



**Integrated Family Health Initiative:**  
Catalysing change for healthy communities

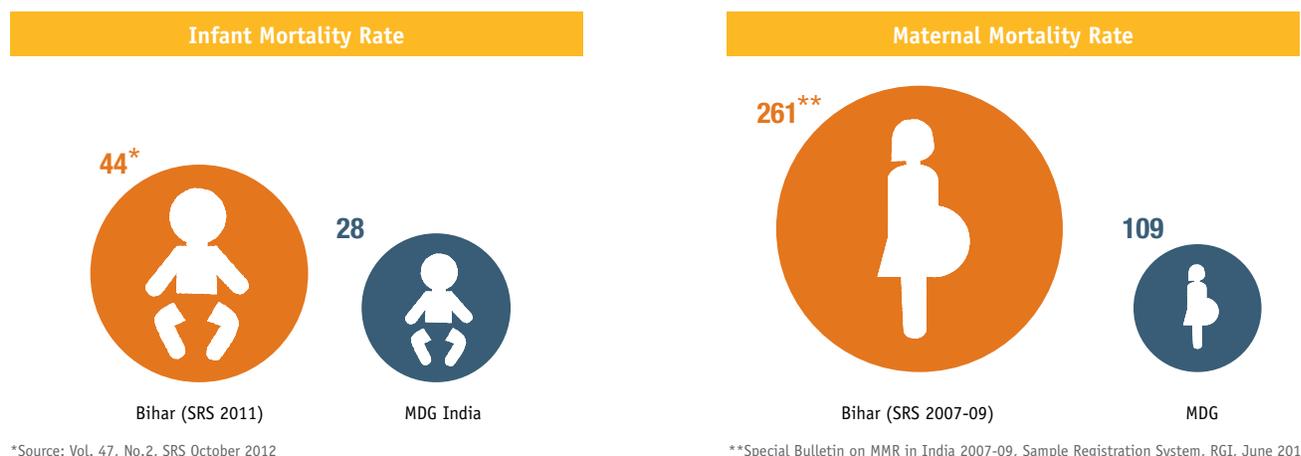
# PROGRAM SUMMARY



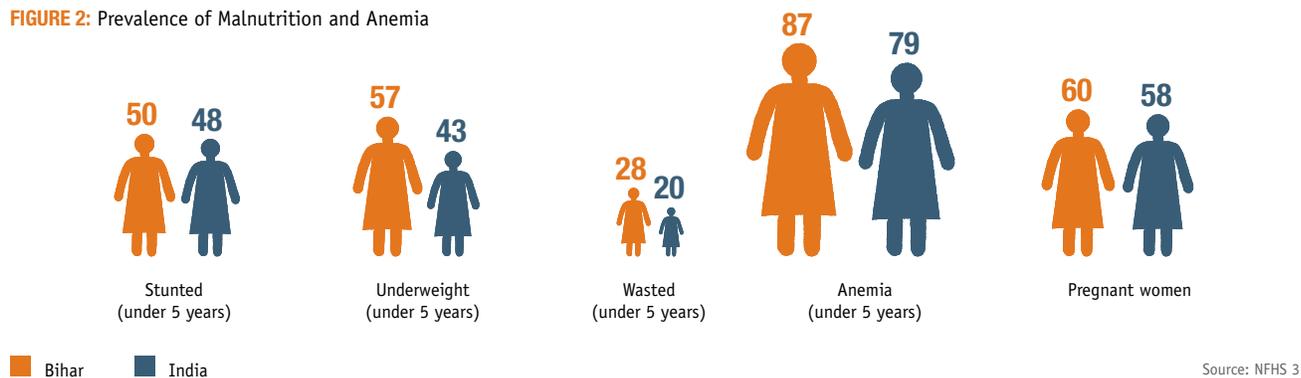
## Background

Bihar is one of India's largest and poorest states with over 100 million people. Poor nutrition and poor health, particularly for women and children, lead to early deaths and generational cycles of lost potential. The state has one of the country's highest rates of maternal, neonatal and infant mortality. Underlying factors that contribute to these negative health outcomes primarily include extreme poverty, gender and social inequality among many others.

