

Reaching the Unreached
Rapid Assessment Studies
of Health Programmes Implementation in India

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of Health Programmes Implementation in India

Edited by
Amy Hagopian, Peter House and Abhijit Das



Centre for Health and Social Justice



निधि बुक्स

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**Amy Hagopian
Peter House
Abhijit Das**

Preface

This book is the product of a remarkable project that unfolded in northern India in 2008, when the Centre for Health and Social Justice (CHSJ) successfully incubated the idea of involving civil society organizations to rigorously evaluate the progress of India's ambitious National Rural Health Mission. Civil society organizations in most countries have little experience with conducting high-quality research to document health system performance. This programme demonstrated that with a burst of short-term training and continual support and follow-up, civil society organizations can produce high-quality, highly-relevant research results with significant policy implications.

CHSJ had a history of work on NRHM, having prepared two well-received citizen's reports (2006 and 2007), which were shared at National Stakeholders Consultation that included bilateral organizations, UN agencies, civil society organizations from across the country as well as the government. It has been acknowledged that such independent feedback is important and essential for understanding the process of implementation and for mid-course corrections.

The National Rural Health Mission was introduced by India's national government to provide mechanisms to ensure integrated comprehensive primary healthcare services to the poor and vulnerable sections of the society, especially women and children. The primary aim was to bring substantial reduction in maternal mortality and morbidity, infant mortality, communicable diseases and other conditions that continue to ravage large parts of the country's population. The strategies of the mission

include ensuring sectoral convergence, strengthening public health infrastructure, increasing community participation, creating a village level cadre of health workers, fostering public-private partnerships, all while emphasizing quality services and enhanced programme management.

While the NRHM has ambitious health system re-organization goals and promises to improve services for the poorest people in India, there are no formal accountability mechanisms built into the scheme. The NRHM also acknowledges, India's health system requires community ownership, the lack of which has undermined effectiveness, efficiency and accountability. Through the NRHM, the government has set out a wider role for community and civil body organization ownership and participation in monitoring and evaluation processes. This opened the opportunity to engage the myriad of India's robust civil society organizations in assessing NRHM activities in their home territories. This project, by engaging a range of civil society organizations, some which were already participating in NRHM implementation, others that are university-affiliated and still others who are grassroots organizers, has created an alternative mechanism to improve accountability for effective implementation of NRHM.

This project was also the result of a long relationship between CHSJ's director, Abhijit Das and the Population Leadership Programme (PLP) at the University of Washington. Financial and technical support from the United Nations Population Fund (India office), provided the opportunity to CHSJ to invite Peter House and Amy Hagopian, from the University of Washington to conduct a week long training in June of 2008 about basic evaluation methods and return in December of 2008 to review project progress and discuss the finer points of data analysis. CHSJ provided continual support and coaxing to each of the participating teams, with staff making several visits

to the sites to monitor and encourage progress. Research teams were given small stipends to support the costs incurred by their projects.

The products presented in this compilation are characterized by relevant question formation, robust methods, large sample sizes, and ethical clearances for their studies. Their findings are reported clearly and with ample evidence to support conclusions. The organizers of the project are most pleased with the results.

This project was successful for a number of reasons:

1. Leadership from the CHSJ team was consistent from the beginning, and provided ongoing and reliable support to the study teams across large geographical areas. The team even provided site visits when researchers needed most support.
2. The NRHM approach is well documented and provided good materials on which to base study questions.
3. The study teams were for the most part well prepared to learn new research skills and apply them in communities they know well.
4. The partnership with the University of Washington provided an academic approach to the research projects that lent credibility, and the history of relations between the University of Washington and CHSJ created a warm and collaborative environment.
5. The UNFPA funding was critically important, not just for the resources it provided, but also for the demonstration of interest in these questions by an important international institution.

Taking the prerogative of speaking for our project partners, we conclude this is an outstanding collection of research project reports that provide good insight into implementation successes and problems with India's National Rural Health Mission.

It was a tremendous pleasure to work on this project with such terrific partners and such eager and competent research teams.

Amy Hagopian
Peter House
Abhijit Das

Introduction

Amy Hagopian*, Peter House** and Abhijit Das***

CHANGES IN INDIA'S PUBLIC HEALTH SCENARIO

The public healthcare scenario is undergoing rapid changes in India. After years of slowly declining public investment in health, research published in the early years of the new millennium drew attention to the fact that healthcare was emerging as an important cause of rural impoverishment, public subsidies were better being used by the rich, and despite rapid economic growth the overall health indicators, and especially the health of the poor and marginalized continued to be stagnating at unacceptable levels.¹ The United Progressive Alliance (UPA), a coalition of parties, led by the Indian National Congress, came into power at the National level in 2004 and formulated a Common Minimum Programme (CMP), or a common agenda for governance, which among other things promised increasing public investment in health up to two or three times the existing levels. In April 2005 the Government of India announced the National Rural Health Mission (NRHM), the new vehicle for providing improved access to quality and accountable

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health services to the rural poor, especially women and children. NRHM² marked a radical shift from existing health policy paradigms not only in India, but at the global level as well. As a part of Health Sector Reform a number of practices like user fees, public private partnership had been promoted in India and private medical education and care had been given free rein in the name of economic liberalization, giving rise to a robust and prohibitively expensive corporate healthcare industry. NRHM articulated a public commitment to free, quality and accountable healthcare services to the poor. It also brought about integration in healthcare service delivery in India, which for over three decades had been split financially and administratively between health and family planning. Based on principles of equity it provided for increased thrust, through additional financial support, to those states where the health and social indicators were relatively poorer.

Another key aspect of NRHM, which was in keeping with the maturing state — civil society relationship in the country, was the involvement of public health experts from the civil society in the formulation of the NRHM design. In the past the design of public health programmes had been heavily influenced by international and bilateral donor and technical organizations. But over the years the civil society in India has not only gained technical expertise in public health through internationally acclaimed public health interventions, but civil society movements have also influenced the democratization of governance processes. The fragmented nature of the UPA government, with its left of centre political orientation (it included the Left Front parties like the Communist Party of India (Marxist) and Communist Party of India) provided a space for this creative engagement between government and civil society for a slew of progressive social policies which include legislation of the Right to Information Act (RTI), the Protection of Women from Domestic Violence Act (PWDVA), the Forest

Rights Act as well as programmes like the National Rural Employment Guarantee Scheme (NREGS). The NRHM was also formulated through active civil society participation in the various task groups that were set up to design it and a separate Advisory Group on Community Action (AGCA)³ has been incorporated into its structure to facilitate civil society feedback and support. NRHM includes decentralized planning and community monitoring within its implementation framework to incorporate user/citizen participation. Further NRHM also calls for Non Government Organizations (NGOs) to play multiple roles, including training, monitoring, capacity building, research, outreach and service provision. It provides for a full 10 percent of its budget to be spent through grants-in-aids to such organizations.

ROLE OF CIVIL SOCIETY IN IMPROVING PUBLIC HEALTH SYSTEMS

Recognizing the immense value of NRHM in improving the health of the poor, many organizations all over the country have started engaging with the NRHM in multiple ways. While some organizations, notably those engaged within the Mother NGO process have been providing outreach related support to public service delivery, others are engaged in supporting the designing and capacity building of the Accredited Social Health Activist (ASHA) one of the crucial building blocks. Some others notably the Jan Swasthya Abhiyan (JSA or People's Health Movement in India), Voluntary Health Association (VHA) and Centre for Health and Social Justice (CHSJ) provided timely feedback on implementation of NRHM through studies and assessments on grassroots realities in different parts of the country. Representatives from these three organizations and networks are also members of the AGCA and have also been involved in designing and implementing the first phase of the Community Monitoring process over nine states in the country.

Proactive engagement of citizens with the state and its functioning is the sign of a healthy democracy and public programmes can only improve through feedback from the public. India is a maturing democracy, and as it moves surely from its earlier feudal past, the process of state-citizen engagement is being facilitated by a range of civil society actors. In India civil society engagement with the state has also been mediated through movements like Right to Food campaign. CHSJ has been facilitating a systematic process of engagement between state and civil society actors by supporting evidence building and developing platforms for sharing and dialogue.⁴ In the last few years it supported many rounds of informal evidence building on different aspects of NRHM and these were shared by civil society participants from different states through multi-stakeholder consultations. In this process of sharing grassroots evidence by civil society it was felt that the process of evidence building could become more robust and rigorous so that the finding would not only be substantive, but would also stand up to critique. In order to build capacity among NGOs, CHSJ entered into a partnership with the Global Health Leadership Program of the University of Washington and United Nations Population Fund (UNFPA), India to develop a course on Rapid Assessment of Health Programmes. A group of young researchers from organizations across the country were trained to conduct rapid assessments of different aspects of NRHM implementation which they felt was valuable for improving service delivery in their work area. A team of two researchers from each organization underwent a three phase training with intensive field work, spread over one year. Having learnt the basics of research methodology and design, the teams designed their field project. Once the research designs had been cleared they collected data and then came back for a second round where they learnt the nuances of data analysis. A monitoring process was included to not only provide intellectual support on an ongoing

basis but to also provide field level technical support when necessary. Later the participants came back to sharpen their field findings into draft papers and presentations.

RAPID ASSESSMENT AND THEIR ROLE IN PUBLIC PROGRAMMES

The field of Rapid Assessment is now over two decades old. It developed through the eighties and nineties and provided an alternative to large scale surveys to understand community reality to design interventions. Drawing upon both anthropological/qualitative methods and quantitative methods these approaches depended upon the use of multiple methods and triangulation to assess field realities for programme design rather than depend upon statistical validity of expensive and time consuming survey research.⁵ A wide variety of methods and tools were used in doing the research that underpins these papers. These include relatively simple Focus Group Discussions and Key Informant Interviews, to relatively sophisticated tools like developing composite scales and adapting the WISN (Workload Indicators for Staffing needs) methodology of WHO.⁶

The evolution of rapid assessment methods since the 1980s can be seen through Rapid Rural Appraisal into Participatory Rural Appraisals then into Participatory Learning Approaches.⁷ In the course of this transition the methods evolved from tools used by outsiders (development agencies) to rapidly assess community reality to empowering tools for the community to understand and act upon its own realities. The Rapid Assessment methodology that is being used in these studies takes this approach one step further where the community (and or with the civil society organization) is not only investigating its own reality, but public programming as well. It is doing so explicitly to provide feedback to the state (external development agency) to strengthen public programming to improve both its delivery and its utilization.

However in order that public bodies accept feedback generated by civil society and citizen bodies, the evidence needs to pass the test of rigour, thus each of these papers had to adopt a rigorous methodology. Once completed, each of the papers developed through the Rapid Assessment process was shared with stakeholders both at the grassroots as well as at the national level. The national sharing included government, technical agencies, donors and other health networks and organizations. The Member-in-Charge of Health at the Planning Commission asked for the draft papers, and these were subsequently included in the mid-term review process of the Eleventh Five Year Plan. Most of these papers were also shared at the local level with district and state level officials to affect changes at the local level.

