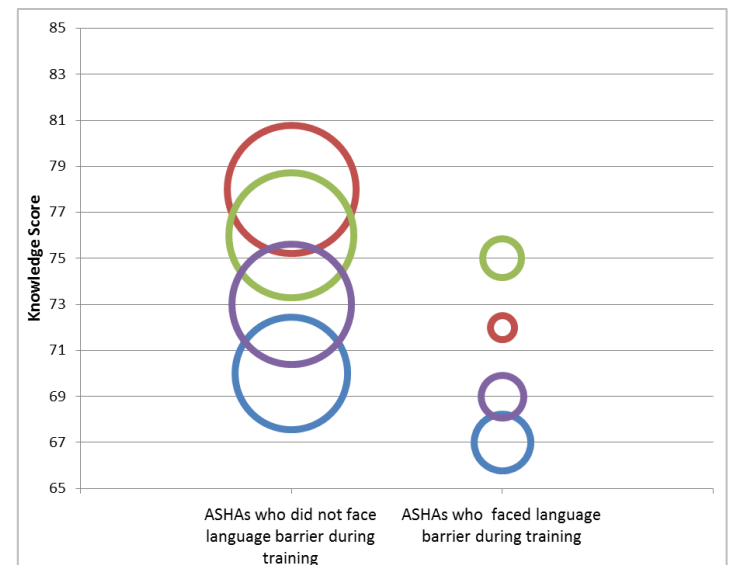


Figure 7f. Language Barrier



It can be seen from these figures that most of the pairs of average scores of the two groups are fairly close to one another, and often the difference in knowledge scores between ASHAs who fill and do not fulfil certain criteria is, in fact, counterintuitive (e.g. ASHAs in Rajasthan who were *not* selected through a focus group discussion actually scored higher than those who were selected through a focus group discussion). When we consider the t-test for statistically significant difference in the scores, all differences in the knowledge test scores are insignificant except in four scenarios.

Only in four pairs – three in Rajasthan and one in Chhattisgarh (numbered in parentheses below) – was the difference in average scores is statistically significant, and two of these pairs were significant in the “wrong” direction (i.e. ASHAs who had fulfilled a certain standard recruitment criteria/selection process actually scored lower than ASHAs who did not fulfil the criteria/process).

In Rajasthan, ASHAs with less than 8th standard education have scored statistically significantly higher than ASHAs with 8th to 10th standard education (1) and ASHAs with greater than 10th standard education (2). However, if we compare the average knowledge scores of ASHAs with education between 8th and 10th grade (75%) and the ASHAs with education more than 10th grade (80%) the difference is statistically significant (3), but in the opposite direction. This leads to relatively inconclusive results from Rajasthan. Thus, the minimum education of 8th grade does not appear to be a pre-requisite to guarantee knowledge or ability to grasp or absorb training. Except Rajasthan, it appears the education level is not associated with knowledge score.

In all states but Rajasthan, data shows a trend that ASHAs who were selected through a focus group discussion have higher knowledge scores than those who weren't; however, in no states was the difference statistically significant.

In Rajasthan, ASHAs selected through Gram Sabha have a statistically significantly less score (75%) than those not selected through Gram Sabha (83%), which proves to be counter to what would be predicted. In all other states, ASHAs selected through the Gram Sabha do have higher knowledge scores than those who have not, but none of the differences are statistically significant.

Except in Chhattisgarh, the selection of ASHAs after shortlisting does not result in any significant difference in the knowledge scores of ASHAs. And, in fact, in Chhattisgarh, the difference is statistically significant in the opposite direction (4). ASHAs selected without shortlisting have scored more (81%) than those selected after short listing (74%). Other states also do not show a clear trend that ASHAs who have been selected from a shortlisted group of candidates perform better on the knowledge test, and therefore this criteria seems to have little association with the knowledge level of ASHAs as measured in this test.

Similarly, the association between prior work experience and knowledge score is also inconclusive given that the trend is inconsistent between states.

Though there were no statistically significant results comparing ASHAs with and without a language barrier during training, there is a clear trend that those who did not face a language barrier had higher knowledge scores than those who did.

For most of selection criteria for ASHAs, there is no statistical significance in the difference in knowledge scores between ASHAs who have and have not fulfilled each of the standard

recruitment criteria. This does not necessarily indicate that the current recruitment criteria are incapable of having a positive effect on the performance of ASHAs, but rather that the selection process must be re-examined. For example, ASHA selection¹¹ can more productively and fruitfully be made if the selection process was divided into two parts – one for shortlisting candidates and second could be the effective selection test. ASHAs can be selected from different villages based on a common pre-test to be conducted at the district level. If this is well announced and publicized with reading material for the test made available ahead of time, the test could instead gauge the ASHAs’ ability to comprehend and retain information in addition to their communication and motivation abilities.

BOX 5: Assam Snapshot—Training and Knowledge Retention
<ul style="list-style-type: none"> • 23278 (81%) of the recruited ASHAs have completed 23 day training programme as recommended by the GOI in Assam & 25975 (90%) have received 7 days of induction training and have been handed over reading material. Training for newly recruited ASHAs on the GOI 5 modules have yet to be carried out. • In Morigaon District, of the 850 total ASHAs, 70 ASHAs are yet to receive induction training. These ASHAs have been working in the field for a period of 2 years with no formal induction training. This creates questions on the quality of work of the ASHAs. • In our discussions with ASHAs at our project site Morigaon, Assam it was observed that over a period of time the ASHAs are mainly focused on activities that are related to monetary compensation & are clearly defined such as ANC, Institutional referrals, and Immunizations. • Activities related to health education and promotion of Sanitation has taken a backseat due to poor clarity & definition of roles and information. • Recall on PIH & Ante partum hemorrhage, Nutrition, NRHM & community mobilization is poor. • For better and efficient delivery of services by the ASHA it is critical to ensure that the 23-day classroom trainings are supplemented by on site mentoring and trainings on a monthly basis. There is a need for time-to-time refresher training in the areas like mother and child health, anemia, malaria, leprosy and TB. Further trainings on ANC/PNC, immunization, and feeding practices of children along with pictorial job aids/tools are required to enhance the capability of the ASHA.

4C. INCENTIVES AND COMPENSATION PROCEDURES

The sustenance of the NRHM programme depends on the long-term motivational factors for the ASHAs to keep her going with spirit and enthusiasm. We have investigated these issues in the present field survey of ASHAs in the selected states as well. **Table 5** provides responses from ASHAs regarding the importance of motivating factors for becoming an ASHA as well as the corresponding expected returns in all the selected states. It can be seen from the table that most of the ASHAs in all the states mentioned the desire to improve health facilities in the village as the primary motivating factor, which is in line with the NHSRC’s findings from the evaluation of the ASHA programme (Ved, et al). Except Chhattisgarh, most ASHAs in all other states, reported

BOX 6: Assam Snapshot—Motivational Factors
<ul style="list-style-type: none"> • Most ASHAs in Morigaon, Assam are satisfied with their jobs; they feel their prestige has gone up in the village and that hospital staff give priority to the cases of the ASHAs when they either refer or accompany them. • Monetary compensation is also a very important factor for the ASHAs in Assam. Most ASHAs we spoke with are demanding a monthly honorarium as they feel the compensation they receive is very meager in comparison to their contribution.

¹¹ This discussion is within the context of the recruitment of additional ASHAs in the future.

financial incentives to be a major motivating factor. What is revealing from **Table 5** is that over 50% of the ASHAs in Rajasthan and UP indicate that the financial incentives either met or exceed their expectations. In Bihar, however, that 73% ASHAs consider the financial incentives to be less and inadequate. In Chhattisgarh, not more than 34% of ASHAs consider financial incentives as a motivating factor for taking up the job; and out of those 34% ASHAs only approximately one-third consider the incentives to be less than expected or inadequate. Further research and investigation is required to delve into why ASHAs in Chhattisgarh (Mitanins) express that financial incentives are not as important a motivating factor as did ASHAs in other states.

With this analysis, recruitment and remuneration policies can be re-examined in order to attract the participation of ASHAs and ensure that they are motivated to perform well. For example, given that improvement of health facilities, prestige, and financial incentives are the top three motivating factors to become an ASHA, recruitment advertisements can focus on these issues and pay scales should be reevaluated based on more detailed quantitative salary studies and budget expandability.

Table 5: ASHAs' self-reported motivating factors for becoming ASHA

MOTIVATING FACTORS for becoming an ASHA	% of ASHA who said this was a motivating factor	Of those ASHA that reported this as a motivating factor, did the rewards meet their expectations?		
		Did not meet	Met	Exceeded
Rajasthan (n=124)				
Financial incentive	95.9	37.9%	43.7%	18.5%
To get more exposure in village	83.9	22.1%	38.5%	39.5%
To improve village health facilities	100.0	0.0%	57.30%	42.7%
Social prestige	93.5	0.0%	52.6%	47.5%
Peer pressure	69.4	1.2%	60.4%	38.3%
Other	39.6	24.5%	26.5%	49.0%
Chhattisgarh (n=120)				
Financial incentive	34.2	29.2%	14.6%	56.1%
To get more exposure in village	62.5	13.3%	10.7%	76.0%
To improve village health facilities	98.3	2.5%	4.3%	93.3%
Social prestige	84.2	3.9%	9.9%	86.1%
Peer pressure	60.8	2.8%	11.0%	86.3%
Other	31.7	7.9%	10.4%	81.4%
Bihar (n=135)				
Financial incentive	82.2	73.0%	27.0%	0.0%
To get more exposure in village	28.9	48.8%	46.0%	7.6%
To improve village health facilities	80.7	36.7%	45.0%	18.3%
Social prestige	64.4	32.1%	47.3%	20.8%
Peer pressure	26.7	27.7%	49.8%	22.1%
Other	21.5	34.4%	34.4%	31.2%
UP (n=123)				
Financial incentive	93.5	27.8%	30.5%	41.7%
To get more exposure in village	91.9	20.3%	32.8%	46.9%
To improve village health facilities	99.2	13.9%	23.0%	63.1%
Social prestige	96.7	20.2%	27.7%	52.9%
Peer pressure	85.4	23.8%	25.8%	50.5%
Other	35.8	18.2%	24.9%	56.7%

Source: Earth Institute and IIM-Ahmedabad field survey of ASHAs, 2010.