**FIGURE 1:** Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR)



**FIGURE 2:** Prevalence of Malnutrition and Anemia



## Situation of Bihar with respect to Millennium Development Goals (MDG) 4 and 5 [India]

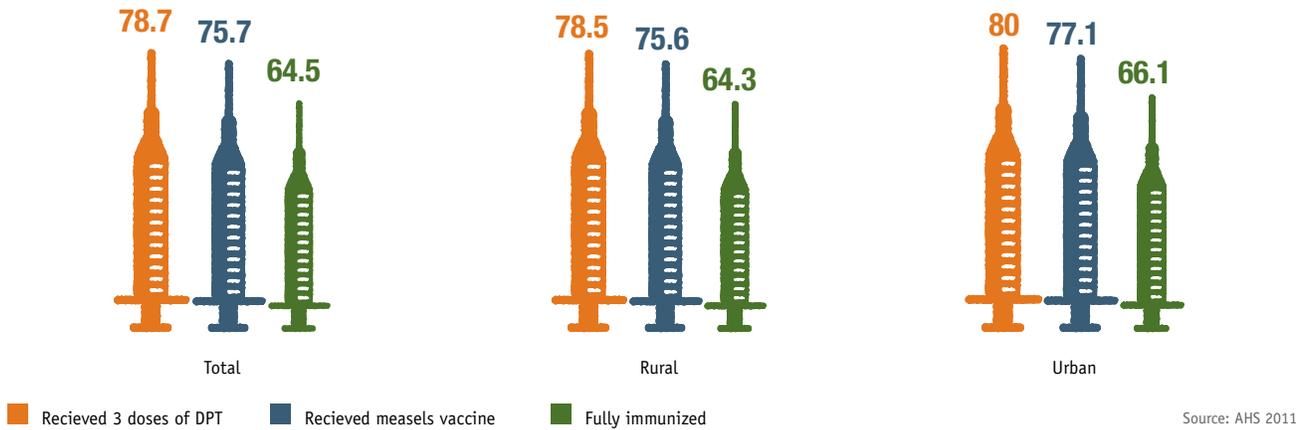
Recent trends in the Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), nutritional status, immunization and family planning, as highlighted in Figure 1, 2, 3 and 4, indicate that there are substantial gaps in achieving related MDG goals 4 and 5.

of effective program management, weak training systems, absence of supervision in health facilities, poor functional integration of interventions, inadequate public health infrastructures, and an underdeveloped and unregulated private sector.

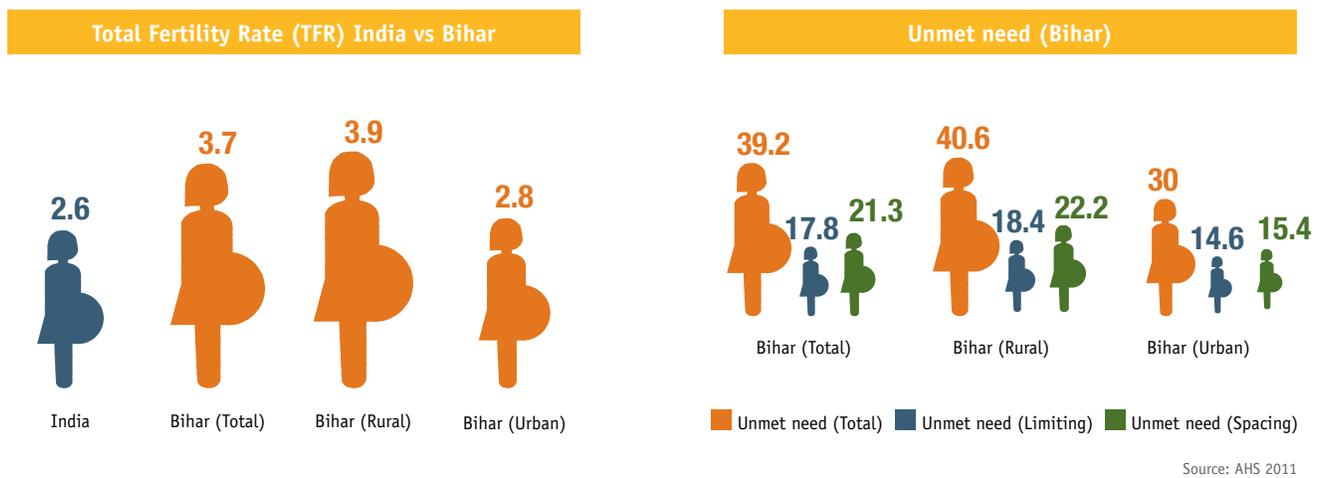
Despite recent gains and commitments from the Government of Bihar (GoB) and active leadership of key stakeholders to improve health infrastructure and outcomes, deep-rooted problems limit the government's ability to affect lasting change. Persistent barriers include poor quality and availability of frontline and primary health center level services and staff, limited access to services by neglected and marginalized populations, lack of accurate data, lack

