Norad

Impact Evaluation of the Norway India Partnership Initiative Phase-II
for Maternal and Child Health

Baseline

Annex B-P

Annex B   NIPI Phase I and II Programme

B.1   NIPI Phase-I Programme

In its 1st Phase, NIPI programme was implemented by United Nations Children's Fund (UNICEF), World Health Organisation (WHO), and United Nations Office for Project Services (UNOPS) in the states of Bihar, Orissa, Madhya Pradesh (MP), and Rajasthan. NIPI Phase-I started in 2006 and will be ending in 2012 and had a budget of NOK 500 million (US $ 81.1 million).

The three strategic focus areas of Phase-I were:

- Quality health services for mothers and children
- Enabling mechanisms for health systems
- Learning and sharing of the lessons for new-born care package

Catalytic support to NRHM has involved a special focus on community-based care, facility based care and immunisation.

Table B.1. Summary of different interventions carried out under NIPI Phase-I along with the implementing partners		
Interventions	**Implementing Partners**	**Sub-Interventions and Other Details**
Immunisation	UNICEF	Strengthen Cold chain and vaccine maintenance system. Training manuals to strengthen the capacity of staff to manage primary and intermediate vaccine stores.
Integrated Management of Neonatal & Childhood Illnesses (IMNCI)	UNICEF	Support Technical Advisory Group meetings for inclusion of HIV/AIDS and facility-based care. Conduct review meetings in Rajasthan, Bihar, and Madhya Pradesh (MP) to accelerate implementation and to improve quality of service delivery. Continued support to national IMNCI resource centres to build the pool of master trainers. Resource pools of additional master trainers were created in five states.
Pre-service IMNCI training for Medical and Nursing students and ANMs	WHO	Institutionalisation of Pre-service training Establishment of a National Nodal Training Centre at Kalawati Saran Children's Hospital to support planning, implementation and capacity building of faculty. Training of faculty of Develop teaching aids for medical colleges. Initiate medical student teaching. Incorporation of Pre-service IMNCI into the curriculum of Nursing and ANM schools Conduct a National level TOT for the Nursing Faculty.
Pre-service and In-service Skilled Birth Attendant Training	WHO	Consultation with Nursing Advisor on developing a Training of Trainers programme for nursing faculty Identification of two nodal institutes at Chandigarh and Kolkata.
Quality Assurance mechanism for Emergency Obstetric Care/Skilled Birth Attendant/LSAS training	WHO	Establish a National nodal centre. Monitoring the quality of the training and supportive supervision in the identified states.
Accreditation for RCH service providers	WHO	Finalise accreditation guidelines for RCH service providers. Mapping of private facilities.

Table B.1. Summary of different interventions carried out under NIPI Phase-I along with the implementing partners

Interventions	Implementing Partners	Sub-Interventions and Other Details
Yashoda / Mamta	State Health Society (SHS)-United Nations Office for Project Services (UNOPS)	Mother's aide in providing care and counselling to the mother in the maternity ward in hospitals with high delivery load. Advices the mother on breastfeeding and immunization and motivates the mother to stay up to 48 hours in the hospital after delivery. This intervention was introduced following Janani Suraksha Yojana (JSY) demand to improve the quality of care for mothers and new-borns Assisted approximately 400,000 mothers and new-born.
Home Based Post -Natal Care (HBPNC)	United Nations Office for Project Services (UNOPS)	Promote improvements in new-born care in the community through home visits in the post natal period by ASHA. The health worker is trained on care and counselling and can identify danger signs in the baby and mother and ensure referral to the hospital. Operationalization through more than 14000 ASHAs in 12 districts in 4 states since 2009-10.
Sick New-born Care Units (SNCUs)	UNICEF	Piloted essential new-born care in five districts of Bihar, three districts in Orissa and one district in UP. In Madhya Pradesh (MP), 16 SNCU have been created.
SNCUs	SHS-United Nations Office for Project Services (UNOPS)	Specialised sick new-born care units established at district level for improving quality of care services in the facility 12 level II SNCUs were to be made operational in the three NIPI districts in the four states. Support to government to establish New-born Stabilising Units (NBSUs) One of the SNCU in each of the district hospital will serve as a training hub for the three SNCUs and subsequently to the rest of the state. SNCU Training and Treatment Centre was piloted in Hoshangabad district in Madhya Pradesh (MP), which serves as district based new-born resource centre. SNCU plus was piloted in 3 districts of Rajasthan - care and follow up of new-borns discharged from facility offering platform for Early Child Care and Development.
Mobile Money Transfer (MMT)		Piloted in Sheikhpura districts of Bihar To improve the timeliness of payments of ASHA incentives
Immunisation	SHS-United Nations Office for Project Services (UNOPS)	Provision of skilled manpower, organizing special drives, taking proactive steps in monitoring, etc. in all the states.
Recruitment and training of Child Health Managers	SHS-United Nations Office for Project Services (UNOPS)	Recruitment and Training of one Deputy Child Health Manager, District Child Health Managers, and Block Child Health Managers.
State Institutes of Health and Family Welfare (SIHFW)	SHS/NIPI secretariat	Placement of the State Child Health Resource Centre (SCHRC) within it to strengthen the institution
NIPI Operations Research	Externals	A study to analyse the socio-cultural determinants of childhood malnutrition in the community and facility level (in collaboration with INCLEN). Operational Research conducted by PHFI and UiO. A study conducted by Fafo and Answers. A study comparing the effect of commercial energy dense food and iso-calorie locally prepared food on weight gain and body composition in children with Severe Acute Malnutrition (in collaboration with ICMR-National Institute of Nutrition). Capacity building of Medical Officers and Nurses in management of Severe Acute Malnutrition (SAM)

Table B.1. Summary of different interventions carried out under NIPI Phase-I along with the implementing partners		
Interventions	**Implementing Partners**	**Sub-Interventions and Other Details**
National Child Health Resource Centre (NCHRC)	United Nations Office for Project Services (UNOPS)	Establishment of a National Child Health Resource Centre with a mandate to be the nodal point for mainstreaming the child health agenda in public health. Assisted the States by facilitating NCHRC and NIHFW to develop technical guidelines based on rounds of discussions and deliberations, field testing and other standard practices by bringing experts in the field together from national bodies such as NNF and the Indian Nursing Council
Management Capacity Development Programs for State, District and Block Health Managers	SHS-United Nations Office for Project Services (UNOPS)	The Indian Institute of Management, Ahmedabad (IIMA) has designed and planned the management curriculum for capacity development of State, District and Block health managers.
Monitoring and evaluation	NIPI Secretariat	The baseline survey for NIPI was undertaken during 2008-2009 in the four focus states with the objectives of identifying gaps in the existing service delivery mechanism, assess needs and opportunities, and develop benchmark indicators for NIPI.

B.2   NIPI Phase-II Programme

The 2nd Phase of the NIPI programme commences in 2013 and is planned to finish in 2017. NIPI Phase-II has the following three overall goals:

- Improve and scale up quality continuum of care interventions at community and facility level in NIPI districts
- Establish a mechanism for sustainable institutional collaboration between Norwegian and Indian public and private institutions in areas related to women's and children's health
- Facilitate dialogue on global health between Norway and India.

B.2.1   Implementing Partners

The main implementing partners in Phase-II will be United Nations Development Programme (UNDP) (since the official integration of United Nations Office for Project Services (UNOPS) within UNDP from 01.04.2013) and Jhpiego (an international, non-profit health organization affiliated with the Johns Hopkins University). The array of activities undertaken by UNDP comes under the umbrella project titled "NIPI New Born Project". Both these partners will contribute towards achieving Goal # 1. While NIPI New Born Project mainly focuses on MDG-4 of reducing child mortality, Jhpiego focusses on MDG-5 of improving maternal health.

Other partners for achieving other primary goals will be identified through competitive bidding processes, as per identified need as the initiative evolves. From Phase-I, UNICEF and United Nations Office for Project Services (UNOPS) (now UNDP) will complete their activities by the end of the year 2013.

B.2.2   Geographic Focus

NIPI Phase-II will continue to focus in the states of Bihar, Madhya Pradesh (MP), Orissa, and Rajasthan. The districts covered in these focus states are the districts from Phase-1 (termed as "NIPI districts"). They are as follows:

<table>
<tr><td colspan="5">**Table B.2.**   **NIPI Focus States Profile**</td></tr>
<tr><th>States</th><th>Bihar</th><th>Madhya Pradesh (MP)</th><th>Odisha</th><th>Rajasthan</th></tr>
<tr><td rowspan="4">Districts</td><td>Jehanabad</td><td>Angul</td><td>Hoshangabad</td><td>Alwar</td></tr>
<tr><td>Nalanda</td><td>Jharsugada</td><td>Betul</td><td>Bharatpur</td></tr>
<tr><td>Sheikhpura</td><td>Sambalpur</td><td>Narsingpur</td><td>Dausa</td></tr>
<tr><td></td><td></td><td>Raisen</td><td></td></tr>
</table>

B.2.3 Interventions under Goal # 1

The activities and interventions undertaken in Phase-II will continue to focus on new-born, child reproductive and maternal health. Under NIPI New Born Project, the interventions can be categorised as scale up support of "NIPI Phase-I Package" and "New Interventions".

- *Scale up support of "NIPI Phase-I Package"* in the NIPI districts of focus states.
- *"New interventions"* to strengthen the district based new-born care package in the NIPI districts of focus states.

The interventions to be carried out under NIPI Phase-II along with the implementing partners responsible for them and geographic focus have been summarised in Table B.3 below.

Table B.3.	Interventions carried out under NIPI Phases 1 and 2	
Implementing Partner	Intervention	Geographic Focus
NIPI New Born Project (UNDP)	Home Based New-born Care (HBNC) – post training support to ASHAs	All districts of focus states
	Yashoda Initiative	All districts of focus states
	Improve Immunisation coverage and quality through management interventions	All districts of focus states
	Improve vaccine stores for lay-out and organisation	All districts of focus states
	State level SNCU cell as a part of MNCH task force/ institutional arrangement	All districts of focus states
NIPI New Born Project (UNDP) – New Interventions	Home Based New-born Care (HBNC) plus: extension of home visits till the child is 1 year old	NIPI districts of focus states
	Special New-born Care Unit (SNCU) -plus: care and follow-ups of new-borns after discharge from SNCUs	NIPI districts of focus states
	SNCU systems related: Upgrade select SNCUs to SNCU Training & Treatment Centres (TTC)	Pan-state coverage for focus states
Jhpiego	Strengthening of pre-service education (PSE) for nursing and midwifery cadre	Pan-state coverage for focus states
	Revitalize and scale up Post-partum Family Planning (PPFP)/ Post-partum Intra Uterine Contraceptive Device (PPIUCD) services	Select CHCs or Block PHCs in NIPI districts of focus states

Annex C Other NIPI Phase-II Interventions – Details, Theory of Change and Evaluation Methodology

This annexure outlines the other two interventions of Sick New-born Care Unit Systems and Pre-Service Education for Midwifery Cadre of NIPI Phase-II programme – the interventions that are not being considered under the impact evaluation exercise using the mixed-methods approach laid out above. These interventions will be evaluated separately and the details of these interventions, their theory of change, and their evaluation methodology has been detailed in this annexure.

C.1 Intervention # 1: Sick New-born Care Unit Systems Related Interventions
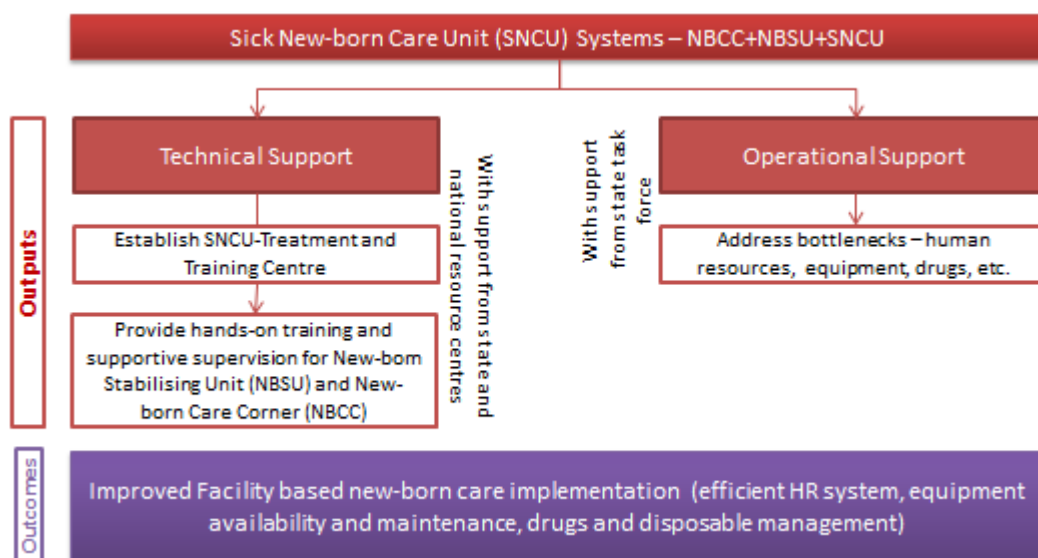
C.1.1 Interventions

The Sick New-born Care Unit (SNCU) comprises New Born Care Corners (NBCCs) at all delivery points, New-born Stabilising Units (NBSUs) at first referral units, SNCUs at district hospitals along with SNCU Training and Treatment Centre (TTC) at district level, State SNCU cell, State Resource Centre and State Task Force.

This intervention relates to upgrading at least one SNCU (already established in NIPI Phase-I) in a State to function as a SNCU-TTC that will provide hands on training and supportive supervision to NBCCs and NBSUs and undertake capacity building with the help of State Resource Centre. The State Task Force along with the NRHM and SNCU Cell will address the bottlenecks of manpower, availability, and maintenance of equipment, drugs and disposables, etc. These State, Regional and National Resource Centres and SNCU-TTC at district level will be supported through NIPI New-born Project team's technical expertise.

One SNCU-TTC (in some states two SNCU-TTCs) will be established at district level for a state. The other sub-interventions involve varying levels of intervention from all delivery points, starting with all block level facilities to district level hospitals due to support given to NBCC and NBSU as well apart from SNCUs.

C.1.2 Theory of Change

The interventions related to SNCU systems aims at improving facility based new-born care implementation especially at building efficient systems for management of human resources and maintenance of equipment and their management along with drugs and disposables management. The outputs of establishing SNCU-TTC at the state level and providing hands-on training and support to NBSU and NBCC and providing operational support to the state government to address bottlenecks and challenges will strive to achieve the objectives set.

Sick New-born Care Unit (SNCU) Systems – NBCC+NBSU+SNCU

Outputs

Technical Support
- Establish SNCU-Treatment and Training Centre
- Provide hands-on training and supportive supervision for New-born Stabilising Unit (NBSU) and New-born Care Corner (NBCC)

With support from state and national resource centres

With support from state task force

Operational Support
- Address bottlenecks – human resources, equipment, drugs, etc.

Outcomes

Improved Facility based new-born care implementation (efficient HR system, equipment availability and maintenance, drugs and disposable management)

C.1.3 Methodology

Evaluation Priority: This intervention related to SNCU systems involves only provision of technical expertise of the implementing partner in order to strengthen health systems. These interventions will have direct impact on the training needs and capacity of these SNCU systems while having indirect impact on maternal and child health early on in the long results chain or causal linkage. Hence, this intervention has been ranked medium priority for evaluation purposes. This intervention remains beneficial for the whole health system, though impact at the population level for health outcome and impact indicators can only be casually linked.

Evaluation Priority   MEDIUM

Methodology: The best approach for measuring the effectiveness of such an intervention is to focus on indicators of inputs, processes, and outputs, together with an **in-depth qualitative study**. Quantitative evaluation techniques to measure effectiveness at outcome levels would be infeasible given the indirect effect of the intervention on outcomes, and the time duration required detecting any measurable change in health outcomes and impacts from the intervention.

C.2 Intervention # 2: Pre-Service Education (PSE) for nursing and midwifery cadre

C.2.1 Interventions

This intervention aims to strengthen the quality of nursing and midwifery pre-service education in the existing institutions of Auxiliary Nurse Midwife (ANM) Training Centres (ANMTCs) and General Nurse Midwife (GNM) Schools in the focus states. State Nodal Centres (SNCs) of excellence will be established at state level to act as a resource centre to steer the process of strengthening the General Nurse Midwife (GNM) schools and ANMTCs in the state.

It aims to improve their educational processes and training infrastructure (i.e. skill labs, libraries, computer labs) by the implementation of the Indian Nursing Council (INC) endorsed performance standards. The process of clinical skill development of GNMs and ANMs students will be strengthened by improving the clinical practice sites of General Nurse Midwife (GNM)

schools and ANMTCs with the concurrent updating of knowledge and standardisation of clinical skills of the faculty and select clinical providers in MNCH interventions.

Teaching skills, MNCH/Family Planning knowledge and clinical skills of the General Nurse Midwife (GNM) and ANM faculty will also be improved with the help of training. The capacity of State Nursing Council will also be strengthened by enabling them to build the accreditation system of the nursing-midwifery institutions based on measurable standards. The assumption underlying such strengthening of training infrastructure at these training schools is that the state government will allocate funds and resources and support the improvement of these infrastructures.

This intervention has been planned to cover all the ANMTCs and General Nurse Midwife (GNM) schools in the four focus states, which are about 150 in all.

C.2.2 Theory of Change
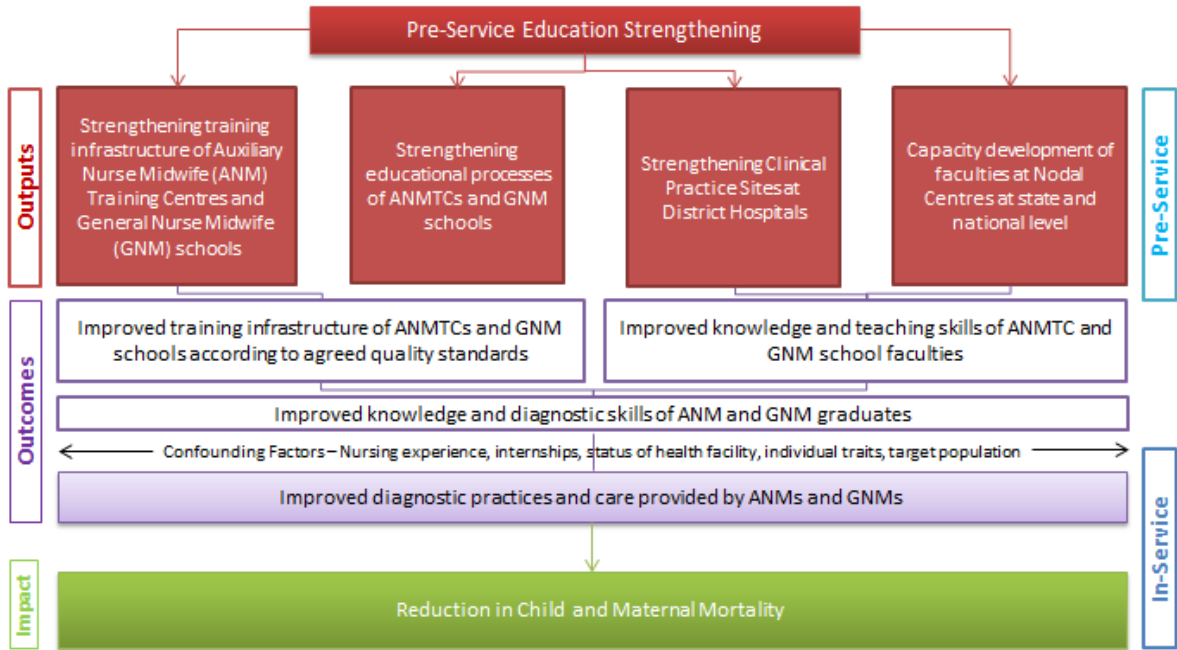
C.2.3 Methodology

Evaluation Priority: This intervention can be seen as working in two distinct stages:

The first component would involve evaluating whether strengthening training infrastructure, educational processes, clinical processes and capacity development of faculty in training centres leads to better quality graduates, as seen by a test administered in the training centres.

As discussed in our partners meeting in April, it was agreed with Jhpiego, that we would initially focus on evaluating the first question during this project period. This is primarily because of the time constraints faced in the project, as the ANM and General Nurse Midwife (GNM) courses are of different lengths – one year and six months of teaching and six months of internship for ANMs and three years of teaching and six months of internship for the General Nurse Midwife (GNM) respectively. This makes it unlikely for a large enough sample of ANMs and GNMs to get absorbed in the workforce by the end of the study period and also their possibility of being

scattered post internships, making it unfeasible to attempt to evaluate the second question during the timeframe set for this evaluation in the Terms of Reference.

Thus, although we can evaluate the direct impact of this intervention on the training capacity of these institutions by strengthening both skills and knowledge of faculty staff and students, its indirect impact on maternal and child health at the end of a long results chain or causal linkage will be infeasible to evaluate within a three year time-frame (although the evaluation would be designed in such a way that it could be revisited beyond the contracted period). Hence, this intervention has been ranked medium priority for evaluation purposes.

Evaluation Priority   MEDIUM

Methodology: Since the intervention is being implemented at State level, only before-and-after comparison will be possible. Finding a counterfactual outside the state will not be appropriate for this evaluation due to systematic differences in the administrative system and decentralisation of health services programme. The inputs, process and output indicators will be monitored and strengthened (including measurement of clinical skills and knowledge levels of students and faculties) with the help of routine monitoring system of the implementing partner and also with the help of the baseline and end line being carried out by the implementing partner among students using objective structured clinical evaluation. An in-depth qualitative study will be conducted involving processes and outputs and including both students and faculty staff.

Data Collection Strategy: Input, process and output indicators will be collected and triangulated with the help of data from the routine monitoring systems of Jhpiego, the implementing partner. Jhpiego will conduct a baseline and six monthly assessments of their training and strengthening programme. The quantitative output evaluation tools for students and faculties conducted at baseline and end line will be incorporated within this system.

Annex D   Key Impact Indicators

This section presents the baseline estimates of the health impact indicators that we are interested for this evaluation which include:

1. Reduction in Total Fertility Rate (TFR)
2. Reduction in Infant Mortality Rate (IMR)
3. Reduction in Neo-natal Mortality Rate (NMR)
4. Reduction in Under 5 Mortality Rate (U5MR)
5. Reduction in mortality after discharge from SNCU
6. Reduction in Unmet Need for post-partum Family Planning
7. Increase in Contraceptive Prevalence Rate (CPR)

A few of the health impact indicators were calculated with the help of the household survey and a few have been calculated and consolidated using secondary data sources.

The impact indicators calculated from secondary sources are presented in Table D.1 and Table D.2. Table D.1 outlines the impacts indicators such as TFR, IMR, NMR, and U5MR from secondary data sources.

Table D.1. Impact Indicators from Secondary Sources – TFR, IMR, NMR and U5MR								
State and Districts	**Total Fertility Rate (TFR)**		**Infant Mortality Rate (IMR)**		**Neo-natal Mortality Rate (NMR)**		**Under 5 Mortality Rate (U5MR)**	
	2012-13[1]	2011-12[2]	2012-13[1]	2011-12[2]	2012-13[1]	2011-12[2]	2012-13[1]	2011-12[2]
Bihar	--	3.6	48	52	32	34	70	73
Nalanda	--	3.4	47	49	23	26	73	77
Jehanabad	--	3.3	47	51	26	31	61	65
Sheikhpura	--	3.7	51	56	23	30	72	75
Lakhisarai	--	3.1	45	50	25	27	62	69
Bhojpur	--	3.1	41	44	25	26	55	57
Samastipur	--	3.8	49	52	34	36	71	74
Madhya Pradesh	--	3.1	62	65	42	43	83	86
Narsimhapur	--	3.2	62	67	41	44	69	75
Hoshangabad	--	2.6	59	63	44	47	68	74
Raisen	--	3.6	69	74	48	51	88	92
Betul	--	2.9	61	64	44	46	70	74
Mandsaur	--	2.2	60	62	39	36	76	82
Dewas	--	2.6	56	57	32	33	76	78
Harda	--	3.0	63	65	41	43	76	79
Vidisha	--	4.0	65	68	48	51	94	97
Orissa	--	2.3	56	59	37	39	75	79
Anagul	--	1.9	48	48	36	32	59	58
Jharsuguda	--	1.9	42	47	34	37	48	55
Sambalpur	--	2.1	47	52	32	32	62	67
Dhenkanal	--	2.4	67	69	46	47	78	80
Balangir	--	2.5	97	98	71	72	111	110
Debagarh	--	2.0	60	62	46	45	76	78
Rajasthan	--	3.1	55	57	37	38	74	76
Alwar	--	2.8	52	56	33	34	74	77

Table D.1.	Impact Indicators from Secondary Sources – TFR, IMR, NMR and U5MR							
State and Districts	**Total Fertility Rate (TFR)**		**Infant Mortality Rate (IMR)**		**Neo-natal Mortality Rate (NMR)**		**Under 5 Mortality Rate (U5MR)**	
Bharatpur	--	3.1	49	52	37	39	70	72
Dausa	--	2.8	53	55	31	32	82	85
Dhaulpur	--	4.1	58	61	38	37	73	74
Jaipur	--	2.7	50	52	35	37	65	68
Dungarpur	--	3.6	63	64	41	41	81	84
Source: 1 – AHS (2012-13); 2 = AHS (2011-12)								

Table D.2 outlines the impacts indicator of Unmet Family Planning Need from secondary data sources. The data was available only at state level.

Table D.2. & CPR	Impact Indicators from Secondary Sources – Unmet Need				
	Bihar	**Madhya Pradesh (MP)**	**Odisha**	**Rajasthan**	**National Average**
Unmet Need for post-partum Family Planning (in %)[1]	22.8	11.1	14.9	14.6	--
Contraceptive Prevalence Rate (CPR) (in %)[1]	34	56	51	47	--
Source: 1 – NFHS-3					

Health impact indicators such as Perinatal Mortality Rate, Infant Mortality Rate, Neo-natal Mortality Rate, Under 5 Mortality Rate (U5MR), and unmet Need for post-partum Family Planning were also derived from the household survey that was conducted as a part of the baseline survey and further compared with the state level NFHS-3 estimates.

IMR and U5MR are both long-standing and widely accepted indicators of a child's wellbeing. A high IMR is an indicator is an indicator of risk of death during the first year of life and is indicative of unmet health needs and unfavourable environmental factors. Although India has realized impressive gains in child health outcomes for few social groups, inequities in the potential for child survival – between low and high socio-economic households persist (NIMS et al, 2012).

As can be noted from Table D.3, the overall NMR is 16 per 1000 live births. Highlighting the case of Madhya Pradesh here, in the annex shows that the treatment districts in the state have 32 as the NMR, whereas in the control districts the figure is 7. The IMR is 23 deaths per 1000 live births and the U5MR is 30. For all three rates, sub-group analysis shows the rates to be higher for Scheduled Castes than the Scheduled Tribes, and similarly the statistic is higher for the poorest wealth quintile as compared to the second poorest wealth quintile.

Table D.3. Children – Neo-natal Mortality Rate (NMR), Infant Mortality Rate (IMR) & Under-5 Mortality Rate (U5MR)[19]

Indicator	Treatment	n	Control	n	Overall	n
Neo-natal Mortality Rate (NMR)						
Total	19	5160	13	5295	16	10455
	[0.004]		[0.003]		[0.003]	
Scheduled Caste	19	1271	16	1309	17	2580
	[0.006]		[0.006]		[0.004]	
Muslim	8	278	7	265	7	543
Poorest Wealth Quintile	26	1218	20	1252	23	2470
Second-Poorest Wealth Quintile	15	1129	12	1110	13	2239
	[0.004]		[0.005]		[0.003]	
Infant Mortality Rate (IMR)						
Total	28	5160	19	5295	23	10455
	[0.005]		[0.003]		[0.003]	
Scheduled Caste	29	1271	25	1309	27	2580
	[0.007]		[0.006]		[0.005]	
Muslim	43	278	7	265	26	543
Poorest Wealth Quintile	39	1218	26	1252	32	2470
Second-Poorest Wealth Quintile	26	1129	20	1110	23	2239
	[0.006]		[0.006]		[0.004]	
Under-5 Mortality Rate (U5MR)						
Total	34	5160	27	5295	30	10455
	[0.005]		[0.004]		[0.003]	
Scheduled Caste	31	1271	34	1309	33	2580
	[0.007]		[0.008]		[0.005]	
Muslim	48	278	14	265	32	543
Poorest Wealth Quintile	48	1218	35	1252	41	2470
Second-Poorest Wealth Quintile	34	1129	29	1110	31	2239
	[0.007]		[0.007]		[0.005]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

The unmet need for family planning at programme level is approximately 13.7 per cent[20]. The unmet need for family planning is higher for control districts (15.9 per cent) than for treatment districts (14.7 per cent). The indicator is worse for SCs, 1st and 2nd wealth quintile population for both treatment and control districts as indicated in Table D.4. Amongst treatment districts, Bihar has the highest level of unmet need for family planning (23.7 per cent) while Rajasthan is worse with regard to control districts (20.9 per cent). Across different populations, Bihar fares worse especially amongst SC, ST, Muslim and poorest two wealth quintile populations followed by Rajasthan.

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[19] Neo-natal Mortality Rate, Infant Mortality Rate and Under-5 Mortality Rate are calculated for the total number of births every woman in the sample has had. Thus, the figure of 10, 455 represents the total number of births a woman has had pooled across the sample.
[20] The calculation of unmet family planning need excludes women who have had contraceptive failure and women are post-partum amenorrheic.

Table D.4. Impact Indicators – Programme Level – Unmet Need for Family Planning

Indicator	Treatment	n	Control	n	Overall	n
Unmet need for family planning [21]	14.7%	4680	15.9%	2340	13.7%	2340
	[0.009]		[0.014]		[0.010]	
Scheduled Caste	14.2%	1065	16.2%	527	12.5%	538
	[0.017]		[0.027]		[0.021]	
Scheduled Tribe	9.5%	604	9.6%	319	9.5%	285
Muslim	14.3%	4462	15.8%	2228	13.0%	2234
	[0.009]		[0.015]		[0.011]	
Poorest Wealth Quintile	15.1%	920	17.6%	444	13.3%	476
Second-Poorest Wealth Quintile	15.3%	923	17.0%	475	13.8%	448
	[0.017]		[0.025]		[0.021]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

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[21] For the calculation of the indicator 'Unmet need for family planning', the numerator constitutes women who are 'currently' (that is, at the time of the survey) not using any family planning method. The numerator would include women who are neither pregnant nor less than 6 months post-partum amenorrheic and say they want to wait at least two years for their next birth, or say they do not know whether they want another child or when they want the next child. It also includes women who are pregnant and who say that the current pregnancy was wanted later, as well as women who are less than six months postpartum amenorrheic and who say that the last birth was wanted later. The denominator used for this indicator is 'currently married women'.

Annex E   Evaluation and Baseline Details

The baseline survey preparation and data collection was conducted in partnership with Sambodhi Research and Communications.

E.1   Conceptual Framework
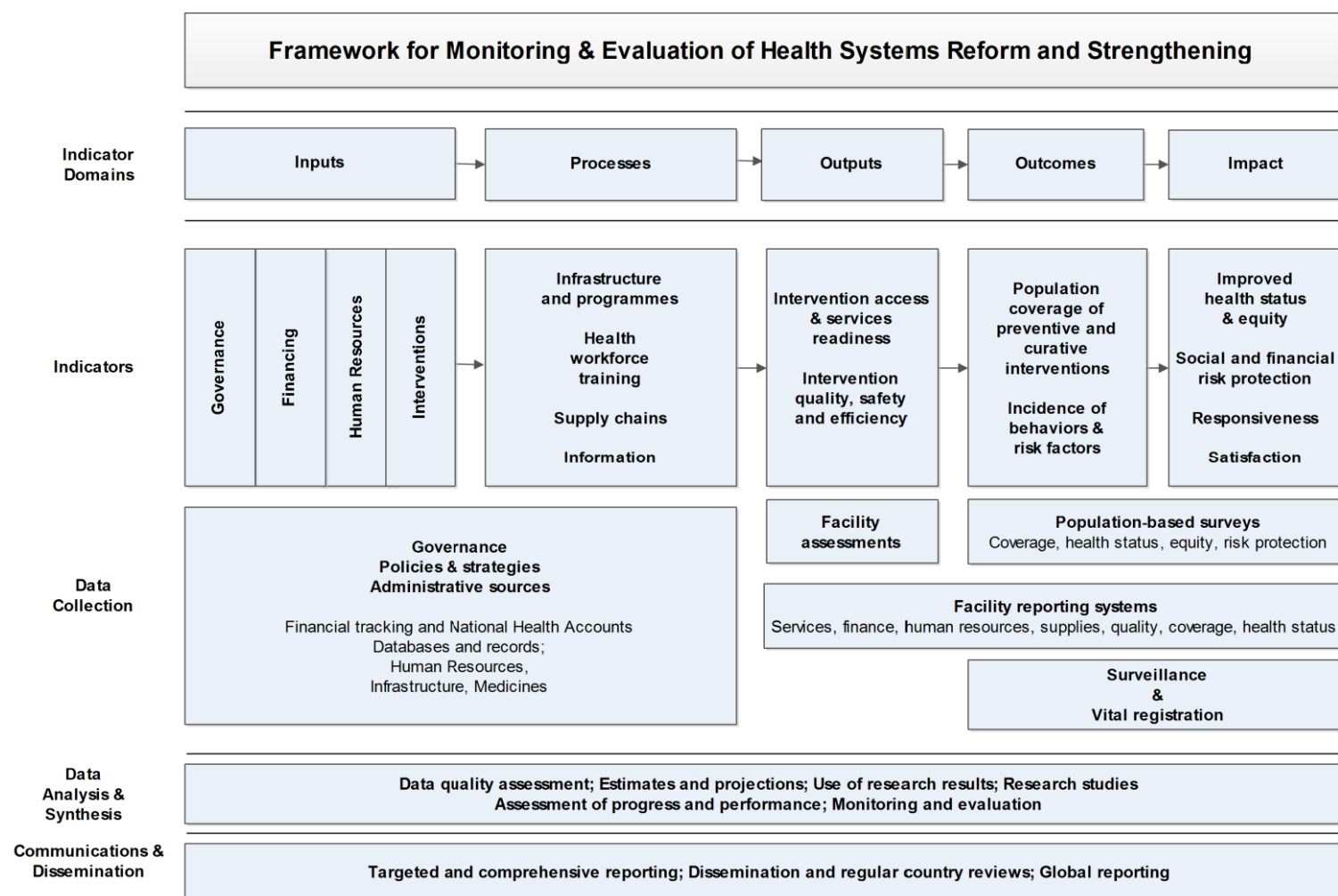
E.2   Qualitative Tools – For Evaluation

Qualitative research methods used for the assignment are as follows:

Table E.1.   Details of Qualitative Tools used for Evaluation

Interventions	Qualitative Tools used	Target groups	Areas of investigation	Baseline	End line	Baseline - Sample size Calculations	End line - Sample size Calculations (for treatment districts)
Home Based New-born Care Plus (HBNC+)	Focus Group Discussions	Mothers of children aged 2 years or below	Understand improved diagnostic capacity of mothers of danger signs Understand improved and increased communication and play and health practices with children	√	√	2 FGDs/district x 13 districts for 4 states = **26 FGDs**	2 FGDs/district x 13 districts for 4 states = **26 FGDs**
	In-depth interviews Direct observation	ASHAs	Improved knowledge and diagnostic skills about new-born care Delivery of services related to new-born care Appropriateness of training and other barriers to improvements in service delivery	√	√	2 IDIs (1 IDI per ASHA)/district x 13 districts for 4 states = **26 IDIs** 3 Direct Observations/ASHA) x 26 ASHAs for 4 states = **78 DOs**	2 IDIs (1 IDI per ASHA)/district x 13 districts for 4 states = **26 IDIs** 3 Direct Observations/ASHA) x 26 ASHAs for 4 states = **78 DOs**
Sick New-born Care Unit Plus (SNCU+)	In-depth interviews	Mothers of children aged 2 years or below	Compliance with discharge instructions of sick or treated new-borns Increase in knowledge and awareness about healthy practices, danger signs and their treatment		√	X	2 IDIs (1 IDI per mother)/district x 13 districts for 4 states = **26 IDIs**
	In-depth interviews Direct observation	ANMs (and/or ASHAs)	Improved knowledge and diagnostic skills about sick new-born care Delivery of services related to sick new-born care	√ (only IDIs)	√	2 IDIs (1 IDI per ANM)/district x 13 districts for 4 states = **26 IDIs**	2 IDIs (1 IDI per ANM)/district x 13 districts for 4 states = **26 IDIs** 3 Direct Observations/ANM) x 26 ANMs for 4 states = **78 DOs**
Sick New-born Care Unit	In-depth interviews	Medical officers and	Implementation of facility based new-born care		√	X	1 IDI/SNCU-TTC per state for 4 states = **4 IDIs**

Table E.1. Details of Qualitative Tools used for Evaluation

Interventions	Qualitative Tools used	Target groups	Areas of investigation	Baseline	End line	Baseline - Sample size Calculations	End line - Sample size Calculations (for treatment districts)
Systems Related Interventions		staff nurses at NBSUs, NBCCs and SNCUs	Identification of bottlenecks in HR, equipment management and maintenance and drugs and disposable management				
Strengthening Supportive Supervision for RMNCH+A strategy	In-depth interviews	Supervisors	Management and supportive supervision for health programs Supervisory visits Vaccine management		√	X	1 IDI/Supervisor per state for 4 states = **8 IDIs**
Pre-Service Education (PSE) for nursing and midwifery cadre	Focus Group Discussions	ANM and General Nurse Midwife (GNM) students	Improved knowledge and clinical and diagnostic skills		√	X	1 FGD/ANMTC per state for 4 states = **4 FGDs** 1 FGD/GNM School 4 states = **4 FGDs**
	In-depth interviews	ANMTCs and General Nurse Midwife (GNM) school faculties	Improved knowledge and clinical skills Development and strengthening of training infrastructure		√	X	2 IDIs/ANMTC (1 IDI per faculty member) for 4 states = **8 IDIs** 2 IDIs/GNM school (1 IDI per faculty member) for 4 states = **8 IDIs**
Revitalise and scale-up PPIUCD/PPFP services	In-depth interviews Direct observation	Medical Health professionals at block level, sub-divisional and district health facilities and medical colleges	Improved knowledge and skills about family planning methods	√	√	2 IDIs (1 IDI per ASHA)/district x 13 districts for 4 states = **26 IDIs** 3 Direct Observations/ASHA x 26 ASHAs for 4 states = **78 DOs**	2 IDIs (1 IDI per ASHA)/district x 13 districts for 4 states = **26 IDIs** 3 Direct Observations/ASHA x 26 ASHAs for 4 states = **78 DOs**
	Focus Group Discussions	Mothers of children aged 2 years or below	Knowledge and awareness about family planning methods	√	√	X	3 IDIs/state for 4 states = **12 IDIs**
						2 FGDs/district x 13 districts for 4 states = **26 FGDs**	2 FGDs/district x 13 districts for 4 states = **26 FGDs**

E.3 Sampling Weights

Sampling weights are the inverse of the likelihood or the probability of being sampled. In a non-random sample where the likelihood of being sampled depends on the criteria of sampling design, sampling weight makes the sample more representative of the population. The sampling weights inflate the impact of those under-represented, and deflate the impact of those who ore over-represented so that the original population is approximated. When N is the total population of an element and n is the total sample population of an element, then sampling is the inverse of the probability of an element being selected i.e. 1/(n/N).

Sampling weights were calculated for baseline data analysis. These were calculated for each level of sampling which were further used to assign sampling weight to each household that was surveyed.

The sampling weight for each household was calculated in the following manner:

- **Probability of a sub-district being selected for a district (P1)** = Total number of selected sub-districts within a district / Total number of sub-districts within a district

- **Probability of a PSU being selected for a sub-district (P2)** = (Total number of PSUs selected per sub-district x Total number of households per PSU) / Total number of households per sub-district

- **Probability of a household being selected within a PSU (P3)** = Total number of selected households per PSU / Total number of listed households meeting our sampling criteria

- Hence, the **sampling weight for each observation or household = 1 / (P1 x P2 x P3)**

The **sampling weight for each PSU in the sample = 1 / (P1 x P2).**

Sampling weight for each frontline health worker: Regarding the health worker survey, one health worker was interviewed from each PSU, hence, PSU level sampling weights were used to analyse baseline data for frontline health workers i.e. ASHAs.

E.4 Baseline Survey Details

Household Listing

Before the baseline data collection, listing of households was conducted in the sampled PSUs. The duration of the training for household listing was 2 days. During this training, listing protocols were explained and practice sessions were held. The content included how to identify and distinguish between households and structures and segment the PSU into sections.

After two days of listing training, the actual listing exercise for Bihar, Madhya Pradesh and Rajasthan was conducted between 23rd November 2013 and 17th December 2013. In Odisha, baseline survey listing training was conducted on 11-12 December 2013. Subsequently, the listing exercise started from 13 December 2013.

Baseline Survey – Household Survey

Baseline survey training for Bihar, Madhya Pradesh, and Rajasthan lasted for 14 days and was organized from 18 November 2013 to 2 December 2013 that included two days of field practice. Main fieldwork, covering three states and twenty districts, started from 4 December 2013 and concluded on 4 January 2014 in these states.

The strength of the fieldwork team for the above three states was 10 supervisors and 40 enumerators, with one supervisor for every 4 enumerators (comprising one field team).

Training for the quantitative tools was conducted during 20 December 2013 to 4 January 2014 after which the teams started data collection in Odisha in the first week of January 2014. The field team consisted of 5 supervisors and 38 enumerators.

Baseline Survey – Qualitative Study

Qualitative survey training for Madhya Pradesh (MP), Bihar, and Rajasthan was conducted over 4 days starting with one day for field practice. The qualitative fieldwork meant only for the treatment districts began on 6 December 2013. There were two qualitative survey teams, each with 4 enumerators and 1 supervisor i.e. 4 note takers and 4 moderators in total.

Qualitative survey training in Odisha, similar to the other three states, took place for five days including a day of field practice, starting on 29 December 2013. Fieldwork started on 3 January 2014. The fieldwork team comprised of 5 enumerators (3 note takers and 2 moderators) and 1 supervisor.

Baseline Survey – SNCU+ Follow up survey

The timeline for the SNCU data collection was structured for March-April 2014 since the routine monitoring data had to be strengthened to be able to duly follow up with discharged new-borns. For the states of Bihar, Madhya Pradesh, and Rajasthan, the training duration for the quantitative tool was 3 to 7 March 2014 with fieldwork beginning on 10 March until 13 April 2014.

In Odisha, training for the same survey tool took place in the first week of April 2014 with fieldwork starting from 6 April 2014 that went on for 10 days.

The **sample size of the SNCU+ Follow up survey was at least 30 new-borns admitted to each SNCU** across 13 NIPI districts in 4 states. However, since SNCUs were not operational in two focus districts of Bihar (Jehanabad and Sheikhpura), sample size for the state of Bihar reduced in total as no discharged new-borns could be traced for these districts.

The total sampled sick new-borns admitted to SNCUs across 11 districts is 449 as more than 30 sick new-borns were traced and surveyed for this exercise.

Annex F   NIPI Focus State Characteristics

F.1   Bihar

The state of Bihar is situated in eastern India with a total population of 103.8 million out of which 13 million are Scheduled Castes (SCs). 88.7 per cent of the population still lives in rural areas (Census 2011). The crude birth rate is 27.7 (national average is 21.8) while crude death rate is 6.7 (SRS 2011). Sex ratio is 916 which is much lower than the national average of 940 while the child sex ratio fares better than national average at 933 (Census 2011). The total literacy rate is 63.8 per cent while literacy among females is approximately 53.3 per cent (lower than national average for both total and female population) (Census 2011).

According to the DLHS – 3 (2007-08), 59.6 percent of women aged 20-24 years reported birth order of 2 and above, and 44.4 percent of the women with two children reported not wanting more children (indicator based on currently married women aged 15-44 years). In terms of current use of family planning methods, 32.4 percent women reported using one method, and the most used method was female sterilization (25 percent) while condom usage was reported only by 1.4 percent of the respondents. The total unmet need for family planning was the highest among the four focus states at 37.2 percent. In terms of quality of family planning services, an important indicator was that only 7.8 percent currently married non-users ever received counselling by health personnel to adopt family planning. The percentage of women receiving 3 or more antenatal check-ups was very low at 26.4 percent. Out of the women whose last pregnancy outcome was live/still birth during reference period, only 27.7 percent were institutional deliveries.

Moving on to health programmes and facilities, DLHS-3 reported that 73.6 percent of the villages in Bihar had beneficiaries under Janani Suraksha Yojana, and Village Health and Sanitation Committees (VHSCs) were formed only in 1.7 percent of the villages. About 91 percent of the sub-centres in Bihar had ANMs. Nearly 86 percent of the Primary Health Centres (PHCs) had new born care services. At the Community Health Centre (CHC) level, only 40.9 percent of them had obstetrician/ gynaecologist, 87.9 percent were designated as FRUs.

F.2   Madhya Pradesh

The state of Madhya Pradesh lies in central India with a population of 72.6 million out of which 12.2 million are Scheduled Tribes (STs). 72.4 per cent of the population still lives in rural areas (Census 2011). The crude birth rate is 26.9 (national average is 21.8) while crude death rate is 8.2 (SRS 2011). Sex ratio is 930 which is lower than the national average of 940 while the child sex ratio is comparable to the national average at 912 (Census 2011). The total literacy rate is 70.6 per cent while literacy among females is approximately 60 per cent (lower than national average for both total and female population) (Census 2011).

According to the DLHS – 3 (2007-08), 44.5 percent of women aged 20-24 years reported birth order of 2 and above, and 56.1 percent of the women with two children reported not wanting more children (indicator based on currently married women aged 15-44 years). In terms of current use of family planning methods, 56.4 percent women reported using any method, and the most used method was female sterilization (45.1 percent) while condom usage was reported only by 4.6 percent of the respondents. The total unmet need for family planning was low at 19.3 percent. In terms of quality of family planning services, an important indicator was that only 20.1 percent currently married non-users ever received counselling by health

personnel to adopt family planning. The percentage of women receiving 3 or more antenatal check-ups was very low at 26.4 percent. Out of the women whose last pregnancy outcome was live/still birth during reference period, only 47.1 percent were institutional deliveries – the highest among the four focus states.

Moving on to health programmes and facilities, DLHS-3 reported that 91.3 percent of the villages in Madhya Pradesh (MP) had beneficiaries under Janani Suraksha Yojana, and Village Health and Sanitation Committees (VHSCs) were formed in 36.1 percent of the villages. About 90 percent of the sub-centres in Madhya Pradesh (MP) had ANMs. Nearly 88 percent of the Primary Health Centres (PHCs) had new born care services. At the Community Health Centre (CHC) level, only 15.8 percent of them had obstetrician/ gynaecologist, and 61.4 percent were designated as FRUs. The last two are the lowest figures among the four focus states.

