



## MCH-STAR Initiative Compendium

### Selected Reports of Research, Technical Assistance, Policy and Advocacy Activities





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**MCH-STAR Initiative  
October 2012**

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## Introduction

Over the past five years (2007-2012) the Maternal and Child Health Sustainable Technical Assistance and Research (MCH-STAR) Initiative through support by the United States Agency for International Development (USAID) to has worked with premier Indian institution to improve maternal, newborn, and child health and nutrition (MNCHN) in India.

MCH-STAR's aim has been to leave a legacy of sustainable Indian institutions able to lead the implementation and execution of programs that address priority health and development issues and guided by appropriate policies<sup>1</sup>. The Initiative has been spearheaded by five Indian institutions (Star Supported Institutions or SSIs) — the Child in Need Institute (CINI), the India Clinical Epidemiology Network (IndiaCLEN), the Population Foundation of India (PFI), the Public Health Foundation of India (PHFI) and the State Innovations in Family Planning Services Agency. Through the MCH-STAR Initiative, these partner organizations have received support to strengthen their capacity for **evidence-based** policy analysis and advocacy, applied and operations research, program evaluation, and technical assistance for MNCHN so that they can more effectively and efficiently respond to government requests and requirements and provide sustainable technical leadership of global standards. The project has worked at the national level as well as had a special focus in the states of Jharkhand and Uttar Pradesh.

The SSIs' work has supported the goals of the National Rural Health Mission (NRHM), the Integrated Child Development Services (ICDS) program, and the Reproductive and Child Health II (RCH II) project for MNCHN research, policy analysis and advocacy, and responsive technical assistance at the national level and in the states of Uttar Pradesh and Jharkhand. These activities have focused on increasing the base of evidence on the major causes of maternal, neonatal, and child morbidity and mortality, and their proximate determinants, and then promoting evidence-based programs and policies which address MNCHN priorities.

Applying a “learning by doing” approach, MCH-STAR's capacity strengthening opportunities have advanced skills, techniques and tools for generating and translating evidence that have been useful in opening doors and providing a seat at government planning tables for SSIs. Today the SSIs are given additional opportunities by state governments in Uttar Pradesh and Jharkhand to participate in maternal, newborn, child health and nutrition (MNCHN) technical advisory groups, partnership meetings, program implementation planning (PIP), and review missions that monitor the NRHM progress. SSIs regularly provide input into priority setting, policy dialogue and planning, as well as research and budgeting for the health and nutrition sectors. SSIs are recognized by national and state counterparts as key resources and are frequently the “go to” organizations.

Over the five years of the project, the MCH-STAR Initiative conducted program evaluations of the NRHM's BCCC Campaign and the the National Rural Health Mission's Behavior Change Communication (BCC) Campaign in 11 states and the reach, effectiveness and impact of the Mukhya Mantri Janani Shishu Swasthya Abhiyan (MJSSA-JSY) in Jharkhand. Findings from 20 research and technical assistance projects/studies and 15 national- and state-level consultations resulted in 10 improvements to laws, policies, regulations or guidelines that improved access to and the use of MNCHN services.

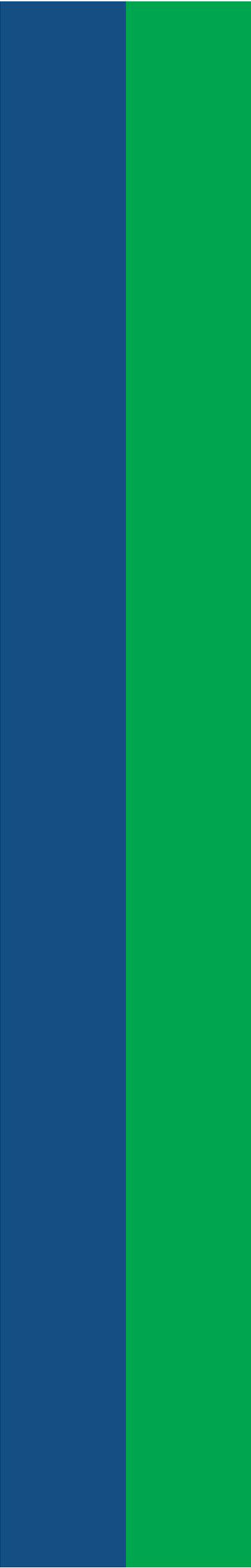
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<sup>1</sup>The MCH-STAR consortium partners—Cardno Emerging Markets USA, Ltd. (Cardno), Boston University (BU) and the Centre for Development and Population Activities (CEDPA)—provide complimentary expertise in capacity building, institutional strengthening, research and evaluation, and moving research results into a policy and advocacy framework for action based on standards of evidence.



This compendium includes topline findings from MCH-STAR’s research and technical assistance projects, select material from national and state consultations and policy briefs.





## **MCH-STAR Initiative Select Research Briefs**

- Addressing Gender Issues in Reproductive and Child Health
- IndiaCLEN Multicentre Trial of Home versus Hospital Oral Amoxicillin for Management of Severe Pneumonia in Children (ISPOT Study)
- Community-based Maternal Death Audit, Unnao District, Uttar Pradesh.
- Perception of Caregivers about the management of severe acute malnutrition (SAM) children at Malnutrition Treatment Centers (MTCs) in Jharkhand
- Understanding what women want from maternal health services—Summary of key findings and recommendations



## Addressing Gender Issues in Reproductive and Child Health in Uttar Pradesh

Research Brief  
August 2008

*In Uttar Pradesh, as in much of northern India, girls are not treated the same as boys by families and within health systems. There is a strong preference towards sons which often results in neglect of girl children. This neglect leads to poor health and nutrition in girls and can increase chances of death. These gender disparities continue into adulthood, resulting in disempowered women suffering from poor reproductive health. Reducing these gender gaps will go a long way towards achieving healthy families and communities that can develop and prosper.*

### Evidence of Gender Disparity Son Preference

Numerous studies in India cite a strong preference for boys over girls by most couples, particularly in the northern and central belt of the country. The practice of continuing to have children in an effort to have sons is said to have contributed to the slow pace of reducing the number of births per woman, and thus not realizing the economic, health and development benefits of smaller family size.

In Uttar Pradesh, more than one-third of the women (38%) want more sons than daughters (NFHS-3). The desire for more sons as compared to daughters is found to be higher (41.1%) among older women (40-49 years) as compared to younger women (24.4%, 15-19 years). Preference for boys is highest among rural, less educated, and poor women.

An analysis of the Sex Ratio at Birth (SRB), which is conventionally defined as number of male babies born per 100 female babies, indicates that the SRB in Uttar Pradesh is consistently higher than the country as shown in Figure 1. This further suggests how couples attempt to convert their desire for sons into practice. Though there has been slight reversal in the

recent years, concerted efforts are still needed to address such gender imbalances.

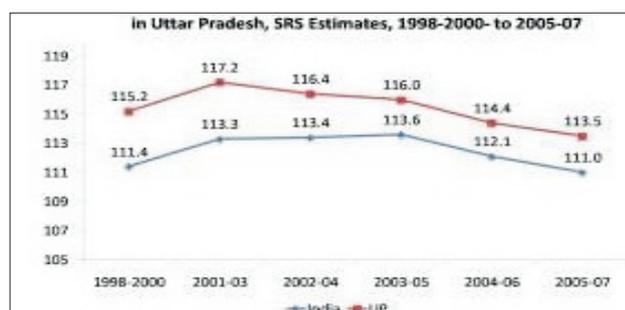
### Health and nutrition Status

One can see differences in the health care and nutrition of boys and girls in early childhood. After the neonatal period, significant gender differences are seen in early childhood mortality rates. The findings from NFHS-3 reveal that post neonatal mortality rates are significantly higher for girls (32 per 1000 live births as compared to 25 for boys) as are child mortality rates (43 versus 22) and under five mortality rates (125 versus 101). These data speak volumes about the care practices in the State.

Boys and girls under age five are equally likely to have diarrhea, ARI, fever or any of these illnesses; but boys are more likely to be taken to a health provider and sooner. Many girls are not getting enough of the right food to eat. Though there are no significant gender differentials in the nutritional level of all children below five years of age, this data appears to mask the true picture. When disaggregated by age, we find that girls in the age group of 2-5 years have significantly poorer nutritional status in terms of height-for-age (stunting) and weight-for-age (underweight) as compared to boys. Even when socio-economic and demographic conditions are same for both the sexes, girls are truly at a disadvantage.

### Women's Reproductive Health

Women's reproductive health in UP is poorer than in



most other states in India. Social and cultural norms lead to early marriage and childbearing, low use of modern contraceptives, dismal maternal health and high levels of maternal death. Only around a quarter of women (26%) received three or more ANC visits, about two-thirds (65%) received two or more doses of tetanus toxoid (TT), half of the women were given iron and folic acid (IFA), but only 9% took it for at least 90 days (NFHS 3). The majority of deliveries in UP (88%) are conducted at home and more than two-thirds of these home deliveries are attended by untrained health professionals. Such low level of utilization of Reproductive and Child Health (RCH) services, which are supposed to be available free of cost by the government, may mean that those services are not available or are so poor as to be undesirable, or that the overall low status of women prevents them from accessing these services, or both.

### ***Women's Empowerment, Domestic Violence and RCH***

Women's empowerment can be measured by looking at several aspects, including earning status, decision-making power and autonomy in terms of mobility and need for permission to undertake various tasks. Women were questioned on several of these dimensions in the three rounds of National Family Health Surveys. In the third round, 34 percent of currently married women were employed in the year preceding the survey; however, one-fifth of these women received no payment for their work and a little more than one-third were paid only in-kind.

Over half of the women participated in making decisions about their own health care, making large household purchases, household purchases of daily needs, and visiting their own family or relatives. However, only 34 percent participated in making all four of these decisions and nearly one quarter did not participate in any of the four decisions. Only 23% of women were allowed to go alone to the market, health facility and to their own village or community.

This disempowerment often leads to low self esteem, which can be seen when nearly half of the women reported believing that it is justifiable for a husband to beat his wife under specific circumstances such as showing disrespect to her in-laws and neglect of house or children. The extent of intimate partner violence reported by women in UP indicates the lack of respect and low value accorded to women.

About two fifths of ever married women reported having experienced physical violence at the hands of intimate partners during the past 12 months preceding the NFHS 3, 9% reported sexual violence and 16% reported emotional violence. Pregnancy or the post- partum period may be a particularly vulnerable period for women, with almost one-third of the women facing violence during this period. Empowered women, who make independent decisions, are more likely to experience violence. Violence also has significant influence on unmet need. Women who face violence are more likely to have unmet need for family planning services. Intimate partner violence, may lead to lower utilization of health care for them and their children.

### ***Male Involvement and RCH***

In Uttar Pradesh, women have to depend on others in the family (husband and in-laws) in almost every domain of decision making, including the sphere of health care. The analysis of NFHS-3 data reveals that while women's autonomy improves the utilization of certain RCH services (ANC and TT), male involvement appears to be a key factor for overall utilization of RCH and ICDS services.

Women whose husband received information from the health provider or health worker about the signs of pregnancy complications (vaginal bleeding or convulsion or prolonged labour) were significantly more likely to use ANC, family planning (both spacing or permanent methods), and had less likelihood of childhood morbidity and under nutrition among their



children. Similarly, women whose husband was told by health provider or health worker about importance of delivery in a health facility were significantly more likely to use ANC services, deliver in an institution or

by a health professional use family planning (both spacing or permanent methods) and seek immunization, and less likely to have morbid or undernourished children.

## **Recommendations for Addressing Gender Disparities in the Care of Girls and Women in Uttar Pradesh**

### **Health and Family Welfare Department**

- Collect and analyze gender disaggregated data from service delivery records.
- Ensure male involvement as an integral strategy of service delivery and communication
  - Provide information on antenatal care, delivery care, postnatal care, family planning, nutrition, and immunization with men,
  - Make health facilities more friendly to men, and
  - Use personal testimonies of male involvement in RCH to encourage greater male involvement.
- Develop an inter-sectoral strategy to address domestic violence, and use healthcare delivery contacts as opportunities to identify victims of domestic violence.
- Design and implement a communication campaign to sensitize communities on equitable care, treatment and nutrition for the girl child.
- Sensitize Village Health and Sanitation Committees,
- Roji Kalyan Samitis and Panchayati Raj Institutions on gender issues in RCH to serve as agents of change.
- Proactively reach out to the girl child below two years (by peripheral workers).
- Develop and test interventions to reduce gender differences.
- Monitor the implementation of the PCPNDT Act reduce demand for sex selective abortions.
- Ensure that Appropriate Authority is in place

and every Ultrasound machine is registered, and, in particular, track the use of mobile ultrasound machines.

- Ensure that data on case load of each machine is available and monitored.

### **ICDS**

- Collect and analyze gender disaggregated data from service delivery records.
- Reach out to the girl child effectively, particularly those below the age of two years.
- Emphasize on minute follow-up of the nutritional status of children at ICDS, particularly girls, and ensure their full participation in ICDS.
- Ensure regular monitoring and special care for children who are undernourished, stunted or wasted.
- Use Nutrition and Health Days as entry points for reaching out to the community, sensitizing them on the importance of health care seeking for children, especially for girls.

### **Other Departments: Police, Panchayat, School, etc.**

- Mobilize the community and sensitize the police so that more cases of domestic violence, physical harassment, rape, prenatal sex determination are brought to the notice of the administration.
- Develop and participate in an inter-sectoral strategy to address domestic violence.
- Organize legal literacy sessions on aspects like domestic violence, rape, dowry, inheritance,
- PCPNDT, etc for the community, link workers and health providers.



This brief is based on secondary data analysis of NFHS-3 and other data sources for Uttar Pradesh, and has been drawn from the following unpublished papers, through the support of the MCH-STAR Initiative to IndiaCLEN, PFI and ICRW:

1. Kumar, S.K., Levitt-Dayal, M., Dadhwal-Singh, A. (2009). Gender Differentials in Mortality and Nutritional Status Among Children in Uttar Pradesh. Unpublished manuscript.
2. Sahu, D., Mishra, R.M., Mondal, S., Kumar, S.K., Levitt-Dayal, M., Dadhwal-Singh, A. (2009). Effects of Women's Autonomy and Male Involvement on RCH Service Utilization in Uttar Pradesh. Unpublished manuscript.
3. Achyut, P., Verma, R., Kumar, S.K., Levitt-Dayal, M. (2009). Gender-based Violence and its Effects on RCH Service Utilization in Uttar Pradesh. Unpublished manuscript.
4. Dhawan, J., Chellan, R., Deshmukh, V., Kumar, S.K., Levitt-Dayal, M., Dadhwal-Singh, A. (2009). Gender Differentials in Health Care Seeking for Children Under Five in Uttar Pradesh: Evidence from NFHS-3. Unpublished manuscript.
5. Kulkarni, P.M., Kumar, S.K., Levitt-Dayal, M. (2009). Sex Ratio at Birth, Son Preference and Use of Ultrasound in Uttar Pradesh. Unpublished manuscript.



## IndiaCLEN Multicentre Trial of Home versus Hospital Oral Amoxicillin for Management of Severe Pneumonia in Children (ISPO STUDY)

Research Brief  
May 2011

Pneumonia is the single largest killer of children under the age of five worldwide. The disease takes the lives of over 2 million children under the age of five every year— nearly one fourth (400,000) of these deaths occur in India alone [1]. About half of pneumonia cases in India are caused by bacteria and could be treated with antibiotics. However, only 13% of children under the age of five with suspected pneumonia receive antibiotics [2]. World Health Organization (WHO) guidelines for the treatment of severe pneumonia in children recommends referring patients to a health facility for injectable antibiotic treatment. Children with severe pneumonia are vulnerable to infections as a result of weak immunity and this could be at increased risk in crowded hospital wards.

The ISPO study aimed to demonstrate that 7-day home treatment with oral amoxicillin is equivalent in clinical outcomes to 48 hours of oral amoxicillin in the hospital, followed by home treatment. The study was an open-label (both the researchers and the participants know which treatment they are getting) multicentre prospective two-arm randomized clinical trial conducted at 6 hospitals in 6 different cities in India to determine the differences in failure of treatment with a 7-day course of oral amoxicillin administered for first 48 hours in the hospital in comparison to being treated at home, in children 3 to 59 months old who have severe pneumonia.

### Study Findings

Of the 1,118 children enrolled and randomized for the study; 554 were assigned to home treatment, and 564 were assigned to hospital treatment, across the 6 sites in India. The two groups were balanced in distribution of baseline characteristics, except that the home group was more likely than the hospital group to have children in the age group of 12-59 months (57.2 % vs. 50.9%), the mean respiratory rate for infants and children was higher in the hospital group than the home group (infants mean respiratory rate:  $48.9 \pm 8.7$  and  $47.3 \pm 8.9$  respectively; children's mean respiratory rate:  $43.9 \pm 9.8$  and  $43 \pm 9.1$  respectively), and the hospital group was more likely to have infiltrates in their chest x-ray than the home group (67.6% and 60.8% respectively).

The overall failure rate of severe pneumonia when treated with oral amoxicillin was 11.5% (per protocol analysis). The intention to treat analysis showed that overall the hospital group was significantly more likely than the home group to fail treatment at any time point (due largely to LAMA), during the 14 days of follow up, however the per protocol analysis shows no difference between the groups. Baseline characteristics that increased the risk of treatment failure at any time after enrollment were infancy (age group 3-11 months), receiving antibiotics within 48 hours prior to enrollment and the use of high polluting fuel.

The primary outcome of treatment failure at 7 days showed that there were no significant differences in the rates of treatment failure resulting from clinical deterioration within the first 7 days. In the unadjusted analysis, the risk



of treatment failure due to clinical deterioration in the home group and hospital group was 5.4% and 7.4% respectively and statistically non significant (difference -2.0%, 95% CI -4.9 to 0.8;  $p=0.08$ ). The overall failure rate (including LAMA, voluntary withdrawal and loss to follow-up) was 8.7% in the home group and 16.3% in the hospital group, which was outside of the equivalency margin (difference -7.6%, 95% CI -11.5 to -3.8). Treatment failure at 72 hours differed by treatment groups. Children in the hospital group were significantly more likely to fail treatment both by intention to treat and per protocol analysis. This difference was largely due higher rates of clinical deterioration in the hospital group, which was perhaps due to more frequent identification of danger signs by the skilled clinical research staff and subsequent change of antibiotics during hospital monitoring, and to LAMA.

The secondary outcome of treatment failure between 8 and 14 days showed that there was no significant difference between the two groups in failure rates from any cause between 8 and 14 days. In the unadjusted analysis, there were 12 (2.2%) treatment failures in the home group and 10 (1.8%) treatment failures in the hospital group. The risk difference between the two groups was within the equivalency margin (difference 0.4%, 95% CI -1.2 to 2.0). Auscultatory wheeze and the use of high polluting fuel tended to increase the risk of failure in the adjusted multivariate model, but failed to reach levels of statistical significance.

Finally, the cost analysis showed that the average total costs of oral treatment of WHO defined severe pneumonia with oral amoxicillin across four sites in India was Rs. 427 for the home group as compared to the Rs. 702 for first 48 hours of hospital treatment followed by treatment at home, for the same effect of 5% failure rate at the end of 7 days after treatment in the random sample of enrolled patients.

### **Recommendations:**

- For severe pneumonia or very severe disease, the WHO recommends that provider's administer the first dose of the appropriate antibiotic and give an urgent referral for hospitalization for parenteral (injectable) antibiotics and other supportive therapy. Considering the financial and logistics problems faced by many parents for urgent referral for hospitalization, the ISPOt study investigators hypothesized that if oral amoxicillin administered at home was found to be equally efficacious as that administered for the first 48 hours at the hospital it would have important implications for the for families and the health system.
- Benefits of home-based treatment could include: improved coverage at the community level (particularly where referral is not possible), reduced costs of treatment for the community, reduced wages-lost for families, decreased risk of cross infection and needle-associated complications in hospital, and reduced need for referral and demand on the scant inpatient services.
- The auxiliary nurse midwives and the Accredited Social Health Activist (ASHA) workers of the National Rural Health Mission could be trained to recognize the symptoms and signs of severe pneumonia (as a part of the integrated management of childhood and neonatal illness) in under five children and initiate early therapy. This ameliorates the need for hospital referral for children who have the ability to take oral medications, do not have presence of danger signs and do not have comorbid conditions or risk factors such as measles or malnutrition. For its optimal efficacy, training of the health personnel delivering this treatment and of the mothers to recognize clinical deterioration if their child does not respond is needed. In order to ensure safe and effective therapy for pneumonia at home, parents and ASHA workers have to be counseled regarding symptoms and signs of clinical deterioration so that they bring the child immediately



to hospital if the child fails to improve on oral therapy at home. Thus, treating selected children with severe pneumonia in the home is not only cost saving but also has the potential to substantially reduce pneumonia morbidity and mortality in under five children who fail to receive timely care due to hospital referral.

- However, more research needs to be done to identify the feasibility of, and the barriers experienced in, such training of the health care providers towards correct identification of the patient group who is likely to benefit with oral therapy, identification of the signs of deterioration while on oral therapy, and identification of the patients who need to be referred in the beginning itself. Another important risk factor for treatment failure which emerged from this study was the use of high polluting fuel in the homes of children with severe pneumonia. This endorses the need for clean cooking stoves in low resource settings where pneumonia is common in children.
- These results can be now presented to policy makers at the Indian government and other stakeholders such as the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) with the recommendation that they develop/revise guidelines for community management of pneumonia in children under five in India and in other developing countries.





## Community-Based Maternal Death Audit, Unnao District, Uttar Pradesh

Research Brief  
May 2011

### The Problem

Despite progress in recent decades, India has the largest number of maternal deaths of any country in the world. Moreover, maternal deaths in India are concentrated in the Empowered Action Group (EAG) states, notably in Uttar Pradesh (UP). The Government of UP (GoUP) requested PHFI/IIPH to conduct a community-based maternal death audit (MDA) in Unnao District. The objectives of this study were to:

- 1) Identify operational issues and (if possible) solutions to conducting maternal death audits at community level based on Government of Uttar Pradesh guidelines;
- 2) Identify the main causes and processes leading to maternal deaths (medical or otherwise); and
- 3) Make recommendations to the Government of Uttar Pradesh, on ways to improve maternal health services at the community and/or facility level.

### The Study

Government health facility “gap” assessments were carried out by employing a team of six physicians conducted facility assessments in 15 out of 16 district and block health facilities in Unnao. This process took about five days and included the District Women’s Hospital, 2 Community Health Centres (CHCs) designated as First Referral Units (FRUs), 4 CHCs, and 8 Block Primary Health Centres (PHCs). The District Women’s Hospital and two designated FRUs are meant to provide Comprehensive Emergency Obstetric and Newborn Care (CEmONC) services, while the Block PHC’s are meant to provide Basic Emergency Obstetric and Newborn Care (BEmONC) services.

Maternal death reporting and verbal autopsies: The existing government maternal death reporting form was distributed to Anganwaadi Workers (AWWs), Auxiliary Nurse Midwives (ANMs), and Accredited Social Health Activists (ASHAs). These community workers were asked to report information on all female deaths in the age group 15-49 years reported during 1st June, 2009 to 31st May, 2010, in Unnao District. Information on maternal deaths was also sought in the health facilities. A total of 153 maternal deaths were identified. Of these, a sample of 70 was randomly selected for performing verbal autopsies (VA). The verbal autopsy form could be administered only in 57 cases, as 7 deaths were subsequently not found to be related to pregnancy or childbirth, 2 were outside the study period, insufficient information was available for 2 cases, and 2 cases could not be traced. A cause of death was assigned by a panel of three obstetricians.

### Top line findings

**Government health facility “gap” assessments:** Fifteen of the facilities assessed should have been providing BEmONC, according to Government of India (GoI) guidelines. Our findings showed that none of them met the recommended standards. Two thirds of the facilities studied did not report treating any women with maternal complications. Deficiencies in staffing, drug supply, equipment, training and management were identified as gaps in efficient delivery of services.

Maternal death reporting: It was estimated that 248 maternal deaths were expected to take place in the study area and period, but only 153 (62%) were reported using AWW, ANM, ASHAs and health facilities. The AWWs



reported 76% of the maternal deaths. For nearly half of the deaths (46%) the AWW was the only source to identify the death. Health workers in the community (ASHAs and ANMs) were the sole source of information on 19% of the reported deaths. Only 3 (2%) maternal deaths were reported from all the health facilities studied, and none of these deaths were picked up by the community workers. Another 5 deaths (3%) were reported only by Non-government Organizations (NGOs) or Panchayati Raj Institutions (PRIs).

**Verbal autopsies:** Information gathered from the families of women who died paint a vivid picture of families struggling to get help, without success.

- Only 13 women (23%) died at home. The rest died either in a health facility (46%), or while trying to reach a facility that provided the life-saving care they needed (31%)
- Eight out of 10 women who died had been taken to at least one health facility; 5 out of 10 were taken to at least two facilities, and more than 2 in 10 were taken to 3 facilities before they died.
- More than half of the families borrowed money before going to even the first facility.
- None of the families reported receiving JSY funds.
- Nineteen (33%) women were delivered by a person with some medical training: an obstetrician (3), doctor (10), nurse (3), or ANM (3).
- Only 31% of the babies born were alive after 1 month, 31% were still born, and 38% died within 1 month

The major causes of the 57 deaths investigated were hemorrhage (22 cases); anemia (15); sepsis (8), PIH and hypertensive disorder (6), obstructed labor (4), and unknown (2). Our study did not identify any death as abortion-related, which is most likely due to under reporting.

### **What needs to be done?**

*It is critical to include non-health community workers in identifying deaths. In the present study, AWWs were by far the best source of information on maternal deaths.*

*MDAs should not be used to monitor either the level or medical causes of maternal deaths. Less than half of the expected maternal deaths in the area were identified, despite our mobilization of community workers and site visits to facilities. Moreover, there is a possibility that the deaths that were identified may not be a representative sample for identifying cause of maternal death, as no abortion-related death was identified.*

### **Actions needed to reduce maternal deaths**

- To reduce delay, distance and cost, local and state governments must monitor and improve the performance of EmONC in their facilities. Although all the facilities reported performing deliveries 24/7, most of them did not have even basic drugs to treat obstetric complications.
- State and local governments should map their functioning EmONC facilities, and target for upgrading to existing standards those that would most improve access to services. If the women in our study were able to receive treatment, or medical stabilization, at the PHC/CHC nearest to them, even if they needed to be referred for surgery, many deaths would have been prevented.
- Priority should be given to increasing the availability of emergency transfusions by using blood storage units.



- Appropriate facilities, based on geographical location, proximity to the population, staffing, and delivery load, could be selected, to provide facility for emergency blood transfusion. This single recommendation alone could avert many maternal deaths. In addition, the government should develop plans to make Misoprostol much more widely available through front-line workers and even in the home.
- Community education activities for maternal survival should be tailored to local needs and realities. The many of the women whose deaths were studied did not plan to deliver at home. In most cases, their families recognized the seriousness of their condition and did everything they could to get them help, including borrow substantial amounts of money.





## Perceptions of caregivers about the management of severe acute malnutrition (SAM) children at Malnutrition Treatment Centers in Jharkhand

Research Brief  
August 2012

*In the winter of 2011 the Public Health Foundation of India studied the nutritional status of the children after their discharge from MTCs to identify factors that have implications on the health and nutritional status of children in the post rehabilitation period. This study was the first of its kind in Jharkhand to review the progress made in MTCs after discharge and helps to generate evidence and suggestions to improve management of malnourished children both at MTCs and at home following discharge*

### The Problem

Sever Acute Malnutrition (SAM) among children is a major cause of morbidity and mortality in the Indian state of Jharkhand. Per estimates from NFHS-3, 11.8% of children below 5 years of age are wasted below -3SD, which approximately translates into 300,000 children being severely malnourished in the state. Studies have shown that stunting in the first two years of life cause irreversible damage, resulting in shorter adult height, lower school attainment and lower offspring weight. Malnutrition Treatment Centers (MTC) have been established in most of the district hospitals of the state to provide inpatient management of severe acute malnourished (SAM) children. With an appropriate medical and dietary management SAM children can be rehabilitated successfully in a couple of weeks as an inpatient of a treatment center. However, information about the health and growth prospects of children after discharge is very limited.

### The Approach

The study was conducted in two phases involving both cross-sectional and prospective follow up design. To understand progress after program duration (2 months after discharge) a cohort of 100 children were followed from admission into an MTC through the next two months. The children were surveyed three times: First – at enrolment; Second – during discharge from the MTC facility; and Third – Two to three months after discharge. Detailed quantitative surveys, focus group discussions and 25 in-depth interviews were conducted with caregivers to

understand their perceptions of services provided at the MTC and their adoption of MTC-promoted health and care practices at home. Subsequently, to understand and measure outcomes beyond the program, the nutritional status of children who were treated and discharged at three, six and nine months back were assessed through a cross sectional survey of 150 children by visiting 50 children each from three groups. The questionnaires and other tools developed for the study were standardized and pretested, and investigators with field experience were trained prior to initiation of the study.

### Topline Findings

Specific top line findings from the study show:

- Treatment at an MTC generated perceptible change in the wasting status of children and by discharge the overall percentage of severe wasting in children dropped from 65% to 29%.
- Weight gain in an MTC was not sustained after discharge and a high proportion of children relapsed from moderate and normal categories of nutrition into SAM within two months of release.
- Low weight-for-height status remained a cause of concern for children following treatment at an MTC as almost 4 out of 10 children measured in the severe category nine months after discharge.
- The probable cause for poor catch up growth seen in children is due to the compromised triad of food, care, and morbidity after discharge. Food intake of many children surveyed was not even



equivalent to meet the nutritional requirements of normal children.

- Qualitative and quantitative analysis of dietary data to understand low energy and protein adequacy measured among children two months after MTC discharge revealed three probable causes: (a) thin consistency of served food; (b) small portion sizes; and (c) low frequency of feeding episodes.
- Children remain vulnerable to repeated infections and growth faltering without continuity of adequate care, which could be made possible through the efforts of frontline health workers and access to community health and nutrition programs.
- The role of community workers like Sahiya, Anganwadi Workers (AWW) and Auxiliary Nurse Midwives (ANM) were found to be very limited during episodes of illness in children after discharge.
- Overall, caregivers held a positive perception of MTC services and a high level of satisfaction with the improvement they witnessed in the health of their children.