Table 6 provides details of incentives received by ASHAs for various activities. As evident in the table, several discrepancies exist in incentive rates across states. For example, while all ASHAs receive Rs. 600 for institutional deliveries (the nationally prescribed amount), ASHAs in Rajasthan only receive Rs. 250. They do receive a Rs. 150 transport allowance per delivery which is calculated separately; however, the total incentive is still Rs. 200 less than in other states. ASHAs are supposed to receive Rs. 75 for Pulse Polio Days, but those in Chhattisgarh only receive 50. Only ASHAs in Rajasthan receive the Rs. 150 (the nationally prescribed amount) for immunization days, while those in other states receive as less as Rs. 50. ASHAs in Bihar claim to receive no money for village health and sanitation days or toilet promotion. Though a causal relationship cannot be established from our survey results, it is likely that this is the reason ASHAs are not engaging in sanitation activities in this state. If ASHAs are not rewarded at all, or are rewarded less than the prescribed amount for certain activities, this greatly impedes their willingness to perform activities that fall under their responsibilities.

Only in Rajasthan do ASHAs receive a fixed salary of Rs. 500 per month in addition to various activity-related incentives. In all other states in India, their monthly income is on an incentive-only basis. Totalling the salary and incentives for ASHAs in all states we studied, we find that the annual average income of ASHA in Rajasthan and Bihar are comparable at Rs. 11,562 and Rs. 14,220, respectively. Chhattisgarh has a relatively low average annual income (Rs. 5,414) because the average population handled by ASHA is considerably less (less than 500); and for the same reason, the average annual income of ASHA in UP (Rs.17,646) is higher because they on an average handle larger population (around 1500)¹².

Table 6: Details Regarding Incentives Received by ASHA for Different Activities

Details	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
% of ASHA involved in activity:				
Delivery	93%	93%	94%	98%
FP operation	86%	82%	82%	66%
Pulse polio	61%	79%	87%	88%
Immunization	59%	82%	96%	78%
Village health and nutrition day (VHND)	3%	0%	50%	8%
Toilet promotion	1%	0%	8%	0%
DOTS - TB	47%	11%	25%	19%
Leprosy	13%	3%	0%	3%
Average no. of cases per ASHA annually:				
Delivery	16	6	9	20
FP operation	5	4	1	4
Pulse polio (No. of times in a year)	10	3	2	23
Immunization (No. of times in a year)	13	12	7	11
Village health and nutrition day (No. of times in a year)	5	N/A	4	9
Toilet promotion (No. of times in a year)	2	N/A	0	N/A

¹² UNICEF UP field office shares that the average population covered by each ASHA in UP is 1100 – based on the total state population of 196 million and 1.36 lakh ASHAs (we have to exclude the urban population here). Our study estimates the population coverage per ASHA to be 1500 based on our survey sample.

DOTS - TB	3	1	0	1
Leprosy	1	1	N/A	0
Amount (Rs.) of incentive per case as received by ASHA:				
Delivery	600	600	250	600
FP operation	150	150	150	150
Pulse polio (per day)	75	50	75	75
Immunization (per day)	125	50	150	75
Village health and nutrition day	0	N/A	100	100
Toilet promotion	0	N/A	50	N/A
DOTS - TB	250	250	250	250
Leprosy	100	300	N/A	300
Average total (Rs.) of incentive per ASHA annually:				
Delivery	8826	3375	2133	11382
FP operation	764	637	194	515
Pulse polio	2868	445	353	1991
Immunization	1160	504	1117	1565
Village health and nutrition day	0	0	874	590
Toilet promotion	0	0	329	0
DOTS - TB	150	53	161	302
Leprosy	53	0	0	900
Total annual salary (Rs. 500 per month)	0	0	6000	0
Net training Allowance for each state	400	400	400	400
Average total amount (Rs.)of incentive per ASHA annually	14220	5414	11562*	17646

*Note: In Rajasthan Rs.1350 (=Rs.150 x 9 delivery per ASHA) is added as transport allowance, which is paid separately unlike in other states.

Source: Earth Institute and IIM-Ahmedabad field survey of ASHAs, 2010.

As discussed in the previous sections, ASHAs in all the states are found to be working for only 60 to 70% of the standard weekly work-hours.¹³ In fact, we even found that some ASHAs were doing other regular work and treated this work as additional part-time work. They would, of course, demand regular salary and regular employment in government with all attendant benefits like pension, leaves, holidays, medical benefits, education of children, LTC (long-term care), etc. In fact, more than 90% to 100% in our sample of ASHAs in different state demanded regular salary. However, 56% in Rajasthan, 18% in Bihar, 23% in Chhattisgarh, and 39% in UP out of the ASHAs surveyed were happy with the current system of incentives.

BOX 7: Assam Snapshot—Fund Disbursement

Nearly all ASHA in the Morigaon District receive payment by electronic transfer. Delays are still present, and attributed to procedural delays and confusion around making claims.

¹³ The ASHA is not a full time employee as highlighted earlier and her work hours would depend on multiple factors mentioned. However if we expect her to undertake additional activities and work longer hours as would a full time paid employee it is imperative to address issues of financial incentives and benefits for her to spend the additional hours in the field.

Electronic transfers are the most efficient way of providing ASHAs with their compensation, and more than 75% of ASHAs in all states have their own bank account. However, until all ASHAs have bank accounts, provision of incentives and salaries will not achieve maximum efficiency. According to our study, approximately 60% of ASHAs complain about delays in receiving their incentives. Delays were reported more for activities other than institutional deliveries. Given that most ASHAs work without a fixed salary, a delay in payment can pose serious concerns for job satisfaction and retention of ASHAs.

Qualitative findings from our study also suggested that most ASHAs did not receive any monetary incentive for community mobilization for pulse polio or other routine immunization. Only ASHAs who were directly involved in the immunization with health personnel received the incentive amount. Thus, there was effectively no incentive for ASHAs to get involved in community mobilization activities in the village, which is actually a key role for them. Furthermore, key activities such as home visits for new-born's and follow up for treatment of childhood illnesses are not incentivized.

Several issues were reported regarding the travel allowance for ASHAs for institutional deliveries as well. In Rajasthan, the incentive for ASHAs sometimes led to disputes between the patient family and ASHA, and the ASHA was sometimes not informed about the delivery as a result. In Bihar, the same pregnant woman would be accompanied by ASHA as well as AWW, and they would quarrel for the incentive amount.

Key lessons regarding incentives for ASHAs include: 1) ASHAs should be rewarded at least the minimum incentives prescribed by the MOH, 2) sanitation activities as well as new born home visits and follow up for treatment of childhood illnesses must be incentivized to ensure ASHA participation, 3) higher incentives can be considered to ensure motivation for ASHAs, especially given some important activities such as encouraging family planning are associated with a very small incentive (Rs. 150) compared to others institutional delivery (Rs. 600), 4) all ASHAs should have their own bank accounts so that their salaries can be deposited efficiently and the money reaches them only, 5) compensation must be provided in a timely manner without delays, perhaps on a fixed schedule, and 6) ASHAs' travel allowance and other compensation must be protected from cuts and demands.

4D. SUPERVISION AND INTERACTION OF ASHAS

In our field survey, we specifically obtained information about the supervisory structure in place and on the reporting system for ASHAs. First we will examine the supervisory structure in place for ASHAs in all the states in general.

At the block level, a Block Programme Manager (BPM) is appointed at CHC or the Block PHC who is the supervisor of the ASHA. He/she then reports to District Programme Manager (DPM) at district level, who, in turn, reports to State Programme Manager (SPM). All these managers are from non-medical background and usually from management or social work training. They are employed on a contractual basis and work on fixed salaries.

As the NHSRC ASHA programme evaluation mentions (Ved et al.), support structures in most states were set up years after ASHAs were initially recruited and trained. In UP and Bihar, the BPMs have been appointed only recently, approximately less than a year ago. In UP, the District Community Mobilizer (DCM) is appointed for coordination of ASHA programme. In

Bihar, monitoring the work of ASHA was the responsibility of MO until recently. Even after the implementation of NRHM, basic infrastructure and manpower for health services did not exist at the block and village level. As a result, effective monitoring system for ASHAs at the ground level did not exist for a long time even after their appointment in the state. This is one possible reason why ASHAs in Bihar may not be performing at optimal levels.

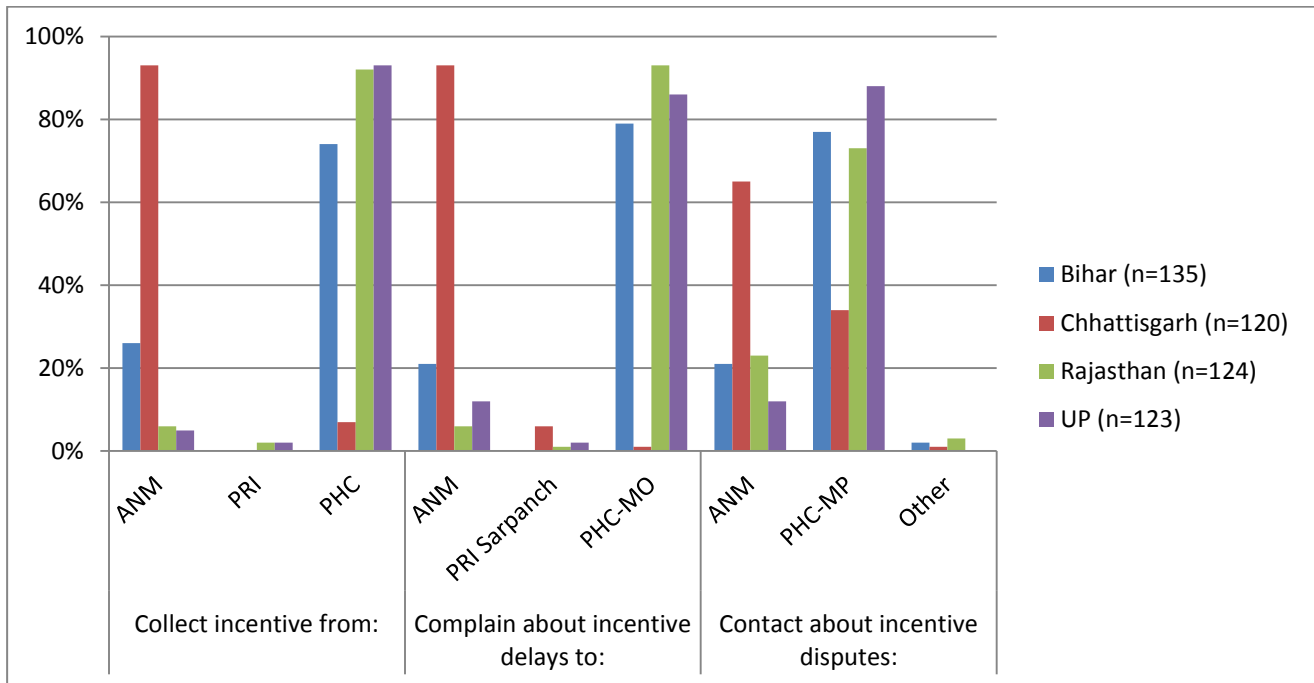
In Rajasthan, apart from DPM and BPM, there are district ASHA coordinators; block ASHA facilitators; and ASHA supervisors at PHC level as a part of the supervisory structure. The purpose of such separate designations is to distinguish clearly between the monitoring of ASHAs and administrative work at different levels. These facilitators and supervisors perform the task of monitoring the work of ASHAs, counselling them and transmit feedback bottom-up and top-down. Previously, ASHAs were reporting to the AWW and to Anganwadi supervisor's since they were initially appointed at the Anganwadi centers. Since April 2010, this responsibility is completely shifted to the ASHA supervisors at PHCs. Although this might avoid confusing instructions given to ASHA and about their roles and responsibilities, it could reduce coordination between AWW and ASHA.