F.3   Odisha

The state of Odisha is in the east coast of India with a population of 41.9 million out of which 8.1 million are Scheduled Tribes (STs). 83.3 per cent of the population still lives in rural areas (Census 2011). The crude birth rate is 20.1 (national average is 21.8) while crude death rate is 8.5 (SRS 2011). Sex ratio is 978 which is much higher than the national average of 940 and so is the child sex ratio which also fares better than national average at 934 (Census 2011). The total literacy rate is 73.5 per cent while literacy among females is approximately 64.4 per cent (lower than national average for both total and female population) (Census 2011).

According to the DLHS – 3 (2007-08), only 39.6 percent of women aged 20-24 years reported birth order of 2 and above, and 57.9 percent of the women with two children reported not wanting more children (indicator based on currently married women aged 15-44 years). In terms of current use of family planning methods, 47 percent women reported using any method, and the most used method was female sterilization (25.6 percent) while pill usage was reported substantially higher than other states at 9 percent of the respondents. The total unmet need for family planning was low at 24.0 percent. In terms of quality of family planning services, an important indicator was that only 18.1 percent currently married non-users ever received counselling by health personnel to adopt family planning. The percentage of women receiving 3 or more antenatal check-ups was the highest at 54.6 percent. Out of the women whose last pregnancy outcome was live/still birth during reference period, only 44.3 percent were institutional deliveries – the highest among the four focus states.

Moving on to health programmes and facilities, DLHS-3 reported that only 51 percent of the villages in Odisha had beneficiaries under Janani Suraksha Yojana, and Village Health and Sanitation Committees (VHSCs) were formed in 3.3 percent of the villages. About 78.1 percent of the sub-centres in Odisha had ANMs – the lowest across the 4 states. Only 55.4 percent of the Primary Health Centres (PHCs) had new born care services – again the lowest amongst the four states. At the Community Health Centre (CHC) level, 87.3 percent of them had obstetrician/ gynaecologist, and 53.7 percent were designated as FRUs.

F.4   Rajasthan

The state of Rajasthan is situated in western India with a population of 68.6 million out of which 9.7 million are Scheduled Castes (SCs). 75.1 per cent of the population still lives in rural areas (Census 2011). The crude birth rate is 26.2 (national average is 21.8) while crude death rate is 6.7 (SRS 2011). Sex ratio is 926 which is much lower than the national average of 940 and so is the child sex ratio which also fares worse than national average at 883 (Census 2011).

The total literacy rate is 67.1 per cent while literacy among females is approximately 52.7 per cent (lower than national average for both total and female population) (Census 2011).

According to the DLHS – 3 (2007-08), only 45.9 percent of women aged 20-24 years reported birth order of 2 and above, and 56 percent of the women with two children reported not wanting more children (indicator based on currently married women aged 15-44 years). In terms of current use of family planning methods, 57 percent women reported using any method, and the most used method was female sterilization (40.5 percent) while condom usage was the highest than in other states at 8.3 percent of the respondents. The total unmet need for family planning was low at 17.9 percent. In terms of quality of family planning services, an important indicator was that only 21.8 percent currently married non-users ever received counselling by health personnel to adopt family planning. The percentage of women receiving 3 or more antenatal check-ups was 27.7 percent. Out of the women whose last pregnancy outcome was live/still birth during reference period, only 45.5 percent were institutional deliveries.

Moving on to health programmes and facilities, DLHS-3 reported that only 95.7 percent of the villages in Rajasthan had beneficiaries under Janani Suraksha Yojana, and Village Health and Sanitation Committees (VHSCs) were formed in 10 percent of the villages. About 86.5 percent of the sub-centres in Rajasthan had ANMs. Nearly 94.2 percent of the Primary Health Centres (PHCs) had new born care services – the highest amongst the four states. At the Community Health Centre (CHC) level, only 29.9 percent of them had obstetrician/ gynaecologist, and 52.7 percent were designated as FRUs.

Table F.1.	NIPI Focus States Profile: General Demographics				
	Bihar	Madhya Pradesh (MP)	Odisha	Rajasthan	National Average
Total Population (in million) [1]	103.8	72.6	41.9	68.6	1210.1
SC Population[1]	13	9.1	6.1	9.7	166.7
ST Population[1]	0.8	12.2	8.1	7.1	843
Rural Population (in %)[1]	88.7	72.4	83.3	75.1	68.8
Crude Birth Rate[2]	27.7	26.9	20.1	26.2	21.8
Crude Death Rate[2]	6.7	8.2	8.5	6.7	7.1
Sex Ratio[1]	916	930	978	926	940
Child Sex Ratio[1]	933	912	934	883	914
Total Literacy Rate (in %)[1]	73.4	70.6	73.5	67.1	74
Female Literacy Rate (in %)[1]	53.3	60	64.4	52.7	65.5
Source: 1 – Census 2011; 2 – SRS 2011; 3 – DLHS-3 (2007-08)					

Table F.2.	NIPI Focus States Profile: Fertility, Family Planning, Antenatal Care, Delivery, Child Immunization, Child Feeding Practices and Treatment of Childhood Diseases				
	Bihar	Madhya Pradesh (MP)	Odisha	Rajasthan	National Average
Indicators based on currently married women (age 15-44)[3]					
Fertility					
Births to women during age 15-19 out of total births (%)	8.2	5.2	4.6	4.7	5.6
Women age 20-24 reporting birth of order 2 & above (%)	59.6	44.5	39.6	45.9	48.4
Women with two children wanting no more children (%)	44.4	56.1	57.9	56.0	65.2

Table F.2.	NIPI Focus States Profile: Fertility, Family Planning, Antenatal Care, Delivery, Child Immunization, Child Feeding Practices and Treatment of Childhood Diseases				
	Bihar	Madhya Pradesh (MP)	Odisha	Rajasthan	National Average
Mean children ever born to women age 40-44 years	5.3	4.5	3.8	4.4	3.9
Current use of family planning methods					
Any method (%)	32.4	56.2	47.0	57.0	54.0
Any modern method (%)	28.4	53.1	37.8	54.0	47.1
Female sterilization (%)	25.0	45.1	25.6	40.5	34.0
Male sterilization (%)	0.3	0.8	1.0	0.5	1.0
Pill (%)	1.1	1.9	9.0	3.2	4.2
IUD (%)	0.4	0.5	0.3	1.4	1.9
Condom (%)	1.4	4.6	1.8	8.3	5.9
Any traditional method (%)	3.6	2.9	8.6	2.8	6.7
Rhythm/Safe period (%)	2.6	2.2	4.8	1.7	4.6
Couple using spacing method for more than 6 months (%)	1.9	5.0	9.2	9.6	9.2
Ever used Emergency Contraceptive Pills (ECP) (%)	0.1	0.4	0.5	0.5	0.6
Total unmet need for family planning[3]	37.2	19.3	24.0	17.9	21.3
Quality of family planning services[3]					
Currently married non-users who ever received counselling by health personnel to adopt family planning (%)	7.8	20.1	18.1	21.8	15.9
Current users ever told about side effects of family planning methods (%)	15.2	31.1	12.6	21.1	17.6
Users who received follow-up services for IUD/sterilization within 48 hours (%)	73.5	74.9	88.0	62.3	76.4
Antenatal care (based on women whose last pregnancy outcome was live/still birth during the reference period) [3]					
Mothers who received any antenatal check-up (%)	59.3	61.8	84.1	56.6	75.2
Mothers who had three or more Ante-Natal Care (%)	26.4	34.2	54.6	27.7	49.8
Mothers who had at least one tetanus toxoid injection (%)	58.4	60.4	82.4	55.0	73.4
Mothers who consumed 100 IFA Tablets (%)	46.5	49.9	47.9	53.5	46.6
Delivery care (based on women whose last pregnancy outcome was live/still birth during reference period) [3]					
Institutional delivery (%)	27.7	47.1	44.3	45.5	47.0
Safe Delivery (%)	31.9	50.1	50.9	52.7	52.7
Mothers who received post-natal care within two weeks of delivery (%)	26.2	37.7	30.6	38.2	49.7
Mothers who received financial assistance for delivery under Janani Suraksha Yojana (JSY) (%)	9.7	34.9	31.9	31.9	13.3
Child Immunization[3]					
Children 12-23 months fully immunized (%)	41.4	36.2	62.4	48.8	54.0
Children 12-23 months not received any vaccination (%)	1.6	9.5	2.0	12.0	4.5
Child feeding practices (based on last-born children) (%)[3]					
Children under 3 years breastfed within one hour of birth	16.2	43.1	63.7	41.9	40.5
Children age 0-5 months exclusively breastfed	38.4	51.5	54.5	65.6	46.8

Table F.2.	NIPI Focus States Profile: Fertility, Family Planning, Antenatal Care, Delivery, Child Immunization, Child Feeding Practices and Treatment of Childhood Diseases				
	Bihar	Madhya Pradesh (MP)	Odisha	Rajasthan	National Average
Children age 6-35 months exclusively breastfed for at least 6 months	11.8	31.1	42.6	25.4	25.5
Children age 6-9 months receiving solid/semi-solid food and breast milk	61.4	39.6	59.8	43.7	57.1
Treatment of childhood diseases (based on last two surviving children born during the reference period) [3]					
Children with diarrhoea in the last 2 weeks who received ORS (%)	22.0	29.9	49.0	30.6	34.2
Children with diarrhoea in the last 2 weeks who sought advice/treatment (%)	73.7	63.9	60.5	59.7	70.6
Children with acute respiratory infection or fever in last 2 weeks who sought advice/treatment (%)	78.8	68.5	66.9	75.6	77.4
Source: 1 – Census 2011; 2 – SRS 2011; 3 – DLHS-3 (2007-08)					

Table F.3.	NIPI Focus States Profile: Public Health Facilities				
	Bihar	Madhya Pradesh (MP)	Odisha	Rajasthan	National Average
Health programmes at village level[3]					
Villages having beneficiary under Janani Suraksha Yojana (JSY) (%)	73.6	91.3	51.0	95.7	73.7
Village where Health and Sanitation Committee formed (%)	1.7	36.1	3.3	10.0	28.7
Village where Pradhan/Panchayat member aware of untied fund (%)	2.2	26.8	11.1	29.3	29.4
Infrastructure, staff and services at Sub-Centre[3]					
Sub-Centre with ANM (%)	91.2	90.2	78.1	86.5	90.7
Infrastructure, staff and services at Primary Health Centre (PHC) [3]					
PHCs having newborn care services (%)	85.8	88.2	55.4	94.2	86.8
PHCs having referral services for pregnancies/delivery (%)	71.0	67.7	39.0	31.5	55.2
PHCs conducted at least 10 deliveries during last one month (%)	84.9	82.1	26.4	44.2	49.9
Infrastructure, staff and services at Community Health Centre (CHC) [3]					
CHCs having Obstetrician/Gynaecologist (%)	40.9	15.8	87.3	29.9	25.2
CHCs having 24 hours normal delivery services (%)	90.9	99.6	79.0	98.9	90.0
CHCs designated as FRUs (%)	87.9	61.4	53.7	52.7	52.0
CHCs designated as FRUs offering caesarean section (%)	18.8	17.7	15.5	38.0	18.7
Source: 1 – Census 2011; 2 – SRS 2011; 3 – DLHS-3 (2007-08)					

Annex G Sampled PSU Characteristics

G.1 Demographics

The mean total population of the sampled PSUs (Primary Sampling Unit) in this survey is 1935.2. The control districts of the sample have a greater mean population (1998.4), than the treatment districts (1864.2). From the overall sub-group analysis, it can be noted that 46.8 per cent of the overall population is female, 18.1 per cent is Scheduled Caste, 12.8 per cent is Scheduled Tribe, 3.6 per cent is Muslim population, and 1.5 per cent of this population is homeless.

 On an average, slightly more than 331 households were covered per PSU. Looking at the treatment and control district households, a greater percentage of Scheduled Caste (18.8 per cent), Scheduled Tribe (14.3 per cent), Muslim (5.1 per cent) and landless (1.9 per cent) households come from the treatment households.

In the sampled PSUs, the three main occupation groups across the treatment and control districts of all 4 states are owned agriculture/shared agriculture to be (94 per cent of PSUs), agriculture labour (66 per cent of PSUs) and non-agriculture labour (58.9 per cent of PSUs).

Table G.1. PSU – Demographics						
Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean population						
Total	1864.2	154	1998.4	155	1935.2	309
	[122.054]		[132.838]		[90.603]	
Female	47.0%	154	46.7%	155	46.8%	309
	[0.003]		[0.005]		[0.003]	
Scheduled Caste	17.4%	154	18.7%	155	18.1%	309
	[0.016]		[0.015]		[0.011]	
Scheduled Tribe	12.9%	154	12.8%	154	12.8%	308
	[0.020]		[0.023]		[0.015]	
Muslim	4.3%	154	3.0%	155	3.6%	309
	[0.010]		[0.006]		[0.006]	
Homeless	1.5%	154	1.5%	154	1.5%	308
	[0.004]		[0.005]		[0.003]	
Mean households						
Total	298.8	154	359.3*	154	330.8	308
	[21.276]		[26.801]		[17.261]	
Scheduled Caste	18.8%	154	18.5%	154	18.7%	308
	[0.016]		[0.015]		[0.011]	
Scheduled Tribe	14.3%	154	11.7%	154	12.9%	308
	[0.025]		[0.021]		[0.016]	
Muslim	5.1%	154	2.8%	154	3.9%	308
	[0.013]		[0.006]		[0.007]	
Landless	1.9%	154	0.0%	154	2.1%	308
	[0.005]		[0.011]		[0.006]	
Main occupation groups						

Table G.1.	PSU – Demographics					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Owned agriculture/ Shared agriculture	89.6%	154	97.8%***	155	94.0%	309
	[0.029]		[0.009]		[0.014]	
Agriculture labour	60.2%	154	71.2%	155	66.0%	309
	[0.051]		[0.042]		[0.033]	
Non-agriculture labour	68.3%	154	50.5%***	155	58.9%	309
	[0.046]		[0.050]		[0.035]	
Migrant worker	44.2%	154	37.9%	155	40.9%	309
	[0.052]		[0.049]		0.94	
Petty Business/Shopkeeper	8.9%	154	15.5%	155	12.4%	309
	[0.028]		[0.036]		[0.023]	
Service Holder	26.3%	154	18.9%	155	22.4%	309
	[0.047]		[0.038]		[0.030]	
Others	2.0%	154	7.0%**	155	4.7%	309
	[0.011]		[0.018]		[0.011]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%;
** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

G.2 Infrastructure

Table G.2 highlights the indicators for infrastructure in a PSU. About thirteen per cent of overall PSUs report the presence of a sewerage facility. In the treatment districts, this figure is 6.3 per cent and for control districts, it is 18.6 per cent. This difference is statistically significant at 5 per cent level. According to state-wise disaggregation, a huge gap exists between the lowest figure for PSUs with a sewerage facility for Bihar's treatment districts (1 per cent) and the highest figure (32.1 per cent, statistically significant at 5 per cent level) for the same indicator is reported for control districts in Rajasthan. In Odisha, there is not much difference between the percentage of treatment PSUs with a sewerage facility (12 per cent) and control PSUs with a sewerage facility (12.2 per cent).

Across sampled PSUs, on an average, 17.1 per cent of total households have hand-pumps, 19.3 per cent in treatment districts, and 15.1 per cent (statistically significant at 1 per cent level of significance) in control districts. In the sampled PSUs, approximately twenty four per cent of households have toilets.

In Madhya Pradesh's treatment districts, 6.6 per cent (statistically significant at 5 per cent) of households in a PSU have hand-pumps. Almost 49 per cent of the households in the treatment PSUs of Bihar have hand-pumps and the figure is 59.5 per cent in Bihar's control PSUs. Whereas in Rajasthan, 5.2 per cent of households in treatment PSUs have a hand-pump and 7.1 per cent households in its control PSUS have a hand-pump. With regard to toilet facilities,

the highest proportion (33. 4 per cent) of households having a toilet is in the treatment PSUs of Madhya Pradesh, and the lowest proportion (12. 5 per cent) is in Odisha's control PSUs.

Overall, the mean number of households per government hand-pump installed in any sampled PSU is 35.2. The data for two states should be highlighted here; in Bihar on average, there are 19.9 households per government hand-pump in the treatment PSUs. The figure is 46.7 (statistically significant at 1 per cent level of significance) households in the control PSUs. In addition, in Madhya Pradesh, on average, there are 29.4 households per government hand-pump in the treatment PSU and 42.4 (statistically significant at 10 per cent level) in the control PSUs.

A high percentage of sampled PSUs report 'Yes' when asked about the presence of electricity; this figure was 97.2 per cent of PSUs in treatment districts and 95.8 per cent of PSUs in control districts. With regard to the status of electricity, from the overall percentage of PSUs that have electricity (96.4 per cent), data shows that for 57.9 per cent of PSUs, electricity is available for more than 12 hours a day. For 32.2 per cent of PSUs, electricity is available for 6-12 hours and for 7.8 per cent of PSUs electricity is available for less than 6 hours a day. For 2.1 per cent of the PSUs, availability of electricity had an irregular pattern.

Moreover, 0.5 per cent of PSUs in treatment districts report that electricity is present 'Only in some areas'. According to state-wise analysis, in both treatment and control districts of Madhya Pradesh and Odisha, 100 per cent PSUs report 'Yes' to presence of electricity'. In Bihar, for the treatment districts, the figure is 86.9 per cent and for control districts it is 83.4 per cent. In Rajasthan, 100 per cent of PSUs have electricity in treatment districts and 94.9 per cent of PSUs have electricity in control districts.

Discussing the status of roads, 80.7 per cent of all the sampled PSUs report road access 'in all areas' and 18.2 per cent report road access 'in some areas'. The values for this indicator ranged from about 77 per cent of PSUs in Madhya Pradesh (control districts) to about 90 per cent of PSUs in Odisha (treatment districts). For the indicator of road access 'in some areas' the lowest figure was 11 per cent of PSUs in the control districts of Bihar and the highest was 22.7 per cent of PSUs in the control districts of Odisha. With regard to type of road ('*kuchcha*' and *'pukka'* road), Bihar, Madhya Pradesh and Odisha do not have much difference between figures for treatment and control districts for each type of road. However, the state of Rajasthan has an interesting story to tell; 81.2 per cent of PSUs in the treatment districts and 99.4 per cent (statistically significant at 5 per cent) of PSUs in the control districts have '*pukka*' roads. Moreover, 18.8 per cent of PSUs in treatment districts and 0.6 per cent of PSUs in control districts have '*kuchcha*' roads.

Table G.2.	PSU – Infrastructure					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
PSUs with a sewerage facility (%)						
Yes	6.3%	154	18.6%***	154	12.8%	308
	[0.019]		[0.039]		[0.023]	
Only in some areas	0.7%	154	5.4%*	154	3.2%	308
	[0.003]		[0.024]		[0.013]	
Households with (%)						
Hand pumps	19.3%	154	15.1%***	154	17.1%	308
	[0.024]		[0.020]			

Table G.2.   PSU – Infrastructure

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Toilets	24.2%	154	23.7%	154	23.9%	308
	[0.027]		[0.023]		[0.018]	
Mean number of Households per Government Hand pump	30.1	153	39.8	153	35.2	306
	[1.769]		[3.126]		[1.855]	
PSUs with electricity (%)						
Yes	97.2%	154	95.8%	155	96.4%	309
	[0.014]		[0.019]		[0.012]	
Only in some areas	0.5%	154	0.0%	155	0.2%	309
	[0.005]		[0.000]		[0.002]	
Available for less than 6 hours per day	6.5%	148	9.0%	148	7.8%	296
	[0.021]		[0.019]		[0.014]	
Available for 6-12 hours per day	29.9%	148	34.2%	148	32.2%	296
	[0.048]		[0.046]		[0.033]	
Available for more than 12 hours per day	60.4%	148	55.6%	148	57.9%	296
	[0.049]		[0.046]		[0.033]	
Irregular pattern	3.1%	148	1.2%	148	2.1%	296
	[0.019]		[0.008]		[0.010]	
PSUs with road access (%)						
In all areas	81.4%	154	80.0%	154	80.7%	308
	[0.046]		[0.044]		[0.032]	
In some areas	18.3%	154	18.0%	154	18.2%	308
	[0.046]		[0.040]		[0.031]	
None	0.3%	154	1.9%	154	1.2%	308
	[0.003]		[0.019]		[0.010]	
Kuchcha road	24.5%	153	21.6%	154	23.0%	307
	[0.046]		[0.042]		[0.031]	
Pukka road	75.5%	153	78.4%	154	77.0%	307
	[0.046]		[0.042]		[0.031]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%;
** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Overall data across the four states shows that the distance to the nearest town for 23.1 per cent of PSUs is between 0 to 5 kilometres, for 26.3 per cent the distance is 5-10 kilometres and for the rest 50.5 per cent the distance is more than 10 kilometres. The range across state-wise treatment and control districts shows the highest figure to be reported in Bihar's control districts where 39.7 per cent PSUs are at a distance of 0-5 kilometres from the nearest town. The lowest is in Rajasthan's treatment districts where 12.4 per cent of the PSUs are at a distance of 0-5 kilometres from the nearest town. Almost 58 per cent of PSUs in the control district of Madhya Pradesh are at a distance of more than 10 kilometres from the nearest town. Additionally, only 22.4 per cent of PSUs in the control districts of Bihar are at a distance of more than 10 kilometres from the nearest town.

Approximately 91 per cent of PSUs report that they are at a distance of 0 to 5 kilometres from the nearest Gram Panchayat. In the treatment districts across all four states, 89.1 per cent of PSUs in Bihar are at a distance of 0 to 5 kilometres, 92.1 per cent PSUs in Madhya Pradesh, 74.2 per cent PSUs in Odisha, and 100 per cent PSUs in Rajasthan are at the same distance from the nearest Gram Panchayat.

Table G.3. PSU – Distance to Nearest Town, Gram Panchayat, District Headquarters						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Distance to nearest town (%)						
0-5 kilometres	20.1%	154	25.7%	155	23.1%	309
	[0.028]		[0.035]		[0.043]	
5-10 kilometres	30.2%	154	22.9%	155	26.3%	309
	[0.032]		[0.048]		[0.042]	
More than 10 kilometres	49.8%	154	51.1%	155	50.5%	309
	[0.034]		[0.049]		[0.046]	
Distance to nearest Gram Panchayat (%)						
0-5 kilometres	92.7%	154	89.8%	155	91.2%	309
	[0.020]		[0.025]		[0.031]	
5-10 kilometres	6.4%	154	4.8%	155	5.6%	309
	[0.017]		[0.025]		[0.022]	
More than 10 kilometres	0.9%	154	5.1%*	155	3.1%	309
	[0.012]		[0.005]		[0.023]	
Distance to nearest District Headquarters (%)						
0-5 kilometres	1.0%	154	5.5%**	154	3.4%	308
	[0.011]		[0.009]		[0.020]	
5-10 kilometres	6.0%	154	5.4%	155	5.7%	308
	[0.015]		[0.018]		[0.024]	
More than 10 kilometres	92.9%	154	89.1%	154	90.9%	308
	[0.017]		[0.020]		[0.027]	
Distance to nearest railway station (%)						
0-5 kilometres	16.2%	154	19.2%	154	17.8%	308
	[0.023]		[0.031]		[0.033]	
5-10 kilometres	20.8%	154	9.1%***	154	14.6%	308
	[0.026]		[0.043]		[0.029]	
More than 10 kilometres	63.0%	154	71.8%	154	67.7%	308
	[0.030]		[0.044]		[0.040]	
Distance to nearest bus station (%)						
0-5 kilometres	70.4%	154	66.1%	154	68.1%	309
	[0.033]		[0.048]		[0.046]	
5-10 kilometres	16.8%	154	16.6%	155	16.7%	309
	[0.028]		[0.039]		[0.040]	
More than 10 kilometres	12.8%	154	17.3%	155	15.2%	309
	[0.024]		[0.032]		[0.036]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

Almost all the PSUs in the treatment and control districts across all the four states have a primary and a middle school within a 0 to 5 km range. Approximately 82 per cent of the PSUs have a secondary school within 0 to 5 km range from PSUs. A little above 50 per cent of the PSUs have a higher secondary school within a 5 km radius. Majority of the PSUs have a college or *'madarasa'* more than 5 km away.

Table G.4.	PSU – Distance to Nearest Education Facilities					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Distance to nearest Primary School (%)						
0-5 kilometres	100.0%	154	98.7%	155	99.3%	309
	[0.000]		[0.010]		[0.005]	
5-10 kilometres	0.0%	154	1.0%	155	0.5%	309
	[0.000]		[0.010]		[0.005]	
More than 10 kilometres	0.0%	154	0.3%	155	0.2%	309
	[0.000]		[0.003]		[0.002]	
Distance to nearest Middle School (%)						
0-5 kilometres	96.3%	154	97.2%	154	96.8%	308
	[0.021]		[0.015]		[0.013]	
5-10 kilometres	3.7%	154	2.8%	154	3.2%	308
	[0.021]		[0.015]		[0.013]	
Distance to nearest Secondary School (%)						
0-5 kilometres	83.8%	154	79.8%	154	81.7%	308
	[0.037]		[0.044]		[0.029]	
5-10 kilometres	10.7%	154	15.6%	154	13.3%	308
	[0.029]		[0.039]		[0.025]	
More than 10 kilometres	5.5%	154	4.6%	154	5.0%	308
	[0.027]		[0.023]		[0.018]	
Distance to nearest Higher Secondary School (%)						
0-5 kilometres	59.2%	154	57.9%	155	58.5%	309
	[0.048]		[0.051]		[0.035]	
5-10 kilometres	26.8%	154	29.6%	155	28.3%	309
	[0.046]		[0.050]		[0.034]	
More than 10 kilometres	14.0%	154	12.2%	155	13.0%	309
	[0.036]		[0.031]		[0.024]	
Distance to nearest College (%)						
0-5 kilometres	18.9%	154	17.4%	155	18.1%	309
	[0.040]		[0.038]		[0.028]	
5-10 kilometres	32.2%	154	27.3%	155	29.6%	309
	[0.047]		[0.044]		[0.032]	
More than 10 kilometres	48.9%	154	55.0%	155	52.1%	309
	[0.052]		[0.048]		[0.035]	
Distance to nearest Madarasa (%)						
0-5 kilometres	17.9%	154	29.0%*	155	23.8%	309
	[0.036]		[0.046]		[0.030]	
5-10 kilometres	21.7%	154	13.6%	155	17.4%	309
	[0.047]		[0.033]		[0.028]	
More than 10 kilometres	60.3%	154	57.4%	155	58.8%	309
	[0.053]		[0.050]		[0.036]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors.						

Table G.4.	PSU – Distance to Nearest Education Facilities					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Baseline Survey 2013*						

Difficulties in access to PDS shops, banks, markets etc. could limit the extent to which a household can meet its daily requirements of food, cash, or other items of use. Approximately 55 per cent of the PSUs have Public Distribution System (PDS) Shops. Furthermore, the status of PDS shops is worse for treatment districts of Rajasthan (43.7 per cent) and Odisha (47.4 per cent). In Rajasthan, the difference between proportions of PSUs with PDS shops in control districts from the treatment districts is statistically significant at 5 per cent. Less than 20 per cent of the PSUs are served by a bank or a cooperative society or has a market or bazaar. The presence of banks, cooperative societies or market or bazaar is worse for both treatment and control districts of Odisha followed by Rajasthan.

Table G.5.	PSU – Other Infrastructure					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
PDS Shops						
Yes (%)	53.3%	154	56.5%	154	55.0%	308
	[0.054]		[0.050]		[0.037]	
Mean number per PSU	0.7	153[22]	0.8	154	0.7	307
	[0.071]		[0.075]		[0.052]	
Bank Branches/ Credit Cooperatives						
Yes (%)	12.1%	154	17.0%	155	14.7%	309
	[0.029]		[0.031]		[0.021]	
Mean number per PSU	0.2	153	0.2	155	0.2	308
	[0.044]		[0.043]		[0.031]	
Market/Bazaar						
Yes (%)	16.2%	154	11.0%	155	13.5%	309
	[0.033]		[0.024]		[0.020]	
Mean number per PSU	0.2	153	0.1	155	0.1	308
	[0.037]		[0.025]		[0.022]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

G.3 Health Infrastructure and Status of Natural Calamities and Epidemics

Easy access to health facilities is an important determinant for the population to take up more health services or actively follow up on the referral advice by ASHAs or ANMs. More than 60

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[22] The sample size is 153 and not 154 due to missing data for one treatment PSU.

per cent of the PSUs are located more than 10 km away from a Nutrition Rehabilitation Centre (NRC). The proportion of PSUs with an NRC within 5 km radius is significantly higher in control programme area than treatment at 1 per cent. Less than 50 per cent of the programme area has a Primary Health Centre (PHC), an additional Primary Health Centre (APHC), private nursing home or hospital or government dispensary within 5 km radius. This would have an adverse impact on the number of women who would deliver at a health facility and receive intensive counselling as under PPFP intervention. Nearly 89 per cent of the programme area has a district hospital, which is more than 10 km away.

Table G.6.	PSU – Distance to Nearest Health Facilities					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Distance to Nutrition Rehabilitation Centre (%)						
0-5 kilometres	14.7%	154	26.8%***	155	21.1%	309
	[0.033]		[0.035]		[0.024]	
5-10 kilometres	23.1%	154	10.2%**	155	16.3%	309
	[0.045]		[0.028]		[0.026]	
More than 10 kilometres	62.2%	154	63.0%	155	62.6%	309
	[0.050]		[0.041]		[0.032]	
Distance to Primary Health Centre (Primary Health Centre (PHC)) (%)						
0-5 kilometres	42.8%	154	48.0%	155	45.5%	309
	[0.051]		[0.052]		[0.036]	
5-10 kilometres	40.3%	154	22.9%***	155	31.1%	309
	[0.053]		[0.040]		[0.033]	
More than 10 kilometres	17.0%	154	29.1%**	155	23.4%	309
	[0.034]		[0.049]		[0.031]	
Distance to Additional Primary Health Centre (PHC) (%)						
0-5 kilometres	35.5%	154	28.6%	155	31.8%	309
	[0.046]		[0.046]		[0.033]	
5-10 kilometres	28.1%	154	22.1%	155	24.9%	309
	[0.047]		[0.041]		[0.031]	
More than 10 kilometres	36.4%	154	49.3%*	155	43.2%	309
	[0.044]		[0.049]		[0.033]	
Distance to District (Government) Hospital (%)						
0-5 kilometres	2.0%	154	4.6%	155	3.4%	309
	[0.012]		[0.018]		[0.011]	
5-10 kilometres	7.5%	154	8.6%	155	8.1%	309
	[0.021]		[0.029]		[0.018]	
More than 10 kilometres	90.4%	154	86.8%	155	88.5%	309
	[0.024]		[0.032]		[0.020]	
Distance to Government Dispensary (%)						
0-5 kilometres	17.8%	154	20.1%	155	19.0%	309
	[0.042]		[0.042]		[0.030]	
5-10 kilometres	24.2%	154	13.0%**	155	18.3%	309
	[0.045]		[0.035]		[0.028]	
More than 10 kilometres	58.0%	154	66.9%	155	62.7%	309
	[0.053]		[0.047]		[0.035]	
Distance to Government Medical College (%)						
0-5 kilometres	33.3%	154	25.7%	155	29.3%	309

Table G.6. PSU – Distance to Nearest Health Facilities

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.048]		[0.041]		[0.032]	
5-10 kilometres	6.7%	154	8.8%	155	7.8%	309
	[0.026]		[0.030]		[0.020]	
More than 10 kilometres	60.0%	154	65.4%	155	62.9%	309
	[0.051]		[0.047]		[0.034]	
Distance to nearest Private Clinic (%)						
0-5 kilometres	53.3%	154	49.2%	155	51.1%	309
	[0.048]		[0.047]		[0.034]	
5-10 kilometres	25.9%	154	25.4%	155	25.6%	309
	[0.042]		[0.046]		[0.031]	
More than 10 kilometres	20.8%	154	25.4%	155	23.3%	309
	[0.039]		[0.043]		[0.029]	
Distance to nearest Private Hospital / Nursing Home (%)						
0-5 kilometres	24.2%	154	22.9%	155	23.5%	309
	[0.048]		[0.037]		[0.030]	
5-10 kilometres	32.7%	154	22.1%*	155	27.1%	309
	[0.048]		[0.040]		[0.031]	
More than 10 kilometres	43.0%	154	55.0%*	155	49.4%	309
	[0.046]		[0.046]		[0.033]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

While almost all the treatment and control districts report having an ASHA (96.4 per cent), Anganwadi Centres (AWCs) (98 per cent) and Anganwadi Workers (AWWs) (98 per cent), only less than half of the PSUs have a sub-centre (43.5 per cent). The mean number of ASHAs in control districts in Bihar is 2.3, which are significantly higher than 1.6 in treatment districts at 5 per cent. The estimates in other states are comparable with the programme level estimates.

Table G.7. PSU – Frontline Health and Nutrition Workers and Centres

Indicator	Treatment[23]		Control		Overall	
	Mean	n	Mean	n	Mean	n
Accredited Social Health Activists						
Yes (%)	95.6%	154	97.1%	154	96.4%	308
	[0.020]		[0.014]		[0.012]	
Mean number per PSU	1.4	153	1.4	154	1.4	307
	[0.083]		[0.072]		[0.055]	
Sub-Centres						
Yes (%)	37.7%	154	48.7%	154	43.5%	308
	[0.050]		[0.048]		[0.035]	

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[23] The sample size is 153 and not 154 due to missing data for one treatment PSU.

Table G.7. PSU – Frontline Health and Nutrition Workers and Centres

Indicator	Treatment[23]		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Mean number per PSU	0.4	153	0.5*	154	0.5	307
	[0.051]		[0.052]		[0.037]	
Anganwadi Centres						
Yes (%)	97.8%	154	98.1%	154	98.0%	308
	[0.016]		[0.012]		[0.010]	
Mean number per PSU	1.5	153	1.6	154	1.6	307
	[0.076]		[0.080]		[0.055]	
Anganwadi Workers						
Yes (%)	97.9%	154	98.0%	154	98.0%	308
	[0.014]		[0.008]		[0.008]	
Mean number per PSU	1.4	153	1.6	154	1.5	307
	[0.074]		[0.075]		[0.053]	
Rural Medical Practitioners						
Yes (%)	34.3%	154	40.2%	154	37.4%	308
	[0.048]		[0.047]		[0.034]	
Mean number per PSU	0.7	153	0.7	154	0.7	307
	[0.111]		[0.092]		[0.071]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%;
** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

There were three diseases that were significantly more prominent in PSUs in the programme area – malaria (12.2 per cent), chicken pox (11.2 per cent) and to some extent pneumonia (8.0 per cent). The occurrence of pneumonia in control districts was significantly lower than its occurrence in treatment districts at 1 per cent.

The main calamities that have affected these PSUs are floods, cyclones, droughts, and hailstorm. Floods in control districts of Bihar (18.7 per cent) are significantly higher than treatment ones at 5 per cent. Rajasthan being a partly desert state was not affected by floods. Drought was also more prominent in Bihar (54.4 per cent in treatment districts) followed by Odisha. In the year 2013, Cyclone Phailin affected majority of the districts in Odisha[24].

Table G.8. PSU – Presence of Natural Calamities and Epidemics

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**N**
Any epidemic/disease outbreak reported in PSUs (%)						
Cholera	3.4%	154	3.7%	155	3.6%	309
	[0.016]		[0.022]		[0.014]	
Malaria	13.8%	154	10.8%	155	12.2%	309
	[0.035]		[0.025]		[0.021]	

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[24] Cyclone Phailin, as per sources, was the second most tropical cyclone to have hit India and according to state government sources affected nearly 12 million people.

Table G.8.	PSU – Presence of Natural Calamities and Epidemics					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**N**
Kala-azar (Black fever)	1.9%	154	1.6%	155	1.7%	309
	[0.010]		[0.010]		[0.007]	
Dengue/Chikunguniya	5.0%	154	2.3%	155	3.5%	309
	[0.022]		[0.011]		[0.012]	
Chicken Pox	14.6%	154	8.1%	155	11.2%	309
	[0.036]		[0.027]		[0.022]	
Pneumonia	14.9%	154	1.9%***	155	8.0%	309
	[0.035]		[0.010]		[0.018]	
Any natural calamities reported in PSUs (%)						
Earthquakes	0.5%	154	1.2%	154	0.9%	308
	[0.003]		[0.012]		[0.007]	
Floods	10.6%	154	9.4%	154	10.0%	308
	[0.027]		[0.023]		[0.018]	
Cyclones	12.1%	154	19.8%**	154	16.1%	308
	[0.023]		[0.029]		[0.019]	
Drought	20.3%	154	8.8%**	154	14.2%	308
	[0.037]		[0.028]		[0.023]	
Landslides	0.1%	154	0.0%	154	0.0%	308
	[0.001]		[0.000]		[0.000]	
Hailstorm	14.1%	154	8.7%	154	11.3%	308
	[0.037]		[0.032]		[0.024]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%;
** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

G.4 Public Programmes

Approximately 60 per cent of the treatment PSUs reported any public programme related to new-born care being implemented compared to 69.9 per cent of the control PSUs. Bihar and Rajasthan reported low number of PSUs with any new-born care related programmes compared to other states. More than 90 per cent of the PSUs (both treatment and control) in Odisha reported implementation of any new-born care programme.

Just a little less than half of the PSUs have any awareness programme for family planning (48.7 per cent) with Bihar, Madhya Pradesh (MP) and Rajasthan with similar statistics. Odisha reported almost all PSUs as having awareness programmes related to family planning. There are inconsistencies in even implementation of government programmes, which include incentives for adopting temporary family planning methods. However, implementation of incentives for permanent family planning programmes shows the highest reported value in Odisha but more than 50 per cent for the rest of the states.

Approximately three-fourth of the PSUs reported any maternity benefit scheme being implemented. Less than 50 per cent of the PSUs have any public programme related to safe drinking water (41.4 per cent) and sanitation or latrine (30.5 per cent).

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Safe Drinking Water related *(%)*	41.7%	154	41.1%	155	41.4%	309
	[0.053]		[0.047]		[0.035]	
Sanitation/Latrines related *(%)*	26.6%	154	34.0%	155	30.5%	309
	[0.044]		[0.044]		[0.031]	
Housing related *(%)*	64.5%	154	66.4%	155	65.5%	309
	[0.051]		[0.040]		[0.032]	
Public Works/Employment related *(%)*	79.1%	154	65.1%**	155	71.7%	309
	[0.038]		[0.042]		[0.029]	
Maternity benefit scheme *(%)*	71.3%	144	78.0%	156	75.0%	300
	[0.048]		[0.044]		[0.032]	
New-born care related programmes *(%)*	59.8%	144	69.9%	156	65.3%	300
	[0.054]		[0.045]		[0.034]	
Awareness about family planning *(%)*	38.5%	144	57.1%	156	48.7%	300
	[0.056]		[0.047]		[0.036]	
Government incentives (cash/in-kind) for using temporary family planning methods *(%)*	32.0%	144	32.7%	156	32.4%	300
	[0.050]		[0.043]		[0.033]	
Government incentives (cash/in-kind) for using permanent family planning methods *(%)*	59.3%	144	67.2%	156	63.7%	300
	[0.060]		[0.040]		[0.035]	
Other/non-government incentives (cash/in-kind) for using temporary family planning methods *(%)*	17.3%	144	14.3%	156	15.7%	300
	[0.038]		[0.029]		[0.023]	
Other/government incentives (cash/in-kind) for using permanent family planning methods *(%)*	15.4%	144	18.5%	156	17.1%	300
	[0.035]		[0.035]		[0.025]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

G.5   Local self-government and political affiliation

More than 50 per cent of the PSUs have a female Sarpanch currently but only 45 per cent of the current Sarpanchs reside in the same PSU, while less than 40 per cent have any political affiliation.

Out of the total Sarpanch reporting any political affiliation, majority of them were affiliated with the national party of Bhartiya Janta Party (BJP), followed by Indian National Congress (INC). In the state of Bihar, while current Sarpanch in majority of the treatment districts were affiliated to Rashtriya Janta Dal (RJD), majority of the PSUs in control districts were either affiliated to BJP or Janta Dal United (JDU). Majority of the previous Sarpanch also followed the same political affiliation pattern as current ones. In Madhya Pradesh (MP), BJP was a more popular party among current Sarpanchs. For Odisha, INC was the popular choice among treatment

districts but Biju Janta Dal (BJD) among control districts. For Rajasthan, BJP was popular among treatment districts while Congress was popular among control districts.

Current MLAs are also affiliated majorly to BJP (58.3 per cent) followed by regional parties of RJD and BJD.

Table G.10.PSU – Local self-government and political affiliation						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
PSUs with current Sarpanch who (%)						
Resides in the village	45.6%	154	44.6%	155	45.1%	309
	[0.054]		[0.048]		[0.036]	
Is female	52.8%	154	54.6%	155	53.8%	309
	[0.054]		[0.053]		[0.038]	
Has political affiliation	34.8%	154	44.1%	155	39.7%	309
	[0.047]		[0.048]		[0.034]	
PSUs with current Sarpanch affiliated to political party (%)						
Bhartiya Janta Party (BJP)	51.6%	70	41.3%	66	45.6%	136
Congress	26.4%	70	29.9%	66	28.5%	136
Rashtriya Janta Dal (RJD)	6.9%	70	0.0%	66	2.8%	136
Janta Dal (United) (JD-U)	4.4%	70	3.7%	66	4.0%	136
Biju Janta Dal (BJD)	6.8%	70	22.6%	66	16.1%	136
Others	4.0%	70	2.4%	66	3.1%	136
PSUs with previous Sarpanch who (%)						
Was female	45.2%	154	39.8%	155	42.4%	309
	[0.053]		[0.053]		[0.038]	
Had political affiliation	29.1%	154	31.1%	155	30.1%	309
	[0.044]		[0.047]		[0.032]	
PSUs with previous Sarpanch affiliated to political party (%)						
Bhartiya Janta Party (BJP)	33.8%	57	43.6%	48	39.2%	105
Congress	39.5%	57	23.8%	48	31.0%	105
Rashtriya Janta Dal (RJD)	2.2%	57	0.0%	48	1.0%	105
Janta Dal (United) (JD-U)	3.4%	57	3.5%	48	3.5%	105
Biju Janta Dal (BJD)	15.2%	57	26.6%	48	21.4%	105
PSUs with current MLAs affiliated to political party (%)						
Bhartiya Janta Party (BJP)	56.2%	154	60.2%	155	58.3%	309
	[0.036]		[0.035]		[0.025]	
Congress	6.8%	154	11.0%	155	9.0%	309
	[0.018]		[0.025]		[0.016]	
Rashtriya Janta Dal (RJD)	6.1%	154	4.5%	155	5.2%	309
	[0.029]		[0.013]		[0.015]	
Janta Dal (United) (JD-U)	17.8%	154	5.7%***	155	11.4%	309
	[0.024]		[0.017]		[0.015]	
Biju Janta Dal (BJD)	4.4%	154	18.1%***	155	11.6%	309
	[0.007]		[0.025]		[0.013]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Annex H   Household Characteristics

H.1   Household Characteristics- Demographic & Socio-economic

H.1.1 Head of Household characteristics

The mean age of the household head for the entire sample is 37.9 years. This indicator is the lowest for the treatment districts of Rajasthan (32.8 years) and the highest in the treatment districts of Odisha (42.7 years).

Furthermore, the proportion of female-headed households is 1.03. When considered at a state level, this indicator takes the highest value in the treatment districts of Odisha (1.07). There are no households in this sample that have a head of the household younger than 18 years of age, while the proportion of households where the head of the household is more than 65 years of age stands at 0.06.

H.1.2 Religion

Majority of the sample is Hindu (95.8 per cent), followed by Muslims (3.8 per cent), Jains (0.3 per cent) and Christians (0.1 per cent).

H.1.3 Caste

The majority of the sample belongs to Other Backward Classes or OBCs (49.3 per cent), while the next major social group is Scheduled Caste (21.4 per cent). Scheduled Tribe and the General category comprise 13.1 per cent and 15.9 per cent of the sample respectively.

These findings are illustrated in Table H.1.

Table H.1.	Head of the Household characteristics					
Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean Age of household Head	37.6	2340	38.1	2340	37.9	4680
	[0.523]		[0.498]		[0.361]	
Proportion of Female Headed households	1.03	2340	1.04	2340	1.03	4680
	[0.004]		[0.007]		[0.004]	
Proportion of households heads aged 18 And Below	0	2340	0	2340	0	4680
Proportion of households Heads aged 65+	0.07	2340	0.06	2340	0.06	4680
	[0.008]		[0.007]		[0.005]	
Religion of the Household						
Hindu	95.7%	2340	96.0%	2340	95.8%	4680
	[0.011]		[0.011]		[0.008]	
Muslim	4.3%	2340	3.3%	2340	3.8%	4680
	[0.011]		[0.009]		[0.007]	
Christian	0.0%	2340	0.2%	2340	0.1%	4680

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.000]		[0.002]		[0.001]	
Jain	0.0%	2340	0.5%	2340	0.3%	4680
	[0.000]		[0.005]		[0.002]	
Caste/Tribe Status						
Scheduled Caste	20.4%	2340	22.3%	2340	21.4%	4680
	[0.017]		[0.022]		[0.014]	
Scheduled Tribe	11.5%	2340	14.4%	2340	13.1%	4680
	[0.019]		[0.021]		[0.015]	
Other Backward Class	51.3%	2340	47.5%	2340	49.3%	4680
	[0.025]		[0.026]		[0.018]	
General	16.7%	2340	15.3%	2340	15.9%	4680
	[0.024]		[0.022]		[0.016]	

Table H.1.   Head of the Household characteristics

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

H.1.4 Household composition

The mean household size of the sample is 5.4 people. This indicator is the highest in the treatment districts of Bihar (6.3) and the lowest in the treatment districts of Odisha (4.8).

Furthermore, the mean proportion of females in a household is 52.1 per cent. This indicator is the highest in the control districts of Odisha (53.1 per cent) and the lowest in control districts of Bihar (50.9 per cent).

The mean proportion of dependents per household is 44.4 per cent. This indicator ranges from 39 per cent in Odisha (treatment districts) to 47.4 per cent in Bihar (treatment and control districts). The programme level figure for the dependency ratio is 1.0.

In this sample, the mean number of children under 5 years of age is 1.7, while the mean number of children under 2 years of age is 1.2. Additionally, the mean number of adults in the age group of 18-64 is 2.9.