ABOUT THE PAPERS IN THIS VOLUME

This collection includes a range of papers depicting a range of micro-realities from different regions of the country. They are characterized by relevant question formation, robust methods, large sample sizes, and ethical clearances for their studies. Their findings are reported clearly and with ample evidence to support conclusions. They share stories from village, block and facility levels gathered from nine states across India that might not otherwise get heard. The reports look at services and initiatives under NRHM, trying to bring to the fore the finer nuances associated with access to facilities which include challenges faced by both the community of users, the facilitating community workers like *sahiyyas* or ASHAs, as well as doctors and nurses. This microscopic examination also shows up unanticipated challenges like assuming one language for staff trainings in a multilingual state, or how contractual and off-site specialists cannot contribute to emergency management, or that caste issues can become serious barriers to accessing services and so on. In addition to the papers generated through the Rapid Assessment

training, this collection also includes a few papers developed by researchers at CHSJ or those training at CHSJ and cover similar areas of concern.

Six of the twelve papers focus on an aspect of maternal health. Two teams have explored the role and performance of the ASHA, a village health worker created under NRHM. These women are supposed to be selected by their villages to receive basic training and conduct tasks such as registering pregnant women and connecting them with services, including ante-natal care, institutional delivery, and child immunizations. Three teams examined emergency obstetric care and the NRHM mechanism known as “JSY” (Janani Suraksha Yojana) to encourage women to seek institutional deliveries and provide for emergency support for problem deliveries. One team assessed primary health centres and community health centres for their capacity and readiness to deliver quality maternal care.

Three papers have investigated health system readiness to provide services. One paper from Orissa has explored the staff availability against workload indicated through the Indian Public Health Standards. Staff readiness and appreciation of community realities has been assessed across five districts in Uttar Pradesh to provide improved services. Health facilities in Maharashtra have been assessed to understand their ability to provide Comprehensive Emergency Obstetric Care services. A team in Meghalaya developed an accreditation scoring scheme to assess two Community Health Centres for ability to deliver high quality care. A team in Orissa state examined the role of village health and sanitation committees in ensuring delivery of NRHM programmes. Another team from Orissa used a WHO method of assessing staffing adequacy to ensure maternal and child health services. The two CHSJ projects included a study of the quality of care offered in female sterilization programmes post-Supreme Court decision, and an assessment of care for children diagnosed with polio in five states.

ANKUR Welfare Association, an organization working in Himachal Pradesh, assessed how Janani Suraksha Yojana (JSY) is perceived by women from marginalized communities and what were their experiences in accessing benefits from the scheme in Una block of Gagret district of the state. The study interviewed women who had delivered in the last one year and also conducted group discussions with women who had availed the JSY services, to get additional information about the various aspects of JSY implementation. In addition, discussions were held with health practitioners and service providers. The data revealed that though the scheme has succeeded in promoting registration of pregnant women for antenatal care (ANC) services, it has failed to direct women to institutions for availing delivery services. Hence the percentage of women who availed health facilities for institutional deliveries under JSY was much lower compared to women who decided to deliver at home. The major reasons cited by women for deciding against institutional deliveries were lack of emergency care and lack of sensitivity of service providers. Most of the women who went for institutional delivery either belonged to nuclear families (migrant labourers from other states) or had a history of complications in previous pregnancies. Women also complained of problems they faced in accessing JSY incentives and did not think that the amount of money was worth the effort that was required to get it. The study also found out that the money received from JSY was used for household purposes by men, and women had no control over it. The fact that system has failed in bringing women to institutions for deliveries was accepted by the service providers interviewed under the study. They said that public health institutions lacked required infrastructure to build confidence among women so that they will come there for their deliveries.

The **Centre for Health and Social Justice (CHSJ)** team along with **Healthwatch Forum** volunteers conducted a study across five states to understand whether sterilization

practices across India had changed since a 2005 Supreme Court decision mandating changes to improve quality of services. The most popular form of birth control in India is sterilization, with a full 5 million undergoing the procedure each year. The study was carried out using observation methods in 17 sterilization camps, and interviewing 160 women, 13 surgeons, nine district officials and five state officials. Most of the women being sterilized (60%) were less than 30 years old, and a similar proportion were not literate. Most (59%) had two or three children. Camps were observed to be in generally good condition, but four had structural problems, two were missing a power generator, and five did not have oxygen cylinders or running water. In about half the camps (9), women were being counseled before undergoing sterilization. Only 17 percent of women reported being counselled on alternatives to sterilization, and most (89%) reported they had not read the consent form themselves. Only two reported they felt some sort of coercion, however. Most women (54%) said they faced at least mild health problems after surgery, including bleeding, infection, nausea or pain. Staff were observed being polite. Most women (89%) did not pay for the surgery, although 59 percent reported they had to buy medicines, and a large majority said they received the promised compensation after the sterilization. Officials interviewed said, they thought the Supreme Court guidelines had been helpful. Medical personnel complained of inadequate infrastructure and missing supplies, such as gloves and aprons. While there were significant gaps in implementation of quality standards, researchers did report, conditions seemed improved from before the Supreme Court decision.

A student intern from **Liverpool School of Tropical Medicine** with the support of **CHSJ** staff conducted a study on what happens to children who experience acute flaccid paralysis brought about by polio infection. India is one of the four countries with polio cases stubbornly pandemic,

the others being Nigeria, Pakistan and Afghanistan. India had 559 polio cases in 2008, despite vigorous immunization campaigns. The study was conducted in Uttar Pradesh, in three urban and four rural villages. Focus groups were held with mothers, along with 28 interviews with healthcare providers, 23 with district policy officials, 15 civil society observers, nine parents of children with non-polio acute flaccid paralysis, and 18 parents of children with residual paralysis. The report contains many illustrative quotes of parents and their views of the condition and their confusion about its origins. Barriers to care for children included cost, transport to education, lack of access to rehabilitation therapy, and lack of knowledge about home physiotherapy.

Datta Meghe Institute of Medical Sciences (DMIMS) in Maharashtra state deployed two physicians to study the readiness of two separate community health centre facilities to provide emergency obstetrical care, with an examination of infrastructure, equipment, utilization, referral patterns and personnel. The study team conducted site visits and interviews with administrators, healthcare providers, community leaders and five women in each service area (for a total of 10) who had recently used emergency obstetrical care. They created a checklist for their observations using the categories of personnel, training, equipment, drugs, infrastructure, transport and service availability, with a scoring scheme to create comparable ratings. One facility achieved a score of 86.5 percent, the other 53.8 percent. The most daunting difficulty they discovered was the shortage of physician services for round-the-clock readiness to provide emergency obstetrical care. Drug, blood and equipment availability were the lowest scoring items in both facilities. Families reported having to purchase their own drugs outside the facility, with a range of costs between Rs.500 and 3,000. They also found transport to be difficult, with the average family spending between Rs.50 and 400 for rickshaw transport to the facility and requiring a mean of two hours. Ambulances for referral

to the next level were available at both facilities, but clients bear the costs, and one vehicle was not in working order at the time of the study. The facility checklist developed for this study is a significant contribution to the literature, and could be used in future studies for comparison purposes.

The **Foundation for Research in Community Health (FRCH)**, a Maharashtra based organization, deployed two masters-trained health management professionals to the project. They were interested in the public/private partnership provisions of NRHM, that provided resources (up to Rs.1,500 per delivery) to refer women requiring emergency obstetrical care to private obstetricians when no other qualified personnel were available in the local government system. India has only 20,000 obstetricians for its one billion people, and fewer than 1,000 of them work in the public sector. Data were gathered from routine records, 18 women who had delivered during the previous 17 months, as well as from three private providers. Two focus groups were also held with local health teams that provided referrals. Women requiring emergency delivery reported paying fees between Rs.10,000 to 30,000, with an average of Rs.15,000 — ten times the amount offered for their care by the government scheme. Health centres did not have prior arrangements with any of the private providers, either to ensure a smooth transfer of patients or to manage costs. NRHM guidelines discuss the provision of free transport for emergency obstetrical care, but no participant reported receiving this benefit and all faced transportation challenges beyond the cost. Women who return to their maternal villages to deliver their babies face bureaucratic hurdles to secure reimbursement. Others are baffled by the issuance of a cheque and are unclear how to convert it to cash. As reimbursement is to be claimed within seven days of delivery, those who have extended hospital stays also face challenges. The cost of emergency obstetrical care for poor women poses significant hardship, and researchers concluded the current scheme is clunky, poorly organized, and confusing.

The team from **Human Development Foundation (HDF)** employed a World Health Organization method to assess the staffing capacity required to deliver on the NRHM promises in the Ganjam district of Orissa state. Using census data, routine health information data, and government reports, the team calculated demand for maternal and child health services. By conducting 54 interviews with physicians and midwives, and six focus groups, they were able to calculate the time required to perform necessary healthcare tasks. They also interviewed 10 new mothers to cross-check these estimates at a global level and get assessments of quality of care. For 18 service centres in the district, they found 357 health workers in the relevant six cadre categories, to serve a population of 1.02 million. Total demand for the MCH services guaranteed under India's NRHM outpaced supply for every category of health worker but one. To properly serve the study population, the health workforce supply should be enhanced by 43 additional physicians, 15 nurses, and 80 nurse midwives. Those numbers probably under-estimate the need, as they assume away geographic barriers. The study provided a contribution to the literature by establishing time standards in minutes for each MCH activity promised by the NRHM, which could be applied elsewhere in India by government planners and civil society advocates. The calculations indicate, significant numbers of new health workers are required to deliver the services promised by the NRHM.

Movement Against AIDS (MAA), an organization in Bihar researched the role and performance of ASHAs in Muzaffarpur district. They conducted interviews with 15 ASHAs, as well as 28 healthcare providers with whom the ASHAs work. They also conducted oral surveys with 234 women who had delivered babies in the last year. They also conducted focus groups in villages in the study area with women from scheduled caste to understand their perceptions. They found only a minority of the women (24%) were aware that ASHAs served their communities or had a specific role to watch out for pregnant women. Most healthcare providers understood the role of

the ASHA and reported, they interacted regularly with these health liaison workers. Unfortunately, ASHAs did not seem to understand that one of their roles was to promote institutional delivery of babies, and half the women did not report receiving home visits from an ASHA, as is supposed to happen (although all ASHAs reported they were doing home visits, at least to immunize children). Women in focus groups reported, ASHAs were more likely to visit (relatively) higher-income households, rather than "*garib*" (poorer) homes. Women also reported, they avoid institutional deliveries as the expenses they incur there are beyond their means. ASHAs reported, they were not clear about their roles and responsibilities, and that they did not really understand the training they were offered. The financial arrangements with ASHAs are unsatisfactory, with many reporting they were not regularly paid for their services or that healthcare providers demanded money from them. Lack of transportation was named as a serious barrier to institutional delivery.