In Chhattisgarh, the supervisory structure for Mitanin existed much before NRHM. Mitanins were later converted into ASHAs, but the District Resource Persons (DRP) and Block Resource Persons (BRP) continued to exist even after the appointments of BPM and DPM under NRHM. These resource persons are involved in training of ASHAs as well as in monitoring their activities in the field. The system is based on the norm of one DRP accountable for 10 BRPs and each BRP monitoring 20 ASHAs. Moreover, there are two DRPs appointed through local NGOs who would pay regular visits to villages and provide guidance and support to ASHAs and transmit feedbacks to and fro.

A common finding from previous research as well as our current study is that ASHAs most often turn to ANMs for support in their work. However, despite this fact, the system does not recognize them officially as their supervisors or mentors. If the ANMs role is highlighted as that of a mentor (or supervisor) of ASHAs, and if a formal organization/reporting structure for ASHAs were in place, the productivity and efficiency of these community health workers may be improved.

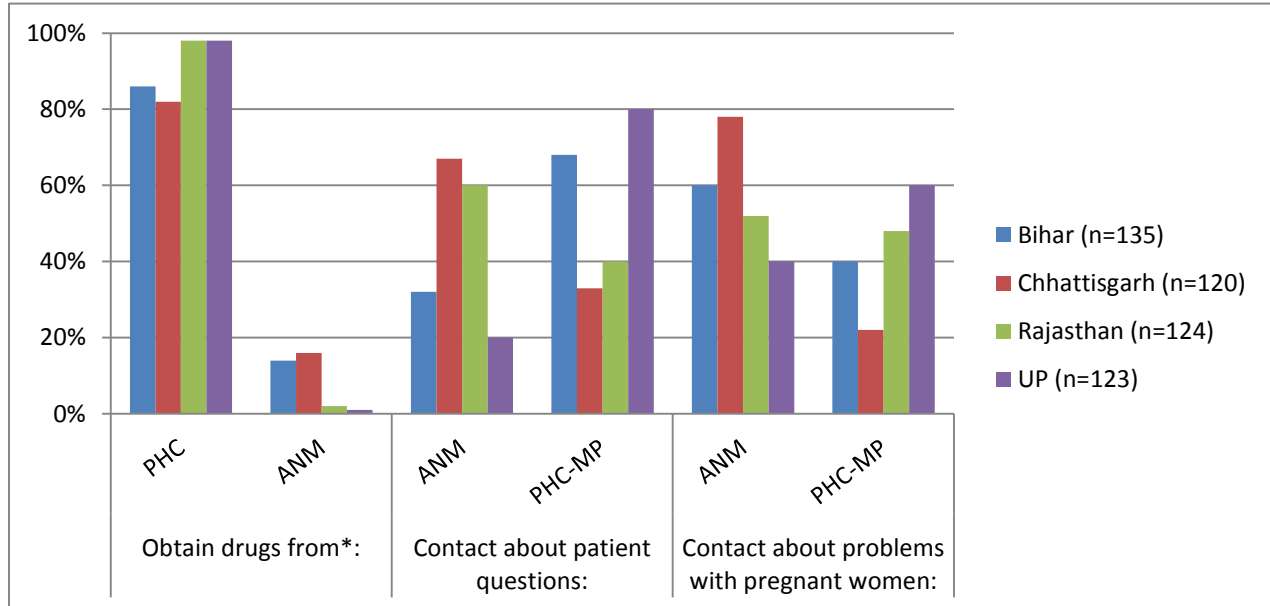
In terms of the effective processes on ground, we collected information from ASHAs on various aspects of their work and their interface with the health system in the selected states. **Figures 8a** and **8b** (see appendix for related data table) provides the information.

Figure 8a. ASHA interface with health system for incentive support



Source: Earth Institute and IIM-Ahmedabad Field Survey of ASHAs, 2010.

Figure 8b. ASHA interface with health system for patient care support



* Additionally, 1% of ASHA in UP report that they obtain drugs from the Anganwadi centre; 2% of ASHA in Chhattisgarh report they obtain drugs from 'other'.

Source: Earth Institute and IIM-Ahmedabad Field Survey of ASHAs, 2010.

In all states that we studied, it is evident that there is no singular person to whom the ASHAs are reporting to, and that the ASHAs receive support from primarily the ANM and the medical officer at the PHC. Regarding issues and questions related to patients' health, ASHAs are divided between contacting the ANM and the PHC-MO in all states. For obtaining incentives, complaining about delays in incentives, or settling disputes on incentives, ASHAs in all states except Chhattisgarh contact the PHC-MO. ASHAs in Chhattisgarh rely mostly on the ANM for these issues.

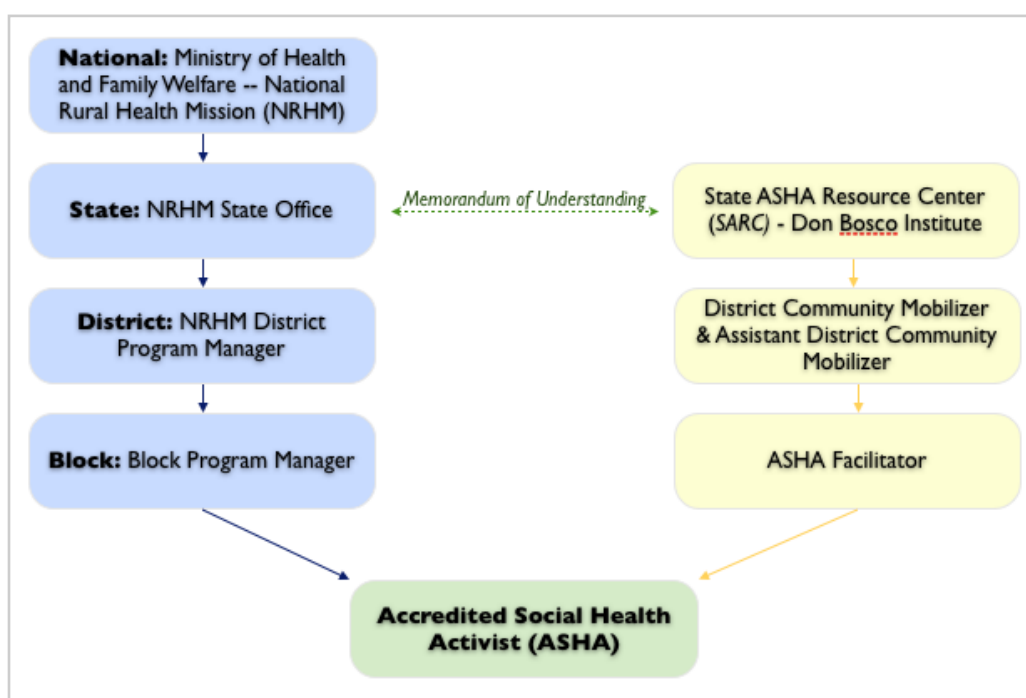
As evident from this data, inter-state variances exist in terms of the stakeholders who handle incentive-related issues for ASHAs, and intra-state variations exist with regards to who ASHAs seek for help with patient-related issues. Moreover, the data lacks clear information regarding how the ASHAs are being monitored, and if there is any clear system of tracking their performance and progress. Without such a system in place, it will be impossible to improve ASHA performance in the future, and an on-going, perhaps 360 degree review process is something that should be considered.

BOX 8: Assam Snapshot—Innovation in Supervisory Structure in Assam

Assam has created a management and support structure for ASHA through the creation of a State ASHA Resource Centre (SARC). The SARC is a public-private partnership that has established the follow structure (see figure below):

- A technical resource centre in Gawahati, housed at the Don Bosco Institute, to develop monitoring, training, and support tools for ASHA (e.g. ASHA diaries, refresher trainings)
- District Community Mobilizers (DCM) housed in the NRHM DPMU. They mobilize ASHA Facilitators (below) and ASHA, provide trainings, address issues, and monitor data. They are trained by, and report to, the SARC.
- ASHA Facilitators per every 10 ASHA. The facilitators provide mentorship to ASHA (e.g. developing weekly/monthly plans, collecting data), address grievances, and support VHND. Facilitators spend 20 days a month in the field visiting the ASHAs in their catchment area. Facilitators are provided 12 days of training through the DCM and SARC.

Figure 9. Organizational chart of ASHA support structure in Assam.



This additional management and mentoring support will be monitored to determine its impact in ASHA performance and service delivery quality, and could be a significant learning for other states.

SECTION 5: SUMMARY OF FINDINGS & KEY LESSONS LEARNED

To provide context for our recommendations to improve the performance in ASHAs in India, we will first discuss a summary of findings and key lessons learned.