Table H.2.   Household composition

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean HH size	5.4	2340	5.4	2340	5.4	4680
	[0.081]		[0.071]		[0.054]	
Mean proportion of females in the HH	52.3%	2340	51.9%	2340	52.1%	4680
	[0.004]		[0.005]		[0.003]	
Mean proportion of dependents per HH	44.0%	2340	44.8%	2340	44.4%	4680
	[0.005]		[0.006]		[0.004]	
Dependency Ratio	1.0	2340	1.0	2340	1.0	4680
	[0.020]		[0.021]		[0.015]	
Mean number of children aged under 5 per HH	1.7	2340	1.7	2340	1.7	4680
	[0.030]		[0.022]		[0.018]	
Mean number of children aged under 2	1.2	2340	1.2	2340	1.2	4680
	[0.014]		[0.009]		[0.008]	
Mean number of adults - 18 to 64 years	2.9	2340	2.9	2340	2.9	4680
	[0.042]		[0.047]		[0.032]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

H.1.5 Educational qualifications

Approximately 57.6 per cent of this sample was literate i.e. they could read and write, while 37.8 per cent of the sample could neither read nor write. 61.3 per cent of the sample had attended school.

Disaggregating this sample by different levels of education shows that most of the respondents (38.8 per cent) had no education. This is followed by 34.7 per cent of the sample stating that they had completed 6-10 years of education. Additionally, 16.9 per cent of the sample had completed 1-5 years of education, while only 9.6 per cent of the sample had completed more than 10 years of education.

Table H.3.   Educational qualifications

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Those who could read or write (%)						
Can read only	4.2%	2340	5.1%	2340	4.7%	4680

Table H.3. Educational qualifications

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.007]		[0.010]		[0.006]	
Can read and write	59.2%	2340	56.2%	2340	57.6%	4680
	[0.019]		[0.021]		[0.014]	
Can neither read nor write	36.7%	2340	38.7%	2340	37.8%	4680
	[0.019]		[0.019]		[0.014]	
Have attended school (%)	62.1%	2340	60.5%	2340	61.3%	4680
	[0.020]		[0.018]		[0.013]	
Educational qualifications:						
No education	37.9%	2340	39.6%	2340	38.8%	4680
	[0.020]		[0.018]		[0.013]	
Primary school (1-5 years of completed education)	14.9%	2340	18.7%**	2340	16.9%	4680
	[0.012]		[0.013]		[0.009]	
Secondary school (6-10 years of completed education)	35.1%	2340	34.3%	2340	34.7%	4680
	[0.017]		[0.018]		[0.012]	
Higher education (11 years of completed education and above	12.1%	2340	7.5%***	2340	9.6%	4680
	[0.012]		[0.008]		[0.007]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

H.1.6 Occupation status

Disaggregation based on occupation shows that a majority of this sample were housewives (93.9 per cent), followed by other labourers, who formed 1.2 per cent of the sample. Students formed 0.5 per cent of the sample, while farmers formed 0.4 per cent, and those who said they were not working were 0.1 per cent of the sample.

Table H.4. Occupation status

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Main occupation status :						

Table H.4.	Occupation status					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Housewife	92.8%	2340	94.8%*	2340	93.9%	4680
	[0.009]		[0.007]		[0.006]	
Other labourer	1.5%	2340	1.0%	2340	1.2%	4680
	[0.003]		[0.003]		[0.002]	
Student	0.7%	2340	0.2%*	2340	0.5%	4680
	[0.003]		[0.001]		[0.001]	
Farmer	0.6%	2340	0.2%	2340	0.4%	4680
	[0.002]		[0.001]		[0.001]	
Not working	0.2%	2340	0.1%	2340	0.1%	4680
	[0.001]		[0.001]		[0.001]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

H.2   Health-seeking behaviour

More than 50 per cent of this sample stated that they usually go to private sector facilities for any kind of treatment, while 47 per cent stated that they go to public sector facilities. Only 0.2 per cent of the sample mentioned that they seek treatment at home.

When asked about the reason for not going to public sector facilities for treatment, most of the respondents to this question answered that there was no nearby facility (24.9 per cent). This was followed by reasons such as poor quality of care (21 per cent) and waiting time being very long (19.1 per cent).

Furthermore, 7.5 per cent of the sample is covered some type of health insurance. In this case, the difference between the treatment districts (6.2 per cent) and control districts (8.6 per cent) is statistically significant at the 5 % level of significance. The most common type of health insurance for this sample is the Central Government Health Scheme or CGHS (1.6 per cent). This is followed by Employee State Insurance Scheme or ESIS (1 per cent).

About 12.2 per cent of the sample of households was covered under the RSBY scheme.

Table H.5.	Health seeking behaviour					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Facility for treatment usually used by the HH (%):						
Public sector	44.4%	2340	49.6%	2340	47.1%	4680
	[0.026]		[0.026]		[0.018]	
Private sector	55.3%	2340	50.1%	2340	52.5%	4680
	[0.026]		[0.025]		[0.018]	
Home	0.1%	2340	0.2%	2340	0.2%	4680
	[0.001]		[0.002]		[0.001]	
Main reasons for not going to a health facility (%)						
No nearby facility	26.1%	2340	23.9%	2340	24.9%	4680
	[0.021]		[0.017]		[0.013]	
Poor quality of care	22.9%	2340	19.3%	2340	21.0%	4680
	[0.021]		[0.014]		[0.012]	
Waiting time too long	19.6%	2340	18.6%	2340	19.1%	4680
	[0.015]		[0.013]		[0.010]	
Households that are covered by a health insurance/ health scheme (%)	6.2%	2340	8.6%**	2340	7.5%	4680
	[0.007]		[0.010]		[0.006]	
Most common type of health insurance						
Central Government Health Scheme (CGHS)	1.4%	2340	1.7%	2340	1.6%	4680
	[0.004]		[0.005]		[0.003]	
Employee State Insurance Scheme (ESIS)	0.3%	2340	1.6%**	2340	1.0%	4680
	[0.001]		[0.004]		[0.002]	
Other privately purchased commercial health insurance	0.9%	2340	0.9%	2340	0.9%	4680
	[0.002]		[0.003]		[0.002]	
Households that have RSBY insurance (%)	12.4%	2340	12.1%	2340	12.2%	4680
	[0.012]		[0.015]		[0.010]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

H.3   Amenities

Access to basic household facilities and ownership of household and productive assets is important in promoting the socioeconomic welfare of households. In particular, the provision of safe drinking water and access to hygienic sanitation facilities are vital for good health. In order to ascertain the current status, a module on housing was administered in the survey.

H.3.1 Dwelling characteristics- Drinking water source & toilet facilities

The most commonly used source of drinking water was tube well/ bore well (73.5 per cent). In fact, the difference between the treatment districts (77.5 per cent) and control districts (70 per cent) is statistically significant at the 10 % level of significance. The next major sources were unprotected well (12.7 per cent), public taps/standpipes (3.6 per cent) and piped into yard/ plot (3.6). Additionally, most of the sample of households answered that their drinking water source was located elsewhere (60.7 per cent) i.e. excluding public sources, their own dwelling or in their yard/plot.

Furthermore, only 11 per cent of the households treated water before drinking it, and the difference between estimates in the treatment districts (7.9 per cent) and control districts (13.7 per cent) is highly statistically significant. The most common method of treating water was by straining it through a cloth (5.5 per cent). Boiling (4 per cent) and adding bleach/chlorine tablets (1.2 per cent) were the other common methods.

When we consider the most common types of toilet facilities used by the households, it can be seen that 79.5 per cent of the households used no facility/open spaces/ fields. This is followed by 12.7 per cent of households using flush to septic tank. Moreover, 20.1 per cent of the households shared toilet facilities with some other household/households.

Table H.6.	Dwelling characteristics – Drinking water source & toilet facilities					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Main sources of drinking water (%)						
Tube well or borehole	77.5%	2340	70.0%	2340	73.5%*	4680
	[0.022]		[0.035]		[0.021]	
Unprotected well	11.2%	2340	14.0%	2340	12.7%	4680
	[0.016]		[0.021]		[0.013]	
Public taps/Standpipe	3.0%	2340	4.0%	2340	3.6%	4680
	[0.007]		[0.019]		[0.011]	
Piped into yard/plot	2.0%	2340	4.9%	2340	3.6%*	4680
	[0.006]		[0.016]		[0.009]	
Location of water source (%)						
In own dwelling	21.8%	2340	17.9%	2340	19.7%*	4680
	[0.016]		[0.016]		[0.012]	
In own yard/plot	19.7%	2340	19.4%	2340	19.5%	4680
	[0.015]		[0.017]		[0.011]	
Elsewhere	58.5%	2340	62.7%	2340	60.7%	4680
	[0.023]		[0.024]		[0.017]	
Households who treated water before drinking (%)	7.9%	2340	13.7%	2340	11.0%***	4680
	[0.008]		[0.013]		[0.008]	
Main methods of treating water (%)						
Strain through a cloth	3.2%	2340	7.5%	2340	5.5%***	4680
	[0.005]		[0.012]		[0.007]	
Boil	3.8%	2340	4.2%	2340	4.0%	4680

Table H.6. Dwelling characteristics – Drinking water source & toilet facilities

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.005]		[0.005]		[0.003]	
Add bleach/chlorine tablets	0.8%	2340	1.6%	2340	1.2%**	4680
	[0.002]		[0.003]		[0.002]	
Main types of toilet facilities used (%)						
No facility/uses open space or field	77.5%	2340	81.3%	2340	79.5%	4680
	[0.015]		[0.018]		[0.012]	
Flush to septic tank	14.0%	2340	11.6%	2340	12.7%	4680
	[0.013]		[0.011]		[0.009]	
Flush to pit latrine	2.5%	2340	2.6%	2340	2.6%	4680
	[0.004]		[0.005]		[0.003]	
Households that share a toilet facility (%)	18.7%	607	21.5%	599	20.1%	1206
	[0.023]		[0.024]		[0.017]	
Average number of households that the toilet facility is shared with	1.3	607	1.2	599	1.3	1206
	[0.338]		[0.376]		[0.252]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

H.3.2 Dwelling characteristics - Floor, roof & wall material type

For this sample, the most common type of floor material used is mud/clay/ earth (51.3 per cent). This was followed by cement (33.6 per cent) and dung (9.1 per cent).

The most common type of roof material used is RCC/RBC/cement/concrete (33.4 per cent), followed closely by tiles (30.4 per cent). The third most common type of material used for roofs is thatch/ palm leaf/ reed/ grass (8.5 per cent)

The most common type of wall material used is mud (30.1 per cent). Burnt bricks (20.6 per cent) and cement/ concrete (18.2 per cent) are the other prominent materials.

Table H.7. Dwelling characteristics – floor, roof & wall materials used

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Main types of floor material used (%)						
Mud/clay/earth	48.4%	2340	54.0%*	2340	51.3%	4680
	[0.025]		[0.022]		[0.017]	
Cement	35.8%	2340	31.7%	2340	33.6%	4680

Table H.7. Dwelling characteristics – floor, roof & wall materials used

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.021]		[0.020]		[0.014]	
Dung	10.8%	2340	7.6%*	2340	9.1%	4680
	[0.016]		[0.009]		[0.009]	
Main types of roof materials used (%)						
RCC/RBC/cement/concrete	34.3%	2340	32.5%	2340	33.4%	4680
	[0.022]		[0.020]		[0.015]	
Tiles	30.6%	2340	30.2%	2340	30.4%	4680
	[0.021]		[0.023]		[0.016]	
Thatch/palm Leaf/reed/grass	7.9%	2340	9.0%	2340	8.5%	4680
	[0.010]		[0.016]		[0.009]	
Main types of wall material used (%)						
Mud	27.7%	2340	32.3%*	2340	30.1%	4680
	[0.016]		[0.018]		[0.012]	
Burnt bricks	20.4%	2340	20.7%	2340	20.6%	4680
	[0.016]		[0.017]		[0.012]	
Cement/concrete	19.1%	2340	17.4%	2340	18.2%	4680
	[0.015]		[0.014]		[0.010]	
Dwelling unit has any kind of window (%)	44.7%	2340	45.6%	2340	45.2%	4680
	[0.021]		[0.023]		[0.015]	
Windows with glass	3.6%	2340	3.1%	2340	3.4%	4680
	[0.006]		[0.006]		[0.005]	
Windows with screens	6.8%	2340	8.7%	2340	7.8%	4680
	[0.010]		[0.010]		[0.007]	
Windows with curtains and shutters	22.5%	2340	22.4%	2340	22.5%	4680
	[0.014]		[0.014]		[0.010]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

In addition, the mean number of household members per sleeping room is 3.5.

Table H.8. Dwelling characteristics- household members per sleeping room

Indicator	Treatment	Control	Overall

	Mean	n	Mean	n	Mean	n
Mean number of household members per sleeping room	3.5	2340	3.6*	2340	3.5	4680
	[0.055]		[0.059]		[0.041]	

> **Note:**
> 'Mean' represents the mean value of the indicator.
> 'n' represents the sample size.
> Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
> Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
> Sample weights have been used to calculate the mean value of the indicator.
> *Source: NIPI Phase-II Baseline Survey 2013*

H.3.3 Dwelling characteristics- Types of cooking fuel used

Wood is the most commonly used cooking fuel (64.9 per cent), while dung cakes (22.2 per cent) and LPG/Natural Gas (6.6 per cent) are also important cooking fuels. Moreover, 44.2 per cent of the households had a separate room as a kitchen.

Table H.9. Dwelling characteristics- types of cooking fuels used						
Indicator	**Treatment**		**Control**		**Overall**	
		n		n		n
Main types of cooking fuel used (%)						
Wood	62.7%	2340	66.8%	2340	64.9%	4680
	[0.025]		[0.026]		[0.018]	
Dung cakes	25.4%	2340	19.3%*	2340	22.2%	4680
	[0.020]		[0.025]		[0.016]	
LPG/Natural gas	6.1%	2340	7.0%	2340	6.6%	4680
	[0.008]		[0.010]		[0.007]	
Households where a separate room is used as a kitchen (%)	41.6%	2340	46.5%*	2340	44.2%	4680
	[0.019]		[0.021]		[0.014]	

> **Note:**
> 'Mean' represents the mean value of the indicator.
> 'n' represents the sample size.
> Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
> Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
> Sample weights have been used to calculate the mean value of the indicator.
> *Source: NIPI Phase-II Baseline Survey 2013*

H.4 Assets

Information was also collected on the different types of assets possessed by households in order to get a better picture of their economic position. A list of asset possessions is presented below in Table H.10.

This data reveals that 75 per cent of the sample of households owned a house, while 61.2 per cent had bank accounts.

Furthermore, cows/bulls/buffaloes (54.5 per cent) were the most common type of livestock owned by households.

Table H.10.	Assets					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Electricity	81.9%	2340	77.3%	2340	79.5%	4680
	[0.014]		[0.026]		[0.015]	
Mattress	62.5%	2340	56.2%**	2340	59.2%	4680
	[0.019]		[0.024]		[0.016]	
Pressure Cooker	43.7%	2340	40.6%	2340	42.1%	4680
	[0.022]		[0.021]		[0.015]	
Chair	72.8%	2340	72.7%	2340	72.7%	4680
	[0.015]		[0.018]		[0.012]	
Cot/Bed	87.8%	2340	85.6%	2340	86.6%	4680
	[0.012]		[0.015]		[0.010]	
Table	44.5%	2340	42.8%	2340	43.6%	4680
	[0.023]		[0.022]		[0.016]	
Electric Fan	57.2%	2340	55.9%	2340	56.5%	4680
	[0.018]		[0.024]		[0.015]	
Radio	7.5%	2340	7.0%	2340	7.2%	4680
	[0.008]		[0.008]		[0.005]	
B & W Television	2.9%	2340	3.7%	2340	3.3%	4680
	[0.004]		[0.007]		[0.004]	
Colour Television	47.3%	2340	48.1%	2340	47.7%	4680
	[0.018]		[0.024]		[0.015]	
Sewing Machine	23.2%	2340	19.2%*	2340	21.1%	4680
	[0.017]		[0.017]		[0.012]	
Mobile	86.3%	2340	85.7%	2340	86.0%	4680
	[0.011]		[0.013]		[0.008]	
Any Other Telephone	1.4%	2340	1.4%	2340	1.4%	4680
	[0.003]		[0.003]		[0.002]	
Computer	2.6%	2340	1.7%	2340	2.1%	4680
	[0.005]		[0.003]		[0.003]	
Refrigerator	10.9%	2340	7.0%***	2340	8.8%	4680
	[0.012]		[0.008]		[0.007]	
Watch/Clock	75.3%	2340	76.9%	2340	76.2%	4680
	[0.014]		[0.015]		[0.010]	
Bicycle	58.7%	2340	68.7%***	2340	64.0%	4680

Table H.10.   Assets

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.017]		[0.016]		[0.012]	
Motorcycle/Scooter	26.9%	2340	27.7%	2340	27.3%	4680
	[0.015]		[0.016]		[0.011]	
Animal Drawn Cart	6.3%	2340	6.3%	2340	6.3%	4680
	[0.012]		[0.009]		[0.007]	
Car	2.0%	2340	1.4%	2340	1.7%	4680
	[0.004]		[0.003]		[0.002]	
Water pump	12.7%	2340	8.5%**	2340	10.5%	4680
	[0.014]		[0.011]		[0.009]	
Thresher	1.5%	2340	2.5%*	2340	2.0%	4680
	[0.003]		[0.005]		[0.003]	
Tractor	3.8%	2340	3.9%	2340	3.9%	4680
	[0.006]		[0.007]		[0.005]	
Cows/Bulls/Buffaloes	64.5%	2340	54.5%***	2340	59.2%	4680
	[0.020]		[0.020]		[0.015]	
Goats	12.5%	2340	17.3%**	2340	15.0%	4680
	[0.013]		[0.016]		[0.010]	
Chicken/Ducks	4.0%	2340	4.0%	2340	4.0%	4680
	[0.006]		[0.009]		[0.005]	
House Ownership	73.0%	2340	75.0%	2340	74.1%	4680
	[0.025]		[0.019]		[0.015]	
Bank Account	60.5%	2340	61.2%	2340	60.8%	4680
	[0.018]		[0.019]		[0.013]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

H.5   Wealth Index

The wealth index is constructed by combining information on 33 household assets and housing characteristics such as ownership of consumer items, type of dwelling, source of water, and availability of electricity, into a single wealth index.[25] The household population is divided into

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[25] The Wealth Index was calculated by using a Principal Component Analysis method. From a set of correlated variables, the PCA extracts a set of uncorrelated 'principal components'. Each principal component is a weighted linear combination of the original variables.

five equal groups of 20 percent each (quintiles) at the national level from 1 (lowest, poorest) to 5 (highest, wealthiest).

Given below is the wealth index constructed for the given sample of 4680 households, segregated as treatment and control districts.

For the treatment districts, 17 per cent of the sample of households in the treatment districts belong to the poorest quintile, while 21.1 per cent of the households belong to the fifth poorest quintile. On the other hand, for the control districts, 21.9 per cent of the sample of households in the control districts belong to the poorest quintile, while 19 per cent of them belong to the fifth poorest quintile. In addition, the difference between the proportion of households in the poorest quintile in the treatment and control districts is statistically significant at the 5 % level of significance.

The highest proportion under the poorest quintile is seen in the control districts of Bihar (34.3%), while it is the lowest in the control districts of Rajasthan (9.8%).

Table H.11. Wealth Index						
Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Poorest Quintile	17.9%	2340	21.9%**	2340	20.0%	4680
	[0.013]		[0.014]		[0.010]	
Second Poorest Quintile	20.7%	2340	19.4%	2340	20.0%	4680
	[0.013]		[0.013]		[0.009]	
Third Poorest Quintile	19.6%	2340	20.3%	2340	20.0%	4680
	[0.015]		[0.012]		[0.009]	
Fourth Poorest Quintile	20.7%	2340	19.4%	2340	20.0%	4680
	[0.011]		[0.012]		[0.008]	
Fifth Poorest Quintile	21.1%	2340	19.0%	2340	20.0%	4680
	[0.014]		[0.018]		[0.011]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Annex I   Woman and Child Profile

I.1   Marital Status and family structure

Across the sampled PSUs, a high percentage of women are currently married. The overall figure for the four states is 99.7 per cent and further disaggregated among age-groups, caste, religion and wealth quintiles is in given Table I.2 below.

The family structure within the sample households tells one that a greater proportion of women (50.9 per cent) stay with their husbands in a joint family as compared to the proportion of women (35.4 per cent) staying with their husbands in a nuclear family. From the sub-group analysis, we note that proportion of women staying with their husbands in a joint family in Scheduled Tribe households is 32 per cent, in Scheduled Caste households is 31 per cent, and in Muslim households is 27 per cent. Disaggregating by wealth quintiles, the figure in the Second poorest wealth quintile is 29 per cent and in the poorest wealth quintile, it is 24 per cent.

About 79.2 per cent of women stay with their husbands for more than 6 months in a typical year and 1.4 per cent of women stay with their husbands for less than a month.

The mean age at which women first started staying with their husbands was 18.5 for the given sample. State-wise disaggregation shows that Bihar reports the lowest age at which women in the sample first started staying with their husbands (17.8 years in the treatment districts and 17.7 in control districts). However, it is for the state of Odisha that this figure is high, 19.7 in the treatment districts and 19.8 in the control districts.

Table I.1.   Women – Age and Literacy Level

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean age of Women	24.4	2340	24.8*	2340	24.6	4680
	[0.126]		[0.133]		[0.092]	
Literacy level of Women						
No education	37.9%	2340	39.6%	2340	38.8%	4680
	[0.020]		[0.018]		[0.013]	
Primary school(1-5 years of completed education)	14.9%	2340	18.7%**	2340	16.9%	4680
	[0.012]		[0.013]		[0.009]	
Secondary school (6-10 years of completed education)	35.1%	2340	34.3%	2340	34.7%	4680
	[0.017]		[0.018]		[0.012]	
Higher education(11 years of completed education and above)	12.1%	2340	7.5%***	2340	9.6%	4680
	[0.012]		[0.008]		[0.007]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.

Table I.1. Women – Age and Literacy Level

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n

Source: NIPI Phase-II Baseline Survey 2013

Table I.2. Women – Marital Status and Family Structure

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Currently married Women (%)						
Total	99.7%	2340	99.8%	2340	99.7%	4680
	[0.001]		[0.001]		[0.001]	
15-19	99.7%	86	98.2%	69	99.0%	155
20-24	99.6%	1193	99.8%	1129	99.7%	2322
	[0.002]		[0.001]		[0.001]	
25-29	99.7%	760	99.8%	0.997	99.8%	1556
	[0.002]		[0.002]		[0.001]	
30-34	100.0%	244	100.0%	255	100.0%	499
35-39	100.0%	48	100.0%	72	100.0%	120
40-44	100.0%	6	100.0%	16	100.0%	22
45-49	100.0%	2	100.0%	2	100.0%	4
Women staying with husband in a joint family (%)						
Total	36.4%	2326	34.5%	2331	35.4%	4657
	[0.017]		[0.021]		[0.014]	
Scheduled Caste	30.7%	525	31.0%	534	30.9%	1059
	[0.037]		[0.025]		[0.022]	
Scheduled Tribe	41.7%	316	25.5%	285	32.2%	601
Muslim	23.1%	109	30.6%	93	26.7%	202
Women staying with husband in a nuclear family (%)						
Total	51.2%	2326	50.5%	2331	50.9%	4657
	[0.020]		[0.020]		[0.014]	
Scheduled Caste	61.3%	525	55.0%	534	57.8%	1059
	[0.036]		[0.036]		[0.026]	
Scheduled Tribe	54.5%	316	64.1%	285	60.2%	601
Muslim	67.2%	109	52.1%	93	60.1%	202
Months a woman stays with her husband in a typical year						
6 months	11.1%	2326	12.4%	2331	11.8%	4657
	[0.011]		[0.014]		[0.009]	
More than 6 months	80.3%	2326	78.2%	2331	79.2%	4657
	[0.015]		[0.018]		[0.012]	
Mean age at which the woman first started living with her husband						
Total	18.5	2340	18.5	2340	18.5	4680
	[0.107]		[0.077]		[0.065]	
Scheduled Caste	18.0	527	18.4*	538	18.3	1065
	[0.159]		[0.173]		[0.118]	
Scheduled Tribe	18.7	319	18.5	285	18.6	604
Muslim	17.7	109	18.1	93	17.9	202
Poorest Wealth Quintile	18.0	444	18.2	476	18.1	920
Second-Poorest Wealth Quintile	18.0	475	18.3	448	18.2	923

Table I.2.　　　Women – Marital Status and Family Structure

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.119]		[0.175]		[0.106]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

I.2　Age at first marriage, first pregnancy and first child birth

Table I.3 below highlights the mean age at marriage, mean age at first pregnancy and mean age at first childbirth of the women in the sample. The overall figure for mean age at marriage is 18 years. From the education sub-group analysis, it can be seen that mean age at marriage for women with no education is 17.1 years and the same figure for women with higher education (11 years of completed education and above) is 19.7 years. The mean age at marriage is seen to be consistently increasing with each level of education. Surprisingly for those women who are employed, the mean age at marriage is 17.5 years; however, for those who are not employed, the mean age at marriage is 18 years.

The mean age at first pregnancy across the sample is 20 years. In fact the figure for the indicator, 19.9 years, is highly statistically significant (at 1 per cent level of significance) for the control districts of Madhya Pradesh.

The mean age of women at the time of first birth is just slightly higher than mean age at first pregnancy, at 20.6 years. For the control districts of Madhya Pradesh, this indicator stands at 20.3 years, and is statistically significant at 10 per cent level of significance.

Table I.3.　　　Women – Age at first marriage, first pregnancy and first child birth

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean age at first marriage						
Total	17.9	2340	18.0	2340	18.0	4680
	[0.138]		[0.089]		[0.080]	
No education	17.0	837	17.2	909	17.1	1746
	[0.167]		[0.144]		[0.110]	
Not employed	18.0	2182	18.0	2225	18.0	4407
	[0.142]		[0.094]		[0.083]	
Scheduled Caste	17.4	527	17.9**	538	17.7	1065
	[0.185]		[0.192]		[0.134]	
Scheduled Tribe	18.2	319	18.2	285	18.2	604
Muslim	17.3	109	17.8	93	17.5	202
Poorest Wealth Quintile	17.2	444	17.7	476	17.5	920
Second-Poorest Wealth Quintile	17.5	475	17.8	448	17.6	923
	[0.165]		[0.188]		[0.124]	
Mean age at first pregnancy						

Table I.3. Women – Age at first marriage, first pregnancy and first child birth

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Total	20.0	2340	20.0	2340	20.0	4680
	[0.106]		[0.088]		[0.068]	
Scheduled Caste	19.5	527	19.9	538	19.7	1065
	[0.166]		[0.177]		[0.121]	
Scheduled Tribe	20.2	319	20.0	285	20.1	604
Muslim	19.4	109	19.5	93	19.4	202
Poorest Wealth Quintile	19.7	444	19.8	476	19.7	920
Second-Poorest Wealth Quintile	19.7	475	20.0	448	19.8	923
	[0.127]		[0.160]		[0.102]	
Mean age at first child birth						
Total	20.5	2340	20.6	2340	20.6	4680
	[0.088]		[0.093]		[0.064]	
Scheduled Caste	20.2	527	20.5	538	20.3	1065
	[0.163]		[0.193]		[0.128]	
Scheduled Tribe	20.8	319	20.6	285	20.7	604
Muslim	19.8	109	20.0	93	19.9	202
Poorest Wealth Quintile	20.3	444	20.6	476	20.4	920
Second-Poorest Wealth Quintile	20.2	475	20.5	448	20.3	923
	[0.115]		[0.159]		[0.099]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

I.3 Pregnancy and Motherhood

The reproductive age group of women as per DHS is15 to 49 years of age for the given sample and this age group is representative of women in reproductive age even for the analysis of this sample. The total proportion of women who were 'currently pregnant' at the time of the survey is 4.7 per cent. Age-group disaggregation shows 5.3 per cent of women who were currently pregnant in the 15 – 19 age groups. The lowest figure for the same indicator is 2.7 per cent of women in the 35-39 age group, just after 0 per cent of women in the 40- 44 and 45-49 age-groups.

The total number of pregnancies a woman had had until the time the survey happened is 2.4. Here, the total number of pregnancies includes any miscarriages, abortions or stillbirths a woman might have had. If the woman is currently pregnant, the pregnancy is counted as a part of total number of pregnancies. The number of pregnancies a woman has had increases consistently with each successive age group, ranging from 7.4 for the age group 45-49 years and 1.2 for the15-19 age group. From amongst the women, who have had any miscarriages, abortions, or stillbirths, 3.1 per cent of total pregnancies have resulted in an abortion, 25.7 per cent have resulted in a miscarriage, and 10.3 per cent have resulted in a stillbirth.

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who are currently pregnant (%)						
Total	5.1%	2340	4.4%	2340	4.7%	4680
	[0.008]		[0.007]		[0.005]	
15-19	5.5%	86	5.2%	69	5.3%	155
20-24	5.1%	1193	5.5%	1129	5.3%	2322
	[0.008]		[0.008]		[0.006]	
25-29	5.8%	760	3.7%	796	4.6%	1556
	[0.012]		[0.013]		[0.009]	
30-34	3.3%	244	2.5%	255	2.9%	499
	[0.017]		[0.011]		[0.010]	
35-39	3.7%	48	2.1%	72	2.7%	120
Mean number of pregnancies						
Total	2.4	2340	2.4	2340	2.4	4680
	[0.059]		[0.042]		[0.035]	
15-19	1.3	86	1.2	69	1.2	155
20-24	1.7	1193	1.7	1129	1.7	2322
	[0.050]		[0.030]		[0.029]	
25-29	2.8	760	2.8	796	2.8	1556
	[0.088]		[0.072]		[0.056]	
30-34	4.1	244	3.7	255	3.9	499
	[0.147]		[0.112]		[0.094]	
35-39	5.6	48	4.3	72	4.7	120
40-44	6.4	6	6.4	16	6.4	22
45-49	4.9	2	8.4	2	7.4	4
No education	2.9	837	2.9	909	2.9	1746
	[0.105]		[0.075]		[0.063]	
Not employed	2.4	2182	2.3	2225	2.3	4407
	[0.061]		[0.041]		[0.036]	
Scheduled Caste	2.6	527	2.5	538	2.5	1065
	[0.123]		[0.082]		[0.071]	
Scheduled Tribe	2.2	319	2.4	285	2.3	604
Muslim	2.7	109	2.8	93	2.7	202
Poorest Wealth Quintile	2.8	444	2.6	476	2.7	920
Second-Poorest Wealth Quintile	2.5	475	2.5	448	2.5	923
	[0.101]		[0.090]		[0.067]	
Pregnancies resulting in an abortion (%)						
Total	4.80%	289	1.8%***	307	3.1%	596
	[0.010]		[0.004]		[0.005]	
15-19	0.0%	2	0.0%	2	0.0%	4
20-24	7.4%	97	1.6%	100	4.2%	197
25-29	4.4%	119	2.3%	132	3.2%	251
30-34	2.6%	51	1.4%	47	2.0%	98
35-39	0.2%	16	1.7%	20	1.3%	36
40-44	0.0%	3	0.0%	4	0.0%	7
No education	6.4%	115	1.2%	135	3.3%	250
Not employed	4.9%	257	1.9%**	286	3.2%	543
	[0.011]		[0.004]		[0.006]	
Scheduled Caste	6.3%	70	0.4%	77	2.8%	147
Scheduled Tribe	3.4%	39	0.7%	39	1.7%	78
Muslim	0.0%	11	9.6%	9	4.6%	20
Poorest Wealth Quintile	4.4%	54	1.5%	60	2.5%	114
Second-Poorest Wealth Quintile	7.3%	55	1.7%	54	4.2%	109

Table I.4. **Women – Currently Pregnant & Total number of pregnancies, abortions, miscarriages and still births**

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Pregnancies resulting in a miscarriage (%)						
Total	25.9%	289	25.5%	307	25.7%	596
	[0.019]		[0.011]		[0.010]	
15-19	50.0%	2	25.6%	2	44.3%	4
20-24	27.7%	97	33.5%	100	30.9%	197
25-29	22.7%	119	24.3%	132	23.6%	251
30-34	29.8%	51	14.1%	47	21.7%	98
35-39	24.9%	16	23.7%	20	24.0%	36
40-44	9.7%	3	7.3%	4	8.2%	7
No education	22.0%	115	21.6%	135	21.7%	250
Not employed	26.4%	257	26.4%	286	26.4%	543
	[0.020]		[0.012]		[0.011]	
Scheduled Caste	22.7%	70	25.6%	77	24.4%	147
Scheduled Tribe	21.5%	39	18.5%	39	19.6%	78
Muslim	35.6%	11	20.1%	9	28.2%	20
Poorest Wealth Quintile	22.4%	54	26.0%	60	24.7%	114
Second-Poorest Wealth Quintile	24.2%	55	18.1%	54	20.8%	109
Pregnancies resulting in a still birth (%)						
Total	9.4%	289	10.9%	307	10.3%	596
	[0.011]		[0.012]		[0.008]	
15-19	0.0%	2	24.4%	2	5.7%	4
20-24	12.0%	97	9.6%	100	10.7%	197
25-29	10.9%	119	8.8%	132	9.7%	251
30-34	3.4%	51	14.9%	47	9.3%	98
35-39	3.2%	16	18.5%	20	14.1%	36
40-44	6.1%	3	20.4%	4	15.3%	7
No education	9.8%	115	12.7%	135	11.5%	250
Not employed	9.5%	257	11.3%	286	10.5%	543
	[0.011]		[0.012]		[0.009]	
Scheduled Caste	10.3%	70	10.6%	77	10.5%	147
Scheduled Tribe	13.0%	39	18.2%	39	16.2%	78
Muslim	0.0%	11	0.6%	9	0.3%	20
Poorest Wealth Quintile	13.9%	54	11.9%	60	12.6%	114
Second-Poorest Wealth Quintile	6.7%	55	14.2%	54	10.9%	109

Table I.4. Women – Currently Pregnant & Total number of pregnancies, abortions, miscarriages and still births

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

From the overall data, 3.4 per cent of women who were in their teenage years (15-19) at the time of the survey either were mothers, pregnant with their first child, or had begun childbearing.

Birth spacing is defined as the 'interval (defined in months) between the reported dates of birth. In case of the last child, the observed duration is the age of the child at the time of the survey (Maitra and Pal, 2007). While publications by the World Health Organization (WHO) and other international organizations recommend waiting at least 2-3 years between pregnancies to

reduce infant and child mortality, and also to benefit maternal health, recent studies supported by the United States Agency for International Development (USAID) have suggested that longer birth spacing, 3-5 years, might be more advantageous (WHO, 2005). The baseline survey's qualitative findings suggest that mothers are aware of the concept of birth spacing, that there should be an interval of 2-3 years between two children and its consequent benefits:

"The children become healthier and stronger as they get more attention" "It is also cheaper to have less children." (A Focus Group Discussion of Mothers, Jharsuguda, Odisha)

In the focus groups discussions, it was noted that in order to practice family planning for birth spacing, the mothers mostly knew about methods such as contraceptive pills, condoms, injectable, and sterilization that could be used. However, from amongst the few who knew about IUCD (Copper-T) insertions, women were not aware of the HBNC+ objective of insertion of the Copper-T within 48 hours after giving birth.

According to the data from the given sample, maximum proportion of women (35.8 per cent) had a gap of 24- 35 months between births, about 21 per cent women had a gap of 18-23 months, and 24 per cent of women had a gap of 7-17 months.

Unintended pregnancies can be defined as the percent of births that resulted from pregnancies that were reported to be either unwanted (i.e., they occurred when no children, or no more children, were desired) or mistimed (i.e., they occurred earlier than desired) (Jain, 1999). In total, 15 per cent of women in the sample had an unintended pregnancy. Looking across age groups, the highest proportion of women (100 per cent) having an unintended pregnancy belong to the 45-49 age-group, followed by women from the 30-34 age-group (20.8 per cent). Of the women who have obtained primary and secondary level of schooling, 11.1 per cent and 12.1 per cent respectively had an unintended pregnancy. These statistics are also significant at 5 per cent level in the overall control districts.

Calculating the average of children, both surviving and dead, to whom the women in the sample have ever given birth, the resulting figure for the entire sample stands at 2.3 births. This figure is higher for Scheduled castes (2.4 births) as compared to Scheduled Tribes (2.3 births), and it is higher for the poorest wealth quintile (2.6 births) as compared to the second poorest wealth quintile (2.4 births). Muslim women, on an average, give 2.7 births (both surviving and dead). Moreover, the average number of living births in the sample is 2.1 births.

Table I.5.	Women – Teenage Pregnancy and Motherhood					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Teenage pregnancy and motherhood[26] (%)						
Total	3.9%	2060	2.9%	2090	3.4%	4150
	[0.008]		[0.005]		[0.004]	
No education	2.1%	746	2.1%	815	2.1%	1561
	[0.006]		[0.006]		[0.004]	
Scheduled Caste	4.6%	463	2.8%	478	3.6%	941
	[0.011]		[0.008]		[0.007]	
Scheduled Tribe	4.5%	287	1.8%	252	2.9%	539

[26] Teenage pregnancy and motherhood: DHS defines teenage pregnancy and motherhood as the percentage of women between 15-19 years of age at interview who are mothers, pregnant with their first child, and have begun childbearing.

Table I.5.   Women – Teenage Pregnancy and Motherhood

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Muslim	2.5%	99	6.9%	85	4.5%	184
Poorest Wealth Quintile	2.8%	405	1.5%	420	2.1%	825
Second-Poorest Wealth Quintile	3.5%	407	5.0%	397	4.3%	804
	[0.013]		[0.014]		[0.009]	
Birth Intervals i.e. Months since preceding birth (%)						
7-17 months	24.7%	1440	23.5%	1384	24.1%	2824
	[0.015]		[0.014]		[0.010]	
18-23 months	22.2%	1440	20.0%	1384	21.1%	2824
	[0.016]		[0.019]		[0.012]	
24-35 months	34.0%	1440	37.5%	1384	35.8%	2824
	[0.015]		[0.018]		[0.012]	
36-47 months	9.1%	1440	10.0%	1384	9.6%	2824
	[0.010]		[0.010]		[0.007]	
48-59 months	0.5%	1440	0.5%	1384	0.5%	2824
	[0.003]		[0.002]		[0.002]	
Women who had unintended pregnancies (%)						
Total	16.2%	2340	13.9%	2340	15.0%	4680
	[0.014]		[0.010]		[0.009]	
15-19	4.9%	86	21.0%	69	12.3%	155
20-24	15.9%	1193	12.8%	1129	14.3%	2322
	[0.016]		[0.013]		[0.010]	
25-29	16.1%	760	12.9%	796	14.3%	1556
	[0.019]		[0.017]		[0.013]	
30-34	20.8%	244	20.8%	255	20.8%	499
	[0.047]		[0.028]		[0.027]	
35-39	20.6%	48	13.2%	72	15.9%	120
40-44	33.6%	6	12.5%	16	16.8%	22
45-49	100.0%	2	100.0%	2	100.0%	4
No education	16.3%	837	17.2%	909	16.8%	1746
	[0.018]		[0.018]		[0.013]	
Not employed	16.3%	2182	13.9%	2225	15.0%	4407
	[0.015]		[0.010]		[0.009]	
Scheduled Caste	16.4%	527	12.7%	1065	14.4%	1065
	[0.027]		[0.017]		[0.017]	
Scheduled Tribe	10.3%	319	9.5%	285	9.9%	604
Muslim	21.3%	109	27.1%	93	24.0%	202
Poorest Wealth Quintile	17.6%	444	13.8%	476	15.4%	920
Second-Poorest Wealth Quintile	17.3%	475	13.9%	448	15.6%	923
	[0.025]		[0.021]		[0.017]	
Mean number of children, both surviving and dead, to whom women in the sample have ever given birth						
Total	2.2	2340	2.3	2340	2.3	4680
	[0.051]		[0.039]		[0.031]	
Scheduled Caste	2.4	527	2.4	538	2.4	1065
	[0.104]		[0.077]		[0.063]	
Scheduled Tribe	2.2	319	2.3	285	2.3	604
Muslim	2.7	109	2.7	93	2.7	202
Poorest Wealth Quintile	2.7	444	2.6	476	2.6	920
Second-Poorest Wealth Quintile	2.4	475	2.5	448	2.4	923
	[0.087]		[0.080]		[0.059]	

Table I.5. Women – Teenage Pregnancy and Motherhood

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean number of living children to whom women in the sample have given birth						
Total	2.1	2340	2.1	2340	2.1	4680
	[0.046]		[0.037]		[0.029]	
Scheduled Caste	2.3	527	2.2	538	2.2	1065
	[0.098]		[0.064]		[0.056]	
Scheduled Tribe	2.1	319	2.2	285	2.2	604
Muslim	2.6	109	2.6	93	2.6	202
Poorest Wealth Quintile	2.5	444	2.4	476	2.5	920
Second-Poorest Wealth Quintile	2.2	475	2.3	448	2.3	923
	[0.076]		[0.077]		[0.054]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

I.4 Mean Age of Child

In the baseline survey, the mean age of a child (in months) for the overall sample is seen to be 10.7. This figure is slightly higher for the overall control districts (10.8 months) as compared to overall treatment districts (10.5 months).

The state-wise disaggregation shows age of the child (in months) to be higher for the Bihar control districts (9.5) than the Bihar treatment districts (8.9); higher for Madhya Pradesh (MP) treatment districts (10.6 months) than the Madhya Pradesh (MP) control districts (9.9 months); higher for Odisha treatment districts (12.5 months) than the Odisha control districts (12.3 months) and higher for the Rajasthan control districts (10.4 months) than the Rajasthan treatment districts (10.2 months).

Table I.6. Mean Age of Sampled Children

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean age of Sample child	10.5	2340	10.8	2340	10.7	4680
	[0.193]		[0.204]		[0.142]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Annex J   HBNC Plus

This annexure details the baseline findings for HBNC Plus and HBNC – from home visits and coverage to ASHA's and mother's knowledge and practices regarding the key components promoted under HBNC+ and HBNC.

J.1   Home Visits and Coverage

J.1.1   Home Visits conducted by ASHA

The "new" intervention under HBNC+ essentially extends the home-based continuum care to children up to 1 years of age, compared to up to 6 weeks of age in Phase-I. In the present sample, 63.7 per cent of households have ever received home visits from ASHA after childbirth (61.6 per cent households in the treatment districts and 65.5 per cent households in the control districts). Through the sub-group analysis conducted (Table J.1), it can be noted that a greater proportion of Scheduled Tribe households (66.5 per cent) have ever received a home visit from an ASHA, as compared to Scheduled Caste households (65.4 per cent). The figure for the poorest wealth quintile households is 68 per cent and that for second poorest wealth quintile is 66.4 per cent.

Overall, according to 7.9 per cent households, the main reason for the ASHA not conducting home visits was household being 'too far/no transport', Few other reasons were: Indifference/ discriminatory behaviour (7.3 per cent), mother and child were away from home during visit period (4.0 per cent), and ASHAs have not been instructed to conduct home visits (3.2 per cent).

Table J.1.	HBNC and HBNC Plus: Home Visits conducted by ASHA					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Households who ever received home visits from ASHA after child birth (%)						
Overall	61.6%	2340	65.5%	2340	63.7%	4680
	[0.025]		[0.018]		[0.015]	
Scheduled Caste	62.9%	527	67.4%	538	65.4%	1065
	[0.038]		[0.029]		[0.024]	
Scheduled Tribe	62.2%	319	69.5%	285	66.5%	604
Muslim	61.8%	109	59.8%	93	60.9%	202
Poorest Wealth Quintile	66.1%	444	69.4%	476	68.0%	920
Second-Poorest Wealth Quintile	64.7%	475	68.0%	448	66.4%	923
	[0.038]		[0.033]		[0.025]	
Main reasons for ASHA not conducting home visits (%)						
Total						
Too far/ No transport	6.3%	817	9.5%	887	7.9%	1704
Indifference/ discriminatory behaviour	6.9%	817	7.7%	887	7.3%	1704
Mother and child were away from home during visit period	4.5%	817	3.6%	887	4.0%	1704
ASHAs have not been instructed to conduct home visits	2.8%	817	3.6%	887	3.2%	1704
Scheduled Caste						
Indifference/ discriminatory behaviour	11.3%	195	8.2%	190	9.7%	385
Too far/ No transport	9.4%	195	3.6%	190	6.4%	385

Table J.1. HBNC and HBNC Plus: Home Visits conducted by ASHA

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mother and child were away from home during visit period	3.6%	195	1.0%	190	2.2%	385
Community/ Other caste members object	1.4%	195	2.7%	190	2.1%	385
Scheduled Tribe						
Indifference/ discriminatory behaviour	10.6%	93	5.5%	112	7.9%	205
Mother and child were away from home during visit period	5.5%	93	6.4%	112	6.0%	205
ASHAs have not been instructed to conduct home visits	3.3%	93	2.6%	112	3.0%	205
Too far/ No transport	3.1%	93	0.8%	112	1.9%	205
Muslim						
Too far/ No transport	10.5%	46	14.9%	43	12.6%	89
ASHAs have not been instructed to conduct home visits	3.2%	46	3.9%	43	3.5%	89
Mother and child were away from home during visit period	1.7%	46	2.0%	43	1.9%	89
Community/ Other caste members object	2.7%	46	0.0%	43	1.4%	89
Poorest Wealth Quintile						
Indifference/ discriminatory behaviour	11.6%	142	13.4%	170	12.6%	312
Too far/ No transport	8.4%	142	2.9%	170	5.4%	312
ASHAs have not been instructed to conduct home visits	3.3%	142	7.1%	170	5.4%	312
Mother and child were away from home during visit period	4.7%	142	0.8%	170	2.5%	312
Second-Poorest Wealth Quintile						
Too far/ No transport	7.2%	158	10.0%	168	8.6%	326
Indifference/ discriminatory behaviour	3.5%	158	6.3%	168	4.9%	326
Family did not allow	2.9%	158	4.4%	168	3.6%	326
Mother and child were away from home during visit period	2.3%	158	4.1%	168	3.2%	326

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.1.2 Home Visits conducted by ASHA as per HBNC

In 42.6 per cent of households, ASHAs conducted home visits at least 2 times within the first week of childbirth. The state-wise disaggregated statistic in the control districts of Madhya Pradesh with 32.3 per cent of the households is statistically significant at 5 per cent level).

Almost 6 per cent of households received home visits by the ASHA at least 6 times till the child reached 6 weeks of age, in case of institutional delivery and 2.4 per cent households received home visits by the ASHA at least 7 times till the child reached 6 weeks of age, in case of delivery at home (%). For both these indicators, the proportion is higher for the treatment districts than the control districts.

The mean number of home visits made by an ASHA to a household until the child reached 6 weeks of age is 1.9. The number is lowest (1.3) for the treatment districts of Rajasthan and highest for treatment districts of Odisha (3.2). For Madhya Pradesh's control districts, the figure of 1.4 mean home visits by ASHA is highly statistically significant at 1 per cent level.