With support from the Bill and Melinda Gates Foundation, the **Integrated Family Health Initiative (IFHI)** program seeks to support the GoB to improve family health outcomes statewide as well as build their leadership and ownership towards these services. Ultimately this is to accelerate the progress toward MDG 4 to reduce child mortality and MDG 5 to improve maternal health.

**FIGURE 3:** Immunization coverage in children aged 12-23 months of age



**FIGURE 4:** Family Planning



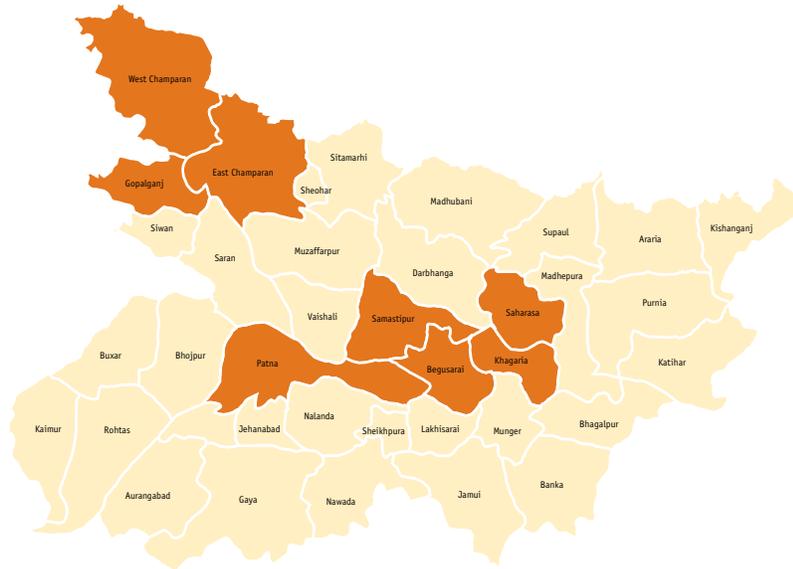
Routine Immunization session - 9 months child immunized (ANM, ASHA and a happy mother)- Patna district, Maner block, Sarai Anganwadi centre

IFHI is a five year initiative (2011-2015) led by CARE India with initial focus on all 137 blocks of eight districts within Bihar whose population is 28,100,339 (Census 2011). This is followed by supporting the government in scaling up activities starting in 2013 to the remaining 30 districts of Bihar (refer map in Figure 5 below). IFHI partners include

Janani (family planning), Abt Associates (public-private partnership), Columbia University – Averting Maternal Death and Disability/AMDD (maternal health), Emory University (nutrition), Save the Children/Saving New-born Lives/SNL (new born health).