## Recommendations

- The stay at an MTC is a good opportunity to sensitize and teach caregivers about preparation of quick high calorie recipes which should be feasible, low cost and culturally appropriate. These recipes should be documented pictorially and given to caregivers for reference at home.
- The presence of Integrated Child Development Services (ICDS) structure in every village can be leveraged to provide third meals at ICDS exclusively for SAM children discharged from MTC.
- Ready to use catch up foods or medical nutrition therapy tested and available in many part of the country should complement home rehabilitation.
- The nutrition education component in MTC should be redesigned so that caregivers are taught about

the dietary practices (feeding frequency, food consistency and diet modification) in a memorable way, using a variety of teaching methods and providing opportunities to practice preparing children's meal. Customized utensils can be given to caregivers as a carry away to help them serve right portion size of food to children after discharge.

- All frontline health workers should be oriented on the care and dietary guidelines promoted at MTCs so that they can promote their sustainability after a child is discharged. This visit of frontline workers to MTCs should be used as an opportunity to orient them about the catch up diet and connect them with caregivers for improving the quality of home visits.
- Supplementary food provided to children as a raw ration is often shared with other household members leaving only about 25% for the child, resulting in a small net increase in energy. Both nutrition education sessions at MTCs as well as home visits by frontline health workers should promote use of these rations for making high energy dense foods for the children.
- Every episode of illness has adverse implications on children and so the role of frontline health workers during illnesses has to be clearly defined. Travel allowance should be provided to caregivers to motivate them to visit CHCs or district hospital during episodes of illnesses.
- Nutrition should be included within disease management and frontline health workers need to counsel caregivers during home visits to continue feeding the children to mitigate the adverse effect of interactions within the malnutrition-infection cycle.
- Underlying causes of malnutrition such as hygiene, water and sanitation need to be addressed along with ensuring access to food.
- Although a causal relationship is difficult to establish, whether compromised status causes



frequent illness or vice versa, micronutrient deficiencies in children as observed in the study could have impaired immune function contributing to their increased susceptibility to

infections. Sprinkles, multivitamin tablets and syrups are some available options which could be provided to caregivers after discharge to address micronutrient deficiencies.





**Understanding What Indian Women Want from Maternal Health Services—Summary of Key Findings and Recommendations**

**Project Brief  
August 2012**

*With support was provided by the USAID MCH-STAR Initiative the Public Health Foundation of India, London School of Hygiene and Tropical Medicine and the University of Aberdeen conducted a study to explore women’s perceptions of quality and satisfaction with maternal health care in Jharkhand, India. The study had three inter-related components – a literature review to explore methods of assessing maternal satisfaction and determinants of satisfaction that emerge from such studies in developing countries; qualitative study of recently delivered women and health personnel in the study area to explore the determinants of care for institutional and home births and to understand women’s perception of good care; a community survey of 500 recently delivered women to assess the current status and determinants of maternal satisfaction with care in the context of both institutional and home deliveries*

India has made significant progress in decreasing the maternal mortality rate (MMR) from 437 in 1992-1993 to 212 in 2007-09 [IIPS 1995, ORGCC 2011a], yet the country still accounts for 19% of maternal deaths worldwide [WHO et al. p 2012]. Efforts initiated under Reproductive and Child Health, phase II (RCH-II) to improve maternal survival include Janani Suraksha Yojana (JSY), the conditional cash transfer (CCT) scheme for institutional deliveries implemented since 2005. Institutional deliveries in India have since expanded from 53% of all deliveries in 2005 to 73% in 2009-10 [UNICEF, 2005, 2010]. Similarly in Jharkhand, institutional deliveries have increased from 19% in 2005 to 40% in 2009-10 [UNICEF, 2005, 2010]. Several evaluation studies have acknowledged JSY as the most visible maternal health program and most effective in terms of generating demand. However, evidence is needed to determine women’s satisfaction with service provided by the public health system and what other facilitators of women’s satisfaction should be strengthened (or barriers removed) to support long-term demand and generate changes in health seeking-behavior. This study was designed to explore women’s perceptions of quality and satisfaction with maternal health care. The study findings will be of value in the design and strengthening of service improvements that are responsive to women’s needs and perceptions and result in improved access to and utilization of safe maternal health services.

**About the study area:** Jharkhand is one of the NRHM high focus states and continues to have a higher percentage of home deliveries than India as a whole. Jamtara district has an equally high proportion of home deliveries. Jamtara and Jharkhand both reported 82% home deliveries in 2007-08 [IIPS 2010] Only 19% of the villages in Jamtara had a public health facility and only 34% had an ASHA residing in the village compared to 30% and 54% for Jharkhand.

Nearly a quarter (23%) of the district’s population belongs to Scheduled Tribes. [ORGCC 2011b] Scheduled castes and tribes together constitute 29% of the total population. Overall, literacy level is around 64%, slightly lower than state average of 67%, with female literacy being 50%. Rural income levels are generally low – findings from the community survey show that monthly household income levels of 85% of the respondents were below INR 5000.



## Influential socio-economic factors and contextual factors

Indian women, by and large, are concerned about the issues that are considered important by women throughout much of the developing world (table 1). However, there are unique aspects of maternal health services that were particularly stressed or de-emphasized by Indian women participating in this study (tables 2, 3). There were also a few issues of significant importance to the satisfaction levels of these women that are not commonly found in other studies of this nature in other parts of the world (table 4).

**Table 1. Key determinants of maternal satisfaction**

Key determinants of maternal satisfaction		
Quality of Care Framework	Determinants identified from Literature Review	Determinants identified from Qualitative research and Community survey
Access	Distance & transport connectivity	Accessibility to institution
Structure	Cleanliness, clean toilets, hygiene, housekeeping services	Women appreciate cleanliness and the convenience of having someone clean the place of delivery afterwards was valued
		Human resources: Availability of trained medical personnel
	Medicines, supplies & services: Availability of drugs and equipment	Availability of medicine in case of complication and pain management
Process of care	Promptness of care: waiting time	
	Interpersonal behavior: respectful behavior	Interpersonal behavior of the providers
	Privacy & confidentiality	Better comfort and Privacy
	Perception of 'good' care: Length of consultation; completeness of procedures; perception of negligent care; perceived provider competence	
	Cognitive support: Prenatal counseling	
	Emotional support: Birth companion of choice	Family members present during delivery
	Preference for female providers	
Cost	Financial cost of care	The cost of the services.
Outcome		Perception of better pregnancy outcome
Other determinants	Socio-cultural determinants: Literacy	
		Influence of community health workers in deciding the place of delivery

**Table 2. Issues that elicited high positive or negative responses from the study respondents in the qualitative and quantitative research.**

Issue	High satisfaction - % with Score of 5	High dissatisfaction - % with score of 1 or 2	The nature of women's concern
Support by family during delivery	79% were fully satisfied	79% were fully satisfied	Women feel vulnerable during delivery and value the presence of familiar person as source of support, in both home & institutional delivery



Issue	High satisfaction - % with Score of 5	High dissatisfaction - % with score of 1 or 2	The nature of women's concern
Health condition of newborn	71% were fully satisfied (76% of those with institutional deliveries; 68% of those with home deliveries)		Women feel satisfied with the health of their newborn when the baby isn't too weak or suffering from any newborn ailment.
Care received during postnatal	54% fully satisfied	12% fully dissatisfied (highest % of dissatisfaction scores). Another 4% were somewhat dissatisfied	Women feel that they do not have sufficient contact with health workers after delivery.
Women's health condition after		7% fully dissatisfied and another 12% somewhat dissatisfied.	Women complained of feeling generally weak and anemic.

**Table 3. Issues that were difficult to communicate to study respondents in the qualitative and/or quantitative research, difficult for them to comprehend or that seemed to be of little concern to them.**

Issue	The issue was difficult for women to comprehend in interviews, discussions or via the survey questions presented	The issue failed to elicit significant verbal responses from the women and/or the issue was found to be neither an indicator of strong satisfaction nor dissatisfaction
The promptness of care offered by facility staff, private doctors or TBAs		In most deliveries women in labor were attended within 30 min of arrival at facility, hence this did not emerge as significant issue in community survey; pattern was similar in home deliveries
Cleanliness in institutions	The socio-cultural context of the women could have affected their notions of cleanliness.	Most facilities in the region were in newly constructed buildings, which were clean. This could have led to overall high levels of satisfaction with cleanliness of institutions.
The quality of the clinical services of the health provider	Women did not have the awareness necessary to determine whether or not they were given appropriate clinical care	
The adequacy of cognitive support and counseling offered by the health provider	Women did not have the awareness as to what to expect or what questions to ask, and also to decide whether the support provided was adequate. Social barriers may limit communication with health providers and expectations in terms of cognitive support.	
Preference for female providers		As most deliveries were attended by females (nurses or TBAs) this issue did not seem to be a concern for most women.



**Table 4. Significant issues raised by study respondents.**

Issue	Nature of the issue's importance to respondents	Relation with a moderate or high level of satisfaction with services	Relation with a moderate or high level of dissatisfaction with services
Fear that males would be present in delivery room	Most women were satisfied as providers in this study were largely female (nurses or TBAs), but the presence of males was a significant reason for unwillingness of women with home deliveries to deliver in an institution in future. It emerged as an important consideration in the qualitative study – this fear of male presence included being attended by male providers		11% of women who recently had delivered at home raised this issue as a dissuader from choosing institutional delivery.
Influence of husband and other family members	One in five women reported that the choice of place of delivery was the decision of husband or other family members.		Absence of family support for looking after other children at home or for arranging transport and accompanying woman to facility was a major inhibitor in accessing institutional deliveries.
Influence of community health workers	Community health workers play a significant role linking communities with public health system and enabling access to health programs; they give assurance about good care and availability of staff at the facility	23% women cited assurance from community health worker as reason for preferring institutional delivery; 47% were accompanied by her to institutions for delivery	Almost half (45%) women with home deliveries thought that postnatal contact time by community health worker was too little

**What we learned about what Indian women want from maternal health services**

- Indian women, whether they deliver at home or an institution, want the same thing, and are satisfied and dissatisfied by largely the same maternal health determinants as women in other parts of the world. The positive trend is that 63% women who delivered at home were willing to consider an institutional delivery in future. Issues that stand out in the Indian context include women's perception that facilities would not have adequate medicines and supplies, good care may not be available at facilities, the aversion to the presence of males during labor and delivery, the assurance of good pregnancy outcome and the powerful roles of the husband and other family members and also the community health worker in influencing the choice of place of delivery.
- The assessment of satisfaction with regard to clinical care associated with delivery, expressed by low-income women with low levels of literacy may not reflect the reality of the quality of clinical care given to them primarily on account of low levels of awareness regarding the recommended practices.
- Reported rude or abusive behavior of facility staff is a powerful dissuader for women to go to a particular institution for delivery. Reported rude behavior by facility staff has an amplified affect because women who



hear about the reported rude behavior also are likely to avoid delivering in that facility and counsel other women not to go there.

- Lack of available transportation remains a powerful dissuader from choosing or experiencing an institutional delivery.
- The presence of family members or a familiar person is extremely important to women during delivery
- Most women plan to have future deliveries in health facilities if her experience with her most recent delivery at a facility was satisfactory
- A significant proportion (63%) of women having home deliveries in the past say they would consider having an institutional delivery in future, primarily because they believe there is better assurance of good infrastructure and supplies at facilities, and also the assurance of good outcome for themselves and their newborns
- The conditional cash transfer provided through JSY is a significant factor in encouraging institutional deliveries, but not the primary one, as more than 60% of surveyed women say they are attracted to going to facilities for delivery primarily for better pregnancy outcomes.
- Women who chose to deliver at home were generally satisfied with the care and services they received during the most recent delivery
- The issue(s) providing the greatest satisfaction to women during their most recent delivery were support from family members, outcome in terms of the health condition of newborn baby, care received during postnatal and antenatal period and the health advice given by the provider

## **Recommendations to improve utilization of maternal health services in India**

### ***How the findings can help improve the quality of facility-based services***

Facility managers can use the study findings to guide them in strengthening the facilitating factors and decrease the barriers to choosing institutional deliveries. This can be achieved by

- Ensuring that key factors of integrated into quality assurance measures such as in-service training programs and assessments of staff performance, facility protocols, and patient surveys.
- Overcoming community misgivings about facility processes and services by ensuring that the services for delivering mothers are communicated
- Ensuring that ANC care is so well coordinated that every woman in the catchment area who is at high-risk of delivery complications is known and emergency transport to a facility is available should it be required

### ***How the findings can help improve the quality of community-based services***

- ASHAs and Anganwadi workers are the key link workers ensuring that women receive the full continuum of services for safe motherhood from the antenatal period through postnatal care. The TBA also plays an important role as a caretaker and counselor for women and newborns regardless of whether a woman delivers at home or in institutions. The support these women can provide to ensuring a delivering woman has access to various aspects of care can be achieved through
- Improving birth planning and complication readiness counseling for women at home or in other community settings, regardless of where women plan to deliver because women's responses indicate that they lack good advice on these issues..



- Involving the husbands and other family members in advocacy around institutional deliveries, as they play a significant decision making role regarding place of delivery.
- Motivating and orienting the ASHA or TBA to provide community-based postnatal care, with which many women are dissatisfied.
- Ensuring ASHAs and AWWs identify women who are higher risk of developing complications and counsel them about place of delivery accordingly

Community organizations concerned about safe motherhood can integrate these findings tools to ensure that mothers' concerns are shared with program managers and policy makers. This can be achieved through

- Community-based checklists for assessing whether facilities are “mother friendly” based on the determinants of women’s satisfaction with the quality of care
- Community-based checklists for assessing women’s knowledge of birth planning and complication readiness, delivery processes, as well as postnatal danger signs for the mother and newborn
- Creating community forums for facility managers to address women’s questions about facility processes and labor processes as well as inform women of their rights and benefits when choosing an institutional delivery.

### **Areas for further research on client perspectives of quality of care, satisfaction with care, and healthseeking behavior**

- There is need for in-depth research into the reasons for persistently high home births in some regions in India.
- Findings show that perceptions of better care and outcomes override the attraction of cash transfer in women’s preference for institutional deliveries. There is scope to expand this research further to examine the changing community perspectives influencing utilization of institutional deliveries.
- Considerations of high cost of care emerged as a key reason dissuading women from institutional delivery – these could be the result of informal payments and irregularities in availability of medicines and supplies. Research can further quantify the extent to which such irregularities act as an effective barrier to utilization of care.
- Further research into maternal satisfaction could be made more policy-relevant by assessing the relative strength of various determinants in influencing maternal satisfaction; this could help in prioritizing appropriate corrective interventions for improved quality of care.
- Further research is warranted on maternal satisfaction in secondary or tertiary levels of care, especially with complicated deliveries or C-sections.

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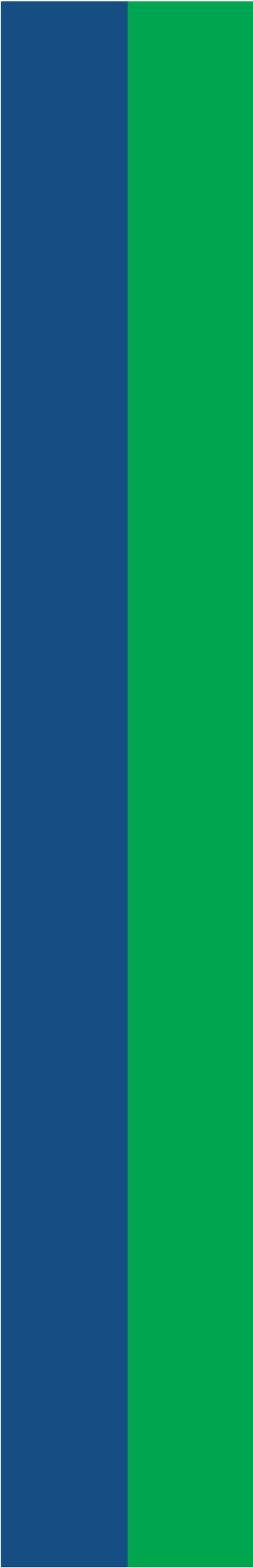
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### **Credits:**

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## **MCH-STAR Initiative select briefs of Evaluations, Assessments and Technical Assistance**

- Concurrent evaluation of Phase II of the National Rural Health Mission behavior change and communication campaign
- Assessing the Needs for Periodic Training of ASHA under National Rural Health Mission in Uttar Pradesh
- Performance Needs Assessment of Integrated Child Development Services Scheme in Jharkhand
- Training needs assessment of primary health care medical officers and National Rural Health Mission (NRHM) program managers in Jharkhand
- Assessment and mapping of human resources in health in Jharkhand
- Addressing exclusion in sanitation for equity - An assessment of water, sanitation hygiene (WASH) in flood affected districts of Uttar Pradesh



## Concurrent Evaluation of Phase II of the National Rural Health Mission Behavior Change and Communication Campaign

Research Brief  
May 2011

### The Problem

Those who live in rural India—nearly 740 million people—face a series of health challenges. Low life expectancies, high infant mortality rates, and the ubiquity of preventable diseases are just some of the many challenges faced by rural Indians. In response to these problems, the Government of India (GoI) started the National Rural Health Mission (NHRM) in 2005. One aspect of this initiative has been the Behavior Change Campaign (BCC); the goal of this program is to promote existing programs and schemes as well as to improve attitudes towards and increased knowledge of key maternal, new-born, child health, and nutrition interventions as well as behaviors.

In order to most effectively promote these awareness and knowledge-building programs, the NHRM embarked on an ambitious media campaign designed to reach out to a wide cross-section of Indians. The campaign aired sixteen television spots, seven radio spots, and released print ads in major newspapers; all of these advertisements were done in Hindi all aimed to circumvent:

- The very low awareness and knowledge levels among rural Indians regarding healthy practices and / or behaviors.
- The lack of knowledge of a number of initiatives created by the GoI that are not well-known among women, men and other vulnerable sections of the population.

### The Study

The evaluation, conducted by the Population Foundation of India aimed to determine the extent of the campaign's reach, visibility, and exposure among the target audiences. In addition, tests on viewer recall, comprehension, and appeal of specific spots of the campaign were conducted. The end goal was to provide the Ministry of Health and Family Welfare with actionable recommendations that can enhance the effectiveness of future large-scale behavior change campaigns and emphasize the various forms of media that can be a valuable tool in reaching out to targeted beneficiaries, especially those in rural areas.

The evaluation focused on both rural and urban areas in 18 states. Those who were surveyed included 3,575 married women, 1,784 husbands of women, and 350 fathers and mothers-in-law. In-depth discussions were held with state-level policymakers and program managers, in addition to 30 state, 54 district-, and 120 block-level officials and health service providers.

### Top line observations

Specific top line findings from the study show the following findings:

- Television has a much greater reach than radio in all locations.
- The TV spots used in the campaign appealed to most of the respondents (70-95 percent) who were exposed to them.



- The radio spots used in the campaign appealed to most of the respondents (73-90 percent) who were exposed to them.
- Creative and entertaining TV spots, even without celebrities, can have as much recall, comprehension, and appeal as spots that do.
- Overall, language was not a major barrier to comprehension and appeal of the spots, though the campaign was done only in Hindi. The few who reported difficulties with language in the spots were from other states where Hindi is not the major language spoken.
- A significant proportion of the respondents exposed to the TV spots intended to take action as a result of the campaign.
- Other major sources of information on the themes of the campaign among both men and women were ANMs, ASHAs, AWWs, and relatives.
- Policymakers and program managers advised that messages in print media should avoid “information overload,” difficult words, jargon, and photographs of politicians; it should have a regional flavor for maximum effectiveness and include complementary interpersonal communication efforts.

### Media Preferences for Men and Women

Subject Areas	Women	Men
<b>Preferred TV Timing</b>	6 – 9 PM (45%)	6 – 9 PM (40%)
<b>Preferred TV Channels</b>	DD National (50%), Star Plus (20%)	DD National (59%), DD News (17%)
<b>Favorite Types of TV Programs</b>	Serials (80%), Films(70%), Star Plus (20%)	Films (72%), News (65%), Serials (50%)
<b>Preferred Radio Timings</b>	No fixed slot (41%)	No fixed slot (56%)
<b>Preferred Radio Stations</b>	FM General (49%), All India Radio (34%), RadiMirchi (15%)	All India Radio (52%), FM General (38%), Radio Mirchi (23%)
<b>Favorite Types of Radio Programs</b>	Songs (93%), News (33%)	Songs (91%), News (58%)
<b>TV Spot with the Highest Appeal</b>	Mona Singh Immunization (91%)	EkSaveraEkAkaash (95%)
<b>Radio Spot with the Highest Appeal</b>	Conversations with ASHA (85%)	Jingle Song (90%)

### What needs to be done?

The following recommendations were concluded based upon the information and data gleaned from the study:

- National-level mass media campaigns should link with state-level complementary BCC approaches led by local change agents, such as ASHAs, ANMs, and AWWs.
- Spots should be creative and entertaining.
- To avoid message dilution, it may be beneficial to broadcast fewer themes with more intensity rather than having so many different messages.
- The Ministry should consider tracking the frequency and timing of spots aired on TV and radio through a tracking agency.
- The Ministry should continue to conduct periodic, concurrent evaluations to improve the impact of subsequent campaigns.



## Assessing the Needs for Periodic Training of ASHA under National Rural Health Mission in Uttar Pradesh

Research Brief  
September 2012

Uttar Pradesh is the fourth largest, most populous state in India, accounting for 16.4 per cent of the country's population. The maternal mortality ratio in Uttar Pradesh (UP) is 359 per one 100,000 live births which is the second highest in the country. Only 21 per cent women had delivered at health facilities in Uttar Pradesh and among home deliveries, only 29.2 per cent were assisted by any health personnel. Infant Mortality Rate (63 per 1000 live births) is also higher in U.P than India.

The National Rural Health Mission (NRHM) launched in 2005 aims at improving health status and quality of life of the rural population, with emphasis on sustainable development measures, throughout the country. One of the core strategies under the NRHM is to recruit and train a female resident of the village educated at least till 10 years of school called the Accredited Social Health Activist (ASHA) for every 1,000 population. The ASHA is seen as an interface between the community and the public health system. She is an honorary volunteer, who receives performance-based compensation. Being a health activist she creates awareness on social determinants of health, mobilizes the community towards local health planning and increased utilization and accountability of the existing health services.

The study was commissioned at the request of the Government of Uttar Pradesh to assess the knowledge and skills of ASHAs and identify gaps in order to design appropriate refresher training programmes. The Population Foundation of India (PFI) carried out the study with financial and technical support from MCH-STAR Initiative/ USAID.

### Study findings

Of the 300 ASHAs covered for the study, 284 received induction training on were included in the analysis. In addition, 48.3% ASHAs had received Comprehensive Child Survival program (CCSP) training by UNICEF on Home based Newborn Care and Management of Neonatal and Childhood Illness. Thirteen percent ASHAs had received additional hands-on training from NGOs and other agencies.

The mean age of the ASHAs was 31.5 years. There were ASHAs from all caste groups. Forty one percent of the ASHAs were educated up to the secondary level, 8% were graduates. On an average, ASHAs had lived in same village for more than 14 years, with a majority working as ASHA for two or more years. Twenty six percent had previous work experience.

Ninety four percent of ASHAs and 98% of the beneficiaries reported that they interact regularly/very often mainly through home visits. Group meetings (69%) and Village Health and Nutrition Day (49.7%) are other important places/occasions for interaction. ASHAs lack the skill of rapport building with the community, the ASHAs who had received the CCSP training were better in rapport building.

Sensitizing people on hygiene practices was reported by 87% of the ASHAs as priority health education activity followed by nutrition of young children. Priority areas for counselling mentioned by the ASHAs were general



hygiene and hygiene during menstruation, nutrition (61%), importance of safe delivery (54%), breastfeeding and nutrition (50%), contraception (49%), and birth preparedness (48%). No significant difference was found in awareness generation activities conducted by ASHAs who are more educated or had received CCSP training. Over 90 per cent of the ASHAs reported that they interact often with the Medical Officers, ANMs and AWWs. The ASHAs worked closely with both the AWW and the ANM for maternal and child health activities and organizing periodic health events in the village which were also mainly focussed on maternal and child health. More than three-quarters of ASHAs provided health care for illnesses like cough and cold, diarrhoea, also helped identify serious/chronic diseases such as Tuberculosis (TB) and leprosy (56%), and first-aid to victims of accidents before referral (24%).

ASHAs knew the use of medicines they stocked, except the use of Chloroquin. Only 53% ASHAs having a thermometer knew how to use it properly. ASHAs wish to attend more skill based trainings like on the use of medicines for different ailments, administering injections and recognition of onset of labour pain.

Advice during the antenatal period included; informing women about benefits of Janani Suraksha Yojana (JSY), counselling for nutrition and for taking TT vaccine by more than 90% of the ASHAs, followed by advice on iron supplementation, early registration and regular checkups. None of the ASHAs reported offering advice on birth preparedness as they themselves lacked knowledge. ASHAs lack sufficient knowledge of high risk pregnancy. ASHAs have good understanding of the danger signs during pregnancy. There was a positive relationship observed between the knowledge index of ASHAs on maternal health and; the length of work experience in the village, the frequency of interaction with the ANMs and the medical officers, and CCSP training.

Nearly 80 per cent of the ASHAs were aware of the importance of early initiation of breast feeding, colostrum feeding and keeping the baby warm. Results suggest that ASHAs, who received CCSP training, were slightly better informed on immediate newborn care compared to other ASHAs. Ninety per cent mothers gave first milk (colostrum) to their children which could be a reflection of the efforts made by ASHAs for promoting colostrum feeding. Ninety-three per cent of ASHAs advised mothers to 'start home based complementary food after six months, which was also mentioned by 65% of the mothers.

Ninety percent beneficiaries were informed about basic vaccinations by the ASHAs. However the ASHAs lack knowledge on missed vaccinations and vaccination of a sick child. ASHAs have good knowledge on diarrhoea management. The ASHAs, who had received CCSP training, advise on continuous and frequent breastfeeding and refer or accompany the mother of a child if seriously ill. Majority of ASHAs reported, 'vomiting' and 'lethargy' as a danger sign of diarrhoea. Eight per cent ASHAs advice for seeking doctor's help in the case of children suffering from ARI, and keeping the child warm, giving home remedies and continuous breastfeeding.

The duration of living in the same village and the frequency of interaction with the ANM and the medical officers showed a positive relation with the knowledge index for newborn care.

All ASHAs had knowledge of oral contraceptive pills and condoms as methods of preventing pregnancy. But ASHAs lacked correct knowledge on the use of OCP especially in case of missed pills for 2 and more days. A majority of ASHAs were also aware of IUD and sterilisation. ASHAs demonstrate how to use condoms (76.3%) and they inform women about condom as dual protection (64.3%). ASHAs are poorly informed about legal



gestational period for abortion. Only 49 per cent of the ASHAs said the abortion should be conducted at a safe and clean facility only.

Specific knowledge gaps are identified in key areas of work of the ASHAs. The results are discussed with focus on what needs improvements are needed in the quality of training programmes of ASHAs.

## **Recommendations**

As shown in the current study there is less flexibility in the training methodology and design in terms of time slots and the content to be covered as there is a fixed curriculum prescribed through the training modules. The training modules read like reference books for the ASHAs. Because of these two reasons the capacity building process seems to have focussed on theoretical knowledge building even in areas where skills also need to be developed. With standard session timeslots, trainers find it convenient to use the lecture method predominantly which is not appropriate for skill building. The study has also shown that the medical officers and the ANMs continue the capacity building process started in the classroom to take it to the field. We recommend the following for improving the training design:

- There is a need to develop guidelines for trainers of ASHAs who use the modules for training, with examples of participatory training methods and hands on experiences for skill building.
- Instead of fixing timeslots the training guidelines can indicate areas where more time may be required and the trainers should be given flexibility to prepare their own session plans within a given broad framework.
- The ANMs should be given a short orientation on mentoring ASHAs so that all ANMs use systematic methods of continuing capacity building instead of the current unplanned and un-designed efforts left on the choice of individual ANMs.





## Performance Needs Assessment of Integrated Child Development Services Scheme in Jharkhand

Research Brief  
September 2012

### The Problem

The Integrated Child Development Services (ICDS) scheme in Jharkhand has grown significantly since the inception of the state in the year 2000, to reach every village. However, the overall effectiveness of the scheme in reaching goals of reducing malnutrition and providing pre-school foundation for children, remains limited. To address challenges in implementation, the Department of Social Welfare (DSW), Women and Child Development (WCD), Government of Jharkhand (GoJ), requested Child In Need Institute (CINI) – Jharkhand, to commission the study. MCH-STAR Initiative/USAID provided technical and financial support for this initiative to identify barriers to effective implementation of ICDS through a Performance Needs Assessment (PNA).

### The Study

PNA is a component of a larger Performance Improvement (PI) process; the latter is guided by the belief that when organizations enable and motivate their employees to perform their best, the quality of services improve. Applying providers' perspective, stakeholder consultations were organized for establishing desired performance, vetting findings from the field study on actual performance and determining root causes for these gaps in context of ICDS in Jharkhand. Field study sample consisted of Anganwadi Workers, Lady Supervisors, Child Development Project Officers (CDPOs) and District Social Welfare Officers (DSWOs) from six districts - Dhanbad, Latehar, Ranchi, Sahebganj, Simdega and West Singhbhum. Review of select elements of the scheme from better-performing states, with respect to ICDS coverage and childhood nutritional status, was also done to identify best practices and innovations.

### Top line findings

There are two common causes that adversely affect the delivery of all recommended health and nutrition services through the AWCs in Jharkhand. These are 1) the lack of supervisory support to the AWW and 2) the absence/ inaccessibility at point of use (that is, anganwadi centers) and / or inadequacy of implementation guidelines for these recommended services. The limited supervisory support is a culmination of the deficiency in number of supervisors (LS vacancy rate is close to 50%) as well as the lack of job clarity, training and resources for supervision. The state does not have a mechanism for compiling, updating and releasing guidelines on a periodic basis to all field staff.

Knowledge and skills of the AWWs also emerged as a reason for gaps in delivery of ICDS services however; it is not a root cause. Their limited knowledge and skills were linked to the above mentioned root causes of limitations in supervision and written guidance. Other root causes affecting delivery of select services include, 1) lack of physical infrastructure with respect of space for conducting PSE and group meetings, 2) lack of motivation and incentives particularly for doing more than expectations, 3) lack of inter-sectoral coordination in reference to growth monitoring and pre-school education and 4) limited beneficiaries focused advocacy for ICDS.