Table J.2. HBNC: Home Visits conducted by ASHA according to HBNC protocols						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Households where ASHA conducted home visits at least 2 times within the first week of child birth (%)						
Total	41.4%	2340	43.6%	2340	42.6%	4680
	[0.022]		[0.018]		[0.014]	
Scheduled Caste	40.1%	527	45.1%	538	42.9%	1065
	[0.035]		[0.038]		[0.026]	
Scheduled Tribe	40.6%	319	44.6%	285	42.9%	604
Muslim	44.0%	109	32.2%	93	38.5%	202
Poorest Wealth Quintile	39.0%	444	49.4%	476	45.0%	920
Second-Poorest Wealth Quintile	45.4%	475	46.6%	448	46.0%	923
	[0.040]		[0.037]		[0.027]	
Households where ASHA conducted home visits at least 6 times until the child reached 6 weeks of age, in case of institutional delivery (%)						
Total	6.5%	1886	5.4%	1926	5.9%	3812
	[0.010]		[0.010]		[0.007]	
Scheduled Caste	5.3%	410	9.3%	425	7.5%	835
Scheduled Tribe	5.9%	244	6.4%	225	6.2%	469
Muslim	4.9%	87	1.9%	70	3.5%	157
Poorest Wealth Quintile	5.0%	302	5.2%	351	5.1%	653
Second-Poorest Wealth Quintile	7.1%	362	9.9%	350	8.6%	712
	[0.015]		[0.030]		[0.017]	
Households where ASHA conducted home visits at least 7 times till the child reached 6 weeks of age, in case of delivery at home (%)						
Total	3.8%	306	1.1%	265	2.4%	571
Scheduled Caste	7.5%	85	3.1%	70	5.4%	155
Scheduled Tribe	0.0%	56	1.8%	37	0.9%	93
Muslim	0.0%	16	5.2%	19	2.4%	35
Poorest Wealth Quintile	5.9%	112	2.1%	95	4.0%	207
Second-Poorest Wealth Quintile	4.7%	82	1.5%	68	3.2%	150
Mean number of home visits made by an ASHA to a						

Table J.2. HBNC: Home Visits conducted by ASHA according to HBNC protocols

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
household till the child reached 6 weeks of age						
Total	1.9	2147	1.9	2113	1.9	4260
	[0.101]		[0.088]		[0.067]	
Scheduled Caste	2.0	485	2.3	482	2.1	967
	[0.148]		[0.183]		[0.124]	
Scheduled Tribe	2.0	293	1.9	249	1.9	542
Muslim	1.7	102	1.3	86	1.5	188
Poorest Wealth Quintile	2.1	399	2.2	433	2.1	832
Second-Poorest Wealth Quintile	2.1	441	2.1	409	2.1	850
	[0.154]		[0.205]		[0.129]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.1.3 Home Visits conducted by ASHA as per HBNC+

Almost thirty per cent of households received home visits by the ASHA at least 3 times when the child was between 6 weeks and 1 year of age. The mean number of home visits made by an ASHA to a household when the child was between 6 weeks and 1 year of age is 1.4 and mean number of home visits made by an ASHA to a household till the child reached 1 year of age was 3.4. For the latter two indicators, the mean number is higher for second poorest wealth quintile of households (3.8) as compared to poorest wealth quintile of households (3.2).

Table J.3. HBNC Plus: Home Visits conducted by ASHA

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Households where ASHA conducted home visits at least 3 times when the child was between 6 weeks and 1 year of age (%)						
Total	29.3%	1038	31.1%	1084	30.3%	2122
	[0.021]		[0.018]		[0.014]	
Scheduled Caste	27.4%	234	23.6%	223	25.2%	457
Scheduled Tribe	27.9%	149	28.7%	146	28.4%	295
Muslim	19.2%	47	38.1%	37	26.7%	84
Poorest Wealth Quintile	25.8%	201	30.0%	225	28.3%	426
Second-Poorest Wealth Quintile	29.8%	209	33.8%	195	31.8%	404
Mean number of home visits made by an ASHA to a household when the child was between 6 weeks and 1 year of age						
Total	1.4	1038	1.3	1084	1.4	2122

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
	[0.129]		[0.085]		[0.075]	
Scheduled Caste	1.3	234	1.1	223	1.2	457
Scheduled Tribe	1.2	149	1.3	146	1.3	295
Muslim	0.8	47	2.1	37	1.3	84
Poorest Wealth Quintile	1.2	201	1.0	225	1.1	426
Second-Poorest Wealth Quintile	1.7	209	1.6	195	1.6	404
Mean number of home visits made by an ASHA to a household till the child reached 1 year of age						
Total	3.5	973	3.3	996	3.4	1969
	[0.210]		[0.167]		[0.133]	
Scheduled Caste	3.4	220	3.2	204	3.3	424
Scheduled Tribe	3.2	134	3.3	137	3.3	271
Muslim	2.4	44	3.1	34	2.7	78
Poorest Wealth Quintile	3.2	188	3.1	200	3.2	388
Second-Poorest Wealth Quintile	3.7	196	3.8	177	3.8	373

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Table J.3. caption: **HBNC Plus: Home Visits conducted by ASHA**

J.1.4 Satisfaction with home visits by ASHA

Keeping in mind the last few indicators, 51.1 per cent of households are satisfied with the mean number of home visits conducted by ASHA. Satisfaction level of households with the key messages delivered by the ASHA about health and nutrition is 57.3 per cent, with the provision of condoms, pills, medicines and other items is 40.6 per cent. Satisfaction level with the ASHA's attitude and behaviour is 70.4 per cent, with information received from ASHA on danger signs is 20.7 per cent and with referral information and assistance received from ASHA is 30.2 per cent. For each of these indicators, the highest level of satisfaction (in per cent) with the ASHA's services is of households belonging to Odisha's treatment or control districts and the lowest level of satisfaction is of households in Bihar's treatment or control districts.

According to the Focus Group Discussion (FGD) conducted under the qualitative study for the baseline survey, some women are quite satisfied with the services and key messages delivered by the ASHA.

"The information provided by ASHA is very useful to us. We did not know about them before. We came to know about exclusive breast-feeding up to six months of child's age with any other liquids or water. The knowledge we get from ASHA helps us very much. It is very good for the health of the child." "Earlier we had problems of pneumonia and polio but now it is not seen anymore". "ASHA has good effect on both mother and the child. Vaccinations are provided to them in appropriate time. The child illnesses are gradually decreasing in the community." (A Focus Group Discussion for Mothers, Jehanabad, Bihar)

"She tells us about ante natal care check-ups and come for home visits. She also arranges for transport during delivery and accompanies us to the hospital." "She comes for giving injections etc. my baby is 21 days and she has come at least 2-3 times till now." (A Focus Group Discussion for Mothers, Sheikhpura, Bihar)

In these types of group discussions, it was seen that women were reluctant to answer questions about issues of Family Planning and its methods. Moreover, the review of provision of family planning methods (such as of condoms, pills and other items) was that the ASHA provides condoms and pills free.

"Many women use these methods more often; ASHA also distributes mala-D and condoms which has increased their usage." (A Focus Group Discussion for Mothers, Sheikhpura, Bihar)

Despite the free provision, some of the reasons that came up for not using family planning methods were: women's husbands did not like using any family planning method and issues with access *"I do not get pills from nearby hospital and from the market."* (A Focus Group Discussion for Mothers, Raisen, Madhya Pradesh)

Regarding information received from ASHA on danger signs and vaccination, mothers in focus group discussions felt that home visits of the ASHA were a good effect on the mother and child. One mother said, *"We do not have to think about Tikakaran (immunization). She tells us about all vaccines."* The mothers are now able to detect when the child is sick and can take the child to the hospital without a referral. *"We know by ourselves when our child is sick and when to take it to the hospital."*

Table J.4.	HBNC Plus: Satisfaction with home visits made by ASHA					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Satisfied with number of home visits conducted by ASHA (%)						
Total	49.5%	2340	52.6%	2340	51.1%	4680
	[0.022]		[0.021]		[0.016]	
Scheduled Caste	49.1%	527	55.0%	538	52.3%	1065
	[0.038]		[0.038]		[0.027]	
Scheduled Tribe	52.7%	319	57.9%	285	55.7%	604
Muslim	57.2%	109	47.5%	93	52.7%	202
Poorest Wealth Quintile	51.0%	444	55.7%	476	53.7%	920
Second-Poorest Wealth Quintile	53.3%	475	55.1%	448	54.2%	923
	[0.039]		[0.034]		[0.026]	
Satisfied with key health and nutrition messages delivered by ASHA (%)						
Total	55.4%	2340	59.1%	2340	57.3%	4680
	[0.024]		[0.020]		[0.016]	
Scheduled Caste	51.0%	527	56.1%	538	53.8%	1065
	[0.045]		[0.035]		[0.028]	
Scheduled Tribe	58.9%	319	60.6%	285	59.9%	604
Muslim	54.4%	109	47.4%	93	51.1%	202
Poorest Wealth Quintile	52.4%	444	58.9%	476	56.2%	920
Second-Poorest Wealth Quintile	56.3%	475	59.9%	448	58.1%	923
	[0.041]		[0.029]		[0.025]	
Satisfied with provision of condoms, pills, medicines and other items (%)						
Total	39.9%	2340	41.2%	2340	40.6%	4680

Table J.4.	HBNC Plus: Satisfaction with home visits made by ASHA					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
	[0.022]		[0.019]		[0.015]	
Scheduled Caste	36.6%	527	40.4%	538	38.7%	1065
	[0.039]		[0.029]		[0.024]	
Scheduled Tribe	43.5%	319	37.1%	285	39.8%	604
Muslim	36.8%	109	40.2%	93	38.4%	202
Poorest Wealth Quintile	33.6%	444	40.0%	476	37.3%	920
Second-Poorest Wealth Quintile	43.3%	475	43.7%	448	43.5%	923
	[0.043]		[0.040]		[0.029]	
Satisfied with attitude and behaviour of ASHA (%)						
Total	70.0%	2340	70.8%	2340	70.4%	4680
	[0.022]		[0.021]		[0.015]	
Scheduled Caste	66.4%	527	70.8%	538	68.8%	1065
	[0.040]		[0.037]		[0.027]	
Scheduled Tribe	69.6%	319	71.2%	285	70.5%	604
Muslim	68.3%	109	63.6%	93	66.1%	202
Poorest Wealth Quintile	67.2%	444	70.6%	476	69.2%	920
Second-Poorest Wealth Quintile	72.2%	475	72.3%	448	72.2%	923
	[0.034]		[0.030]		[0.023]	
Satisfied with information received from ASHA on danger signs (%)						
Total	19.8%	2340	21.6%	2340	20.7%	4680
	[0.019]		[0.015]		[0.012]	
Scheduled Caste	19.3%	527	17.5%	538	18.3%	1065
	[0.027]		[0.028]		[0.019]	
Scheduled Tribe	25.0%	319	19.9%	285	22.0%	604
Muslim	19.9%	109	15.0%	93	17.6%	202
Poorest Wealth Quintile	18.5%	444	20.0%	476	19.4%	920
Second-Poorest Wealth Quintile	21.9%	475	20.0%	448	20.9%	923
	[0.040]		[0.033]		[0.026]	
Satisfied with referral information and assistance received from ASHA (%)						
Total	29.2%	2340	31.2%	2340	30.2%	4680
	[0.017]		[0.018]		[0.013]	
Scheduled Caste	26.9%	527	34.2%	538	30.9%	1065
	[0.031]		[0.037]		[0.025]	
Scheduled Tribe	41.0%	319	32.3%	285	35.9%	604
Muslim	27.7%	109	14.9%	93	21.7%	202
Poorest Wealth Quintile	28.5%	444	32.4%	476	30.8%	920
Second-Poorest Wealth Quintile	28.8%	475	33.9%	448	31.4%	923
	[0.027]		[0.037]		[0.023]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.2   Knowledge of Mothers

J.2.1   Breastfeeding

According to WHO, breastfeeding is an unmatched way of providing ideal food for the healthy growth and development of infants; it is also an inherent part of the reproductive process with important implications for the health of mothers.

Table J.5 presents the indicators for knowledge of the mothers about breastfeeding. About 47 per cent women are aware that a child must be breastfed immediately or within half an hour after birth, 80 per cent of women are aware that a child must be exclusively breastfed for the first 6 months after birth and 88 per cent of women think that colostrum must be fed to a child right after birth.

Focus group discussions with sets of mothers tell us that they are mostly aware of exclusive breastfeeding; however, some of them do not feel like their breast milk is enough. They start complementary feeding before six months because they feel the baby is still hungry.

"We know that our child should be fed mother's milk up to 6 months exclusively, but still he remains hungry. That's why we give other food." (A Focus Group Discussion for Mothers, Nalanda, Bihar)

Another issue faced by breastfeeding mothers is – *"also some women have insufficient milk secretion because of which they have to give supplementary food like cow's milk." '"They start giving semi-solid food by 3rd or 4th month. Commonly daal ka pani, cow's milk, roti, rice or fruits are given."* (A Focus Group Discussion for Mothers, Hosangabad, Madhya Pradesh)

Table J.5. Knowledge of Mothers: Breastfeeding						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who are aware that a child must be breastfed immediately or within half an hour after birth (%)	44.8%	2340	49.5%	2340	47.3%	4680
	[0.026]		[0.020]		[0.016]	
Women who are aware that a child must be exclusively breastfed for first 6 months after birth (%)	77.9%	2340	81.3%	2340	79.7%	4680
	[0.016]		[0.017]		[0.012]	
Women who think that colostrum must be fed to a child right after birth (%)	88.0%	2340	87.8%	2340	87.9%	4680
	[0.011]		[0.011]		[0.008]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.2.2 Growth monitoring

From the data, we understand that overall, 95.2 per cent women think that weighing a child right after birth is important. This proportion is highest for the control districts of Odisha (98.4 per cent, significant at 5 per cent level) and lowest for treatment districts of Bihar (92.8 per cent). In total, 90.4 per cent women think that monitoring the growth (height and weight) of a child for first few years is important. This figure is highest for the control districts of Odisha (94.8 per cent, significant at 1 per cent level) and lowest for control districts of Bihar (87.5 per cent).

About 58 per cent of women in the sample are aware of the optimal minimum birth weight for a child i.e. equal to or more than 2.5 kilograms. Moreover, approximately 30 per cent of women can identify whether a child is severely or moderately malnourished. In the overall treatment districts, the proportion is 33 per cent (statistically significant at 5 per cent) and in the overall control districts, the proportion is 27.8 per cent. Probing about the common signs of severe or moderate malnutrition that a woman could identify, 6.7 per cent said 'low weight for age', 6.2 per cent said 'dull, sparse, and brittle hair', 6.1 per cent said 'dry, loose, and wrinkled skin', and 6 per cent said 'lethargic/ lazy'. If her child was found to be severely or moderately malnourished, 46.8 per cent women said they would take their child to the Nutrition Rehabilitation Centre/ any health facility; 30.6 per cent women said they would improve the quality of the child's diet and 21.3 per cent women said they would improve the quantity of the child's diet.

In almost all the focus group discussions, mothers consistently say that the ASHA tells the mothers about growth monitoring. *"The women are going to hospital and attend VHND meetings with their children. Because there weight and height of the child is measured by ASHA, Growth chart is also being prepared by them. They know from the colour of the chart that green is better and red is worst."* (A Focus Group Discussion for Mothers, Angul, Odisha)

Table J.6.	Knowledge of Mothers: Growth monitoring					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who think that weighing a child right after birth is important (%)	94.3%	2340	95.9%	2340	95.2%	4680
	[0.008]		[0.006]		[0.005]	
Women who think that monitoring the growth (height and weight) of a child for first few years is important (%)	89.7%	2340	91.1%	2340	90.4%	4680
	[0.011]		[0.010]		[0.007]	
Women who are aware of the optimal minimum birth weight for a child i.e. equal to or more than 2.5 kilograms (%)	55.7%	2340	60.1%	2340	58.1%	4680
	[0.019]		[0.018]		[0.013]	
Women who can identify whether a child is severely or moderately malnourished (%)	27.8%	2340	33.0%**	2340	30.5%	4680
	[0.016]		[0.019]		[0.013]	
Common signs of severe or moderate malnutrition that a woman can identify (%):						
Low weight for age	3.9%	2340	9.3%***	2340	6.7%	4680
	[0.004]		[0.015]		[0.008]	
Dull, sparse and brittle hair	6.3%	2340	6.2%	2340	6.2%	4680

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.008]		[0.015]		[0.009]	
Dry, loose and wrinkled skin	6.0%	2340	6.1%	2340	6.1%	4680
	[0.006]		[0.011]		[0.006]	
Lethargic/ lazy	4.3%	2340	7.6%**	2340	6.0%	4680
	[0.006]		[0.014]		[0.008]	
Women who can understand whether a child is severely or moderately malnourished with the help of growth chart and health worker monitoring the growth of her child (%)	34.9%	2340	38.1%	2340	36.6%	4680
	[0.023]		[0.018]		[0.015]	
Measures that a woman will undertake if her child was found to be severely or moderately malnourished (%):						
Take him/her to the Nutrition Rehabilitation Centre/ Any health facility	43.3%	2340	49.9%**	2340	46.8%	4680
	[0.021]		[0.026]		[0.017]	
Improve the quality of his/her diet	31.6%	2340	29.8%	2340	30.6%	4680
	[0.018]		[0.020]		[0.014]	
Increase the quantity of his/her diet	21.2%	2340	21.3%	2340	21.3%	4680
	[0.016]		[0.019]		[0.013]	

Table J.6.   Knowledge of Mothers: Growth monitoring

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.2.3 Immunisation

In the overall sample, 93.2 per cent women think that getting a child immunised or vaccinated is important. Following are the responses (in percent) that were obtained when mothers were asked about vaccinations that a child should get: 52.7 per cent said BCG, 40 per cent said Polio, 27.5 per cent said DPT, 15.2 per cent said Measles, 9.3 per cent said Vitamin A, 9.3 per cent said Hepatitis. However, in total, about 5 per cent of mothers were aware of all basic vaccinations that a child must receive (BCG, Polio, DPT, Measles, and Hepatitis). Approximately 35 per cent of responses were recorded as 'Don't know' and this figure (37.8 per cent) is significant at the 5 per cent level for overall control districts.

Most of the mothers in the focus group discussions were aware of the importance of immunization through the key messages told by the ASHA

"People were not aware of immunization previously, even the family members were not accepting but with the involvement of ASHA they take more care of vaccinating the child. The situation has been change positively." (A Focus Group Discussion for Mothers, Hoshangabad, Madhya Pradesh)

The mothers were knowledgeable about vaccinations and the schedule. *"Tetanus injection, DPT injection is giving just after birth of a child. The immunization doses are given in 2 ½, 3rd, 6th, 9th month & in 3 years."* (A Focus Group Discussion for Mothers, Raisen, Madhya Pradesh)

Table J.7. Knowledge of Mothers: Immunisation						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who think that getting a child immunised or vaccinated is important (%)	92.6%	2340	93.8%	2340	93.2%	4680
	[0.014]		[0.012]		[0.009]	
Women who are aware of all basic vaccinations that a child must receive (BCG, Polio, DPT, Measles, Hepatitis) (%)	23.4%	2340	25.2%	2340	24.4%	4680
	[0.013]		[0.015]		[0.010]	
Vaccinations that a mother thinks is important for a child to receive (%)						
BCG	55.2%	2340	50.5%*	2340	52.7%	4680
	[0.018]		[0.019]		[0.013]	
Polio	42.0%	2340	38.2%	2340	40.0%	4680
	[0.018]		[0.018]		[0.013]	
DPT	28.0%	2340	26.9%	2340	27.5%	4680
	[0.018]		[0.012]		[0.011]	
Measles	14.7%	2340	15.6%	2340	15.2%	4680
	[0.014]		[0.012]		[0.009]	
Vitamin A	9.5%	2340	9.0%	2340	9.3%	4680
	[0.013]		[0.007]		[0.007]	
Hepatitis	8.5%	2340	10.0%	2340	9.3%	4680
	[0.008]		[0.007]		[0.005]	
Don't know	32.1%	2340	37.8%**	2340	35.1%	4680
	[0.017]		[0.020]		[0.013]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.2.4 Kangaroo Mother Care (KMC) and Communication and play with children

With regard to the knowledge of mothers about Kangaroo Mother Care (KMC) and communication and play with their children, 93.7 per cent women think that holding the baby chest to chest in an upright position is important. Ninety-five per cent think that keeping the baby warm at all times is important, 92.1 per cent think that regular play, and communication with child is important. The numbers for these indicators are not very different amongst the overall treatment and control districts.

Table J.8. Knowledge of Mothers: Kangaroo Mother Care (KMC) and Communication and play with children

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women who think that holding baby chest to chest in an upright position is important (%)	93.1%	2340	94.3%	2340	93.7%	4680
	[0.010]		[0.008]		[0.006]	
Women who think that keeping baby warm at all times is important (%)	94.2%	2340	95.4%	2340	94.8%	4680
	[0.008]		[0.008]		[0.005]	
Women who think that regular play and communication with child is important (%)	91.3%	2340	92.8%	2340	92.1%	4680
	[0.009]		[0.008]		[0.006]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

J.2.5 Hand-washing practices

Hand washing is promoted as a healthy practice, apart from others, under HBNC+. About 97 per cent women consider it important to wash hands before handling new-borns and small children. However, only 2.2 per cent of women reported correct knowledge of all 3 critical times of hand washing (i.e. after defecation by self and child and before eating and feeding the child). This figure was seen to be highest in the treatment districts of Odisha (6.7 per cent) and lowest for the control districts of Madhya Pradesh (0.2 per cent). Table J.9 gives a detailed account of women who reported correct knowledge of washing hands at particular instances.

Qualitative findings show that across the four states, mothers are generally aware of hand washing practices. *"Wash hands before eating and after using toilet. It kills 'kitaanu'. It is beneficial."* (A Focus Group Discussion, Dausa, Rajasthan)

Table J.9. Knowledge of Mothers: Hand-washing practices

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women who think washing hands before handling new-borns and small children is important (%)	97.0%	2340	96.3%	2340	96.6%	4680
	[0.004]		[0.005]		[0.003]	
Women who reported correct knowledge of all 3 critical times of hand washing (i.e. after defecation by self and child and before eating and feeding the child)	2.3%	2340	2.2%	2340	2.2%	4680
	[0.005]		[0.006]		[0.004]	
Women who reported correct knowledge of washing hands in the following instances: (%)						
After self-defecation	72.2%	2340	71.4%	2340	71.8%	4680

Table J.9. Knowledge of Mothers: Hand-washing practices

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.019]		[0.019]		[0.014]	
After cleaning stool of child	66.4%	2340	68.0%	2340	67.3%	4680
	[0.023]		[0.022]		[0.016]	
After cleaning the child after he/she defecates	63.4%	2340	59.30%*	2340	61.2%	4680
	[0.015]		[0.019]		[0.012]	
Before preparing food	49.9%	2340	50.7%	2340	50.3%	4680
	[0.015]		[0.019]		[0.012]	
Before eating	37.1%	2340	40.1%	2340	38.7%	4680
	[0.017]		[0.016]		[0.012]	
Before feeding child	23.8%	2340	24.8%	2340	24.4%	4680
	[0.014]		[0.016]		[0.011]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.2.6 Treatment of Diarrhoea

HBNC+ specially caters to treatment of diarrhoea by intake of oral rehydration salts (ORS) and referral to health facilities. Table J.10 summarises the findings related to awareness of mothers with respect to the treatment of diarrhoea. The question on knowledge of treatment of diarrhoea was only asked to the mothers whose child was suffering from diarrhoea in the past 2 weeks preceding the survey.

25.2 per cent of mothers whose child had had diarrhoea in the past 2 weeks were aware that the treatment for diarrhoea is ORS and 19.7 per cent were aware that treatment for diarrhoea is ORS and Zinc. In almost all of the 26 FGDs, the women mentioned that they were aware that the treatment for diarrhoea is ORS, but only in 2 FGDs did they know that an ORS and Zinc solution should be given to a child suffering from diarrhoea.

The following proportion of women detected as one of the danger signs of diarrhoea: Loose, watery stool (59.4 per cent), fever (36.1 per cent), and vomiting (28 per cent).

Following is the proportion of women who detected as one of the danger signs of pneumonia: difficulty in breathing (54.1 per cent), not able to drink or take a feed, pain in chest (36.7 per cent) and productive cough (34.0 per cent).

Table J.10. Knowledge of Mothers: Treatment of Diarrhoea

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women whose children have had diarrhoea, and who are aware that the treatment for diarrhoea is: (%)						

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
ORS	18.4%	69	32.1%	52	25.2%	121
ORS + Zinc	17.4%	69	22.1%	52	19.7%	121
Most common danger signs mother identified in babies with diarrhoea (%)						
Loose, watery stools	55.1%	69	65.6%	52	60.3%	121
Fever	48.0%	69	25.4%	52	36.7%	121
Vomiting	31.2%	69	25.7%	52	28.4%	121
Most common danger signs identified in babies with pneumonia (%)						
Difficulty in breathing	57.3%	69	51.5%	87	54.1%	156
Not able to drink or take a feed	39.3%	69	34.5%	87	36.7%	156
Pain in chest and productive cough	31.3%	69	36.3%	87	34.0%	156

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3   Behaviour of Mothers

J.3.1   Birth preparedness

Two of the major concentration areas of HBNC are the promotion of birth planning and preparedness and institutional delivery; these have been taken forward by HBNC+.

In the given sample, 94.4 per cent of women registered their pregnancy with a health service provider. Of these service providers/health facilities, 59.1 per cent of women have registered with an Anganwadi Centre (AWC), 35.4 per cent with an ASHA and 24.3 per cent with an ANM. On an average, it was at the third month of pregnancy that women registered their pregnancy with a health service provider.

Those who did not register their pregnancy with any health service provider, upon probing, maximum responses reported the following reasons: not necessary (62.2 per cent), lack of knowledge (30.3 per cent), not customary (4.9 per cent) and costs too much (3.5 per cent).

According to the 'Guidelines for Control of Iron Deficiency Anaemia' given by the National Rural Health Mission (NRHM) Iron and folic acid (IFA) tablets are distributed through sub-centres (SC), primary health centres (PHCs), community health centres (CHCs) and district hospitals (DHs) to all pregnant women and lactating mothers. The ideal dosage of the IFA supplementation (100 mg elemental iron and 500 mcg of folic acid) should be every day for at least 100 days, starting after the first trimester, at 14–16 weeks of gestation followed by the same dose for 100 days in post-partum period (NRHM, 2013).

The present sample shows about 76 per cent women ever consumed IFA tablets or syrup during pregnancy and 64.1 per cent women in the sample consumed IFA tablets for at least 100 days during pregnancy. Of those who did not consume at least 100 days the most popular

reasons noted (in per cent) were: not necessary (33 per cent), was not given tablets/syrup by the service provider *(ASHA/AWW/ANM/Others)* (27.6 per cent), tastes bad (23.4 per cent) and lack of knowledge (10.2 per cent).

Ninety-eight per cent women received at least one Tetanus Toxoid (TT) injection during pregnancy (significant at 5% level in the overall Control districts) and 88.4 per cent received two Tetanus Toxoid (TT) injections during pregnancy. Looking at state-wise disaggregation, the highest proportion of women receiving at least 1 Tetanus Toxoid (TT) injection during pregnancy is 99.8 per cent (statistically significant at 10 per cent level of significance) in the control districts of Odisha and the lowest proportion, 96.2 per cent, in the control districts of Bihar.

With respect to Ante-Natal Care (ANC) check-ups, 83.7 per cent of the sample received an Ante-Natal Care check-up and the mean number of check-ups received is 3.3. The proportion of women who received at least 4 or more Ante-Natal Care check-ups during pregnancy is 47.4 per cent. This indicator at 51.2 per cent is statistically significant (at 1 per cent level) for the overall control districts. Maximum responses (71.9 per cent) reported 'not necessary' to be the reason for not getting at least 4 Ante-Natal Care check-ups during pregnancy.

Of the women who got an Ante-Natal Care (ANC) check-up, 33 per cent were motivated to do so by their doctor and 19.6 per cent were motivated by the ASHA. About 84 per cent of women saw a health provider for Ante-Natal Care check-up during their pregnancy, the corresponding figure for the overall Control districts (85.7 per cent) was significant at the 5 per cent level. Regarding the main people from whom the women received the Ante-Natal Care check-up, 58.3 per cent of responses recorded doctor and 27.4 per cent responses recorded ANM/Nurse/Mid-wife/LHV. Private hospital/Maternity home/Clinic (31.3 per cent) and then Community Health Centre (CHC)/Rural hospital/Primary Health Centre (PHC) (24.6 per cent) were reported to be the main places where women received the Ante-Natal Care check-ups. On an average, it was in the middle of the third month of pregnancy (3.5) that the women generally got their Ante-Natal Care check-up done. The numbers for this indicator are consistent and range between 3.4 and 3.5 throughout the treatment and control districts of each state.

Following are the proportion of women for each service they received during the Ante-Natal Care check-up:
- 90.1 per cent women got their weight measured (92.2 per cent in overall treatment districts, statistically significant at 1 % level),
- 82.8 per cent women got their blood pressure checked (85.8 per cent in overall treatment districts, statistically significant at 1 % level),
- 81.9 per cent women got their blood tested (84.5 per cent in overall treatment districts, statistically significant at 5 % level),
- 80.5 per cent women got urine tested (83.2 per cent in overall treatment districts, statistically significant at 1 % level),
- 83.5 per cent women got abdomen tested (86.2 per cent in overall treatment districts, statistically significant at 1 % level),
- 46.3 per cent women got breasts examined (49.7 per cent in overall treatment districts, statistically significant at 5 % level),
- 55.2 per cent got sonogram/ultrasound done (58.9 per cent in overall treatment districts, statistically significant at 1 % level).

Table J.11 also gives the proportion of women for an exhaustive list of advice they got during an Ante-Natal Care check-up:

- 73.4 per cent of women (significant at 1% in overall Control districts) were told about expected date of delivery;
- 81 per cent (significant at 5% in overall Control districts) were advised to deliver in a health facility

Responses (in per cent) show that the most common health problems mothers suffered from during pregnancy were paleness/ giddiness/ weakness (45.5 per cent), significant at the 5 per cent level, excessive vomiting (40.8 per cent), significant at the 5 per cent level, excessive fatigue (33.7 per cent) and swelling of hands, feet and face (32.7 per cent). Maximum responses recorded 'No one referred' (52.4 per cent) and 'Doctor' (29.6 per cent) when asked about the main persons who referred the mother to seek treatment at a health facility, if treatment was required. Approximately 26 per cent of responses recorded private hospital/Maternity home/Clinic (25.9 per cent of responses) and 12.5 per cent of responses recorded government hospital (significant at 10 per cent level) to be the main health facilities that mothers were referred to for treatment, if treatment was required, and if referral was given.

Following are some insights from the focus group discussions held as part of the qualitative baseline survey: in most cases, mothers reported ASHAs telling them about institutional delivery in a government hospital, antenatal check-ups, keeping a healthy diet during pregnancy, IFA tablets to prevent weakness, birth preparedness, and immediate breastfeeding. In fact, in some instances, the ASHA even arranged transport for the mother to go to a health facility for delivery.

"She tells us about ante natal care check-ups and come for home visits. She also arranges for transport during delivery and accompanies us to the hospital." (A Focus Group Discussion, Sheikhpura, Bihar).

"She tells it is beneficial to have delivery done at hospital. She also tells that we will get money when delivery is done at hospital. Therefore, delivery should not be done at home. If not money, then at least there is cleanliness and all which is good for child and us." (A Focus Group Discussion, Rajasthan).

"She tells us about iron pills, that it will make us stronger. She distributes 100 pills to everyone. She said that it is Shakti Ki Goli (Tablets for Strength)" (A Focus Group Discussion, Jehanabad, Bihar).

However there were cases where the mother's didn't pay heed to the ASHA's advice: ASHA gives information on care during pregnancy*, "pre-delivery preparations like arrangement of money, clean cloth and gave us the address of the hospital.", new-born care, early breastfeeding (within 1.5 hour), "she advised us to go at least three times during pregnancy for antenatal check-up". "But we don't go to the government facility, because the doctors are not good there". "But iron pills does not suit everybody, it causes nausea and hard stools."* (A Focus Group Discussion, Hoshangabad, Madhya Pradesh).

"I do not listen to ASHA. I listen to my mother in law." (A Focus Group Discussion, Narsinghpur, Madhya Pradesh).

Table J.11.   Behavioural Outcomes of Mothers: Birth preparedness

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who registered their pregnancy with a health service provider (%)	94.0%	2340	94.8%	2340	94.4%	4680
	[0.008]		[0.006]		[0.005]	
Most common health facilities where women registered their pregnancy						
AWC	56.7%	2220	61.2%	2202	59.1%	4422
	[0.024]		[0.024]		[0.017]	
ASHA	33.5%	2220	37.1%	2202	35.4%	4422
	[0.014]		[0.027]		[0.016]	
ANM	26.3%	2220	22.5%	2202	24.3%	4422
	[0.017]		[0.019]		[0.013]	
Mean pregnancy month at which women registered their pregnancy with a health service provider	3.0	2207	2.9	2200	2.9	4407
	[0.034]		[0.039]		[0.027]	
Main reason for not registering pregnancy with a health service provider (%)						
Not necessary	64.1%	114	60.3%	128	62.2%	242
Lack of knowledge	26.4%	114	34.2%	128	30.3%	242
Not customary	7.3%	114	2.5%	128	4.9%	242
Women who ever consumed IFA tablets or syrup during pregnancy (%)	74.3%	2340	77.8%	2340	76.2%	4680
	[0.019]		[0.013]		[0.011]	
Women who consumed IFA tablets for at least 100 days during pregnancy (%)	63.6%	2340	64.5%	2340	64.1%	4680
	[0.016]		[0.013]		[0.010]	
Main reason for not consuming IFA tablets at all or for at least 100 days (%)						
Not necessary	32.5%	510	34.2%	560	33.3%	1070
Was not given tablets/syrup by the service provider (ASHA/AWW/ANM/Others)	26.9%	510	28.4%	560	27.6%	1070
Tastes bad	21.7%	510	25.1%	560	23.4%	1070
Women who received at least 1 Tetanus Toxoid (TT) injection during pregnancy (%)	97.3%	2340	98.7%**	2340	98.0%	4680
	[0.006]		[0.003]		[0.003]	
Women who received 2 Tetanus Toxoid (TT) injections during pregnancy (%)	88.2%	2296	88.6%	2302	88.4%	4598
	[0.010]		[0.009]		[0.006]	
Women who received a Maternal and Child health card during pregnancy with index child (%)	88.3%	2340	90.5%	2340	89.5%	4680
	[0.011]		[0.011]		[0.008]	
Women who saw a health provider for Ante-Natal Care check-up during pregnancy	81.5%	2340	85.7%**	2340	83.7%	4680
	[0.018]		[0.011]		[0.010]	
Mean number of Ante-Natal Care check-ups received	3.2	2326	3.5*	2322	3.3	4648
	[0.145]		[0.091]		[0.084]	
Women who received at least 4 Ante-Natal Care check-ups during pregnancy (%)	43.2%	2340	51.2%***	2340	47.4%	4680
	[0.021]		[0.021]		[0.015]	

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Main reason for not receiving at least 4 Ante-Natal Care check-ups during pregnancy (%)						
Not necessary	70.7%	1220	73.2%	1128	71.9%	2348
	[0.024]		[0.024]		[0.017]	
Lack of knowledge	14.7%	1220	12.1%	1128	13.4%	2348
	[0.019]		[0.014]		[0.012]	
Costs too much	12.7%	1220	11.9%	1128	12.3%	2348
	[0.014]		[0.016]		[0.011]	
Main persons who motivated mother to receive Ante-Natal Care check-up						
Doctor	31.8%	1926	34.2%	1981	33.1%	3907
	[0.017]		[0.021]		[0.014]	
ASHA	20.5%	1926	18.9%	1981	19.6%	3907
	[0.017]		[0.017]		[0.012]	
Husband	7.2%	1926	9.9%	1981	8.7%	3907
	[0.008]		[0.015]		[0.009]	
AWW	8.6%	1926	8.3%	1981	8.4%	3907
	[0.012]		[0.010]		[0.008]	
Main persons who mother received Ante-Natal Care from						
Doctor	56.3%	1926	59.9%	1981	58.3%	3907
	[0.019]		[0.019]		[0.013]	
ANM/Nurse/Mid-wife/ LHV	28.1%	1926	26.8%	1981	27.4%	3907
	[0.017]		[0.018]		[0.013]	
AWW/ICDS Worker	8.5%	1926	7.9%	1981	8.2%	3907
	[0.016]		[0.008]		[0.008]	
ASHA	6.2%	1926	4.8%	1981	5.5%	3907
	[0.010]		[0.007]		[0.006]	
Private hospital/ Maternity home/ Clinic	30.7%	1926	31.8%	1981	31.3%	3907
	[0.021]		[0.015]		[0.013]	
Community Health Centre (CHC)/ Rural hospital/ Primary Health Centre (PHC)	24.6%	1926	24.6%	1981	24.6%	3907
	[0.017]		[0.021]		[0.014]	
Government/ Municipal Hospital	14.6%	1926	16.6%	1981	15.7%	3907
	[0.016]		[0.016]		[0.011]	
Anganwadi/ ICDS centre	16.9%	1926	14.6%	1981	15.6%	3907
	[0.022]		[0.016]		[0.013]	
Mean pregnancy month in which woman received Ante-Natal Care check-up	3.5	1921	3.4	1976	3.5	3897
	[0.054]		[0.062]		[0.042]	
Services received during Ante-Natal Care check-up						
a. Weight measured	87.6%	1926	92.2%***	1981	90.1%	3907
	[0.013]		[0.008]		[0.008]	
b. Blood pressure checked	79.2%	1926	85.8%***	1981	82.8%	3907
	[0.019]		[0.012]		[0.011]	
c. Blood tested	78.8%	1926	84.5%**	1981	81.9%	3907
	[0.018]		[0.015]		[0.012]	
d. Urine tested	77.2%	1926	83.2%***	1981	80.5%	3907
	[0.016]		[0.016]		[0.011]	
e. Abdomen test	80.2%	1926	86.2%***	1981	83.5%	3907

Table J.11.   Behavioural Outcomes of Mothers: Birth preparedness

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.013]		[0.013]		[0.010]	
f. Breasts examined	42.2%	1926	49.7%**	1981	46.3%	3907
	[0.021]		[0.022]		[0.016]	
g. Sonogram/Ultrasound done	50.7%	1926	58.9%***	58.90%	55.2%	3907
	[0.019]		[0.017]	[0.017]	[0.013]	
Advice received during Ante-Natal Care check-up						
a. Told about expected date of delivery	69.5%	1926	76.7%***	1981	73.4%	3907
	[0.018]		[0.017]		[0.012]	
b. Advice to delivery in a hospital or health facility	78.7%	1926	82.8%**	1981	80.9%	3907
	[0.013]		[0.013]		[0.010]	
c. Advice about proper nutrition during pregnancy	74.1%	1926	80.9%***	1981	77.8%	3907
	[0.014]		[0.019]		[0.012]	
d. Advice on possible complications during pregnancy and delivery	56.1%	1926	65.4%***	1981	61.1%	3907
	[0.017]		[0.026]		[0.016]	
e. Advice on birth preparedness	65.7%	1926	74.2%***	1981	70.3%	3907
	[0.016]		[0.017]		[0.012]	
f. Advice on family planning	38.1%	1926	39.7%	1981	39.0%	3907
	[0.016]		[0.023]		[0.015]	
g. Advice on postpartum family planning or delaying your next child	39.2%	1926	40.2%	1981	39.7%	3907
	[0.018]		[0.025]		[0.016]	
h. Advice on IUCD insertion for family planning	27.4%	1926	28.7%	1981	28.1%	3907
	[0.016]		[0.019]		[0.013]	
i. Advice on Kangaroo Mother Care	38.3%	1926	41.4%	1981	40.0%	3907
	[0.019]		[0.023]		[0.015]	
j. Advice on early and exclusive breastfeeding	58.4%	1926	62.4%	1981	60.6%	3907
	[0.020]		[0.021]		[0.015]	
k. Advice on keeping the baby warm	52.1%	1926	60.6%***	1981	56.7%	3907
	[0.021]		[0.021]		[0.015]	
l. Advice on the need for cleanliness at the time of delivery	56.0%	1926	62.6%**	1981	59.6%	3907
	[0.019]		[0.019]		[0.014]	
m. Advice on detection of danger signs among new-borns	34.1%	1926	41.4%**	1981	38.1%	3907
	[0.018]		[0.023]		[0.015]	
Most common health problems mother suffered from during pregnancy						
Paleness/ Giddiness/ Weakness	48.3%	2340	43.0%**	2340	45.5%	4680
	[0.018]		[0.018]		[0.013]	
Excessive vomiting	44.4%	2340	37.7%**	2340	40.8%	4680
	[0.021]		[0.021]		[0.015]	
Excessive fatigue	35.7%	2340	32.0%	2340	33.7%	4680
	[0.019]		[0.016]		[0.013]	
Swelling of hands, feet and face	34.3%	2340	31.4%	2340	32.7%	4680
	[0.012]		[0.014]		[0.009]	
Main persons who referred mother to health facility to seek treatment, if treatment was required.						

Table J.11.	Behavioural Outcomes of Mothers: Birth preparedness					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
No one referred	53.2%	1599	51.6%	1548	52.4%	3147
	[0.021]		[0.021]		[0.015]	
Doctor	29.8%	1599	29.4%	1548	29.6%	3147
	[0.017]		[0.020]		[0.013]	
ANM/Nurse/Midwife/LHV	5.3%	1599	6.8%	1548	6.1%	3147
	[0.009]		[0.009]		[0.006]	
ASHA	5.3%	1599	5.2%	1548	5.3%	3147
	[0.007]		[0.008]		[0.006]	
Most common facilities mother was referred to for treatment, if treatment was required, and if referral was given.						
Private hospital. Maternity home/ Clinic	26.7%	1385	25.2%	1440	25.9%	2825
	[0.020]		[0.017]		[0.013]	
Government hospital	14.4%	1385	10.9%*	1440	12.5%	2825
	[0.012]		[0.014]		[0.010]	
Community Health Centre (CHC)/ Rural hospital	11.6%	1385	8.6%	1440	9.9%	2825
	[0.014]		[0.013]		[0.009]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3.2 Institutional Delivery

Almost 89 per cent of the women surveyed gave birth to the index child in a health facility. Overall, 74 per cent deliveries were in private facilities (the corresponding figure in all the Control districts was significant at 1 per cent level) and 13 per cent deliveries were in government facilities (the corresponding figure in all the Control districts was significant at 1 per cent level). In a majority of the cases (55 per cent), the ASHA motivated the mother to deliver in a health facility. This figure was statistically higher in the control districts than in the treatment districts, at the10 per cent level. Looking at the state-wise disaggregation, the figure was statistically higher in the control districts of Bihar and Orissa than in the treatment, at 5 per cent level of significance. In almost every FGD conducted in the four states, the discussants mentioned that the ASHA tells the mother about the importance of institutional delivery. *"Now more mothers are going to hospitals for delivery due to her [ASHAs] help. Delivery at hospital helps in improving the child's health."* – (A Focus Group Discussion for Mothers, Bihar). In several cases, she arranges for transport for the mother, and accompanies her for delivery as well.

Ninety one per cent of the women who had an institutional delivery received benefits from the Janani Suraksha Yojana scheme – Rs. 1402.3 on an average. From the qualitative data collected, 3 out of 26 FGDs (in Bihar, Madhya Pradesh (MP), and Odisha) mention that the ASHA told the mothers that they would get benefits from a government scheme if they

delivered in a facility. Out of these 3, the discussions in Bihar (Nalanda), and in Madhya Pradesh (MP) (Betul) explicitly mentioned the amount they would receive: "*The benefit is that we get 1400 rupees for delivering. It's good for poor families as we get quality care at these facilities.*" – (A Focus Group Discussion for Mothers, Nalanda, Bihar)

While around 46.1 per cent of the sample said they had possessed sufficient resources to pay for the delivery (significant in the overall Control districts at 5 per cent), 40.7 per cent said they saved money during the pregnancy (significant in the overall Control districts at 1 per cent), and 22.7 per cent had to take a loan. The percentage of those who said they possessed sufficient resources was statistically lower in the control districts, at 5 per cent level of significance overall, and at 1 per cent level of significance for Orissa. The percentage of those who said they saved money during the pregnancy was statistically higher in the overall control districts at 1 per cent level of significance, and in the Bihar control districts at 5 per cent level of significance.

The most common reason (36 per cent of the responses) for not delivering in a health facility was that the respondent did not think it was necessary to do so. Twenty eight per cent of the responses were that the respondent did not have enough time to go, and 27 per cent were that the respondent had an unexpected/sudden delivery.

When asked about whether certain procedures were followed during delivery, 77.5 per cent women agreed that a disposable delivery kit was used, and 89.2 per cent said that the baby was immediately wiped dry and wrapped in a cloth. Eighty-nine per cent said that a clean blade was used to cut the umbilical cord, and the figure for this was statistically higher in the control districts, at 5 per cent level of significance.

Table J.12.	Behavioural Outcomes of Mothers: Institutional Delivery					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who gave birth to a baby in a health facility (%)	87.3%	2340	88.2%	2340	87.8%	4680
	[0.018]		[0.015]		[0.011]	
Government facility	69.5%	2340	78.6%***	2340	74.3%	4680
	[0.023]		[0.016]		[0.014]	
Private facility	17.6%	2340	9.5%***	2340	13.3%	4680
	[0.016]		[0.010]		[0.010]	
Main persons who motivated woman to deliver in a health facility (%)						
ASHA	52.1%	2004	57.8%*	2044	55.1%	4048
	[0.022]		[0.024]		[0.017]	
Friend/ Relative	26.0%	2004	23.6%	2044	24.7%	4048
	[0.020]		[0.023]		[0.015]	
Doctor	7.9%	2004	8.0%	2044	7.9%	4048
	[0.010]		[0.011]		[0.007]	
Women who received Janani Suraksha Yojana (JSY) benefits for delivering in a health facility (%)	90.0%	1656	92.1%	1770	91.2%	3426
	[0.010]		[0.010]		[0.007]	
Mean Janani Suraksha Yojana (JSY) benefit received by a women (Rs.)	1405.6	1509	1399.7	1628	1402.3	3137
	[4.685]		[3.785]		[2.967]	

Table J.12. Behavioural Outcomes of Mothers: Institutional Delivery

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Main source of financial resources for delivery						
Had enough resources	49.1%	2340	43.5%**	2340	46.1%	4680
	[0.020]		[0.020]		[0.014]	
Saved during pregnancy	37.1%	2340	43.9%***	2340	40.7%	4680
	[0.015]		[0.017]		[0.012]	
Took loan	22.8%	2340	22.6%	2340	22.7%	4680
	[0.014]		[0.012]		[0.009]	
Main reason for not giving birth to a baby in a health facility (%)						
Not necessary	36.7%	326	35.3%	289	36.0%	615
Not enough time to go	27.1%	326	29.0%	289	28.1%	615
Sudden or unexpected labour	24.5%	326	29.7%	289	27.1%	615
Procedures followed during delivery						
A. Disposable delivery kit was used (clean clothes, sterilised needles and blades, gloves, plastic sheets, etc.)	76.3%	2340	78.5%	2340	77.5%	4680
	[0.018]		[0.016]		[0.012]	
B. Baby was immediately wiped dry and wrapped without being bathed	88.3%	2340	90.0%	2340	89.2%	4680
	[0.012]		[0.010]		[0.008]	
C. A clean blade was used to cut the cord	87.5%	2340	91.1%**	2340	89.4%	4680
	[0.010]		[0.011]		[0.007]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3.3 Post Natal Care

Almost 89 per cent of the women surveyed said they had registered their baby's birth with a health service provider. On an average, a woman received about 2 post-natal care (PNC) check-ups after delivery. The average was statistically lower in the control districts of Bihar than in its treatment districts, at 1 per cent level of significance, and in the Odisha control districts at 5 per cent level of significance. This figure was statistically higher in the control districts of Rajasthan than its treatment districts, at 5 per cent level of significance.