Recruitment

The success of the ASHA programme is highly dependent on the individual ASHAs who are chosen to advocate for and provide knowledge about the importance of healthy practices. Key selection criteria such as education level and representativeness of the local community are critical if we want the ASHAs to retain and communicate information to their community members. However, given evidence in the literature and from our sample that selecting community health workers on hard education criteria alone is not always predictive of their performance, it is imperative that other criteria are considered in future recruitment of ASHAs. Our qualitative findings suggest one alternative, that softer criteria such as aptitude, motivation, communication skills, leadership qualities, and the ability to reach out to the community members that are critical and more difficult to ensure. These softer criteria can only be examined with a rigorous selection process that includes extensive community involvement, qualitative discussions surrounding the candidates' ability to communicate and acceptance within the community, and perhaps a more objective way of assessing the candidates' intellectual aptitude than a mere education requirement. In the future, the recruitment of new ASHAs is an area requiring significant improvement.

Roles and Responsibilities

While the majority of ASHAs who completed the questionnaire claimed to understand their roles and responsibilities, our site visits and qualitative data proved otherwise. Several ASHAs we spoke with were unable to specify all their job responsibilities. A clearly defined list of responsibilities, one that is short and memorisable, would be beneficial for the ASHA so that she is completely aware of what is within and what is *not* within her role in the community.

Additionally, ASHAs are currently claiming to work approximately 25 hours a week; this provides potential to increase her responsibilities, and would therefore increase her incentives as well. Our findings suggest that many ASHAs are dissatisfied by their incentives and therefore this would be beneficial for them. Our qualitative findings also suggested that ASHAs were interested in acquiring more health-related skills. Therefore, additional responsibilities within her scope of capabilities can be considered.

Our recommendations consider possible additional roles for ASHAs in non-high focus states, so that they can further act as agents of change in the field to promote preventive health activities. Our belief is that ASHAs in non-high focus states like Tamil Nadu, Andhra Pradesh, and Kerala can gradually progress towards creating awareness and promoting preventive measures for chronic disease, for example. Including new roles for the ASHA related to awareness creation is a logical extension to her activist status and can significantly reduce treatment costs of chronic disease and improve health of the communities. For high focus states, additional responsibilities will vary; we have further discussed our suggestions in the recommendations section as well as in the annex.

States should be given the ability to decide the contents of the ASHA programme given constraints related to Human Resources (trainers), Finances and Skill levels of ASHAs. The

programme can vary from solely awareness creation to activities closer to service delivery (as is the thought process of Modules 6 & 7 ASHA Training designed by GOI). Some of the new roles and activities that can be taken up by the ASHAs in MCH, Chronic & Infectious disease are included in the appendix. The cost of training for new roles should be considered, and would include major overheads such as compensation given to trainees for the number of days of training, transport allowances of the trainees and trainers, honorariums given to trainers, training material, stationary and transportation cost for field visit during the training.

Another issue to consider within the discussion of ASHAs' roles and responsibilities is the increasing population. Since the launch of NRHM in 2005, the rural population has inevitably grown drastically and thus the coverage of population for ASHAs has grown to be over the recommended coverage population of 1000 residents. Furthermore, the increase in population is largely represented by babies and children born within the last five years, and thus significantly increases the burden of work for ASHAs. Though the positive consequence of this occurrence is that ASHAs may receive more incentives, there is also the potential of overburdening the ASHA which will lead to poor performance and poor coverage. As a result, the growing population must be more deliberately considered in the hiring of new ASHAs.

Training

The current amount, quality, and assessment of training is inappropriate for optimal education for ASHAs. The reading material for ASHAs during training is almost 300 pages of dense text that is intended to be covered over a 23-day training session. Yet, the maximum average number of training days that ASHAs received in our study sample was 12.¹⁴ Trainers vary from state to state and even within states, suggesting that the training received is not standardized for all ASHAs. Refresher training rarely happens, though it is clearly necessary given the incompleteness of original training. Furthermore, there aren't any clear assessment processes in place to ensure that ASHAs have taken away the appropriate knowledge from training sessions and are fit to practice. As a result, our data revealed that well over half of the ASHAs in our study sample scored below 80% in their knowledge assessment. Therefore, it is evident that ASHAs lack the essential knowledge to perform their jobs to the best of their ability. An assessment of the information that ASHAs have retained from theoretical and practical training, in the form of written and oral examinations, must be conducted before ASHAs are able to work in the field, so that valuable information is not provided in error or omitted when they are counselling pregnant women and mothers on healthy practices.

Another issue to consider is the forthcoming implementation of Modules 6 and 7 for ASHA inductive training. Key positives regarding the new training modules are: 1) the increased focus on newborn care which was otherwise lacking, through the introduction of IMNCI; and 2) the new modules incorporate pictorial learning and are more suitable for low literacy audiences. However, there will be significant considerations in the roll-out of these new training modules. First, the addition of these new responsibilities moves the ASHA role towards that of a service provider, which creates all the more need for increased supervision, better management and recording of performance, regular refresher trainings, improved management of drug kits, etc. Second, our results indicate that even with only modules 1-5, several ASHAs have not received complete training. Therefore, states will be even more

¹⁴ UNCEF UP field office has shared that the ASHAs in UP have received 19 days of training in UP. The numbers depicted in the study are from inputs provided by the study sample and hence may vary.

burdened with the additional training needs and must devise an efficient plan to make sure the ASHAs are trained in the existing and additional modules without disrupting their service significantly.

Incentives and Compensation

There are several key issues regarding incentives and compensation for ASHAs, which, if mitigated, would greatly contribute to an improvement in ASHAs' motivation and performance. First, though there exists a nationally prescribed standard for the amount of incentive ASHAs receive for each activity they are engaged in, many ASHAs in all states are not actually receiving these minimum amounts in practice. Second, key activities such as sanitation improvement and new born/child health are often not compensated for, providing no incentive for ASHAs to engage in them. ASHAs spend most of their time on and receive most of their incentives from activities related to ANC and delivery; activities related to new born care are not incentivized at all, nor are there specific incentives for treating childhood illnesses. Taking part in these activities will yield significant public health benefits, and thus incentives for these additional responsibilities must be considered. Third, at least 25% (75% in one state) of ASHAs feel that the amount of compensation received did not meet their expectations. With such a great proportion of ASHAs left unsatisfied with their compensation level, higher financial incentives per activity can be considered to ensure sustained motivation for ASHAs to perform in their jobs. Ideally, as we have argued previously (Bajpai et al. NRHM Mid-term Evaluation Report 2009), there should be a minimal monthly salary in addition to the incentives described above. However, since this hasn't been accepted as of yet, the incentive amounts should be much higher than what they are currently given that the financial incentive is not always proportional to the amount of work required for an activity. For example, for planning, executing, and recruiting participants for a Village Health and Nutrition Day, ASHAs only receive Rs. 100, most of which is used for travel and food/items required for the day. This financial incentive is not sufficient to motivate and ensure that ASHAs will perform to their optimum level.

Several ASHAs also reported spending out of their own pockets for travel and related items, especially in rural areas. Potential for cuts and demands from ASHAs compensation also demotivates ASHAs to perform their tasks to the best of their abilities; as a result, ensuring that all ASHAs have bank accounts in their own names and direct money transfers in a timely manner, perhaps on a fixed schedule, will be imperative for the growth and improvement of the ASHA programme.

However, it is important to note that financial incentives weren't the only motivational factors for ASHAs to perform and perform well. A desire to improve health facilities in their village and social prestige associated with their job were also in the top three reasons why ASHAs chose to become community health workers. As a result, in addition to a revamping of the financial compensation structure and processes, innovations must be considered to place ASHAs on a progressive career track where the potential for upward movement and recognition in their careers will also greatly contribute to their motivation and thus their performance.

Supervision and Review of ASHAs

What is evident from our study of ASHAs is that there is no clear supervision of their work. ASHAs are not meeting a specific supervisor on a regular basis, and their mentors are not the same across the state or between states. Though many ASHAs state that they receive the most help and support from ANMs, these ANMs are not formally recognized as mentors or supervisors of ASHAs, and thus there is no established organizational or reporting structure. The exceptions are in Assam, where the role of the ASHA facilitator has been introduced, and in Rajasthan, where ASHA-Sahayoginis continue to report to ICDS officers (as per their previous role). However, despite these examples of supervision, ASHAs do not undergo any formal review process in any state, and no records are kept of their performance. To further enhance the role that the ASHAs play in enabling communities to live healthier lives it would be desirable to assess the ASHAs current performance and provide supervision to identify shortcomings and address them to achieve the desired outcomes as envisaged when designing the ASHA component under NRHM. Without an assessment of current performance and without a supervisor to track performance, it will be impossible to improve ASHAs' performance.

SECTION 6: RECOMMENDATIONS

In the context of our literature review, our study sample¹⁵, our analysis of the findings, and on the basis of the broad knowledge and experience of the authors, we suggest the following recommendations for the improvement of ASHAs' performance in India in the categories of Recruitment, Roles and Responsibilities, Training, Incentives and Compensation, and Supervision and Monitoring.

RECRUITMENT (for future ASHA recruitment)

- ◆ Ensure community involvement in selection of ASHAs
- ◆ Ensure ASHA is motivated, has leadership skills, and perhaps most importantly, has the ability to communicate ideas and learnings in a way that is comprehensible and accepted by the community
- ◆ Consider implementing a knowledge test for hiring of new ASHAs
 - Given that mere education level as a recruitment criteria has often not shown to be indicative of a community health worker's capability to perform her work, a brief aptitude test can be considered. Candidates can be provided with brief reading materials in advance, and be tested on these materials to determine comprehension and communication. If proven to be a successful criteria of selection, this may eventually replace the education criteria.
- ◆ Ensure ASHA candidate is fully aware of her roles and responsibilities and the potential financial rewards and future career track
- ◆ Ensure that the appropriate number of ASHAs are in place in order for each ASHAs coverage population to be limited to 1000
 - Develop a mechanism to recruit additional ASHAs as needed in order to keep up with the increasing rural population

ROLES AND RESPONSIBILITIES:

- ◆ Develop a clearly defined, finite list of responsibilities for the ASHA so that she is fully aware of the roles and activities she must fulfil*¹⁶
 - A suggested list of responsibilities and skills needed is included in Appendix 3
 - Ensure that distinct roles and responsibilities are clearly communicated between the ASHA, ANM, and AWW, to avoid overlap and increase efficiency
- ◆ Re-examine responsibilities of ASHAs to streamline responsibilities and maximize benefit (public health, incentives, and otherwise) between other key health workers in area
- ◆ On the other hand, consider expanding the ASHAs role to conduct additional activities that are within her capabilities
 - Consider additional activities that have a significant public health impact, local demand, complement existing outreach, and those that ASHAs express a desire to be

¹⁵ Note that given our sample size of four districts, the quantitative findings have limitations in their representative power and are primarily qualitative.