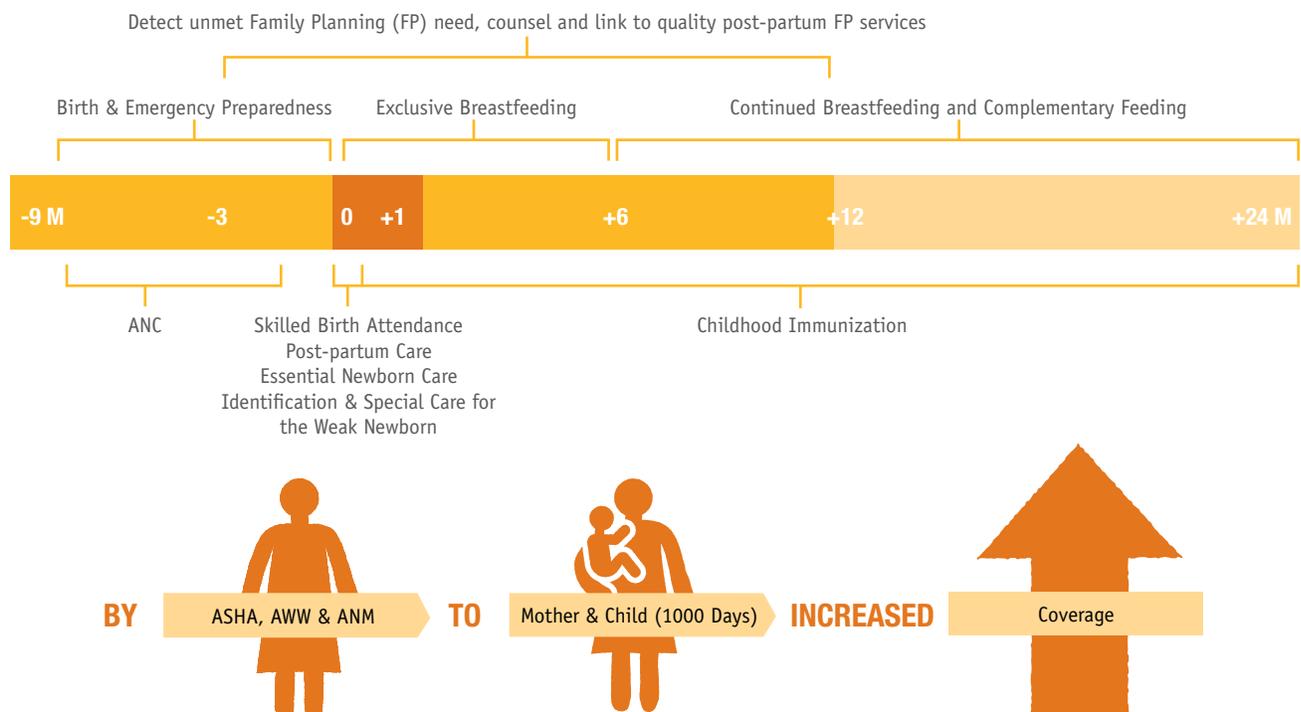
**FIGURE 5:** Bihar State Map

- 8 initial IFHI focus districts
- All districts by 2015



The overall objective of IFHI is support the GoB's in its goal to improve the health and survival of families with pregnant women and women with children less than two years across the continuum of care.

**FIGURE 6:** Continuum of Care Services



IFHI supports the improvement of family health through four main objectives:

1. Increase delivery of high impact and cost-effective family health interventions
2. Improve quality of key family health services and delivery processes
3. Increase utilization of key services and uptake of health promoting behaviors
4. Facilitate identification and consistent adoption of successful approaches throughout Bihar and communicate successes nationally

The implementation design includes technical interventions (the what), solutions (the how) and monitoring, learning and evaluation.

## The What: Technical Interventions

On the basis of rigorous evidence of effectiveness and the need for increased coverage and utilization of the intervention within Bihar, a set of core interventions have been identified and prioritized for foci across the family health continuum.