The majority of those who received a Post-Natal Care (PNC) check-up said that it was conducted by an ANM/Nurse (48.9 per cent). Forty seven per cent said they received the check-up from a doctor, and only 1.6% received it from the ASHA. From the qualitative data, 5 out of 26 FGDs mentioned that the ASHA advised them to get a Post-Natal Care (PNC) check-up after delivery. Thirty two per cent of those women who had a home delivery, said they received a Post-Natal Care (PNC) check-up within 2 days of the birth.

When asked about the different services performed during the Post-Natal Care (PNC) check-up, a majority of the women (ranging from 70 to 80 per cent) said that their baby was examined,

their abdomen was examined, and they received advice on exclusive breastfeeding (significant at 10% level) and baby care. However, only 40.8 per cent of the respondents said they received advice on family planning.

Table J.13.	Behavioural Outcomes of Mothers: Post Natal Care					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who registered their baby's birth with a health service provider (%)	89.3%	2340	88.3%	2340	88.8%	4680
	[0.012]		[0.010]		[0.008]	
Health professionals women received their first Post-Natal Care (PNC) check-up from:						
ANM/ Nurse	49.9%	1737	48.0%	1778	48.9%	3515
	[0.021]		[0.024]		[0.016]	
Doctor	45.9%	1737	47.8%	1778	46.9%	3515
	[0.020]		[0.025]		[0.016]	
ASHA	1.7%	1737	1.4%	1778	1.6%	3515
	[0.004]		[0.004]		[0.003]	
Women who received certain services during Post-Natal Care (PNC) check-up, in case of institutional delivery						
a. Abdomen examined	80.2%	1424	77.3%	1522	78.6%	2946
	[0.014]		[0.019]		[0.012]	
b. Advice on early/ immediate breastfeeding	85.4%	1424	85.6%	1522	85.5%	2946
	[0.013]		[0.016]		[0.010]	
c. Advice on exclusive breastfeeding	82.2%	1424	86.40%*	1522	84.5%	2946
	[0.015]		[0.015]		[0.010]	
d. Advice on baby care	73.6%	1424	76.0%	1522	74.9%	2946
	[0.022]		[0.020]		[0.015]	
e. Advice on family planning	39.4%	1424	41.9%	1522	40.8%	2946
	[0.024]		[0.026]		[0.018]	
f. Baby examined	68.6%	1424	72.9%	1522	71.0%	2946
	[0.025]		[0.019]		[0.016]	
Mean number of Post-Natal Care (PNC) check-ups received after delivery	1.8	2308	1.7	2304	1.7	4612
	[0.071]		[0.068]		[0.049]	
Mothers who received Post-Natal Care (PNC) visit within 2 days of birth (in the case of birth at home)	30.3%	326	33.8%	289	32.1%	615

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3.4 Breastfeeding and Complementary Feeding

Almost 99 per cent of the women surveyed said they had breastfed their child. However, only 40 per cent said they breastfed their child immediately, or within half-an-hour of birth. This percentage is statistically higher in the control districts, at 5 per cent level of significance. Interestingly, this figure ranges between 24 and 34 per cent for Bihar, Madhya Pradesh (MP),

and Rajasthan, but is almost 74 per cent for Odisha. From the qualitative data, 17 out of the 26 FGDs mentioned that the ASHA discussed the importance of immediate and exclusive breastfeeding with them. However, advice on when to start breastfeeding varied – from "immediately after birth", to "within 1.5 hours", to "within 24 hours of birth." – (Focus Group Discussions for Mothers in Anagul (Odisha), Hoshangabad (MP), and Sheikhpura (Bihar) respectively)

Around 73 per cent of the women whose child is 6 months of age or older, said that they had exclusively fed breast milk to their child for at least 6 months (significant at 10 per cent in the overall Control districts). This indicator was significant in the control districts of Odisha and Rajasthan... As far as current exclusive breast-feeding is concerned, the proportion of children (of age three months or older) who are still exclusively being fed breast milk is 10 per cent and the proportion of children (of age six months or older) who are still exclusively being fed breast milk is 3 per cent. In some FGDs, the mothers showed that they were aware of the importance of exclusive breastfeeding. In one case, the mothers said that the ASHA told them: *"The child cannot digest the cow's milk. Mother's milk has all the nutritional quality, so start the baby on mother's milk only."* – (A Focus Group Discussion for Mothers, Narsimhapur, Madhya Pradesh (MP))

When those who had never breastfed were asked their reason for not doing so, 63.5 per cent of the total responses were that the mother did not have enough milk, 16 per cent were that the mother was not aware of the importance of breastfeeding, and 13 per cent cited a medical condition.

Eighteen per cent women said that they gave their child something other than breast milk to drink in the first three days after birth. This figure was higher in Bihar (33 per cent), than in the other 3 states (13 –14 per cent). The most commonly fed item (78 per cent of the responses) in the first 3 days was milk (other than breast milk) which is significant at 5 per cent level; 6.5 per cent responses mentioned sugar/glucose water (significant at 10 per cent level in overall Control districts).

When those who did not exclusively breastfeed their child until 6 months of age were asked for a reason for not doing so, the most common responses were that the mother did not have enough milk (39 per cent of the total responses). Other reasons included that the mother was not aware of the importance of breastfeeding (25 per cent) and that the family had objected to it (24 per cent, significant at 5 per cent level).

Eighty seven per cent of those women whose child had ever fallen ill, said that they breastfed their child even when he/she was ill the last time. From the FGD, one mother who did so, said, *"Breastfeeding increases immunity of the child."* — (A Focus Group Discussion for Mothers, Betul, Madhya Pradesh (MP)).

Table J.14. Behavioural Outcomes of Mothers: Breastfeeding						
Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women who ever breastfed their children (%)	98.3%	2340	98.9%	2340	98.6%	4680
	[0.005]		[0.003]		[0.003]	
Women who breastfed their children immediately or within half an hour (%)	36.9%	2340	43.7%**	2340	40.5%	4680
	[0.022]		[0.020]		[0.015]	

Table J.14. Behavioural Outcomes of Mothers: Breastfeeding						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Main reason for never breastfeeding child						
Not enough milk	65.4%	37	60.9%	26	63.5%	63
Not aware of the importance of breastfeeding	20.9%	37	8.5%	26	15.7%	63
Medical condition (Child sick to take feed/ Mother sick to feed)	11.1%	37	15.0%	26	12.7%	63
Proportion of children (of age one month or older) who were exclusively fed breast milk for at least one month (%)	92.7%	2253	91.6%	2248	92.1%	4501
	[0.010]		[0.008]		[0.006]	
Proportion of children (of age two months or older) who were exclusively fed breast milk for at least two months (%)	88.2%	2100	89.2%	2120	88.7%	4220
	[0.011]		[0.010]		[0.007]	
Proportion of children (of age three months or older) who were exclusively fed breast milk for at least three months (%)	84.5%	1948	86.6%	1987	85.6%	3935
	[0.014]		[0.012]		[0.009]	
Proportion of children (of age four months or older) who were exclusively fed breast milk for at least four months (%)	81.3%	1823	83.1%	1853	82.2%	3676
	[0.016]		[0.014]		[0.011]	
Proportion of children (of age five months or older) who were exclusively fed breast milk for at least five months (%)	76.2%	1687	77.6%	1733	77.0%	3420
	[0.018]		[0.015]		[0.011]	
Proportion of children (of age six months or older) who were exclusively fed breast milk for at least six months (%)	71.8%	1583	74.9%*	1620	73.5%	3203
	[0.019]		[0.017]		[0.012]	
Proportion of children (of age three months or older) who are still exclusively being fed breast milk (%)	9.9%	1948	11.1%	1987	10.5%	3935
	[0.012]		[0.010]		[0.008]	
Proportion of children (of age six months or older) who are still exclusively being fed breast milk (%)	3.4%	1583	3.6%	1620	3.5%	3203
	[0.007]		[0.006]		[0.005]	
Average number of months for which a woman exclusively breastfed her child (if child is 6 months of age, or older)	5.8	1549	5.7	1560	5.7	3109
	[0.255]		[0.236]		[0.173]	
Women who gave their child something other than breast milk within the first 3 days after child birth (%)	17.1%	2340	19.0%	2340	18.2%	4680
	[0.014]		[0.012]		[0.009]	
Most common foods given to baby in first 3 days after birth						
Milk (Other than own mother's breast milk)	82.2%	379	74.0%**	468	77.6%	847
	[0.029]		[0.028]		[0.021]	
Plain water	21.8%	379	17.5%	468	19.4%	847
	[0.033]		[0.021]		[0.019]	
Sugar or glucose water	4.0%	379	8.5%*	468	6.5%	847
	[0.014]		[0.019]		[0.012]	

Table J.14. Behavioural Outcomes of Mothers: Breastfeeding						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Main reason for not exclusively breastfeeding their child till 6 months of age (%)						
Not enough milk	38.5%	859	39.2%	769	38.8%	859
	[0.027]		[0.020]		[0.017]	
Not aware of the importance of exclusive breastfeeding	23.7%	859	26.0%	769	24.8%	859
	[0.021]		[0.026]		[0.017]	
Family objected	26.6%	859	21.3%**	769	24.0%	859
	[0.016]		[0.015]		[0.011]	
Women who breastfed their child while he/she was sick or ill the last time (if the child had ever fallen ill) (%)	88.10%	2181	89.20%	2173	88.60%	4354
	[0.012]		[0.013]		[0.009]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

In each of the 26 FGDs conducted across the 4 states, women showed that they were aware that babies should be exclusively breastfed for the first 6 months. However, in many cases, it was evident that women did not always heed this rule. Some discussants stated that they started feeding their child other semi-solid food before he/she turned 6 months old: *"they [the mothers] start giving semi-solid food by 3rd or 4th month. Commonly daal ka pani, cow's milk, roti, rice or fruits are given."* — (A Focus Group Discussion for Mothers, Hoshangabad, Madhya Pradesh (MP)).

The reason for this was that the mothers felt that their breast milk was not enough, and so they had to start complementary feeding before 6 months because their baby felt hungry: *"We know that our child should be fed mother's milk up to 6 months exclusively, but still he remains hungry. That's why we give other food."* — (A Focus Group Discussion for Mothers, Nalanda, Bihar). This reason emerges strongly from the quantitative survey results as well. Sixty eight per cent of the mothers whose child was 6 months of age or more, reported that they started complementary feeding when the child was between 6-9 months of age. When those who started complementary breastfeeding before the child reached 6 months of age were asked for the reasons why they did so, the most common response was that the mother did not produce enough breast milk (51.3 per cent of the total responses). Thirty eight per cent of the responses cited a family tradition/ritual (statistically lower in the control districts at 1 per cent level of significance). The main reason was that the mother was unaware of the exact duration of exclusive breastfeeding, and 26 per cent responses were that no one had advised the mother (statistically lower in the control districts at 1 per cent level of significance).

Table J.15.	Behavioural Outcomes of Mothers: Complementary Feeding					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who started complementary feeding of their child when the child reached 6 months of age (%) --(if child is 6 months and above)	45.4%	1583	51.1%*	1620	48.5%	3203
	[0.022]		[0.020]		[0.015]	
Mothers of children 6 months and above, who started complementary feeding between 6-9 months	67.0%	1583	68.8%	1620	68.0%	3203
	[0.019]		[0.017]		[0.013]	
Children between 6-23 months of age, who receive a minimum acceptable diet (apart from breast milk)	23.1%	1586	31.9%***	1620	27.8%	3206
	[0.015]		[0.024]		[0.015]	
Main reason for starting complementary feeding of their child before the child reached 6-9 months of age (%)						
Not enough milk produced by mother	49.1%	867	53.4%	775	51.3%	1642
	[0.020]		[0.027]		[0.017]	
Family tradition/ ritual	43.6%	867	32.00%***	775	37.8%	1642
	[0.025]		[0.022]		[0.017]	
Not aware of exact duration	27.4%	867	25.9%	775	26.7%	1642
	[0.019]		[0.025]		[0.016]	
No one advised	32.4%	867	20.0%***	775	26.2%	1642
	[0.020]		[0.018]		[0.014]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3.5 Growth monitoring

Almost 86 per cent women said that they got their baby weighed at birth. The most common facilities for weighing the baby were CHCs/Rural hospitals/PHCs (45.4 per cent) followed by government hospitals (28 per cent, significant at 5 per cent) and private hospitals (10 per cent). The figure for private hospitals was significantly lower in the overall control districts than in the treatment districts, at 1 per cent level of significance. The percentage of those who got their baby weighed at a private hospital was statistically lower in the overall control districts, than in the treatment districts, at 1 per cent level of significance. On an average, a baby weighed 2.8 kilograms at birth.

When those who had not got their baby's weight measured at birth were asked for a reason, a majority of the responses cited the unavailability of the service (61 per cent of the total responses).

About twenty-eight per cent of the mothers surveyed said that they get their baby weighed every month. This figure was statistically higher in the control, than in the treatment districts, at 1 per cent level of significance. Around thirteen per cent of the mothers said they get their baby weighed once in three months. Around 50 per cent of the mothers said that they received

counselling for baby's weight and nutrition status from an AWW/ICDS Worker/ANM, when they got their child weighed. In most FGDs, women said that the ASHA told them about the importance of growth monitoring: "*In every few months we take the child to the Anganwadi centres for regular check- up, ration and weight-height measurement.*" — (A Focus Group Discussion for Mothers, Sheikhpura, Bihar).

Table J.16. Behavioural Outcomes of Mothers: Growth monitoring						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who got their baby weighed at birth (%)	85.6%	2340	86.2%	2340	85.9%	4680
	[0.015]		[0.015]		[0.011]	
Main reason for not getting their baby's weight measured after birth (%)						
Service not available	60.0%	329	61.5%	337	60.8%	666
Not necessary	10.7%	329	5.6%	337	8.0%	666
Lack of knowledge	5.5%	329	6.4%	337	6.0%	666
Mean birth weight of a child just after birth (in kilograms)	2.8	2011	2.8	2003	2.8	4014
	[0.016]		[0.017]		[0.012]	
Women who got their baby weighed at birth at/with (%)						
Community Health Centre (CHC)/ Rural hospital/ Primary Health Centre (PHC)	44.9%	2011	45.9%	2003	45.4%	4014
	[0.025]		[0.026]		[0.018]	
Government hospital	24.4%	2011	30.9%**	2003	27.8%	4014
	[0.022]		[0.024]		[0.017]	
Private hospital	13.6%	2011	6.9%***	2003	10.0%	4014
	[0.012]		[0.009]		[0.008]	
Women who get their baby's weight measured (%)						
Every month	25.1%	2340	31.5%***	2340	28.5%	4680
	[0.014]		[0.017]		[0.012]	
At least once in three months	12.9%	2340	12.3%	2340	12.6%	4680
	[0.011]		[0.013]		[0.008]	
Women who received counselling for baby's weight and nutrition status from an AWW/ICDS Worker/ANM, if child was ever weighed (%)	48.0%	1584	52.4%	1539	50.4%	3123
	[0.025]		[0.021]		[0.016]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

J.3.6 Immunisation

Ninety five per cent of the respondents said that their child had been immunized at least once (statistically significant at 10 per cent level). Of these, 69 per cent said their child had a vaccination card. Twenty-four per cent children of the total sample were fully vaccinated (that

is, they had received doses of BCG vaccination, all three doses of DPT/OPV and measles vaccination).

Most types of vaccines saw immunization rates of 60 - 90 per cent, for example, 90 per cent of the population had received the Polio vaccine, a figure significant at 10 per cent level. However, out of the children aged 9 months and above, only 53 per cent had received a Measles vaccine, and 44 per cent had received at least 1 dose of Vitamin A.

The most common facility for getting the child immunized was the AWC/ Pulse Polio (72.3 per cent of the responses). This percentage was statistically higher in the control districts of Odisha than in its treatment districts at 1 per cent level of significance, and statistically lower in the control districts of Madhya Pradesh (MP) compared to its treatment, at 10 per cent level of significance. The other common facilities were the Community Health Centre (CHC)/Rural hospital/ Primary Health Centre (PHC) (10.7 per cent), the sub-centre/ANM (8 per cent; and statistically lower in the control districts, at 1 per cent level of significance), and the government hospital (4.3 per cent).

The Department of Health and Family Welfare, Government of India defines dropout rate as the children who receive one or more vaccination but do not return for subsequent immunization (Immunisation Handbook for Medical Officers, 2008). For the current sample, the dropout rate between BCG and DPT1 vaccination on average is 5 per cent, and dropout rate between DPT3 and measles is 7.3 per cent.

Out of the responses to why the respondent never got their child immunized, the most common were that the service was not available (26 per cent of the total responses), that immunization was not necessary (25.4 per cent), and the lack of knowledge (16 per cent).

In each of the 26 FGDs, the respondents mentioned that the ASHA told them what vaccinations their child needs to get. An interesting point that was highlighted in several FGDs was that the ASHA played quite an instrumental role in spreading awareness about immunization, and ensuring that children received immunizations on time: *"Earlier we were unaware of child care, but with the help of ASHA we got a lot of knowledge regarding vaccination. Earlier we were afraid of vaccination causing infections. But ASHA told us that vaccinations are safe and necessary for our child."* -- (A Focus Group Discussion for Mothers, Bharatpur, Rajasthan)

In some cases, the ASHA helped dispel any incorrect preconceived notions about vaccinations: *"People were not aware of immunization previously, even the family members were not accepting but with the involvement of ASHA they take more care of vaccinating the child. The situation has been change positively."* – (A Focus Group Discussion for Mothers, Hoshangabad, Madhya Pradesh (MP)). In another discussion, the women said, "*Earlier we were afraid of vaccination causing infections. But ASHA told us that vaccinations are safe and necessary for our child."* -- (A Focus Group Discussion for Mothers, Bharatpur, Rajasthan).

From the FGDs, it also emerges that some mothers were completely dependent upon the ASHA to ensure that her child was vaccinated. It is possible that this dependency on the ASHA could have repercussions, with the mother becoming laidback about vaccines. This was evident through a discussion where some mothers said "*She [ASHA] takes care of the immunization routine for us. We can be carefree about it now. She keeps track of the immunization status of my child."* – (A Focus Group Discussion for Mothers, Anagul, Odisha). In another discussion, the women said, "*We do not have to think about Tikakaran*

(immunization). She [ASHA] tells us about all vaccines."" – (A Focus Group Discussion for Mothers, Jehanabad, Bihar).

Moreover, from one of the FGDs, it appears that the mothers did not even know the names of the vaccinations: *"She [ASHA] tells me that getting tikakran will protect the child from many illnesses. I do not know the names of vaccines. She only tells me to get it when the time comes." -- (*A Focus Group Discussion for Mothers, Jehanabad, Bihar).

However, there were also mothers who were aware of the immunization schedule: *"Tetanus injection, DPT injection is giving just after birth of a child. The immunization doses are given in 2 ½, 3rd, 6th, 9th month & in 3 years."* – (A Focus Group Discussion for Mothers, Raisen, Madhya Pradesh (MP)).

Table J.17.	Behavioural Outcomes of Mothers: Immunisation					
Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Children who were ever immunised (%)	94.5%	2340	96.4%*	2340	95.5%	4680
	[0.009]		[0.006]		[0.005]	
Children who have a vaccination card, if the child has ever been immunized (%)	67.2%	2239	70.8%	2245	69.1%	4484
	[0.019]		[0.025]		[0.016]	
Children at least 1 year of age who were fully vaccinated (had received BCG, all three doses of DPT/OPV and measles) (%)	23.4%	2340	25.2%	2340	24.4%	4680
	[0.013]		[0.015]		[0.010]	
Rates of immunisation by age group (%)						
Hepatitis B 0	59.8%	2239	60.9%	2245	60.4%	4484
	[0.016]		[0.018]		[0.012]	
Oral Polio Vaccine 0	91.2%	2239	88.3%*	2245	89.6%	4484
	[0.009]		[0.014]		[0.009]	
BCG	97.6%	2239	97.1%	2245	97.4%	4484
	[0.006]		[0.005]		[0.004]	
DPT 1 (if child is greater than or equal to 6 weeks of age)	86.1%	2119	86.7%	2124	86.4%	4243
	[0.015]		[0.012]		[0.010]	
Oral Polio Vaccine 1 ((if child is greater than or equal to 6 weeks of age)	89.0%	2119	88.7%	2124	88.8%	4243
	[0.010]		[0.011]		[0.008]	
Hepatitis B 1 (if child is greater than or equal to 6 weeks of age)	74.5%	2119	74.9%	2124	74.7%	4243
	[0.017]		[0.016]		[0.012]	
DPT 2 (if child is greater than or equal to 10 weeks of age)	89.2%	1989	88.9%	2031	89.1%	4020
	[0.014]		[0.012]		[0.009]	
Oral Polio Vaccine 2 (if child is greater than or equal to 10 weeks of age	91.9%	1989	90.6%	2031	91.2%	4020
	[0.009]		[0.010]		[0.007]	
Hepatitis B 2 (if child is greater than or equal to 10 weeks of age	77.2%	1989	76.7%	2031	76.9%	4020
	[0.017]		[0.017]		[0.012]	
DPT 3 (if child is greater than or equal to 14 weeks of age	75.6%	1874	75.7%	1906	75.6%	3780
	[0.016]		[0.014]		[0.011]	

Table J.17.	Behavioural Outcomes of Mothers: Immunisation					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Oral Polio Vaccine 3 (if child is greater than or equal to 14 weeks of age	77.3%	1874	76.3%	1906	76.8%	3780
	[0.014]		[0.016]		[0.011]	
Hepatitis B 3 (if child is greater than or equal to 14 weeks of age	63.6%	1874	64.2%	1906	63.9%	3780
	[0.019]		[0.019]		[0.013]	
Measles (if child is greater than or equal to 9 months of age	52.8%	2024	53.0%	2052	52.9%	4076
	[0.020]		[0.017]		[0.013]	
Vitamin A (at least 1 dose) (if child is greater than or equal to 9 months of age	44.1%	2024	44.2%	2052	44.2%	4076
	[0.020]		[0.017]		[0.013]	
Vitamin A (at least 2 doses) - (if child is greater than or equal to 9 months of age	18.7%	2024	16.3%	2052	17.4%	4076
	[0.016]		[0.015]		[0.011]	
Drop-out rate between BCG and DPT1[27]	3.6%	989	6.2%	1037	5.0%	2026
	[0.007]		[0.013]		[0.008]	
Drop-out rate between DPT3 and Measles[28]	8.5%	885	6.4%	914	7.3%	1799
	[0.014]		[0.011]		[0.009]	
Health facility from where a child received most of his/her vaccination (%)						
AWC/ Pulse Polio	69.6%	2228	74.6%	2234	72.3%	4462
	[0.022]		[0.023]		[0.016]	
Community Health Centre (CHC)/ Rural hospital/ Primary Health Centre (PHC)	10.4%	2228	11.0%	2234	10.7%	4462
	[0.013]		[0.020]		[0.012]	
Sub-centre/ ANM	10.7%	2228	5.7%***	2234	8.0%	4462
	[0.016]		[0.008]		[0.009]	
Main reasons for not getting the child immunised ever						
Service not available	25.7%	72	26.7%	83	26.1%	155
Not necessary	25.8%	72	24.9%	83	25.4%	155
Lack of knowledge	20.9%	72	10.7%	83	16.2%	155

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3.7 Kangaroo Mother Care (KMC) and Communication and play with children

Almost 90 per cent women said they kept their baby warm during the first cold season after childbirth, and 81 per cent said they sleep or rest with their baby between their breasts.

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[27] This indicator is calculated for children of 1 year age or greater who recieved the BCG vaccination but did not receive the dose one of the DPT vaccination.
[28] This indicator is calculated for children of 1 year age of greater who received the third dose of DPT but did not receive the Measles vaccination.

Seventy-six per cent women said they hold their baby chest-to-chest, in an upright position, and 18 per cent said they hold their baby in such a position for at least 60 minutes in one session. Eighty-one per cent women sleep or rest with the baby between their breasts (significant at 5 per cent level).

Only 32.3 per cent of the respondents said they placed their baby directly in skin-to-skin contact within half an hour of the baby's birth. This figure was statistically lower in the Odisha control districts, compared to its treatment districts, at 1 per cent level of significance.

When asked about the different ways in which they communicate with their child, 85.6 per cent said they talk to the child while 59 per cent said they play with the child (significant at 10 per cent level). Thirty-four per cent said they listen to the baby's cry, while 6.4 per cent said that they do not interact with the child at all.

The qualitative evidence shows that in around 12 of the FGDs, the discussants mentioned that the ASHA taught them KMC techniques (however, they did not describe what the technique entailed). In some FGDs, it was mentioned that the ASHA taught the mothers about communication techniques: "*Yes, she tells that we should teach the child to talk. She also tells us to make the child walk by holding its fingers. If time permits we should play with them.*" — (A Focus Group Discussion for Mothers, Bharatpur, Rajasthan).

Sometimes, the ASHAs advice extended to cover hygiene of the child: "*She told us to keep the nails of the children clean, bathe them regularly, put kajal in their eyes, and keep them with cleanliness in clean surroundings.*" — (A Focus Group Discussion for Mothers, Dausa, Rajasthan).

Table J.18. Behavioural Outcomes of Mothers: Kangaroo Mother Care (KMC) and Communication and play with children						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who kept their baby warm during the first cold season after child birth (%)	90.7%	2340	88.6%	2340	89.6%	4680
	[0.009]		[0.013]		[0.008]	
Women who hold their baby in an upright position – chest-to-chest (%)	77.7%	2340	74.5%	2340	76.0%	4680
	[0.016]		[0.019]		[0.013]	
Women who placed their baby directly in skin-to-skin contact within half an hour of the baby's birth (%)	32.6%	2340	32.0%	2340	32.3%	4680
	[0.023]		[0.016]		[0.014]	
Women who held their baby between breasts in an upright position for at least 60 minutes in one session	17.8%	2340	18.1%	2340	18.0%	4680
	[0.011]		[0.012]		[0.008]	
Women who sleep or rest with the baby between their breasts (%)	84.0%	2340	79.4%**	2340	81.5%	4680
	[0.013]		[0.013]		[0.009]	
Main mode of communicating or interacting with the child (%)						
Talk to the child	85.5%	2340	85.7%	2340	85.6%	4680
	[0.013]		[0.016]		[0.010]	
Play with the child	55.7%	2340	61.8%*	2340	58.9%	4680
	[0.024]		[0.022]		[0.017]	
Listen to the child or his/ her cry	31.8%	2340	35.2%	2340	33.6%	4680

Table J.18. Behavioural Outcomes of Mothers: Kangaroo Mother Care (KMC) and Communication and play with children

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.020]		[0.023]		[0.015]	
Mothers who are the main caretaker of baby	91.7%	2340	92.9%	2340	92.3%	4680
	[0.012]		[0.011]		[0.008]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3.8 Hand-washing practices

Almost ninety-eight per cent of the women reported that they wash their hands at the critical times (i.e. after self-defecation, after defecation by the child, before preparing food, and before eating). Around 95 per cent of the women said that they wash their hands 3-4 times a day.

Table J.19. Behavioural Outcomes of Mothers: Hand-washing practices

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women who reported that they wash their hands at critical times (after defecation by self, after cleaning child after defecation, before eating, and before feeding the child)	97.4%	2340	97.8%	2340	97.6%	4680
	[0.005]		[0.005]		[0.004]	
Women who wash their hands at least 3-4 times during the day (%)	96.3%	2340	94.7%	2340	95.4%	4680
	[0.006]		[0.009]		[0.005]	
Women who use soap and water to wash their hands (%)	57.9%	2340	60.2%	2340	59.1%	4680
	[0.018]		[0.016]		[0.012]	
Women who wash their hands at the following instances: (%)						
After self-defecation	99.9%	2340	99.9%	2340	99.9%	4680
	[0.000]		[0.001]		[0.000]	
After cleaning stool of child	99.8%	2340	99.8%	2340	99.8%	4680
	[0.001]		[0.001]		[0.001]	
After cleaning the child after he/she defecates	99.9%	2340	99.9%	2340	99.9%	4680
	[0.001]		[0.001]		[0.001]	
Before preparing food	97.9%	2340	98.4%	2340	98.1%	4680
	[0.004]		[0.005]		[0.003]	
Before eating	98.6%	2340	99.1%	2340	98.9%	4680
	[0.004]		[0.003]		[0.002]	
Before feeding child	98.8%	2340	98.4%	2340	98.6%	4680

Table J.19. **Behavioural Outcomes of Mothers: Hand-washing practices**

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
	[0.003]		[0.005]		[0.003]	
Other times	88.4%	2340	88.7%	2340	88.6%	4680
	[0.011]		[0.016]		[0.010]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

J.3.9 Diarrhoea Incidence and its Treatment

Around 2.3 per cent of the entire sample of women said that their child had suffered from diarrhoea in the past 2 weeks. Of these women, 82.3 per cent said they sought a treatment for the illness. Most women took their child to a private doctor (41.0 per cent). The other popular options were private hospitals (14.7 per cent), CHCs/Rural hospitals/PHCs (9.2 per cent), and government hospitals 8.0 per cent). On an average, the mother sought treatment 1.5 days after detection of diarrhoea. The most common treatment given to the child suffering from diarrhoea was ORS (46.4 per cent), followed by pills/syrup (34.4 per cent) and gruel made from rice (15.3 per cent).

When asked about modifications to the quantity of food and drink they gave the child after he/she was detected with diarrhoea, 22.2 per cent, 32.9 per cent and 50.2 per cent said they fed the baby the same/more amount of food, drink, and breast milk (respectively) than usual.

Table J.20. **Behavioural Outcomes of Mothers: Treatment for Diarrhoea**

Indicator	Treatment		Control		Overall	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women whose children suffered from diarrhoea in the last 2 weeks	2.5%	2340	2.2%	2340	2.3%	4680
	[0.004]		[0.005]		[0.003]	
Women who sought treatment or advice for diarrhoea for their child (%)	75.6%	69	88.9%	52	82.3%	121
Health facility that a woman sought treatment or advice from, if child had diarrhoea (%)						
Private doctor	33.9%	69	48.1%	52	41.0%	121
Private hospital	17.5%	69	11.8%	52	14.7%	121
Community Health Centre (CHC)/ Rural hospital/ Primary Health Centre (PHC)	7.8%	69	10.5%	52	9.2%	121
Government hospital	8.5%	69	7.5%	52	8.0%	121
Mean number of days after the first symptoms of diarrhoea that treatment or advice was sought	1.7	54	1.4	47	1.5	101
Treatment that was given to the child suffering from diarrhoea (%)						

Table J.20. Behavioural Outcomes of Mothers: Treatment for Diarrhoea

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
ORS	41.0%	69	51.8%	52	46.4%	121
Gruel made from rice	18.8%	69	11.7%	52	15.3%	121
Pill or syrup	34.3%	69	34.5%	52	34.4%	121
Injection	13.5%	69	11.6%	52	12.6%	121
Intravenous	0.0%	69	0.0%	52	0.0%	121
Home remedy/Herbal Medicine	4.0%	69	0.0%	52	2.0%	121
Children who were given the following when the child had diarrhoea (%)						
Same/more than usual to eat	29.9%	69	14.6%	52	22.2%	121
Same/more than usual to drink	43.8%	69	22.0%	52	32.9%	121
Same/more than usual breastfeed	53.3%	69	47.1%	52	50.2%	121
Children aged 6-12 months who suffered from diarrhoea during the last 2 weeks, sought treatment from the ASHA, and gave their child ORS treatment.	0.0%	69	5.2%	52	2.6%	121

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Annex K   SNCU Plus

The information presented in Annex K has been sourced from the SNCU+ Follow up survey, as well as from the Household Survey (the Child Questionnaire). Data from the former is presented in Section K.1, while the latter is presented in Section K.2. Both of these sections present an analysis of only the mothers/ primary caregivers and the new-borns, and not the concerned health workers.

K.1   SNCU+ Follow up survey

K.1.1 Profile of new-borns admitted to SNCU

Across the 4 states, 95.3 per cent of the sample of mothers said they got their new-born weighed at birth. This figure ranged from 88.9 per cent in Bihar to 100 per cent in Odisha. The mean birth weight was 2.4 kilograms. Forty seven percent of the new-borns weighed less than 2.5 kgs at birth.

Table K.1.	Profile of new-borns admitted to SNCU									
Indicator	**Program-level**		**Bihar**		**Madhya Pradesh (MP)**		**Odisha**		**Rajasthan**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**
Mothers who delivered at a health facility (%)	96.4%	449	97.8%	45	95.0%	159	95.9%	122	98.4%	123
Length of pregnancy (%)										
More than 37 weeks	64.1%	449	64.4%	45	64.2%	159	68.9%	122	59.4%	123
Between 34-37 weeks	24.3%	449	31.1%	45	22.6%	159	23.8%	122	24.4%	123
Less than 34 weeks	11.6%	449	4.4%	45	13.2%	159	7.4%	122	16.3%	123
Type of delivery (%)										
Normal	68.8%	449	40.0%	45	63.5%	159	80.3%	98	74.8%	92
Caesarean	22.7%	449	57.8%	45	26.4%	159	18.0%	122	9.8%	123
Mothers who got their new-born weighed at birth (%)	95.3%	449	88.9%	45	95.0%	159	100.0%	122	93.5%	123
Mean birth weight (in kilograms)	2.4	418	2.5	40	2.4	148	2.5	122	2.4	108
New-borns who weighed less than 2.5 kgs at birth (%)	46.9%	418	40.0%	40	52.7%	148	39.3%	122	50.0%	108
Note: ‘Mean’ represents the mean value of the indicator. ‘n’ represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*										

K.1.2 Mortality rates of new-borns admitted to SNCU

This section covers only those babies who had died by the time the SNCU+ Follow up survey was administered.

Almost seven percent of the sampled new-borns admitted to the SNCU died before discharge. This figure was as low as 0.8 per cent in Rajasthan, but was 10.1 per cent in Madhya Pradesh. Of the babies discharged from the SNCU, 5.7 per cent died after discharge. This figure was the highest in Madhya Pradesh (10.5 per cent), and lowest in Odisha (1.8 per cent).

Of those babies who had died by the time of the SNCU+ Follow up survey (either after discharge, or within the SNCU itself), the mean age at which the baby died was at 12.2 days. 32.7% of these babies had been referred to other or higher facilities, while they were at the SNCU.

Of the babies who were reported (by the mother/ primary caregiver) to have not been fully treated at the SNCU, 27.9% died after discharge from the SNCU.

Table K.2. SNCU	Profile of deceased new-borns who had been admitted to SNCU									
Indicator	**Program-level**		**Bihar**		**Madhya Pradesh (MP)**		**Odisha**		**Rajasthan**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**
New-borns who died at the SNCU itself (%)	6.9%	449	8.9%	45	10.1%	159	8.2%	122	0.8%	123
New-borns discharged from the SNCU who died after discharge[29]	5.7%	418	4.9%	41	10.5%	143	1.8%	112	4.1%	122
Mean age at which new-borns died (in days)	12.2	55	7.2	6	13.1	31	7.4	12	22.2	6
New-borns (who had died by the time of the survey), whose condition was referred to other or higher facilities (%)	32.7 %	55	50.0%	6	35.5 %	31	25.0 %	12	16.7 %	6
New-borns who were not fully treated[30] at SNCU, and died after discharge from the SNCU (%)	27.9%	43	22.2%	9	38.1%	21	12.5%	8	20.0%	5
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*										

K.1.3 Treatment of New-borns at SNCU

On an average, a new-born was admitted to the SNCU when he/she was 1.1 days old. The most common diseases/illnesses for which the new-born was admitted were low birth weight of less than 2.5 kg (36.8 per cent of all the responses), the new-born not crying and/or asphyxia (30.7 per cent), and Jaundice (21.4 per cent). The problem of the new-born not crying/asphyxia was more prominent in Bihar (44.4 per cent of all the responses) and Odisha (41 per cent), viz-a-viz Madhya Pradesh (18.9 per cent) and Rajasthan (30.9 per cent). The average time for which the new-born was admitted to the SNCU was 4.2 days.

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[29] This indicator only includes those new-borns who were discharged from the SNCU.
[30] The new-born's mother or primary care-giver reported that the child was 'fully treated' at the SNCU. This was not an assessment given by the SNCU staff.

Of the mothers whose new-born required resuscitation at birth, 94 per cent said their baby received the procedure. Out of the mothers whose new-born was admitted to the SNCU for Jaundice, 88.5 per cent said their baby received phototherapy. Each of the 10 new-borns suffering from Jaundice in Bihar reportedly received phototherapy.

Of the mothers whose new-born was discharged from the SNCU, 89.7 per cent said their new-born had been fully treated before discharge. However, 18.8 per cent of the mothers (whose baby was alive at the time of the survey) said their new-born was still ill, even after discharge from the SNCU.

Table K.3.	Treatment at SNCU									
Indicator	Program-level		Bihar		Madhya Pradesh (MP)		Odisha		Rajasthan	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
Mean age at which new-born was taken to the SNCU for treatment (in days)	1.1	449	0.4	45	1.5	159	1.2	122	0.8	123
Most common diseases detected in a new-born for which he/she was admitted to the SNCU (%)										
Low birth weight (Less than 2.5 kg)	36.8%	449	35.6%	45	42.8%	159	32.8%	122	33.3%	123
Didn't cry and/or Asphyxia (Low or no breathing)	30.7%	449	44.4%	45	18.9%	159	41.0%	122	30.9%	123
Jaundice	21.4%	449	22.2%	45	22.0%	159	17.2%	122	24.4%	123
Mean time for which new-born was admitted to the SNCU for treatment (in days)	4.2	448	5.2	45	4.7	159	3.4	122	3.9	122
New-borns who required resuscitation at birth and received it (%)	94.0%	100	83.3%	12	95.8%	24	92.9%	42	100.0%	22
New-borns admitted to the SNCU for jaundice, who received phototherapy at birth (%)	88.5%	96	100.0%	10	85.7%	35	90.5%	21	86.7%	30
New-borns discharged from the SNCU who were fully	89.7%	418	78.5%	41	85.3%	143	92.9%	112	95.9%	122

Table K.3.	Treatment at SNCU									
Indicator	**Program-level**		**Bihar**		**Madhya Pradesh (MP)**		**Odisha**		**Rajasthan**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**
treated[31] before discharge (%)										
New-borns discharged from the SNCU who were still ill (at the time of the survey) (%)[32]	18.8%	394	23.1%	39	14.8%	128	23.6%	110	17.1%	117
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*										

K.1.4 Discharge from SNCU

Ninety three per cent of the new-borns admitted to the SNCU were ultimately discharged, while the remainder died within the SNCU itself. In Rajasthan, 99.2 per cent of the admitted new-borns were discharged, while in Madhya Pradesh, this figure was 89.9 per cent.

Of those mothers who reported that their baby was not fully treated at the SNCU, the most common reason reported for discharge from SNCU was that the baby was referred to another health facility for treatment (53.5 per cent). This figure ranged from 25 per cent in Odisha to 88.9 per cent in Bihar. Twenty six per cent of the women said that the baby was not fully treated, but they/their family requested a discharge anyway, and 20.9 per cent said the baby was discharged by the SNCU itself, but without a referral.

Forty three per cent of the women, whose new-born was not fully treated at the SNCU, reported that they took their baby to other/higher facilities after discharge from the SNCU. This figure was 16.7 per cent in Odisha, and 66.7 per cent in Rajasthan. The most common facilities that these babies were taken to were private hospitals (50 per cent of the responses of women whose baby was taken a health facility), government hospitals (28.1 per cent), and private doctors/clinics (15.6 per cent). In Bihar, out of the 8 babies who were not fully treated and were taken to a health facility, 87.5 per cent of them were taken to a private hospital, and none was taken to a government facility. On the other hand, in Odisha, out of the 4 new-borns who were not fully treated and were taken to a facility, 50 per cent went to the government hospital.

Almost 74 per cent of the women said they received counselling/instructions about the care of the baby, at the time of discharge. However, this figure was only 41.5 per cent in Bihar, while it was 91.1 per cent in Odisha. The counselling/instructions were usually given by nurses (for 50 per cent of the women who received counselling/instructions) or doctors (44.2 per cent).

Table K.4.	Discharge from SNCU				
Indicator	**Program-level**	**Bihar**	**Madhya Pradesh (MP)**	**Odisha**	**Rajasthan**

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[31] The new-born's mother or primary care-giver reported that the child was 'fully treated' at the SNCU. This was not an assessment given by the SNCU staff.

[32] This indicator only covers those new-borns who were alive at the time of the survey.

	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
New-borns who were discharged from the SNCU[33]	93.1%	449	91.1%	45	89.9%	159	91.8%	122	99.2%	123
Main reasons for discharge from SNCU, if new-born was not fully treated[34] at SNCU (%)										
Referred to other health facility for treatment	53.5%	43	88.9%	9	52.4%	21	25.0%	8	40.0%	5
Not fully treated but discharged on family/caretaker's request without referral (seek no treatment)	25.6%	43	11.1%	9	28.6%	21	50.0%	8	0.0%	5
Not fully treated but discharged by SNCU without referral	20.9%	43	0.0%	9	19.1%	21	25.0%	8	60.0%	5
New-borns who were not fully treated[35] at the SNCU, and were taken to other/higher facilities after discharge from SNCU	74.4%	43	88.9%	9	81.0%	21	37.5%	8	80.0%	6
Most common health facilities new-borns who were not fully treated[36] at the SNCU were taken to for advice/treatment after discharge from SNCU,										
Private Hospital	50.0%	32	87.5%	8	41.2%	17	0.0%	3	0.0%	4
Government Hospital	28.1%	32	0.0%	8	41.2%	17	66.7%	3	50.0%	4
Private Doctor/Clinic	15.6%	32	12.5%	8	11.8%	17	33.3%	3	25.0%	4
Mothers who received instructions/counselling regarding care of new-born during discharge at the SNCU itself (%)[37]	73.7%	418	41.5%	41	75.5%	143	91.1%	112	66.4%	122
Most common people who gave instructions and counselling regarding care of new-born during discharge (%)										
Nurse	50.0%	308	41.2%	17	58.3%	108	44.1%	102	48.2%	81
Doctor	44.2%	308	58.8%	17	29.6%	108	55.9%	102	45.7%	81

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Source: NIPI Phase-II Baseline Survey 2013

K.1.5 Follow-up visits after discharge from SNCU

Forty eight per cent of the new-borns surveyed (excluding those who died in the SNCU itself), reported that they received a follow-up visit from a health worker, after discharge from the

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[33] The sample for this indicator includes all the new-borns covered under the SNCU+ Follow up survey -- i.e. the new-borns who were alive at the time of the survey, as well as those who had died by the time of the survey.

[34] The new-born's mother or primary care-giver reported that the baby was 'fully treated' at the SNCU. This was not an assessment given by the SNCU staff.

[35] The new-born's mother or primary care-giver reported that the baby was 'fully treated' at the SNCU. This was not an assessment given by the SNCU staff.

[36] The new-born's mother or primary care-giver reported that the baby was 'fully treated' at the SNCU. This was not an assessment given by the SNCU staff.

[37] This indicator does not include those new-borns who died within the SNCU itself.

SNCU. This figure ranged from 24.4 per cent in Bihar, to 89.3 per cent in Odisha. In Madhya Pradesh (MP) and Rajasthan, 36.4 per cent and 30.3 per cent of the women received follow-up visits for their baby, respectively.

When those mothers whose baby didn't receive a follow-up visit at all for were asked for the reason, the most common responses were that they were unaware that the ASHA was supposed to conduct home visits (29.1 per cent of the responses), and that the mother and baby were away from home during the visit period (24.4 per cent).

Around 26 per cent of the mothers, whose index baby was aged 6 weeks or more, reported that they received 3 or more visits until the baby was 6 weeks of age. None of the 10 babies aged 6 weeks and above in Bihar received 3 visits or more in that period. This figure was 53.6 per cent for Odisha, 8.2 per cent in Rajasthan, and 24.2 per cent in Madhya Pradesh.

On an average, a new-born received 1.5 follow-up visits after discharge from the SNCU. The mean number of home visits varied from 0.6 in Bihar to 3.1 in Odisha. Of those women whose new-born received a follow-up visit, a majority of them (90.5 per cent) reported that the visits were conducted primarily by the ASHA. In Rajasthan, this figure dipped to 69.4 per cent; here, the ANM/ Nurse conducted 16.7 per cent of the home visits.

Almost 79 per cent of the mothers (whose baby was alive at the time of the SNCU+ Follow up survey) said that their baby received a follow-up visit in the past 2 weeks. When those who did not receive a visit in that time were asked the age of the baby at the time of the health worker's last visit, the average response was 3.7 weeks.