¹⁶ All recommendations with a "*" symbol are parallel with recommendations from the NHSRC ASHA Programme Evaluation report. As evident, there is a considerable amount of overlap and alignment in the two sets of recommendations.

part of; such activities include, for example, additional focus on disease management, newborn care*, referral for complications, etc.,

- ◆ Consider appointing an additional *female* community worker who is dedicated to nutrition activities, to complement the ASHAs work (*details regarding this recommendation are outlined in our accompanying paper on the integration of health and nutrition*)*

TRAINING:

- ◆ Induction training should be decentralized to the district level to ensure that all new ASHAs receive training before working in the field
- ◆ A full-time training structure and full-time trainers should be implemented in order to ensure that there are no gaps in training in each state.
- ◆ Consider condensing ASHA training modules to a shorter, concise version, given that ASHAs are currently not able to digest the amount of information conveyed in these books
- ◆ During training sessions, include lessons for ASHAs on how to convey complex information in a simplistic manner (in addition to content-based training)
- ◆ Develop and provide ASHAs with pictorial job aids for each key health topic that is easily transportable to help ASHAs during their activities*
 - ASHAs require a very clear, tangible aid in order to assist in their ability to remember key information and clearly communicate this information when doing outreach work
- ◆ Provide a brief, two day refresher training for all ASHAs on a yearly basis with a newly developed, condensed syllabus
- ◆ Implement “ASHA Radio,” an innovation seen in Assam, in all states in order to provide ASHAs with a new and interesting avenue through which they receive on going on-the-job training as well as information about new illnesses and important events
- ◆ Revamp training for use of medical kits, in order to ensure ASHAs are aware of how and when to use each medicine, how to ensure constant supply of medicine, and how to use the medical kit in a way to complement their work*

INCENTIVES/COMPENSATION:¹⁷

- ◆ Provide ASHAs with identity cards and uniforms so as to increase their recognition in the community
- ◆ Increase compensation for travel-related and other miscellaneous expenses
 - Derive an algorithm for providing compensation for travel based on cost of transportation methods and distances to cover; for example, ASHAs in rural areas will have fewer methods of transportation and longer distances to travel
 - Provide compensation for food provided during Village Health and Nutrition Days in order to ensure ASHAs are not paying for this with their own money
 - Provide each ASHA with a bicycle as a potential mode of transportation
- ◆ Provide ASHAs with waiting room facilities at PHCs, CHCs, and Hospitals so that they have a comfortable place to stay when they accompany their patients for institutional delivery*

¹⁷ The NHSRC recommendations for the ASHA programme indicate that ASHAs should be provided a monthly-retainer related to her standard activities, on top of which performance-based incentives should be provided; this thinking aligns with earlier recommendations that have not been included in this paper.

- ◆ Consider providing ASHAs with mobile phones and/or monetary credit for phones in order to increase accessibility and communication between ASHAs and other health workers and supervisors
- ◆ Provide greater monetary incentive for birth spacing
 - For example, provide a monetary incentive for ASHAs who successfully encourage a woman to insert an IUD (intrauterine contraceptive device) within the first month of delivering her first child
 - Consider spacing schemes for families and supporting ASHA for couples to wait before having children
- ◆ Increase monetary incentives for permanent methods of birth control, including tubectomy and non-scalpel vasectomy, and make the incentives equal for both methods
- ◆ Provide monetary compensation for ASHA for each stage of a woman's pregnancy and/or point of service provision for each child a woman delivers, irrespective of pregnancy number*
 - For example, provide monetary incentives for registration of pregnant woman, for each antenatal care visit, and for institutional delivery, to ensure ASHA is compensated throughout the woman's pregnancy
 - Consider providing monetary incentive for home-based newborn follow-up
- ◆ Provide monetary incentives for full immunizations beyond primary immunizations (e.g. boosters, Vitamin A)
- ◆ Ensure all ASHAs have bank accounts
 - During induction training, assist each individual ASHA to create a bank account in her name
 - For incentives, ensure that all payments to ASHAs are made through wire transfer only (no checks or cash payments)
- ◆ Reduce delays in compensation*
 - Ensure all payments are made through wire transfers (eliminate use of check and cash payments)
 - Consider implementing a regular schedule for paying each ASHA; for example, keep a log of all the activities completed during the month and pay each ASHA at the end of the month on a regular basis
 - Provide ASHAs with self-addressed post-cards for them to fill out when they experience delays, or provide a phone number they can SMS to report delays; make someone in the Health department responsible to follow up with compensation delays*
- ◆ Provide increased opportunity for upward movement for ASHAs, in order to motivate engagement and continued performance*
 - For example, consider performance-based bonuses or an increase in incentives for every year of completion
 - Consider enrolling an ASHA into a training school to become an ANM after five years of work and successful recommendations

SUPERVISION AND MONITORING

- ◆ Assign a specific supervisor for ASHAs so that there is specific oversight and monitoring of ASHAs' performance*

- All states should fulfil the current mandate to implement the “ASHA Facilitator” role (as in Assam) as a supervisor who keeps track of ASHAs’ performance
- Given that ANMs have a critical working relationship with ASHAs, it is also imperative that they be provided support to make this relationship an effective one, both in terms of data reporting as well as task defining; for example, ANMs should not only be trained on technical activities, but also on how to manage and follow up on data that they receive from ASHAs
- ◆ Institute a formal review process every six months so that ASHAs performance is monitored and tracked*
 - This can perhaps form the basis for performance/growth related bonuses and upward movement in their careers
 - Ensure that this additional monitoring is done with minimal additional paperwork

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APPENDICES

APPENDIX 1: Incentives and Disincentives for Community Health Workers

CHW incentives and disincentives organized by means of a systems approach		
	Incentives	Disincentives
Monetary factors that motivate individual CHWs	<ul style="list-style-type: none"> Satisfactory remuneration/ material incentives/ financial incentives Possibility of future paid employment 	<ul style="list-style-type: none"> Inconsistent remuneration Change in tangible incentives Inequitable distribution of incentives among different types of community workers
Non-monetary factors that motivate individual CHWs	<ul style="list-style-type: none"> Community recognition and respect of CHW work Acquisition of valued skills Personal growth and development Accomplishment Peer support CHW association Identification (badge, shirt) and job aids Status within community Preferential treatment Flexible and minimal hours Clear role 	<ul style="list-style-type: none"> Person not from community Inadequate refresher training Inadequate supervision Excessive demands/ time constraints Lack of respect from health facility staff
Community-level factors that motivate individual CHWs	<ul style="list-style-type: none"> Community involvement in CHW selection Community organizations that support CHW work Community involvement in CHW training Community information systems 	<ul style="list-style-type: none"> Inappropriate selection of CHWs Lack of community involvement in CHW selection, training, and support
Factors that motivate communities to support and sustain CHWs	<ul style="list-style-type: none"> Witnessing visible changes Contribution to community empowerment CHW associations Successful referrals to health facilities 	<ul style="list-style-type: none"> Unclear role and expectations (preventive vs. curative care) Inappropriate CHW behaviour Needs of the community not taken into account
Factors that motivate MOH staff to support and sustain CHWs	<ul style="list-style-type: none"> Policies that support CHWs Witnessing visible changes Funding for supervisory activities from government and/or community 	<ul style="list-style-type: none"> Inadequate staff and supplies

Source: Bhattacharyya K, Winch P, LeBan K, Tien M (2001). *Community health worker incentives and disincentives: how they affect motivation, retention, and sustainability*. Arlington, Virginia. BASICS/USAID.

APPENDIX 2: Streamlined Roles and Responsibilities for ASHAs

ASHAs should be clearly educated about and held responsible for fulfilling the following roles and responsibilities:

	Roles & Responsibilities	Training Information	Training Skills
1	<p>Create Awareness</p> <ul style="list-style-type: none"> • Health • Nutrition • Basic sanitation, hygienic practices, healthy living and working conditions • Information on existing health services and need for timely utilization of health, • Nutrition and family welfare services 	<ul style="list-style-type: none"> • Personal Hygiene- Bath, Hand washing, Brushing, Footwear, Clean clothes • Clean drinking water • Clean air • Diet- Balanced & Hygienically cooked • Clean home & surroundings • Avoid alcohol, tobacco, Multiple partners • Waste disposal • Information on SC, PHC, CHC, Anganwadi & facilities available • Timely uptake of health services 	<ul style="list-style-type: none"> • Communication skills & organizing a group discussion • Demonstrate hygiene practices & soak pit building • Water purification techniques: Use of Alum/chlorine/Boiling/ Sock solution of bleaching powder • Linkage with staff at health facilities • Pictorial job aids around which stories can be built for capturing attention of audience
2	<p>Counseling</p> <ul style="list-style-type: none"> • Birth preparedness, • Importance of safe and institutional delivery, • Breast-feeding, • Immunization, • Contraception, • Prevention of RTI/STI. • Nutrition and other health issues. 	<ul style="list-style-type: none"> • Importance of registration of pregnancy & ANC: 3 visits (for ANM/ Doctor to monitor progress of pregnancy & growth of Baby, monitor anemia & BP & take iron & calcium supplements) & 2 Tetanus Toxoid Injections (to prevent sepsis) • Immediate referral for pregnant women: Look for signs of PIH (breathlessness, swelling of feet, headaches, blurring of vision & seizures), Excessive weight gain, Bleeding / leaking per vagina during pregnancy & PP, Severe pain in abdomen at any time during pregnancy requires immediate attention • Benefits of JSY & 48hr hospital stay: Important to rule out for any signs of sepsis, fever or bleeding • Importance of Breast milk & Feeding: Colostrum builds immunity, Exclusive breastfeeding for 6 months to prevent infections, Complications of breast feeding remedies for sore nipples & how to express breast milk • Immunization: Schedule, Importance of each vaccine & monitor children till 9 months for measles vaccine • Information on Contraceptive methods: Pills, IUDs, TL, Condoms, Availability & use • Importance of safe abortions: To prevent bleeding, sepsis & infections, Hazards of repeated abortions- 	<ul style="list-style-type: none"> • Communication skills & needs to well versed with local traditions • Pictorial aid / flip charts /BCC materials to support her discussions on Pregnancy & risk factors • Demonstrate correct methods of breast feeding & Breast feeding guides • Flow charts as ready for ANC/PNC & newborn infants care visits • Able to examine a newborn during PNC home visits post-delivery at day 3, 9 & 1 month • Dispense DDK in case of home delivery • Food charts • Demonstrate cooking & feeding techniques to mothers at the AWC & monitor the growth