The **North East Network (NEN)**, from Meghalaya state, elected to assess the capacity of four CHCs from four different districts in the state for their capacity to deliver services considering NRHM norms. The research team interviewed seven medical staff in each CHC, did facility walk-throughs and assessed routine secondary data. In the least-functional CHC, they also interviewed five clients and conducted three focus groups, one from each of three localities served by the CHC. A scoring tool was created to assess the CHCs on the dimensions of supervision, equipment, sterilizing capacity, food services, scope of services available, hours of operation, referral capacity, transport capacity, number of staff, knowledge of NRHM features, and basic infrastructure. They found none of the facilities met the standards required to deliver quality care. The most serious problems related to inadequate staffing, although problems were also found in lack of sterilization, insufficient drugs and equipment, failure to have a referral system, electrical outages and lack of a reliable water supply.

The development of the scoring system is a helpful contribution to future researchers seeking to assess CHC capacity.

SAHAYOG an organization based in Uttar Pradesh studied the readiness of facilities in five districts to reduce maternal mortality, by assessing knowledge levels and system readiness among 438 healthcare providers working in 28 PHCs, two CHCs and four district hospitals. This study also included a review of the facility survey done as a part of the District Level Household Study in these districts. The review of facility survey indicated that these districts lacked vital components required for providing maternal health services. The health system was found to have gaps in terms of infrastructure, supply, human resource, and performance. The provider survey assessed staff knowledge of maternal emergencies and appreciation of community realities and the findings showed that while not more than 50 percent of the staff at different levels appreciated the importance of maternal mortality, not many were willing to make any personal efforts to tackle the problem.

Society for Development Action (SODA), an organization based in Orissa opted to study the role of the “Village Health and Sanitation Committees” in the NRHM scheme. SODA had recently participated in the Community Monitoring process and had trained VHSCs to properly discharge their function. The SODA study was an enquiry into whether communities with strong VHSCs had better health service outcomes. The study was conducted in 14 villages — seven with strong VHSCs, and seven with weak or non-existent VHSCs. A scoring system to assess VHSC strength, which included such elements as frequency of meetings, adequacy of number of members, presence of health providers in meetings, and the existence of a health register maintained by the committee. Researchers compiled a sampling frame of women who had delivered babies in the last three months. They randomly selected 20 women from “strong VHSC” villages and 20 from “weak VHSC” villages, for a total of 40. Health system performance was judged by asking women

whether they had received services such as blood pressure exams, abdomen exams, weight measures, iron tablets, post-delivery home visits, advice on baby care, immunizations and so on. The study concluded, the presence of a VHSC had an overwhelmingly positive influence on the delivery and utilization of maternal and child health. The study design did not allow researchers to determine whether local leadership strength was a confounder that created both strong VHSCs and strong health system delivery.

Participants from **Tagore Society for Rural Development (TSRD)**, an organization headquartered in West Bengal conducted a study on antenatal care service delivery in Jharkhand state where they also have a field project. They studied the success of the government's commitment there to provide quality healthcare services to the "last person in the last household of the last village" using ASHAs as a key component of the delivery system. The ASHA programme there differs somewhat from other areas in India. Here they are called *Sahiyyas* and unlike ASHAs are not offered financial support, face no educational restrictions, and are supposed to be in place for each hamlet. The study included 16 villages, half with high concentrations of scheduled tribes (for purposes of comparing to villages with a lower tribal population). They surveyed 193 women who had given birth in the last six months, and interviewed 34 ASHAs, 15 midwives, and 20 other frontline health providers. Additionally, they conducted focus groups with recently-delivered women and their mothers-in-law. While ASHAs were found to be good representatives of the communities from which they came (for example, by being of tribal descent or other backward caste), the large majority of the women delivering babies were unaware of their role or the services they could provide. Indeed, only 5 percent of delivering mothers had heard of the term *Sahiyya*. Most of the *Sahiyyas* reported receiving training (although nine of 34 did not), however most also said they were unclear about their tasks and responsibilities.

Healthcare providers complained that the low educational level of the ASHAs limited their effectiveness.

Zougam Institute for Community Resources Development (ZICORD) involved two of its staffers in this project. They explored the role of a specific reimbursement scheme in the NRHM, known as JSY (Janani Suraksha Yojana), designed to encourage institutional delivery among poor women by providing compensation for both care and transport. The study was done in one of the five tribal-populated hill districts of the state, Churachandpur, which suffers from a high maternal mortality rate (303 per 100,000 live births). Ten villages in each of two different blocks of the district were included in the study. Interviews were conducted with two recently-delivered mothers in each district, as well as the care providers. Only a minority of women are delivering in facilities, according to records, and only a minority of them are receiving the correct JSY payments. As with other studies involving ASHAs, this study revealed most were unclear about their selection process, and did not feel well trained for their responsibilities.

CONCLUSIONS

The NRHM is evolving rapidly and promises to change the public health landscape of the country. However rapid changes, without adequate reflection does not necessarily make for either a good programme, or for progress in the desired direction. This collection of reports provides a good insight into implementational successes and problems with India's National Rural Health Mission as it is rolling out across the country. Our researchers have developed some elegant study designs to ask study questions related to NRHM effectiveness. These studies could be replicated in other areas of the country to compare outcomes. In particular, teams that developed questionnaires and facility scoring schemes have made a valuable contribution to the literature.

There are some cross-cutting findings that span the 12 projects, and these clearly and specifically indicate areas that may need to be addressed for improved performance of the programme.

1. The severe shortage of well-trained professional maternal and child health delivery personnel willing to work in India's poorest communities is at the root of the high maternal mortality figures in those areas. Referrals to private providers are modestly subsidized in the JSY scheme, but neither the amount of money nor the mechanisms of implementation have worked to make obstetricians available to poor women in an obstetrical emergency.
2. The JSY (Janani Suraksha Yojana) programme, intended to encourage pregnant women to seek an institutional delivery, has had some success in motivating them for institutional delivery, but is significantly flawed.
3. The goal of pushing women towards an institutional delivery presumes, the institutions where they deliver are prepared to manage both safe normal deliveries as well as emergency obstetrical care. Two of our studies show many facilities are not well prepared for either situation.
4. The selection and training of Accredited Social Health Activists (ASHAs) is significantly problematic. ASHAs are the grassroots backbone of the National Rural Health Mission, and yet many ASHAs do not know how they were selected, and feel their training does not prepare them for their significant responsibilities.
5. Transportation barriers to access healthcare in rural areas are so significant as to pose a real danger to health status across large areas of the country where poor people live.
6. The existence of strong Village Health and Sanitation Committees was demonstrated to be positively associated with better healthcare delivery in the villages where they were operating. This component of NRHM may create

local leadership and community development for health in ways that can have many other benefits as well.

7. Female sterilization remains the most common birth control method in India, yet problems with offering women safe access to the required surgical care led the nation's Supreme Court to rule several years ago that changes needed to be made. One of our teams assessed whether current practices are in alignment with the judicial ruling, and found that while conditions are better than they were, there remain significant problems.
8. India is one of the world's few countries still experiencing polio outbreaks. One of our teams explored the experience of families managing to care for children with paralysis, especially in remote rural areas. Barriers to care for children included cost, transport to education, lack of access to rehabilitation therapy, and lack of knowledge about home physiotherapy.

It has been a matter of privilege and pleasure for us to work on this project with such terrific partners and such eager and competent research teams.

NOTES

1. See Peters et al (2002) *Better Health Systems for India's Poor: Findings, Analysis, Options*, World Bank, Washington DC.
2. For more details about NRHM see www.mohfw.nic.in/NRHM.htm for details of NRHM implementation and progress.
3. For details of its activities see www.nrhmcommunityaction.org
4. For reports and other details please visit www.chsj.org
5. For a discussion on Rapid Assessment methodologies in the early years please see Scrimshaw and Gleeson (1992) (ed.), *Rapid Assessment Procedures: Qualitative Methodologies for Planning and Evaluation of Health Programmes*, INFDC, Boston MA. The book is available on the net at www.unu.edu/unupress/food2/uin08e/uin08e00.htm#Contents
6. For more discussion on this method please visit <http://www.hrhresource-center.org/node/2889>
7. Institute of Development Studies at Sussex maintains a Participation Resource Centre, and this can be accessed at <http://www.pnet.ids.ac.uk/prc/index.htm>

Has Janani Suraksha Yojana Stimulated Institutional Delivery?

A Study in Una District of Himachal Pradesh

1
CHAPTER

Deepak Kumar,* Manisha* and Archana Dwivedi**

INTRODUCTION

Himachal Pradesh (HP) is one of the states in India with high economic growth with the second highest per capita income in spite of over 90 percent population living in rural areas. Adjoined by the states of Jammu and Kashmir and Punjab, Himachal enjoys good socio-economic indicators with a population 27 times less than the most populous state of Uttar Pradesh. It also has a good literacy rate which ranks it among the first five most literate states in the country. The overall literacy rate is 76 percent — 85 percent for males and 67 percent for females. The infrastructure available to the state is also at par with some of the most developed states in India and the state has many health facilities despite being located in a hilly region.

However, the economic and literacy indicators did not lead to better status of women, especially poor women in the state. The constraints and problems faced by women in Himachal are not very different from other parts of the country. The women not only face a high degree of domestic violence but also have limited access to health facilities which are otherwise available to their male counterparts.

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The access to health services is determined by many factors like the cultural belief system as well as the secondary position of women in society. The taboos and cultural practices also get strengthened by the fact that health services are not of good quality, especially for maternal care.

Maternal mortality and infant mortality are the touchstones for a public health delivery system. Among the various tools for achieving the goal of low maternal mortality and infant mortality, the most important one is ensuring an institutional delivery, i.e., a medically supervised environment at the time of childbirth. The government has made this a crucial part of its health delivery effort. Under the overall umbrella of the National Rural Health Mission (NRHM), the Reproductive and Child Health programme Phase II (RCH-II) was launched in the year 2005. RCH-II aims to improve access for rural people, especially from the underprivileged sections, to equitable, affordable, accountable and effective primary healthcare. The cornerstone of this ambitious programme has been the Janani Suraksha Yojana (JSY). JSY is a cash benefit scheme under the RCH-II to promote institutional deliveries with a special focus on women living below the poverty line and SC/ST pregnant women. Janani Suraksha Yojana is being implemented in all states and Union Territories.

The JSY is implemented in Himachal Pradesh where women are entitled for a cash incentive of Rs.700 if they go for institutional delivery and Rs.500 for women who belong to the Below the Poverty Line (BPL)/Scheduled Caste or Scheduled Tribe community even if they choose not to go for institutional delivery. This maternal benefit is given only if women register themselves with the ICDS¹ worker available in each village as ASHAs are not yet appointed in the state under JSY. Implementing JSY will be an additional responsibility on these ICDS workers, and there is still lot of confusion in the state as to how to go about it. These ICDS workers do not take full responsibility for providing health assistance to pregnant women as their core responsibility lies in another

About JSY

- JSY is a 100% centrally sponsored scheme. The scheme focuses on poor pregnant woman with special dispensation for states having low institutional delivery rates namely, the States of Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Assam, Orissa, Rajasthan and Jammu & Kashmir. Besides providing for maternal care, the scheme provides cash assistance to all eligible mothers for delivery care.
- The Yojana has identified the Accredited Social Health Activist (ASHA) as an effective link between the government and poor pregnant women in the ten low performing States. Her main role is to facilitate pregnant women to avail services of maternal care and to arrange referral transport.
- Janani Suraksha Yojana has built-in incentives for both ASHA and the mother. The mother's package in the target states is Rs.1,400 and ASHA gets Rs.600 for various services in promoting institutional delivery. The Yojana subsidized the cost of Caesarean Section or for the management of Obstetric complications, upto Rs.1,500 per delivery to the government institutions, where government specialists are not available.
- In Low Performing States (LPS) and High Performing States (HPS) all pregnant women falling in Below Poverty Line (BPL) category and aged 19 years and above, are entitled to a cash assistance of Rs.500 per delivery, up to two live births even if they prefer to deliver at home.
- The incentive that is offered is supposed to help women by providing assistance for nutritional food supplements as well as to take care of the transport charges if they go for institutional delivery.

programme. However, without even appointing ASHAs the state is expecting to increase the rate of institutional deliveries by way of providing cash incentives.