Table K.5.	Follow-up visits after discharge from SNCU									
Indicator	Program-level		Bihar		Madhya Pradesh (MP)		Odisha		Rajasthan	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
New-borns who received a follow up visit from health worker after discharge from SNCU (%)	47.6%	418	24.4%	41	36.4%	143	89.3%	112	30.3%	122
Main reasons for health worker not visiting and following up on new-born's health after discharge from SNCU (%)										
Unaware that ASHAs are supposed to conduct Home Visits	29.1%	213	10.7%	28	28.1%	89	41.7%	12	34.5%	84
Mother and child were away from home during visit period	24.4%	213	17.9%	28	23.6%	89	25.0%	12	27.4%	84
New-borns discharged from SNCU who are/were 6 weeks old or more, who received at least	25.7%	288	0.0%	10	24.2%	124	53.6%	69	8.2%	85

three follow up visits by 6 weeks of age (%)										
Average number of follow up visits for new-borns discharged from SNCU[38]	1.5	411	0.6	38	1.2	141	3.1	112	0.8	120
Most common health workers that primarily followed up on new-born's health (%)										
ASHA	90.5%	199	90.0%	10	88.5%	52	99.0%	100	70.3%	37
ANM/ Nurse	4.0%	199	0.0%	10	1.9%	52	1.0%	100	16.2%	37
New-borns who received a follow up visit from health worker in the past 2 weeks (%)[39]	78.8%	193	50.0%	10	83.7%	49	85.7%	98	61.1%	36
Mean age of new-born till which the health worker conducted home visits after discharge from SNCU, if a follow-up visit was not received in the past 2 weeks (in weeks)[40]	3.7	34	2.0	5	4.7	7	4.2	13	3.3	9

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Source: NIPI Phase-II Baseline Survey 2013

K.1.6 Knowledge of Mother: Breastfeeding

Note: In this section, only those babies who were alive during the time of the SNCU+ Follow up survey are covered.

Eighty-nine per cent of the women were aware of the need for exclusive breastfeeding for the first six months of the baby's life. However, only 38.8 per cent knew that the new-born should be put to breast immediately/within half an hour of birth for breastfeeding. This figure was as low as 0 per cent in Bihar, but was 61.8 per cent in Odisha. When those women who knew that the new-born to be put to breast between half-an-hour and one hour of birth were included in the calculation of this indicator, the figure improved to 70.1 per cent of the overall sample. This varied from 41 per cent in Bihar to 87 per cent in Odisha.

Around 80 per cent of the women surveyed knew of the importance of feeding colostrum to the new-born.

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[38] This indicator includes those new-borns who were discharged from the SNCU. Of these new-borns, the ones who received no follow-up visits are also accounted for.
[39] This indicator covers only the new-borns who were alive at the time of the SNCU+ Follow up survey, and received at least one follow-up visit from the health worker.
[40] This indicator covers only the new-borns who were alive at the time of the SNCU+ Follow up survey.

Table K.6. Knowledge of Mothers: Breastfeeding[41]

Indicator	Program-level		Bihar		Madhya Pradesh (MP)		Odisha		Rajasthan	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
Mothers who are aware of the need for exclusive breastfeeding for first six months (%)	89.1 %	394	84.6 %	39	93.8 %	128	85.5 %	110	88.9 %	117
Mothers who know that new-born should be put to breast immediately/within half an hour of birth for breastfeeding (%)	38.8%	394	0.0%	39	40.6%	128	61.8%	110	28.2 %	117
Mothers who know that new-born should be put to breast within an hour of birth (%)	70.1%	394	41.0%	39	74.2 %	128	87.3%	110	59.0%	117
Mothers who know that colostrum should be fed to new-born (%)	80.5%	394	76.9%	39	82.8%	128	80.9%	110	78.6%	117
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*										

K.1.7 Behaviour of Mother: Breastfeeding

Ninety eight per cent of the women surveyed (whose new-born was discharged) have breastfed their baby at least once; this figure was 100 per cent for and Odisha. When the respondents who had never breastfed their new-born were asked their reason for not doing so, the most common response was that the baby was sick to take feed/ the mother was sick to feed the new-born (55.6 per cent of the women). Around 20 per cent of the mothers said they breastfed their new-born within half-an-hour of birth.

Ninety-one per cent of the women exclusively breastfed their new-born while he/she was admitted in the SNCU. This figure was 41.7 per cent in Bihar. Fifty nine per cent of the mothers (whose baby was alive at the time of the SNCU+ Follow up survey) had been continuously exclusively breastfeeding the baby since birth. In the case of mothers who had stopped exclusive breastfeeding at the time of the interview, on an average, a woman breastfed her child for 3.5 weeks. This figure was 0.2 weeks in Bihar, and 4.4 weeks in Rajasthan. The most common response for stopping exclusive breastfeeding before 6 months of age was that the mother did not have enough breast milk (46.2 per cent of the women).

Eighty one per cent of the women (whose baby was alive at the time of the SNCU+ Follow up survey) are still currently breastfeeding the baby.

Table K.7. Behaviour of Mothers: Breastfeeding[42]

Indicator	Program-level		Bihar		Madhya Pradesh (MP)		Odisha		Rajasthan	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
Mothers who have ever breastfed their new-born (%)	97.9%	418	92.7%	41	97.9%	143	100.0%	112	97.5%	122

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[41] The indicators in this table cover only those new-borns who were alive at the time of the SNCU+ Follow up survey.
[42] All indicators in this table exclude those new-borns who died within the SNCU itself (i.e., before discharge).

Table K.7. Behaviour of Mothers: Breastfeeding[42]

Indicator	Program-level		Bihar		Madhya Pradesh (MP)		Odisha		Rajasthan	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
Main reasons for never breastfeeding new-born (%)										
Medical condition (Child sick to take feed/ Mother sick to feed child)	55.6%	9	66.7%	3	33.3%	3	--	--	66.7%	3
No milk	44.4%	9	33.3%	3	33.3%	3	--	--	66.7%	3
Mothers who breastfed their new-born immediately/ within half an hour of birth (%)	20.3%	418	0.0%	41	22.4%	143	39.3%	112	7.4%	122
Mothers who exclusively breastfed new-born when they were admitted to SNCU **(%)**	91.2%	351	41.7%	24	93.1%	131	97.8%	92	95.2%	104
Mothers who have exclusively breastfed new-born (not even water) since birth (%)[43]	59.1 %	394	20.5 %	39	66.4 %	128	70.9 %	110	53.0 %	117
Mean time for which new-born was exclusively breastfed, if exclusive breastfeeding has stopped[44] (in weeks)	3.5	91	0.2	12	4.0	32	3.1	12	4.4	35
Main reasons for exclusively breastfeeding the new-born for less than 6 months (%)[45]										
Not enough milk	46.2%	93	69.2%	13	53.1%	32	50.0%	12	30.6%	36
Medical condition (Child sick to take feed/ Mother sick to feed child)	19.6%	93	30.8%	13	15.6%	32	50.0%	12	8.3%	36
Not aware of the importance of breastfeeding	18.3%	93	0.0%	13	15.6%	32	8.3%	12	30.6%	36
Mothers who are currently breastfeeding baby (%)[46]	80.7%	394	48.7%	39	89.8%	128	80.9 %	110	81.2 %	117

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Source: NIPI Phase-II Baseline Survey 2013

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[43] This indicator only covers those women whose new-born was alive at the time of the SNCU+ Follow up survey.
[44] This indicator only covers those women whose new-born was alive at the time of the SNCU+ Follow up survey. The estimate does not include those new-borns who were never breastfed.
[45] This indicator only covers those women whose new-born was alive at the time of the SNCU+ Follow up survey.
[46] This indicator only covers those women whose new-born was alive at the time of the SNCU+ Follow up survey.

K.1.8 Behaviour of Mother: Complementary Feeding

Note: In this section, only those babies who were alive during the time of the SNCU+ Follow up survey are covered.

Twenty six per cent of the mothers (whose baby was alive at the time of the SNCU+ Follow up survey) said that they fed something other than breast milk to their new-born, in his/her first three days. This figure was as high as 77 per cent in Bihar. The most common food given was milk (besides the mother's breast milk), which was fed by 73.8 per cent of the respondents.

Around 25 per cent of the women had already fed their baby other solid/semisolid/soft foods and liquids (besides water), before the baby reached 6 months of age. On an average, these women started complementary feeding when the new-born was 3.2 weeks old. The main reasons for starting complementary feeding before 6 months were that the mother didn't have enough milk (49.3 per cent of the women), and that they weren't aware of the exact duration of exclusive breastfeeding (31.9 per cent).

Table K.8.	Behaviour of Mothers: Complementary Feeding[47]								
Indicator	**Program-level**		**Bihar**		**Madhya Pradesh (MP)**		**Odisha**		**Rajasthan**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**
Mothers who gave new-born something other than breast milk in the first 3 days (%)	26.1 %	394	76.9 %	39	14.8 %	128	21.8 %	110	25.6 %	117
Most common foods (other than breast milk) given to new-born in first 3 days after delivery, if food was given in the first 3 days (%)										
Milk (Other than mother's breast milk)	73.8%	103	93.3%	30	47.4%	19	58.3%	24	80.0%	30
Infant formula (Cerelac/ Lactogen)	21.4%	103	10.0%	30	42.1%	19	33.3%	24	10.0%	30
Plain water	3.9%	103	13.3%	30	0.0%	19	0.0%	24	0.0%	30
Mothers who have fed their new-born other solid/ semisolid/ soft foods and liquids (excluding water), apart from breast milk (%)	24.6 %	394	38.5%	39	25.0 %	128	10.9%	110	32.5 %	117
Mean age at which mother started feeding new-born solid/ semisolid/ soft foods, if exclusive breastfeeding has been discontinued (in weeks)	3.2	69	0.2	11	3.9	29	3.5	10	3.8	19
Main reasons for starting complementary feeding before 6 months (%)										
Not enough milk	49.3%	69	63.6%	11	44.8%	29	50.0 %	10	47.4%	19

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[47] All indicators in this table cover only those new-borns who were alive at the time of the SNCU+ Follow up survey.

Table K.8.	Behaviour of Mothers: Complementary Feeding[47]									
Indicator	**Program-level**		**Bihar**		**Madhya Pradesh (MP)**		**Odisha**		**Rajasthan**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**
Not aware of exact duration of exclusive breastfeeding	31.9%	69	0.0%	11	44.8 %	29	30.0 %	10	31.6%	19
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*										

K.1.9 Knowledge of Mother: Child-care and Communication

Note: In this section, only those babies who were alive during the time of the SNCU+ Follow up survey are covered.

When asked about different child-care practices, 98.2 per cent said that the baby should be held upright in a chest-to-chest position; 93.7 per cent said the baby should always be kept warm; and 97 per cent said that the child should be regularly played and communicated with.

Table K.9.	Knowledge of Mother: Child-care and Communication[48]									
Indicator	**Program-level**		**Bihar**		**Madhya Pradesh (MP)**		**Odisha**		**Rajasthan**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**	**Mean**	**n**
Mothers who think that the following child-care practices should be followed[49] (%):										
Holding the baby chest-to-chest in an upright position	98.2%	394	89.7 %	39	97.7%	128	100.0%	110	100.0%	117
Keeping the baby warm at all times	93.7%	394	92.3%	39	93.8%	128	100.0%	110	88.0%	117
Regular play and communication with child	97.0%	394	94.9%	39	99.2%	128	98.2%	110	94.0%	117
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*										

K.1.10 Behaviour of Mother: Child-care and Communication

Note: In this section, only those babies who were alive during the time of the SNCU+ Follow up survey are covered.

Most of the women (97.9 per cent) whose baby had experienced at least one cold season, said that they had kept their baby warm. Ninety-eight percent reported that they held their baby upright, in a chest-to-chest position. However, only 0.8 per cent of the women said they held

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[48] All indicators in this table only cover those new-borns who were alive at the time of the SNCU+ Follow up survey.
[49] This indicator is meant to represent the Key Indicator "% of mothers with improved knowledge of KMC for children discharged from SNCU."

their baby in such a position for at least 60 minutes in one session. This figure was the highest for Bihar (2.6 per cent) and the lowest for Rajasthan (0 per cent).

Twenty-four per cent mothers held their baby in skin-to-skin contact immediately/ within half-an-hour of birth; however, the figure plummeted to 0 per cent for Bihar.

When asked about different ways of interacting with the child, 97 per cent said they talk to the child, 77 per cent said that they play with the child, and 48 per cent said they listen to the child or his/her cry.

Table K.10.	Behaviour of Mother: Child-care and Communication[50]								
Indicator	Program-level		Bihar		Madhya Pradesh (MP)		Odisha		Rajasthan	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
Mothers who kept baby warm during first cold season after childbirth, if applicable (%)	97.9%	382	92.3%	39	97.7%	128	99.0%	101	99.1%	113
Mothers who held the baby between breasts in an upright position, chest-to-chest (%)	98.2%	394	89.7%	39	99.2%	128	100.0%	110	98.3%	117
Mothers who hold their baby in an upright position, between breasts, for 60 minutes or more in one session (%)	0.8%	394	2.6%	39	0.8%	128	0.9%	110	0.0%	117
Mothers who held their new-born in skin-to-skin contact immediately/within half an hour of birth (%)	23.9 %	394	0.0%	39	27.3%	128	33.6%	110	18.8%	117
Mothers who held their baby in skin-to-skin contact within an hour of birth (%)	41.9 %	394	10.3%	39	46.9%	128	54.6%	110	35.0%	117
Mothers who sleep/rest with the new-born between their breasts (%)	72.8 %	394	82.1%	39	98.4%	128	15.5%	110	95.7%	117
Mothers who breastfed their baby when she/he was sick the last time (%)	94.9 %	394	79.5 %	39	96.9 %	128	97.3 %	110	95.7%	117
Mothers who interact with their baby in certain ways (%)										
Talk to the child	97.0%	394	92.3%	39	96.9%	128	97.3%	110	98.3%	117
Play with the child	76.7%	394	76.9%	39	80.5%	128	68.2%	110	80.3%	117
Listen to the child or his/her cry	48.2%	394	48.7%	39	49.2%	128	49.1%	110	46.2%	117
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*										

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[50] All indicators in this table only cover those new-borns who were alive at the time of the SNCU+ Follow up survey.

K.2 Household Survey: SNCU

When the sample of respondents in the household survey was asked whether their child had been admitted to the SNCU at birth, 2.8 per cent answered in the affirmative. The most common diseases for which the child was admitted were low birth weight (44.2 per cent of the total diseases in the sample of those admitted to the SNCU at birth), jaundice (23.7 per cent), and respiratory distress syndrome (20.1 per cent). The highest incidence rate of low birth weight was in the control districts of Rajasthan, where 75.2 per cent of the 19 children admitted to the SNCU suffered from the illness. Sixty two per cent of those admitted to the SNCU in the treatment districts of Odisha suffered from Jaundice, and 45.5 per cent of the SNCU-admitted sample in the control districts of Bihar suffered from Respiratory Distress Syndrome.

Across the sample, 96.2 per cent of those admitted to the SNCU were fully treated at the facility. This figure was 100 per cent in Rajasthan. On an average, a child was admitted to the SNCU when he/she was 3.4 days old. This figure varied from 1.5 days in Odisha's control districts, to 9.6 days in its treatment districts.

About 88.5 per cent of the women, whose child was admitted to the SNCU, said that they received instructions/ counselling regarding the care of the baby, during discharge from the SNCU. In 87 per cent of these cases, the counselling/ instructions were received from the doctor, and in 13 per cent cases, the nurse provided the counselling.

Out of the women who received counselling during discharge, 58.3 per cent said their child received at least 1 follow-up visit from a health worker, after discharge from the SNCU. This figure ranged from 26.7 per cent in Bihar's treatment districts, to 100 per cent in its control districts. For 65 per cent of the sample of those who received a home visit, the visit was conducted by the ASHA. In 22.7 per cent and 12.3 per cent cases, the ANM/Nurse, and other health workers conducted the visits, respectively. In Bihar's control districts, a majority of the cases (52.5 per cent of those who received a home visit here) received a visit from the ANM/ Nurse. On an average, a child received 1.4 home visits from a health worker, after discharge.

When those who did not receive a home visit were asked for possible reasons, 69.1 per cent women said that they did not know why the health worker did not follow up. Around 12.6 per cent of the women said that their residence was too far for the health worker, or that the health worker did not have transport, and 2.6 per cent said it was because of discriminatory/ indifferent behaviour of the health worker.

Out of those who received a home visit, 21.2 per cent also received a referral to a health facility from the health worker (in cases where it was required.)

Table K.11.	Household Survey: SNCU					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Children who were admitted to a district hospital/ SNCU immediately after his/her birth	2.4%	2340	3.2%	2340	2.8%	4680
	[0.004]		[0.005]		[0.003]	
Most common diseases detected in children admitted to the SNCU						
Low birth weight	32.8%	63	51.6%	80	44.2%	143
Jaundice	30.2%	63	19.5%	80	23.7%	143
Respiratory Distress Syndrome	11.4%	63	25.8%	80	20.1%	143

Table K.11.   Household Survey: SNCU

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Children whose disease was fully treated at the SNCU	96.7%	63	95.5%	80	96.0%	143
Mean age at which child was taken to the SNCU for treatment (in days)	3.1	63	3.5	80	3.4	143
Mothers who received instructions/counselling regarding card of child during discharge from SNCU	89.6%	63	87.8%	80	88.5%	143
Most common people who gave mother instructions/counselling regarding care of child during discharge from SNCU, if counselling was received						
Doctor	79.2%	55	92.2%	69	87.0%	124
Nurse	20.8%	55	7.8%	69	13.0%	124
Children whose mothers received instructions/ counselling during discharge received at least one follow-up visit from a health worker after discharge	44.2%	55	67.7%	69	58.3%	124
Main health workers from whom child received follow-up visit, if visit was received						
ASHA	62.0%	30	66.3%	42	65.0%	72
ANM/ Nurse	36.1%	30	16.8%	42	22.7%	72
Other health worker	1.8%	30	16.9%	42	12.3%	72
Average number of follow-up visits conducted by health worker after discharge from SNCU, if mother received instructions/counselling during discharge	1.0	55	1.7	69	1.4	124
Main reasons for health worker not conducting follow-up visits after child's discharge						
Respondent doesn't know reason	69.9%	25	68.2%	27	69.1%	52
Too far/ no transport	16.7%	25	7.9%	27	12.6%	52
Children who received a referral to any health facility from the health worker during the follow-up visit, if required, and if mother received instructions/ counselling during discharge (and if visit was received)	28.2%	30	18.1%	42	21.2%	72
Note: ‘Mean’ represents the mean value of the indicator. ‘n’ represents the sample size. *Source: NIPI Phase-II Baseline Survey 2013*						

Annex L Revitalisation of Post-partum Family Planning (especially PPIUCD) services

The post-partum family planning intervention under NIPI Phase-II seeks to strengthen and scale up PPFP services in the targeted 13 districts of the four focus states, especially post-partum intrauterine contraceptive devices (PPIUCD) service delivery. It aims to deliver PPFP services in two ways: at the **facility level** and at the **community level**.

In the former, the delivery of PPFP services (mainly involving PPIUCD, Lactational Amenorrhoea Method (LAM), condoms and sterilisation) will be strengthened. These PPFP services would be primarily delivered at block level health facilities; sub-divisional and district hospitals; and medical colleges with a high delivery case load. Additionally, training would be also provided to medical staff (i.e. doctors and nurses) and health workers (Yashodas/ Mamtas) on the delivery of the PPFP services and for conducting family planning counselling sessions. In the latter, ASHAs will be trained to deliver PPFP messages to raise awareness in the communities they serve about the availability of such PPFP services at the aforementioned health facilities.

L.1 Knowledge of Women

In this baseline survey, the knowledge of women about different family planning methods, birth spacing, and its associated benefits has been evaluated. For the purpose of this survey, a gap of 2 years has been taken as the standard between two consecutive births. Similarly, a gap of at least 6 months has been taken as the standard after an abortion and attempt at next pregnancy. Too frequent births without adequate spacing of children or limitations on the number of children in a family is a key cause for poor child and mother health outcomes.

L.1.1 Birth Spacing

As the evaluation focuses on women with their last child being less than or equal to two years of age, it is difficult to present the birth spacing knowledge of the communities they reside in or the states as a whole.

From Table L.1 below, 76.9 per cent of the total surveyed population reported that there should be a gap of 2 years between two consecutive births. Around 56.1 per cent of the surveyed population reported that there should be at least a 6 months gap between an abortion and an attempt at next pregnancy.

An overall of 65.3 per cent women knew of at least one benefit of birth spacing. This indicator ranged between 65 per cent and 71 per cent in the four states. The four main benefits identified by the respondents were better health status of the mother (45.3 per cent), better health status of the child (32.7 per cent), mother getting back to her normal state and regaining strength (34.2 per cent) and reduction in complication for next pregnancy (14 per cent).

Table L.1. Knowledge of Women: Birth spacing

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women who reported that there should be at least 2 years gap between two consecutive births (%)	76.8%	2340	77.1%	2340	76.9%	4680
	[0.012]		[0.015]		[0.010]	
Mean number of months reported by the women as time interval between two consecutive births	33.00	2009	35.07	1947	34.10	3956
	[0.453]		[0.571]		[0.367]	
Women who reported that there should be at least 6 months gap after an abortion and before trying for next pregnancy (%)	58.3%	2340	54.2%	2340	56.1%	4680
	[0.017]		[0.025]		[0.015]	
Mean number of months reported by the women as time interval between an abortion and before trying for next pregnancy	21.75	1583	22.47	1528	22.11	3111
	[1.398]		[2.138]		[1.289]	
Women who are aware of any benefits of having a gap between two consecutive births (%)	67.8%	2340	63.1%	2340	65.3%	4680
	[0.019]		[0.026]		[0.016]	
Main benefits reported by the women for having a gap between two consecutive births (%)						
Better health status of mother	46.1%	2340	44.6%	2340	45.3%	4680
	[0.018]		[0.019]		[0.013]	
Better health status of child	34.1%	2340	31.4%	2340	32.7%	4680
	[0.015]		[0.018]		[0.012]	
Mother gets back to her normal state and regains strength	34.0%	2340	34.3%	2340	34.2%	4680
	[0.014]		[0.019]		[0.012]	

Note:
'Mean' represents the mean value of the indicator.
'N' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

L.1.2 Family Planning methods

As described in the introductory paragraph of this section, the primary focus on family planning methods involves PPIUCD, LAM, condoms, and sterilisation. Despite that, the survey administered questions on a larger range of family planning methods to gauge the level of awareness for both temporary and limiting methods.

For the purpose of this evaluation, the following were considered as temporary family planning methods: oral contraceptive pills, IUCD, injectable, implants, diaphragm, emergency contraception, rhythm method, withdrawal, LAM, male condoms, and female condoms. Male sterilization and female sterilization were considered as limiting methods of family planning.

An overall 98 per cent of the women were aware of any family planning methods, disaggregating this figure, 93.5 per cent women were aware of temporary methods and 97 per cent of limiting methods. Moreover, the awareness levels for female sterilization surpasses all other family planning methods at 96.3 per cent. Awareness levels for oral contraceptive pills (83.2 per cent), male condoms (75.6 per cent), and male sterilization (74.5 per cent) exceeded that of IUCD (73.4 per cent) and injectable (63.8 per cent).

For this baseline survey, focused group discussions (FGD) were held with women regarding their knowledge about family planning methods. From these FGDs we gather that their primary source of information for birth spacing and family planning methods were the ASHAs who served their respective communities. Most FGDs reported women being unaware of PP-IUCD (insertion of an IUCD within 48 hours of childbirth) but identified the product "Copper-T" as the equivalent to IUCD method of contraception.

One of the women who was aware of the Rhythm Method as a family planning method stated - *"I know the rhythm method where keeping away from husband in 15 days before and after menses prevents conception." -- (*A Focus Group Discussion for Mothers, Sheikhpura, Bihar)

Some women displayed awareness about birth spacing: *"Birth spacing is to keep interval between two children. For that we should take methods like Mala-D, Copper-T, condom, injection." (*A Focus Group Discussion for Mothers, Sheikhpura, Bihar). Several women were also aware about the benefits of birth spacing. In one discussion, the women said *"She (*ASHA) *also tells about family planning. She tells us to give 3 years gap from first child. For this, she also gives tablets if somebody asks for it. She tells that until one year after birth of one child we should only look after that child. This helps in better care of child. And we should think about another child after a gap of 3 years." (*A Focus Group Discussion for Mothers, Bharatpur, Rajasthan). In another FGD, the women said, "*the children become healthier and stronger as they get more attention" -- (*A Focus Group Discussion for Mothers, Jharsuguda, Odisha)*. Some women also said that it was *"cheaper to have fewer children." (*A Focus Group Discussion for Mothers, Jharsuguda, Odisha)

Table L.2.　　Knowledge of Women: Family Planning methods

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women who were aware of any family planning methods (%)	98.3%	2340	98.7%	2340	98.5%	4680
	[0.005]		[0.004]		[0.003]	
Women who were aware of any temporary family planning methods (%)	92.5%	2340	94.4%	2340	93.5%	4680
	[0.012]		[0.008]		[0.007]	
Women who were aware of any limiting family planning methods (%)	96.8%	2340	97.1%	2340	97.0%	4680
	[0.006]		[0.005]		[0.004]	
Women who were aware of at least three modern family planning methods (%)	88.6%	2340	89.0%	2340	88.8%	4680
	[0.013]		[0.010]		[0.008]	
Temporary family planning methods that women are aware of (%)						
Oral contraceptive daily or weekly pills	82.6%	2340	83.8%	2340	83.2%	4680
	[0.018]		[0.013]		[0.011]	
Intrauterine contraceptive device	74.8%	2340	72.1%	2340	73.4%	4680

Table L.2. Knowledge of Women: Family Planning methods

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
	[0.017]		[0.016]		[0.012]	
Injectable	65.3%	2340	62.6%	2340	63.8%	4680
	[0.019]		[0.018]		[0.013]	
Male condoms	75.3%	2340	75.9%	2340	75.6%	4680
	[0.017]		[0.013]		[0.011]	
Limiting family planning methods that women are aware of (%)						
Female sterilisation	96.1%	2340	96.5%	2340	96.3%	4680
	[0.006]		[0.006]		[0.004]	
Male sterilisation	74.7%	2340	74.3%	2340	74.5%	4680
	[0.017]		[0.020]		[0.013]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

L.2 Behavioural Outcomes of Women

For the purpose of this baseline survey, the figures generated under ever usage of family planning methods, current usage of family planning methods and the discontinuity of family planning methods will be examined. Although the awareness levels for family planning methods in general are relatively high, the question arises if the knowledge of these respondents has transitioned to actual practice for birth spacing and/or limiting number of children born.

L.2.1 Birth Spacing

For examining birth spacing practices, 192Table L.3on birth intervals from the Women's profile will be considered. The same table below shows that 24 per cent of women had a birth interval between 7 – 17 months and 21 percent had a birth interval of 18 – 23 months. A time period of less than 24 months between consecutive births is considered below the ideal gap for this survey. However, 36 per cent of women reported a birth interval of 24 – 35 months, 9.6 percent a birth interval of 36 – 47 months, 0.5 per cent a birth interval of 48 – 59 months, and 24 per cent a birth interval of 60 months.

Table L.3. Behaviour of Women: Birth Spacing

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Birth Intervals i.e. Months since preceding birth (%)[51]						
7-17 months	24.7%	1440	23.5%	1384	24.1%	2824
	[0.015]		[0.014]		[0.010]	

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[51] The sample size consists of total number of children of all respondents who are included in the baseline survey.

Table L.3.	Behaviour of Women: Birth Spacing					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
18-23 months	22.2%	1440	20.0%	1384	21.1%	2824
	[0.016]		[0.019]		[0.012]	
24-35 months	34.0%	1440	37.5%	1384	35.8%	2824
	[0.015]		[0.018]		[0.012]	
36-47 months	9.1%	1440	10.0%	1384	9.6%	2824
	[0.010]		[0.010]		[0.007]	
48-59 months	0.5%	1440	0.5%	1384	0.5%	2824
	[0.003]		[0.002]		[0.002]	
60 months	24.7%	1440	23.5%	1384	24.1%	2824
	[0.015]		[0.014]		[0.010]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

One respondent during an FGD discussion said about her birth spacing practice: *"She (ASHA) came just after delivery to talk about having a gap between children. According to her advice, I had Copper-T inserted. I have no worries about getting pregnant again." -- (*A Focus Group Discussion for Mothers, Jharsuguda, Odisha)

L.2.2 Family Planning Methods

Ever use of family planning methods

At the time of this baseline survey, women were asked if they or their husband had used any family planning method(s) prior to this survey. From Table L.4 below, we note that only about 30 per cent of the total population surveyed answered in the affirmative. Also, it should be noted that on the basis of state wise disaggregation, the percentage of ever users in the control districts are greater than the percentage of ever users in the treatment districts for all four states.

Moreover, overall data shows that 20.7 per cent women/their husband had employed temporary family planning methods, which exceed the figure 10.2 per cent of women/ their husband who had employed limiting family planning methods.

Within the types of temporary family planning methods ever used, male condoms (6.3 per cent) and oral contraceptive pills (5.6 per cent) were preferred over traditional family planning methods such as withdrawal (3.6 per cent) and rhythm method (3.3 per cent); and modern method IUCD (0.7 per cent).

The limiting methods of female sterilization and male sterilization were used by 10 and 0.2 per cent (respectively) of the overall sample.

When those women who had never used any family planning method(s) were asked their reason(s) for not doing so, as multiple responses, the most popular reasons were that they were breastfeeding (13.3 per cent), wanted as many children as possible and it was up to God (12.9 per cent), their husband was away (9.1 per cent) and that they feared side effects (7.2 per cent).

Table L.4.	Behaviour of Women: Ever use of family planning methods					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women/their husband who have ever used any family planning methods (%)	25.9%	2340	33.3%	2340	29.8%	4680
	[0.014]		[0.017]		[0.012]	
Women/their husband who have ever used any temporary family planning methods (%)	17.2%	2340	23.8%	2340	20.7%	4680
	[0.012]		[0.019]		[0.012]	
Women/their husband who have ever used any limiting family planning methods (%)	9.6%	2340	10.8%	2340	10.2%	4680
	[0.008]		[0.010]		[0.006]	
Temporary family planning methods that women/their husband have ever used (%)						
Condom/ Nirodh	6.4%	2340	6.2%	2340	6.3%	4680
	[0.006]		[0.009]		[0.006]	
Oral contraceptive daily or weekly pills	3.3%	2340	7.6%	2340	5.6%	4680
	[0.004]		[0.018]		[0.010]	
Withdrawal	2.8%	2340	4.4%	2340	3.6%	4680
	[0.004]		[0.007]		[0.004]	
Rhythm Method	2.6%	2340	3.8%	2340	3.3%	4680
	[0.004]		[0.006]		[0.004]	
Intrauterine contraceptive device	0.7%	2340	0.8%	2340	0.7%	4680
	[0.002]		[0.003]		[0.002]	
Limiting family planning methods that women/their husband have ever used (%)						
Female sterilisation	9.5%	2340	10.6%	2340	10.1%	4680
	[0.008]		[0.010]		[0.006]	
Male sterilisation	0.1%	2340	0.2%	2340	0.2%	4680
	[0.001]		[0.001]		[0.001]	
Main reasons for not ever using any family planning methods (%)[52]						
Breastfeeding/ Postpartum Amenorrhoea	13.4%	1633	13.2%	1569	13.3%	3202
	[0.012]		[0.014]		[0.009]	
Wants as many children as possible/ up to God	12.3%	1633	13.5%	1569	12.9%	3202
	[0.013]		[0.015]		[0.010]	
Husband away	8.3%	1633	9.9%	1569	9.1%	3202
	[0.012]		[0.012]		[0.008]	
Fear of side effects	7.4%	1633	7.0%	1569	7.2%	3202
	[0.010]		[0.008]		[0.007]	

[52] The sample size and generated percentages includes only those respondents who have never used any family planning methods (both temporary and limiting) at the time of this baseline survey.

Table L.4.	Behaviour of Women: Ever use of family planning methods					

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean number of living children after which a family planning method was used for the first time by the woman or her husband	1.89	705	1.79	770	1.83	1475
	[0.073]		[0.064]		[0.049]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%;
** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Current use of family planning methods

From Table L.5 below, it should be noted that about 23 per cent of the total population is currently using any family planning method(s) despite an awareness level of 77 per cent for birth spacing. Based on state wise treatment and control districts disaggregation, Bihar has the lowest number of current users (11.3 percent and 17.7 per cent) of any family planning methods while Madhya Pradesh has the highest (30.3 percent and 30.6 percent).

Similar to the ever usage of family planning methods, current users of temporary family planning methods (12.6 per cent) exceeds that of current users of limiting family planning methods (10.2% per cent). Male condoms continue to be relatively the most preferred temporary method of contraception at 4.2 per cent followed by oral contraceptive pills and rhythm method (both at 2.9 per cent). In the case of limiting family planning methods, the percentage of female and male sterilization ever users and current users is the same at 10.1 percent and 0.2 percent respectively.

Table L.5.	Behaviour of Women: Current use of family planning methods					

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women/their husband who have currently used any family planning methods (%)	20.5%	2340	25.4%	2340	23.1%	4680
	[0.012]		[0.012]		[0.009]	
Women/their husband who have currently used any temporary family planning methods (%)	10.5%	2340	14.4%	2340	12.6%	4680
	[0.008]		[0.014]		[0.008]	
Women/their husband who have currently used any limiting family planning methods (%)	9.7%	2340	10.7%	2340	10.2%	4680
	[0.008]		[0.009]		[0.006]	

Table L.5. Behaviour of Women: Current use of family planning methods						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Temporary family planning methods that women/their husband are currently using (%)						
Condoms/ Nirodh	4.1%	2340	4.3%	2340	4.2%	4680
	[0.005]		[0.007]		[0.004]	
Rhythm Method	2.5%	2340	3.2%	2340	2.9%	4680
	[0.004]		[0.005]		[0.003]	
Oral contraceptive daily or weekly pills	1.6%	2340	4.0%	2340	2.9%	4680
	[0.003]		[0.014]		[0.008]	
Withdrawal	1.6%	2340	2.1%	2340	1.9%	4680
	[0.003]		[0.004]		[0.003]	
Intrauterine contraceptive device	0.5%	2340	0.3%	2340	0.4%	4680
	[0.002]		[0.002]		[0.001]	
Limiting family planning methods that women/their husband are currently using (%)						
Female sterilisation	9.6%	2340	10.5%	2340	10.1%	4680
	[0.008]		[0.009]		[0.006]	
Male sterilisation	0.1%	2340	0.2%	2340	0.2%	4680
	[0.001]		[0.001]		[0.001]	
Main reasons for not currently using any family planning methods (%)[53]						
Breastfeeding/ Postpartum Amenorrhoea	36.1%	145	39.5%	153	38.2%	298
Husband away	16.0%	145	11.8%	153	13.4%	298
Fear of side effects	7.9%	145	4.3%	153	5.7%	298
Health concerns	2.3%	145	6.5%	153	4.9%	298
Difficulties faced in getting the currently used family planning method (%)[54]						
No problem	96.3%	560	96.1%	617	96.1%	1177
	[0.008]		[0.009]		[0.006]	
Not regularly available with Primary Health Centre (PHC)	1.5%	560	0.5%	617	0.9%	1177
	[0.005]		[0.003]		[0.003]	
Not regularly available with ASHA	0.2%	560	0.0%	617	0.1%	1177
	[0.002]		[0.000]		[0.001]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

When those women who are not currently using any family planning method(s) were asked their reason(s) for not doing so, as multiple responses, the most popular reasons were that

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[53] The sample size is restricted to those respondents who are not currently using any family planning method.
[54] The sample size is restricted to those respondents who are currently using any family planning method.

they were breastfeeding (38.2 per cent), their husband was away (13.4 per cent), fear of side effects (5.7 per cent) and had health concerns (4.9 per cent).

Upon probing the women about any difficulties faced in getting the currently used family planning method(s), 96 per cent of the respondents did not face any difficulties in acquiring their chosen method of contraception.

Discontinued use of family planning methods

From Table, we understand that 21.3 per cent of the population who had ever used any family planning method(s) have currently discontinued using any family planning method(s). Bihar has the highest rate of discontinuity at 39.3 percent and 31.1 per cent in the treatment and control districts whereas Madhya Pradesh has the lowest at 14.5 percent and 15 per cent in the treatment and control districts respectively.

The percentage of women who discontinued using any temporary family planning methods are 21 per cent. Temporary family planning methods with the highest discontinuity rates are oral contraceptive pills (35.2 per cent) and male condoms (22.6 per cent). In comparison, the discontinuity rate for IUCD is marginally lesser despite the relatively less uptake of IUCD as a temporary method of contraception. Looking at the state-wise disaggregation of these indicators, the control districts of Rajasthan had the highest discontinuity of IUCD (49.1 per cent), followed by its treatment districts (45 per cent). The lowest discontinuity rate of IUCD was in the control district of Madhya Pradesh (MP). Bihar's treatment district had the highest discontinuity rate of condoms (40 per cent), while the control district of Odisha had the lowest (2.9 per cent).

Table L.6.	Behaviour of Women: Discontinued use of family planning methods					
Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women/their husband who have discontinued use of any family planning methods (%)[55]	19.7%	707	22.3%	771	21.3%	1478
	[0.025]		[0.023]		[0.017]	
Women/their husband who have discontinued use of any temporary family planning methods (%)	19.4%	707	22.1%	771	21.0%	1478
	[0.025]		[0.022]		[0.017]	
Temporary family planning methods that women/their husband have discontinued use of (%) [56]						
1 Oral contraceptive daily or weekly pills	36.5%	204	34.6%	246	35.2%	450
	[0.049]		[0.041]		[0.032]	
2 Intra uterine contraceptive device	4.1%	159	3.9%	157	4.0%	316
3 Injectable	3.1%	146	1.4%	154	2.0%	300
4 Condom/Nirodh	28.7%	267	18.4%	274	22.6%	541
	[0.038]		[0.032]		[0.025]	
Main reasons for discontinuing use of any family planning methods (%)						

[55] The sample size is conditional on respondents who have ever used any family planning method. Women who have never used any family planning methods are excluded from the sample.

[56] The sample size of each listed family planning method is a difference of the ever users of a family planning method and current users of that family planning method.

Table L.6.	Behaviour of Women: Discontinued use of family planning methods					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Breastfeeding/ Postpartum Amenorrhoea	7.2%	707	9.4%	771	8.5%	1478
	[0.015]		[0.016]		[0.011]	
Husband away	3.2%	707	2.2%	771	2.6%	1478
	[0.012]		[0.008]		[0.007]	
Infrequent sex	1.7%	707	0.7%	771	1.1%	1478
	[0.006]		[0.003]		[0.003]	
Husband opposed	0.7%	707	0.7%	771	0.7%	1478
	[0.004]		[0.003]		[0.003]	
Respondent opposed	0.4%	707	1.1%	771	0.8%	1478
	[0.003]		[0.004]		[0.003]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

To elaborate further on discontinuity of family planning methods, respondents were asked about their reasons for discontinuing their previously chosen methods of contraception. As this was a multiple response query, the most popular reasons given were - they were breastfeeding (8.5 per cent), their husband was away (2.6 per cent), they had infrequent sex or not at all (1.1 per cent), their spouse opposed any contraception (0.7 per cent), and respondent opposed as well (0.8 per cent).

Usage of Condoms and/or Pills

Of the total number of 176 women who are currently using oral contraceptive pills as a family planning method, the average number of pill cycles purchased by them is 6.1. Except for Bihar, the number of pill cycles purchased in the control districts is lower than the number of pill cycles bought in the treatment districts of Madhya Pradesh, Odisha and Rajasthan. On the other hand, the average number of condoms purchased is 8.

Table L.7.	Behaviour of Women: Usage of Condoms and/or Pills					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Mean number of pill cycles received/purchased by a woman or her husband [57]	6.3	90	5.8	86	6.1	176
Mean number of condoms received/purchased by a woman or her husband[58]	7.2	50	7.9	76	7.7	126
Women reporting that they received pill cycles and/or condoms for free (%)	15.0%	179	12.3%	205	13.3%	384

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[57] The sample size is restricted to the number of respondents who are currently purchasing oral contraceptive pills as a family planning method.
[58] The sample size restricted to the number of respondents whose spouses are currently purchasing condoms as a family planning method.

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean amount of money spent by a woman or her husband to obtain pill cycles and/or condoms including the cost of method and any consultation that they may have had (Rs.)	28.7	77	30.9	92	30.1	169
Women reporting paying the health worker or health facility informally the last time they obtained pill cycles and/or condoms (%)	12.4%	179	6.1%	205	8.5%	384
Mean amount of money paid informally by a woman or her husband to obtain pill cycles and/or condoms from a the health worker or health facility (Rs.)	25.7	38	29.4	41	27.3	79
Women reporting gifts were paid to the health worker or health facility informally the last time they obtained pill cycles and/or condoms (%)	13.0%	179	11.6%	205	12.1%	384
Main sources from which the pill cycles and/or condoms was obtained last time (%)						
Husband	17.5%	179	27.0%	205	23.3%	384
Pharmacy/ Medical Shop	14.0%	179	25.8%	205	21.3%	384
ASHA	15.8%	179	7.2%	205	10.5%	384
Shop	14.1%	179	8.0%	205	10.3%	384

Table L.7.   Behaviour of Women: Usage of Condoms and/or Pills

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Only 13.3 per cent of the surveyed population received pills or condoms free whereas the average amount spent for obtaining them, including consultation fees, is 30 rupees. Seventy-nine women reported paying an average amount of Rs. 27 informally to the health worker or facility for obtaining these two methods of contraception. When the women were asked about their source(s) for purchasing pills and condoms, the most popular sources were their husband (23.3 per cent), pharmacies and/or medical shops (21.3 per cent), ASHAs (10.5 per cent) and general shops (10.3 per cent).

During the FGD discussions, some women reported receiving condoms and pills free from the ASHA: _"Many women use these methods more often. ASHA also distributes Mala-D and condoms which has increased their usage." -- (_A Focus Group Discussion for Mothers, Sheikhpura, Bihar). In another FGD, the women said that the _"ASHA distributes condoms and pills for free." -- (_A Focus Group Discussion for Mothers, Betul, Madhya Pradesh (MP)).

However, a few others had issues with lack of easy access for purchasing pills and condoms_: "I used to purchase pills from the market near my home where I lived previously, but here I do not get pills from the market." -- (_A Focus Group Discussion for Mothers, Betul, Madhya Pradesh (MP)). A respondent in a FGD who had bought pills from the market said, _"The ASHA does not give condoms and pills for free." -- (_A Focus Group Discussion for Mothers,

Hoshangabad, Madhya Pradesh (MP)). In another FGD, a mother said, *"I do not get pills from nearby hospital and the market."* -- *(*A Focus Group Discussion for Mothers, Raisen, Madhya Pradesh (MP))

Male or female sterilisation

From the previous sub sections on awareness of limiting family planning methods and current users of the same, it is known that the number of respondents who were aware of female and male sterilization far exceeds the number of respondents who had undergone either procedures.

At the time of this baseline survey, 4.6 per cent of the total population surveyed reported receiving counselling about the limiting nature of the family planning method ('that they will not be able to have any more children') before their operation. The most common health facilities where the respondents had undergone sterilisation were CHCs/Rural hospitals/PHCs (4.8 per cent), government hospitals (3.7 per cent), private hospitals (1.1 per cent), and camps (0.4 per cent).

Table L.8. Behaviour of Women: Male or female sterilisation						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women or their husband who were counselled before operation that they would not be able to have any more children (%)	43.1%	239	46.3%	241	44.9%	480
Health facility at which sterilisation took place (%)						
Community Health Centre (CHC)/ Rural Hospital/ Primary Health Centre (PHC)	4.4%	2340	5.0%	2340	4.8%	4680
	[0.005]		[0.006]		[0.004]	
Government Hospital	3.5%	2340	3.9%	2340	3.7%	4680
	[0.005]		[0.006]		[0.004]	
Private Hospital	1.2%	2340	1.0%	2340	1.1%	4680
	[0.003]		[0.004]		[0.002]	
Women reporting that sterilisation including any consultation was conducted free (%)	6.5%	2340	7.5%	2340	7.0%	4680
	[0.006]		[0.007]		[0.004]	
Mean amount of money spent by a woman or her husband to get sterilised including any consultation that they may have had (Rs.)	247.82	215	246.62	223	247.16	438
Women reporting her husband or her received compensation for sterilisation (%)	7.2%	2340	8.0%	2340	7.6%	4680
	[0.007]		[0.008]		[0.005]	
Mean amount of compensation received by a woman or her husband to get sterilised (Rs.)	467.05	215	458.24	229	462.13	444
Women reporting paying the health worker or health facility informally to get her husband or herself sterilised (%)	1.1%	2340	1.9%	2340	1.5%	4680
	[0.003]		[0.004]		[0.003]	

Table L.8.	Behaviour of Women: Male or female sterilisation					
Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Mean amount of money paid informally by a woman or her husband to get sterilised (Rs.)	38.19	197	142.28	210	95.43	407
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

Seven per cent respondents reported undergoing sterilisation (including any consultation) free whereas 438 respondents reported paying an average of Rs. 247.16 to be sterilised (including consultation). 444 respondents reported receiving an average of Rs. 462.13 as compensation for undergoing sterilisation.

From the FGD discussions, some respondents reported that the ASHAs serving their community suggested sterilisation to those who had two children: *"The ASHA tells mothers that having a gap between children is good. More than 2 children and you should have an operation* (sterilisation)*." -- (*A Focus Group Discussion for Mothers, Sambalpur, Odisha). In another discussion, the women said that the *"ASHA tells mothers about birth spacing, Copper-T and sterilisation after two children." -- (*A Focus Group Discussion for Mothers, Betul, Madhya Pradesh (MP)). In some cases, the ASHA told the mothers to get an IUCD insertion after the birth of the second child: *"She [ASHA] told me about gap after the birth of my 2nd child. She asked me to get operation* (sterilisation), *but I was afraid. After the birth of my 2nd child, she told me to get Copper-T." -- (*A Focus Group Discussion for Mothers, Anagul, Odisha)

IUCD

Although PPIUCD is one the major pillars of the PPFP intervention under NIPI Phase-II, the uptake of PPIUCD as a family planning method is relatively less as compared to other methods of contraception.

From the data below, we understand that only 0.2 per cent of the total population surveyed had IUCD inserted within 48 hours of last child birth. In relation to side effects for PPIUCD insertion after last childbirth, 18.7 per cent of users reported facing such effects. When these respondents were asked what those side effects were, they responded with facing pain during intercourse (14.8 percent) and excessive vaginal bleeding (10.9 per cent). In addition, from the focused group discussions, relatively larger proportion of the women seemed uninformed about PPIUCD specifically: *"The ASHA tells mothers about family planning methods after delivery but not about Copper-T within 48 hours, birth control pills, and condoms." -- (*A Focus Group Discussion for Mothers, Narsimhapur, Madhya Pradesh (MP))

In several FGDs, it was mentioned that the ASHA did tell the mothers about IUCD insertion, but not in sufficient time: *"ASHA tells mothers about Copper-T but not within 48 hours of delivery." -- (*A Focus Group Discussion for Mothers, Jharsuguda, Odisha)

On an average, the IUCD users reported paying an amount of 56.18 rupees for IUCD insertion but the PPIUCD respondents (0 per cent) received no compensation in return.