		<p>spontaneous abortions in future (inability to conceive)</p> <ul style="list-style-type: none"> • Importance of food & type of food needed: During pregnancy (low salt intake if swelling, iron rich foods for anemic), lactation, & for growing children (information on locally available foods rich in calorie & protein that are locally available for malnourished children) 	
3	<p>Mobilization</p> <ul style="list-style-type: none"> • Facilitate to access and avail the health services available in the public health system at Anganwadi Centers, Sub Center, PHC, CHC and district hospitals. 	<p>ASHA to escort children from 3 months to 6 years to the AWC</p>	
4	<p>Escort/ Accompany</p> <ul style="list-style-type: none"> • Escorts the needy patients to the institution for care and treatment. • She will accompany the woman in labor to the institution and promote institutional delivery 	<p>Ability to identify when a referral is required: for Fever > 3 days not responding to PCM, with chills & rigor, seizures, Loss of consciousness, vomiting, delirium, Abdominal Pain Dysentery, Identify signs of dehydration in adults & children, ARI, Prolonged labor / Obstructed Labor</p>	<ul style="list-style-type: none"> • Flowcharts for management of fever, diarrhea, ARI • Able to demonstrate ORS preparations • Have details of referral facilities • Contact numbers for Ambulances & 108
5	<p>Village Health Plan</p> <ul style="list-style-type: none"> • Work with the village Health and sanitation Committee to develop the village health plan 		
6	<p>Provider of Primary Care</p> <ul style="list-style-type: none"> • Minor ailments such as fever, first aid for minor injuries, diarrhea. A drug kit will be provided to ASHA • Provider for DOTS • Depot Holder ORS, IFA, DDK, chloroquine, oral pills and condoms • Care of new born and management of a range of common ailments 	<ul style="list-style-type: none"> • Knowledge on drugs in the kit, most common side effects & contraindications, refills from the PHC/SC • Importance of completion of DOTS, & commonly send side effects of ATT • Signs & symptoms of TB • Refer the patient for F/U sputum examinations • IMNCI Training, intense monitoring & supervision till ASHA are confident. Not in place in Assam 	<ul style="list-style-type: none"> • Reference guide on use of drugs in ASHA drug kit • Facilitate case identification & referral for screening • Compliance of treatment • Flowcharts for management of illness • Knowing when to refer
7	<p>Inform Births, deaths and unusual health problem or disease out break</p>	<p>How to create a list of mothers and children under 5 in the village & constantly update it</p>	<ul style="list-style-type: none"> • Registers to document records or else try to develop electronic systems wherein additions can be made to the master list at a central level via an sms message
8	<p>Promote Construction of household toilets</p>		

APPENDIX 3: Suggested New Roles for ASHAs

Possible New Roles/Activities	High Focus States	Non High Focus States
Mother & Child health		
IMNCI*	Identify critical signs that requires immediate referrals List and contact numbers for referrals	Training and adequate on field supervision of ASHAs to ensure rationale practice along with easy to use memory tools eg flowcharts and pictorial sheets Practice IMNCI & support home based care
Family Planning & Birth Spacing	Create awareness on benefits of birth spacing for families on health (mother and child), finances and education	Create awareness on benefits of birth spacing for families health (mother and child), finances & education Actively promote spacing between children Follow up and support of couples/households practicing spacing
Infectious Diseases		
Malaria*	Create awareness on signs and symptoms of malaria Promote preventive practices (Avoid water collections & use of bed nets) Distribution of ITTN bed nets in endemic areas to pregnant women and children Refer suspected cases	Create awareness on signs and symptoms of malaria Promote preventive practices (Avoid water collections & use of bed nets) Distribution of ITTN bed nets in endemic areas to pregnant women and children Prepare blood slides for suspected malaria cases (Would require training and supervision) Dispense medication and follow up to ensure treatment compliance of confirmed cases
Tuberculosis*	Create awareness on signs and symptoms Promote preventive practices (Sputum examination and immediate treatment) Refer suspected cases to DMC and DOTS treatment centers Follow up with patients on TB treatment to ensure compliance	Create awareness on signs and symptoms Promote preventive practices (Sputum examination and immediate treatment) Refer suspected cases to DMC and DOTS treatment centers Follow up with patients on TB treatment to ensure compliance Act as DOTS providers
Leprosy*	Create awareness on signs and symptoms Refer suspected cases Follow up cases on treatment	Create awareness on signs and symptoms Refer suspected cases Follow up cases on treatment
Chronic Diseases		
Diabetes Mellitus	Can promote awareness in endemic regions	Create awareness on signs and symptoms Promote preventive practices diet and foot /wound care Follow up and support of individuals on treatment
Cardio Vascular Diseases	Can promote awareness in endemic regions	Create awareness on signs and symptoms Promote preventive practices diet & exercise Follow up of cases and referrals when needed
Hypertension	Can promote awareness in endemic regions	Create awareness on signs and symptoms Promote preventive practices diet & exercise Blood pressure measurement training of ASHAs to routinely monitor/ record BP Follow up of cases and referrals when needed

Note: *Roles are already a part of the existing roles and responsibilities of the ASHA however a large majority is not performing these roles due to inadequate training or lack of clarity on roles and responsibilities as was observed from our field survey.

APPENDIX 4: ASHA Questionnaires

- 1) Reference Number:
- 2) Date of Interview:
- 3) Village:
- 4) Tehsil:
- 5) District:
- 6) State:

Personal Information

- 7) Name of ASHA: _____
- 8) Age: _____
- 9) Marital status: Unmarried/ Married/ Widowed/ Divorced/ Separated
- 10) Education:¹⁸ _____
- 11) Literate: R / W/ N¹⁹
- 12) Religion: Hindu/ Muslim/ Other _____
- 13) Caste: Brahmin / OBC/ SC/ ST/Other ²⁰ _____
- 14) Household income: Rs _____/m
- 15) No. of members in your household: _____
- 16) Husband's occupation: _____²¹
- 17) Household type: Nucl./ Extended nucl./ Joint²²
- 18) Does the ASHA work for same village/ village Panchayat she stays in? Y/N
- 19) Month and year of joining ASHA programme: _____, _____ (mm/yy)
- 20) Age (gender) of her current living children (in descending order) _____, _____, _____, _____²³,
- 21) If you have lost any children, at what age did they die (gender)? _____ () _____ () _____ ()²⁴

Duties

- 22) What population size do you serve? _____ b) # of villages covered: 1 / _____ village(s)
- 23) How many households do you visit on an average per week? _____
- 24) How many hours do you work per week as an ASHA? Total: _____ hr; ANC visits: _____; Accompanying women for their delivery: _____; Other _____
- 25) Have you conducted any group talks/ discussion in past 3 months on: (Y/N)
Health _____ Nutrition _____ Sanitation _____ Family planning _____
- 26) How many pregnant women did you register in past 1 year? _____
- 27) Among these, how many did you pay ANC visits before delivery?
At least once _____; 2 visits _____; 3 visits _____; 4 visits; More than 4 _____
- 28) Did you educate mothers on optimal Breastfeeding? Y / N
- 29) Did you starting on starting breastfeeding as soon as possible post- delivery? Y / N
- 30) Out of pregnant women you followed , how many got 1 TT shot? _____, 2 TT shots? _____
- 31) Total number of births you got registered in past 1 year? _____
- 32) How many newborn babies did you visit yourself within 1 week of delivery? _____
- 33) In the past 1 year:

a) Total number of deliveries among women you interacted with professionally?	
---	--

¹⁸ Write down the highest grade passed. If no formal education- write 0.

¹⁹ R= Can read only, W= can read and write both, N= can neither read nor write.

²⁰ SC= Scheduled caste; ST=Scheduled Tribe; OBC=Other Backward caste.

²¹ Some occupations: F (Farms his own fields), FL (Farm laborer), M (Manual laborer other than in the fields), C (Clerk), S (Shopkeeper,) U (Unemployed).

²² Nuclear/ Extended nuclear (with grandparents and unmarried siblings)/ Joint (two or more married siblings in the same household).

²³ Give ages in descending order with age approximated in years (1, 1.5, 2, 2.5...). Enter A if child is less than 1 month old and B if child is between 1 month and 1 year of age. E.g. 5.5(M), 3 (F), A(F)

²⁴ a) Include known miscarriages / spontaneous abortions but not induced abortions (MTPs or menstrual regulation) used as a family planning measure. Write M : if miscarriage; D: if baby dies during labor ; NN: if baby is born alive but dies within first 28 days of life; PN: post neonatal death (after 28 days but within first year). For others write their age at death in years (1, 1.5, 2, 2.5 ...)

b) Write M/F (if known) in the brackets after writing age at death e.g. 3 (F) , NN (M)

b) Of these, how many had home deliveries?	
c) At how many home deliveries, were you present?	
d) How many women did you refer to a government institution for delivery?	
e) Of these, how many did you accompany yourself on their trip to the hospital?	