## What needs to be done?

Based on the gaps and evidence on what has worked in better performing states a list of suggestions have been put forward. These include:

- Improving supervisory support to AWWs through
  - Institutionalizing the mechanism for recruiting and retaining LS in ICDS
  - Incorporating standardized protocols clearly delineating the role of the supervisor in conducting VHNDs, AWC visits, and monthly cluster meetings
  - Reducing delays in disbursement of travel remuneration and instituting mechanisms to recognize good performance for supervisors through national and state instated awards.
  - Conducting supervisors' training at identified AWTCs or the regional NIPCCD training centre at Lucknow till the establishment of a state level MLTC. Trainings could also be done by resource institutions serving the health department such as the Village Health Committee Sahiyya Resource Centre (VSRC).
  
- Strengthening implementation guidelines through
  - Constituting an ICDS cell within the Directorate as has been recommended in the state PIP 2011-12 to strengthen overall planning, implementation, monitoring and evaluation of the ICDS scheme.
  - Regular updating and review of existing guidelines/ directives for selected services in accordance with current requirements in the field.
  - Instituting a compendium of all implementation guidelines as has been undertaken by states like Maharashtra and West Bengal.
  - Introducing periodic newsletters and calendars that provide necessary instructions/ guidance to AWWs on service delivery to bridge the communication gaps in transfer of information on new/ revised guidelines to AWCs.
  
- Improving physical infrastructure through
  - Providing central guidelines on layout and construction of AWCs to all district and block offices and AWCs to inform ICDS staff members of the norms for AWC buildings.
  - Encouraging community participation in the construction and maintenance of AWCs as demonstrated in Tamil Nadu where community members and private enterprises have contributed towards the construction, painting, furniture, toys and other materials at AWCs.
  - Exploring innovative models like the pre-fabricated AWC design introduced in Maharashtra for application in the state.
  
- Allaying demotivating factors and creating options for incentives through
  - Initiating regular review and follow-up of operational mechanisms to ensure timely payment of remuneration to AWWs.
  - Reinstating existing scheme for awarding better performing AWWs.
  - Expediting process for adoption of service rules to regularize recruitments and promotions within the department workforce.

Suggestions on inter-sectoral coordination aim at building consensus on areas of inconsistency between ICDS and Health department as well as the Education department at the state level; those on creating community awareness revolve around increasing use of mass and mid-media for advocacy about ICDS. These suggestions



need to be reviewed and prioritized keeping in view the current and long term impact these would have on improving reach and quality of services.





## Training Needs Assessment of Primary Health Care Medical Officers and National Rural Health Mission Program Managers in Jharkhand

Research Brief  
September 2012

### The Problem

Those who live in rural India—nearly 740 million people—face a series of health challenges. Low life expectancies, high infant mortality rates, and the ubiquity of preventable diseases are just some of the many challenges faced by rural Indians. Jharkhand, in particular, faces a number of problems on its path to fulfilling the Millennium Development Goals (MDGs). At present, Jharkhand's Maternal Mortality Rate (MMR) of 261 per 100,000 live births is nearly 20 percent higher than the rest of India and must be reduced by more than 50 percent by 2015 if this MDG is to be reached.

In response to these problems, the Government of India (GoI) started the National Rural Health Mission (NRHM) in 2005. The performance of Jharkhand state on NRHM program implementation has consistently proven to be problematic over the past four years (2007-2011). Lack of adequate and trained human resources has been one of the critical reasons for underutilization of NRHM funds. Underperformance on national programs in Jharkhand and the lack of proper training and knowledge levels continues to hamper the realization of NRHM's overall mission.

### The Study

In order to assess the adequacy of training administered to NRHM Program Managers and Primary Healthcare (PHC) Medical Officers (MOs), the Public Health Foundation of India, conducted an evaluation to further explore this issue. The goal of the study was to develop a Millennium Development Program (MDP) for NRHM Program Managers and PHC medical officer in Jharkhand based on the greatest perceived training needs. District Program Managers and Block Program Managers from 24 districts and PHC medical officers from the five selected districts (Ranchi, Dhanbad, Sahebganj, East Singhbhum and Palamu) representing each of the divisions were interviewed to assess their knowledge, skills, and practices on key management functions.

The tools used for assessment included a self-administered questionnaire (SAQ) and in-depth interview (IDI) schedule. The tools were developed on the core management competency skills required based on their existing job descriptions. SAQs were administered at the state headquarters for District Program Managers (DPMs) and Block Program Managers (BPMs) and at district headquarters for MOs and in-depth interviews conducted at their respective work stations.

### Top line observations

After conducting extensive interviews with key stakeholders, the following recommendations were made:

District Program Managers and Block Program Managers:

- Although the job description has been developed by GoI for both DPMs and BPMs, it is not accessible to all them in the state and refers to larger management functions, such as logistics, planning, monitoring, and does not list actual tasks expected from DPMs.



- Both DPMs and BPMs are actively involved in the preparation of District Health Action Plans(DHAPs) and Block Health Actions Plans (BHAPs), respectively, but have limited knowledge of the planning process lacking practical details.
- They are aware of their roles in logistic management but their knowledge and skills in this area is partial due to unavailability of proper guidelines on time.
- Though their role in financial monitoring is limited to preparation of budgets and monitoring of flexible fund utilization, they are lacking in knowledge related to specific steps in budget preparation.
- In terms of monitoring and evaluation activities, their role revolved around collection and compilation of Health Management Information System (HMIS) data with no data validation activities being done by them. Also, they have poor analytical and data presentation skills.
- Though they are aware of their role in quality assurance processes, such as upgrading of various facilities as per IPHS norms, their knowledge regarding the Quality Assurance (QA) committee's standards and process was incomplete.
- Their leadership role in the planning, implementation and monitoring of VHNDs, RCH camps and conduction various meetings is evident from their involvement but lack the clarity about the specific activities and their roles for successful management of these activities.
- Overall, DPMs showed knowledge gaps in the following areas: planning principles and their application in developing annual plans; budget forecasting and its use in preparing annual budgets; logistics management; QA processes and using these for facility upgrades and waste management; field data management and use for planning/ monitoring; and monitoring and evaluation.
- Overall, BPMs showed knowledge gaps in the following areas: planning principles and its application in developing block and village plans; analysis and presentation of programmatic data; logistics management principles; quality assurance principles and processes; the latter's application as per IPHS for facility upgrading; developing and monitoring block action plans;and using HMIS data.

#### Medical Officers:

- Job descriptions for MOs in PHCs do not exist in Jharkhand state. The MOs are performing their duties based on the guidance in training programs, learning from their seniors and by observations.
- The majority of PHC MOs do not consider management responsibilities as their priority.
- They are not playing a major role in PHC planning activities and financial management. There is lack of role clarity among these cadres.
- PHC MOs are playing a key role in vaccine logistics, but their role in other logistics issues, such as medicine, is not clear. They also lack training on logistics management.
- Though MOs are aware that they have to coordinate with other sectors, specifically ICDS, their involvement in inter-sectoral coordination meetings was limited.
- The use of checklists and documentation among PHC MOs in Jharkhand during field supervision is limited. Clear guidelines and standardized tools from the state level are lacking for enhancing supervisory support from PHC MOs.
- MOs are only partially involved in PHC HMIS management partly due to their perception that it is not their function.
- Majority of PHC MOs are not aware about quality assurance concepts and processes and their role in QA processes.



- Overall, MOs showed knowledge gaps in the following areas: planning process and application of planning principles, supervision planning, use of tool and processes, logistics management for medicines and equipment, quality assurance processes and role of PHC MOs in IPHS upgrade of PHCs and sub-centers, and financial management (budgeting and maintenance of PHC accounts).

### What needs to be done?

Overall, the study shows that there are significant gaps in knowledge regarding the duties of the respondent's position and how these responsibilities should be properly conducted. To adequately address these gaps in training, the following actions are recommended:

- Improving Role Clarity:
  - The GoJ should consider reviewing and revising the job descriptions of DPMs and BPMs in light of TNA findings to customize it in the context of the actual duties expected in the NRHM documents, such as DHAP/BHAP, JSY, and fund management and quality assurance.
- Improving knowledge and skills:
  - GoJ should consider developing an exclusive training course (Management Development Program) focusing on the managerial responsibilities of DPMs and BPMs, addressing all basic management areas listed in the job descriptions of DPMs and BPMs.
  - For skill-building, the MDP should provide hands-on learning opportunities to the learners by integrating real-life case studies and data related to the prescribed NRHM activities, such as DHAP and BHAP preparation, IPHS, 24/7 PHC guidelines, logistics management, flexi-funds guidelines, etc.
  - In order to encourage on-the-job application of the new knowledge and skills, the GoJ should consider developing a system of field follow up for DPMs and BPMs while dealing with the real-life situations in their districts and the state.
- Addressing gaps in accessibility and adequacy of various guidelines and tools
  - The GoJ should identify and implement mechanisms for effective and prompt dissemination of all program and management guidelines. A short training or orientation should be organized during dissemination of guidelines so that they are understood clearly by all the field implementers.
  - GoJ should consider a system for regular review of various operational guidelines such as logistics, financial management, quality assurance, supervision and monitoring guidelines, etc., in addition to making evidence-based revisions.





## Assessment and Mapping of Human Resources in Health in Jharkhand

Technical Assistance Brief  
September 2012

### Background

Human resources are the central component of all health systems and consume a major share of their allocated resources. As they contribute to the performance of all main functions of health systems, efforts to improve the effectiveness of the health workforce are central to improving the overall health system performance. Shortages of human resources in health (HRH) remain a universal problem in developing countries and the problem is particularly acute in India and several of its states, including Jharkhand. Health facilities in Jharkhand are understaffed, especially in low income districts below the district level of the health system. Three cadres, Nurses (Auxiliary Nurse Midwives and staff nurses), Medical Officers (MOs) and Specialists have direct role in delivery of Maternal Neonatal Child Health and Nutrition (MNCHN) services while others have supporting roles. Today, in the state of Jharkhand only 26% of those personnel needed for direct health service delivery as outlined by the Indian Public Health Standards (IPHS) are currently in position either as regular employees or as National Rural Health Mission (NRHM) contractual employees. This is a major hurdle in any efforts to scale up the health systems' reach to remote and marginalized regions. The severity of the problem is effectively demonstrated by the gap between population need as presented by IPHS norms and the infrastructure realities. Existing health facilities across all the levels of health care systems in the state clearly need additional manpower. Recognizing the severity of the issue, the Government of Jharkhand (GoJ) requested Public Health Foundation of India (PHFI) to offer technical assistance for developing a sustainable, evidence-based interim human resource (HR) policy to help the state of Jharkhand meet its short and long term HRH goals. The objectives of the technical assistance project were:

1. To assess the availability, distribution and competence of HRH within the Department of Health and Family Welfare (DHFV) of GoJ,
2. To identify and study factors affecting performance of HRH using the World Health Organization's (WHO) workforce life cycle strategy

A combination of secondary data review and primary data collection were used to address the objectives of this project. This included: conducting a literature review of HRH practices; a mapping exercise using state Human Resource Information System/Health Management Information System information; staff key informant interviews; and undertaking a survey of approximately 300 health department staff across five districts - Ranchi, Palamu, Dumka, West Singhbhum and Dhanbad- of the state. The comprehensive and widely accepted WHO workforce life cycle strategy was used as the broader guiding framework for the study. The project primary and secondary data findings offer a variety of recommendations that will aid the government of Jharkhand to strengthen its ability recruit and retain personnel.

### Findings and Policy Recommendations

While the recommendations based on the evidence from the study attempt to holistically address these issues, all solutions that are recommended include interim strategies that the state of Jharkhand will be able to initiate quickly. Some of these interim strategies will continue to have long term bearing; other issues like



initiating newer educational institutes that can influence the creation of newer HRH resources are not included as a part of this report. Similarly, the report also does not include a review of the labour policies and the retirement age from the health system.

Key Message		Recommendations
<b>Recruitment</b>	Key Message #1: Recruitment should be a state-wide, proactive and continuous process built on greater communication and coordination with the medical and nursing colleges in Jharkhand and other states.	<ul style="list-style-type: none"> <li>➤ Walk-in interviews should be practiced at state and district level by creating an interview panel (within existing recruitment infrastructure).</li> <li>➤ The selection committee should be constituted with a mandate to recruit medical and paramedical staff by conducting campus interviews at medical and nursing colleges in the state and other states regularly to promote public health service and interview students about to graduate.</li> <li>➤ There should be greater transparency in the process for filling vacancies and preference should be given to the interested HRH domiciled in that district.</li> <li>➤ The recruiting process should reflect the state's needs in notified high- focused facilities and match it with candidate preferences.</li> </ul>
<b>Compensation</b>	Key Message #2: Compensation should include a bundle of financial and non financial incentives appropriate for the post.	<ul style="list-style-type: none"> <li>➤ Mechanisms for performance based financial incentives across all cadres must be designed and implemented. The benefit package for specialists should be appropriately higher (considering qualification and experience) than the medical graduates.</li> <li>➤ Compensation for HRH should include housing.</li> <li>➤ Establish financial and non-financial incentives for all cadres reporting to remote, difficult or LWE-affected areas.</li> </ul>
<b>System Support</b>	Key Message #3: Strengthen HRH policies and processes.	<ul style="list-style-type: none"> <li>➤ Institutionalize a clear policy and process for contractual HRH to apply for vacancies in sanctioned posts after a defined tenure.</li> <li>➤ There should be clear and standard policies detailing the processes for career progression during the service tenure for regular staff.</li> </ul>
	Key message#4 Create a dedicated unit with the sole responsibility and authority to enable the smooth functioning of HRH.	<ul style="list-style-type: none"> <li>➤ A dedicated human resource for health management cell should be created for the state of Jharkhand with a clear and concise scope of work.</li> <li>➤ The performance of the cell should be routinely monitored by the highest level of state administrative system against its</li> </ul>
<b>Lifelong learning</b>	Key Message #5: Professional growth opportunities are important for encouraging HRH to stay in public health service longer.	The state should provide/support regular opportunities for HRH to upgrade their skills and knowledge as part of its retention policies for all cadres.



## Addressing exclusion in sanitation for equity—An assessment of water, sanitation hygiene(WASH) in flood affected districts of Uttar Pradesh

Project brief  
October 2012

### The Problem

Pronounced inequalities between marginalized groups as compared to others persist in India, with strong correlations between deprivations, discrimination, exclusion amongst socio-religious groups and disparities along gender and rural-urban lines. India has significant constitutional, legal and institutional provisions to safeguard and promote the interests and status of its marginalized citizens. However, this strong articulation on equity does not translate into commensurate outcomes for the vulnerable and marginalized. Policy and program documents offer little disaggregated analysis on causal pathways, and fail to uphold this prioritization consistently within planning, resource allocation, monitoring and evaluation. As noted by the Approach Paper to India's 12th Five Year Plan, to achieve inclusiveness in all these dimensions requires multiple interventions, and success depends not only on introducing new policies and government programs, but on institutional and attitudinal changes, especially to improve the implementation of existing flagship programs.

An **equity lens** is needed to ensure that disaggregated and other forms of data are used to identify where the most excluded or vulnerable communities are located and to identify the access to public services. The identified groups and areas need to be addressed as a matter of priority for the sanitation program, supported by sound evidence, communication strategies, documentation, monitoring and evaluation and appropriate policy advocacy.

It is important to address structural and systemic factors through different and complementary strategies notably, strengthening capacities of stakeholders to understand and identify facets and manifestations of discrimination, and employ strategies to address this through public and policy advocacy for social change. This is central to promoting a human rights based approach to programming.

In order to bring sanitation and hygiene practices among the masses Total Sanitation Campaign (TSC) a flagship of Government of India is being implemented in all 75 districts of Uttar Pradesh for last ten years. As of January 2012, Uttar Pradesh reports impressive sanitation coverage of 88% households and 100% schools and anganwadi with toilet facilities. However, census 2011 reveals completely opposite picture. As per census only 22% rural households have toilets. Further, there are huge anomalies in the toilet availability within a district. The gaps further increases in some pockets which are excluded from toilet facilities. One such pocket is flood hit villages from 22 flood prone districts of U.P. Anecdotal studies have revealed that toilet availability in these pockets is abysmally low. These are the pockets where other mother and child care services are also in shambles and poverty level is very high due to nature of high fragility of the region. Poor availability of toilets promotes rampant open defecation and further exacerbates diarrheal diseases due to excess faecal load in the environment, which adds to the increased mortality and morbidity of children in these areas.

### The Study

- Sanitation program is being implemented by the Panchayati Raj Department in unilateral manner and as of



now during its ten years journey there was no major strategic consideration for the prioritization of resources. District was focus as of now has remained on the achievement of physical and financial targets. On the question of the addressing exclusion the project managers reflect that by design the program is focusing on below poverty category of people. However, the wealth quintile analysis presented on the previous page negates the claim. To strengthen the argument on bringing equity within the ambit of the Sanitation Program the present study has been done with the following objectives:

- To build evidence for policy support in improving sanitation facilities in flood affected areas for making overall reduction in mortality and morbidity of children due to diarrheal diseases, and
- To identify the gaps in the service delivery mechanism of Total Sanitation Campaign for reaching to the Households, Schools and Anganwadis by assessing current situation of these facilities.

## Topline Findings

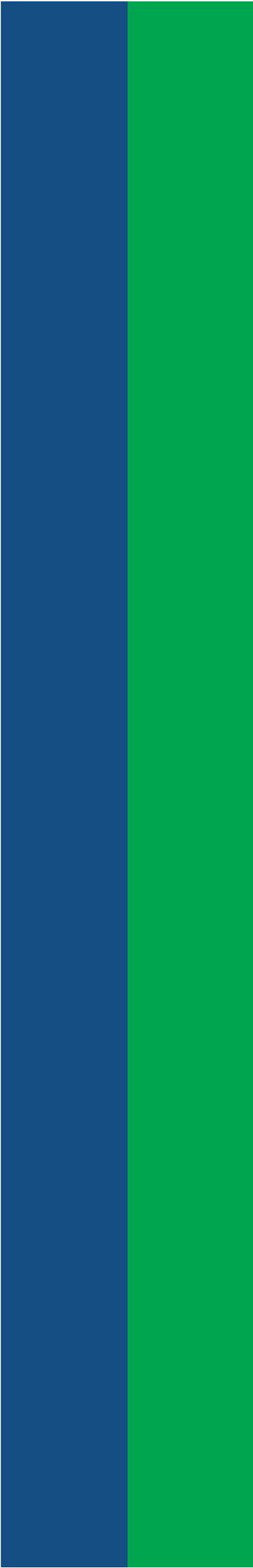
- Overall 80 percent population living in flood affected areas is using drinking water from shallow hand pumps. This figure becomes high at 85 percent, for the people living in Pacca houses.
- Absence of water purification practice among the 90 percent population, during the flood period.
- Only, 3 percent population is using the toilet facilities during the flood time and during non-flood periods the usage becomes 9 percent.
- Knowledge of diarrhea management among the masses is low as 67 percent people are not aware of the safe practices.
- Considering the universal coverage of separate toilets for boys and girls there is gap of 24 percent in this and 43 percent in urinal facility..
- Most of the households (91.1%), across all characteristics, cited economic condition as the key deterrent for not having latrine at home.
- 91% are not only interested in the Total Sanitation Campaign program, they are also ready to contribute to the program.
- 89% agreed that toilet is vital for health and they can, if not anything else, can contribute as labour in the construction of toilet.
- The survey has revealed that In the Anganwadis Sahayikas have a very positive role in the promotion of hygiene education among the small children therefore their capacity building needs to be mainstreamed in the Nirmal Bharat Abhiyan program

## What needs to be done?

- Form a Task Force, to look into the issue of social exclusion in general and issues of flood hit areas, in particular.
- The Task Force is to have the representatives of Panchayati Raj, Education, Rural Development, Health, SDMA and ICDS departments.
- This task force needs to provide guidance to their respective departments on the planning, resource allocation and monitoring related aspects.
- This task force would need to meet on monthly basis and meetings minutes of this group needs to be shared with the respective head of departments.

*This assessment was carried out in collaboration with WASH office of UNICEF Lucknow.*





## Select Consultations and Advocacy Events

- Advance Cook Stoves for the Improved Health of Women and Children in India
- Making lives matter: Examining accountability for maternal and neonatal mortality in India
- Pneumonia in India—Costing 1,000 children’s lives a day
- Expecting more, doing better: National leaders, program managers and experts push for improving quality of care to make motherhood safer
- Growth Monitoring and Promotion - Seizing Opportunities



## Advanced Cook Stoves for the Improved Health of Women and Children in India

Consultation Brief  
December 2010

### The Problem

The chulha(stove) is at the heart of the Indian household and has largely remained unchanged since time immemorial. However, with increasing awareness about pollution and its negative corresponding health effects, the chulhas increasingly come under fire as a major source of indoor air pollution (IAP) and a slew of health hazards, such as childhood acute lower respiratory infections, chronic obstructive pulmonary disease (COPD), lung cancer, perinatal mortality, low birth weight, and cataracts. In fact, some studies have claimed that chulhas contribute between three and five percent of the national burden of disease in India. Given that women are the primary users of chulhas, the improper use and ventilation of the latter has had a particularly devastating impact on women's health outcomes.

- Chulhas contribute to between three and five percent to India's national burden of disease.
- In houses that utilize traditional chulhas, children experienced 80 percent more cases of pneumonia.
- Women are the primary victims of the ill health effects caused by IAP from chulhas.

### The Study

Through a national consultation on Cookstoves and testimonies from various experts and studies, a number of observations regarding the current use of chulhas and how the latter's use could be improved were generated.

### Top line observations

Through the testimony of various experts, the following observations were made:

- The evidence shows incidence of Acute Respiratory Infection among children was 35 percent in households using stoves with chimneys while only 22.5 percent in those using more efficient cooking stoves.
- In the past, the Government of India (GoI) launched the National Program on Improved Chulhas(NPIC) in which 30 million stoves were disseminated to various communities. Lack of standards and varying quality of the stoves hampered the success of this effort; subsidies also failed to sustain the demand and usage of improved cook stoves.
- Past experimentation with changing the design of stoves has failed because of lack of standards in place.
- Stoves are manufactured either through local production or centralized production. Local production suffers from faulty/inefficient designs, low-quality material, and poor quality control, while centralized production ensures better quality; however, absence of large, at-scale manufacturers has prevented movement down the cost curve.
- Distribution is largely limited to local entrepreneurs/NGOs which are sub-scale and lack key distribution capabilities, thereby limiting distribution effectiveness. A few organizations are exploring micro-finance institutions (MFIs) and rural appliance manufacturing companies as channels. Consumers have not felt need for the product.
- The drivers for sales are money-saving at the household-level, convenience, and the perception of the product being of a higher/better technology than previous models. A large fraction of the advanced



cooking stoves are not in use within a few years of installation because of issues related to design (fixed size, small cooking holes, and difficult to roast chapattis); operation (low portability, cleaning of chimneys); and perceived benefits of smoke in keeping thatched roof dry and free of fungus, as well as in preventing pests and mosquitoes in the house.

- In regions where firewood or biomass is available for free, or in very poor communities, families may not be willing or able to pay for ACS, even when subsidized.

### **What needs to be done?**

Overall, participants seemed to largely agree that three key areas need to be addressed if future programming is to be successfully continued:

1. Creating a demand-driven approach
2. Developing universal standards on the construction of chulhas
3. Gaining a better understanding of what consumers want.

The following conclusions were arrived at through these discussions:

- It may be beneficial for the GoI or another actor to subsidize advanced cooking stoves in order to make them more affordable to consumers; however, past lessons regarding subsidization must be taken into account.
- The GoI should begin developing standards and enforcing them; it should also create linkages with existing infrastructure in order to spread awareness regarding the ill health effects of chulhas. It would be highly beneficial to create a series of test pilot cases that link together private-private, private-public, and public-public options.
- If commercialization of stoves is to be successful, then education campaigns designed to increase demand must be done initially.
- Low consumer awareness and high investment in creating the necessary awareness were the most significant barriers encountered during commercialization.
- It is critical to directly engage with people on-the-ground in any future programming aimed at changing traditional cooking practices.



## Making Lives Matter: Examining Accountability for Maternal and Neonatal Mortality in India

Consultation Brief  
May 2010

### The Problem

India, as a country, is committed to achieving the Millennium Development Goals (MDGs) and improving the overall health of its population. However, despite a number of policies, programs and other efforts to improve maternal and child health; quality, accessible and affordable health care continues to evade a large proportion of the Indian population, particularly in the states of northern and central India. Despite making significant improvements in recent years, India still has an unacceptably high maternal mortality ratio (MMR) of 254 per 100,000 live births, making India's attainment of a MMR of 100 per 100,000 live births by 2015, very difficult.

A number of initiatives are being implemented throughout the country to increase accountability and improve service delivery. The Government of India (GoI) is increasingly seeking direct citizen engagement and participation in planning, monitoring, and implementation of healthcare services under its flagship National Rural Health Mission (NRHM). Apart from citizen-led accountability mechanisms, there are examples of initiatives by state governments in India to monitor and deliver health services effectively. The question of whether or not these mechanisms have been effective, however, remains unclear.

### The Study

In order to determine if these accountability mechanisms and efforts are actually leading to improved health outcomes for women and children, a national consultation was organized in April 2010. The meeting was a collaborative effort between the Child-in-Need Institute, the White Ribbon Alliance for Safe Motherhood/India (WRAI), and USAID's Maternal and Child Health Sustainable Technical Assistance and Research (MCH-STAR) Initiative to bring lessons and challenges to the forefront. The objectives of the consultation were the following:

1. To share different mechanisms and approaches of accountability for maternal and neonatal health services in India.
2. To discuss the application of these strategies and approaches in NRHM or other health and nutrition programs.
3. To come up with a set of recommendations for evaluating, reviewing, consolidating, or implementing specific accountability mechanisms and approaches to improve maternal and neonatal care service delivery in NRHM.

### Top line observations

Through expert testimony, the following observations regarding accountability and the NRHM were made:

- In India, there has been an increasing amount of funding being made available for these types of health programs, but there has been no corresponding increase in development outcomes.
- An important element of accountability is ensuring that citizens have adequate access to quality information.



- Sharing the lessons of “verbal autopsies” with the community following the death of a mother can create a greater understanding of the causes of death and similar cases can be avoided.
- There is a significant divergence in perception between patients and healthcare givers on the overall quality and access to healthcare; there is a need to establish greater lines of accountability between the two groups.
- In some states, the problem of absenteeism among healthcare staff was noted. Corrective, effective measures and consequences of absenteeism need to be communicated health to staff from decision makers at various levels.
- Maternal death reviews have the potential to establish more accountability within the healthcare system, especially at the local level.
- There is a need to revise current human resources policies (e.g., time off, payroll, etc.) within the healthcare infrastructure.

### **What needs to be done?**

The primary take-away point that participants agreed on was that more data and information should be collected in order to most effectively determine what next steps should be taken to establish increased lines of accountability. The following are some of the specific recommendations made by subject-matter experts:

- Identify performance gaps and develop a process to take non-punitive actions to build capacity and knowledge in these areas.
- Develop a process that institutionalizes the reviewing every maternal death and communication to the community; this process would be highly instructive and would also increase accountability.
- An examination of attribution and costing of various accountability approaches would help sustain approaches that can recommended for scale up.
- Generating evidence is critical. There is a need to systemically document and review evidence to determine which accountability approaches and interventions are most effective when taken to scale.
- There is a need to develop criteria to assess different potential models in terms of cost-effectiveness and scalability.



## **Pneumonia in India: Costing 1,000 Children's Lives a Day and Neonatal Mortality in India Consultation Report**

**Brief**  
**November 2011**

Over 50 academicians, health activists and researchers from leading agencies working on childhood pneumonia and Acute Respiratory Infections (ARI) attended the one-day **Consultation on Overcoming Barriers to Managing Childhood Pneumonia**, held in New Delhi on the 30th of November 2011. The Consultation was a continuation of the dialogue on pneumonia that the U.S. Agency for International Development (USAID), the MCH-STAR Initiative and the Public Health Foundation of India (PHFI) initiated at a World Pneumonia Day event in India in 2009. The meeting, co-sponsored by USAID MCH-STAR, PHFI and UNICEF was organized around the WHO-UNICEF Global Action Plan for the Prevention and Control of Pneumonia (GAPP) framework of **protection, prevention** and **treatment** of childhood pneumonia.

### **Program**

After opening remarks by UNICEF India's Chief of Health, Dr. Henri van den Hombergh, Dr. Ajay Khera, deputy commissioner on child health and immunization, MoHFW, reviewed the government's current activities and the need for indicators to monitor progress on programs addressing childhood pneumonia. Following this keynote address, Dr. Vijay Kumar, executive director of Survival for Women and Children Foundation, provided background information on the epidemiology and trends of the disease in India.



The panel discussion on **protection** focused on the impact of indoor air pollution on pneumonia prevalence and the global burden of Indoor air pollution. Though there are still unanswered research questions, enough is known to treat indoor air pollution as a major risk factor for pneumonia. Panelists discussed the availability of low-cost alternatives to reduce indoor air pollution and the success of the Deepam Scheme of Andhra Pradesh and the LPG Vitrak Schemes.

The panel on **prevention** focused on the roles of vaccine in prevention of incidences of childhood pneumonia, and discussion revolved largely around the Hib and pneumococcal vaccine. Evidence from across the world on the success of Hib vaccine in pneumonia reduction was shared.

The panel on **treatment in facilities** highlighted the irrational use of antibiotics and overdiagnosis of pneumonia and the poor management of pneumonia cases, particularly those with wheezing and hypoxaemia at the facility. Although Facility based IMNCI (F-IMNCI) guidelines have been finalized, movement has been slow in taking them up. Panelists also discussed strengthening of health systems including training of manpower, supportive supervision, and assessment of health providers' behavior with patients and availability of antibiotics, bronchodilators and oxygen. was also discussed.



The panel on **community case management** focused on the empowerment aspect of community members in recognizing and seeking treatment for pneumonia care and prevention. The evidence of success of pneumonia control managed by village health workers in Nepal was shared. Panelists noted that pneumonia prevention lies in adequate nutrition, behavior supporting breastfeeding, hand washing and empowerment of the women—a continuum of care approach. A fast tracking of community case management of childhood pneumonia is an obligation to reach Millennium Development Goal, which seeks to substantially reduce child mortality.