Table L.9.	Behaviour of Women: IUCD					
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women who got IUCD inserted within 48 hours of last child birth	0.2%	2340	0.2%	2340	0.2%	4680
	[0.001]		[0.002]		[0.001]	
Women who faced any side effect after insertion of IUCD to avoid pregnancy (%)[59]	23.0%	4	14.8%	3	18.7%	7
Side effects faced by a woman after insertion of IUCD to avoid pregnancy (%)						
Pain during intercourse	18.7%	7	23.0%	4	14.8%	3
Excessive vaginal bleeding	23.0%	4	0.0%	3	10.9%	7
None	81.3%	7	77.0%	4	85.2%	3
Women reporting that IUCD insertion including any consultation was conducted free (%)	60.2%	4	3.5%	3	30.4%	7
Mean amount of money spent by a woman or her husband to get IUCD insertion (Rs.) [60]	0.0	3	47.9	2	29.3	5
Women reporting she received compensation for IUCD insertion (%)	0.0%	4	0.0%	3	0.0%	7
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

L.3   Family Planning Counselling

From the previous sub section on current users of family planning method, we know the figure is 23.1 per cent of the total population surveyed. Within that population, 34.2 per cent reported receiving counselling from an ASHA while 7 per cent received counselling from other health personnel or family planning counsellor(s). Again, within that same subset, they were informed about any side effects associated with their currently used family planning method by ASHAs (13.9 per cent) and other health personnel or family planning counsellor (8.2 percent).

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[59] The sample size is restricted to those respondents who had IUCD inserted within 48 hours of last childbirth. If a respondent had IUCD inserted beyond 48 hours, it's not considered as PPIUCD and therefore excluded from the sample size.
[60] The sample size includes all respondents who had IUCD inserted as a family planning method and is not restricted to PPIUCD users only.

Table L.10.   PPFP: Family Planning Counselling

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Motivation for using current family planning method came from (%)[61]						
ASHA	31.8%	560	36.0%	617	34.2%	1177
	[0.029]		[0.035]		[0.024]	
Other health personnel/ family planning counsellor	9.6%	560	5.2%	617	7.0%	1177
	[0.018]		[0.017]		[0.013]	
Counselled about side effects or problems of using the current family planning method by (%)						
ASHA	13.7%	560	14.0%	617	13.9%	1177
	[0.020]		[0.018]		[0.013]	
Other health personnel/ family planning counsellor	10.2%	560	6.8%	617	8.2%	1177
	[0.019]		[0.016]		[0.012]	
Counselled on what to do if they experienced side effects or problems (%)	12.1%	560	10.6%	617	11.2%	1177
	[0.018]		[0.023]		[0.015]	
Women reporting that a health worker or a family planning counsellor told her about other family planning methods that she could use (%)	24.7%	560	22.0%	617	23.1%	1177
	[0.023]		[0.027]		[0.019]	
Benefits of inserting IUCD told to the woman right after childbirth (%)[62]						
Effective for 10 years	35.2%	1765	32.0%	1713	33.5%	3478
	[0.019]		[0.023]		[0.015]	
Can easily be removed	33.2%	1765	31.7%	1713	32.4%	3478
	[0.018]		[0.022]		[0.014]	
Can get pregnant right after removal of IUCD	31.1%	1765	30.3%	1713	30.7%	3478
	[0.017]		[0.020]		[0.013]	
Available free of cost	26.0%	1765	27.5%	1713	26.8%	3478
	[0.020]		[0.021]		[0.014]	
No extra visit to facility required	24.9%	1765	24.5%	1713	24.7%	3478
	[0.019]		[0.021]		[0.014]	
No extra daily action required	25.0%	1765	24.8%	1713	24.9%	3478
	[0.019]		[0.025]		[0.016]	
Side effects of IUCD insertion told to the woman right after childbirth (%)						
Lower abdominal cramps	18.4%	1765	13.9%	1713	16.1%	3478
	[0.021]		[0.020]		[0.015]	
Pain during intercourse	15.9%	1765	11.0%	1713	13.3%	3478
	[0.020]		[0.020]		[0.014]	
Back pain/ body ache	16.5%	1765	12.5%	1713	14.4%	3478
	[0.019]		[0.021]		[0.014]	
Excessive vaginal bleeding	13.7%	1765	12.5%	1713	13.0%	3478
	[0.019]		[0.020]		[0.014]	
Irregular/ delayed menstrual periods	13.1%	1765	12.2%	1713	12.6%	3478
	[0.019]		[0.021]		[0.014]	

[61] The sample size is restricted to those respondents who are currently using any family planning method, both limiting and temporary.
[62] The sample size is restricted to those respondents who have reported being aware of IUCD as a family planning method.

Table L.10. PPFP: Family Planning Counselling

Indicator	Treatment		Control		Overall	
Dirty/ foul smelling vaginal discharge	10.0%	1765	9.9%	1713	10.0%	3478
	[0.018]		[0.021]		[0.014]	
Satisfied with provision of condoms, pills, medicines and other items (%)[63]						
Scheduled Caste	36.6%	527	40.4%	538	38.7%	1065
	[0.039]		[0.029]		[0.024]	
Scheduled Tribe	43.5%	319	37.1%	285	39.8%	604
Muslim	36.8%	109	40.2%	93	38.4%	202
Poorest Wealth Quintile	33.6%	444	40.0%	476	37.3%	920
Second-Poorest Wealth Quintile	43.3%	475	43.7%	448	43.5%	923
	[0.043]		[0.040]		[0.029]	
Total population	39.9%	2340	41.2%	2340	40.6%	4680
	[0.022]		[0.019]		[0.015]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

For this baseline survey, 3,478 respondents had reported being aware of IUCD as a method of contraception. They reported being were aware of the following benefits of IUCD: effective for 10 years (33.5 per cent), can be easily removed (32.4 per cent), immediate return to fertility (30.7 per cent), available free of cost (26.8 per cent), no extra visit to facility (24.7 per cent) and no extra daily action required (24.9 per cent). During the FGD discussions, the women mentioned some benefits of IUCD insertion: *"She [ASHA] tells us about all methods of birth planning. She says that Copper-T is good because we will not have to worry about pregnancy anymore. She said having 2 children is best." -- (*A Focus Group Discussion for Mothers, Anagul, Odisha). In another discussion, the women said that the *"Asha tells us that women should use Copper-T. We can remove the Copper –T whenever we want and it can be used for 5 years." -- (*A Focus Group Discussion for Mothers, Sheikhpura, Bihar)

The respondents were also questioned about their awareness on side effects associated with IUCD. The side effects that they reported being aware of are lower abdominal cramps (16.1 per cent), pain during intercourse (13.3 percent), back pain/body ache (14.4 per cent), excessive vaginal bleeding (13 per cent), irregular/delayed menstrual periods (12.6 per cent) and dirty/foul smelling vaginal discharge (10 per cent). In the FGDs, some women said, *"Copper-T can create infection and create trouble removing." -- (*A Focus Group Discussion for Mothers, Jharsuguda, and Odisha). Other side effects that women in the FGDs mentioned were that *"it might cause vomiting or weakness.",* or that *"it makes wounds in the uterus and causes body ache." -- (*Focus Group Discussions for Mothers in Narsimhapur (Madhya Pradesh (MP)), and Sheikhpura (Bihar), respectively)

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[63] The sample size is restricted based on scheduled caste, scheduled tribe, Muslim, poorest quintile and second-poorest quintile disaggregation respectively for each sub-indicator. The total population sample size does not hold any condition though.

Regarding the satisfaction with provision of condoms, pills, medicines and other items based on scheduled caste (SC), scheduled tribe (ST) and Muslim population disaggregation; 38.7 percent of the SC population, 39.8 percent of ST population, and 38.4 per cent of the Muslim population reported being satisfied. As for satisfaction based on wealth quintiles, 37.3 percent of the poorest wealth quintile and 43.5 per cent of the second-poorest wealth quintile were satisfied with the provision of condoms, pills, medicines and other items.

L.3.1 Post-Partum Family Planning Counselling

From Table L.11 below, it is noted that 36.4 per cent of the women received no post-partum family planning counselling after delivering their last child in a facility.

Of the total number of women who had delivered their last child at a health facility, 1.5 per cent of them received post-partum family planning counselling from Yashodas, 2.6 per cent from doctors and 2.5 per cent from family planning counsellor(s).

During these counselling sessions, the family planning methods that were advised to these respondents are Lactational Amenorrhoea Method (1.1 per cent), IUCD (1.8 per cent) and female sterilisation (3.9 per cent). The popular sources of information for the family planning methods reported by the respondents during their post-partum counselling session were Yashodas (0.2 per cent), ASHAs (4.4 per cent) and family planning counsellors (2 per cent).

"She (ASHA) *told me about gap after the birth of my 2nd child. She asked me to get operation, but I was afraid. After the birth of my 2nd child, she told me to get Cu-T." (Handiyoda village)*

Although mostly the community health workers are the first source of information for family planning methods and practices in villages, there are cases where the women reported receiving information elsewhere.

"The ASHA was not the source. It was a nurse at the hospital. The ASHA does not distribute family planning products." (Goderiya Kheda village)

"Some information was given by the ASHA about birth spacing and Copper-T within 48 hours. Some of it is given by the hospital." (Rupbas village)

Considering that one of the aims of the PPFP intervention is to strengthen service delivery by conducting family planning counselling sessions and ASHAs delivering key messages in the communities they serve, it would be further effective if more PPFP specific training is given to these service providers to address any queries by respondents and encourage uptake of family planning methods.

Table L.11. PPFP: Post-partum Family Planning Counselling						
Indicator	**Treatment**		**Control**		**Overall**	
	Mean	**n**	**Mean**	**n**	**Mean**	**n**
Women reporting no post-partum family planning counselling was provided right after childbirth at the facility (%)	36.2%	2340	36.7%	2340	36.4%	4680
	[0.016]		[0.018]		[0.012]	

Table L.11. PPFP: Post-partum Family Planning Counselling

Indicator	Treatment		Control		Overall	
	Mean	n	Mean	n	Mean	n
Women reporting post-partum family planning counselling was provided right after childbirth at the facility (%)[64]						
Yashoda	1.5%	2013	1.5%	2046	1.5%	4059
	[0.003]		[0.004]		[0.002]	
Doctor	2.6%	2013	2.7%	2046	2.6%	4059
	[0.005]		[0.006]		[0.004]	
Family planning counsellor	2.2%	2013	2.7%	2046	2.5%	4059
	[0.004]		[0.006]		[0.004]	
Women reporting if they were told about any family planning method at that time (%)						
None	1.1%	2013	1.9%	2046	1.5%	4059
	[0.003]		[0.008]		[0.005]	
LAM	1.0%	2013	1.2%	2046	1.1%	4059
	[0.003]		[0.005]		[0.003]	
IUCD	1.5%	2013	2.0%	2046	1.8%	4059
	[0.003]		[0.006]		[0.003]	
Female Sterilisation	3.4%	2013	4.4%	2046	3.9%	4059
	[0.005]		[0.007]		[0.005]	
Post-partum family planning method was told by (%)						
Yashoda	0.2%	2013	0.1%	2046	0.2%	4059
	[0.001]		[0.001]		[0.001]	
ASHA	4.1%	2013	4.7%	2046	4.4%	4059
	[0.006]		[0.008]		[0.005]	
Family planning counsellor	1.6%	2013	2.4%	2046	2.0%	4059
	[0.004]		[0.008]		[0.005]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

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[64] The sample size is restricted to those respondents who had delivered their last child at a facility and excludes those women who delivered at home.

Annex M Health Worker – Accredited Social Health Activist (ASHA)

M.1 Introduction to ASHA

The position of ASHA or Accredited Social Health Activist was created under the mandate of the National Rural Health Mission (NRHM) in 2005. The ASHA is a front-line health-worker, who is usually chosen from the same village that she has to work in, and is thereby the link between the community and the public health system. The age range for ASHAs was between the age group of 25-45, and they had completed education at least until Class 8. However, these requirements may be relaxed if no suitable candidate is available.

The ASHAs' key roles and responsibilities include creating awareness about nutrition, sanitation, better health practices, as well as counselling on birth preparedness, breastfeeding practices, immunization, contraception, and institutional delivery, among other things. NRHM defines the ASHA as the 'first port of call' for any health related demands of the depraved sections of the population, and she has a drug-kit with her that allows her to provide her first-contact healthcare. She is trained to identify danger signs, especially in pregnant women and babies, either in order to provide basic treatment or to refer them to health facilities.

M.2 Sample Selection

The sample of the quantitative aspect of the health- worker survey comprises of 300 ASHAs across the four states. A disaggregation of the sample is given in the table below.

Table M.1. ASHA – Sample Size			
State	**Total**	**Treatment**	**Control**
Bihar	73	34	39
Madhya Pradesh	88	41	47
Odisha	70	34	36
Rajasthan	69	35	34
Source: NIPI Phase-II Baseline Survey 2013			

In addition to this, the qualitative study comprised of 26 in- depth interviews (IDIs) with ASHAs as well as 26 direct observations (DOs).

M.3 Background

As per the front-line health worker's survey as part of the baseline, the mean age of the respondents is seen to be 32.5 years, with treatment and control districts showing similar figures. Disaggregation of the sample based on religion shows that majority of the respondents are Hindu (98.2 percent), while Muslims & Christians comprise 1.5 per cent and 0.3 percent of the sample respectively. A similar disaggregation based on caste shows that almost half the sample belongs to Other Backward Classes (OBCs), 24.3 per cent to the General category, 18.3 percent to Scheduled Castes, while 8.1 per cent belong to the Scheduled Tribes. At an aggregate level, the data shows that Other Backward Classes (OBCs) were the most predominantly served social group across the coverage areas of all the respondents.

Considering the educational qualifications of the sample, it can be seen that 86.9 per cent of the sample is literate i.e. they could read as well as write. The literacy rate is marginally higher for the control districts as compared to the treatment districts; however, this difference is not statistically significant.

At a state level, this indicator ranged from being 79.2 per cent in treatment districts in Bihar, to 98.3 % in control districts of Odisha. Furthermore, the mean years of schooling for the sample as a whole stood at 9.3 years. A majority (81.1 per cent) of the respondents had completed only between six to nine years of education (secondary education), while 14.7 per cent of the sample had completed more than eleven years of education (higher education). A disaggregation of educational qualifications is also presented in Figure 1.

In addition to this, the data shows that the mean years of experience as an ASHA, for the sample as a whole, is 6.2 years. While 32 per cent of the respondents mentioned that the reason for them to take up the role of as ASHA was because they were motivated to improve the health of the community, 30.4 per cent stated that that their motivation to take up this role was to earn more money. Furthermore, 26.8 per cent mentioned that they did so because this was the only job near the village. For this particular motivation, the difference between the estimates in the control areas (31.9 per cent) and treatment areas (20.6 per cent) is statistically significant at a 10 % level.

In addition, 99 per cent of the sample stated that they possess bank accounts, while 97.2 per cent possessed mobile phones.

Table M.2. ASHA – Background						
Indicator	**Treatment**		**Control**		**Overall**	
		n		**n**		**n**
Mean age	32.9	144	32.1	156	32.5	300
	[0.536]		[0.582]		[0.402]	
Religion (%)						
Hindu	98.0%	144	98.3%	156	98.2%	300
	[0.014]		[0.009]		[0.008]	
Muslim	2.0%	144	1.1%	156	1.5%	300
	[0.014]		[0.007]		[0.007]	
Caste Status (%)						
Scheduled Caste	20.0%	144	17.0%	156	18.3%	300
	[0.038]		[0.033]		[0.025]	
Other Backward Class	46.7%	144	51.5%	156	49.4%	300
	[0.049]		[0.050]		[0.035]	
General	25.6%	144	23.2%	156	24.3%	300
	[0.054]		[0.044]		[0.034]	
Social group predominantly served (%)						
Muslim	4.5%	144	3.8%	156	4.1%	300
	[0.018]		[0.017]		[0.012]	
Dalit	23.0%	144	31.4%	156	27.6%	300
	[0.042]		[0.053]		[0.035]	
General	24.7%	144	22.6%	156	23.6%	300
	[0.055]		[0.042]		[0.034]	
Other Backward Caste (OBC)	37.7%	144	38.0%	156	37.9%	300
	[0.055]		[0.044]		[0.035]	
Literacy Rate (%)	84.5%	144	88.8%	156	86.9%	300
	[0.035]		[0.031]		[0.023]	

Table M.2.   ASHA – Background

Indicator	Treatment	n	Control	n	Overall	n
Mean years of schooling	9.3	144	9.2	156	9.3	300
	[0.172]		[0.178]		[0.124]	
Educational qualifications (%)						
Secondary education (6-10 years of completed education)	79.5%	144	82.4%	156	81.1%	300
	[0.039]		[0.041]		[0.029]	
Higher education (10 years of completed education and above)	16.4%	144	13.3%	156	14.7%	300
	[0.035]		[0.039]		[0.026]	
Possess bank accounts (%)	98.7%	144	99.3%	156	99.0%	300
	[0.013]		[0.007]		[0.007]	
Possess mobile phones (%)	96.8%	144	97.5%	156	97.2%	300
	[0.022]		[0.009]		[0.011]	
Mean number of years of experience as an ASHA	6.5	144	5.9*	156	6.2	300
	[0.285]		[0.231]		[0.184]	
Main reason for becoming an ASHA (%)						
Motivated to help improve the health of people	27.9%	144	35.3%	156	32.0%	300
	[0.045]		[0.043]		[0.031]	
Wanted to earn money	28.5%	144	31.9%	156	30.4%	300
	[0.047]		[0.040]		[0.030]	
Only job near the village	20.6%	144	31.9%*	156	26.8%	300
	[0.042]		[0.048]		[0.033]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

M.4 Training and Supervision

As Table M.3 shows, the mean number of any type of training sessions attended by the ASHA in the last one year is 3.4, while those specifically on new –born care and family planning stand at 1.8 and 1.3 respectively. This mean number of general trainings is marginally lower for the treatment districts (3.2) as compared to the control districts (3.5), but this difference is not statistically significant. For training sessions on new- born care, the value of this indicator ranges from 1.3 in Bihar (control districts) to 2.7 in Rajasthan (control districts). For training on family planning, the value ranges from 0.7 in Rajasthan (treatment districts) to 2.2 in Madhya Pradesh (control districts).

Furthermore, 83.8 per cent of the sample stated that they had been trained in HBNC. At the baseline stage, none of the respondents had received training in HBNC+, which is meant to be a part of NIPI-II.

In addition, 60.5 per cent of those who answered that they had heard of SNCU mentioned that they have received training on follow-up services for children discharged from SNCU.

Table M.3. ASHA – Training and Supervision

Indicator	Treatment	n	Control	n	Overall	n
Mean number of trainings attended last year						
Any training	3.2	143	3.5	154	3.4	297
	[0.237]		[0.281]		[0.188]	
New-born care	1.8	143	1.9	154	1.8	297
	[0.164]		[0.194]		[0.130]	
Family Planning	1.2	141	1.4	154	1.3	295
	[0.128]		[0.154]		[0.103]	
ASHAs trained in (%)						
HBNC	83.0%	144	84.4%	156	83.8%	300
	[0.038]		[0.031]		[0.024]	
HBNC+	0	144	0	156	0	300
Both HBNC and HBNC+	0	144	0	156	0	300
Training on follow-up services for children discharged from SNCU	52.7%	74	66.6%	63	60.5%	137
Mean number of registers maintained by an ASHA	3.7	144	3.7	156	3.7	300
	[0.168]		[0.172]		[0.121]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Qualitative findings from in-depth interviews with 26 ASHAs show that a majority of them were satisfied with the HBNC training that they had received, and felt that it was helpful in enhancing their knowledge. The following are excerpts from a few interviews:

"It was a very good training. Yes, it helps me giving better advice to the people in my community. I helps me in giving advice to mothers with new born and they follow my advice about breastfeeding, I tell them about proper method of breastfeeding, to burp the child after feeding, I tell them about vaccination, about healthy diet of pregnant women-like green vegetables, milk etc." – (ASHA IDI, Nalanda, Bihar)

"The trainings were very effective. They should have more sessions on new born care and their illnesses. Yes, it helped clearing my understanding about new born care and made me more confident in my work." – *(ASHA* IDI, Hoshangabad, Madhya Pradesh).

When they were asked for their suggestions to improve the training sessions, while most of them said they thought no improvement was required, almost 20 per cent of the sample felt that the trainings needed to be made more frequent, and a little more tailored to the local language.

"They did not explain properly in our language in the training. They should give us more knowledge and explain us better. The training should be imparted more frequently." – (ASHA IDI, Bharatpur, Rajasthan)

"There should be more sessions on vaccination, diet of the mother and child, about various illnesses of new born. More training on these topics will help us to manager better and help in emergency situations." – *(ASHA IDI, Dausa, Rajasthan)*

M.5   Coverage Area and Stocks

As per the baseline data, the mean number of pregnant women that were visited by an ASHA in her coverage area in the last calendar month is 8.1. Furthermore, the mean number of pregnant women who were accompanied by an ASHA to a health facility for delivery in the last calendar month is 2.4, while the mean number of those women who had a home delivery in the ASHAs' presence is 1.2.

At a state level, the mean number of women accompanied by an ASHA to a health facility for delivery in the last calendar month ranges from 1.9 in Odisha (control districts), to 3.1 in Bihar (treatment districts).

In addition to this, the data shows that on an average, that the number of children below 12 months of age residing in the respondent's coverage area is approximately 22.

Table M.4. ASHA – Coverage Population						
Indicator	**Treatment**	**n**	**Control**	**n**	**Overall**	**n**
Mean number of pregnant women residing in her catchment area	9.6	144	9.2	156	9.4	300
	[0.612]		[0.466]		[0.379]	
Mean number of pregnant women visited by an ASHA in her catchment area last calendar month	8.4	144	7.9	156	8.1	300
	[0.587]		[0.420]		[0.354]	
Mean number of deliveries that took place in her catchment area last calendar month	3.5	144	3.5	156	3.5	300
	[0.217]		[0.263]		[0.175]	
Mean number of institutional deliveries that took place in her catchment area last calendar month	2.3	127	2.2	148	2.3	275
	[0.165]		[0.199]		[0.133]	
Mean number of pregnant women who were accompanied by ASHA to the health facility for delivery last calendar month	2.5	101	2.3	118	2.4	219
Mean number of pregnant women who delivered at home in the presence of an ASHA	1.2	20	1.2	28	1.2	48
Mean number of children below 12 months of age in her catchment area	22.0	144	22.1	156	22.1	300
	[1.028]		[0.885]		[0.672]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

M.6 Availability of Medicines & Drugs Kit with the ASHA

Alarmingly, a majority of the respondents mentioned that they did not have even basic medicines such as zinc tablets/ syrup bottles, IFA tablets/ syrup bottles and ORS packets. This is illustrated in Table M.5.

Considering that NIPI-II aims to emphasize the focus on ORS and Zinc as a more effective treatment for diarrhoea, the glaring shortage of zinc tablets/ syrup bottles is particularly important. In fact, in the case of zinc syrup bottles, the difference between the treatment and control districts is statistically significant at the 10 % level of significance.

Additionally, the difference between the treatment and control districts, in the specific cases of IFA tablets as well as IFA syrup bottles, is statistically different at the 5 % level in both the cases.

State level analysis reveals that shortage levels are quite high in Rajasthan for all the medicines/ drug kits being considered, while it seems to be the lowest in Madhya Pradesh. The states of Bihar and Odisha tend to moderate between higher and lower level of shortage. These figures are presented in the state-wise tables.

Table M.5. ASHA – Medicines and Drugs Kit						
Indicator	**Treatment**	**n**	**Control**	**n**	**Overall**	**n**
ASHAs reporting not having any (%)						
Zinc tablets	67.9%	144	71.1%	156	69.7%	300
	[0.039]		[0.034]		[0.026]	
Zinc syrup bottles	70.5%	144	80.0%*	156	75.7%	300
	[0.042]		[0.032]		[0.026]	
IFA tablets	55.3%	144	39.6%**	156	46.7%	300
	[0.049]		[0.044]		[0.033]	
IFA syrup bottles	85.0%	144	74.7%**	156	79.3%	300
	[0.034]		[0.039]		[0.026]	
ORS packets	33.9%	144	36.4%	156	35.3%	300
	[0.055]		[0.049]		[0.036]	
Pregnancy test kits	37.3%	144	40.5%	156	39.1%	300
	[0.045]		[0.050]		[0.034]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Qualitative evidence, based on direct observations of 26 ASHAs, highlights that a majority of the ASHAs did not have even very basic medicines in their kits when they were conducting that particular home visit. More specifically, none of the ASHAs in Bihar and Rajasthan had IFA tablets, while only 17 per cent of the ASHAs from Odisha did. Surprisingly, about 88 per cent of the sample from Madhya Pradesh did have them.

In addition to this, none of the ASHAs in Rajasthan had any ORS packets with them, while about 33 per cent from Bihar and 17 per cent from Odisha did. However, about 75 per cent of the sample from Madhya Pradesh had ORS packets during this visit.

Interestingly, the number of those ASHAs who had a thermometer with them was also the highest in Madhya Pradesh.

M.7 Workload and Incentives

According to the baseline survey, 39.1 per cent of the respondents stated that they had received delayed payment in the last one year.

Furthermore, the mean number of months ago when the respondents received their last incentive payment is about 2.6, while the amount received was around Rs. 1522.6 on average. At the state level, the value of the former indicator was the highest in Bihar (control districts) - at 4.5 months ago, while the lowest was in Odisha (control districts) at 1.5 months ago.

Disaggregation based on the activity that the delay happens for shows that almost 41.5 per cent of the respondents said that this was for accompanying mothers during delivery, while 37.2 per cent answered that this was for motivating for immunization.

Table M.6. ASHA – Workload and Incentives						
Indicator	**Treatment**		**Control**		**Overall**	
		n		**n**		**n**
Mean last incentive payment amount received	1513.0	142	1530.6	150	1522.6	292
	[114.611]		[114.119]		[81.183]	
Mean number of months ago when the last incentive payment was received from the date of survey	2.6	142	2.7	150	2.6	292
	[0.288]		[0.308]		[0.213]	
Service for which the last incentive payment was received (%)						
Motivating for family planning	11.4%	142	20.0%	150	16.1%	292
	[0.028]		[0.044]		[0.028]	
Accompanying mother during delivery	55.7%	142	41.7%*	150	48.1%	292
	[0.053]		[0.050]		[0.037]	
Motivating for immunisation	26.3%	142	23.7%	150	24.9%	292
	[0.050]		[0.040]		[0.032]	
Others	6.6%	142	14.7%	150	11.0%	292
	[0.023]		[0.031]		[0.020]	
ASHAs reporting that they have received delayed incentive payment for a service (%)	34.1%	142	43.3%	150	39.1%	292
	[0.050]		[0.050]		[0.035]	
Service for which ASHA has received delayed or no incentive payment						
Motivating for family planning	3.3%	49	11.8%	68	8.4%	117
Accompanying mother during delivery	39.4%	49	42.8%	68	41.5%	117
Motivating for immunisation	44.9%	49	32.2%	68	37.2%	117
Others	12.5%	49	13.2%	68	12.9%	117

Table M.6.   ASHA – Workload and Incentives

Indicator	Treatment	n	Control	n	Overall	n
Keep a planner or home visit register for keeping track of women and children in their catchment area (%)	84.9%	144	83.6%	156	84.2%	300
	[0.041]		[0.033]		[0.026]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

According to the in-depth interviews, almost all the respondents mentioned that they faced a problem of their incentives getting delayed, and felt that their workload was quite high. This seemed to be a prominent finding across all four states.

"We don't get timely payment. We do not get money that we spent on taking the women for delivery. Out of Rs. 300 that we get, we end up spending Rs. 100 on transportation. Yes, we have work load but no timely payment." - (ASHA IDI, Jehanabad, Bihar)

"Yes, the work load is gradually increasing but our incentive remains the same in comparison." – (ASHA IDI, Dausa, Rajasthan)

"There is a delay in the money given to us. It takes a long time for us to get the money from Mamta scheme. The money is also very low. We get little money to go and attend the trainings far away. Yes, there is a lot of workload. However, I like to provide service to the mothers and children. I am happy." - *(*ASHA IDI, Anagul, Odisha)

"We have the maximum problems. First, we do not get timely payment, for that reason, many people in the village think that we are useless. People think that we have no other work and keep going from door to door every day, that our work is neither important nor have any value to them. Yes, I have lot of work pressure." – (ASHA IDI, Narsinghpur, and Madhya Pradesh)

M.8 Knowledge Level and Services Provided

M.8.1 Home visits – HBNC and HBNC+

The quantitative baseline survey also aimed to check the general level of awareness about the schedule and frequency of visits that had to be made under HBNC as well as HBNC+, in order to understand how well the ASHAs knew about their responsibilities under HBNC. This was particularly important since 83.8 per cent of the sample had stated that they had received HBNC training (Refer to Table M.3).

Interestingly, none of the respondents answered that at least six visits had to be conducted to the home of a child until he/she reaches six weeks in the case of institutional delivery. In fact, the mean number of the visits that were estimated by the ASHAs in this case is 3.1. For this

indicator, as can be seen from Table M.7, the difference between the treatment and control estimates is statistically significant (at 1 % level of significance).

Additionally, only 22 per cent of the respondents knew that at least seven visits had to be made to the home of a child until he/she reaches six weeks in the case of home -delivery. The mean number of visits that were estimated by the ASHA in this case is 5.1.

About 53.6 per cent of the respondents knew at least five timings in the schedule of visits to be conducted until 6 weeks of age.

However, 61 per cent of the respondents seemed to know that 3-4 visits had to be made when the baby was between 6 weeks and 1 year of age. The mean number of visits that the respondents reported to have made to the home of a woman who recently gave birth is about 3.8.

Table M.7.	Knowledge of & Services by ASHAs: Home Visits – HBNC & HBNC+					
Indicator	**Treatment**		**Control**		**Overall**	
		n		n		n
Aware that at least 6 visits have to be made to a household before the child is 6 weeks of age, in the case of institutional delivery (%)	0.0%	144	0.0%	156	0.0%	300
Mean number of visits that ASHAs were aware of before the child is 6 weeks of age, in the case of institutional delivery	3.4	133	2.8***	145	3.1	278
	[0.154]		[0.130]		[0.102]	
Aware that at least 7 visits have to be made to a household before the child is 6 weeks of age, in the case of home delivery (%)	21.5%	144	22.5%	156	22.0%	300
	[0.039]		[0.038]		[0.027]	
Mean number of visits that ASHAs were aware of before the child is 6 weeks of age, in the case of home delivery	5.1	136	5.1	147	5.1	283
	[0.200]		[0.179]		[0.133]	
Aware of at least 5 timings for visits in the schedule of visits that are to be made to a household before the child is 6 weeks of age (%)	59.5 %	144	48.8%	156	53.6 %	300
	[0.051]		[0.047]		[0.036]	
Aware that at least 3-4 visits have to made to a household when the child is between 6 weeks and 1 year of age (%)	59.2%	144	62.5%	156	61.0%	300
	[0.058]		[0.047]		[0.037]	
Mean number of visits that the ASHAs were aware of when the child is between 6 weeks and 1 year of age	3.5	137	3.6	148	3.6	285
	[0.242]		[0.179]		[0.148]	
Mean number of children below 12 months of age visited by an ASHA in her catchment area last calendar month	17.5	144	16.1	156	16.7	300
	[0.888]		[0.931]		[0.643]	
Mean number of mothers who were visited by ASHA within 24 hours of child birth last calendar month	1.8	97	1.9	118	1.9	215
Mean number of children who were visited by ASHA after the first day but within the first month of child birth last calendar month	2.0	83	1.9	104	1.9	187
For the last visit to a household with a woman who recently gave birth to a child, mean number of visits that were made since her child was born	3.8	83	3.8	104	3.8	187
Note: 'Mean' represents the mean value of the indicator.						

Table M.7.	Knowledge of & Services by ASHAs: Home Visits – HBNC & HBNC+					
Indicator		**Treatment**		**Control**		**Overall**	
		n		**n**		**n**

'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

On the other hand, when the qualitative evidence from the in-depth interviews is looked at, it can be seen that more than 50 per cent of the ASHAs interviewed knew that they had to make six to seven visits to the home of a child until he/she reaches 6 weeks of age. Some of them even knew the distinction between the number of visits in the case of institutional delivery and home delivery.

"On an average I visit their home 5-6 times till the baby is of 6 weeks of age." - (ASHA IDI, Alwar, Rajasthan)

"We have to go at least 6 times to their home. We have to give advice about new born care." – (ASHA IDI, Nalanda, Bihar)

Additionally, 14 out of 26 respondents knew that they needed to conduct at least 3-4 home visits to a child between 6 weeks and 1 year of age.

There seems to be a visible gap in the quantitative survey data and the in-depth interview regarding the awareness about the number of home visits to be made under the HBNC protocol in the case of institutional delivery. This is quite surprising, since majority of the sample had received HBNC training. There is perhaps a need to increase the awareness of ASHAs viz. the visiting schedule, especially for HBNC+ in NIPI-II.

M.8.2 Birth preparedness and institutional delivery

Table M.8 discusses the knowledge of as well as practice/ behaviour conducted by the ASHAs in the area of birth preparedness and increasing institutional delivery. The baseline data reveals that 71.8 per cent of the respondents knew that the umbilical cord of a new-born should be cut with a new blade, while 86.8 per cent were aware about the need for a baby to be cleaned only with a clean and dry cloth immediately after delivery.

Furthermore, with reference to their last home visit to a pregnant woman, 86.8 per cent of the respondents reported to have given the advice/ provided of registering the birth of the child with AWW/ASHA, while 86.2 percent gave advice on identifying a health facility for delivery. At an aggregate level, there seems to be evidence to suggest that a majority of the ASHAs gave advice on different elements of birth preparedness. At the state level, the data shows that for the indicator on giving advice for identifying health facilities, the value seems to range from 78 per cent in Bihar (control districts) to 96.4 per cent in the treatment districts in Bihar.

However, when asked about the advice that they gave to the mother about applying anything to the umbilical cord of the child, only 45.9 per cent of the sample actually mentioned that absolutely nothing should be applied.

Table M.8. Knowledge of & Services by ASHAs: Birth preparedness and institutional delivery

Indicator	Treatment	n	Control	n	Overall	n
Aware of cutting the umbilical cord with the help of a new blade (%)	70.4%	144	73.0%	156	71.8%	300
	[0.046]		[0.044]		[0.032]	
Aware of wiping baby with clean and dry cloth immediately after delivery (%)	82.6%	144	90.3%	156	86.8%	300
	[0.051]		[0.032]		[0.029]	
Gave advice on or provided pregnant woman during the last home visit (%):						
Provided Ambulance number	88.0%	144	83.6%	156	85.6%	300
	[0.039]		[0.033]		[0.025]	
Advice on saving money or arranging financial resources for delivery	95.3%	144	88.1%**	156	91.3%	300
	[0.019]		[0.026]		[0.017]	
Registering birth with AWW/ASHA	90.1%	144	84.1%	156	86.8%	300
	[0.027]		[0.041]		[0.026]	
Identifying health facility for delivery	91.0%	144	82.4%*	156	86.2%	300
	[0.025]		[0.042]		[0.026]	
Keeping clean clothes for delivery	88.9%	144	83.5%	156	85.9%	300
	[0.028]		[0.033]		[0.022]	
Keeping new blade for delivery	86.2%	144	85.7%	156	85.9%	300
	[0.032]		[0.031]		[0.022]	
Keeping new thread for delivery	81.3%	144	77.7%	156	79.3%	300
	[0.037]		[0.046]		[0.030]	
Advice on what to apply on umbilicus of the new-born	55.5%	144	65.2%	156	60.8%	300
	[0.055]		[0.043]		[0.035]	
Advice on the benefits of not applying anything on the umbilicus of the new-born	87.6%	69	87.7%	68	87.7%	137
ASHAs who told women only that nothing should be applied on the umbilical cord of the new-born in their last home visit to a pregnant woman (%)	46.9%	144	45.1%	156	45.9%	300
	[0.051]		[0.044]		[0.034]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Qualitative evidence, from both direct observations as well as in-depth interviews, also seems to suggest that a majority of the ASHAs knew that they had to discuss elements of birth preparedness, how a pregnant woman can take care of her health, as well as to promote institutional delivery.

"Pregnant women: I give advice about healthy diet, Tetanus Toxoid (TT) injections, avoiding heavy objects, going for regular antenatal check-ups like blood and urine test, BP measurement and weight measurement. Yes, I tell them about maintaining cleanliness,

washing baby's cloth in Dettol, weighing the child at Anganwadi centre, regularly checking the temperature of the child. I advise them to arrange for money and clean cloth for delivery, also to arrange for soap and clean blade. I help in arranging the transport for delivery. Yes, to feed the child breast milk within half an hour after washing the nipple with warm water. Yes, I personally take them to the government hospital." - (ASHA IDI, Sheikhpura, Bihar)

"I tell pregnant women to eat healthy diet like green vegetable and milk. They have this misconception that if they eat more than their babies will become fat. Therefore, I make them understand that the health of the mother is very vital to the baby. I also tell them about maintaining cleanliness, avoid lifting heavy objects. New-born care: I tell them about new-born care, about maintaining cleanliness, about exclusive breastfeeding, about contacting me in case of any ill health of the child so that I can refer to the hospital. Yes, I advise them to arrange for clean clothes and money, soap and new blade for delivery. Yes, about feeding the child within half an hour after birth. Yes, I tell them about going to government hospital for delivery. Those who have better socio-economic status, they go to private hospitals. I advise about healthy diet like green vegetable and milk, to avoid stress and to take regular check-ups. In case of any emergency I tell them to contact me." - (ASHA IDI, Nalanda, Bihar)

M.8.3 Post Natal Care, Kangaroo Mother Care (KMC) and Communication and play with children

Table M.9 elaborates on some more findings from the baseline survey.

The data shows that 78.8 per cent of the respondents stated that in their last home visit they mentioned that the baby should be put in skin-to-skin contact with the mother within one hour of the delivery. 89.3 per cent of the sample also said that they gave advice on the benefits of kangaroo mother care.

Interestingly, 85.3 per cent of the respondents mentioned that they spoke about the benefits of communicating and playing with children in their last home visit. While 88.6 per cent felt that gave the advice of talking to the child, only 53.7 per cent gave the advice of playing with the child.

Table M.9.   Knowledge of & Services by ASHAs: Post Natal Care, Kangaroo Mother Care (KMC) and Communication and play with children

Indicator	Treatment	n	Control	n	Overall	n
ASHAs who knew they had to give advice on child communication and play (%)	86.40%	144	93.50%	156	90.30%*	300
	[0.037]		[0.020]		[0.020]	
Gave advice to the mother during the last home visit (%):						
Advice that the child should be placed in skin to skin contact with the mother within one hour of delivery	79.7%	144	78.0%	156	78.8%	300
	[0.036]		[0.039]		[0.027]	
Advice on interacting more with children	85.6%	144	87.7%	156	86.8%	300
	[0.035]		[0.025]		[0.021]	
Advice on benefits of communicating and playing with children	85.1%	144	85.5%	156	85.3%	300

Table M.9.	Knowledge of & Services by ASHAs: Post Natal Care, Kangaroo Mother Care (KMC) and Communication and play with children					
Indicator	**Treatment**	**n**	**Control**	**n**	**Overall**	**n**
	[0.036]		[0.031]		[0.023]	
Advice of talking to the child as a way to interact or communicate with the child	89.3%	144	88.1%	156	88.6%	300
	[0.033]		[0.034]		[0.024]	
Advice of playing with the child as a way to interact or communicate with the child	47.5%	144	58.8%	156	53.7%	300
	[0.060]		[0.047]		[0.038]	
Advice on benefits of kangaroo mother care	89.7%	144	89.0%	156	89.3%	300
	[0.027]		[0.028]		[0.019]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Findings from the in-depth interviews show that most of the while most of the ASHAs suggested that a baby should be kept warm by keeping the child close to the mother's chest, or by covering the baby in warm clothes, only about 20 per cent of the respondents mentioned the phrase 'kangaroo care' in particular. However, most of them seemed to understand the need for a baby to be kept warm.

Additionally, while some ASHAs suggested that a mother should talk and play with the child, this number was still a little low.

"I tell pregnant women about immunization and Ante-Natal Care visits. I get their weight checked along with other necessary tests. I also tell them about family planning techniques like Mala-D. I also distribute Mala-D tablets to them. I tell them about preparation regarding the delivery, clothes, and transport to be kept ready. I tell them only to give mother's milk until 6 months. Many times people also give something else to eat in between. I tell them not to do so. Yes, I can check fever by thermometer. If the child is not well, then I refer the child to the hospital. Yes, I tell them about keeping their child close to their chest and wrap them in a blanket like a kangaroo. Yes. I get the condoms free. The females in the village know that I have the condoms. So, whenever they need it, they come to me." – (ASHA IDI, Bharatpur, Rajasthan)

"Yes, that she should have up to two children. After that, she should go for sterilization, from which she will also get Rs.600. Yes, I tell them to clean their hands with soap .Yes, I tell them to exclusively breast feed up to 6 months regularly. Yes, I tell them to give semi-solid food after 6 months. Yes, I tell her about pneumonia and feeding problems. Yes, I tell the mothers to keep talking with the child. Yes. I tell her to keep the baby close to the chest and cover with a blanket like a kangaroo. Yes, I tell pregnant women to go for regular health check-ups during and after pregnancy." – (ASHA IDI, Jehanabad, Bihar)

M.8.4 Breastfeeding and Complementary Feeding

Table M.10 shows that a prominent majority (94.1 percent) of the sample knew that until 6 months of age the child should receive only breast milk, while 59.7 percent reported that complementary feeding should start at 6 months of age. The percentage of the ASHAs who were aware that there should be exclusive breastfeeding for the first six months ranged from 90 per cent in Rajasthan (control districts) to 100 per cent in Odisha (treatment districts).

However, only 42.8 per cent of the entire sample knew that a baby must be breastfed even when the child gets sick. The value for this indicator ranged from 28 per cent in Bihar (treatment districts) to 88.8 per cent in Odisha (control districts).

More than half of the respondents seemed clear on the benefits of immediate breastfeeding, since 62.5 per cent knew that breastfeeding a child immediately after birth increases the immunity of the child, and 51.8 per cent felt that this practice made the child healthier.

Furthermore, 93 per cent of the respondents mentioned that in their last home visit they had a discussion with the mother on when to start breastfeeding, while 93 per cent reported to have spoken about the benefits of breastfeeding.

About 89.3 per cent of the sample mentioned that in their last home visit to a child between 5-7 months of age, they discussed when to start complementary feeding. However, in the last such visit as mentioned above, only 57.5 per cent of the respondents told the mother to start complementary feeding at 6 months of age. The mean number of 5-7 month old children visited in the last calendar month is 4.9.

Furthermore, the most commonly suggested food items by the ASHA to the mother of a 5-7 months old child are – mashed rice & dal (87.9 per cent), mashed roti & milk (72.2 per cent) and halwa (30.4 per cent), among other things.

Table M.10. Knowledge of & Services by ASHAs: Breastfeeding and Complementary Feeding						
Indicator	**Treatment**		**Control**		**Overall**	
		n		**n**		**n**
Aware that until 6 months of age the child should receive only breast milk (%)	96.4%	144	92.2%	156	94.1%	300
	[0.019]		[0.023]		[0.015]	
Aware that a baby must be breastfed even when the child gets sick (%)	40.3%	144	44.9%	156	42.8%	300
	[0.052]		[0.048]		[0.035]	
Aware that complementary feeding for a child must start at 6 months of age (%)	65.8%	144	54.7%*	156	59.7%	300
	[0.047]		[0.045]		[0.033]	
Aware that breastfeeding a child immediately after birth increases the immunity of the child (%)	67.7%	144	58.2%	156	62.5%	300
	[0.053]		[0.050]		[0.037]	
Aware that breastfeeding a child immediately after birth makes the child healthier (%)	51.8%	144	51.8%	156	51.8%	300
	[0.054]		[0.053]		[0.038]	
Mean number of women visited by an ASHA in the last calendar month to discuss the feeding of 5-7 month old child	4.58	131	5.25	138	4.95	269
	[0.332]		[0.305]		[0.226]	

Table M.10. Knowledge of & Services by ASHAs: Breastfeeding and Complementary Feeding

Indicator	Treatment	n	Control	n	Overall	n
Gave advice to the mother during the last home visit (%):						
Advice on when to start breastfeeding her Child	92.8%	144	93.2%	156	93.0%	300
	[0.031]		[0.021]		[0.018]	
Advice on starting breastfeeding immediately or within half an hour of child birth	90.9%	144	90.7%	156	90.8%	300
	[0.030]		[0.031]		[0.022]	
Advice on benefits of breastfeeding	94.8%	131	91.6%	141	93.0%	272
	[0.025]		[0.030]		[0.020]	
Advice on exclusive breastfeeding	82.5%	144	80.9%	156	81.6%	300
	[0.040]		[0.042]		[0.029]	
Advice on breastfeeding child frequently	47.1%	144	54.7%	156	51.3%	300
	[0.058]		[0.052]		[0.039]	
Advice on when to start complementary feeding	88.7%	144	89.9%	156	89.3%	300
	[0.035]		[0.025]		[0.021]	
ASHAs who told the mother to start complementary feeding at 6 months of age in her most recent visit to a HH with a 5-7 month old child (%)	59.60%	144	55.70%	156	57.5%	300
	[0.053]		[0.048]		[0.036]	
Most commonly advice given on types of food to be given to a child between 5-7 months						
Mashed rice and daal	95.6%	144	81.6%***	156	87.9%	300
	[0.016]		[0.040]		[0.024]	
Mashed roti and milk	76.6%	144	68.5%	156	72.2%	300
	[0.043]		[0.045]		[0.032]	
Halwa	28.2%	144	32.2%	156	30.4%	300
	[0.050]		[0.045]		[0.033]	
Other mashed food	23.6%	144	25.3%	156	24.5%	300
	[0.042]		[0.043]		[0.030]	
ASHAs who listed that the child would become healthier as a benefit of complementary feeding in her most recent visit to a household with a 5-7 month old child	93.2%	144	88.0%	156	90.4%	300
	[0.028]		[0.037]		[0.024]	
ASHAs who listed that the child's weight would increase as a benefit of complementary feeding in her most recent visit to a household with a 5-7 month old child	37.5%	144	39.6%	156	38.6%	300
	[0.049]		[0.053]		[0.037]	
ASHAs who listed that the child will grow taller as a benefit of complementary feeding in her most recent visit to a household with a 5-7 month old child	41.80%	144	52.00%	156	47.40%	300
	[0.057]		[0.050]		[0.038]	

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.

Table M.10.	Knowledge of & Services by ASHAs: Breastfeeding and Complementary Feeding						
Indicator		Treatment		Control		Overall	
			n		n		n
Source: NIPI Phase-II Baseline Survey 2013							

As was the case in the quantitative data, even the qualitative evidence suggests that most of the ASHAs were aware about the need to exclusively breastfeed for six months, as well as a need for them to give this information to pregnant women/ mothers during visits. The following are excerpts from some in-depth interviews.