Core interventions include **maternal care, newborn care, nutrition, immunization, and family planning**. Key intervention activities include:

FIGURE 7: Technical Intervention Package – core and innovations

Innovations

Maternal	Newborn	Nutrition	Immunization	Family Planning
1 Counsel (families) for birth and emergency preparedness (mother and newborn)	1 Essential package of newborn care, including STSC, for all births (institutional and home)	1 Breastfeeding – a) early initiation; b) exclusive in first 6 months; c) breastfeeding for 24 months	1 Fully immunized child by ensuring no left-outs and reducing drop-outs • BCG, DPT3, OPV3, MCV1, MCV2	1 Community-based counselling: Integrate postpartum and post abortion Family Planning (FP) counselling and referral
2 Quality management of routine deliveries at PHCs	2 Extra care for small baby including consistent STSC/KMC	2 Appropriate complementary feeding		2 Facility-based counselling and services: Promote FP use in public sector through FP corners
3 Facility-driven facilitative process to build BEmONC capabilities	3 Umbilical cord on cleansing of neonates with 4% Chlorhexidine	3 IFA: Uptake and use during pregnancy		3 Expand access to quality services for family planning
4 Post-partum evaluation of the mother and newborn, stabilization/referral for complications	4 Community-based identification, referral and management of neonatal infections	4 Home fortification of complementary foods: Introduction and promotion for children		4 Leverage private sector providers to increase availability of DMPA injectables
5 Referral package - tailored for maternal and neonatal complications	75% of the interventions are community based 40% of the interventions represent innovations			5 Improved uptake of birth spacing methods

## The How: Solutions, Monitoring, Learning and Evaluation and Innovations

To address critical barriers of good health such as poor information flow and use, poor integration of interventions, and lack of adequate awareness and focus on preventative care among frontline workers, IFHI is rolling out a set

of cross-cutting *solutions* (refer Figure 7 below) using innovative approaches which represent delivery vehicles to increase the coverage of key family health interventions.

FIGURE 8: Solutions – core and innovations

Innovations

### Cross-cutting solutions

Strengthening data driven management	Integrating service delivery	Improving capabilities of & tools for frontline workers and facility staff	Optimizing incentives for providers and clients	Creating partnerships with private sector providers
<ol style="list-style-type: none"> <li>1 Mapping, enumeration, registration and name based tracking across the continuum of care</li> <li>2 Self-driven quality improvement process for facilities</li> <li>3 Facility-based observations of deliveries to monitor quality of care and clinical outcomes</li> <li>4 Real time outcomes driven program management system through continuous data collection at household level using LQAS</li> <li>5 Longitudinal/cohort studies to assess behaviour changes post intervention</li> </ol>	<ol style="list-style-type: none"> <li>6 Sub-centre level platform for ASHA, AWW and ANMs for supportive supervision, on-going capacity building, planning and review</li> </ol>	<ol style="list-style-type: none"> <li>7 Tools, checklists and job aids</li> </ol>	<ol style="list-style-type: none"> <li>10 Team-based goals and incentives for ASHA, AWW and ANMs</li> </ol>	<ol style="list-style-type: none"> <li>11 Increase access and quality of RMNCH services through select private providers</li> </ol>
		<ol style="list-style-type: none"> <li>8 ICT enabled continuum of care services                             <ul style="list-style-type: none"> <li>• ICT enabled registration and tracking</li> <li>• Mobile based protocols</li> <li>• Mobile efficiency tools: home visit scheduler and due-lists</li> </ul> </li> </ol>		
		<ol style="list-style-type: none"> <li>9 Mobile nurse training teams and mini skill labs in facilities</li> </ol>		

In order to improve service delivery within each category, seven *innovations* are being pilot-tested which could be game changers in terms of achieving the desired impact on the population of Bihar. Innovations are combination of cross cutting operational approaches and technical interventions (Eg: Team Based Goals and Incentives, Information Communication Technology, Home fortification of complementary foods with multiple micronutrient powder). The innovations are either new to India or Bihar or globally and we believe they could have significant effects on health outcomes.