- 34) Distance to institutional place of delivery where you usually refer patients: _____
- 35) How did they usually travel there?: ___hrs on foot / car / cart
- 36) How much money did you get from the JSY scheme per delivery, on an average ? When?
Rs _____ b) _____²⁵ months after delivery.
- 37) Does anyone demand a cut (part of the incentive) from you as a condition of you getting the money? Doctor/ ANM/
Dai/ MO / Other _____ b) How much _ Rs _____

Coordination with ICDS programme

- 38) Do you have an Anganwadi clinic in your neighborhood? Y/N (If no, proceed to Q 46)
- 39) Facilities provided at that AWW: Nutrition counseling(Y/N)
Nutrition supplementation for: pregnant women (Y/N); lactating women (Y/N); Children < 3 yrs (Y/N); Children 3-6yrs (Y/N)
- 40) How many times in a month do you interact with AWW professionally? ____
- 41) How often do you help the AWW with organizing lectures/ classes on nutrition, immunization, hygiene etc? _____
(T=more than twice weekly ; W= weekly; F=fortnightly; M= monthly, A= every 2-3 months; L= less frequent than that; N=Never)
- 42) Do you provide the AWW with information on pregnant /lactating women in the community? _____(0=No; N= provide statistics but no further details; D= provides details about the women including their names but didn't follow-up; F= follow-up with AWC to see that they attend here.)
- 43) Why do you think that children between 6m- 3 yrs of age don't go to AWC? Mark all that apply. _____
A=Difficulty in access (too far/ no safe road/ need to be accompanied/other) T=
S=No suitable service provided for that age group; N=
Timing inconvenient;
R=Social restriction due to community/ caste etc;
No financial need, can buy good food;
Q=Problem with quality of food;
K=Didn't know about AWW services;

Questions to test ASHAs on their knowledge

Antenatal /postnatal counseling and breastfeeding

- 1) Should a woman's food intake change during pregnancy: N / M/ L
(N= No change/ M= she should eat better than she normally does as she is eating for two / L=she should reduce intake as otherwise the baby will be bigger causing problems during delivery.)
- 2) Is taking vitamin/Iron supplements during pregnancy important? Yes/ No/ don't know
- 3) Do you think a mother is to be blamed if she has a daughter? Y / N
- 4) Should anything be applied on umbilical stump (e.g. mud)? Y / N
- 5) Should initial breast milk (colostrums- yellowish milk) be given to the newborn? ____
(Y=Yes, it is very important; D=Yes, but discard first few drops ; N=No, it is harmful.)
- 6) Is wrapping newborn to keep it warm, especially in winter, important? Y / N
- 7) Should additional supplements like honey/ water be given to a baby who is being normally breastfed, within first three months? Y / N; (b) first six months Y / N;
- 8) Ideally, when should a mother start gradual weaning? Never/ 6 m/ 1 y / 3 y
- 9) Ideally, when should a mother stop breastfeeding completely? Never/ 6 m/ 1 y / 3 y

Child health

- 10) Do you believe that evil spirits will influence health of the child? Y/N

²⁵ Write NA if delivery at home or private clinic. Write Rs 0 after 30 months (time since delivery) if eligible but not yet received money.

- 11) Is mild fever a common side effect of DPT vaccination? Y / N
- 12) Should a baby be taken for immunization if it has high fever? Yes/ No, postpone immunization
- 13) Risk of diarrhea can be reduced by hand washing / keeping food covered/ BCG vaccine?
- 14) A child with diarrhea is being treated at home with ORS. If he cannot pass urine for 8 hours, what do you suggest?
Continue ORS at home/ refer to FRU.
- 15) Should breastfeeding be continued if the baby has diarrhea? Y / N
- 16) If the child has diarrhea, what should you do? N /F/ B
(N= Give neither food nor water; F= Give water but no food; B= Continue both food and water, and take care to prevent dehydration.)

Family Planning

- 17) Oral contraceptives can be used when breastfeeding the child. Y / N
- 18) A new condom is to be used for each sexual act Y / N
- 19) Emergency contraceptive pills are effective even 1 week after unprotected sex? Y / N
- 20) Chances of fertility are maximum at beginning/ middle/ end of menstruation cycle.
- 21) Condom should be used for 3 months after vasectomy Y / N
- 22) Using abortion as routine family planning measure is good. Y / N

General Health

- 23) In cases of sexually transmitted diseases (gonorrhoea), it is necessary to also treat the partner Y/N
- 24) HIV/AIDS spreads by:
 - a) Mosquito bite Y / N
 - b) Unprotected sex with infected partner Y / N
 - c) Infected mother to child Y / N
 - d) Touching Y / N
 - e) Contaminated needles. Y / N
 - f) Blood transfusion with contaminated blood. Y / N
- 25) Tuberculosis has no cure? Agree/ Disagree
- 26) BCG vaccine given at birth offers protection against Tuberculosis? Agree/ Disagree
- 27) What spreads through mosquito bites? Tuberculosis/ Malaria / Cold
- 28) First aid for a dog bite is to wash site of bite thoroughly with soap and water Agree/disagree
- 29) Green leafy vegetables are good for health. Y/N
- 30) Vegetables should be washed before/ after chopping them
- 31) Use of datoun (obtained from plants) to clean teeth is good: Agree/ Disagree
- 32) Using a ladle (handle-cup) to take out drinking water from its vessel is better than dipping your hand in the water: Agree/ disagree.
- 33) Mental illness can be cured by beating the devil out of the patient. Y/N

Roles and responsibilities

- 34) Is the ASHA clear about her roles for:
 1. Provide information about existing health services? (Y / N)
 2. Creating awareness to the community on health, hygiene and nutrition? (Y / N)
 3. Mobilize the community in their access to the health services such as:
 - a) ANC (Ante Natal Care)? (Y / N);
 - b) PNC (Post Natal Check up) (Y / N);
 - c) Immunization? (Y / N)
 - d) Sanitation? (Y / N);
 - e) Illness/Fever? (Y / N)
 4. Counseling women on :
 - a) Birth preparedness and safe delivery? (Y / N)
 - b) New born care? (Y / N)
 - c) Exclusive Breast feeding and complementary feeding? (Y / N)
 - d) Immunization of infants? (Y / N)
 - e) Use of contraceptives/Family planning measures? (Y / N)
 - f) Personal hygiene and sanitation for the mother and child (hand washing etc) (Y / N)

5. Escort/accompany pregnant women or sick children to the nearest health facility? (Y / N)
6. Informing the Sub-centre/PHC/CHC about:
 - a) Births and deaths in the village? (Y / N);
 - b) Outbreak of health problem/disease? (Y / N/ Not required)
7. Promoting construction of household toilets? (Y / N)
8. Promoting hand washing after toilet and before food handling? (Y / N)

Selection of ASHAs

- 35) Were there any focused groups discussions held in your village before selection? Y / N
- 36) How many other candidates, apart from you, were shortlisted candidates for ASHA selection? ____
- 37) Was there a Gram Sabha meeting held during the selection process? Y/N
- 38) Who do you think had a major role in your selection? Entire village/ Village Panchayat or other leaders/ Mainly men in the village / Women in the village only / _____
- 39) Before joining as an ASHA, did you work as a community based worker? Y / N
- 40) For how long? ____

Major factor in your decision to become an ASHA	(If yes, mark in order of importance with 1 as the most important reason; if no, mark 0)	Do they meet your expectations? (0- disappointed, 1- as expected, 2- exceeded expectations)
a) Financial incentives		
a) Opportunity to get more exposure		
a) Wanted to improve health facilities in village		
a) Social prestige		
a) Peer pressure		
a) Other		

Training

- 41) How many full days of training did you get?__ /23
- 42) How many ASHA trainees were there with you in the session? ____
- 43) Did you think it was overcrowded? (Y / N)
- 44) Was there any problem with the language of instruction (Y / N)
- 45) If Yes, in which language was the training conducted _____; Your preference _____
- 46) Was the teacher able to explain clearly? Y / N
- 47) Were you were comfortable clarifying your doubts? Y / N
- 48) Was the teacher competent enough to solve them? Y / N
- 49) Did they use flowcharts, diagrams and other teaching aids? Y / N
- 50) Content of the training: (0-inadequate, 1-appropriate, 2- Excessive, 3-Need refresher training)

	Theory	Practical training	Remarks
a) Pregnancy, childbirth, post natal care			
a) Child health, newborn care			
a) Child health (other than newborn)			
a) Family Planning			
a) Common Diseases			
a) Nutrition			
a) Water , sanitation, personal hygiene			

a) Human Biology			
a) Home remedies			
a) Medicines you commonly use			
a) Responsibilities / Incentives/ Administrative duties			

- 51) Was the commute to training centre less than 6 hours? Y / N
by (foot/ cart / car/ other__)
- 52) Did you get adequate facilities for accommodation and food during the training? Y / N
- 53) If no, what were the problems_____
- 54) Did you receive any compensation for attending training? Y / N How much? Rs_____
- 55) Do you get regular on job training? Y / N
- 56) Who provides it? (ANM/NGO/Other_____)

Refresher training

- 57) Do you get any refresher training? Y/ N/ NA (if ASHA for less than 6 months)
If no/ NA, go to next section.
- 58) Where did you get the training (PHC/sub centre)
- 59) Duration of the training? __
- 60) How often do you get such refresher training? _____
- 61) Ideally, how often would you like it ? monthly/ 3 monthly/ 6 monthly/ annually
- 62) Who provides the training?_____
- 63) Do you get any incentives to attend?_____
- 64) Do they address your difficulties encountered in daily work? Y / N
- 65) What do they cover in these courses?_____
- 66) Ideally, what would you wish to be taught?_____
- 67) Remarks:_____

Drugs

- 68) Do you have a drug kit? Y / N
- 69) How often do you get it restocked? __monthly.
- 70) Is the frequency too less/adequate/ excessive?
- 71) From whom do you get your supply? PHC/ AWW / Other____
- 72) Are the following drugs/ supplies sufficiently available in your kit ? (0 never, 1 rarely, 2 usually, 3 always.)

ORS	Paracetamol
Thermometers	Tab Punarvadu Mandur (Iron)
Oral Contraceptive Pills	Tab. Folic Acid (L)
Condoms	Tab. Dicyclomine
Disposable Delivery kits	Povidine Ointment Tube
Bandages, 4cm X 4 meters	Tab. Chloroquine
Cotton Absorbent Roll	

Payments and incentives

- 73) How do you get these incentives? (As advance or direct payment from the ANM's/From the Sarpanch /From the PHC Medical Officer)
- 74) Do you usually experience a long delay in getting your incentives? Y/N
- 75) Who do you report delays to the ANM/Sarpanch/PHC Medical Officer?
- 76) Do you have a Bank account/ Post Office account/ No account?

- 77) Are you happy with the incentives given under the programme? (Y / N)
 78) Are you demanding regular monthly salary? (Y / N) How much? Rs.____
 79) For which activities do you get performance based incentive?