"New born:-I make home visits to the new-born child's home and advice the mother to keep the child warm and only on breast milk for 6 months. After six months of age, start the child on some nutritional diet. I tell them how to take care of the new-born at home. I also advise the mother to weigh their child every month at Anganwadi centre. Yes, we tell them breast-feed the baby within one hour of birth and continue breastfeeding until six months of age. I always advise women to deliver at government hospitals." – (ASHA IDI, Raisen, Madhya Pradesh)

"Yes. I ensure that the mothers are giving exclusive mother's milk till 6 months of age." – (ASHA IDI, Sheikhpura, Bihar)

"I generally check the health of the baby and ask them to continue breastfeeding and if the child is more than 6 months then I ask them to give daal, chatuaa etc." - (ASHA IDI, Sambalpur)

However, as per the evidence collected through direct observations of the ASHA, less than 50 per cent of the ASHAs promoted exclusive breastfeeding for 6 months, in their visit. While 33 per cent of the sample did so in Bihar and Odisha respectively, 50 per cent did so in both Rajasthan and Madhya Pradesh.

This seems to be quite surprising, since quantitative as well as qualitative data suggests that the awareness levels about exclusive breastfeeding are quite high, across all states.

Having said that, there seems to be reasonable evidence to believe that most of the ASHAs knew about the time period for exclusive breastfeeding, and the starting point for complementary feeding.

M.8.5 Immunisation and Growth monitoring

Table M.11 discusses the knowledge of the sample in the area of immunization. As can be seen, a majority (98.9 percent) of the sample knew that BCG must be given within 15 days of birth, while 82.4 per cent were aware that the first dose of the polio vaccine should be given within this time period as well. In addition, 61.4 per cent of the sample knew that the first dose of Hepatitis-B vaccine is also required in this time frame. About 57 per cent of the sample was aware that all these vaccines have to be given within the first 15 days. At a state level, the awareness about the composite indicator ranged from 39.8 per cent in Rajasthan (treatment districts) to 84.8 per cent in Odisha (control districts).

Additionally, 29.4 per cent knew about all the necessary vaccinations to be given within 6 months of birth, which excludes vitamin-A and measles vaccines. A majority (86.4 per cent) of the sample discussed the benefits of immunization in their last home visit.

Table M.11.	Knowledge of & Services by ASHAs: Immunisation and Growth monitoring					
Indicator	**Treatment**		**Control**		**Overall**	
		n		n		n
Aware that a baby must be given BCG vaccine within at most 15 days of birth (%)	99.5%	144	98.4%	156	98.9%	300
	[0.004]		[0.011]		[0.007]	
Aware that a baby must be given Polio 0 vaccine within at most 15 days of birth (%)	78.6%	144	85.6%	156	82.4%	300
	[0.045]		[0.036]		[0.028]	
Aware that a baby must be given Hepatitis B 0 vaccine within at most 15 days of birth (%)	60.5%	144	62.2%	156	61.4%	300
	[0.059]		[0.049]		[0.038]	
Aware that a baby must be given all the necessary vaccinations within first 15 days of birth (%)[65]	54.3%	144	59.2%	156	57.0%	300
	[0.060]		[0.049]		[0.038]	
Aware that a baby must be given all the necessary vaccinations within first 6 months of birth (%)	24.0%	144	33.8%	156	29.4%	300
	[0.047]		[0.045]		[0.032]	
ASHAs who knew that prematurity/ low birth weight is a common cause of neonatal deaths (%)	31.7%	144	32.4%	156	32.1%	300
	[0.046]		[0.042]		[0.031]	
Gave advice to the mother during the last home visit (%):						
Benefits of immunization	83.2%	144	89.0%	156	86.4%	300
	[0.040]		[0.026]		[0.023]	
Aware that they need to give Advice on growth monitoring of the baby (%)	96.7%	144	98.2%	156	97.5%	300
	[0.022]		[0.012]		[0.012]	
ASHAs who said that growth-monitoring sessions are conducted at the AWC (%)	75.6%	144	79.4%	156	77.7%	300
	[0.045]		[0.035]		[0.028]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size. Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

Qualitative evidence seems to suggest that most of the ASHAs were aware that one of their responsibilities included discussing immunization with mothers, and thereby its promotion.

 "*I tell about DPT, BCG, polio, measles, and vitamin A vaccine. I provide information for complete immunization. I tell to maintain an interval of at least two years between two children by using family planning methods like condom and Mala-D. Yes, to weigh their child every month at Anganwadi centre. Yes, I tell them to wash their hands with soap and water before*

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[65] Neccesary vaccinations include BCG, DPT, Polio and Measles Vaccine.

carrying the child. Yes, I provide them ORS packets and zinc tablets. Yes, I distribute condoms and birth pills." - (ASHA IDI, Betul, Madhya Pradesh)

"If the baby is more than 6 weeks, I tell them about giving second doses of DPT and Hepatitis injection. Of the baby is around 3 months, I tell them to go for third dose. After that at 9th month I tell them about measles." – (ASHA IDI, Jehanabad, Bihar)

Interestingly, as per the data of the in-depth interviews, the number of cases where the ASHA spoke about immunization is the highest in Bihar, followed by Madhya Pradesh. Rajasthan has the least number of cases.

Many ASHAs also discussed the need to weigh the baby regularly.

"Generally we talk about completing the vaccine dosages. We tell them to go to Mamta divas to get their weight taken so that the growth can be recorded. We also tell them to give them proper food if the child is 6 months or older." - (ASHA IDI, Anagul, Odisha)

"I advise the mother on vaccination, I give advice new born care, and then I make frequent home visits after delivery for 42 days on 3rd, 4th, 28th, and 42nd day. I uptake regular follow up of the new-born. I inform about exclusive and early breastfeeding, about taking care of the child and maintaining cleanliness. I also advice about family planning. After the child is delivered at hospital, the birth weight is measured by the nurses, I advise the mother to regularly visit Anganwadi centre for weighing the child, I also tell about keep the child dry and warm, to keep the umbilical cord dry etc. I inform them about their delivery date. I advise them to have the doctor's phone number, make arrangement of ambulance, to arrange money for emergency and to keep dry clothes for the child. We always tell them to have the delivery at hospital. Within one hour of delivery, the child should be breast-fed. Keep the child breastfeeding until six months of age." – (ASHA IDI, Dausa, Rajasthan).

Additionally, as per the direct observations, the highest number of cases where the ASHA promoted growth monitoring of the baby occur in Bihar (50 per cent), followed by Rajasthan at 33 per cent.

M.8.6 Danger Signs and Hand washing practices

Since one of the key roles of the ASHA is, to be able to identify general danger signs in children in order to either provide first-level curative care or to refer them to the appropriate facility, it is essential to analyse the findings in this regard from the baseline data. Table M.12 presents these findings in detail.

As can be seen, a majority of the ASHAs were aware about the common danger signs of illness in a child, such as – swollen eyes, fever, limbs getting limp, pus on umbilicus, feeding reducing, among others. As this table shows, 63.2 per cent of the sample actually knew about all of the major danger signs that have been elaborated in the table. For the most part, such a pattern also holds across all the four states. However, a surprising finding is that the awareness about common causes of neo-natal deaths was not as strong. Less than 50 per cent of respondents knew about each of these common causes individually. None of the respondents were aware of all of the common causes considered together. In fact, only 14.7 per cent of the sample knew that diarrhoea is a common cause of neo-natal deaths. At the state level, this indicator was ranged from 5.6 in Madhya Pradesh (control districts) to 26.3 per cent in Bihar (control districts).

On the other hand, only 43.5 per cent of the whole sample was aware that pneumonia was a common cause of neo-natal deaths. At a state wise level, the values for this ranged from 30.7 per cent in Odisha (control districts) to 69.5 per cent in Rajasthan (control districts).

Additionally, while 90.7 per cent of the sample reported to have given advice on hand-washing practices, only 10.7 per cent of the respondents actually gave advice on at least 3 critical times for hand washing (i.e. after defecation by self and child and before eating and feeding the child) before handling new-borns and small children. A closer look at the data reveals that the state-level values for this indicator are the lowest in Odisha at 1.4 per cent in the control districts, while the highest is 25 per cent in Madhya Pradesh (treatment districts).

Considering that NIPI-II aims to emphasize the promotion of ORS and Zinc as an effective treatment for diarrhoea, the baseline data shows that 64.1 per cent of the sample reported to have discussed the treatment for diarrhoea in their last home visit to a new mother. Out of these ASHAs, 58.9 per cent of them suggested ORS and Zinc as a treatment. Interestingly, while discussing the treatment for diarrhoea, 25.1 per cent (of those who had discussed treatment for diarrhoea) said that breastfeeding should be continued.

Table M.12.	Knowledge of & Services by ASHAs: Danger Signs and Hand washing practices					
Indicator	**Treatment**	**n**	**Control**	**n**	**Overall**	**n**
ASHAs who knew that diarrhoea is a common cause of neonatal deaths (%)	10.8%	144	16.6%	156	14.0%	300
	[0.031]		[0.036]		[0.024]	
ASHAs who knew that prematurity/ low birth weight is a common cause of neonatal deaths (%)	31.7%	144	32.4%	156	32.1%	300
	[0.046]		[0.042]		[0.031]	
ASHAs who knew that malnourishment is a common cause of neonatal deaths (%)	11.0%	144	6.1%	156	8.3%	300
	[0.036]		[0.025]		[0.021]	
Aware of all the common causes of neo-natal deaths mentioned above (%)	0.0%	144	0.0%	156	0.0%	300
Aware of the following danger signs of illnesses in a child (%):						
Baby's eyes are swollen or with pus	84.2%	144	94.2%**	156	89.7%	300
	[0.042]		[0.020]		[0.022]	
Yellowness in the eye or skin-Jaundice	85.7%	144	88.9%	156	87.5%	300
	[0.054]		[0.025]		[0.028]	
Cracks or redness on skin fold (thigh/axilla/buttock)	84.0%	144	89.3%	156	86.9%	300
	[0.040]		[0.024]		[0.023]	
Skin: pus filled pustules	91.3%	144	91.4%	156	91.4%	300
	[0.028]		[0.022]		[0.018]	
Very high or low body temperature	77.0%	144	85.1%	156	81.5%	300
	[0.052]		[0.030]		[0.029]	
All limbs limp	81.5%	144	84.8%	156	83.3%	300
	[0.042]		[0.033]		[0.026]	
Less feeding/feeding stopped	72.4%	144	84.2%*	156	78.9%	300
	[0.054]		[0.030]		[0.030]	
Cry is weak/stopped	79.3%	144	87.1%	156	83.6%	300
	[0.044]		[0.027]		[0.025]	

Table M.12.   Knowledge of & Services by ASHAs: Danger Signs and Hand washing practices

Indicator	Treatment	n	Control	n	Overall	n
Distended abdomen/vomiting often	91.7%	144	84.6%*	156	87.8%	300
	[0.029]		[0.032]		[0.022]	
Pus on umbilicus	81.9%	144	87.2%	156	84.8%	300
	[0.040]		[0.028]		[0.024]	
Chest in drawing	92.6%	144	91.4%	156	91.9%	300
	[0.027]		[0.024]		[0.018]	
ASHAs who knew all the danger signs mentioned above (%)	55.9%	144	69.1%**	156	63.2%	300
	[0.050]		[0.041]		[0.032]	
ASHAs who had referred a woman to Primary Health Centre (PHC) or doctor to treat maternal or new-born danger sign in the past 3 months	42.1%	144	26.6%**	156	33.6%	300
	[0.056]		[0.045]		[0.037]	
Gave advice to the mother during the last home visit (%):						
Advice on hand-washing practices	92.4%	144	89.3%	156	90.7%	300
	[0.025]		[0.031]		[0.020]	
Advice on at least 3 critical times for hand washing (i.e. after defecation by self and child and before eating and feeding the child) before handling new-borns and small children	13.6%	144	8.4%	156	10.7%	300
	[0.039]		[0.023]		[0.022]	
ASHAs who gave advice on different times for hand washing (%)						
After defecation by self	79.6%	144	78.8%	156	79.2%	300
	[0.041]		[0.035]		[0.027]	
After cleaning a young child's faeces	59.7%	144	54.7%	156	56.9%	300
	[0.061]		[0.046]		[0.037]	
Before cooking	72.7%	144	66.0%	156	69.0%	300
	[0.044]		[0.050]		[0.034]	
Before eating	64.9%	144	57.9%	156	61.0%	300
	[0.052]		[0.052]		[0.037]	
Before feeding children	52.9%	144	53.1%	156	53.0%	300
	[0.058]		[0.053]		[0.039]	
Advice on danger signs of illnesses for new-borns	77.9%	144	82.1%	156	80.2%	300
	[0.043]		[0.034]		[0.027]	
Advice on treatment of diarrhoea in their most recent home visit to a new mother	63.00%	144	65.00%	156	64.1%	300
	[0.055]		[0.046]		[0.035]	
Advice on treatment for diarrhoea with ORS, if they discussed the treatment of diarrhoea[66]	45.9%	84	61.2%	99	54.5%	183
Advice on treatment for diarrhoea with ORS and Zinc , if they discussed the treatment of diarrhoea[67]	61.6%	84	56.8%	99	58.9%	183

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.

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[66] The sample size for all the indicators after this indicator has been limited to those who reported that they discussed treatment for diarrhea during their last home visit.
[67] % of ASHAs have preventive & promotive skills for infant care (Hand washing, ORS demonstration, Counselling for exclusive breast feeding)

Table M.12.	Knowledge of & Services by ASHAs: Danger Signs and Hand washing practices					
Indicator		**Treatment**		**Control**		**Overall**
			n		n		n

Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Based on the qualitative evidence from the in-depth interviews, it can be seen that most of the ASHAs mentioned that they were given trainings on detecting danger signs, and many stated that they discussed this issue with mothers.

"I tell about immunization of pregnant women and new born, about new born care, about inserting copper-T after two children, about birth pills. Yes, about washing their hands with soap and water regularly when taking care of the child. Yes. I tell the mother to exclusively feed the child only mother's milk till 6 months of age. Yes, I tell the mother to feed semi-solid food after 6 months of age. Yes, I tell about danger signs during pregnancy like swelling of feet, yellow discoloration of eyes, dizziness, decreased appetite, feeling drowsy. About new born I tell about fever and cold, pneumonia, feeding problems. Yes, I tell her to give ORS solution or homemade remedy like mixing salt-sugar in warm water every few minutes. Yes, that she should keep the child close to her chest to keep the baby warm. Yes, I distribute it whenever I go for home visits. Yes, I make home visits after the discharge of the child." - (ASHA IDI, Nalanda, Bihar)

"Yes, we have got this training four times. We were told that breast-feeding to the child by mother is beneficial for the child's health. We learn from this training about how to keep cleanliness, wash hands, clean clothes, monitor heartbeat, Use of thermometer etc. We were taught about taking care of mother and children and to tell them about cleanliness and care. We were told to be aware of danger signs of illness and to teach the mother to detect them. We were also told about breastfeeding and giving only breast milk the child for 6 months. I got the training 2 times last year." - (ASHA IDI, Anugul, Odisha)

Moreover, most of the ASHAs mentioned if they detected danger signs during their visits, in most cases they referred these cases to a health facility.

"I refer them to nearby government health facility if somebody has signs of boils, fever, or is underweight. In cases of jaundice or anaemia, cough, cold, pneumonia etc., I refer the child to hospital. If child has Haemoglobin less than 7 gm then I refer." - (ASHA IDI, Bharatpur, Rajasthan)

"In cases of extreme diarrhoea, vomiting, and weakness in child I refer them to go to the hospital as soon as possible. Also, in cases where the child is not able to feed or is underweight, I refer them to the hospital." – (ASHA IDI, Betul, Madhya Pradesh)

Additionally, data from the direct observations shows that more than a third of the sample observed the activity of the baby. The number of ASHAs who carried out such an activity was the highest in Madhya Pradesh (50 per cent), and the lowest in Odisha and Rajasthan (at 17 per cent for both).

M.8.7 SNCU+

As shown in Table M.13, only 43.8 per cent of the sample knew about the presence of SNCU or Sick New Born Care Unit. The awareness about SNCU seemed to be the highest in Odisha at 86.2 per cent in the treatment districts and the lowest in Rajasthan at 25.4 per cent in the control districts.

Out of those who knew about SNCU, more than half (57.2 per cent) were aware that that follow-up visits needed to be made to sick new-borns discharged from SNCUs. Additionally, 48.7 per cent of those who had heard about SNCU mentioned that they visit sick new-borns after discharge from SNCU. The data shows that the mean number of visits that an ASHA makes as follow up is 4.

34.7 per cent of this restricted sample knew that danger signs should be detected during these follow up visits, and the sick-new born should be referred back to SNCU if there is a need for it.

Furthermore, 16 per cent of this restricted sample stated that they gave the mother advice on danger signs in new-borns, while 24.8 per cent mentioned that they told the mother to follow the discharge instructions given by the doctor. Seventeen per cent stated that they gave advice on referrals in case of recurrence of illness symptoms.

In addition to this, 17.1 per cent reported that in their last home visit to a sick new-born, they told the mother to continue breastfeeding, while 18.6 per cent gave advice on kangaroo mother care.

Table M.13. Knowledge of & Services by ASHAs: SNCU+						
Indicator	**Treatment**		**Control**		**Overall**	
		n		**n**		**n**
Aware of the presence of a Sick New-born Care Unit (%)	43.2%	144	44.3%	156	43.8%	300
	[0.055]		[0.041]		[0.033]	
Aware of follow-up visits to sick new-borns discharged from SNCUs (%)[68]	46.6%	74	65.6%	63	57.2%	137
Aware of detecting danger signs on new-borns and referring them to SNCUs (%)	31.8%	74	37.0%	63	34.7%	137
Aware of promoting KMC during follow up visits (%)	45.3%	74	51.6%	63	48.8%	137
Aware of ensuring compliance with discharge instructions for sick new-borns (%)	6.1%	74	7.9%	63	7.1%	137
Mean number of home visits that an ASHA is aware of to follow up with sick new-borns	3.0	69	4.7	60	4.0	129
ASHAs who visit sick new-borns after discharge from SNCUs (%)	54.5%	74	44.1%	63	48.7%	137
Mean number of home visits that an ASHA makes to follow up with sick new-borns	3.6	39	4.4	27	4.0	66
Gave advice to the mother during the last home visit (%):						
Advice on following the discharge instructions given by the doctor	23.6%	74	25.8%	63	24.8%	137

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[68] For all the indicators after this one, the sample size is reduced to those who were aware of the presence of SNCU (first indicator in this table). Since those who were not aware of SNCU were not asked any questions in this section of the Health-worker questionnaire, including them in the sample for these indicators would underestimate these indicators.

Table M.13.	Knowledge of & Services by ASHAs: SNCU+					
Indicator	**Treatment**		**Control**		**Overall**	
		n		**n**		**n**
Advice on danger signs in new-borns	14.1%	74	17.6%	63	16.0%	137
Advice on continuing breastfeeding	22.5%	74	12.9%	63	17.1%	137
Advice on referrals in case of recurrence of illness symptoms	17.3%	74	17.3%	63	17.3%	137
Advice on maintaining hygiene and cleanliness	8.9%	74	14.9%	63	12.2%	137
Advice on kangaroo mother care	17.0%	74	19.8%	63	18.6%	137

Note:
'Mean' represents the mean value of the indicator.
'n' represents the sample size.
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level.
Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%.
Sample weights have been used to calculate the mean value of the indicator.
Source: NIPI Phase-II Baseline Survey 2013

Qualitative evidence, from the in-depth interviews, suggests shows that about 50 per cent of the sample had heard about SNCU, but less than 20 per cent of these ASHAs had referred a child to the SNCU.

Having said that, many of those ASHAs who were aware of the SNCU also seemed to be clear on the purpose of the facility.

"Yes, I'm aware of SNCU where new born are admitted in case of serious illnesses." - (ASHA IDI, Hoshangabad, Madhya Pradesh)

"Yes, I'm aware of SNCU. New born children are referred to SNCU in case of any illness. I have never referred any new born to SNCU." - (ASHA IDI, Dausa, Rajasthan)

"Yes. It is in Anagul Hospital. When the child is born and is very sick then it can be sent to the hospital for treatment. If the child is low weight or is born earlier than 9 months, then it is good to send the child to the hospital." – (ASHA IDI, Anagul, Odisha)

M.8.8 Family Planning

As per the baseline data, 30.9 per cent of the total respondents were aware of an ideal gap of at least 2 years between two consecutive births, while 7.9 per cent of the sample was of the view that a woman could get pregnant after exactly 2 months of her delivery. These findings are further elaborated in Table M.14.

While 81.2 per cent of the sample stated that they discussed the topic of family planning in their last home visit, only 6.9 per cent of all the respondents mentioned that they discussed the topic of birth spacing in their last home visit. At the state level, the indicator on discussion on family planning shows the lowest value in Rajasthan at 61.4 per cent in the treatment districts, and the highest in Odisha at 96.4 per cent in control districts.

Furthermore, 57.8 per cent of the sample said that they discussed IUCD as a post- partum family planning method, while 54.5 per cent reported to have had a discussion with women about the concerns women had about using IUCD. For the state of Bihar, the difference in the values of the treatment districts (54 per cent) and control districts (77.9 per cent) is statistically

significant at the 10 per cent level. Additionally, even for Madhya Pradesh, the difference between the treatment districts (75.6 per cent) and control districts (50.4 per cent) is significant at the 5 per cent level.

As per the data, the most commonly discussed methods of family planning are- female operation/ tubal ligation (61.7 per cent); copper-T/IUD (57.8 per cent); and Mala-D/Saheli (51.4 per cent).

Table M.14.	Knowledge of & Services by ASHAs: Family Planning					
Indicator	**Treatment**		**Control**		**Overall**	
		n		**n**		**n**
Aware of an ideal gap of at least 2 years between two consecutive births to be pregnant again (%)	25.4%	144	35.4%	156	30.9%	300
	[0.053]		[0.040]		[0.032]	
% of ASHAs who said that a woman can get pregnant exactly 2 months after their delivery	5.7%	144	9.8%	156	7.9%	300
	[0.024]		[0.037]		[0.023]	
% of ASHAs who said that a woman can get pregnant exactly 6 months after their delivery	15.9%	144	11.5%	156	13.5%	300
	[0.036]		[0.030]		[0.023]	
Gave advice to the mother during the last home visit (%):						
Advice on family planning	77.7%	144	84.0%	156	81.2%	300
	[0.055]		[0.031]		[0.030]	
Advice on use of IUCD as a post- partum family planning method	54.6%	144	60.5%	156	57.8%	300
	[0.054]		[0.046]		[0.035]	
Discussed the concerns that women had regarding the use of IUCD (%)[69]	58.3%	119	51.6%	130	54.5%	249
	[0.058]		[0.058]		[0.042]	
Mainly discussed topics on family planning						
Female operation/TL	58.3%	144	64.4%	156	61.7%	300
	[0.056]		[0.045]		[0.036]	
Copper-T/IUD	54.6%	144	60.5%	156	57.8%	300
	[0.054]		[0.046]		[0.035]	
Mala-D/Saheli	46.2%	144	55.6%	156	51.4%	300
	[0.058]		[0.044]		[0.036]	
% of ASHAs who did not mention that birth control pills should be taken by a woman within 6 months of the delivery	44.1%	144	57.6%*	156	51.6%	300
	[0.050]		[0.048]		[0.035]	
% of ASHAs who at least discuss about birth spacing when they discuss family planning with women	5.6%	144	8.0%	156	6.9%	300
	[0.021]		[0.034]		[0.021]	
Note: 'Mean' represents the mean value of the indicator. 'n' represents the sample size.						

[69] The sample size here is restricted only to those who said that they had discussed issues related to family planning in their last home visit.

Table M.14. Knowledge of & Services by ASHAs: Family Planning

Indicator	Treatment		Control		Overall	
		n		n		n
Figures reported in parentheses under the mean values of the indicators are robust standard errors clustered at PSU level. Control - Treatment Difference are represented in the 'mean' column for control area with: *significant at 10%; ** significant at 5%; *** significant at 1%. Sample weights have been used to calculate the mean value of the indicator. *Source: NIPI Phase-II Baseline Survey 2013*						

Qualitative evidence corroborates the quantitative evidence in showing that most of the ASHAs discussed family planning during their home visits. The following are excerpts from various interviews in order to see some of the commonly discussed topics.

"I tell them about inserting copper-T after delivery, about sterilization after two children, about condom, and Mala-D. I also know about injection but I haven't advised anyone to get these injections." – (ASHA IDI, Nalanda, Bihar)

"I tell them about condom, mala-D, copper-T, about sterilization after two children." - (ASHA IDI, Alwar, Rajasthan)

"I tell about condom, Mala-D, copper-T and sterilization after having two children. Mostly women use condoms." – (ASHA IDI, Narsinghpur, Madhya Pradesh)

Looking more closely at the status of PPIUCD, since NIPI-II aims to promote this in a major way, the data shows that many ASHAs have reported that they discuss PPIUCD as a method of family planning within 48 hours after delivery. Some of them also felt that its uptake has increased over the years.

"I advise them to have PPICUD within 48 hours of delivery. I also tell them about condom, Mala-D, and sterilization." - (ASHA IDI, Raisen, Madhya Pradesh)

"Yes. I tell the woman about getting copper-T insertion soon after child birth." - (ASHA IDI, Sheikhpura, Bihar)

"Yes, the women in my community use it more often"- (ASHA IDI, Sheikhpura, Bihar)

"Its uptake has definitely improved since previous years. Yes, they understand the importance of maintaining gap between two children." – (ASHA IDI, Raisen, Madhya Pradesh)

However, another prominent finding that comes across from this data is that most of the ASHAs feel that women in their coverage areas do not generally prefer PPIUCD because there is a general fear about the side- effects of this method. As per the ASHAs, this factor motivates women to adopt some other contraceptive method.

"Yes, the women in my community use it more often, but more than that they prefer undergoing sterilization. Yes, but they have many health problems on using copper-T like bleeding, discharge, backache etc. that is the reason why women undergo sterilization." –

 (ASHA IDI, Sheikhpura, Bihar)

"It has improved but women prefer condom because of various issues like bleeding. Those who are educated they go for copper-T insertion. Yes, but those who are educated are able to appreciate its importance." – (ASHA IDI, Narsinghpur, Madhya Pradesh)

"They use tablets more. Few women have taken up copper-T. It is because they are afraid of using copper-T and it is very hard to convince them." - (ASHA IDI, Anagul, Odisha)

Annex N   Baseline Data Limitations

This annexure outlines few limitations of the baseline survey exercise and analysis. Several other points or issues related to calculation of indicators has been presented as footnotes below the estimates for an indicator.

Household Survey Data Analysis

- The design of the HBNC+ intervention outlined above evolved after the execution of the baseline survey. Therefore, the data collected reflects a previous design and cannot be used to calculate all of the indicators in the updated project log frame. The key limitations include the following:

  o The target population of infants under HBNC+ has changed from 6 weeks until 1 year of age to 3 months until 1 year of age. This implies that indicators on the number of home vi sits conducted by ASHAs in the sampled households cannot be calculated precisely for infants when they were 3 months of age or older any longer as this older age group was not specified in the quantitative tools.

  o Since HBNC+ now also focusses on awareness, availability, and usage of Iron and Folic Acid (IFA) supplementation within households, the baseline data cannot provide estimates for these key indicators.

  o HBNC+ has evolved to focus on knowledge of ORS preparation and ensuring availability of ORS within households. These intermediate indicators were not captured during the baseline.

  o The baseline data also does not provide estimates for availability of soap and water in the households – which are also the new focal points under the revised HBNC+ programme.

- The land units that a household understands varies across the four states with multiple local units apart from acre and hectare. The conversion rates are also different for a same local unit in different states. Most of the responses are generated in terms of local land units rather than hectare/acre. Data was allowed to be collected in these local land units however, in some cases the unit of land irrigated was more than the unit of land owned and hence, such cases were dropped from analysis.

- There are always inconsistencies in age reporting and estimation during surveys as households do not understand Roman calendar system but report date of birth or estimate ages in relation to season or festivals. This leads to a rough estimation of age and generates inconsistencies in the age of the child or mother across questionnaires. Appropriate data editing measures were taken to resolve such inconsistencies.

- For calculation of unmet family planning need, contraceptive failure (which is usually hard to measure) was not included in the questionnaire on purpose. In addition, women who were in post-partum amenorrhea were also excluded from this estimation. Hence, this indicator may not be comparable with indicators reported in NFHS.

- Exclusively breastfeeding is often a term which generates confusion among respondents. This leads to a few inconsistencies between duration for exclusive breastfeeding and start of complementary feeding. The administration of the question on breastfeeding practices are generally answered yes even if something was fed to child that is probed during the survey. In some cases, appropriate data editing measures were taken but in few cases, such inconsistent observations were dropped from analysis. There are in general many obstacles to gathering information on actual levels of knowledge on exclusive breastfeeding given that the concept is very technical.

SNCU Follow Up Survey Data Analysis

- There were similar inconsistencies related to exclusive breastfeeding as explained above in household data analysis section.

Qualitative Study

- The sample size for direct observations was finalised to one DO per ASHA before the training exercise in consultation with the team.

Points for incorporation in End line Survey

There were also few indicators or concepts that would be incorporated and analysed in the end line:

- Training modules on which ASHA received training such as Module 6 and 7

- Incentives ASHAs receive for conducting home visits under HBNC

- Whether mothers follow the instructions given by ASHAs for sick new-borns

- Whether ASHA motivated the mother for adoption of key healthy messages under HBNC, HBNC+ and family planning

- From where did the mothers get IUCD inserted right after delivery

- Knowledge levels of the population regarding SNCUs and access to such facilities

Annex O   Ethics Protocol and Quality Control

This annex lists out various ethics procedures and quality control (at various levels) OPM followed in designing and managing the baseline evaluation survey.

Research Ethics

Our research was conducted to the highest ethical standard, in line with the principles outlined in DFID's Ethics Principles for Research and Evaluation (July 2011). This included ensuring that expectations were not raised, confidentiality was maintained, and respondents were informed about the purpose of the survey and asked to participate voluntarily.

Informed verbal consent was obtained from the research subjects. It was ensured that only female interviewers take the consent and interview of the female respondent.

No personal identifiers were used in any form of reporting or dissemination. Personal identifications were linked with a unique identifier and were kept securely.

No information was published that could identify the respondent. Paper copies of questionnaires will be stored for three years in a secure location; only the investigation team will be able to access them.

Participation in the research was voluntary and respondents were free to stop interviews at any time or skip any questions they did not want to answer. They had the right to ask questions at any point before, during or after the interview was completed.

The research staff and the participants were informed about the purpose, methods, and benefits and intended possible uses of the research.

All interviews were conducted by trained staff and in conditions of privacy. All interviews at the level of the community were usually conducted at the person's dwelling, or in a private room.

Pre Data Collection Preparation Phase

- **Pre-test:** The main purpose of this was to finalise the design and content of the instruments. Refinements and finalisation of the quantitative and qualitative instruments were made on the basis of (several rounds of) pre-testing with 2 aims in mind – (1) to ensure local specific contexts were adequately addressed by the tools and (2) information collected using tools were providing information to calculate relevant indicators to reflect the theory of change. This included a full **pilot** after the tools had been initially redesigned. This was conducted by the OPM Staff. It tested survey protocols, procedures, and instruments in an environment as close as possible to those that were eventually encountered in the actual survey. The translation, consistency, and integrity of the quantitative instruments was checked. Lessons learned from the pilot were incorporated into the design before rollout of the survey.

- **Development of manuals and guidelines:** Fieldwork manuals were developed for enumerators, and guidelines were developed for other key staff, such as fieldwork monitoring teams and data entry staff.

- **Training and full team pilot:** The fieldwork team underwent a 14-day long training course specific to the needs of the survey. Extensive training is vital to successful data collection. It combined an introduction to the survey and the instruments with detailed training on the instruments as well as the protocols for their application. It used role-plays and extensive practical exercises in the field it were concluded by a pilot phase in the field ('a dress rehearsal').

- **Community preparation:** Prior to visiting a community, the community needed to be informed in order to facilitate cooperation and as a basic matter of courtesy. Furthermore, there was a need to secure the necessary permissions to facilitate the fieldwork.

Data Collection Phase

Fieldwork Team: Fieldwork was carried out in an intensive manner. The survey was carried out by 10 teams with each team comprised of five members as follows –
- Four enumerators to interview households' heads, women, and the health worker of the PSU.
- One dedicated supervisor.

Fieldwork Duration: For the NIPI Baseline data collection, the fieldwork took place between the 4th of December and the 30th of January. The SNCU Baseline data collection took place between the 11th of March and the 16th of April 2014.

Sample size: While calculating the sample size, we aimed to have a Minimum Detectable Effect (MDE) of 5% for all headline indicators at the programme level. This required a total sample size of 4,500, split between 2,250 in the 'treatment' group, and 2,250 in the 'control' group. We ended up with 4,680 households in total, so the survey was larger than the original target.

Data Quality: Several data quality checks were incorporated during the data collection exercise by Evaluation team staff that included direct and indirect observations and monitoring.

Approximately 10% of the interviews were spot-checked, i.e. an OPM staff member conducted a surprise visit and sat through the entire length, or a part of the interview, and thereafter gave the enumerator feedback on her weaknesses. This helped reduce the errors in the data, as the survey progressed.

Around 10% of the households that were visited received back-check surveys, wherein the survey supervisors returned to random households that had been interviewed, and re-checked responses, which were unlikely to change over the time, lapsed from the actual interview (e.g. the roof material, religion, and caste of the household, etc.)

Time taken for interviews: The collective time taken to conduct the Household, Woman and Child interviews was 2.1 hours on an average. It look an average of 1.4 hours to conduct the ASHA interview.

Ex-post data and tool design check: While the overall data quality received was high, there were a few questions that received poor responses.

1. **Child questionnaire –**

a. The concept of "exclusive breastfeeding" was poorly understood. Several respondents answered that they had exclusively breastfed their child for six months, but also reported that they fed their child substances such as water, *janam ghutti,* etc. during this time period.

b. There were some discrepancies while answering questions about the number of home visits received by the mother, after the birth of her child. However, these issues were resolved by Sambodhi before analysis.

c. Respondents who first answered that their child was detected with a danger sign of an illness, did not specify any type of illness in later questions, and/or responded with "No illness" in the 'Others specify' field of the question. Therefore, we assumed that the child did *not* suffer from any illness for these cases.

d. Several respondents responded that they were satisfied with certain services of the ASHA, even though they had earlier reported that they had never received those particular services. Therefore, we assumed that the respondents meant to answer that they were *not* satisfied by the particular service, and changed the response accordingly.

e. In some cases, there was a mismatch between the age until which the child was exclusively breastfed, and the age at which complementary feeding was started. The answers were correct based on the age of the child.

2. **Household questionnaire -** In around 26 cases, the total amount of land that was owned by a family was lesser than the amount of land irrigated by them. Since this is not possible, these cases were not considered during analysis.

3. **Woman questionnaire –**

a. The answer of the question 'How many months ago did your last pregnancy end?' was sometimes lesser than the answer to the question 'How many months pregnant are you?' for the women who were pregnant at the time of the survey. Since this is implausible, these cases were not considered during the analysis.

b. In some cases, the answer to the question 'How many months pregnant were you when you first received an ante-natal care check-up for your pregnancy' was lesser than the answer to 'In which month during your pregnancy did you come to know you were pregnant?'. In these cases, the answer to the latter question was replaced with the values recorded in the question 'In which month did you register your pregnancy with a health service provider?'

4. **ASHA questionnaire –** When ASHAs were asked about the month of pregnancy the visit had completed, several responded with "9 months". As this is unlikely, these answers were changed to "8 months".

Data Processing and Monitoring

Data entry was undertaken in the field using Computer Assisted Personal Interviewing (CAPI) technology. A full time data editor reviewed data on a daily basis and fed back observed issues to the teams to recheck specific values and correct mistakes. The CAPI software had extensive consistency, range, and validity checks.

Full time field supervisors and field monitors ensured that around 2.5 per cent of interviews were spot-checked and a further 10 per cent were back checked. Throughout the period of data entry, enumerators and supervisors were expected to be available for any query on individual questionnaires where necessary.

Sample completion rates and losses were reviewed and reported.

Quality Control in the Field

To ensure the data collection is of the highest possible quality, the following procedures were followed:

- A full time supervisor for each fieldwork team was appointed solely for oversight, mentoring, and assistance, and was in daily contact with the survey manager.
- Very close supervision by senior OPM staff was conducted for the initial weeks of fieldwork. This was done for an early identification of mistakes, timely correction, and immediate feedback, with the aim of improving the quality of data.
- The fieldwork supervisor was responsible for checking all data entry at the end of each survey day, aided by the in-built consistency checks written into the data capture software.
- Data collected was daily transferred to Sambodhi for the data processing team to check the data entry for inconsistent, impossible, or unlikely data points.
- Time was allocated for re-visiting interviewees in case there were queries over the data
- Spot checks were performed by the field monitors throughout the different stages of the fieldwork process
- Randomly selected households were revisited by the Team Supervisors to perform back-checks of those questions from the survey that were unlikely to yield different responses after the time gap (e.g. roof material, water source, etc.)
- On a daily basis, each team had a meeting where the day's experiences will be discussed and corrections made.
- Field supervisors sent daily field reports (e.g. number of interviews conducted etc.) to the fieldwork manager.

As an in-field data entry process was used, data collected was transferred electronically by the field supervisors, daily to the data processing staff at Sambodhi, who undertook additional consistency checks and loaded the data onto the database. The data entry programme had in-built checks for unlikely data points, and dynamically adjusted drop down menu options to reduce the scope for errors.

The Sambodhi data analysis team used more sophisticated software to identify outlier data points, and all data was visually checked for consistency as well. Any issues found were sent back to the field teams to follow up on.

Annex P   Terms of Reference

PART 2: TERMS OF REFERENCE

Impact Evaluation of the Norway-India Partnership Initiative

1. Introduction

The Evaluation Department in Norad issues a request for proposals from researchers/consultants interested in designing and conducting an impact evaluation of the Norway-India Partnership Initiative (NIPI) Phase-II.This tender defines impact evaluation as a study of the *attribution* of changes in the *outcome* to the *intervention*. Impact evaluations have either an *experimental* or *quasi-experimental* design.'[70]

The Norway-India Partnership Initiative (NIPI) is one out of five bilateral partnerships the Norwegian government has entered into with the intention to contribute to the achievement of the Millennium Development Goals 4 and 5; to reduce child mortality and improve maternal health.
Phase I of NIPI is coming to an end (2006-2012) and the scope of Phase-II (2013-2017) is currently being developed. NIPI phase I (planned to invest NOK 500 million (US $ 81.1 million) in support of the National Rural Health Mission (NRHM) in four states in India (Bihar, Rajasthan, Madhya Pradesh and Odisha). [71] [72]   The funding is channelled through multiple partners including United Nations Office for Project Services (UNOPS), United Nations Children Fund (UNICEF) and World Health Organisation (WHO). No funds were received directly by the Government. Phase-II of the partnership initiative will continue to support activities in the same states channelled through multiple partners, although some of the partners will be replaced by new ones. The total budget estimated for Phase-II is NOK 250 million. Phase-II of the initiative will focus on the following:

- Improve and scale up quality continuum of care interventions at community and facility level in NIPI and selected non-NIPI districts;
- Establish a mechanism for sustainable institutional collaboration between Norwegian and Indian public and private institutions in areas related to women's and children's health;
- Facilitate linkages between NRHM and selected relevant global health initiatives.

In 2010, both a mid-term review of the NIPI partnership and an evaluability study were conducted. The latter was done in order to assess the extent to which the NIPI activities can be evaluated in a reliable and credible fashion. The study pointed out the existence of numerous sources of data. In November 2011, a technical report "Assessing and Supporting NIPI interventions" was published by the Public Health Foundation of India/University of Oslo.

2. Purpose

The purpose of this tender is to evaluate the impact and effectiveness of the types of interventions financed by the Norwegian government initiative for support to the achievement of the Millennium Development Goals 4 and 5. The case to be evaluated is the Norway-India Partnership Initiative Phase-II.

The evaluation is intended to inform the international and Norwegian public and government about what works and what does not work and why of the interventions supported through the

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[70] See http://www.3ieimpact.org/media/filer/2012/07/11/impact_evaluation_glossary_-_july_2012_3.pdf
[71] Actual investments in the period 2006-2012 amounts to NOK 330 million.
[72] The Norway-India Partnership Initiative phase I intended to start up in five states, but only started in four.

Norway-India Partnership Initiative. This will also be an important contribution to the international debate around the post-2015 MDGs.

The main users of the findings of the evaluations will be the Ministry of Foreign Affairs in Norway (MFA), the Government of India, the programme management and the government structure of the NIPI and other stakeholders who have direct or indirect interest in the subject of this evaluation. In this context, the *MFA* refers to its political leadership, its officials, the Norwegian Embassy in New Delhi and the Norwegian Agency for Development Cooperation (Norad). NIPI refers to the Secretariat, the Programme Management Group and the Joint Steering Committee. The *stakeholders* include implementing partners (United Nations programmes and non-governmental organisations).

3. Objectives and scope
The evaluation will be conducted in two steps that build on each other cumulatively.
The main objectives are:
- *Step 1:* To develop an impact evaluation design for the Norway-India Partnership Initiative (NIPI) Phase-II, and:
- *Step 2*: To conduct the impact evaluation of NIPI Phase-II including a cost benefit or a cost effectiveness analysis.

Step 2 will be initiated only subject to a final approval of the methodological inception report proposed evaluation design by Norad's evaluation department. Norad reserves the right to approve only parts of the proposal, the remuneration shall then be reduced accordingly.

The time period covered by the impact evaluation will be specified by the researchers as part of the evaluation design proposal. It is however expected that the timelines specified under *Part 1:Tender Specification* in this document, will be respected.

4. Methodological Comments and Work Plan
The tenderer is expected to propose a preliminary technical proposal with regard to the impact evaluation design of NIPI Phase-II, on the basis of the information in the ToR and the background documents/underlying documents attached to this tender.[73] The Evaluation department recognizes that the background documents are not sufficient to propose a detailed design. The proposals will be assessed on the basis of the discussions around the evaluation questions, proposed design, choice of methods and estimated sample size.

It is expected that the proposed evaluation questions and indicators be closely linked to the main project objectives and indicators[74]. The tenderers are also encouraged to look at potential unintended effects of the program. The tenderer should describe briefly the evaluation question(s) to be addressed, and how the proposed evaluation design will establish attribution through the use of quasi-experimental approaches (e.g. regression discontinuity, matching techniques, instrumental variable, **difference** in **differences**). As far as possible, the description should also explain how the design will address a) confounding factors; b) selection bias; c) spill-over effects; and d) impact heterogeneity. The tenderer is further expected to propose the use of mixed methods, and supplement the quantitative analysis of program effects with qualitative data to better understand how the program functioned The tender is expected to address cross-cutting issues related to gender, equity, quality and sustainability. In addition the tenderer should perform a cost benefit or a cost effectiveness analysis.

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[73] Evaluability Study of Partnerships Initiatives, Report 9/2010 Study, Evaluation department, Norad;   Final report of the Mid Term Review, 2010 .Ashok Dutta, Rani Gera, Antoinette Pirie, Stein-Erik Kruse; Assessing and Supporting NIPI interventions, Technical report, November 2011, Public Health Foundation of India/University of Oslo; Summary Norway India Partnership Initiative (NIPI) Phase II, November 2012.

[74] Indicators to be continued from phase I: Infant mortality rate, neonatal mortality rate, children fully immunized, Institutional births (%), Average retention period (hours) in case of institutional delivery (hours), Post natal care provided to mothers and neonates, Children had checkup within 10 days after delivery (%), New born babies – breastfed within 1 hour of birth (%), Referral done for pregnant mothers with illness and complications (%), Labor rooms with a newborn corner matching existing standards (%), State level allocation of NRHM funds for Maternal Child Health (MCH).

The selected tenderer will be requested to further develop the proposed impact evaluation design which will be presented in the inception report and validated in a workshop in India with the relevant stakeholders.

The workshop is expected to build capacity in the use, design and understanding of impact evaluations and to develop a common understanding of the key impact evaluation questions. The methodological inception report for the approval by Norad's evaluation department.

The evaluation team is required to identify local researchers to participate in the evaluation team.

The proposals shall follow relevant DAC evaluation guidelines, including a demonstration of how triangulation of methods, and multiple information sources are being used to substantiate findings and assessments. Poorly substantiated findings will not be accepted. In connection with questions where the team does not find sufficient information to make meaningful assessments, the team will list the sources sought and not found and / or describe the type of information sources they would have required to carry out such an assessment. In addition, the 3ie principles of impact evaluation will apply". [75]

5. Budget and Deliverables
The maximum budget for the overall assignment is NOK 3 millions.

The tenderer shall provide a total budget for the assignment including daily rates for the principal investigators**,** the time allocated to the local team members and the time/cost for the stakeholder workshop, data collection including estimated sample size, preliminary checking of administrative data, piloting surveys, site visits, researcher time and compensation for travel time used in intercontinental travel (maximum 7 hrs. travel time per intercontinental journey).

The **deliverables** in the consultancy consist of the following outputs:

- **Methodological Inception Report***:* The inception report will include the proposed designs including questionnaire and sample selection , a summary of all other activities completed during the inception phase, a note on any problems that have occurred and how they were resolved; and a list of any products (for example, training materials) produced, to be included as annexes to the report. The report should also contain a full annotated list over availiable data. The inception report shall be prepared and discussed with the stakeholders before approval by Norad's evaluation department.
- **Baseline report**
- **Prècis of the baseline report** (2 pages)
- **Midterm/progress report:** A brief note on progress including information about problems that have occurred, if any, and how they were resolved (4 pages).
- **Draft Impact Evaluation Report** for preliminary approval by EVAL for circulation to the stakeholders. The stakeholders shall provide feedback that will include comments on structure, facts, content, and conclusions.
- **Final Impact Evaluation Report**
- **Prècis of the final report** (2 pages)
- **Seminar** for dissemination of the final impact evaluation report in Oslo/Norway and in New Delhi/India.

Direct travel-cost related to dissemination in India, will be covered separately on need basis, and are not to be included in the tender budget.

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[75] http://www.ode.ausaid.gov.au/publications/pdf/3ieprinciplesforimpactevaluation.pdf

All presentations and reports (to be prepared in accordance with EVAL's guidelines given in *Annex A-3 Guidelines for Report*s of this document) are to be submitted in electronic form in accordance with the deadlines set in the time-schedule specified under *Section 2 Administrative Conditions* in *Part 1 Tender specification* of this document. The data collected during the study shall be submitted in EXCEL format. EVAL retains the sole rights with respect to all *distribution, dissemination and publication* of the deliverables. *33*