Monitoring, Learning and Evaluation (MLE) is a component of these cross cutting solutions where ongoing data collection processes, such as Lot Quality Assurance Survey (LQAS), Direct Observation of Delivery (DOD) and cohort, are being used for generating information to support the program. All innovations piloted by IFHI will be assessed to understand the changes before and after implementation of the intervention. The cross-cutting solutions and innovations are described below:



Use of home visit checklist by AWW - W.Champaran, Barriah block

## 1. STRENGTHENING DATA DRIVEN MANAGEMENT

**Paper based mapping, enumeration and name based tracking:** It is essential for families to universally receive services, consistently and predictably through Front Line Workers (FLWs). IFHI district teams conducted an initial situation assessment along with verification of secondary data sources and found households which were being missed. The team supported the FLWs in the process of mapping and enumerating all households in their catchment areas or blocks. The objective of this process was to identify excluded households, tag them with existing Anganwadi centers (AWCs) and propose new AWC for the remaining, to ensure universal coverage of Integrated Child Development Services (ICDS) of the Social Welfare Department and Health Services. Based on this process, name based tracking is done to identify pregnant women and children (0-2 years of age) ensuring service delivery throughout the continuum of care. The various survey tools developed and used for this process include, survey register, home visit registers and planners, child immunization due list, Auxiliary Nurse Mid wives (ANM) supervisory tool.

**Self-driven Quality Improvement (QI) in facilities:** Timing proves to be crucial in preventing maternal

death and disability. Global evidence and situational assessment showed that most perinatal deaths occur during labor and delivery, or within the first 48 hours thereafter. In case of other complications, a woman has 6 to 12 hours or more to receive lifesaving emergency care. It is useful to address the delays first and facilitate access to a health facility that is well-staffed, well-equipped and providing good quality care second. To improve the quality of facility-based maternal, newborn and family planning services, a self-driven Quality Improvement (QI) process has been initiated by IFHI in the current eight focus districts [126 functional facilities, including District Hospital, Primary Health Center (PHC), First Referral Unit (FRUs) and Sub-Divisional Hospital (SDH) with high load of delivery cases]. A facility self-assessment tool to assess the basic functionality of services, has been devised by IFHI-CARE, and is carried out in these facilities regularly. QI teams have been formed at the facility level and in coordination with the quality assurance cell and other partners; it supports the respective facility with improvisation of administrative, reporting and managerial gaps through gap-analysis and the development of action plans.



ANM with team of ASHA and AWW - Surajpura HSC, Begusarai district

### Monitoring, Learning and Evaluation (MLE):

- Lot Quality Assurance Sampling (LQAS) – based household ‘surveys’:** To understand the coverage of services for IFHI outreach interventions LQAS surveys are conducted to generate results at the block level, district level and upwards. Handheld devices are being used to collect data on important summary indicators to provide results on a quarterly basis and for real-time data-driven management. The results are shared at the district and block levels to generate discussions on specific outcomes, hence setting goals and to plan strategies to achieve outcomes.
- Facility-based observation of deliveries to make decisions on program design and planning:** No data sources exist to measure facility based quality of care. As such, the project is testing the use of direct observations of delivery in facilities to assess the use of correct clinical protocols and associated rapid facility assessment to monitor infrastructure and supply related issues.
- Longitudinal cohort studies to assess behavior changes post intervention:** The aim of this study is to identify the effect of IFHI interventions on effectiveness of FLWs-clients interaction, and measuring the effect of interactions on key determinants of behavior change. In this design, client-provider interactions are considered as ‘program exposure’, which is a combination of frequency, timeliness and quality of interactions between the FLWs and target population. The effect of the intervention on individuals overtime, starting from initial exposure until change or outcome

is reached, will be measured. The study is initiated based on the maturity of the relevant community-based intervention.

## 2. INTEGRATING SERVICE DELIVERY

**Health Sub-center (HSC) level platform for Auxiliary Nurse Midwife (ANM), Accredited Social Health Activist (ASHA) and Anganwadi Worker (AWW):** Currently an effective platform to bring the front line workers together is absent or if present is too large [Eg: 300 FLWs per block PHC]. Hence, the HSC is one single platform planned where all FLWs come together. It is a solution where the other stand alone platforms such as ANM Tuesday meeting and Village Health Sanitation and Nutrition Day (VHSND) get structured and the FLWs come together for review, planning and capacity building. In the initial eight focus districts monthly 2480 health sub-center level platform meeting for supportive supervision, on-going capacity building, planning and review of reproductive maternal, new born and child health activities are conducted by ASHA and AWW by ANMs. Existing 137 block level supervisory and program management platforms such as ANM Tuesday meeting, monthly block level meeting and ASHA Diwas are being strengthened. IFHI team aims to maximize participation of FLWs, build their capacity, motivation and leadership skills and through joint planning and coordination ensure better results and higher impact of services delivered.