During the panel sessions Dr. Khera provided detail as to the government’s interests in strengthening the pneumonia program. He noted that the GoI’s multi-centre study with ICMR will be the first time that disaggregated data on actual disease burden, vulnerability status and vaccine outreach has been established. Dr. Khera reaffirmed the GoI’s commitment to promote Infant and Young Child Feeding strategies through interaction with civil society. The GoI’s interests include:

- Working in a program mode and addressing issues of indoor air pollution and promoting exclusive breastfeeding as strategies to reduce mortality due to pneumonia. Finding multiple causation factors and tackling them at the same time were the underlying message
- Introducing a mother and child tracking program to monitor each and every provision of service, including immunization and other basic services
- Tackling malnutrition at the national level through the newly constituted Nutrition Council under the Prime Minister will indirectly strengthen the pneumonia program as mortality due to pneumonia is highest in malnourished children
- Declaring 2012 as the year of intensification for overall immunization and reiterating the GoI’s commitment to scale up immunization
- Investing in IEC campaigns around pneumonia protection, prevention and treatment
- Recognizing the ASHA as the care provider to ensure empowerment, awareness and access to treatment for rural and marginalized communities



The program moved from panel sessions to a working lunch where participants discussed with panelists key issues for moving forward on addressing childhood pneumonia. Following lunch, Dr. Vinod Paul, professor and head of the Pediatrics Department at the All India Institute of Medical Sciences (AIIMS), led a plenary session focused on identifying current barriers to reducing childhood pneumonia and the way forward. Among the most pressing barriers discussed were the lack of awareness on indoor air pollution and its connection to pneumonia prevalence, the need for behavior change on the demand side on health deliverables, improved quality of care and skills of services providers at facilities, better management of equipment and medicines, difficulties in streamlining a clinical algorithm for diagnosis and treatment, and difficulties in utilizing community-based management to its full potential.



## Key observations and recommendations

Dr. Paul asked discussants and participants for their specific input on barriers in policy, in research, in communications between communities and the health system, and in implementation of existing programs.

### Indoor Air Pollution

No ministry is currently taking responsibility for addressing these health issues in a comprehensive manner. Improving air quality requires change at policy level as well as in homes.

- Policies related to measuring, monitoring and addressing indoor air pollutants need to be assigned to specific ministries.
- Make noise about IAP with policy makers and people.
- Best practices of clean cooking and hand washing should be modelled in communities through change agents, AWCs, health centres.

### Vaccines

The argument that increasing immunization campaigns takes away from other basic health service provision is a nonstarter when the public health system has enough resources to do both simultaneously.

- The introduction of the pentavalent vaccine, including Hib, is a step in the right direction, but more should be done to introduce the pneumococcal vaccine.

### Facility-based Management

Private providers, licensed and unlicensed, need to be engaged in pneumonia management. There are large questions to be answered about how to engage them in public health support, but harm reduction efforts could be made to ensure that childhood pneumonia is better managed in the current environment where they are the providers of choice for many families seeking care for children. There is a need to move beyond training on F-IMNCI.

- Health providers skills must be upgraded in both the public and private sectors. Those trained should be monitored and performance should be evaluated.
- Logistics and management of drugs and supplies in facilities are not working optimally.
- Drug supply management in facilities must be improved and would benefit from use of new information technologies.
- Management of purchasing and repairing critical equipment, particularly oxygen regulators, is extremely important to improve in public health facilities. Processes for maintenance of equipment must be less time-consuming.

### Community Case Management

The ambiguous status of the ASHA must be addressed. The means of scaling up ASHA's engagement in community-based management of pneumonia (and other diseases) will depend on whether the cadre is treated as volunteer social health activists or as service providers.

- Supervision and training of ASHAs and Anganwadi Workers (AWWs) must be improved. Training needs to be practical and supported with the necessary equipment, materials and supervision.
- Encouragement of ASHAs and AWWs to practice skills may need to be incentivized.
- Community health workers and service providers need basic equipment like sound timers to diagnose pneumonia.



### **Program Implementation**

State and district officials need better information on the state of pneumonia case management, as well as protection and prevention measures. Steps are needed to engage state and district offices to ensure PIPs include line items on pneumonia management.

- A few blocks and districts should be selected to model pneumonia management in PIPs and guidance from NRHM should be provided to districts for this purpose.
- What gets measured gets done.
- Newer technologies should be fully utilized to track resources and to provide information to communities and to mount campaigns on prevention, protection and treatment of pneumonia.

### **Community Engagement**

Too little is done to inform and educate communities about childhood pneumonia.

- Increase IEC programs and involve communities in meetings to discuss child health and deaths at the village or block level.
- Dedicate weeks and days to pneumonia messaging or introduce it as a thematic intervention in VHND in a timely manner, i.e. prior to the season when most pneumonia cases occur.

### **Research Needs**

Research gaps are not barriers to improving the management of childhood pneumonia, but some gaps exist on clinical identification of wheeze and on the detailed impact of pneumonia on child mortality.

- There needs to be more operational research on implementation of child health programs because the interventions are known. The performance of the health system is where improvements are needed.
- Operational research should be undertaken to learn if changing the provider's behavior (improving rational and appropriate treatment) is an effective strategy to better management of pneumonia.

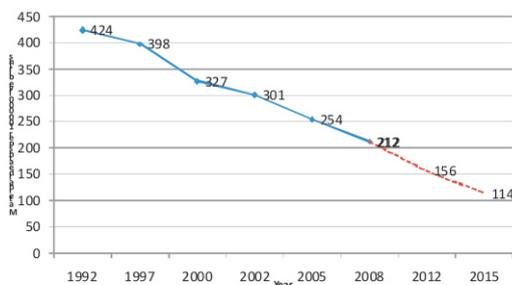


## Expecting More, Doing Better: National Leaders, Program Managers and Experts Push for Improving Quality of Care to Make Motherhood Safer

Consultation Brief  
September 2012

The Government of India's Ministry of Health and Family Welfare (MoHFW), with the support of development partners, committed itself to a quality improvement agenda for maternal health in 2012 and led the call for better quality services and quality assurance efforts at the National Safe Motherhood Day Consultation "Ensuring Quality Services for Safe Motherhood" on April 11 and 12 in Jaipur, Rajasthan. The program provided a forum for state leaders and technical experts from throughout the country to discuss the progress and challenges to making motherhood safer.

Maternal Mortality Ratio – India 1992-2015



Significant improvements in reducing maternal mortality have been realized over the past two decades, including a substantial increase in the number of institutional deliveries. India may well achieve its millennium development goal (MDG) 5 of reducing maternal deaths to 109 per 100,000 live births by 2015 (Figure 1), yet, India still accounts for 19% of maternal deaths worldwide [WHO et al., 2012] and the national average MMR masks the fact that several large states still have a discouragingly high number of maternal deaths each year.

### 2012: Time to Demand Better Services, Not Just More Services

Since 2003, the GoI has observed National Safe Motherhood Day on April 11. This year, more than 400 leaders, program managers and technical experts from across the country gathered in Jaipur, Rajasthan, to raise the bar on improving maternal health services by examining progress through a health systems and quality assurance lens.

At the Jaipur meeting participants shared promising approaches, methods and tools to improve the quality of maternal health programs and built consensus on quality assurance models to be utilized by state governments. The MoHFW took the lead to ensure attendance of its key health officials and actively contributed to the design of consultation content. The United States Agency for International Development's MCH-STAR Initiative<sup>1</sup> and the White Ribbon Alliance India (WRAI) led efforts to ensure a broad range of participants and voices in sessions. WRAI also facilitated the Ministry's frontline health worker awards during the opening session, which was inaugurated by the Union Minister of State and Family Welfare, Shri Sudip Bandyopadhyay.

<sup>1</sup>The Maternal and Child Health Sustainable Technical Assistance and Research (MCH-STAR) Initiative is a five-year USAID technical assistance project designed to improve policies, program approaches and resources in maternal, newborn, child health and nutrition (MNCHN) in India. Through this initiative, the MCH-STAR consortium partners—Cardno Emerging Markets USA, Ltd. (Cardno), Boston University (BU) and the Centre for Development and Population Activities



## Shared ground and new synergies

The consultation broadened and invigorated conversations on improving quality of maternal health between state health officials and several health stakeholders. Mutually beneficial linkages between facility-based programs and services and community-based ones are now possible.

It was a significant opportunity for maternal health advocates, seeking defined improvements in quality of maternal health services and access, to understand system-level demands on program managers. Realistic roadmaps for improved maternal health now seem feasible.

NRHM leaders in the Consultation declared the 2012 theme as *"The Year of Quality Improvement for Maternal Health"*.

## Improving the quality of maternal health services: critical understandings from Consultation sessions

- Finding the way to implement global maternal health quality standards in the Indian context

Participants discussed global standards on quality in maternal health--focusing on availability, accessibility and equity--as its baseline, particularly as India's health gains are behind Sri Lanka, Maldives and Bhutan, South Asian economies that are less vibrant. More than ever before, there is need to both extend the quality frontiers of health facilities on a scale large enough to improve the public health situation at a fundamental level. This is vital to meet national development aspirations and MGD goals on maternal health.

- Making sure everyone is on the same page for implementing clinical protocols and standard treatment guidelines

Clinical protocols and standard treatment guidelines are the backbone to ensuring services are provided safely and in a quality manner. Sadly, a multiplicity of protocols and guidelines, lack of sufficient and standardized training, absence of post-training and protocol updates, and lack of a common understanding of current guidance has led to nonadherence. Protocol adaptation must be dynamic and alive to global processes, best practices and also to issues such as clinical processes, infrastructure management, patient safety, waste disposal and provision of community-based signals.

The disconnect between national and state protocols and guidelines, professional group-mandated practices, and global best practices needs redress.

- Data collection and analyses remain challenging within the Health Management Information System (HMIS) and Human Resources Information System (HRIS)
- In order to ensure that the right health care provider is in the right place with the right skills, states need accurate data on human resources for health.
- Lack of clarity on intent and use, difficulty in gathering and interpreting data, frustration of handling additional indicators (despite training manuals) and late arrival of reports impede acceptance and usage.

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(CEDPA)—provide support to key Indian institutions to strengthen their capacity in research and evaluation, and moving research results into a policy and advocacy framework for action based on standards of evidence.



Presenters shared solutions that enhance understanding of relevant program managers, health providers and community leaders. Examples included localized HMIS data evaluations; creating HRIS leadership groups; linking program monitoring and human resources for health (HRH) data; and soliciting research organizations to support studies on the barriers to interpreting data and communicating findings to relevant audiences.

- Maternal death reviews (MDRs) are still underutilized as a tool for quality improvement

Two years after NRHM embraced MDRs as a key strategy to identify underlying causes of maternal deaths and provide the evidence for local decision-making on the interventions needed to reduce maternal morbidity and mortality, reporting on maternal death remains abysmally low and in instances where data is available, the quality of documentation is often poor. Engaging the community, civil society, and district magistrates in carrying out MDRs is an effective approach for getting relevant data and increasing the accountability of the health system.

- Working together to improve quality of services is a must: looking at the promise of supportive supervision and training programs

States have embraced the concept of supportive supervision. Using short checklists enables supervisors to provide guidance on the technical aspects of services, which, combined with a client-centered outlook, results in high-quality primary health care. Implementation, however, is constrained by the limited supervisory staff with the needed technical skills/knowledge and mentoring skills. Presenters shared that everyone wants more supportive supervision but the term is being used too broadly and benchmarks for achieving desired outcomes are not always clear.

- Providing training is often the response to problems in delivery of maternal health services, but training is not always the answer.

Performance gaps in the workplace are often due to environmental factors such as vague expectations, insufficient and untimely feedback, limited access to required information, inadequate tools, resources and procedures rather than a provider's lack of skills and knowledge. Participants noted that when training is necessary, a single training session rarely works if it is not part of a total performance system.

- Managing and sustaining Accredited Social Health Activists (ASHAs) is key to ensuring that communities utilize services

The Institute of Medicine (IOM) of the United States National Academies of Science defines quality as the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. [Lohr, 2009]

This definition suggests that—

1. quality performance occurs on a continuum,
2. the focus is on services provided by the health care delivery system;

Presenters noted the exceptional role ASHAs play in linking women to maternal health services, and no one is prepared to go back to a health system without community health workers. This makes it imperative that there be clarity in their roles; regular rounds of training for them and their supervisors; a robust support structure to help them cope with their work; realistic workloads; performance evaluation; and a definite career development pathway for them.



3. quality may be evaluated from the perspective of individuals or populations;
4. research evidence must be used to identify the services that improve health outcomes; and
5. in the absence of scientific evidence regarding effectiveness, professional consensus can be used to develop criteria.

To some extent, quality is in the eye of the beholder; that is, expectations and the value associated with different aspects of care are likely to vary among different stakeholders. A national monitoring system should include measures that assess dimensions of care that are important to “purchasers” (e.g. NRHM, national insurance scheme), clients/patients, and health care professionals.

- Consensus on shape and substance of quality assurance (QA) cells is growing

A comprehensive national framework for QA cells focusing on maternal, child and reproductive health with local adaptability is priority for the Government of India. A working group led by MoHFW invited state leaders to share their models and outcomes. Consensus building on a governance framework proposed by MoHFW was discussed. As QA involves issues of technical competence, access to services, effectiveness, interpersonal relations, efficiency, continuity, safety and amenities, the framework should

provide additional resources to the state's NRHM Mission Director. Facility functionality must be integrated with community engagement and community health workers.

- Emergency medical transport services are diversified and increasing in sophistication.

Transport to facilities where skilled care is available is key to preventing maternal deaths, but there is lack of clarity on whether services should remain oriented toward referral transport or move toward a full-fledged emergency medical transport system. Robust analysis of strengths and weaknesses of various systems, standard education and training for emergency response personnel, ensuring the vehicles have EmOC equipment and a critical appraisal of public-private partnerships for emergency services are needed.

- Organization of work processes for patient safety, comfort and satisfaction may not be glamorous, but they are highly visible to (and appreciated by) communities

Using gap analysis approaches (to correct mistakes); multi-stakeholder approaches (to improve facilities and services) and facilitating attitudinal change among staff (to look at patient needs/concerns, provide comprehensive information and serve members from poor/marginalized communities by sensitizing them to their entitlements, for example) will ensure user-satisfaction.

- Understanding community perceptions of quality is key to greater service utilization

A plenary session led by the White Ribbon Alliance of India focused on the importance of ensuring appropriate, timely and equitable maternity care that is respectful and abuse free. A Quality of Care case study from Jharkhand shows women patients are keen on the presence of doctors, appropriate medical care, pain management, availability of transport, monetary incentives, presence of family members, and a reassuring environment for alleviation of fear and anxiety during delivery.

- The next frontier: addressing barriers to implementing quality maternal health programs

Participants highlighted issues in need of attention as public health programs in India evolve: human resource management; attitudes toward public service and serving women from marginalized communities;



infrastructure shortfalls and creative solutions; alignment of resources; adherence to technical protocols; grievance redressal; patient perspectives and measuring quality through outcome and impact indicators.

## **Necessary travel: the road ahead**

*Salient action points that emerged:*

### **Quality assurance for maternal health**

- streamlining structures, staff teamwork and client perspectives
- determining quality indicators and applying them at all facilities
- empowering clients to demand quality
- increasing evidence-base for quality improvement measures
- harmonizing QA systems, evolving governance platforms for adaptation by states, fixing gaps and conducting evaluations on 'cell' model effectiveness

### **Protocols and guidelines improvements**

- enhancing understanding through trainings
- widening dissemination
- ensuring dynamic inputs, regular updates and review of new indicators
- adherence to global standards

### **Supportive supervision and training**

- ensure that management structures account for the time and resources necessary for supportive supervision
- training of supervisors to evaluate training outcomes, performance and to support skills building
- integration of standard protocols and guidelines in pre-service training for HRH
- standardization of in-service packages and evaluation of outcomes
- utilization of new methodologies/technologies in training

### **ASHA network strengthening**

- determining a feasible workload for ASHAs
- setting career paths for ASHAs/ANMs
- involving existing cadres to enhance capacity of ASHAs

### **Emergency response and referral systems**

- evaluating the effectiveness of current models
- creating an integrated national system for emergency response services with one number to call
- exploring public-private partnerships

### **MDR reviews**

- removing barriers to notification of deaths
- inclusion of ASHAs in MDRs, ensuring a monthly report from them of deaths



- sensitization and deeper involvement of district magistrates in the process
- designing innovative software to record and manage MDR data

## References

WHO et al. 2012. Trends in Maternal Mortality: 1990-2010. Geneva: WHO.

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## Growth Monitoring and Promotion – Seizing Opportunities

State Consultation Brief  
October 2012

### The Issue

In ICDS, Growth Monitoring and Promotion (GMP) is an integral part of the package to address childhood malnutrition. Though GMP does not find mention in the defined services of ICDS, it forms part of the ICDS core strategy for addressing malnutrition. A one-day State-level consultation was held to define a comprehensive decision guide on Growth Monitoring and Promotion and define the role of the health system for addressing Growth Faltering and Growth Promotion. A performance improvement exercise carried out by Child In Need Institute (CINI) at the request of the Directorate of Social Welfare, Government of Jharkhand with technical and financial support from MCH-STAR Initiative / USAID identified the lack of clear and simple guidelines for the Anganwadi Worker as an important root cause for performance gap in ICDS.

### The Consultation

The state-level consultation conducted on 10 September 2012 attempted to define and suggest what should go into such a guideline. The consultation was attended by technical experts from the academics, resource groups and grass root implementing agencies.

### Top line deliberations and findings

The importance of a simple guide for the AWW and the health system was considered important to bring back focus on to growth monitoring and promotion. The present system puts a lot of emphasis on identifying malnutrition rather than growth faltering. Anganwadi worker should be empowered to identify children who have growth faltering, and be able to communicate the same with the parents and be able to investigate the reason for the problem and solve it. It was identified that the present trainings lay stress on 'messages' that the AWW just parrots out. Field data show that 'messages' are transmitted and received but this has not changed the scenario of malnutrition.

The consultation also discussed the importance of working as a team at the village level. The ASHA, AWW and ANM need to also be trained as a team and that they should have a joint responsibility in identifying growth faltering and providing needed support to halt it. The challenges of joint training and joint team work were discussed and positive examples where this worked were shared.

It was discussed that the VHND should be just one of the days that growth monitoring is carried out and that the community should be involved in ensuring that all children are covered. Positive examples from CINI and UNICEF were shared. It was discussed that wherever communities became equal partners in this effort the program was successful.

The importance of the new Mother and Child Protection Card which had a multi-colored growth chart was stressed. It is imperative that all children receive this card. It was pointed out that the card was only for the first 36 months. Field level experience shows that this card is still not universally used. The lack of functional weighing scales and its importance was also noted.



Decision Guide for the Anganwadi worker was discussed in detail. It was decided that the first six months should be considered separately and early growth faltering should be taken into cognizance and the AWW counsels and visits the household again after two weeks. All children who still do not improve have to be seen by someone else. This person could be the Lady Supervisor, ANM or the Medical Officer. Problems in this age group could be either a serious infection or an inability to properly breastfeed.

For infants greater than six months up to three years it was discussed that growth be classified as those with early and persistent faltering. All children with persistent growth faltering need to be seen by a medical officer to rule out any 'hidden' problem. A comprehensive algorithm for children with persistent faltering is still not available and will need to be worked out. It was discussed that Paediatric tuberculosis and chronic malaria in an endemic area with continuous transmission would present as growth faltering.

It was also stressed that just measuring mid upper arm circumference (MUAC) would not help in identifying severe acute malnutrition (SAM) among children, and available evidence indicates that SAM children could be missed out. Persistent growth faltering could be a better indicator for identifying the needy children. Data was also presented to show that post admission to MTC considerable number of children who got better returned back to their pre admission state. This was due to lack of clear plans for taking care of these children at the community level.

### **What needs to be done?**

Strengthening community level action through growth promotion should be ensured to prevent malnutrition and identify early and be able to treat and help in the rehabilitation of these malnourished children. Community level action is largely missing and needs to be revived. The consultation decided to continue sharing experiences, and advocating for growth promotion. It was decided that a virtual community be formed to take this forward. The same was initiated post this meeting.



## Policy Briefs

### What are policy briefs?

A policy brief is a concise document on a particular issue, the policy options to deal with it, and some recommendations on the best option. Policy briefs present findings and recommendations of a research, assessments/evaluation or technical assistance activities to a non-specialized audience. Briefs are aimed at government policymakers and others who are interested in formulating or influencing policy.

There are two basic types of policy briefs. An **advocacy brief** argues in favor of a particular course of action. An **objective brief** gives balanced information for the policymaker to make up his or her mind. In both cases, the policy brief serves as an impetus for action—its purpose is to convince the target audience of the urgency of the current problem/issue and the need to adopt a course of action.

### What should a policy brief do?

#### A policy brief should:

- Provide enough **background** for the reader to understand the problem.
- Convince the reader that the problem must be addressed **urgently**.
- Provide information about **alternatives** (in an **objective** brief).
- Provide **evidence** to support one alternative (in an **advocacy** brief).
- Stimulate the reader to make a **decision**.

#### ▪ MCH-STAR Initiative Policy Briefs

- Operationalization of FRUs: Paving the way
- Determinants of under-nutrition in children—Policy implications
- Improving the Public Ambulance System Must be a Part of the Strategy to Reduce Maternal Mortality in Uttar Pradesh
- Beyond JSY: Making Public Health Facilities More Attractive Places for Childbirth
- Review of Government of India Policies on Birth Preparedness and Complication Readiness
- Improving Utilization of Flexi-Funds under National Rural Health Mission in Jharkhand
- Overcoming barriers to performance of ICDS in Jharkhand: Options for Improvement



## Operationalizing FRUs: Paving the way ahead

The government of Jharkhand has shown tremendous commitment to ensure the improved functioning of its designated First Referral Units (FRUs). In November 2008, the state health department sought technical assistance from the Public Health Foundation of India (PHFI) to build capacity to operationalize twelve FRUs in the state. Soon after, United States Agency for International Development's (USAID) MCH-STAR initiative supported PHFI to initiate a project that drew on the collaborative expertise of national and international experts, various local stakeholders including the premier medical college Rajendra Institute of Medical Sciences (RIMS) and non-governmental agencies like Child In Need Institute (CINI), senior state health officials and FRU functionaries. In just ten months, PHFI assisted the health department, to make small but significant achievements towards its goal of having 12 FRUs fully functional.

- Labor room record templates are capturing more comprehensive and useful data by using new record formats. These were designed by PHFI in consultation with state RCH office and NRHM.
- Functional blood storage equipment has reached 4 FRUs.
- Medical Supplies are in place in all 12 FRUs;
- Drugs required in the labor room are available on a 24X7 basis.
- Overall improvement in cleanliness and hygiene of labor rooms.

## Policy Brief

December 2009

How did the collaborative effort achieve so much in the short time frame?

- A gaps analysis was conducted at 12 FRUs facilities in March 2009.
- The state health department used findings from the gaps analysis to understand the magnitude of the problem and identify priority areas for improving FRU functionality.
- Dialogue between state health department and FRU staff lead to action plan formulation and implementation for each FRU. Key district and FRU staff resolved to address local issues during the action planning.
- Senior state health officials and NRHM consultants also planned to fill existing gaps and mobilized some of the required resources.
- PHFI helped organized need based capacity building of FRU functionaries through trainings, routine consultations and exposure visits.
- Joint monitoring visits by state health officials and PHFI staff to the 12 FRUs assessed progress. Visible improvements in the FRUs were noted between June- Sept 2009 by these monitoring visits.

Although the achievements are impressive for such a short span of time, significant steps are needed to be taken by the state health department in order to achieve complete functionality across all FRUs as per Indian Public Health Standards (IPHS). Key findings and recommendations from this project are in the table on the following page.



## Key Findings

### **Lack of formal document for operationalization of FRUs**

The state has initiated operationalization of FRUs, however, a phased manner of operationalization has not been adopted. There is no formal state document that articulates a comprehensive pragmatic plan to institutionalize the process and the operationalizing FRUs.

### **Certification and scoring of FRUs not in place**

As of yet, there are no formal certification mechanisms recognize to maintain fully functional FRUs.

### **Inadequate health and support infrastructure (water, electricity) to ensure 24X7 functioning**

- Laboring and postpartum women are placed in the general women's ward, where there is no privacy and they and their newborns are exposed to infection.
- FRUs experience erratic power and water supply.

### **Human resources issues**

- The state has a severe dearth of anesthetists and pediatricians.
- Due to the paucity and lack of training for lab technicians, routine blood and urine investigations are currently not been conducted, and blood storage and transfusion units are not functional in most of the facilities surveyed.

### **Inadequate utilization of funds for FRU maintenance**

- Lack of clarity exists among the medical officer in-charge or civil surgeons/ACMOs on how to utilize RKS funds.
- There are no designated funds solely for FRUs.

## Recommendations

Create a formal document articulating a strategic road map to operationalize FRUs.

- Follow a phased manner of operationalising FRUs using a scoring system based on degree of functionality.
- Institutionalize a FRU certification process and ensure routing review by a quality assurance team.

### **Strengthen the existing infrastructure in the following ways:**

- Establish dedicated maternity and neonatal care areas on a priority basis
- Improve the efficiency of the logistic and procurement division of the state health department to provide maintenance on a 24X7 basis.

### **Strengthen the convergence of the district administration, and power and electricity.**

- Engage civil society groups to demand services and accountability of the service delivery system
- Prioritize large scale capacity building of MBBS doctors in life saving anesthetic skills (LSAS) and neonatal care.
- Urgently relocate pediatricians and doctors with LSAS to FRUs where requirement exists.
- Post and train lab technicians for blood storage management, and routing blood and urine testing.
- Develop detailed guidelines for the utilization of RKS funds and train district program management units to guide RKS committees on fund utilization.
- Provide additional recurrent cost grant to designated FRUs annually.



## Determinants of under-nutrition in children—Policy implications

Policy Brief

September 2010

### Background

Under-nutrition in children younger than five years old continues to be a problem in developing countries around the world. It contributes to as much as 55% of childhood deaths globally and the loss of approximately 12 million children each year. India bears the largest burden of childhood under-nutrition in the world. Despite recent economic growth and long-standing government interventions, the prevalence of childhood under-nutrition in India has not improved much since 1990. If India is going to achieve the first Millennium Development Goal by 2015, it is imperative that social factors in the population are closely examined and incorporated into any government initiative addressing child under-nutrition.

In 2009 IndiaCLEN in collaboration with the Government of India and support from USAID's MCH-STAR Initiative, WHO and NIPI, undertook a study in six states—Uttar Pradesh, Jharkhand, Bihar, Madhya Pradesh, Orissa, and Rajasthan—to identify the unknown social factors that are preventing the reduction of under-nutrition among children below five years, particularly among the under-twos. By taking a broad, qualitative look at cases of under-nutrition, the study helped to unravel some of the social, cultural, biological and anthropologic factors, contributing to persistence of under nutrition India and identify current management practices that are preventing the reduction of under-nutrition among children in India.

### Key Findings

#### Food insecurity

Evidence from the six states revealed that almost all households experience some type of food shortage, including seasonal shortages and shortages primarily

due to poverty and other financial factors. Despite the best efforts of parents in many households, food intake of young children remained inadequate in both quantity and quality. While there is no doubt that food insecurity is a major factor determining children's nutritional status, this study revealed several other important factors needed to be addressed to find solutions to India's nutrition crisis.

#### Limited time for food preparation and feeding among increasingly busy mothers

An important clue to understanding under-nutrition in children came from observing mother's daily schedule. The mother remains the main child care provider despite her growing responsibilities outside the home, as an additional or sole bread winner. Although the majority of mothers interviewed reported that they found time to prepare food and feed their children, most spent less than five hours per day attending to children's needs. This finding was consistent across socio-economic groups.

Mothers were away from home for long hours engaged in various income generating activities or other household chores. Most mothers reported that they received little to no help from husbands and the elders in the family,

These busy mothers often turned to older children to help care for and feed young siblings in their absence. Without adult guidance, the young child is unlikely to get adequate amounts of food.

#### Inadequate and inappropriate infant and child feeding

Discussion with officials at the state, district and block levels as well as mothers revealed that infant and young child feeding practices are seriously inadequate and age inappropriate. Areas of concern include:



**Inadequate breastfeeding:** Only some mothers initiated breastfeeding within the recommended two hours of birth. Initiation was delayed from several hours to several days based on myths and misconceptions that the mother's first milk (colostrums) was harmful for the baby. Mothers of undernourished infants were more likely to believe that breastfeeding was insufficient, and thus more likely to give supplementary foods earlier than six months, exposing their babies to infection and depriving them of essential nutrients. Over half of the mothers admitted that they were dilution supplementary milk before giving it to their children.

**Complimentary feeding too early or too late:** Delays in the introduction of complimentary foods were linked to traditional beliefs and feeding practices. Many mothers were convinced that a child under nine months of age was too young to eat any semi-solid or solid foods. Other families justified delayed feeding believing that cereals and other semi-solid foods have an adverse effect on the child's health. Almost half of the mothers introduced various weaning foods earlier than six months in inadequate quantities.

**Poor nutritional value of food fed to young children:** Observations indicated that the quality of the food provided to infants and young children was being compromised. Mothers in most households had little time for either preparing special food for infants and small children or modifying food cooked for adults. Many foods rich in nutrients were traditionally considered inappropriate for infants and young children, such as several fruits, grains, vegetables, fish and meat. Almost all young children and the majority of children 2-5 years old were fed diluted, low energy/low nutrition foods that did not fulfill their dietary needs.

**Inadequate and inappropriate feeding during illness:** None of the mothers increased the quantity or improved the quality of food given to sick children. As per socio-cultural beliefs, food was either further

diluted, thereby reducing the energy density or certain foods were completely avoided. It appears that mothers were unable to recognize that decreasing or withholding food and breastfeeding were contributing to their children's under-nutrition,

#### **Marketing of commercial "ready to eat food"**

Both mothers' and children's demand for ready-to-eat food has spurred the marketing, reach penetration and sustainability of child targeted packaged foods and snacks even in the most remote corners of the country. Mothers found these easy to prepare and serve products a solution for their time constraints. Almost all the mothers admitted that they gave "ready to eat" packaged or fast foods to their children on a regular basis. Several of these foods were perceived by the family as healthy as they provided strength and extra nutrition to children. However, in practice, families often reconstituted or diluted market foods with unclean water turning it into a source of infection. Further, as market foods were at a cost, the quantities fed to the infant and children were smaller than recommended. Most mothers confessed that when the child consumed packaged foods, either the child was not offered any home food or the child refused the regular meal. Hence, these commercial market products that were meant to be snacks or supplements to the normal diet actually became substitutes for home food.