CONTEXT

With this background, a rapid assessment of the JSY implementation at Gagret Block of Una district was conducted

by ANKUR Welfare Association, an organization working in the area. It was felt that there was a need to know the experiences of women who had accessed the JSY incentive and to analyze those experiences in the light of the quality of maternal healthcare and services. To know the experiences of women is important not only from the perspective of whether they received the assistance on time or not but also from the perspective that this incentive is meant for the very poor and marginalized communities which generally have difficulty accessing government facilities and schemes. Additionally, keeping in view, women and their social status, it was also important to know how this benefit has been utilized (or not) by the women.

Una district consists of two sub-divisions (Una and Amb), three tehsils (Bangana, Amb and Una) and two sub-tehsils (Haroli and Bharwain) with five blocks (Una, Bangana, Gagret, Amb and Haroli).

Gagret block has total population of nearly 79,000 according to 2001 census.

TABLE 1. Profile of Una District

| | |
|--------------------------|------------------------|
| Geographical Area | 1559 sq. kms. |
| Population | 447,967 |
| Male | 224,299 |
| Female | 223,668 |
| Sex Ratio | 997/1000 |
| Density of Population | 291/per person/sq. km. |
| Literacy Rate — Male | 88.49% |
| — Female | 73.85% |
| B.P.L Families | 15,429 |
| Hospitals | 2 |
| First Referral Units | 2 |
| PHCs | 19 |
| Community Health Centres | 5 |
| Sub-Centres | 131 |
| Sanctioned Bed Strength | 369 |

Source: Census 2001 and H.P. Health Deptt

THE OBJECTIVES

To know whether the introduction of the JSY programme has brought about a change in the health status of the women who have accessed and availed health facilities and incentives under the JSY scheme for the year 2008–09.

Specific Objectives

- To understand the factors that motivate women to move from home to institutional delivery and vice versa.
- To assess communities' confidence in government health facilities.
- To understand the dynamics of women's decision-making in choosing between the public and private health systems.
- To formulate suggestions for modifications and improvements relating to JSY policy implementation.

METHODOLOGY

Selection of the Study Area

The study area was selected on the basis of convenience as our organization has a presence in and familiarity with the area as well as the community. The organization conducting the study has a long history of working in the area and had access to women for data collection. In addition to this, Gagret block in Una district was chosen based on availability of human resources to carry out the study. From the block, two PHC areas, namely Gagret and Daulatpur, having a large proportion of Scheduled Caste and BPL families, were selected for the study since the scheme is supposed to benefit a particular class and section of a community. Then from each PHC area, 10 villages were selected on the basis of majority of the population belonging to the Scheduled

Caste and BPL categories. These 20 villages were spread over two sub-centres of Daulatpur PHC and three sub-centres of Gagret PHC.

The Sample

The sample consisted of all the 291 women from five SC communities who had delivered. From these 291 women, 69 women had availed JSY and of them only six were institutional deliveries.

Data Collection Methods

The study used both quantitative and qualitative methods for data collection. The method used in the study was to survey all women who had delivered in the last one year. Besides survey, five separate FGDs were conducted with women who had availed the JSY services to get additional information about various aspects of the JSY implementation. In addition, focus group discussions were held with health practitioners and service providers including doctors, ANMs, dais and RMPs.

To conduct FGDs, a FGD guideline was developed for each set of respondents. In addition to this, a checklist was also developed to help in the in-depth interviews. The FGDs were conducted in local languages and notes were taken. It was not feasible to record the interviews or FGDs as the respondents were sensitive to the use of electronic instruments and using recording devices would have been disruptive to the process.

Limitations of the Study

The results of the study may vary from location to location because the study was done with a particular caste and population in a specific area and hence the study cannot be generalized for the whole state.

FINDINGS

Findings of the Survey

Utilization of public health facilities: The fact that women fear of spending more money if they go for institutional delivery was also evident from the fact that out of 291 women, 77 percent belonging to labourer families opted for home delivery compared to 61 percent women whose husbands were in government jobs opting for institutional delivery.

Care provision at JSY: As regards after-delivery care, it was found that 80 percent women who delivered at the institution came back home the same day. Only 18 percent women stayed there for more than three days, which might be due to complications or caesarean cases. But this is also an indicator of the poor healthcare that is being offered at the public health facilities.

Private services have not been designated by the government: There is a provision under the JSY scheme of NRHM that if the public health facilities are not equipped with emergency obstetric care or do not have sufficient staff to take care of emergencies, they can take the services of private doctor/clinic/nursing homes. But to-date the government has not designated any private nursing home/doctors/clinic to provide such facilities to poor women. In the study area, there are two nursing homes that provide such facilities, but these institutions are not accredited for these facilities. Women informed that because these private facilities were not accredited, women were bound to go to public health facility which is very far from their houses. In some cases, women even delivered on the way while trying to reach a PHC for emergency care. In this scenario, it would have been very useful if some private doctors/clinics were also accredited so that women could reach out to them much easily and timely.

Findings from FGD

Women who Delivered at Home

Feeling of safety at home: We found that women who delivered at home expressed that they felt safe and secure at home for delivery. This is evident from the fact that only six women availed the JSY benefits for institutional delivery. Most of the women were of the view that unless there is nobody at home to look after or there is some complication it is not advisable to go to hospital for delivery. One woman shared her experience of one of her earlier pregnancies for which she went to the PHC, where she was put in a store room as suddenly an accident case arrived and all doctors rushed to attend that case and she was left all alone in a filthy store room. She said that “such things don’t happen at home; there are always elder women and relatives to take care of them.”

Lack of confidence in health institutions: Another important attitude that women shared in the FGD was the lack of confidence in the public health system. Women who delivered at home were of the strong opinion that unless you have a friend or acquaintance in the hospital, the treatment by the staff is very poor. To get proper attention and treatment, it is important to know some staff personally who can help in getting respectable treatment at the PHC or any other public health facility. They also felt that the staff at the institution lacked sensitivity towards their pain and need. They expressed that the only reason they would go for institutional delivery is if there is a complication, which the dai (Traditional Birth Attendant) is unable to handle.

Antipathy of the system: The cash benefits provided under JSY are also eluding women and during the FGD women expressed their deep anger towards the hostility of the system. One of the women said that, “We (poor women) are treated like beggars at these PHCs” when they approach PHC for JSY money.

Women narrated how they were kept waiting for hours, as the person concerned was busy in some other work.

Actual cost is more: Women expressed that Rs.500 or 200 that they might get as JSY cash incentive if they go for institutional delivery is inadequate and actual cost is far more than the reimbursement that they would eventually get. Women also opined that though under the JSY scheme there is a provision for free medicine to the BPL families, at the time of emergency, the doctors prescribe costly medicine and there is no provision for the reimbursement of this amount.

Unable to use JSY incentives: Women also reported that they have heard of JSY beneficiaries having difficulty in obtaining the cash incentive. They cited that in the absence of any bank account and required documents, women are forced to open a joint account with other family members, and therefore lose control over the spending of the monetary incentive for their own nutrition or treatment. They said that there are so many cases where the amount is being utilized for other purposes, mainly by the men folk of their families without the consent of the women. "Money is used to get household items. There were also some cases where the husbands used the JSY money to buy liquor."

Referral without support: In case of emergencies, women told that they were referred to the higher institutions without any support of ambulance or other transport facility. They said that poor women generally are not prepared for this emergency and thus often opt to go back to their homes.

Women who Delivered at Institutions

Most of the women expressed that they had negative experiences with the public health system and strongly felt that

they liked to have home delivery instead of institutional delivery. When they were asked about their experience of delivering at the health facility, four out of six said “ok,” which actually meant not really good as was evident from their tone and body language, and two categorically said that they were treated badly and sometimes health staff used abusive language.

The women in the FGDs were asked the reason of choosing institutional delivery over home delivery inspite of negative experience and the responses received were mostly generic in nature. They are summarized below:

- Nuclear and migrant families are more inclined to use hospital facilities because they are alone and have no one to support at home.
- If the delivery is “precious,” that is, when a woman is expecting a boy after a girl/many girls — this is done by testing at the early stages of pregnancy or if it is a selected one (if woman is not able to bear children or had episodes of miscarriages etc.). In these cases, the family prefers to have a delivery in the institution they are in consultation with since conception.
- Women who had bad experience with the TBA or ANM, or experienced complications at home in their past pregnancies also go for a health facility delivery. For instance, in one case, where the ANM failed to remove the placenta and the woman had to be rushed to the health facility with bleeding, was found advising other women participating in the discussion for institutional delivery and narrated her story how she was able to save her life during that tense situation.

Women also said that when, after all the constraints, they decide to go for institutional delivery, many choose private facilities over public healthcare institutions. They shared that not only their negative experiences of using

public health services encouraged them to choose private clinics over public health facility but ANMs also motivate women to go for private institutions. Women said that ANMs, for reasons unknown to them, discourage women from opting public health system. Women having faith in their regular ANM, then choose the facility as per her recommendations.

Perceptions of the Government Health Functionaries

Perceptions of about the systems: Health practitioners expressed that the JSY failed to deliver as the administration could not decide between ASHA and AWW as to who would be the accredited activist under this scheme. The main purpose of appointment of the ASHA was to develop a vital link between the health facilities and the beneficiaries. The ANM posted at the sub-centre level covers a population of more than 4,000. However, this functionary is also not available during the odd hours as she is not locally posted. Appointment of ASHA or AWW would have solved the problem.

Limited knowledge of doctors about JSY: Most of the doctors at the public health facilities admitted that their knowledge about the JSY is limited to its monetary benefits. They also mentioned that there was no special staff to maintain cash flow of JSY money and it is an extra burden on them.

Perceptions about the cause behind home deliveries: Doctors at the PHCs reported that the major factor affecting women's decision for not coming for institutional delivery is that the health facilities are not equipped with the emergency obstetric care. If the institutions are equipped for emergency care, trust will be developed among the villagers towards the institution. They said that facilities need to be equipped with all medicines, blood bank and trained staff.

Communication gap between beneficiaries and the service providers: In absence of ASHA, there is no one at the field level to ensure timely delivery of health services specific to maternal health needs as specified in the JSY. This becomes more important in the context of emergency cases as there is no support system available at the village level to deal with such cases.