ASHA conducting a homevisit (PNC), Surajpura village, Bhagwanpur block, Begusarai district



Training by mobile nurse trainers- Ujiarpur PHC, Samastipur districts

### 3. IMPROVING CAPABILITIES OF AND TOOLS FOR FRONTLINE WORKERS

**Paper based tools and job aids:** To enhance the capabilities of FLWs, resource materials including audio-visual content for health sub-center platforms, technical reference materials for front line workers have been created. These include ANM management tools, survey register, home visit register, home visit planner, ASHA-AWW analysis tool, IPC cards and job aid kits (uterus model, calibrated bowls and checklist).

**Mobile nurse trainers and mini-skill labs:** To improve clinical skills of facility staff and drive quality improvement, mini-skill labs are set up in each identified facility. On-site support and training is provided through mobile nurse trainer teams in these skill labs for nurses in functional primary health center, sub divisional hospital and district hospital. On-the-job-training for medical, nursing and support staff, has been prioritized as a core solution by the IFHI project. Training is conducted using appropriate inexpensive equipment, mannequins or models of mothers and babies. Training curriculum and modules are developed, as per the Government of India (GoI) guidelines.

### 4. INNOVATIONS AND GAME CHANGERS

**ICT - Continuum of Care Services (CCS)** (Pilot location: Saharsa Jul. 2011 to Dec. 2013): This innovation will test whether or not frontline workers using ICT (mobile phone) enabled tools are able to achieve greater coverage and higher quality of services compared to traditional paper-

based tools. CCS pilot is designed by IFHI-CARE for case management by FLWs throughout the continuum of care. The CCS application has been developed by Dimagi as per protocols devised by CARE team. Different multimedia job aids developed by BBC WST are also integrated in CCS to support Interpersonal Communication (IPC) activities. Formative work for this innovation included development of the application through extensive user testing. CARE with technical support of Dimagi has developed the CCS pilot which includes features such as schedulers,



ANM using handheld device for training FLWs at Surajpura HSC, Begusarai district

check-lists and automated due lists for all the components across the continuum of care with thorough pre-testing with front line workers. Mathematica is the MLE partner for the Randomized Control Trial (RCT) design and will conduct baseline and end-term evaluation of this pilot.

**Team-Based Goals and Incentives (TBGI) for bundling of services across the maternal-infant continuum** (Pilot location: Begusarai, Aug.2011 to Dec.2013): This innovation is for a team of front line workers instead of individuals. Team goals are being set for provision of bundled health services accompanied by team building and motivational activities. Finally the achievements of teams will be linked with non-financial incentives. Whether such an initiative has a positive impact on coverage of bundled services is being tested. This is being implemented with Georgia Institute of Technology in providing technical expertise. Mathematica is the MLE partner for the RCT design and will participate in baseline and end term evaluation of this pilot.

**Improved uptake of birth spacing methods** (Pilot location: Gopalganj, Jan. 2012 to Dec.2013): This innovation is focused on addressing barriers for high unmet need for spacing services among women of reproductive age. The key barriers include, low awareness on birth spacing choices and associated myths, poor quality of counseling, poor quality of clinical service, lack of follow up bias towards limiting methods due to motivator, provider and client incentives. The innovation will provide insights on improving uptake of spacing methods through availability of quality birth spacing services and implementing strategies for overcoming associated barriers.

**Home Fortification of Complementary Foods: Introduction and Promotion for Children at 6 months** (Pilot location: West Champaran, Sep.2011 to Mar.2014): Home fortification of complementary food with multiple micronutrients is recommended by World Health Organization (WHO) but not yet introduced in programs in India. It is believed that locally generated evidence of effectiveness and feasibility will be an important factor influencing wider use in India. This pilot includes a RCT to examine the impact of the home fortification of foods on complementary feeding practices and anemia when implemented through the Integrated Child Development

Services [ICDS] and health platforms at large scale. The lead technical partner for this innovation is Emory University. Further work will also explore optimal delivery platforms, and cost effectiveness.