#### **Inadequate responsiveness of government programmes and schemes to address child nutrition**

There is a lack of convergence and synergy between existing programmes. Most programmes were not able to reach the correct target groups, such as infants and young children and pregnant and lactating women, particularly those from marginalized segments, and the most needy and vulnerable.

**Integrated Child Development Services (ICDS):** ICDS was found to be in demand and well known. The basic nutrition service, provision of supplementary feeding (rice/dal/kichdi) at the Anganwadi Centres (AWC) was instantly recalled by a majority of mothers. The ICDS



mandate to fulfill the unmet nutritional needs remains relevant, as many children were not fed well at home. Various difficulties in implementing the nutritious supplement component of AWC were enumerated: staff shortage and turnover, mobility issues, delayed release of funds and bank-related difficulties. Mothers complained about the quality of food provided, saying it was often diluted and even stale. Most of the AWCs were located in rented facilities without the most basic amenities such as water and toilets. Few mothers were aware of the nutrition and health education/counseling services. Half the mothers did not identify ICDS with monitoring growth and under-nutrition. Parents were generally not confident about sending their 6-23 months old infants to AWCs. They considered them too young to be left in the care of AWWs and at a place, which was not a good quality environment from their perspective.

**The health systems response:** Universally, the condition of under-nutrition was recognized and diagnosed too late or not at all, delaying any effort to treat under-nutrition. In a community with 40-60 percent under-nourished children, signs of under-nutrition are considered the norm and thus no treatment is sought, Neither families, AWWs, nor health workers used physical measurements to assess mild and moderate under-nutrition in children. Observations of 60 health facilities, including district hospitals, Community Health Centres (CHCs) and Primary Health Centres (PHCs) found that the physicians did not record the weight to 75-80% of children though they had weight scales. Most of the mothers of mild to moderately under-nourished children wrongly classified their child's nutritional status. Doctors believed mistakenly that they could diagnose under-nutrition just by looking at the child. As mild and moderate under-nutrition remained invisible, families and health workers were unaware until the child deteriorated to severe levels and medical complications were manifested.

### **The emerging model of malnutrition**

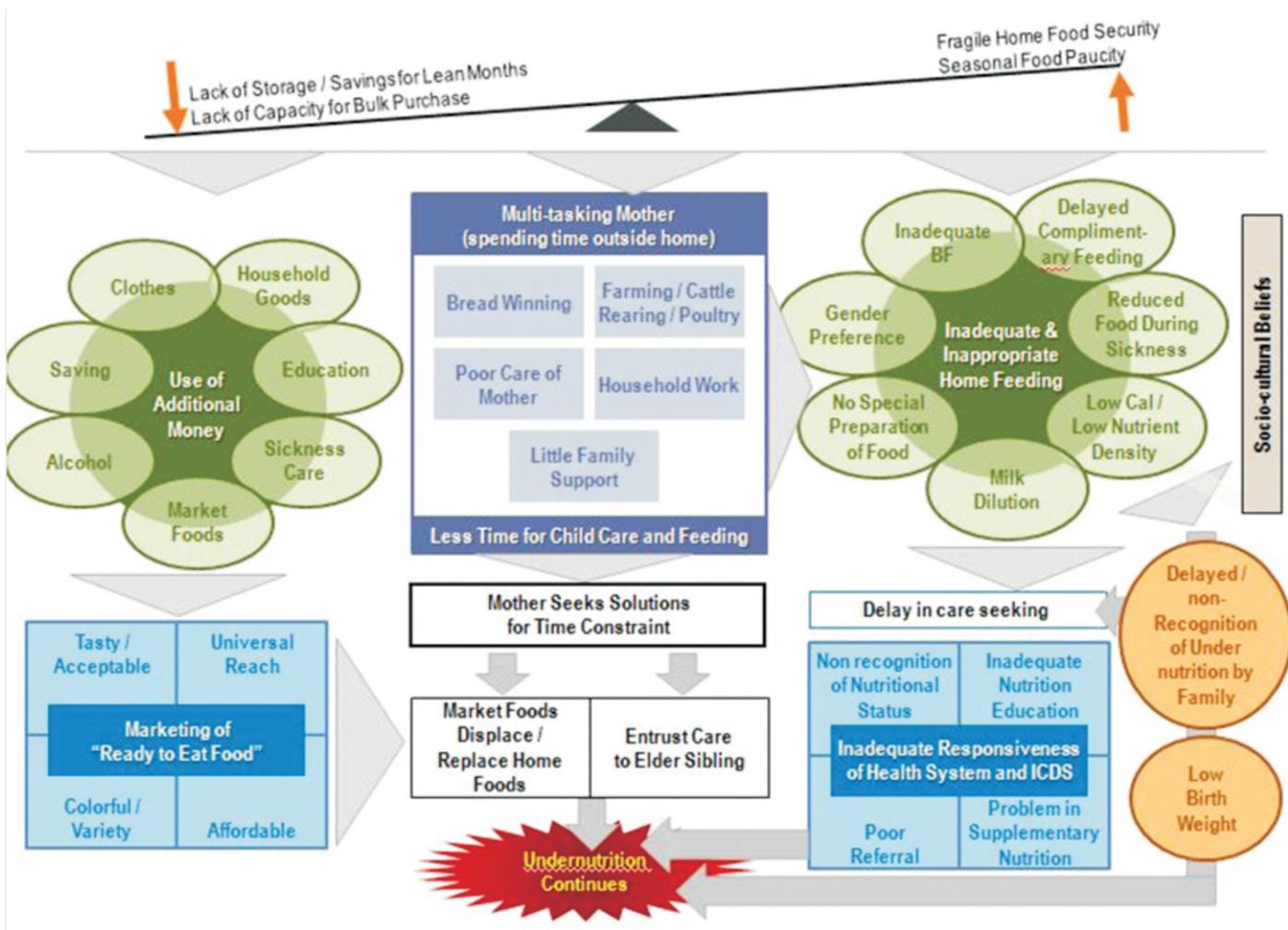
While allowing all the core themes, associated sub-themes, and the interrelationship between them to be substantiated, a construct evolved which showed core themes as components of the model and illustrated the dynamic relationship among the components as the process. The respondent validation technique was adopted to finalise the model and inter-relationship between the themes and sub-themes. The model validation exercise was conducted at all study sites (urban slums and rural areas in six states) and one additional state (Haryana). This inductively derived model had some radical differences from the conceptual framework deduced 'a priori' during the planning of the study. However, this inductive model cannot, and does not, attempt to measure the proportionate share of each of its component and pathways in the causation of under nutrition.

**Two of the most forceful and substantive core themes that have changed the deductive conceptual frame work decisively were, busy multi-tasking mothers with insufficient time for child care and feeding and the dwindling family support and marketing of "ready to eat foods" that are almost universally available. They have also emerged as the main actors of the most cogent narrative of under nutrition.** It appeared that the timing, quality and quantity of food offered to children are influenced by combination of factors: the poverty status of the family, mothers' pre-occupation with household and out of home activities, and her ignorance in the context of deeply entrenched social and cultural beliefs. The ICDS programme, touted as the nation's response to childhood under nutrition, needs major policy and governance realignment to improve its delivery of services, respond to the needs of the citizens and incorporate accountability to the communities. Similarly, the health system has to gear itself to respond to the current embarrassing state of childhood under nutrition. Every opportunity and



contact with patients and their care providers has to be leveraged for focussing on the preventive and promotional aspects of nutrition, highlighting the importance of addressing mild and moderate under nutrition as conditions that require immediate interventions. Child malnutrition is multi-factorial and requires coordination across sectors. The

proposed model offers us the patho-physiology of malnutrition with potential lever points. It is equally important to appreciate that children are likely to become over weight and obese with cardio-vascular risk factors when the food security situation improves due to limited healthy market food options that the busy mother has access to.



**Policy and Program Implications**

**Create an enabling environment for families to provide better care and feeding for infants and young children.** The number of women with young children working outside the home is not going to reverse and supports from traditional joint families are not likely to increase. Given this reality, Indian families need to encourage fathers to be more involved in child care and feeding, and they need high quality day care programs available particularly for

the care of children 6 months to 3 years of age. These programs can be publicly or privately provided, but regulatory enforcement of quality child care standards must be ensured.

**Promote and make available time saving cooking and food storage devices and services.** To reduce food preparation time for busy mothers/families, the state can develop policies and schemes for poor families to access pressure cookers, more efficient



cook stoves, and locally appropriate and energy efficient refrigeration or food storage facilities, Using business models, local women's groups can prepare and deliver or market healthy hot meals and snacks appropriate for infants and young children.

**Invest heavily in public nutrition programs that focus on serving children from birth to age two.** Reversing India's longstanding struggle with child under-nutrition requires efficient and well financed public programs that focus on averting under-nutrition in children from birth to age 2. Research shows that this is the age group where the child's most rapid growth and development occur. Although poor and marginalized communities are particularly vulnerable to under-nutrition, India's children from all economic quintiles are at risk. The Government of India must determine whether the ICDS program can be revamped to provide these targeted interventions, if new programs must be developed, or if there will be public private partnerships to provide these services.

**Invest in public education on and behaviour change for appropriate feedings and nutrition of infants and young children.** To prevent under-nutrition, the onus of education must occur at the levels of the family and community. Development of education programs focused on the appropriate feeding and nutrition of young children must be widely disseminated. These programs can be delivered at the community level through local governance bodies and community health workers, At the level of the family, the government needs to invest in multiple information delivery methods such as innovative behaviour change campaigns using mass media, mid-media and

interpersonal communication targeting fathers, mothers and grandparents.

**Promote the development of healthy alternative "ready to eat" commercially marketed foods.** The commercial sector can be educated and encouraged to develop and market healthy "ready to eat" food products.

**Ensure health providers communicate to families about the importance of adequate and appropriate nutrition, growth monitoring and child development milestones.** Understanding nutritional needs of infants and young children as well as viable nutritional screening and growth monitoring needs to be conveyed to all relevant health care providers, including ASHAs, ANMs, Angawadi workers, and medical officers. Assessing children's growth and development on a regular basis from birth to age 2 must be standard operating procedures for all Village Health and Nutrition Days and for all healthcare providers. The findings of these assessments must be communicated successfully to child's family and counselling provided for those below the norm. Consistent focus on nutrition should be a part of the clinical management of every child reaching a health facility.

**Credits:** Prof. Narendra Kumar Arora (INCLIN Trust International and Prof. Siddarth Ramji (Maulana Azad Medical College)





## Improving the Public Ambulance System Must be a Part of the Strategy to Reduce Maternal Mortality in Uttar Pradesh

Policy Brief

April 2012

### Maternal Death Audits reveal that too many women are not reaching Care in time

There are three critical delays associated with maternal deaths: the delay in recognizing complications before, during and after delivery; the delay in accessing skilled care to address complications; and the delay in receiving quality care. [WHO et al.2009] This brief focuses on evidence from a recent study on maternal deaths audits (MDAs) in Unnao District, Uttar Pradesh (UP) related to the second delay – accessing skilled care. [PHFI 2011] From 153 confirmed maternal deaths in Unnao District between June 1, 2009, and May 31, 2010, verbal autopsies were conducted for a random sample of 57 cases. It was discovered that 31% of these deaths occurred while the pregnant women were enroute to a health facility. This brief argues that improving public ambulance services should be a core component of comprehensive efforts to provide safe deliveries and prevent maternal deaths.

### Background: Maternal Health and the importance of transportation

Many women in UP are not receiving the care and treatment required for safe deliveries. Compared to India's national average maternal mortality ratio (MMR) of 212 maternal deaths per 100,000 live births, a disproportionate number of women in the state are dying from complications during labor and childbirth [Table1]. Of the 5.08 million deliveries expected in UP in 2010, 763,399 deliveries are estimated to have been complicated (15% of all deliveries) and 18,271 pregnancies and deliveries are estimated to have resulted in the mother's death that year. To put this in perspective, approximately 2,173 cases of delivery-related complications occur daily in

Since inception, there has been persistent underutilization of all types of flexi-funds in Jharkhand. Financial monitoring reports available at the State Program Management Unit (SPMU) in Jharkhand indicate utilization of flexi-funds in 2008-09 and 2009-10 through the RKS and the AMG at Primary Health Centers (PHC) has hovered around 50 percent while use of untied funds at sub-centers has been a mere 30 percent. Utilization of untied funds at the VHC level improved between 2008 and 2010 but remains excruciatingly low at 15%. Figure 1 provides the percentage of flexi-funds utilized in Jharkhand between the years 2008 and 2010.

The underutilization of flexi-funds is a lost opportunity for strengthening the delivery of health care services for the state, particularly for women, although deaths in facilities—when deaths at private and public facilities are combined—made up 46% of all deaths and is a subject of serious concern that is highlighted in the MDA report. [Figure 1]

	Maternal Mortality Ratio	Estimated number of maternal deaths, 2010	Lifetime risk of maternal death
India	212	53,801	1 in 167
Uttar Pradesh	359	18,271	1 in 71

Source: Registrar General of India, June 2011. *Special Bulletin on Maternal Mortality in India 2007-09.*

Based on an estimated population of 199,581,477 (2011 Census) and crude birth rate of 25.5/1000 (Annual Health Survey 2010-11).



## Women in Unnao District wait...and wait for transportation to health facilities

In 2010, the Public Health Foundation of India (PHFI) examined 57 cases of maternal deaths to assist the Government of UP in improving implementation of the maternal death audit (MDA) process outlined by the National Rural Health Mission (NRHM) and to identify gaps in services. Utilizing verbal autopsies with family and community members as well as interviews with health facility managers and review of facility records, these findings emerged related to transportation.

**Most families made the decision to seek care from the health system when complications were recognized.** Expectant mothers died at home in only 13(22.8%) of the cases studied, and the lack of available transportation was the most common reason given by families for not seeking care. According to the 2007-08 District Level Household and Facility Survey, only 9.5 percent of families in Unnao District have a motorized vehicle. [IIPS 2010]

**All families interviewed in the MDA study reported that they used private transportation**—either their own or arranged through friends or neighbors, or hired a private taxi or tractor to take the woman from the home to the first health facility and to a second facility if referred. Only in referrals from a second to third facility did families report use of an ambulance.

**Precious time was lost while families arranged private transportation.** The average time required to arrange transportation from home was 3 hours and time in transport added, on average, 1.25 hours. [Table 2]

Not only did women in the district spend an average of 4.25 hours waiting for transportation or in transportation to the first health facility, the delays continued to grow for those who were referred to multiple facilities. For the 32 women who were referred to a second facility, the average time required for arranging and using transportation was an

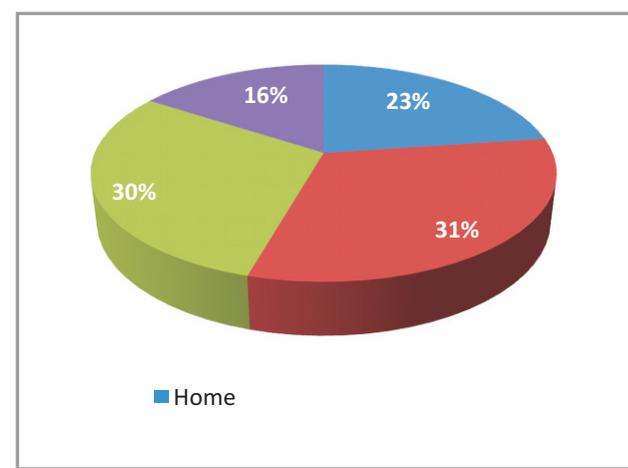
additional 4.25 hours. For the 14 women referred to a third facility, the average time required for arranging and using transportation was another 4.5 hours. They spent an average of 13 hours waiting for transportation or in transit!

## National standards for referral transport and ambulance service in Unnao District

The Indian Public Health Standards (IPHS) provide guidelines for referral transport, including ambulance services, to be adapted by state governments. [IPHS 2010] The guidelines envisage availability of 3 ambulances at the larger district hospitals, 2 ambulances at the First Referral Units (FRUs) and 1 ambulance at each Community Health Centre (CHC) and Block Primary Health Centre (PHC).

IPHS guidelines are unclear about the number of drivers who should be engaged. Most interpret the guidelines to assume that 1 driver per ambulance is sufficient, but, if 24-hour services are required, then there should be 3 drivers available per ambulance. Statewide, public ambulance services available 24 hours a day would require 216 ambulances at all district hospitals, 940 ambulances at CHCs and FRUs and 470 ambulances at the state's Block PHCs—a total of 1,626 vehicles. To staff these vehicles around the clock, support for 4,878 drivers would be required. In Unnao District, the MDA study found there were only

Figure 1. Place of Maternal Death as Identified in PHFI's Maternal Death Audit (MDA) Study



10 ambulances available at 15 of the 16 facilities as against 19 required as per IPHS guidelines. Even worse, a comparison of reports from these 15 facilities showed that only 5 had at least one ambulance in working order, at least 1 driver, and had funds for fuel and maintenance for this skeletal service arrangement. None of the facilities were capable of offering around-the-clock ambulance services. See Table 2.

**Putting the Focus on Ambulance Availability, Access, and Readiness**

To address maternal health care delays in transportation, PHFI recommends that policies and procedures be strengthened in the areas of ambulance and staff availability, patient access and professional readiness.

**Availability**

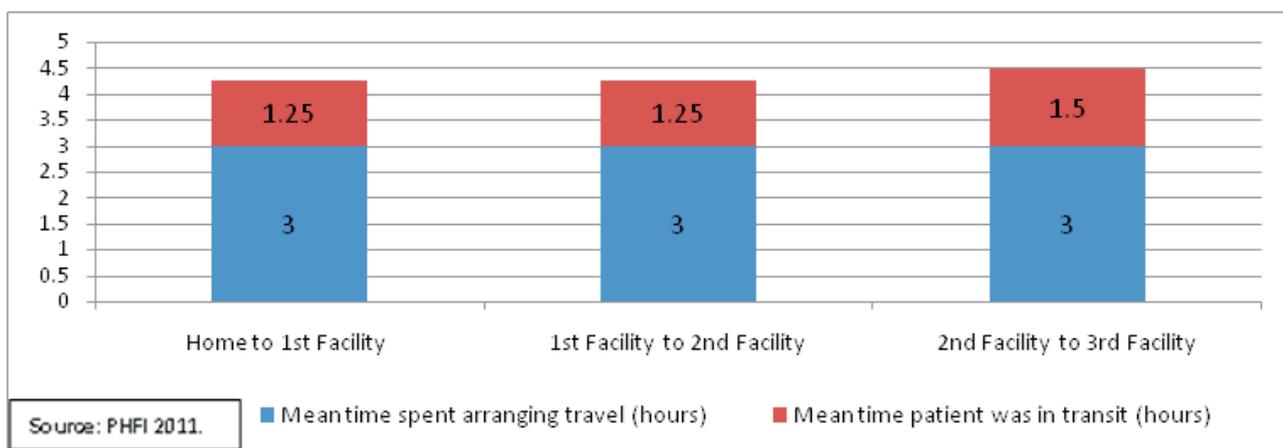
PHFI recommends that the Government of UP develop a comprehensive plan to invest in a public

ambulance system statewide for all types of health emergencies, including maternal health emergencies. To ensure that maternal health needs are met, IPHS guidelines should serve as a starting point for determining the number of ambulances needed.

Specifically for Unnao District, a total of 20 ambulances should be available at the district hospital, both First Referral Units (FRUs), and all Block PHCs and CHCs functioning 24 hours a day. The regular maintenance of ambulances, fuel costs, and salaries of 3 drivers per ambulance must be a part of the state’s annual budgeting process, whether the UP Government decides to integrate these costs into the core state budget or contract with private firms or nongovernmental organizations to manage public ambulance services.

**Table 2. Snapshot of ambulance service availability in 15 public health facilities in Unnao District, Uttar Pradesh, in September 2010\*.**

**Table 2: Time Spent Arranging Transportation and Transit for Women Experiencing Maternal Health Complications, PHFI, MDA study, Unnao District, UP, 2010.**



**Access**

Complications during pregnancy and childbirth cannot always be predicted, and they can occur to any woman regardless of her health status. Therefore, ambulance services must be available to the entire

population of a district or state. Neither time of the emergency, nor location of the pregnant woman, nor cost should be factors dissuading families from requesting public ambulance services.

Source: PHFI 2011. *Community-based Maternal Death Audit in District Unnao, Uttar Pradesh*. New Delhi. MCH-STAR.

\*Minimal criteria here means that a facility had at least one functional ambulance and one driver with funds available to run and repair the ambulance at the time of this study. None of the facilities had 24x7 ambulance services available.



Current utilization of ambulances in Unnao District is very limited. The MDA study showed that working ambulances were utilized only for transferring patients out of facilities rather than transferring them in--at the direction of the medical officer in charge. There are no guidelines in Unnao District or UP that clearly define who has authority to request or dispatch ambulances. There is no program to inform the public or community health workers, such as Accredited Social Health Activists (ASHAs), how to request ambulances for pregnant women experiencing complications.

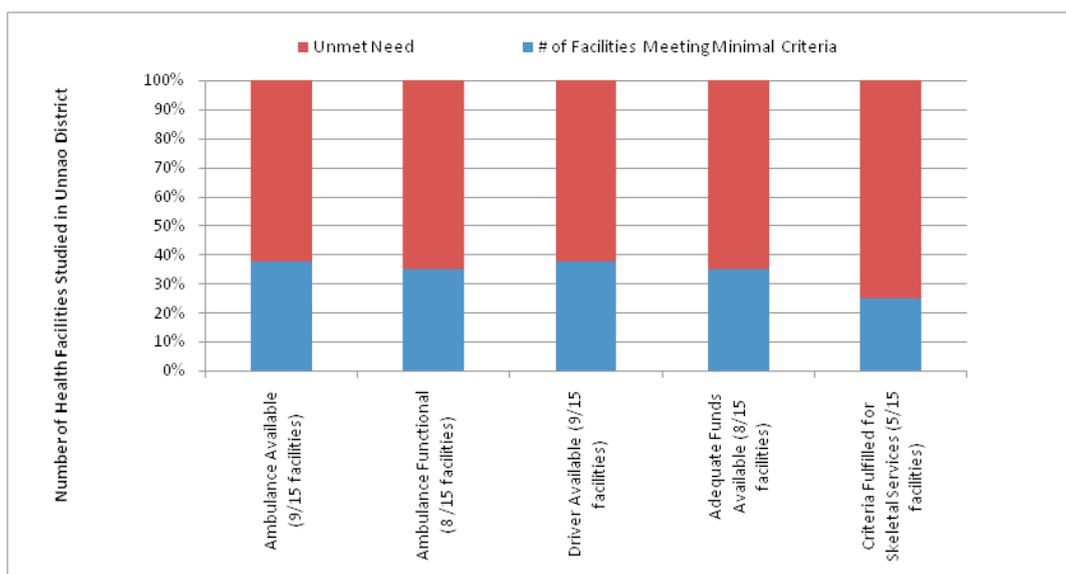
### Readiness

Having ambulances, staff and support, and a system for accessing ambulances are all necessary but not sufficient to ensuring effective emergency transportation. A professional ambulance system must be managed so that professional paramedic

staff can administer some basic interventions to patients even before they reach a health facility. Drivers and any accompanying paramedic staff must have the means to communicate with health facilities and vice versa.

### Creating Better Public Ambulance Services Benefitting Maternal Health

Many improvements are needed in order to reduce the number of maternal deaths in Unnao District and all of UP, of which availability of quality emergency obstetric care in health facilities is the single most important part of a maternal health strategy. However, efforts to improve public ambulance services will reduce the delay in accessing skilled care, and it can save lives. Unnao District leaders can, with UP Government support, take the following steps to improve ambulance services.



### Short-term Recommendations

1. In Unnao District plans for UP's annual Programme Implementation Plan (PIP), ensure 20 ambulances are available at all facilities per IPHS guidelines, and budget for funds to support 60 drivers as well as maintenance and fuel costs process (whether management is by government or private companies).
2. Where funds are short, seek support from Village Health and Sanitation Committees and the Rogi Kalyan.Samiti (RKS) to supplement funds needed

through the NRHM flexi-funds accounts available to health facilities.

3. Ensure that an efficient and transparent process is designed and tested in which Auxiliary Nurse Midwives (ANMs) and ASHAs can contact health facilities and request ambulances be dispatched to the homes of pregnant women who are experiencing complications.
4. Designate district health facility staff responsible for responding to calls from ANMs, ASHAs and ambulance drivers around the clock.



5. Ensure that the annual district plan includes requests for funds to provide cell phones and phone service accounts to all ambulance drivers.

Unfortunately, the benefits of these efforts are not likely to be sustainable unless the Government of UP creates a comprehensive, professional, accountable and patient-friendly emergency medical transport

system. This system should build upon referral transport requirements in the IPHS guidelines, while incorporating policies ensuring greater public access to ambulance services and more detailed professional staffing standards with enhanced responsibilities for drivers and paramedics to administer life-saving health interventions.

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WHO et al. 2009. Monitoring Emergency Obstetric Care: A handbook. Geneva. WHO, UNICEF, WHO and AMDD. Available online at <http://www.unfpa.org/public/publications/pid/3073>

PHFI 2011. Community-based Maternal Death Audit in District Unnao, Uttar Pradesh. New Delhi. MCH-STAR.





## Beyond JSY: Making Public Health Facilities More Attractive Places for Childbirth

Policy Brief

August 2012

*In the spring of 2012 the Public Health Foundation of India, the London School of Hygiene and Tropical Medicine and the University of Aberdeen conducted a study of women’s perceptions of quality and satisfaction with maternal healthcare to understand the factors that affect women’s choice of place for delivery. The study was conducted in Jamtara district, Jharkhand, one of 264 high-focus districts under the Government of India’s National Rural Health Mission (NRHM).*

One of the Government of India’s most significant strategies to reduce maternal mortality has been the promotion of institutional deliveries to ensure access to skilled care at birth. This strategy has been made operational largely through the Janani Suraksha Yojana (JSY) scheme, which provides cash incentives to women delivering in health facilities to reduce transportation and delivery costs. JSY also utilized community health workers to promote deliveries in facilities, and this scheme has significantly contributed to the increase in institutional deliveries from 53% in 2005 to 73% in 2009. [UNICEF 2005, UNICEF 2010]

Choosing institutional deliveries, however, has not become the norm for a large number of women.

Women from disadvantaged socio-economic groups, including the lowest wealth quintile, illiterate women, and women from scheduled castes and minority religious groups, are more likely to die from pregnancy and delivery complications and the least likely to avail of institutional deliveries than other women. [Montagu et al. 2011, WRA 2001]

Jharkhand has one of the lowest percentage of institutional deliveries—only 40% of all deliveries. [UNICEF 2010] The study included in depth interviews, focus group discussions and a community survey of 500 women who recently (90 days prior to the survey) delivered at home or at a primary level health institutions. [Table 1]

**Table1: Key background characteristics of respondents**

Key characteristics	Institutional Delivery N = 210	Home Delivery N = 290
Mean age	23	25
% ST, SC and OBC(vulnerable groups)	87	75
Mean years of schooling	4.5	2.2
% illiterate	39	65
% with monthly household income less than INR5000	81	87
% women with parity 3 and above	23	45
Mean no. of living children	18	2.5

### Key factors for choosing to deliver at home or in a health facility

In the Indian context births have traditionally occurred at home, so institutional delivery, especially for poor and disadvantaged women and their

families, is a relatively new phenomenon. This study’s findings have highlighted factors that influence women’s choice of where to give birth. The perception of a better pregnancy outcome was mentioned by nearly seven out of ten women (69%)

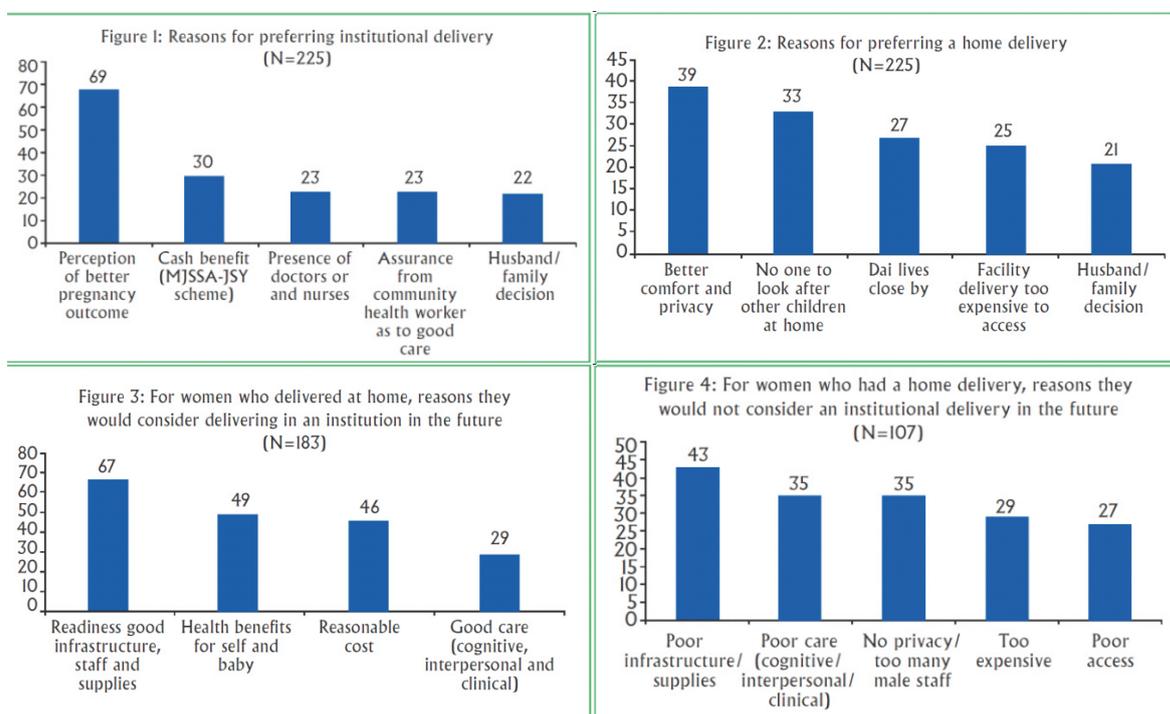


who had intended an institutional delivery (Figure 1). Half the women noted that other individuals—community health worker (23%) or husband/family (22%)—greatly influenced or made the decision for them to have an institutional delivery. Nearly one out of four (23%) mentioned the presence of doctors and nurses in facilities as a reason for preferring institutional delivery.