Cumbersome process for getting incentives: The flow of cash from the Block Medical Officer (BMO) to the beneficiaries is also very time-consuming and cumbersome. Doctors informed that the beneficiary had to fill in a form at the sub-centre level and the payment was made at the Block level. The amount spent on travelling to get the reimbursement often exceeds the amount they receive under the JSY. The mechanism specified in the JSY guidelines that the amount shall be paid through ANM in cash before the last days of delivery is not practiced.

Perceptions of the Private Practitioners

The study found that none of the eight private health practitioners knew anything about the JSY scheme. According to them, the scheme has neither affected their practices nor have they been benefited. When they were told about the accreditation of private practitioners/nursing homes under this programme, they were of the opinion that if this happens, they would certainly get benefited and the confidence in them among the local people will increase. The institutional delivery will also increase, as local poor people will get quality health facilities at their doorstep.

CONCLUSION

This study again brought forth the issue of good policy and a bad implementation. The findings reveal that none of the

291 women who delivered cited that the JSY provisions motivated or even contributed to their choice of home delivery. Leaving aside the fact the cash incentive given under JSY is much lower than what woman spent when they go for institutional delivery and that the reimbursement process is very cumbersome, the bad quality of care received by people at public health institutions is the major hindrance that the government needs to address if it wants to make delivery safe through institutional care and achieve the goals set by the government in the MDGs or in various other health policy documents.

Providing monetary incentives only at the point of birth does little to address the health needs of mothers. When money is scarce, women are less likely to take care of their health and health needs take a low priority in terms of household expenditure. Instead of stop-gap arrangements like monetary incentive after institutional delivery as provisioned under the JSY, what is needed is a long-term commitment to quality public healthcare and nutritional services.

Another issue is gender discrimination in terms of delivery care received by women in the area that needs to be addressed. Women informed that generally they go for institutional delivery if they are expecting a male child and do not want to take risk of any kind. This means sex-selection, and prenatal diagnostic test for knowing the sex of the child, is taking place in the area. Since the issues are getting reported around these situations, there is urgent need to institute an enquiry and probe this issue at the district level to control those who do the sex selection.

Recommendations

Based on the study findings, the following recommendations are made:

- Quickly appoint ASHA to ensure timely delivery of health services.

- Develop training programmes to ensure sensitive, well-trained and adequate staff at government health centres.
- Provide adequate equipment at the government health centres for emergency obstetric care.
- Better implementation of the ICDS for better food and nutrient intake for women during pregnancy and lactation.
- Provision for the regular and good quality capacity-building programmes for AWWs and ANMs to make them skilled enough to address women's maternal needs.
- Appoint more women doctors, particularly gynaecologists, in the public health system which might motivate women for institutional delivery.
- Enhance facilities for safe abortions in government hospitals as unsafe abortions are an important cause for maternal mortality.
- Develop better mechanism to ensure that the monetary incentive of the JSY is used for timely maternal care.

NOTES

1. Integrated Child Development Scheme (ICDS) is another centrally sponsored scheme that is being run to help poor families provide additional nutrition to the children below 6 years of age.

Have the Supreme Court Guidelines made a Difference?

A Study of Quality of Care of Women's Sterilization in Five States

2
CHAPTER

Jayeeta Chowdhury,* Melissa Lairenlakpam*
and Abhijit Das*

INTRODUCTION

Tubectomy is the most common method of contraception in India. Each year nearly 5 million women undergo sterilization, and an overwhelming 75 percent of all contraceptives used in India is female sterilization. There have been reports of poor quality of sterilization services in the 1990s and earlier.¹ In 1998–99, the Government of India issued quality of care standards for conducting tubectomies.² Even after these guidelines were issued, there were media reports³ and a detailed study⁴ emerging out of Uttar Pradesh (UP) highlighting the continuing poor quality of services. The Parliamentary Committee on the Empowerment of Women⁵ in its report noted the violation of quality norms and asked the Department of Family Welfare to monitor quality of care. Healthwatch UP Bihar, a health rights network, filed a writ petition in the Supreme Court (SC) of India against the lack of quality in conducting sterilization operations.

The SC directed all states to report whether these quality parameters were being followed and in March 2005 passed orders for improving the quality of care of sterilization

* Centre for Health and Social Justice

RAMAKANT RAI & ANR. VS. UNION OF INDIA & ORS

Taking the best of what is being followed by some states, we direct that the States shall:

- Introduce a system of having an approved panel of doctors entitled to carry on sterilization procedures in the State
- Each state shall set up a Quality Assurance Committee for the purpose of not only ensuring that the guidelines are followed in respect of pre-operative measures, operational facilities and post-operative follow ups, but also collect and publish reports of the number of persons sterilized as well as the number of deaths or complications arising out of the sterilization.
- The state shall also bring into effect an insurance policy to compensate for death of the patient sterilized, in case of incapacity and in the case of post-operative complications.

Extracted from: Supreme Court Order Date: 01 March 2005 on Writ Petition (Civil) No. 209/2003

operations. The Government of India incorporated elements of the SC order into the Family Planning Insurance Scheme (FPIS) which was launched on 29 November 2005 and issued a new quality assurance mechanism and revised the quality standards manual in 2006. Healthwatch Forum⁶ activists, in partnership with CHSJ, undertook the study in a few districts of five states of India to assess the implementation of quality assurance mechanisms and Family Planning Insurance Scheme.

The Objectives

The objectives of the study were as follows:

1. To examine whether standard operating procedures as prescribed by the Quality Assurance Manual and Standards for Female and Male Sterilizations as revised after

the Supreme Court orders were being followed in reproductive health camps in these sites.

2. To understand women's own experiences of quality of care and informed choice in the process of receiving sterilization services.
3. To understand whether women and providers were informed about the provisions of Family Planning Insurance scheme.

METHODOLOGY

The study was carried out in the states of Bihar, UP, Orissa, Jharkhand and Rajasthan. Data was collected from different locations in each of these states.

Methods, Study Participants and Data Collection

The study used a mix of methods including the following (see Table 1):

- Camp observation.
- Structured interviews with women who had undergone sterilization in the recent past.
- In-depth interview with service providers.
- In-depth interview with district-level official.
- In-depth interview with state-level official.

Checklists based on quality parameters included in the quality standards manual were used for the camp observations. A total of 17 camps were observed. One hundred and sixty women who had been operated in these 17 camps were interviewed between 10 days and no more than 30 days after their surgery. For getting the providers' perspective, surgeons who conducted the operations and were available were interviewed. The study also included interviews

TABLE 1: Overview of Study Sites and Methods

| States | Districts | State officials | District FW Officials | Surgeons | Women | Camps |
|-----------|-------------|-----------------|-----------------------|----------|-------|-------|
| Bihar | Saharsa | 1 | 1 | 2 | 20 | 2 |
| | Madhubani | | | | 26 | |
| | Patna | | | | 6 | 2 |
| Jharkhand | Ramgarh | 1 | 1 | 1 | 10 | 1 |
| Orissa | Mayurbhanj | 1 | 1 | 1 | 10 | 1 |
| | Ganjam | | 2 | 4 | 10 | 4 |
| | Malkangiri | | 1 | 1 | 14 | 1 |
| | Balasore | | | 1 | 15 | 1 |
| Rajasthan | Chittorgarh | 1 | 1 | | 19 | 3 |
| | Jhunjhunu | | 1 | 2 | 10 | 2 |
| U.P | Azamgarh | 1 | 1 | 1 | 20 | |
| TOTAL | | 5 | 9 | 13 | 160 | 17 |

with district- and state-level officials for understanding the administrative procedures. The data was collected between March and August 2008. All the field investigators were trained and all the protocols were pretested. Ethical issues like confidentiality and informed consent were taken into account during data collection.

Limitations of the Study

The study assessed the current situation by covering a number of states and districts and by triangulating information from a range of different sources. However, the study has the following limitations:

- The overall sample size was small.
- All the research tools could not be used in all sites.
- Surgical proceedings inside Operation Theatre (OT) could not be observed as part of camp observations.

FINDINGS

1. Background Information of the Women

Some of the key demographic features of the women interviewed were as follows:

- Sixty percent of the women interviewed were below 30 years of age. The youngest woman was 20 years of age and the oldest 40.
- Sixty percent of the women interviewed were non-literate.
- Fifty-nine percent of the women interviewed had either two or three children.
- Eleven percent of the women who were interviewed were Muslims.
- Sixty-four percent of the women had not used any contraceptives earlier.

2. Background Information about Infrastructure and Other Facilities at the Camps

Physical conditions: In 13 out of 17 camps, the infrastructure like the walls, doors, windows, roof and floor were in good condition. In two camps, a generator was not available. Five camps did not have an oxygen cylinder or running water.

Examination room: Ten out of 17 camps had an examination table in the examination room. In 14 places there was a blood pressure apparatus and weighing scale and 12 had examination rooms.

Operation theatre: In 16 out of 17 camps, there was an OT table but only 12 were capable of being tilted into the recommended Trendelenburg's position. Fifteen OTs had adequate light and clean clothes for the surgical team. Running water was available in only 11 camps.

Recovery room: Ten out of 17 camps had a recovery room for women with patient's cot, mattress, sheet, pillow and blankets in them. In other places, women were adjusted in any room that was free, and they used old and dirty mats (durrie) to lie down.

Infection prevention practices: Disposable syringe and autoclave equipment were seen in 15 camps. Five camps were not using sterilized instruments consistently and one camp did not even have a boiler to sterilize syringes and scissors, etc. Though the providers were aware of the importance of following infection prevention procedures, they were unable to stick to the guidelines because of lack of equipments or overload of patients. "For disinfecting water should be diluted with the yellow solution and boiled for 15 minutes. This procedure should be carried out for every case but due to shortage of time it is not possible to boil water for 15 minutes."

Citizen's charter: Only four camps had the Citizen's Charter displayed at a public place. Timing of the sterilization was displayed at only three camps and four camps displayed information on free sterilization services. Only two camps had complaints or suggestion box.

3. Pre-Operative Care

A. Waiting for Surgery

Camp observations revealed that 10 out of 17 camps had a waiting room for women while seven camps did not have one. From the interviews it emerged that women had to wait between 2–5 hours between registration and surgery time with a majority having to wait for three hours or more.

B. Counselling and Consent

In nine out of 17 camps, women were being counselled before undergoing sterilization. The following observations were made during counselling:

- ANM and ASHA counselled women at the field level and the doctor counselled after the surgery if required.
- The nurse spoke about the benefit of sterilization and gave advice on how to take care and rest after the surgery.
- The women were oriented that this is a permanent method of contraception.
- The women were being counselled and given information about sterilization.

During their interview, only 17 percent said that they were given information on using other contraceptive methods. 89 percent women reported that they had not read the consent form themselves. 4 percent of them had not signed or used thumb impression on the form. Two respondents from Bihar felt that some kind of coercion was used for undergoing surgery, though they have not mentioned the reason for saying so or the form of coercion.