	Recommended Incentive per case. (Rs)	Cases # per month	Actual incentive received per case. (Rs)	Total Incentive.
Institutional Delivery (JSY)	350 for ASHA & 250 for ref. Transport (rural)			
Motivation for Tubectomy/Motivation for Vasectomy/NSV	150/ 200			
Immunization Session	150			
Pulse Polio Day (full day)	75			
Organizing Village Health Nutrition Day	150			
Toilet promotion, fee	75			
DOTS	250			
Leprosy (Registration/after completion of treatment-PB leprosy cases/after completion of treatment for MB leprosy)	100/200/400			

Miscellaneous

- 80) Whom do you contact if
 a) you have questions about some patient? _____
 b) pregnant women develops sudden complications? _____
 c) disputes regarding performance based incentives? _____
- 81) Are you actively involved with the local Panchayati Raj Institution (PRI)/Village health committee (VHC) in your village? (Y / N)
- 82) Do you receive proper support from the PRI and VHC for:
 a) Creating awareness for health and hygiene among the villagers? (Y / N);
 b) Conduction cleanliness and sanitation programmes? (Y / N);
 c) Construction of households toilets? (Y / N);
 d) Monetary requirements if any? (Y / N);
- 83) Do you have any difficulty if functioning? _____
- 84) Why do you feel people tend not to avail public health services? _____
 Q=Quality of service, K= Not aware, A= Health Services not available, C=Cost, T= Transport issues; O= Other (specify)
- 85) Are you satisfied with your career prospects as an ASHA? Y/N
- 86) Would you like to work as an ANM later on? (Y / N)
- 87) Is there increase in the institutional deliveries in last two-three years? (Y / N)
- 88) If so what are the reasons according to ASHA? _____

APPENDIX 5: Data tables for figures 1 through 9 in results section

DATA for Figure 1: Proportion of ASHA targets in place in selected states.

States	Data as on	In Place	Target (State)	% Achieved
1. Bihar	21-4-10	70,850	87,135	81.3%
2. Chhattisgarh	30-4-10	60,092	60,092	100%
3. Rajasthan	19-6-10	42,496	48,000	88.5%
4. U.P.	31-5-10	136,183	136,268	99.9%

Source: 2010 Earth Institute and IIM-Ahmedabad Survey of State level Officials.

DATA for Figure 2: ASHA reporting on components of their selection process.

Main Elements Reported by ASHA	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
1. FGD being held in Village Before selection	70%	93%	79%	54%
2. More than one candidate Shortlisted	76%	45%	68%	75%
3. Gram Sabha being held During Selection	82%	93%	91%	76%
4. Major role in Selection – Entire Village	61%	88%	50%	63%
– PRI Members	36%	8%	46%	23%
5. ASHAs with Earlier Work- Experience as Community Worker	26%	38%	40%	21%

Source: Earth Institute and IIM-Ahmedabad Field Survey of ASHAs, 2010

DATA for Figure 3: State data on proportion of ASHA completing training modules 1-5

No. of ASHAs	Assam	Bihar	Chhattisgarh	Rajasthan	UP
1. In Place	28798	70850	60092	42496	136183
2. Trained Module I (7 day) (in %)	25975 (90%)	63284 (89%)	NA	40361 (95%)	135191 (99%)
3. Trained Module II (4 days) (in %)	25810 (90%)	30311 (43%)	NA	40361 (95%)	128434 (94%)
4. Trained Module III (4 days) (in %)	25789 (90%)	30311 (43%)	NA	33811 (80%)	128434 (94%)
5. Trained Module IV (4 days) (in %)	25627 (89%)	30311 (43%)	NA	38652 (91%)	12834 (94%)
6. Trained Module V (4 days) (in %)	23278 (81%)	0 (0%)	NA	0 (0%)	0 (0%)

Source: Earth Institute and IIM-Ahmedabad Survey of State level officials.

DATA for Figure 4: Self-reported training received by ASHA

Details	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
1. % ASHAs Receiving Induction Training before joining	93%	100%	100%	94%
2. Av. No of Days of such Training	7	6	12 ²⁶	8
3. % ASHA Getting Regular On the Job Training	91%	100%	99%	95%
- % provided by ANM	90%	74%	88%	81%
- % provided by NGO	7%	18%	9%	13%
- % provided by others (MO, PM, ASHA Co-ord)	3%	8%	3%	6%
4. % ASHA Receiving Additional Training Beyond Induction	64%	96%	91%	80%
6. Av. No. of Days of Additional Training Beyond Induction	3	6	3	12

Source: Earth Institute and IIM-Ahmedabad field survey of ASHAs, 2010.

DATA for Figure 5: ASHA feedback on Training

Details	Bihar	Chhattisgarh	Rajasthan	UP
1. % ASHA thinking that training sessions became overcrowded	82%	33%	28%	2%
2. % ASHA facing Language problem with Training	20%	3%	9%	11%
3. % ASHA thinking that Trainer explained things clearly	98%	98%	99%	97%
4. % ASHA comfortable to clarify doubts	98%	98%	99%	97%
5. % ASHA thinking Trainers were competent to solve their problems	99%	98%	95%	97%
6. % ASHA getting satisfactory accommodation & food	85%	93%	93%	92%
7. % ASHA receiving compensation for Training	94%	96%	100%	98%
8. Average Amount (in Rs.) / ASHA of compensation	667	397	1141	769

Source: Earth Institute and IIM-Ahmedabad field survey of ASHAs, 2010

DATA for Figure 6: Relative distribution of ASHAs by score on knowledge test

	<70% (Fail)	70% - 79% (Satisfactory)	80% - 89% (Good)	90%+ (Very Good)
Bihar	54%	39%	7%	0%
Chhattisgarh	19%	43%	33%	5%
Rajasthan	23%	47%	29%	1%
UP	33%	47%	20%	0%

Source: Earth Institute and IIM-Ahmedabad field survey of ASHA, 2010.

²⁶ In Rajasthan and UP, ASHAs indicate that induction training was longer than the prescribed seven days of training for Module I; the likely reason for this is that they perhaps received training for further modules within their induction training.

DATA for Figures 7: Average Knowledge Test Scores of ASHAs According to Key Selection Criteria and Recruitment Processes

	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
I. No. of ASHA with Education <8 Standard	3	33	2	3
Avg. Knowledge test score (%)	65	76	83	71
<i>Standard deviation of the score</i>	4.51	3.79	0.71	3.79
No. of ASHA with Education 8 to10 Standard	118	75	96	97
Avg. Knowledge test score (%)	69	78	75	72
<i>Standard deviation of the score</i>	3.31	3.20	1.41	3.24
No. of ASHA with Education >10 Standard	14	12	26	23
Avg. Knowledge test score (%)	74	80	80	76
<i>Standard deviation of the score</i>	3.29	2.99	1.41	2.46
II. No. of ASHA selected through FGD	95	111	98	66
Avg. Knowledge test score (%)	70	78	75	74
<i>Standard deviation of the score</i>	3.27	3.39	3.30	3.32
No. of ASHA not selected through FGD	40	9	26	57
Avg. Knowledge test score (%)	69	72	79	72
<i>Standard deviation of the score</i>	3.59	2.70	3.28	2.95
III. No. of ASHA selected through gram sabha	111	111	113	94
Avg. Knowledge test score (%)	70	78	75	74
<i>Standard deviation of the score</i>	3.24	3.48	3.27	3.11
No. of ASHA not selected through gram sabha	24	9	11	29
Avg. Knowledge test score (%)	67	78	83	71
<i>Standard deviation of the score</i>	3.86	1.73	3.12	3.19
IV. No. of ASHA selected from shortlisted candidates	102	54	84	94
Avg. Knowledge test score (%)	69	74	76	73
<i>Standard deviation of the score</i>	3.25	2.79	3.57	3.05
No. of ASHA not selected from shortlisted candidates	33	66	40	29
Avg. Knowledge test score (%)	69	81	75	72
<i>Standard deviation of the score</i>	3.75	3.44	2.80	3.54
V. No. of ASHA who were community worker earlier	35	46	50	26
Avg. Knowledge test score (%)	72	79	75	71
<i>Standard deviation of the score</i>	4.05	2.79	3.51	3.76
No. of ASHA who were not a community worker earlier	100	74	74	97
Avg. Knowledge test score (%)	69	77	77	73
<i>Standard deviation of the score</i>	3.06	3.68	3.19	2.99
VI. No. of ASHA who faced problem with the language of training	25	4	11	13
Avg. Knowledge test score (%)	67	72	75	69
<i>Standard deviation of the score</i>	3.72	2.75	4.13	3.13

No. of ASHA who did not face problem with the language of training	100	116	113	103
Avg. Knowledge test score (%)	70	78	76	73
Standard deviation of the score	3.35	3.38	3.27	3.27

Source: Our field survey of ASHAs, 2010

DATA for Figures 8: ASHA's Interface with the Health System in Selected States

% of ASHAs Reporting	Bihar (n=135)	Chhattisgarh (n=120)	Rajasthan (n=124)	UP (n=123)
1. Getting Drugs from : PHC	86%	82%	98%	98%
AWC	0%	0%	0%	1%
ANM	14%	16%	2%	1%
Other Sources	0%	2%	0%	0%
2. Getting Incentives from : ANM	26%	93%	6%	5%
PRI	0%	0%	2%	2%
PHC	74%	7%	92%	93%
3. Complaining about Delays in Incentives to ANM	21%	93%	6%	12%
PRI Sarpanch	0%	6%	1%	2%
PHC-MO	79%	1%	93%	86%
4. Contacting about Patients' Questions to ANM	32%	67%	60%	20%
PHC-MO	68%	33%	40%	80%
5. Contacting about Problems of Pregnant Women to ANM	60%	78%	52%	40%
PHC-MO	40%	22%	48%	60%
6. Contacting about Disputes on Incentives to ANM	21%	65%	23%	12%
PHC-MO	77%	34%	73%	88%
Others	2%	1%	3%	0%
7. Involvement in Local PRI	71%	89%	94%	93%
8. Proper Support from PRI/VHC for Creating Health Awareness	87%	96%	96%	94%
- Cleanliness and Sanitation	86%	94%	97%	93%

Source: Earth Institute and IIM-Ahmedabad Field Survey of ASHAs, 2010.