For women who wanted a home delivery, two out of five (39%) women cited better comfort and privacy as the reason for electing a home delivery (Figure 2). Nearly one out of three (33%) mentioned “no one to look after other children at home” as a reason for choosing home delivery. One out of four women cited the convenience of the Dai living nearby (27%) or the

expense of an institutional delivery (25%) as the reason for wanting a home delivery. One out of five (21%) stated it was the husband’s/family decision to have a home delivery.

Two out of three women who had a home delivery would consider an institutional delivery for their next birth (Figure 3). More than half such women (54%) cited good supplies as a reason for this, while about half (49%) cited perceived health benefits for themselves and their newborns as a reason. A little less than half (46%) of the women felt the cost of institutional delivery to be reasonable. About a third of the women (29%) mentioned availability of good care at facilities as a reason.



One third of women who delivered at home would not consider an institutional delivery in the future (Figure 4). More than one third (35%) said so because they perceived poor care at the facility. A little less than a third would not consider institutional delivery on account of poor supplies in institutions. Twenty nine percent of women thought that there were too many male staff at facilities and another 29% thought institutional delivery to be too expensive. Poor access was also cited as a reason for not wanting to deliver at facilities by 27% women.

- Median expenditure on institutional delivery, as reported by women respondents in this study: INR 1,020
- Median expenditure on drugs and injections: INR 700.
- 40% of respondents spent more than INR 1400 (the conditional cash transfer amount provided through JSY) on institutional deliveries.



## What can facility managers do to encourage women to choose to deliver in health facilities?

### Reduce the negative perceptions associated with institutional deliveries

Ensure that providers, medicines and supplies are always available: Staff presence and availability of necessary medicines and supplies is the foundation of functional facilities. While staff and supplies availability to a large extent is influenced by health system factors beyond the remit of facilities, yet there are some measures relevant at the facility level.

#### Recommendations:

- Institute supply chain improvements to ensure that medications associated with safe deliveries are available in facilities 24x7.
- Enhance structural maintenance and cleanliness to improve the physical environment of facilities.
- Ensure availability of staff for attending deliveries 24x7, by residing at or in close proximity to facilities, in order to attend to deliveries that may arrive any time.

**Decrease expenses of delivering in facilities:** JSY has reduced this barrier significantly, but this study found that overall expenses often are higher than the JSY incentive amount. Expenses of diagnostics, drugs and injections, which often have to be procured from outside the facility and the demand for informal payment by facility staff, are two major reasons for high out-of-pocket expenses for women choosing institutional deliveries.

#### Recommendations:

- Curb irregularities in supplies of medications associated with safe deliveries to reduce the burden of private procurement of such medicines by patients.
- Keep diagnostic services in working order and ensure that there are clear protocols for determining when outside referral for diagnostics during and immediately after Delivery are

recommended in order to cut down on unnecessary procedures.

Check informal payments at health facilities. Full investigation and appropriate action should be taken against staffs who impose illegal costs on women coming for delivery.

#### Improve care and community perceptions about care:

One of the key barriers to utilizing institutional delivery care is a perception that women will not receive good care by staff in facilities. This included cognitive care, interpersonal care and clinical care.

- Curb abusive behavior: Abusive behavior reported in the community has a compounding effect—it influences the choices of many women, not just the woman who personally experienced rude or abusive behavior.

- 35% of women not willing to deliver in an institution in future cited 'poor care' as a reason
- One out of 7 women preferring a home delivery cited fear of abuse as a reason.

#### Recommendations:

- All staff should be oriented to behave respectfully towards patients. This includes everyone working in the facility who interacts with patients from their arrival until they leave the facility. Aspects of respectful care include: timely response to patients in labor, fully answering patient questions, not scolding women for yelling or seeking more comfortable positions when they are in pain, allowing a trusted person to comfort them in the delivery, encouraging cooperation with clinical procedures in a caring and calm



manner, not seeking “gifts” or illegal payment for standard delivery practices or postpartum care.

- Facility managers should consult with community health workers to determine if abuse of patients is being reported in the community and take appropriate action to investigate and respond to any such reports.
- **Reduce community fears of clinical procedures:** Women also fear clinical interventions they may have to undergo at the facility. Lack of familiarity with and trust in the clinical staff amplifies this apprehension. Improved communication with community members could help dispel some of the misconceptions and fears and may also have a positive influence on family members who may actually determine where a woman will go for delivery.

### Recommendations:

- Organize tours of the facility for women undergoing ANC care, and their family members, to answer questions about the processes for institutional deliveries.
- Staff should be encouraged to participate in Village Health and Nutrition Days to answer questions about the processes for institutional deliveries

**Privacy for women coming for delivery should be a common practice:** Providing basic privacy is very important to women in labor. This is evident from the finding that perceived lack of privacy and presence of too many male staff at the facility is a significant reason for unwillingness to deliver in a facility in future.

### Recommendations:

Seclusion in the form of a separate room for examination or appropriate use of screens and curtains to maintain privacy is imperative for making women comfortable during physical examination.

- Privacy in the labor room can be ensured by limiting the entry of outsiders and nonclinical staff, particularly males who are not doctors. In facilities where more than one woman may be delivering in the same room, screens and curtains can be utilized.
- The message needs to be strongly conveyed to the community that adequate privacy will be provided to women arriving for delivery, and that though there may be male staff at the facility, their entry into the labor room is restricted.
- The message needs to be strongly conveyed to the community that adequate privacy will be provided to women arriving for delivery, and that though there may be male staff at the facility, their entry into the labor room is restricted.

### Make going for an institutional delivery easier

#### Strengthen access to transport services:

The availability and access to transport is a major constraint in choosing institutional deliveries. Primary Health Centres (PHCs) and higher facilities have referral transport vehicles that should be available for use by women in labor.

### Recommendations:

- Ensure that the process and phone number for requesting your facility’s referral transport vehicle is widely disseminated among Auxiliary Nurse Midwives (ANMs) and community health workers in your facility’s catchment area.
- Keep a list of private taxi drivers and other community members in your facility’s catchment area who can be contacted by a woman’s family members to request transportation to your facility. Share this list with ANMs and community health workers.

### Conclusion

The good news is that more women are choosing institutional deliveries, but there are still many who practice home births. Although there is nothing



wrong with choosing to have a home delivery, accessing skilled care in the community and accessing comprehensive obstetric care when complications develop is not easy to do in the Indian context. To keep women coming for institutional deliveries, this study explored the factors that influence their decisions regarding the place of delivery. Many of the barriers for institutional deliveries among these women are essentially rooted in negative perceptions about unfamiliar institutions, which can be overcome

through efforts to provide more information and better communication with community members.

*“When my labour pain started it was midnight, there was no facility of vehicle and we did not have enough money to hire a vehicle.”*

*– Mother who delivered at home.*

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## Review of Government of India Policies on Birth Preparedness and Complication Readiness

Policy Brief

April 2012

*This policy brief is a summary of key findings and recommendations based on an analysis of barriers, facilitators and options for improving utilization of flexi-funds in the state. This project was a collaboration of the Child In Need Institute (CINI), Jharkhand, and SPMU, NRHM, Jharkhand, with technical and financial support from the United States Agency for International Development (USAID)-funded Maternal and Child Health Sustainable Technical Assistance and Research (MCH-STAR) Initiative*

This policy brief describes the extent to which Government of India core reproductive and child health program policies and policy documents, including training guidelines, support birth preparedness and complication readiness (BP/CR) as a behavior change communication strategy (BCC) for safe motherhood.

India is well poised to take BP/CR forward because of strong policy and programmatic support for early, regular and comprehensive ANC. All policies reviewed were consistent in stating that pregnant women should register for ANC during their first trimester, and that as part of ANC, the Accredited Social Health Activist (ASHA) or Auxiliary Nurse Midwife (ANM) should prepare a micro-birth plan for each pregnant woman. Recommendations to strengthen BP/CR are:

- Policies dealing with ANC should include all BP/CR elements (see next page)
- Of 20 policies reviewed, no single policy covers BP/CR comprehensively. When taken as a group, the policies support the key elements of BP/CR. They cover identifying SBA (usually a facility), planning for transport, and awareness of danger signs particularly well. Identifying a blood donor is rarely mentioned. Policies discuss accessing money available through JSY for delivery costs and transport, but rarely mention saving money for emergencies. ANC policies should contain a comprehensive description of BP/CR, including identifying who delivers this program, how and when they deliver it, and how it will be monitored and evaluated.

- The BP/CR process described in policy documents is a single plan for an expected type of delivery. “Complication readiness” entails having a plan, and also being prepared to respond to emergencies: identifying a facility and transport in advance, saving money or knowing how to access it, and identifying blood donors and escorts. Policies on BP/CR should specify that micro-birth plans include the expected delivery, and emergency alternatives, including how a woman will get to the next level of care if she experiences complications

**Micro-birth plans should be truly individualized.** The BP/CR process should not have a “one size fits all” approach, nor should it be based exclusively on clinical indications. Although the policies reviewed contain key BP/CR elements, they do not suggest that the ASHA or ANM has the capacity or support to provide truly individualized counseling and planning. Documents do not involve the woman and her family, or allow for individual circumstances.

**The birth planning process should focus more on educating pregnant women and their families.** The BCC component of BP/CR should emphasize the participation of the pregnant woman and her family in making decisions and making arrangements. Family members should know what is planned so that the woman—while in labor or experiencing complications—can count on their support to enact it.

**Existing policies should be fully implemented.** *In particular, training of ASHAs and ANMs, who provide BP/CR interventions, should be scaled up*



BP/CR is a Behavior Change and Communication strategy directed at pregnant women and their families to increase understanding of the process of planning for normal deliveries and anticipating the actions needed if complications arise.

Successful BP/CR programs include:

1. Information, education and communication on the key elements of BP/CR shown to have positive association with increased use of skilled birth attendants (SBA)
  - Danger signs for mother and newborn and when to seek help
  - Saving money for transportation, delivery and/or obstetric emergencies
  - Planning for transportation
  - Importance of identifying a SBA (including identifying a birth facility)
  - Conditions for a clean birth at home
  - Importance of identifying a blood donor
  - Importance of identifying an escort to a facility
2. Individualized birth planning with mothers and their families, so they have an actionable plan for whom to contact. Where to go and how to get there
3. Early identification and registration of women for antenatal care (ANC)



## Improving Utilization of Flexi-Funds under National Rural Health Mission in Jharkhand

## Policy Brief

September 2012

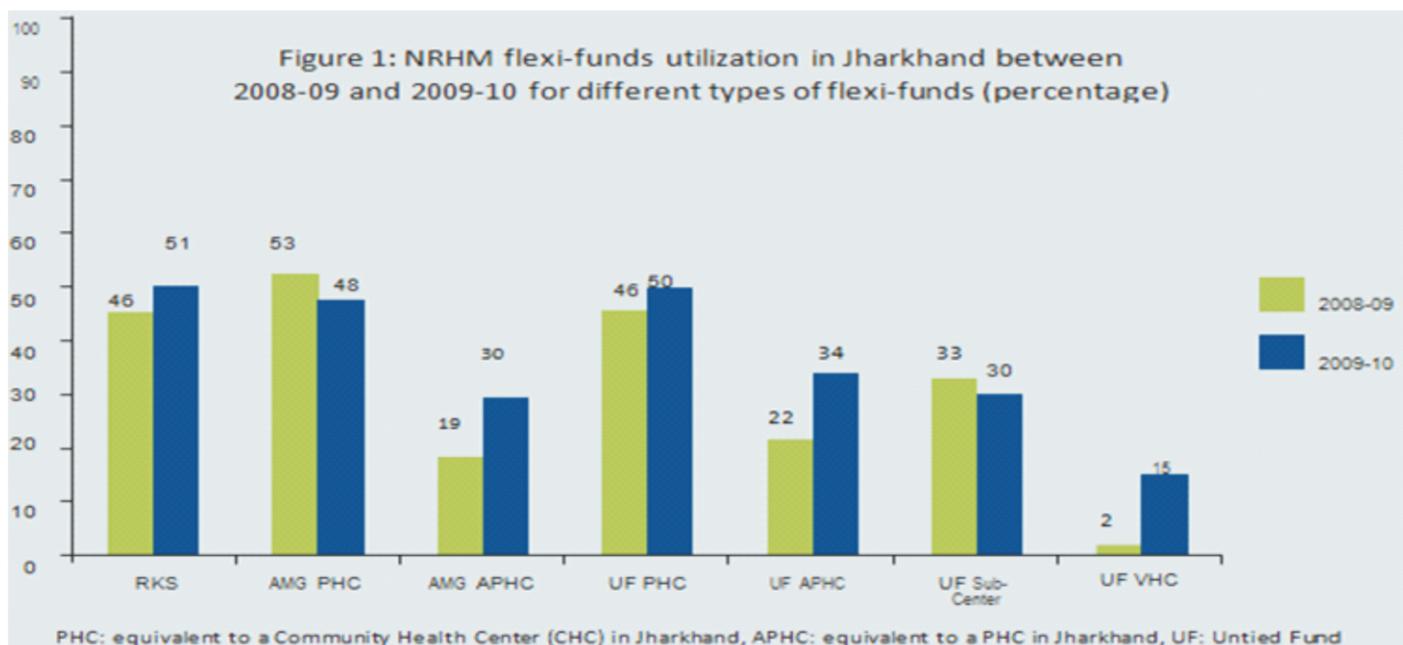
*This policy brief is a summary of key findings and recommendations based on an analysis of barriers, facilitators and options for improving utilization of flexi-funds in the state. This project was a collaboration of the Child In Need Institute (CINI), Jharkhand, and SPMU, NRHM, Jharkhand, with technical and financial support from the United States Agency for International Development (USAID)-funded Maternal and Child Health Sustainable Technical Assistance and Research (MCH-STAR) Initiative*

Health sector reforms under the National Rural Health Mission (NRHM), such as provision of flexi-funds at district and sub-district levels, aim to increase functional, administrative and financial autonomy at all levels. The flexi-funds under NRHM provide a solution for paying for urgent but discrete expenses pertaining to maintenance of health infrastructure and provision of services at district, block and village level.

The flexi-funds investigated in this project were the Rogi Kalyan Samiti (RKS)/ Hospital Management Society (HMS) funds at district and block level, Annual Maintenance Grant (AMG) at block and village level (for sub-centers), and untied funds at block and village level for both sub-centers and Village Health Committees (VHC).

Since inception, there has been persistent underutilization of all types of flexi-funds in Jharkhand. Financial monitoring reports available at the State Program Management Unit (SPMU) in Jharkhand indicate utilization of flexi-funds in 2008-09 and 2009-10 through the RKS and the AMG at Primary Health Centers (PHC) has hovered around 50 percent while use of untied funds at sub-centers has been a mere 30 percent. Utilization of untied funds at the VHC level improved between 2008 and 2010 but remains excruciatingly low at 15%. Figure 1 provides the percentage of flexi-funds utilized in Jharkhand between the years 2008 and 2010.

The underutilization of flexi-funds is a lost opportunity for strengthening the delivery of health care services for the state, particularly for women,



children and marginalized sections of the populace, such as the Scheduled Caste (SC) and Scheduled Tribe (ST) populations who are generally unable to access services.

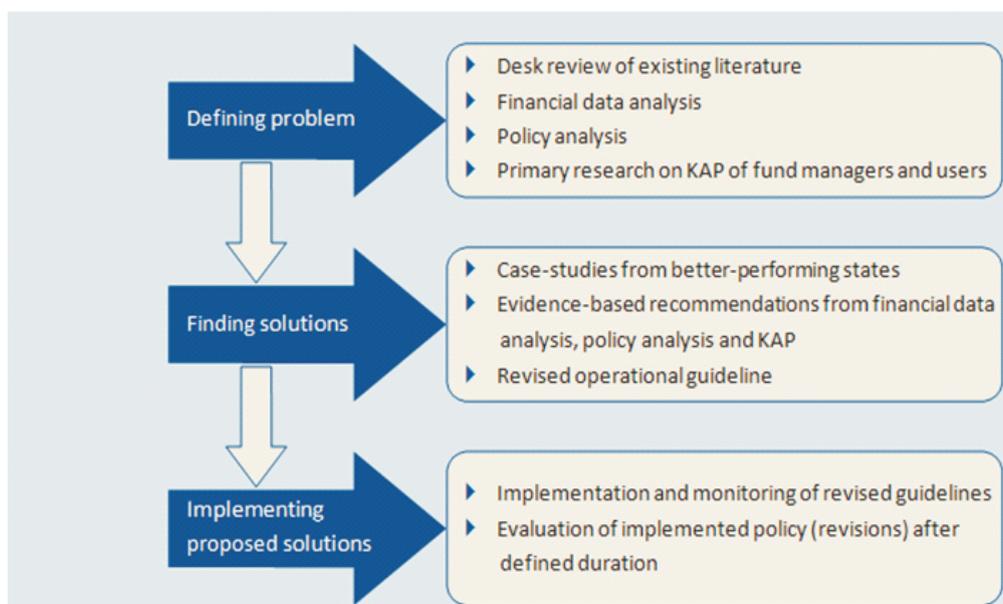
The analysis of flexi-fund utilization in NRHM was complex for a multitude of reasons.

- The flexi-fund concept and its application have only recently been introduced and launched at scale within the public health sector and thus there was limited financial data available for review.
- The ongoing “architectural correction” of the public health system under NRHM with integrated

and holistic health service delivery in lieu of vertical programs requires time to accept and put into effect. Understandably, all programs and schemes within the ambit of NRHM are still in the process of optimizing implementation and change management.

- Health being a state subject, the NRHM expected states to adapt the general flexi-fund guidelines provided to best suit their context. Thus, the guidelines and practices vary from state to state.
- This study used a problem-solving approach and variety of data collection methods to investigate barriers and facilitative factors influencing

Figure 2: Illustration of the application of problem-solving approach to understanding flexi-fund utilization



Recommendations for the Government of Jharkhand (GoJ) presented in this brief emerged from the evidence gathered in Jharkhand and in select better performing states. The CINI team reviewed published studies, analyzed existing policies at national level and from selected states, studied financial monitoring data, and conducted an in-depth qualitative investigation of Knowledge, Attitude and Practice (KAP) on the use of flexi-funds in Jharkhand and Tamil Nadu. The findings and recommendations for improving flexi-fund utilization in Jharkhand are summarized below.

**Evidence 1: Inadequate operational guidelines at district and sub-district level**

The available operational guidelines in Jharkhand on use of flexi-funds at district, block and village level do not address all concerns on fund management and use, including supervisory framework, processes involved, and time frames for each step of the fund flow till it reaches the client. Currently, there are no guidelines for use of AMG at the sub-center level.

**Recommendation: Revise existing state guidelines to address all concerns on fund management**



**(people, processes and timeframe) and use at each level and for each type of fund with special focus on the health needs of women, children and marginalized communities. Develop guidelines for AMG use at sub-centre level.**

### **Evidence 2: Weak or absent local governance structures**

Management of these funds and decision-making on their use are contingent upon having robust local governance and management mechanisms in the form of District Health Societies (DHS), RKS, Panchayati Raj Institutions (PRIs) and VHCs at district and sub-district level. Jharkhand does not have active PRIs. Registration of these societies and committees is a time consuming process in Jharkhand. Though the formation of RKS and VHC in the districts included in the analysis has been in compliance with existing guidelines, the principles of democratic decision making with reference to flexi-fund use are seldom followed.

**Recommendation: As an urgent matter, the GoJ should catalyze the process of society registration at all levels in order to empower communities to actively participate in decision making. Revitalize existing VHCs formed by NGOs and create new VHCs where needed. Because Jharkhand does not currently have Panchayat Raj Institutions (PRI) in place, the state should engage VHC members in positions and roles that national guidelines suggest for PRI involvement.**

### **Evidence 3: Non-availability of electronic fund transfer facility at the sub-district level**

To improve efficiency of fund flow from the center to states, and further to districts as well as blocks and villages, the national government has proposed channeling all allocated money directly to state, district and sub-district accounts through electronic transfer of funds. However, as of now, this arrangement is applicable only through ICICI bank,

the interface bank of the Ministry of Health and Family Welfare (MoHFW). In Jharkhand, this system has not yet been implemented as many districts and almost all sub-districts do not have ICICI bank branches nor do the existing banks offer electronic transfer facilities at the sub-district level.

**Recommendation: Negotiate with the management of nationalized banks with presence in Jharkhand to ensure the availability of “no frills”<sup>2</sup> bank accounts for operators of NRHM funds and to take measures for the expeditious clearance of checks for groups duly authorized to spend public funds.**

### **Evidence 4: Inaccurate and mistaken perceptions about management and use of funds**

Fund managers and users<sup>3</sup> have limited clarity on how to manage and use flexi-funds. Fear of unallowable expenditures is reported as a major reason for not using funds. Current guidelines contain inadequate instructions on fund use, accounting, recording, and other aspects of fund management at district and sub-district levels.

**Recommendations: Design and implement a dedicated training strategy on flexi-funds use and management for all levels of fund managers and users. Integrate training strategy on each aspect of fund management in the operational guidelines and have a follow-up plan to provide on-the-job training.**

### **Evidence 5: Limited role clarity of technical and management teams**

There is a well-defined structure of technical and management teams at national, state and district level under the NRHM. However, there is limited clarity on actual roles and responsibilities at the state and district level, which affects decision-making on fund use as well as monitoring and supervision at all levels.

**Recommendation: Re-orient technical and managerial staff for greater clarity on roles and areas of coordination required for successful**



**implementation of programs schemes at state, district and sub-district levels.**

**Evidence 6: Limited awareness among communities or intended users about flexi-funds**

The concept of flexible funds has been introduced in the health system for the first time. Communities, who are the ultimate users of untied funds, have limited knowledge about these new types of funds. This limited awareness defeats the purpose of translating intended decentralization into action.

**Recommendation: Integrate the Community Based Monitoring Framework<sup>4</sup> proposed by the NRHM into existing guidelines on flexi-fund use at the district and sub-district levels. If implemented as planned, this framework will serve the dual purposes of supporting community engagement as well as facilitate the formation and effectiveness of various communities and societies at district and sub-district levels.**

**Evidence 7: Inconsistencies in reported financial data on flexi-fund use at district and sub-district levels**

Many discrepancies in the reported figures of the financial data were found at the state level and below. It was observed that many times, the mandated annual audits were not bringing about the desired changes in financial accountability. There is lack of uniformity in formats, ledgers and registers across various levels in the state making it difficult for GoJ to understand weak links in fund flows and expenditures.

**Recommendation: Streamline accounting, recording and reporting formats and make them uniform across the state. Ensure adherence to the annual regular audits and institutionalize the concurrent audit system as per NRHM financial guidelines**

In light of the evidence, it emerges that many of the barriers to utilization of flexi-funds can be addressed by having detailed operational guidelines and training of fund managers and users on the same. We urge the GoJ to revise and implement these guidelines at the earliest as the flexi-funds for 2010-11 have been released in the state.

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1 Guidelines from Jharkhand were compared with 3 other states (Maharashtra, Tamil Nadu and Rajasthan) selected on the basis of reported better utilization of flexi-funds in the year 2008-09.

2 The Reserve Bank of India (RBI) introduced “no frills” bank accounts in commercial banks in 2005. These offer options of zero or very low minimum balance to be maintained as well as very low bank charges.

3 Fund managers include people responsible for handling money as conduits for transfer of money to the next level or as final links, like the VHC managers, in the fund flow chain leading ultimately to consumers. Fund users include community-level clients benefitting from the expenditure of the money whether it is in the form of the RKS, AMG or the untied fund.

4 <http://www.nrhmcommunityaction.org/pages/processes.php>



## Overcoming barriers to performance of ICDS in Jharkhand: Options for Improvement

Policy Brief

July 2012

*This policy brief is a summary of key findings and suggestions for effective implementation of ICDS services in Jharkhand. This project was a collaboration of the Department of Social Welfare (DSW), Women and Child Development (WCD), Government of Jharkhand (GoJ) and Child In Need Institute (CINI) – Jharkhand.*

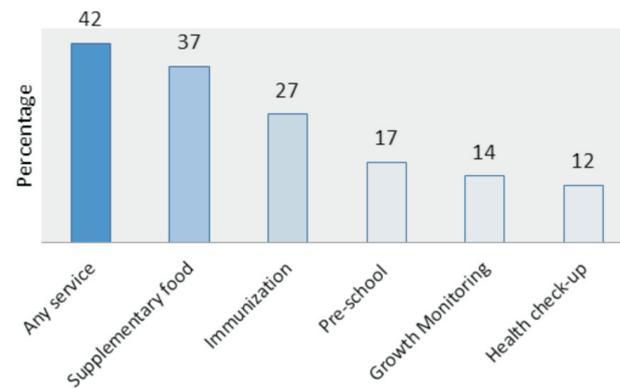
The Integrated Child Development Services (ICDS) scheme in Jharkhand has grown significantly since the inception of the state in the year 2000, to reach every village. In the same period, the scheme reported increased statewide outreach to approximately 1.3 million children, pregnant women and lactating mothers through a network of 38,310 AWCs.

Although the program has expanded significantly, the effectiveness of the scheme in terms of the overall program goals of reducing malnutrition and providing pre-school foundation for children, remains limited. According to NFHS-III, less than half of the under-six year old children residing AWC catchment area, received services of some kind from the AWC. [Figure 1] In the same survey and age-group, prevalence of underweight was estimated at 58% and stunting at over 40%. More recent evidence, post expansion of ICDS in the state, places the estimate for prevalence of underweight in under-five year aged children around 50% (GoJ, ICDS MPR, March 2011).

The project was based on the Performance Improve (PI) approach which is guided by the belief that when organizations enable and motivate their employees to perform their best,

the quality of services improve. Two major aspects of the PI approach included Performance Need Assessment (PNA) and a review of best policy practices in select better performing states. Applying providers' perspective, stakeholder consultations were organized for establishing desired performance, vetting findings from the field study on actual performance and determining root causes for

**Figure 1: ICDS coverage in Jharkhand- percentage age-eligible children receiving AWC services**



the performance gaps between desired and actual performance of ICDS in the state. Field study sample consisted of Anganwadi Workers, Lady Supervisors, CDPOs and DSWOs from six districts - Dhanbad, Latehar, Ranchi, Sahebganj, Simdega and West Singbhum.

Review of select elements of the scheme from better-performing states was undertaken to identify options for framing appropriate response mechanisms.

The PNA exercise conducted for the ICDS scheme in Jharkhand identified root causes for performance gaps in ICDS in consultation with staff members and linked them to seven major performance factors. The findings and suggestions for effective implementation of ICDS in Jharkhand are summarized below:

<sup>1</sup>Other states included Chhatisgarh, Maharashtra, Odisha, Tamil Nadu and West Bengal. These were selected based on better coverage of ICDS and better nutritional status of children under six.



### Performance factor 1: Poor monitoring and supervision of ICDS implementation

Poor monitoring and supervision was linked to lack of supervisors, heavy workload and supervisors' perception about inadequate and lack of timely support for travel.

#### Suggestions:

- Introduce standardized protocols as guidelines for key aspects of service delivery delineating the role of all ICDS functionaries in these activities as has been implemented in Chattisgarh and Andhra Pradesh in collaboration with CARE.
- Incorporate tools and techniques for supportive supervision in the protocols.
- Create opportunities for regular and structured capacity building of functionaries to understand and review data and assess activities in terms of process, output and Outcome indicators. Chattisgarh has developed a nutrition surveillance program with support from UNICEF to ensure easy analysis of data and provide feedback for improving performance; under this program, special indicators are being developed to ensure child to child tracking and follow-up.
- Incorporate the proposed five-tier monitoring and review mechanism proposed by the MWCD, GoI at all levels ranging from the state to the AWC. West Bengal and Odisha have initiated ICDS planning, monitoring and coordination through state and district level committees that monitor program activities on a quarterly basis.
- Till the time a Mid Level Training Centre (MLTC) is established in the state, use identified AWTCs or the regional NIPCCD training centre at Lucknow for supervisors' training.
- Use existing training and resource institutions serving the health department - Village Health Committee Sahiyya Resource Centre (VSRC) and explore opportunities for developing training and resource institutions along the same lines as has been implemented in Tamil Nadu.

- Increase contractual appointments of supervisors. Odisha reduced its LS vacancy rate from over 50% in 2009 to less than 30% in 2011 by hiring supervisors through contractual appointments of graduate AWWs with 5 years of experience.
- Decentralize monitoring and supervision mechanisms that involve the community to ensure accountability and balance workload on a staff force that is already dealing with the implications of inadequate human resources. Odisha has provided for the constitution of a village level Jaanch committee to certify the quantity and quality of foodstuff provided in the feeding programs.

### Performance factor 2: Lacunae in policy guidelines for ICDS implementation

- PNA findings indicate the following lacunae with regard to guidelines/ provisions pertinent to delivery of critical services by the AWW: 1) guidelines have not been drafted, 2) if these exist, have not been revised in accordance with changing requirements or 3) are inaccessible at the point of application, that is, the AWC.

#### Suggestions:

- Constitute an ICDS cell within the Directorate as has been recommended in the state PIP 2011-12 to strengthen overall planning, implementation, monitoring and evaluation of the ICDS scheme. Odisha, Tamil Nadu and West Bengal have dedicated cells dealing with ICDS supported by international agencies like World Bank and UNICEF over a period of time. Long term commitment from development partners in Jharkhand for such sustaining such a cell is imperative.
- Review existing guidelines/ directives for selected services and consider periodic updating in accordance with requirements in the field by constituting state level task forces based on multi-sector convergence as has been demonstrated in Odisha and Tamil Nadu.



- Compile policy guidelines at state level and distribute among staff members. Maharashtra and West Bengal have developed compendium of all implementation guidelines that are made available to the LS and AWWs.
- Release periodic newsletters and calendars that provide necessary instructions/ guidance to AWWs on service delivery. The newsletter could provide information about policy guidelines, key messages for AWWs including best practices, nutritious recipes and legal provisions for women and children. All the states reviewed, Chhatisgarh, Odisha, Maharashtra, Tamil Nadu and West Bengal release periodic magazines/newsletters and calendars for distribution among AWWs. The VSRC in Jharkhand publishes a quarterly newsletter for all community health workers with critical messages on maternal and child health and nutrition.