C. Pre-operative Screening

The Standards for Female and Male Sterilization make it mandatory for the operating surgeon to fill up a checklist for each client before initiating surgery. They also stipulate physical and laboratory examination to ensure eligibility of the client for surgery. However, only 28 percent women said they were asked about their medical history, past illnesses or health problems. On asking the surgeons about the practice of filling up pre-surgery checklist, most of the respondents said they do fill it up but only four of 13 elaborated on the procedures. One of them said there is no such provision. One

TABLE 2. Women's Experience of Screening Procedures

| Screening Examination | Number of Women | Percentage |
|-----------------------|-----------------|------------|
| Pulse rate | 81 | 50.6% |
| Blood pressure | 98 | 61.3% |
| Temperature | 40 | 25% |
| Urine sample taken | 116 | 72.5% |
| PV examination | 24 | 15% |
| Blood sample | 13 | 8.1% |
| Weight taken | 13 | 8.1% |

surgeon responded "Yes, there is a provision of filling the check list before operation. But that check list is not filled before every surgery."

Camp observations revealed that 12 out of 17 camps had a separate examination room, however only three had a separate laboratory for blood and urine examination available at the facility. During the interviews, 44 percent of women felt that they had no privacy during the examination and 8 percent women said they had no examination. Table 2 gives the information about the women's experience of different screening procedures prior to surgery.

D. Communication between health staff and women

During the camps, the staff was seen to be polite with the women. They listened to women and their family members; however, in one camp in Orissa, the health staff was very busy and they had no time to interact. No screaming at women or family members was observed, and no evidence of physical abuse was found. Most of the respondents said the behaviour of the staff was good, friendly and polite. One respondent from Jharkhand mentioned that the behaviour of the health staff was fine but nobody came to visit later and no proper care was taken during the night.

Fifty one percent women felt nervous in the OT. On asking the women about the staff's response to their nervousness during surgery, there were mixed responses. While most women said that the staff were reassuring and asking them not to fear, there were also responses like "If you are getting scared and the operation goes wrong, then it's not our fault," "if you very scared, then go back home; otherwise think about it, you still have time."

4. Post-Operative Care

A. Post-operative Care and Follow-up Instructions

During interview with the service providers, they were asked about the post-operative advice they give to women. They mentioned that they informed women about precautions such as healthy diet, light work, maintaining cleanliness, abstinence from sexual intercourse at least for two weeks to three months (in some cases), proper care, follow-up health check-up, taking rest, taking proper diet and follow-up, taking care of the stitches properly, taking regular medicine, visiting PHC in case of pain, fever or infection and so on.

The standard operating procedures about discharge mention a minimum time of four hours after surgery and after an evaluation has been done by the surgeon. When surgeons were asked about this, they gave a range of hours after which they discharged women and this was between 2 to 4 hours. One of them said 8 hours. Few of them said that they discharge after 24 hours to 48 hours. It is worthwhile to mention that some of the respondents felt that women usually want to leave after 4 hours. One provider added that "The operated women are discharged after 4 hours. But the women are reluctant to stay for such time as transport is a major concern, besides the lack of infrastructure (ambulance) is another concern."

Women were also asked in detail about the advice given for post operative care. The recommended standards and the summary of what women reported are noted below.

- Resume only light work after 48 hours and gradually return to full activity by two weeks — Over 84 percent of women were given this advice.
- Resume normal diet as soon as possible — Nearly 90 percent of the women were given this advice.
- Keep the incision area clean and dry — Over 84 percent of women were given this advice.
- Bathe after 24 hours following the surgery — Nearly 90 percent of women were told to bathe two days after surgery.
- The client may have intercourse one week after surgery or whenever she feels comfortable — Most of the respondents said they were advised to have sexual intercourse nearly 90 days after the surgery; some of them said they were advised to resume sexual intercourse after 180 days and few of them said they were advised after 60 day. Over a third of the women were not given any advice regarding resumption of intercourse.
- Follow-up contact at home by the female health worker or in a government health institution or reporting of the client to the clinic should be established within 48 hours of surgery — Nearly 65 percent women said the health worker visited them after the sterilization of whom half said that the health worker visited them within two days of the surgery.
- A second follow-up should be done on the seventh post-operative day for the removal of stitches and post operative check-up — 61 percent women said that the stitch was removed at home, 30 percent said at the facility. 46 percent women said that ANM removed their stitch, 16 percent said doctor removed their

stitch, 10 percent women got it removed by nurse, and the rest by others like compounder, hospital staff and Ayurvedic doctor.

B. Discharge slip and certificate of sterilization

On asking if they were given a discharge slip when they left for home, only 17 (10.6%) women reported that they were given written instructions about care to be taken after the surgery. From service providers' interview, it emerged that many women are often not given discharge slip. One provider said, "We are not giving discharge slip to every case. According to the demand or willingness of the patient, we are giving."

On asking whether women are given certificates after sterilization, seven of the 13 service providers said that they do not give such certificates. The remaining six said they do give if asked for. A provider said, "We are not giving any certificate to the sterilized women, only government employees are demanding from their sides and we are giving them only but not to the common patients. Now, in the last meeting, we have planned to give to each individual who undergoes sterilization."

5. Costs and Compensation

Sterilization services, including post-operative medicines, are supposed to be provided free of cost by the Government of India as part of the Family Planning programme. All acceptors are also provided an incentive, which at the time of the study was Rs.600 for women.

Cost of Surgery and Medicines

Eighty percent of the women were not charged for the surgery, though 59 percent had to buy medicines. In Bihar,

women incurred costs ranging from Rs.20 to Rs.2,500 on surgery alone. Seventeen out of 52 women interviewed in the state said they spent more than Rs.1,000 on surgery and five among them had spent Rs.2,000 and more. Forty-nine out of 52 respondents in the state reported expenses incurred for medicine. 18 women had spent Rs.1,000 or more, of whom 11 spent between Rs.2,000 and 5,000 on buying medicines. In Orissa, 25 out of 49 reported having incurred costs related to medicine, with three spending above Rs.1,000 and one woman spending Rs.4,000 on medicines. In comparison to Bihar and Orissa, women from Jharkhand and UP had to spend less on medicines, with fewer women reporting spending money on medicines and the amounts being in the order of Rs.50 to Rs.400.

One hundred and forty out of the one hundred and sixty women said that they received compensation after the sterilization. Of them, 80 percent of respondents faced no difficulty in getting the compensation, whereas 6 percent faced some difficulty and 14 percent women did not respond. In Bihar, one woman said that she did not receive any money despite spending Rs.3,500 on medicine and other things. Most of the women received the allotted Rs.600, though in a few cases they received a lower amount.

6. Quality Assurance Mechanisms

A. Service Providers' Knowledge of SC Guidelines of 2005

Service providers were asked about their knowledge of the SC guidelines on quality of care relating to sterilization procedures. Most of the surgeons knew about these guidelines but many did not know about the specifics of these guidelines. One of them said they received training on this while another respondent said they received guidelines but not training. One said, "Yes, I know that Supreme Court has issued a guideline for the sterilization operation ... and from 2004–05 we are

following it. A Quality Assurance Committee has been formed under the leadership of Directorate of Health at the State-level and Chief District Medical Officers at the district level. ...Insurance for the women and medical officers are given as required. I know that we should do proper counselling to the patients before and after the sterilization operation ... For one case we should give 5 to 10 minutes and in a day we should do no more than 30 operations but we are not able to follow the guideline 100.percent."

Another one said, "Previously the operations were held even in a school, college and sub-centre. Now, it is strictly prohibited to do so in such areas. CDMO circulated a letter which says that only on Tuesday and Friday sterilization can be done either in a PHC or in a CHC with sufficient infrastructural arrangements."

Some were aware about compensation. One said, "If it fails then the compensation is Rs.30,000 and in case of death Rs.100,000."

In discussions with district officials, seven of the nine knew about these guidelines. "Yes, we have prepared a panel of operating surgeons, QAC is there, records are being kept, and insurance is there." Many of them agreed that it is not implemented in total. "Yes, but the order is not implemented fully."

All State-level officials were of the opinion that the SC guideline was a positive step "It is a good thing and it helps in maintaining quality in sterilization operation." They said, "Yes, we are trying to implement the guidelines related to sterilization at every level. The doctors and the nurses are being trained."

B. Ability to follow Standards

Most of the providers said that they try to follow the standards but were not fully successful in doing so. "We are able to

follow only 60 percent of standards set by the government. ...Although we know about the guidelines of Supreme Court in this regard but it is difficult to follow up the guideline minutely in the field level and in an interior place like ZZZ CHC."

In the interview with the district-level Family Welfare Officers, most of them said that they try their best to meet the standards. Few said they "completely" meet the standard, another said that they are successful up to 80 percent. One of them admitted that, "The standards of the sterilization operations are not up to the mark."

When asked about difficulties faced in following standards, most of the service providers complained of different problems. One provider said "...maintaining hygiene is a problem for us. No active follow up due to limited staff with huge workload. Although we are giving the medicines to the sterilized women, we are unable to give all the required medicines." Another said "...Our PHC is technically poor. We do not have sufficient infrastructure to follow the guideline fully. We are still working in the old building, no generator facilities, no running water, shortage of staff etc. During operation, surgical gloves and apron are the requirements. But as there is no supply of these materials, we are conducting the operations without these materials." A third said "...Sterilized women do not follow the advice, in addition to that they can't come again for post-operative follow up. If a minor complication occurs they neglect it, which leads to chronic problem." There were a few providers who denied facing any problem in following standards. "No, what types of problems? What is the difficulty? All standard measures are followed in this camp."

At the district level, officials said they face problems like infrastructural problems, lack of equipments and staff. "It is not possible to observe and examine all the patients in pre- and post-operative period. We are still

unable to provide running water facilities and laparoscopic facilities to all PHCs. We are trying our best or in a process to fulfil all the requirements." An official from Orissa advised, "It is too difficult to follow the Supreme Court guideline on sterilization operation. It needs lot of restructuring at PHC/CHC level. The community should demand proper care. NGO/GO should jointly try to make aware the common people...we can follow the guideline in the right way." Two district officials said they did not face any problem.

C. Quality Assurance Committee

Service providers were asked about their knowledge of the Quality Assurance Committee (QAC) in their district. While some knew about such a committee, others did not know. "Quality Assurance Committee has been formed in our district some years back. CDMO and ADMO (Health & Family Welfare) are the two members of quality assurance committee. They are regularly visiting our CHC, monitoring the cases, and giving feedback. Conducting monthly review meeting." Others who did not know said, "May be, there is a QAC in the district. I am not aware about the committee and their role." On asking the district officials about QAC, five out of nine said that QACs had been formed in their districts. three of them said it was not formed and one official did not know.

D. Targets for Women's Sterilization

On asking about targets around women's sterilization, the service providers gave mixed responses. While five out of 13 respondents said there were no targets given by the district, others said there were targets. "...we have to do 300 operations per annum for internal audit. In our

CHC, the target is 325 per year. We usually conduct operations from end of September to March.” Another provider elaborated, “The target is decided by the Family Welfare Department, Deputy CMHO and the Collector.....” Others said “The sterilization programme has a significant role to play in the population control programme. The birth rate of our district is 18.92. The state government had kept a target of 18percent for 2012 but we have succeeded in achieving the target in 2008 itself.” An official from Rajasthan advised, “I would like to convey to the Government of India that for population control, instead of a targeted approach based on numbers, a qualitative approach must be adopted.”