**Referral Package for maternal and neonatal emergencies** (Pilot location: Khagaria and Samastipur, Jan.2012 to Nov.2013): Efforts to strengthen availability of definitive Basic Emergency Obstetric and Neonatal Care [BEmONC] and Comprehensive Emergency Obstetric and Neonatal Care [CEmONC] in public facilities will need to be supplemented by timely and effective referral of maternal and neonatal emergencies from lower to higher centers of care. This innovation will conduct formative studies to identify the factors contributing to and opposing effective referrals at household, community and facility levels. Based on the outcome, a set of interventions will be proposed that can potentially improve effectiveness of referrals at all levels, which can either be further tested or implemented at scale, as appropriate. The lead technical partner for this innovation is Columbia University - Averting Maternal Death and Disability.

**Operational Effectiveness and Feasibility of Community-Based Identification, Referral Management and follow up of Neonatal Sepsis** (Pilot location: East Champaran, Apr. 2013 to Jun.2014): This innovation will test models of management of newborn infections through community-based identification of infections by trained FLWs and following simple clinical algorithms to provide treatment and/or referrals. The lead technical partner for this innovation is Save the Children-Saving Newborn Lives. Formative work for this innovation includes studying the current service delivery platforms and designing various probable context-specific models for identification and treatment.

**Umbilical Cord Cleansing of neonates with 4% Chlorhexidine (CHX) for facility births** (Finalization of design pending): The lead technical partner for this innovation is Save the Children - Saving Newborn Lives. IFHI has been in consultation with the main stakeholders to obtain agreement on the design of a pilot. The pilot will test and generate sufficient evidence to advance the dialogue on national policy with regard to the use of CHX cord cleansing in facility and home births. This could be implemented at a sufficient scale to contribute and project impact on neonatal mortality.

## 5. CREATING PARTNERSHIPS WITH PRIVATE SECTOR PROVIDERS

**Increase access and quality of services through private providers:** A network of selected private health care facilities with adequate delivery case load and having qualified health care providers has been identified and IFHI has signed a memorandum of understanding with them. The quality improvement process is being implemented through training of relevant facility staff to improve the quality of care of Comprehensive Emergency maternal Obstetric Neonatal Care (CEmONC) and family planning services at these network facilities. The impact of the intervention is measured through DOD.

### Integration and Statewide Scale Up

Since the projects inception, IFHI has worked closely with the Bihar government officials [ICDS and Health] from the state to the block level building on their capacity and ownership at all levels. Three successful core solutions, from the initial eight focus districts – HSC platform, self-

driven QI, mobile nurse training and mini-skill lab and related activities have been accepted by the Government of Bihar (GoB) as a part of the common minimum package to be scaled up to all districts of Bihar. IFHI provided inputs in the scale-up plan for these solutions and worked with State Health Society for including the financial asks related to core solutions in the Project Implementation Plan (PIP) of National Rural Health Mission (NRHM). Scale up of core solutions have begun from the first quarter of 2013 in a phased manner.

### Conclusion

By the end of the five year program period, IFHI through its cross cutting solutions and interventions, hopes to have catalyzed significant reductions in maternal, neonatal, infant mortality, malnutrition and reduce unmet need for family planning. Effective strategies will be documented as well as tools and innovations that can benefit family health throughout the state of Bihar, India, and globally.



An excited ASHA and AWW with their new tech aid, Saurbazar block, Saharsa district



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CARE has been working in India for 60 years, focusing on ending poverty and social justice. We do this through well-planned and comprehensive programmes in health, education, livelihood and disaster preparedness and response. Our over goal is the empowerment of women and girls from poor and marginalized communities leading to improvement in their lives and livelihoods. We are part of the CARE International Confederation working in 84 countries for a world where all people live in dignity and security.