### **Performance factor 3: Limited knowledge and skills of field staff**

- The root cause for limited knowledge and skills were traced to lack of supervisory support, training and post-training follow-up and in some case the inaccessibility of guidelines

#### **Suggestions:**

- Undertake a detailed study of the quality of training sessions and training infrastructure in the state to assess the status and identify the needs for meeting the training requirements of ICDS staff members in the state.
- Distribute the AWW's handbook prepared by NIPCCD to all AWWs in the local language as has been done in Maharashtra.

### **Performance factor 4: Inadequate physical infrastructure for ICDS implementation**

Lack of adequate space, poor condition of Anganwadi buildings and inadequate equipment such as functioning weighing machines and standard

measures for distribution of THR were identified as causes for performance gap on GM and SNP. The study linked inadequate infrastructure to lack of guidelines and poor state investment and utilization of budget for infrastructure development and maintenance.

#### **Suggestions:**

- Distribute central guidelines on standard layout and construction norms of to all district and block offices and AWCs to inform ICDS staff members about the norms for AWC buildings.
- Conduct regular monitoring visits of AWCs through district and state level monitoring teams to ensure that AWCs are constructed according to the standard norms.
- Solicit community participation in the construction and maintenance of AWCs. Community members and private enterprises in Tamil Nadu have contributed significantly towards the construction and painting of AWCs; contributions have also included furniture, toys and other materials for AWCs.
- Explore opportunities for the application of innovative techniques that are cost effective and make use of locally available technology in AWC construction. Maharashtra has introduced a pre-fabricated AWC design for implementation on a pilot basis in the state.

### **Performance factor 5: Poor mechanisms for motivation and incentives of ICDS staff**

Majority of AWWs and half the number of LSs and CDPOs interviewed, reported delays in receiving their remuneration. Incentives in the form of awards for best performing AWWs have not been implemented regularly. Promotions for staff members are not taking place due to absence of cadre-based service rules that outlined promotion criterion and procedure.

#### **Suggestions:**

- Develop capacities of supervisors and officials to devise performance parameters and provide



performance feedback. Odisha has developed guidelines and parameters for assessing performance of field staff.

- Strengthen operational mechanisms for ensuring timely payment of remuneration to AWWs through regular review and follow-up at the Directorate level and reinstate existing scheme for awarding better performing AWWs on an annual basis.
- Expedite process for adoption of cadre based service rules to regularize recruitments and promotions within the department workforce.

### **Performance factor 6: Limited focus on advocacy and communication**

The study associated limited focus on advocacy and communication strategies as a cause of lack of community understanding on the concepts of supplementary nutrition and PSE.

#### **Suggestions:**

- Upload central and state guidelines and status reports for public access through the department website for increased transparency and visibility of department's initiatives. Odisha has uploaded many relevant information including guidelines, MPRs and status reports through its website epragati.
- Devise strategy for advocacy and communication of department initiatives through the use of mass media and distribute periodic newsletters in the local language with key messages for AWWs including nutritious recipes, best practices, guidelines and legal provisions for women and children.
- Organize media sensitization workshops to orient the media and ensure coverage of issues relevant to the ICDS program.

### **Performance factor 7: Weak convergence among stakeholders**

- The PNA exercise also revealed lack of mechanisms

to ensure convergence between the various line departments and development partners in the state.

#### **Suggestions:**

- Organize cross-sectoral convergence workshops at state and district levels. West Bengal has implemented convergence workshops for staff members from all line departments such as Social Welfare, Health, Education, Rural Development, District administration staff and local development partners at district levels to develop better coordination among the various stakeholders.
- Constitute a state level committee based on inter-sectoral convergence to address issues of coordination and devise strategies for integrated action on early childhood care and development are also members of this committee. Odisha and West Bengal have constituted state level co-ordination

committees under the chairmanship of the Social Welfare Minister comprising representatives of various departments and development partners as demonstrated.

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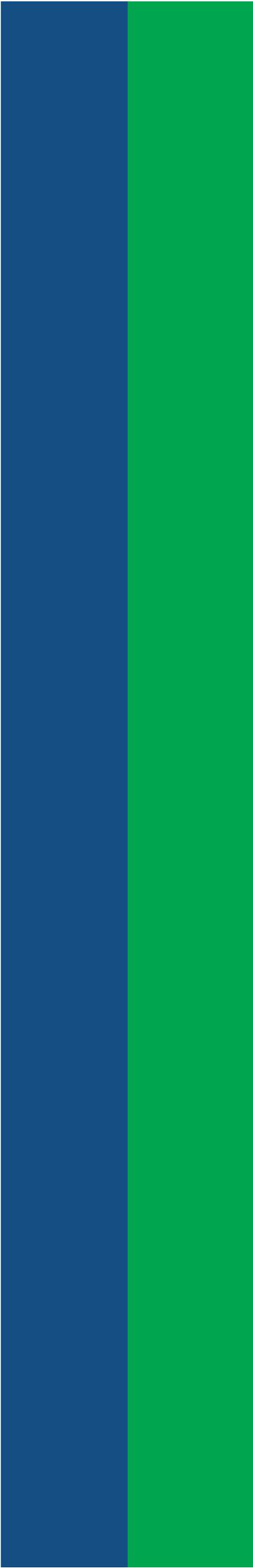
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## **Fact sheets as advocacy and communication tools**

A fact sheet is a one- to two-page document that provides basic information on a specific topic in an easy- and quick-to-read format. A good fact sheet breaks down a complicated issue into understandable pieces. Including a few graphs and charts to present supporting data allows for easier comprehension and is visually appealing.

### **MCH-STAR Initiative Fact sheets**

- Child Health Fact sheet
- Maternal Mortality in India
- Maternal Health in India
- Every day 6 women and 88 infants die in Jharkhand
- Human Resources for Health in Jharkhand—Medical Officers
- Pneumonia in India
- Protect, Prevent, Treat
- Rational Use of Antibiotics for Childhood Pneumonia
- Community-based strategies to combat childhood pneumonia



## Child Health Factsheet

September, 2011

In India, one child dies every 17 seconds due to easily preventable causes. Every day, around 5,000 children under the age of five die in India (UNICEF 2011). According to the State of the World's Mother 2011, on the scale of "best place to be a mother", India ranks 75 out of 79 developing countries.

India accounts for 25% of global child deaths. Madhya Pradesh has the highest infant mortality in the country. Kerala has one of the lowest infant mortality rates in India. The states of Kerala and Tamil Nadu have achieved the Millennium Development Goal target (39 by 2015).

### Facts

- India has the largest number of children dying anywhere in the world – 20% of the global total (State of World's Children 2009, Percent)
- More than one in 18 children dies within the first year of life, and more than one in 13 children dies before reaching age five.
- In 2009, the IMR was 50/1,000 live births (49 male and 52 female). Eight states contribute to 75 percent of infant mortality: Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Andhra Pradesh, Orissa, Gujarat and Assam.
- The majority of these deaths are due to easily preventable causes such as pneumonia and diarrhoea.
- Female infants continue to experience a higher mortality than male infants.
- The under 5 mortality rate is now 64/1000 live births in 2009. (SRS, 2011) with a maximum in Madhya Pradesh (89) and minimum in Kerala (14). Kerala, Tamil Nadu, Maharashtra, Delhi and West Bengal have already achieved the MDG target. The male-female mortality differential has narrowed over the years, however the gap is still significant. (male 60 and female 69)
- Fewer than 50% of children are fully vaccinated against common infectious diseases (NFHS-3, 2005-6)
- Forty six percent of underweight children are under age three
- Early marriage and inadequate health care of women adversely affect the survival of their children (UNICEF 2011)
- Mother's level of education is one of the key factors in reducing child mortality
- At the current rate of decline, India will miss the XI five year plan goal of reduction in IMR and the Millennium Development Goal-4 on child survival.
- About 70 percent of childhood under-five mortality is caused by perinatal conditions (33.1 %), respiratory infections (22 %) and diarrhoea (13.8 %). Malnutrition is an underlying cause responsible for about one third of all deaths in childhood.

Even with the decline in the infant mortality rate in the last 18 years, reaching the Millennium Development Goal target of 39 per 1,000 live births by 2015 remains a challenge.



## Key Issues

- Most of the causes of deaths for children under five can be prevented or managed by households, communities and health facilities. But they often are unable to provide the required care and do not get the child immunized against diseases.
- Practices such as inadequate nutrition, not seeking vaccinations and care when children are sick increase the risk of child deaths.
- Health facilities are often ill equipped to provide essential health care to all children.

## What works for child health?

- Effective child survival interventions include promoting early and exclusive breastfeeding, appropriate complementary feeding, water, sanitation and hygiene, vitamin A and zinc supplementation, measles and other vaccines, antibiotics for pneumonia and sepsis, and oral rehydration therapy during diarrhoea.
- Timely and regular immunization
- Pneumonia management and care
- Proper nutrition
- Training mothers, fathers, families and communities to recognize illnesses early and to know when and where to seek timely care.
- Ensuring child survival interventions reach and benefit the most vulnerable children, especially the poor, disabled and marginalized.

Source: UNICEF



## Maternal Mortality in India

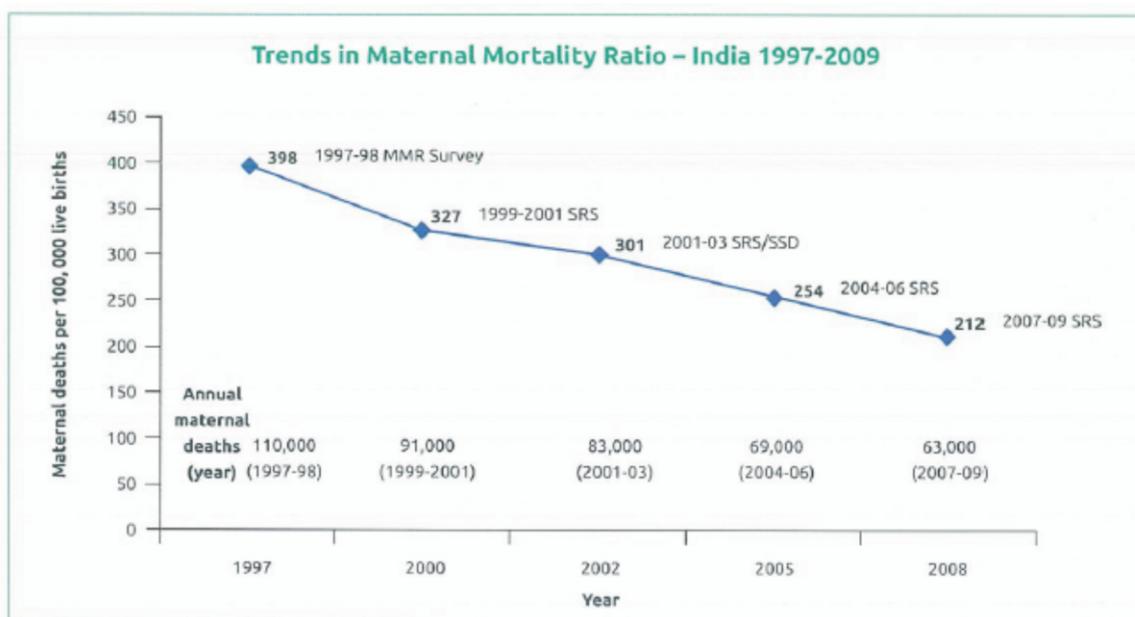
## Fact Sheet

April 2012

The Millennium Development Goals (MDGs) are a set of numerical and time-bound targets to measure achievements in human and social development laid down by the United Nations. MDG 5—Improve Maternal Health—calls for reducing by three quarters, between 1990 and 2015, the maternal mortality ratio (MMR).<sup>1</sup> India to a large extent, shapes global MDG targets because of its lion's share of the global burden of maternal mortality (19%), in 2011.<sup>2</sup> For India the 2015 MMR target is 109, 75% of the 1990 MMR of 437.

India's efforts, in the past two decades, to reduce the maternal mortality ratio (MMR)<sup>3</sup> have shown impressive results. The absolute number of maternal deaths in India fell from 117,000 in 1990 to 63,000 in 2008.<sup>4</sup>

The Sample Registration System (SRS), the largest demographic sample survey in the country, is designed to provide reliable estimates of fertility and mortality indicators at the State and National levels. Maternal mortality data from the SRS is available for a period of 13 years (1997-2009). However, as the sample size of the annual survey of Sample Registration System (SRS) is inadequate to estimate an annual MMR, data from three-year periods are pooled to yield reliable estimates of maternal mortality. The SRS data indicates that India recorded a deep decline in MMR from 327 in 1999-2001 to 212 in 2007-09—a drop of 35%. The decline quickened starting in 2001-03 and the maximum decline in MMR was for 2006-09, a period that coincides with the up-take of National Rural Health Mission (NRHM) interventions.



During 1997-2009, the MMR of India declined by 47%, with an annual absolute decline of 15.5 points. In terms of relative contribution of the states to net-decline in MMR of India, Uttar Pradesh/Uttarakhand contributed significantly to the net decline. With a share of 18% to the live births of India, the states accounted for 33% the decline in MMR. Bihar/Jharkhand, Madhya Pradesh/Chhattisgarh, Rajasthan and Uttar Pradesh/Uttarakhand together have accounted for 75% the net-decline in MMR of India during 2006-10, when these state's share of live births was just 43%.



If the pace of decline for MMR during 1997-2009 continues for few more years, India will be very close to attaining the MDG-5 target level of 109 MMR by 2015. If the decline in MMRs observed during 1997-2009

State	Change in MMR 1997-2009		MMR Declined --linear trend		MMR Declined --exponential trend	
	% Decline	Annual Absolute decline	Expected MMR in 2015 (95%CI)	Year	Expected MMR in 2015 (95% CI)	Year
				Achieving MDG 5 target		Achieving MDG 5 target
Assam	31.3	14.8	365 (244-486)	2046	374 (244-486)	2082-83
Bihar/Jharkhand	50.8	22.5	119(81-156)	2016	184 (81-156)	2024-25
MP/Chhattisgarh	59	14.3	199 (171-228)	2022	231 (171-228)	2035-36
Orissa	25.4	7.3	216 (119-313}	2026	234 (166-302}	2039-40
Rajasthan	37.4	15.8	232 (181-283)	2023	270 (228-312)	2038-39
UP/Uttarakhand	40.8	20.6	253 (219-287}	2023	300 (268-333}	2040-41
Andhra Pradesh	32	5.3	101 (57-144)	2014	115 (83-147}	2017-18
Karnataka	27.3	5.6	151 (114-188)	2022	162 (135-188)	2029-30
Kerala	46	5.8	38 (15-60)	2003	58(41-75}	2003-04
Tamil Nadu	39	2.8	77 (34-119)	2007	85 (55-114}	2007-08
Gujarat	29.5	5.2	107 (82-131)	2015	116 (106-126}	2017-18
Haryana	-12.5	2.9	158 (117-199)	2050	159 (141-177}	2073-74
Maharashtra	37.3	5.2	78 (56-100)	2009	90 (73-107}	2008-09
Punjab	38.6	8	120 (52-187}	2017	132 (89-174}	2021-22
West Bengal	52.1	13.2	35 (0-78)	2010	84 (67-102)	2012-13
India	46.7	15.5	117 (109-126)	2016	159 (153-166}	2023-24

continues linearly, India will achieve an MMR of 117 in 2015 and reach the MDG-5 target level of 109 MMR by 2016. If decline in MMR follows an exponential trend, the expected level of MMR for India in 2015 would be 159 and the MDG-5 target level would only be reached in 2023-24. By 2009, Kerala, Tamil Nadu and Maharashtra had already attained India's MDG-5 target level and Andhra Pradesh, Gujarat and West Bengal are poised to reach India's MDG-5 target by 2017-18.

1 MMR measures number of women aged 15-49 years dying due to maternal causes per 100,000 live births.

2 Lozano R, Wang H, Foreman KJ, Rajaratnam JK, Naghavi M, Marcus JR, et al. Progress towards Millennium Development Goals 4 and 5 on maternal and child mortality: an updated systematic analysis. *The Lancet* 2011; 378(9797):1139-65.

3 WHO 2007. Trends in Maternal Mortality in 2005: Estimates developed by WHO, UNICEF, UNFPA, and The World Bank. WHO, Geneva.

4 MMR measures number of women aged 15-49 years dying due to maternal causes per 100,000 live births.

MCH-STAR is grateful to DR. HM Reddy, South Asia Network for Chronic Disease, Public Health Foundation of India, New Delhi, for the MMR linear and exponential projections.



## Maternal Health in India

Factsheet

July 2012

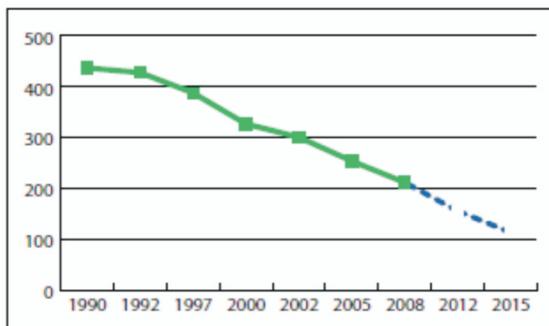
### MDG 5: Improve maternal health

**Target 5.A. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (MMR)<sup>1</sup>**

**Target 5.B. Achieve, by 2015, universal access to reproductive health**

From an MMR level of 437 per 100,000 live births in 1990/1991, India's goal is to reduce the MMR to 109 per 100,000 live births by 2015. India's efforts, in the past two decades, to reduce the MMR have shown impressive results. The Sample Registration System (SRS) data shows that India recorded 35% decline in MMR from 327 in 1999-2001 to 212 in 2007-09. At this historical pace of decrease, India is projected to reach an MMR of 114 per 100,000 live births by 2015, falling short of its' MDG target by a mere 5 points. [Figure 1]. The estimated MMR for Bihar/Jharkhand in 1990 which would meant they had an MDG target of a MMR of 165 by 2015. In 2007-2009 the MMR had dropped to 261. If this historic trend continues, the MMR is projected to drop to 148 in 2015, 17 points below the MDG target

**Figure 1: Past and Projected Trend for Maternal Mortality Ratio – India, 1990-2015**



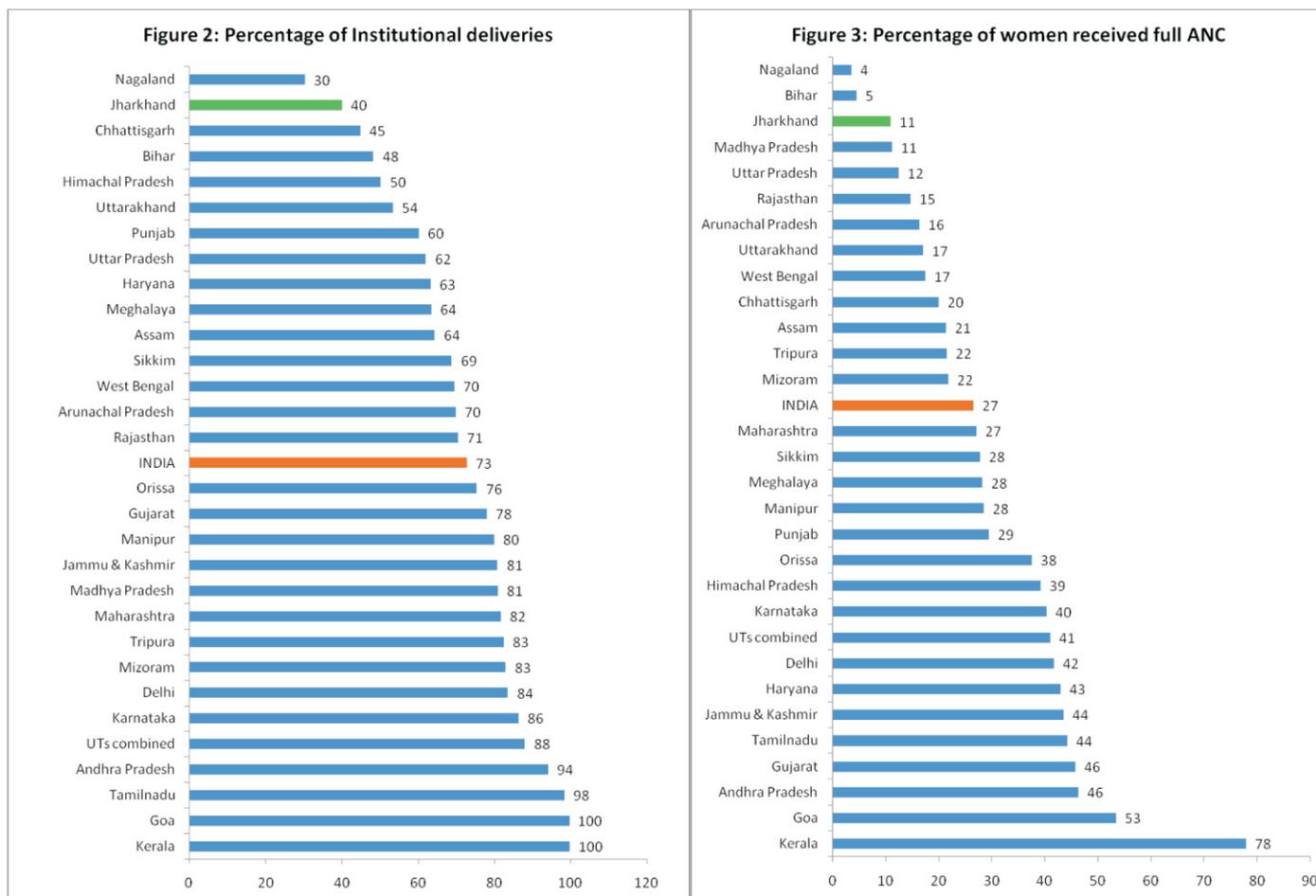
In India, every one hour 3266 women get pregnant, 490 pregnant women are reported to be having high risk pregnancies and seven women die in the events related to child birth. Decline in maternal mortality ratio is small in relation to the scale of the problem and does not reflect the deep disparities and inequities that remain within India. Maternal mortality is higher among poor and marginalized women compared to the national average [Hogan MC et al, 2010].

Safe motherhood depends mainly on delivery by trained /professional personnel, particularly through institutional facilities. Among other things, ensuring antenatal care of prospective mothers at health centres and recommended doses of IFT are important factors that help improve maternal health and reduce life risk during pregnancy. The rate of increase in coverage of institutional deliveries in India is rather slow. It increased from 26% in 1992-93 [IIPS, 1992-93] to 73% in 2009 [Figure 2]. The coverage of deliveries by skilled personnel has also increased almost similarly by 43 percentage points from 33% to 76% during the same period. The existing rate of increase in deliveries by skilled personnel is expected to take the coverage only to 91% by 2015, short of universal coverage of deliveries by skilled personnel.

<sup>1</sup>Maternal mortality ratio (MMR) refers to proportion of women in the child bearing age group 15-49 years per 100,000 live births, who die due to pregnancy related causes.

<sup>2</sup>Full ANC includes at least three visits for antenatal check-up, one TT injection received and 100 IFA tablets or adequate amount of syrup consumed.

Antenatal care is one of the corner stones of the maternal health services. Women’s utilization of antenatal care services has improved in India in the past decade. In 2009, 69% of mothers had at least 3 antenatal care visits in 2009 compared to 40% in 1992-93 [IIPS, 1992-93] 3, while this figure for Jharkhand was 57.5% in 2009 compared to only 25% in 1998-99 [IIPS, 1998-99]. Utilization of full antenatal care (full ANC<sup>2</sup>) was reported to be low (27% in 2009) and the figure was up by only 3 percentage points from the corresponding figure in 2006.



Source: Coverage Evaluation Survey: All India Report. 2009. UNICEF, New Delhi

Full ANC status in Jharkhand was decreased to 11% in 2009 from 15% reported in 2006 [UNICEF 2006, 2010]. There is a compelling need to motivate and educate women and community, improve health infrastructure and increase utilization of full ANC services among women, in order to improve the maternal health outcomes and achieving MDGs.

## References

Hogan MC et al. 2010. Maternal Mortality for 181 countries, 1980–2008: A systematic analysis of progress toward millennium development Goal 5, The Lancet. 2010; 375: 1609-1623.  
 International Institute for Population Sciences (IIPS) Mumbai: IIPS; National Family Health Survey (NFHS-1), 1992-93: India.



International Institute for Population Sciences (IIPS) Mumbai: IIPS; National Family Health Survey (NFHS-2), 1998-99: India.

UNICEF 2006. Coverage Evaluation Survey: All India Report. 2005. UNICEF, New Delhi.

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## Every day 6 women and 88 infants die in Jharkhand

September, 2012

*The factsheet highlights the key statistics for the state of Jharkhand and reflects the poor antenatal care, delivery care and child health. It shows that much more is needed to improve the health of women and children in the state.*

### The Setting

- With an estimate population of 32.97 Millions (Census 2011), the State adds 782,100 births annually.
- One mother dies in Jharkhand every 4 hours or 6 women die of maternal causes every day with a maternal mortality rate (MMR) of 278 per 100,000 live births (Annual Health Survey 2011).
- Every day 2,143 children are born and 88 infants—60 % of them in the first month of life.
- Only 10 % of all PHCs had adequate infrastructure, a little over a quarter (26.9%) had adequate staff. Equipment and supplies were available in 50.5% and 21.4% PHCs. For PHCs the current availability is 533 as against 1443 (37%), the same for CHCs is 31 against 228 (<15%) pointing to a huge deficit in public health facilities.

### Maternal Health

- Two thirds of women suffer from anemia and less than 20% of pregnant women consume a full course of IFA supplementation.
- Only 13% mothers had full antenatal care (ANC) (Three ANC checkups, one TT injection and consumed 100+ IFA tablets). One in three (34%) had to travel 5 or more kilometres to receive ANC services
- Less than half (47%) of deliveries were performed by a Skilled Birth Attendance (institutional and home deliveries).
- Only two out of five women (38%) had an institutional delivery. Among mothers not delivering at an institution, one out of three (33%) reported the reason as better care at home.
- Less than 50% women had safe delivery and less than 3 out of every 5 women received post-natal care within 48 hours of delivery.
- Only one third of women (33%) who delivered at health institutions availed financial assistance under Janani Suraksha Yojana.
- Child Health
- Three out of five children (60%) 12-23 months are fully immunized.
- Two out of five children (43%) traveled less than 1 km to reach a vaccination site. Nearly half (48%) only traveled 1 to 3 km to reach a site.
- Less than one in seven (16%) newborns were breastfeed within 1 hour of delivery.
- Less than half of newborns (45%) had a checkup within 10 days of birth.

### What can make a difference?

Effects of maternal survival and improvement need not wait for wait for new technology or drugs.



Simple measures like quality antenatal care, institutional deliveries round the clock in all block PHCs and where possible at PHCs and skilled birth attendance at homes, establishing comprehensive emergency obstetric care at strategically located hospitals and skilled birth attendance training to all ANMs. The situation of equipment and supplies has improved due to JSY scheme and large number of women have started coming for institutional deliveries. This would now call for improvement in emergency obstetric care and newborn care in these facilities.

Maternal and infant death audits done by UNICEF in Jharkhand and other states strongly suggest that socioeconomic and educational factors make the Scheduled Caste/Scheduled Tribe population particularly vulnerable. Although they may make-up a small part of the general population, they had a disproportionately large proportion of maternal deaths.

- Hemorrhage was the most common cause of death in all states, with almost all hemorrhage occurring after delivery. Many women who delivered at home died from postpartum hemorrhage. Women were often sent home from health facilities within hours of deliveries also started bleeding and die. Health facilities should discharge the women two to three days after giving birth and the health system should ensure that women receive postpartum care at home after discharge.
- Pregnancy induced hypertension (leading to Eclampsia) is the second most common cause of death. However, the standard treatment for eclampsia, magnesium sulfate, is often not available. The public sector should make arrangement for magnesium sulfate in all facilities conducting deliveries and the staff trained to manage the PIH cases.
- Sepsis varied greatly by state, from 4 -10 %. The Health department should ensure the availability of parenteral antibiotics.
- Anemia, a common nutritional disorder in Indian women can increase maternal mortality by 9-15 per cent. These deaths are preventable by improving girls' and women's nutrition, accessing antenatal care and providing blood when needed.



## Human Resources in Health: Factsheet for Medical Officers in Jharkhand

September, 2012

Medical Officers (MOs) are frontline technical service providers in the health system, providing clinical and managerial leadership to the health workforce at the Community Health Centres (CHC), Primary Health Centres (PHC) and Sub-Centres (SC). Population coverage of PHCs in Jharkhand is amongst the highest in the country.

**Average population coverage of a PHC in Jharkhand versus India: 63,000 versus 31,364**

**Average number of sub-centres per PHC in Jharkhand versus India: 12 versus 6**

### Recruitment

**Table 1: Total requirement of MOs calculated based on existing infrastructure as well as required infrastructure per Indian Public Health Standards (IPHS) at different levels of facilities in Jharkhand, 2011**

Health facility	MO requirement at each facility (IPHS) *	Facilities required per population coverage** (IPHS) <sup>1</sup>	Current number of facilities***	MOs required (IPHS based facilities)	MOs required (current infrastructure)
Primary Health Centre	2	999	330	1998	660
Community Health Centre	6	250	194	1500	1164
Sub-Divisional Hospital	7	55	6	385	42
District Hospital	9	24	21	216	189
<b>Total</b>				<b>4099</b>	<b>2055</b>

**Source:** \* IPHS Revised Guidelines, 2011. Ministry of Health and Family Welfare. Retrieved from <http://mohfw.nic.in/NRHM/iphs.htm>, October 2011.

\*\* Calculated using census 2011 data and the IPHS revised Guidelines 2011.

\*\*\* Obtained from health department through interactions as of September 2011.

**Table 2: Required, sanctioned and in-position MOs in Jharkhand**

Required as per proposed IPHS norms for infrastructure; and current infrastructure*	Sanctioned (Regular)	In-position (contractual + regular)***
4099; 2055	1681	1917

**Source:** \* IPHS Revised Guidelines, 2011. Ministry of Health and Family Welfare. Retrieved from <http://mohfw.nic.in/NRHM/iphs.htm>, October 2011

\*\* RHS bulletin, 2010

\*\*\* Jharkhand State PIP 2011-2012.

<sup>1</sup>The requirement of centers (SC, PHC, CHC) in rural areas has been calculated using the IPHS norms for tribal and non tribal population for the year 2011. The requirement of SDH and DH has considered the total population (Census 2011)



**Gap in planning:** Sanctioned positions for MOs are fewer than required as per existing as well as IPHS infrastructure requirements.