Complications after surgery

Eighty seven (54%) women said they faced health problem after their surgery. Forty women sought medical attention for these health problems. 11percent women reported bleeding from the wound, 17 percent had infection, 5 percent had urinary problem and 28 percent had fever after few days of the surgery. In addition, 31 percent had giddiness, 13 percent had nausea, 50 percent had abdominal pain and 25 percent had acidity, immediately after surgery. Forty-five percent said they had consulted the doctor, thirty-one percent consulted the health worker and one respondent said that she had consulted a private doctor.

7. Information about Family Planning Insurance Scheme (FPIS)

A. Knowledge about Family Planning Insurance Scheme

Women were asked about their knowledge of the Family Planning Insurance Scheme, and only 8 percent said that they have heard about it. Their sources of information were the newspaper, television, radio, government advertisements, health worker and social workers. However, 54 percent women reported having faced some problems after

surgery, including 40 who needed to see a doctor. Nobody reported having been told about or having applied for FPIS benefit.

B. Adverse Outcomes and Compensation

Providers, district and state officials, were asked about adverse outcomes and the compensation process. Except one provider from Rajasthan, others did not know of any case where compensation had been paid in case of sterilization-related death. One district level official from Orissa said, "During the year 2006–07, two death cases were there who had received compensation. During the year 2007–08, two death cases were there whose files are under process for compensation. There is no reported case of failure or complication." No information was available from the district officials from Bihar on this issue. From UP, the official from Azamgarh district said, "there was one death case from one CHC and we gave Rs.500. Insurance form was filled up but after that no idea." He added that three failures had taken place in 2007–2008. One of the officials in Rajasthan said, "Though there are no cases of reported death due to sterilization, there are 1–2 cases of failure every year." With regard to FPIS claims by women or their families, he said, "this information could be accessed from 2006 records from Chittorgarh ... they got their insurance from ICICI Lombard Insurance Company."

State-level officials from Bihar reported three deaths in 2007–08 and two deaths in 2008–09 due to sterilization. He also added that though the family of one woman had claimed compensation, they had not been given by the insurance company. The official from Orissa said that in 2006–2007 there were six deaths, 32 failures and 10 complicated cases. In Jharkhand, the official said that there were four cases of deaths and 11 cases of failures in 2007–08.

C. Role of Officials in Providing Compensation

On asking about the role of the District Family Welfare Officials in facilitating compensation to women, the study found that in different states different procedures are followed.

The official from Orissa said, "The Medical Officer of the concerned PHC/CHC conducts the initial inquiry. As in-charge of Family Welfare activities in the district, I then make an inquiry of the case and process the file for compensation. After my inquiry, CDMO conducts final inquiry and sends report to insurance company for compensation." The Orissa state official said, "State directorate is directly monitoring the district authorities whether the beneficiaries are getting their appropriate claim or compensation or not. In fact, district health officer has sufficient power to handle the case. If there is a problem, the state officials can help the district official indirectly."

District officials from Rajasthan said, "We take full responsibility of taking the case and sending it to the Insurance Company. We help them in getting the form filled and sending it across."

The official from UP said, "The forms are filled from our office and sent across." On the role of the Directorate in facilitating payment of compensation of FPIS claimants and in linking with the insurance company, the official from UP said, "Basically, we are involved in monitoring. If any problems come up in getting the compensation we speak on behalf of the woman to the Insurance Company so that the woman gets her complete compensation."

The official from Bihar said, "The claim and other papers are sent to the insurance company from the district level. The directorate has the responsibility of disseminating the guidelines at the right time. Directorate and S.H.S.B can only disseminate the guidelines. Actual implementation agencies are the districts and the insurance company itself." He also added that many times he has to take special efforts so

that the family gets the compensation, "I have to personally make ten phone calls or emails, and even then the insurance company doesn't reply. Agents and the company are insensitive and non-cooperative."

CONCLUSIONS AND RECOMMENDATIONS

This study was initiated to assess implementation of SC Guidelines and examine whether standard operating procedures were being followed during service delivery and at administrative level. It tried to triangulate information from three sources, direct observations, women's experience as well as service providers and officials' perspectives. There was a reasonable degree of consistency in the information gathered from the different sources. Based on these findings as well as a comparison with the earlier studies that have been conducted on the same issue, the following conclusions can be drawn:

- Periodic camps are not the desirable method for providing sterilization services, and the recommendation is that these services be available on a regular basis at all facilities. However, with a shortage of trained surgeons, camps continue to be the common mechanism in many states. There were no reports of coercion or physical abuse. The overall message from this study is that there has been an improvement in the quality of care of sterilization services being delivered through camps.
- However, there are still gaps in the implementation of quality standards and in the monitoring mechanisms. Not all personnel and district-level managers are equally informed about the procedures. There are continuing gaps in infrastructure and in some cases supplies.
- Some of the crucial areas of quality that continue to be ignored are counselling, pre-operative screening procedures as well as post-operative procedures and

discharge-related advice. These can be considered “soft areas” and can be considered to be associated with the provider attitudes about the client’s entitlements to information and choice.

- Cost of care remains a concern in some places. Even though the Family Planning programme is not only supposed to be free, but one where users are provided a form of compensation for time lost, it is worrying that many women have ended up paying large sums of money for surgery as well as medicines. The fact that this is higher in Bihar may reflect the high levels of unmet need for contraceptive services in the state.
- More than a half of all women had some adverse outcome and a quarter of all women had to seek medical help for their complications. This high level of complications indicates that quality of care is inadequate, and high levels of fever indicate inadequate infection prevention. Sterilization is considered a major surgery because it requires entering the peritoneal cavity and such complications should be regularly monitored and addressed.
- Certification continues to be a problem with a large proportion of women not receiving a discharge slip and the certificate. This along with the absence of a citizen’s charter and lack of information being provided about the FPIS together add up to very poor accountability mechanisms being in place.
- Knowledge about the Family Planning Insurance Scheme has not yet reached the client, who needs it the most. This means that large number of potential users will not be able to claim damages for which the government has already paid its premiums. This means that the insurance company concerned may be making undue profits.
- The study did not reveal enough about the mechanisms for seeking compensation and the experiences of women and their families in seeking compensation under the

Family Planning Insurance scheme. However, what it did indicate reveals the lack of adequate procedures enabling women to seek support under this provision provided by the state. This is of course besides a key shortcoming of the FPIS in defining "failure" which requires re-conception to be reported within two weeks of the missed period.

Some of the recommendations that follow from these findings are as follows:

- All managers and service providers must be trained in quality of care issues, especially issues relating to patient's autonomy as well as pre- and post-operative counselling and advice.
- Quality Assurance Committees have begun to function but are not yet fulfilling their role of collecting and publishing information relating to quality and adverse outcomes. This needs to be done forthwith and adverse outcome reporting needs to be made mandatory.
- Reporting of adverse outcomes needs to be tied up with improving accountability mechanisms and information about FPIS and Client rights and Citizen's Charter needs widespread circulation. One practical mechanism would be to print the provisions of the FPIS on the discharge slip, which again needs to be made mandatory.
- There must be studies conducted to set acceptable standards for adverse outcomes. Adverse outcome reports must be compared against these "benchmarks" and time-bound plans made to improve quality of care at the facility and district levels.
- All functionaries of the health department must support clients in claiming their entitlements under the FPIS because the government has already paid the appropriate premium. The provisions for reporting "failures," has

to be reviewed because reporting failures within two weeks is impractical and does not allow for differentiation with delayed periods.

With the improvements that are already visible in the quality of care of sterilization operations it is hoped that these conclusions and recommendations will be welcomed by the ministry and implemented into practice at the earliest.

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NOTES

1. Koenig and Khan (1999), *Improving Quality of Care in India's Family Welfare Programme*, Population Council, New York.
2. MoHFW (1999), *Standards for male and female sterilization*. Division of Research Studies & Standards, Department of Family Welfare, MoHFW, Government of India.
3. See Saxena, R. (2002), "Theatre of the absurd," *The Week*, 22 December.
4. See Das et al (2004), "Medical Negligence and Rights Violation," *Economic and Political Weekly*, 39(35): 3876–79; 28 Aug.-3 Sep.
5. See Committee on Empowerment of Women (2002–2003), *Action Taken on Fourth Report of Committee on Empowerment of Women* (Thirteenth Lok Sabha) March 2003.
6. Healthwatch UP Bihar has subsequently been renamed Healthwatch Forum.

Exploring What Happens to Children Identified with AFP under the Pulse Polio Programme in Uttar Pradesh, India

3 CHAPTER

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INTRODUCTION

Poliomyelitis, or polio, is a paralytic disease of virus aetiology in children transmitted faecal-orally. It causes Acute Flaccid Paralysis (AFP) in less than 1 percent, but once this occurs, can lead to lifelong paralysis, or residual paralysis. Prevention by vaccines is essential because there is no curative treatment. Those infected, irrespective of severity, shed the virus in their stools for weeks, potentially infecting others.

In 1988, the Global Polio Eradication Initiative was launched to eradicate polio from the world, and much effort was put in. Now, there are only four countries endemic in polio: India, Nigeria, Pakistan, and Afghanistan. Among the four, India is in the worst situation, in spite of its intensive Pulse Polio Programme. Under this programme, polio vaccines are given to children under 5 years almost every month, house-to-house, and children with polio are detected through its surveillance system. There were 559 polio cases, and over 45,000 non-polio AFP cases reported in 2008.¹ Another issue has been currently brought up regarding

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newly reported polio cases. It is estimated around 85 per cent of children who are affected have received more than three doses of polio vaccines earlier, and among these children, one-third had received ten doses or more, but still are affected by polio.^{2,3}

Regardless of this high number of children with polio and AFP, little is known about what kind of healthcare they are receiving; if they are getting any treatments, care, and support after identification. Even though there is no definite treatment for polio, several measures can be taken to ease their symptoms including supportive and symptomatic medicines, physiotherapy and mobility aids. Likewise, there are treatments and care for other diseases that cause AFP. Despite rigorous search, there was no literature exploring what were the experiences of children after they were diagnosed with polio or AFP, and what were the perceptions of their families. One research by Kishore⁴ interviewed 10 families of children with polio in Uttar Pradesh, but the study's focus was on determining the reasons for occurrence of the disease. Yet, the study has found that none of the parents were aware of the importance of physiotherapy and were feeling burdened by the expenses of their treatment. All cases belonged to the poor socio-economic group with only one case with literate parents. Some researches were found exploring perceptions of older patients with childhood-onset polio in industrialized countries, and they all described how quality of life decreased for these patients.^{5,6}

To examine the above question, children identified with AFP and/or with residual paralysis are explored in this study with respect to their difficulties, health needs, and healthcare services provided. Healthcare providers and key informants from the community were approached to explore around the same issues. The results were used to devise strategic options for improvement of the programme and to enhance quality of life of these children.