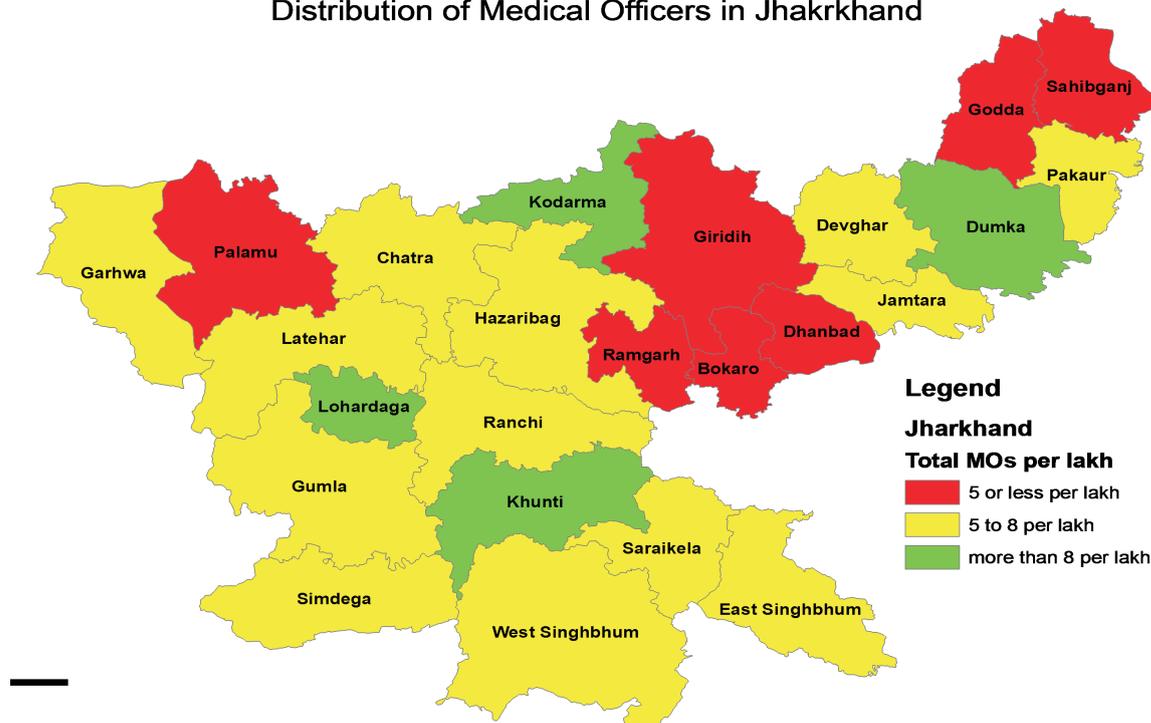
**Gap in recruitment:** Even with contractual hiring, currently there is a deficit of over 2000 MOs when IPHS infrastructure norms are considered and over 100 when existing facilities are considered.

**Current recruitment policies**

- There is only one cadre for the doctors in the state, i.e. MOs. Other states have divided clinical roles between two cadre namely, MOs and specialists based on the educational qualifications.
- The recruitment of MOs is based on the Jharkhand State Public Services Examinations and promotions are based on the level of seniority. These examinations have been held only three times since 2001.
- Reservation policies are applied during the recruitment and promotion.
- The department has recently sought sanction for the posts of 2000 MOs from Government of Jharkhand (GoJ).

**Deployment**

Distribution of Medical Officers in Jharkhand



Adapted from: Data from the Jharkhand State PIP 2011-2012

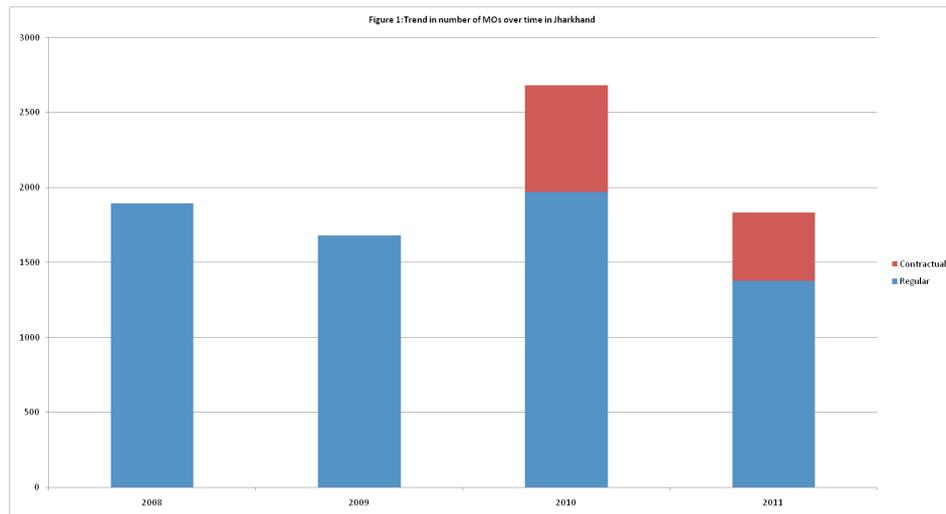
**Geographic distribution and gender**

- Eight of 21 districts have 5 or less than 5 MOs per 100,000 population while four districts have more than 8 MOs per 100,000 population.
- The Lady Medical Officers (LMOs) constitute less than 10% of total MOs in-position; mostly concentrated in the district hospitals.
- **Current policies on difficult area postings**
- Though GoJ has announced list of difficult areas, currently the state does not have clear policies for deployment and incentives for posting of MOs in these areas.
- No provisions for family postings and health and safety of employees.



## Retention

### HRH availability trend (2008 to 2011):



Source: Jharkhand State PIP for 2008, 2010 and 2011; and RHS for 2009

**The current number of regular MOs is the lowest of the last four years; about 600 MOs exited within a year  
Fluctuations in numbers on an annual basis indicate instability within the system**

### Current policies on promotion, transfer and incentives

- Current promotion policies are based on the seniority levels.
- The existing HR policy has made provision for three-month institutional training/ field training and refresher training, however, the state does not have its own institution to conduct such training.
- Departmental examinations open or closed book exams are conducted regularly and promotions are dependent on their clearance.
- Progression to permanent position in the department is contingent on: clearing departmental exams, finance training, Hindi/tribal exams, and two years rural service.

## Exit

### Retirement

- Current age of retirement in Jharkhand is 58 years.
- There is provision of premature retirement for employees.

## HRH policies – Work in progress

- Jharkhand has inherited most of the HR policies from Bihar, and adapted most of these to the changed context.
- The state is in the process of developing HR policies for regulating service conditions of clinical staff. This will include the issues like rational deployment of skilled staff, transfer, recruitment etc.
- The state has released a brief HR strategy for MOs in the gazette but details are still to be worked out.
- The SHSRC has been designated as a nodal agency for facilitating the HRH policy development process.
- NRHM has enabled the state in meeting the HRH needs in short term through contractual appointments.
- NRHM has provided impetus for revamping the HRH strategies regarding difficult areas posting. Incentives for difficult area postings were introduced through the Jharkhand state PIP 2011-2012.



## **Areas needing further research for developing Jharkhand HRH policy**

What are the means of closing the gap in required and available MOs? Is contractual hiring sustainable for bridging the MO number gap?

How can Jharkhand retain MOs within the health system?

What incentives work for difficult area placements?

What are the perspectives of the existing MOs about working conditions within the health system?

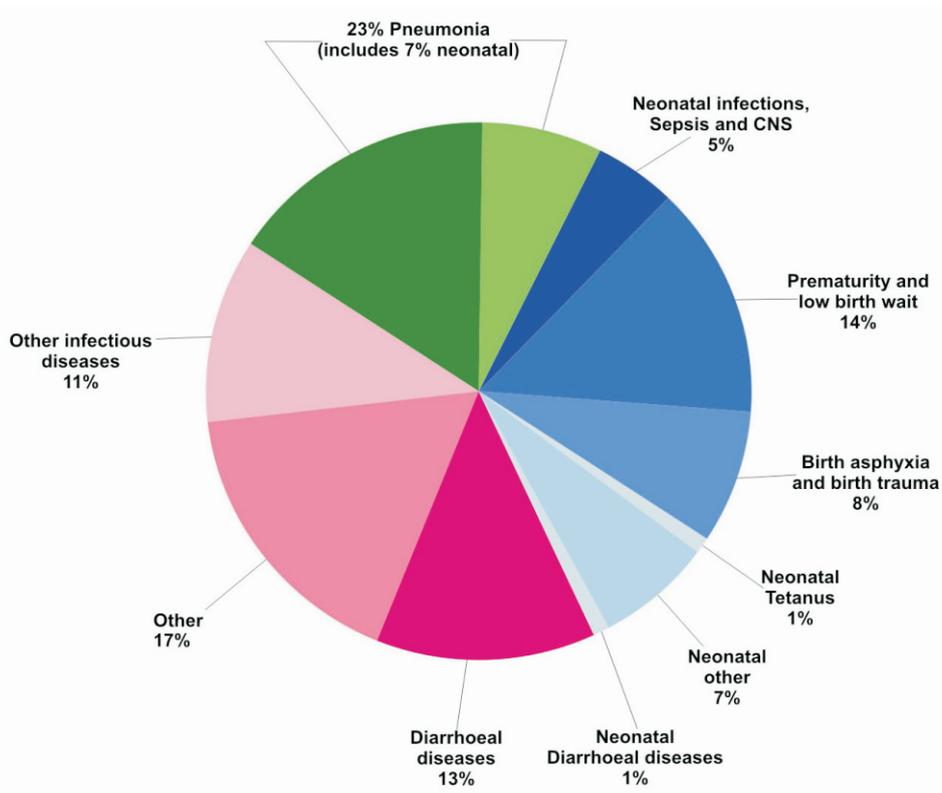
How do the push and pull factors across other states of India influence the MO availability in Jharkhand?



### Counting under-five deaths from pneumonia

- Every year India accounts for 43 million<sup>1</sup> new cases of childhood pneumonia, the highest of any country in the world.
- Pneumonia is estimated to kill more than 1,000 Indian children each day.<sup>2</sup>
- In India, mortality due to pneumonia accounts for nearly one fourth of the total deaths among children under age 5.<sup>3</sup>

**Causes of Death in Children Aged 0-4 Years in India**



Source: The Million Death study collaborators 2010. Causes of neonatal and child mortality in India: a nationally representative mortality survey. Lancet 376: 1853-1860.

Children can be **protected** from pneumonia. It can be **prevented** with simple interventions, and treated with low-cost, low-tech medication and care.<sup>4</sup>

- 1 Rudan, I., et al. 2008. Epidemiology and etiology of childhood pneumonia. Bulletin of the World Health Organization 2008; 86: 408-416. 2008.
- 2 World Health Organization. 2009. World health statistics 2009. Geneva: WHO.
- 3 Mathew, J.L., et al. 2011. Acute respiratory infection and pneumonia in India: a systematic review of literature for advocacy and action: UNICEF-PHFI series on Newborn and Child Health, India. Indian Pediatrics 48:192-218. March 17.
- 4 World Health Organization. 2010. The world health report. Geneva: WHO.





Pneumonia kills more children than AIDS, malaria and measles combined. To increase awareness of pneumonia as a major cause of child death and spur action to deal more effectively with the problem, in 2009 WHO and UNICEF developed the Global Action Plan for the prevention and control of Pneumonia (GAPP). The GAPP highlights a set of proven, effective interventions and forecasts the impact that scaling up these interventions can have on child health and survival. The GAPP-recommended measures to prevent, protect against and treat pneumonia represent a set of interventions with proven safety and effectiveness for reducing pneumonia risks in children,

Within GAPP's Vision, the various interventions for controlling pneumonia in children under five are categorized as follows

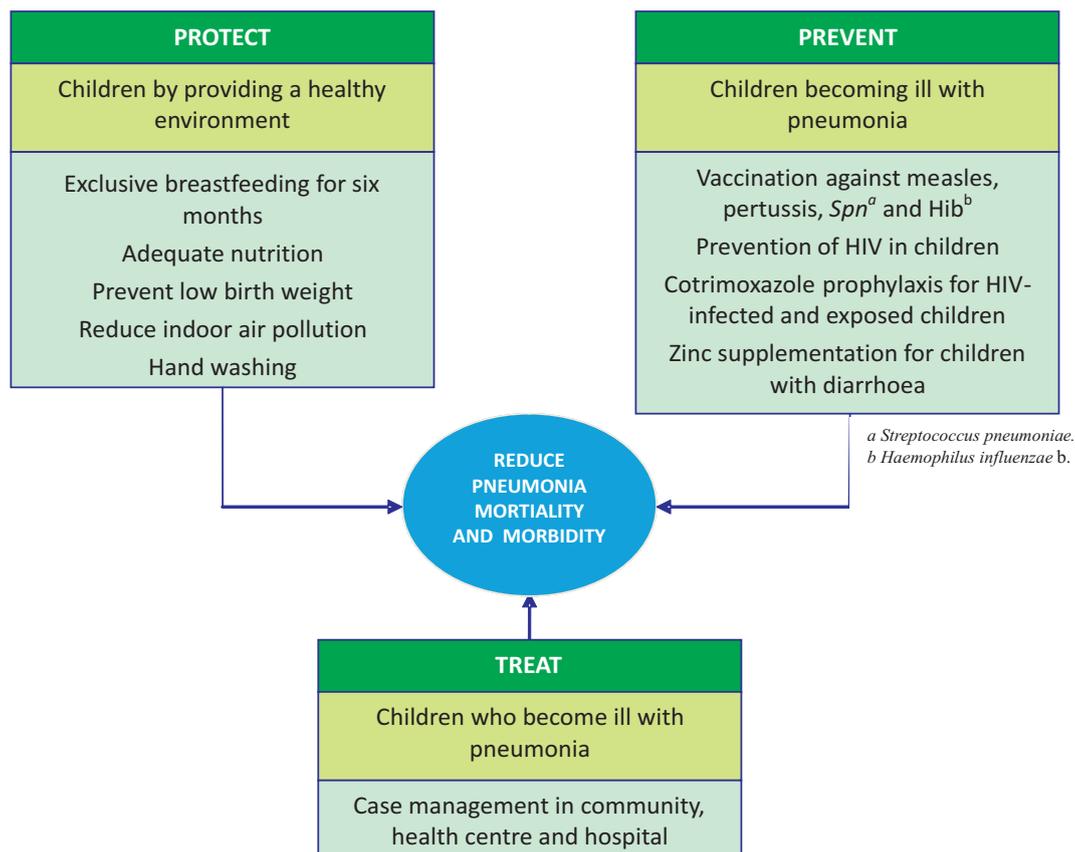
**Protect** children by providing an environment where they are at low risk of pneumonia;

**Prevent** children becoming ill with pneumonia;

**Treat** children who become ill with pneumonia.

The comprehensive action plan could reduce child pneumonia by 65% and cut the number of severe pneumonia cases in children by 25%, compared to 2000 levels—saving the lives of 5.3 million children.

### GAPP FRAMEWORK FOR PNEUMONIA CONTROL



**Source:** WHO and UNICEF 2009. Global Action Plan for Prevention and Control of Pneumonia (GAPP). WHO: Geneva. WHO/FCH/CAH/NCH/09.04.



**POTENTIAL REDUCTIONS IN PNEUMONIA MORBIDITY AND MORTALITY WITH SELECTED INTERVENTIONS  
(ASSUMING NEAR-UNIVERSAL COVERAGE)**

<b>INTERVENTIONS TO PROTECT</b>	<b>EVIDENCE OF IMPACT</b>
Promote exclusive breastfeeding for 6 months	15-23% reduction in pneumonia incidence ; <sup>a</sup> 13% reduction in all child deaths <sup>b</sup>
Adequate nutrition throughout the first five years of life, including adequate micronutrient intake	6% reduction in all child deaths for adequate complementary feeding (6-23 months of life) <sup>b</sup>
Reduce incidence of low birth weight	Review in progress
Reduce indoor air pollution	Relative risk reduction with liquid fuel stoves; 75% reduction in incidence in specific settings with improved solid fuel stoves <sup>a</sup>
Hand washing	3% reduction in all child deaths when combined with improved water and sanitation interventions <sup>b</sup>
<b>INTERVENTIONS TO PREVENT</b>	<b>EVIDENCE OF IMPACT</b>
Vaccination against measles, pertussis, <i>Streptococcus pneumoniae</i> and <i>Haemophilus influenzae</i> b.	22-34% reduction in incidence for Hib;" 23 -35% reduction in incidence for Spn;" 4% reduction in all child deaths with Hib and 1% with measles
Prevention of HIV in children	2% reduction in all child deaths <sup>b</sup>
Cotrimoxazole prophylaxis for HIV -infected children	Reduction in mortality by 43% and hospital admission rates by 23% compared with matched placebo. <sup>c</sup>
Zinc supplementation in children with diarrhoea	14-15% reduction in incidence; <sup>a</sup> 4-5% reduction in all child deaths as preventive measure <sup>b</sup>
<b>INTERVENTIONS TO TREAT</b>	<b>EVIDENCE OF IMPACT</b>
Improved care seeking and demand generation within communities	Review in progress
Health facility case management for very severe cases and vulnerable groups such as newborns. HIV-infected and malnourished children	29-45% reduction in case fatality; <sup>a</sup> 6% reduction in all child deaths <sup>b</sup>
Increasing access to appropriate care through community-based case management	34-50% reduction in neonatal case fatality; <sup>a</sup> reduction in total mortality of 27%. 20%, and 24% among neonates, infants, and children. respectively; reduction in pneumonia mortality in the same groups by 42%. 36%, and 36% <sup>d</sup>

**Adapted from:** WHO and UNICEF 2009. Global Action Plan for Prevention and Control of Pneumonia (GAPP). WHO: Geneva. WHO/FCH/CAH/NCH/09.04.

- a. Niessen L et al. 2009. Comparative impact assessment of child pneumonia interventions. Bulletin of the World Health Organization. 87:472-480.
- b. Jones G et al. 2003. How many child deaths can we prevent this year? Lancet. 362:65-71.
- c. Chintu C et al 2004. Co-trimoxazole as prophylaxis against opportunistic infections in HIV-infected Zambian children (CHAP): a double-blind randomized placebo-controlled trial. Lancet 2004; 364:1865-1871.
- d. Sazawal S and Black R. 2003. Effect of pneumonia case management on mortality in neonates, infants, and preschool children : a meta-analysis of community-based trials. Lancet Infectious Diseases. 2003. 3:547-556.



### Antibiotics are a proven intervention

Pneumonia accounts for approximately one-fourth of the total deaths in under five children, in India.<sup>1,2</sup> Early diagnosis and appropriate case management by rational use of antibiotics remains one of the most effective intervention to reduce pneumonia-related mortality.<sup>3</sup> Rational use of antibiotic treatment for childhood pneumonia means appropriate use of effective antibiotics by community health workers (CHWs) based in the community and caregivers (families) at home, and by providers at health facilities for severe and complicated cases. This brief covers the challenges of ensuring that children receive antibiotics when indicated and highlights a new national policy on rational use of antibiotics.

A large number of children who need antibiotics for treatment of an acute respiratory infection (ARI) are not taken to a health facility or appropriate health care provider. And among those who do seek health care, misuse use of antibiotics is common. The 2009 UNICEF Coverage Evaluation Survey reported that nearly one out of five children did not receive any advice or treatment from a health facility or health provider for their complaints of cough accompanied by short, rapid breathing that could be suggestive of pneumonia.<sup>4</sup> For families who seek treatment, only 12.5% of children receive antibiotics for their complaints.<sup>3</sup>



In Madhya Pradesh, India, a mother administers medicine to her newborn. Source: Photoshare/Kailash Mittal

Barriers to rational use of antibiotics for pneumonia include lack of access and availability, underutilization and misuse. Another problem is lack of awareness of signs and symptoms of pneumonia in caregivers and community health workers (CHWs), especially in rural areas, among socio-economically disadvantaged and uneducated populations. Inadequate resources, lack of coordination between various health and government agencies, and fragmented implementation are the other reasons for under use of antibiotics in pneumonia.

Misuse can occur in several ways. Antibiotics are commonly prescribed for upper respiratory tract infections where they are not required; some providers prefer to prescribe new and expensive antibiotics that are not indicated as the preferred method of treating pneumonia; duration of use is often not monitored; and caregivers frequently do not continue use for the prescribed period.<sup>5</sup> Strengthening the rationalization of antibiotic use for the treatment of pneumonia is critical, for caregivers at home, CHWs in the community and health care providers at facilities, to ensure that India reaches the Millennium Development Goal 4 to reduce under 5 mortality by two thirds.

### Consequences of irrational antibiotic use

The overuse, underuse or misuse of medicines can harm children and waste precious health resources. Among several consequences of irrational use of antibiotics are antimicrobial resistance. When dosages are miscalculated or missed, or courses not completed, microbes evolve into resistant forms. Adverse drug

reactions and medication errors can be due to lack of provider training, lack of supply of correct drugs resulting in substitutions, or lack of coordination between providers. Misuse leads to decreasing availability of scarce resources. And, when families witness failures in antibiotic treatment, patient confidence is eroded.

### **Antibiotics – when, which and how?**

In rationalizing the use of antibiotics in pneumonia at community level, one needs to consider the following questions:

1. Whether antibiotics are needed at all in a particular child with acute respiratory infection (ARI)?
2. Which antibiotic to use in a given situation?
3. How to prescribe the appropriate dose, frequency, route and duration of the antibiotic?

One must first assess the condition of the individual child. Be it family members, CHWs, or facility-based providers, recognition of pneumonia can be based on observation of fever, cough and fast/difficult breathing. Even though pneumonia is the leading killer of children in the developing world, only one of every five caregivers knows the two tell-tale symptoms of pneumonia: fast breathing and difficult breathing.<sup>6</sup> (The general consensus is that infants younger than two months should always be referred to a health facility when presenting with these symptoms.) Caregivers need to be educated to recognize when a child is experiencing rapid/difficult breathing. Widespread community engagement to increase awareness of these danger signs and prompt caregivers to seek treatment is critical to reducing deaths due to pneumonia. CHWs also need proper training to recognize pneumonia through counting breaths and recognition of lower chest indrawing.

As to which antibiotic should be given at community level, current policy in India is to give oral co-trimoxazole for five days. A meta-analysis has shown that amoxicillin was comparable to co-trimoxazole,<sup>7</sup> and several studies have shown growing resistance to co-trimoxazole in India,<sup>3</sup> so oral amoxicillin given twice a day for three days is also appropriate for home-based care. It is important that caregivers and frontline health workers understand when treatment is failing, that is no change in fast/difficult breathing within 48 hours of initiating treatment. In such cases, caregivers must ensure the child reaches facility care for more aggressive treatment.

### **Promoting rational use in the community – the way forward**

Worldwide, about 80% of antibiotics are consumed in the community and somewhere between 20-50% of all that use is inappropriate.<sup>8</sup> In India, there is no data base for capturing use of antibiotics, and prescriptions are kept by the patient, not the pharmacist, so there is no mechanism to measure actual use at the community level. This results in an increased risk of adverse side effects, higher costs of therapy and higher rate of antimicrobial resistance of community pathogen.<sup>8</sup> Recognizing the imperative for rational use of antibiotics, the Government of India has recently come up with a National Policy for Containment of Antimicrobial Resistance.

### **Recommendations from this policy include several possible approaches to increase rational use:**

- Review the manufacture, use and misuse of antibiotics to understand the breadth of the problem
- Education of the public at large through print and mass media to discourage self-medication



- Pre-service and in-service training of medical personnel
- Monitoring and supervision of antibiotic treatment
- Development and implementation of a National Policy on Antibiotics

It will take time to implement all of the recommendations in the containment policy. Therefore, for the practical purpose of community-based treatment of pneumonia in children from 2 months to 5 years of age, especially in low resource areas in India, two primary interventions to promote rational use should be undertaken quickly. First, the widespread education of the public to recognize danger signs and seek treatment from a trained health provider, rather than through self medication is crucial. The second is to provide training, monitoring and supervision on pneumonia diagnosis and treatment for frontline CHWs and facility-based staff.





### Community case management helps broaden intervention coverage

Community case management (CCM) is a strategy to deliver lifesaving curative interventions for common childhood illnesses, including pneumonia, through health workers based in the community. It is most applicable in areas where there is little access to facility-based services but it is not envisioned as a stand-alone approach. Access to specialized care providers, well-equipped facilities, drugs and vaccines and strong health systems remain indispensable, particularly for children with the most serious cases of pneumonia. However, global research has demonstrated in many countries that CCM can increase coverage of effective interventions and increase equity in provision of health services for several childhood diseases.<sup>1</sup> This brief highlights the evidence on the success of CCM in managing childhood pneumonia, and the status of this approach in the Indian public health system.

### CCM and childhood pneumonia

Pneumonia is a leading cause of death among children under age 5 worldwide and in India, where more than a 1,000 children die of pneumonia each day.<sup>2</sup> Health experts and policy leaders have realized that improving overall child survival will be greatly dependent on bringing down the number of deaths caused by pneumonia. Research has increased understanding of what interventions are most effective, such as administration of antibiotics for pneumonia caused by bacteria. The question remaining is how best to do so.



Studies throughout the world have shown that CCM also can be effective in significantly reducing pneumonia deaths. A meta-analysis of nine studies found that CCM reduced pneumonia-specific mortality in children 1-4 years by 36%.<sup>3</sup> A recent study from Pakistan<sup>4</sup> reported that children treated for severe pneumonia at home by Lady Health Workers were more likely to recover than children referred to health facilities. Also, in Nepal, a 2010 study estimates that CCM for pneumonia could result in a 70% reduction in mortality in children 0–5 years.<sup>5</sup> These studies have focused on community health workers (CHWs) as the primary agent for delivering life-saving care, and their roles have included identification of pneumonia, the administration of appropriate and effective antibiotics, monitoring of treatment, and when necessary, patient referral to more specialized care.

A recent study implemented by the Indian Clinical Epidemiological Network (INDIACLEN)<sup>6</sup> has shown that oral antibiotic treatment at home for cases of severe pneumonia in children, is as effective as 48-hour treatment and monitoring in hospital, followed up by additional home treatment with antibiotics-demonstrating that families, too, can be effective direct case managers in the CCM framework as well as CHWs.



## India's current programmatic framework for treating childhood pneumonia

The national ARI control program was initiated in India in 1990, and was later subsumed into the Child Survival and Safe Motherhood Program, then the Reproductive and Child Health (RCH) Programme within the Ministry of Health and Family Welfare (MoHFW). After pilot projects related to CCM showed efficacy, government support for the approach increased, but it was largely incorporated into one part of the country's efforts to introduce the Integrated Management of Childhood Illness (IMCI) strategy launched by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) in the mid-1990s. IMCI was designed with three major objectives: 1) to improve health care workers skills and performance; 2) to improve family and community practices, and 3) to improve health systems.

The Government of India (GoI) recognized the importance of newborn health in the child survival strategy and has added several unique components to the approach, renamed Integrated Management of Newborn and Childhood Illness (IMNCI). India has put its primary efforts into objectives 1 and 2 above, with a facility-based focus. As of 2010, the IMNCI strategy was ongoing in 356 districts.<sup>7</sup> Current policy emphasis is on completing training of service providers in these districts. Some country experts believe India's approach to introducing IMNCI has limited investment and efforts to move the CCM approach forward on a large scale, but India has increased utilization of CHWs greatly since 2005. In 2011, authorized incentive payments were provided to CHWs to provide Home-based Newborn Care (HNBC), including treatment of sepsis and pneumonia.

## Challenges to maximizing the benefits of CCM approaches

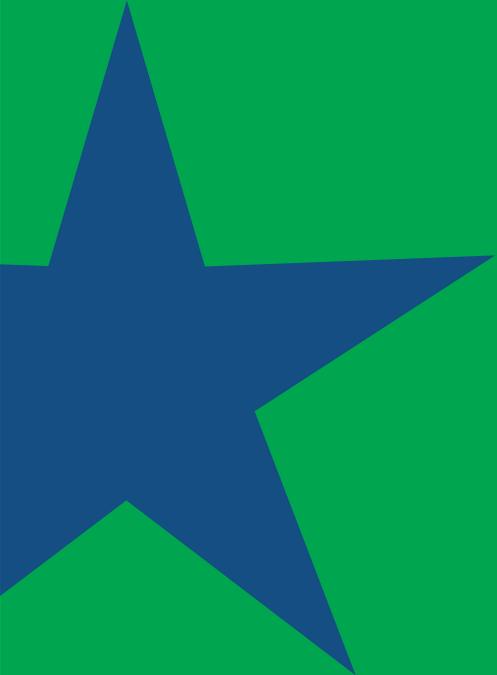
Core (nonclinical) issues that affect the practice and success of CCM in India include:

1. Pneumonia is not a high priority in national health policy. There are no goals or targets identified related to treatment and management of childhood pneumonia in India's 11th 5-year plan. National child health policy targets also do not include specific targets for a reduction in child mortality due to pneumonia, although there is a general target for reducing infant mortality, encompassing all causes.<sup>7</sup> There appear to be gaps in the policy framework concerning support for CCM for children beyond infancy.
2. Equity questions remain. The idea behind CCM is to reach people in poor service areas, and research shows that inequities in accessing health care can be magnified if programs don't prioritize serving the hardest to reach.<sup>8</sup> Thorough evaluation of CCM programs within IMNCI districts are needed to ensure that children are not missing the benefits of these interventions due to poverty, geography or socio-economic status and social exclusion.
3. States with weak public health systems are ill-prepared to manage cases identified and referred by CHWs. Where basic public health infrastructure and human resources are lacking, empowering CHWs to identify and refer cases to facilities may backfire due to increased health care expectations that remain unmet. CCM works in conjunction with an effective health system, not in isolation.
4. CHWs in India have an incredible list of responsibilities, yet training and supervision are limited, and policy gaps remain. The primary actor for delivering CCM in India is the Accredited Social Health Activist (ASHA), who works as a volunteer receiving a basic stipend or minimal remuneration based on completing specific tasks. The ASHA training module covering HNBC is only now being introduced and the success of the

module has not been evaluated. There are multiple and competing demands on ASHAs and varied guidance about how to prioritize their time. Although ASHAs receive an incentive payment for HBNC, they do not currently receive incentive payment for identifying toddlers and young children for treatment for pneumonia.

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