METHODOLOGY

The study was conducted from April to June 2008 in Uttar Pradesh (UP), India. Seven villages (three urban and four rural) in Muzaffarnagar, a high-risk district for polio in UP, were visited to represent the diversity of the district. Focus group discussions (FGDs) with mothers and key informant interviews with healthcare providers were conducted in each village. We also interviewed families of children with residual paralysis found in the same villages. We searched children diagnosed with polio from April 2005 to March 2008 from the AFP Surveillance list provided to us by the courtesy of the district government and undertook interviews with parents of these children. Interviews with policy influentials and individuals from civil society were conducted at national and district levels.

Study Design

This was a qualitative study using FGDs and in-depth interviews. Interview guides were semi-structured, open-ended, and probing. Questions for the FGDs focused on participants' experiences and perceptions around the status of healthcare provision of the area. The same were explored among the parents of children with AFP and/or residual paralysis together with their experiences due to their children's disease, their needs, and suggestions for improvement. Questions for the key informant interviews focused on the interviewee's knowledge, beliefs, and concerns in looking after children with AFP and/or residual paralysis, and further explored issues around service delivery.

Interview guides and consent forms were piloted to check for their validity and language appropriateness. Researchers trained and experienced in qualitative research conducted the FGDs and interviews. FGDs and interviews were digitally recorded, transcribed verbatim, and if it was performed in

Hindi, translated into English. Written consent was obtained in principle, but with those who were non-literate, it was verbal consent.

Data Collection

Focus group discussions: A total of seven FGDs were held. Mothers with children aged under 5 years were selected purposively with assistance from village leaders ('Pradhans') and the local NGO. Six to nine mothers participated in each FGD, adding up to 56 mothers altogether. Their median age was 30.6 years (range 22–45), average number of children were 3.5 (range 1–9), and four were literate. FGDs were stratified according to their religious background because (1) villages were mono-religious society (Hindu or Muslim) and (2) it provided a better environment for the participants to voice their opinions among people with the same religion. All focus groups were conducted in Hindi and lasted 60–90 minutes.

In-depth interviews: A total of 95 key informant interviews were conducted. Of the total, 28 key informant interviews were held with frontline healthcare workers (ANMs, ASHAs, AWWs), primary health centre (PHC) doctors, and private clinic doctors: those with firsthand experience regarding immunization. 23 interviews were held with national and district policy influentials, including government officials and managers of non-governmental organizations (both international and national). The study also recruited individuals who potentially had a role in influencing immunization programmes from the civil society such as academics, religious leaders, community leaders ('Pradhans'), and journalists, for a total of 15 interviews. We were able to contact and interview a total of 17 parents with children diagnosed with polio, nine parents with children diagnosed with non-polio AFP, and 18 parents with children with residual paralysis.

A total of 74 interviews were conducted in Hindi, and the remaining 21 were in English. One respondent from the families of children with polio and three respondents from the healthcare providers did not agree to recording, but otherwise all the respondents gave consent on voice-recording their interviews. Duration of interviews varied from 30 minutes to some with over one hour according to their knowledge and interest.

Data Analysis

Data analysis was performed using systematic approach. Common key themes that emerged within and across respondent groups were drawn from raw data, and a coding framework was developed according to topic area by three researchers. To ensure validity and reliability, three key informant interviews and two FGDs were randomly selected and were independently translated and coded by two researchers. The percent agreement with the translation and coding was 88 percent and 82 percent respectively. Several meetings were held to discuss the differences until consensus was reached, and the framework was revised. All the raw data was then coded and analyzed using the MAXqda software, a qualitative data analysis programme.

Limitations

Generalizing the findings to other settings is limited because the study was conducted just in one district. Language was a big constraint and made limitations to the findings of the study because the main researcher was not able to speak the local dialect. Most of the interviews were conducted in Hindi, and it was difficult for her to have control over the kind of information being generated from time to time. Also, much informal information was missed out from talk before and after the interviews. Furthermore, some essence

of the interviews was lost because many Hindi words did not have corresponding words in English; but also the dialect of Hindi spoken in the study area was very local and even the co-researchers fluent in the language sometimes had difficulties in understanding. This, and also non-literacy of families made many interviews very difficult to understand which had little information. This created the necessity to conduct many interviews to fit in all the puzzles together into one piece (e.g., sometimes it needed 6–8 interviews to understand one piece of information).

Still, focus of this study on healthcare for children with AFP is a theme which has never been looked at before, and the study was able to highlight their experiences around what kind of healthcare they received and the reasons for their experiences.

Findings

Experience and Perceptions of the Families of Children with AFP

This section uncovers experiences of families whose children suffered from AFP and the kind of feelings that were associated with these experiences. It is presented in a chronological manner following their experiences step by step; from the first moment they detected paralysis in their children to when they got the final diagnosis.

Early Stages of Paralysis

Onset of paralysis: For most people in the local community, paralysis was equal to polio though there are various other diseases that cause paralysis; because prevalence of polio was very high in the area. Therefore, when families noticed that their children were “falling down on the ground” or “air was coming out of the legs,” as they often described paralysis, the first thing they suspected was polio. One mother explained:

“He got up in the morning and he turned on his stomach. He tried to move towards me, but he could not move. I was kneading flour, and I wondered as to what happened. He used to get up and walk, but why isn’t he moving now. It suddenly struck me that he’s got polio. I immediately took him down and left him with another boy of his age. I thought let me see if he plays. He used to run by holding on to the cot. But he could not move. I thought to myself that seems like his leg has got polio. I thought what has happened.” (mother of 2 yr. old child with polio (P3), identified 10 m. before)

People believed that once affected by polio, a child’s whole life would be “wasted.” From this fear, most of the families sought for an immediate care after seeing their child with the symptom.

First access to health facilities: When asked about families’ experiences around accessing hospitals at onset of their children’s diseases, a range of experiences was heard. Some families accessed government hospitals, but by and large, many families had approached private hospitals or their village doctors first rather than the government hospitals. The same health-seeking behaviour was seen among the respondents of the FGDs.

However, under the system of AFP Surveillance, whoever was suspected of AFP had to be reported to the District Hospital, the top government hospital of the district, and stool test had to be performed for diagnosis. This rule was understood universally among practitioners in the area, which was also confirmed through interviews with them. Therefore, even in the case of families that made access to private practices in the beginning, with just a few exceptions with some village doctors, referrals or phone-calls were made to the government hospitals and the families were either made to go to the government hospitals or were visited at their homes by the government doctors.

“No Peace of Mind” at Government Hospitals

Given this system, all families had experiences around using government hospitals or seen by government doctors at their homes. The doctors examined children and stool samples were taken for all cases. However, most families did not continue their visits and went on with treatments from private doctors because they did not get “peace of mind” going to government hospitals. Many families were highly dissatisfied with the services and attitudes they experienced there. One of the main reasons behind this was unavailability of medicines. Many families complained that they did not get any medicine from the hospital, but instead, got a box for storing stool samples. This father expressed his anger:

“The government doctors refused. They didn’t give any medicine. They didn’t give injection nor did they give any tonic for strength. They said that his prevention is the only cure for this. They just did stool checking...Hospital provided no help.” (father of 3 yr. old child with polio (P3), identified 10 m. before)

However, it became clear that in some cases the families were describing their situation as they were given “no medicine” even though they were given a prescription. Prescription meant little to them, and moreover, they did not consider this as treatment received from the government hospitals as they had to buy the medicines out of their pockets.

Furthermore, at Primary Health Centre (PHC) levels, families were told that their children cannot be treated there because it was beyond their “capacity.” This is revealed in one mother’s response:

“They (The PHC doctors) said she could not be treated here. You may go and show her some place else.” (mother of 3.5 yr. old child (P3), identified 10 m. before)

However, for few cases among the families who received similar responses from the PHC doctors, it became apparent during the course of the interviews that they were told to go to the District Hospital (e.g., it is PHC doctors' duty to report cases of AFP to the District Hospital), which the families had taken to mean that they should go and seek treatment somewhere else.

Also, many had a feeling that no attention was paid for their children. There was minimal interaction between the doctors and the families, and most families mentioned that they were only told about their children's status, that their children had polio, otherwise no further information was given.

Visits made by Healthcare Providers to their Houses

Stool test and follow-up: Many visits were made by government healthcare providers to the children's houses after they were identified with AFP. Families gave a list of people who visited them, and among those were doctors from the District Hospital, PHC doctors, and Auxiliary Nurse Midwives (ANMs). There were also some occasions when they were visited by people from outside the district.

Nonetheless, many families did not understand why they were visited because neither medicines, prescriptions, nor anything were provided for them. Excluding the first few visits which were for stool collection and the purpose for which was also obvious for them, for other visits, families typically described these visits as "doctors come, just glance at the child, and go."

"Teams of doctors came many times in cars, sometimes four, sometimes two, sometimes six for checking. They checked. They all came to see our child. But nothing at all was given. They would come and see, check his leg, take measurement and go back." (father of 3 yr. old child with polio (P3), identified 10 m. before)

There were just two cases where some kind of medicine was given to the children. One mother shared her experience:

"Many big big doctors had come to see my child. One of the big doctors, I forgot his name, gave a bottle of medicine and my child got much relief with that medicine." (mother of 2.5 yr. old child with polio (P3), identified 7 m. before)

After confirmation of diagnosis: Two families said that they did not receive the report, but otherwise all families were visited at their homes with the stool test results on "paper." Some remembered what they were told at that time and shared their experiences.

"They said it's your child and you can show him where ever you like. He doesn't have dangerous polio*. It's still in limits and the child will be cured. He will be all right. After that they didn't give any medicine to anything...They said you can show him where ever you like. And there is nothing specific. He may or may not be cured." (mother of 2 yr. old child with polio (P3), identified 10 m. before)

*Type P3 is considered to be less severe.

After this visit, the frequent visits by the doctors stopped for many families.

Financial Burden

Financial burden was a common theme that emerged from every interview. This was a cost incurred by the families because they preferred going to private hospitals. Most of the families were poor with their income being usually around Rs.50 to 100 per day, while they were paying more

than Rs.500 per visit for doctors. It is not difficult to imagine how much of burden the cost of treatment for children with AFP was to the families.

Sometimes, the families had to manage either by taking debt or stopping treatment for their children, or by selecting which treatment they would give to their children according to cost.

"We stopped since we can't afford it anymore. Either we can eat or give her medicine. We have not been able to pay off money we had taken earlier for her treatment. Now you can see what happens in 50 rupees earning." (grandmother of 1.5 yr. old child with polio (P3), identified 6 m. before)

Some families were using government hospitals, but nevertheless they often had to pay for medicines and for transportation, which still was a burden for such families. One father commented:

"We haven't got any help from anybody. Whatever we are spending, we are spending it from our own pocket. Everybody wants to take money. Those who are sitting in government hospital, they also gave 700 rupees medicine in a week!" (father of 6.5 yr. old child with polio (P3), identified 5m. before)

As this father mentioned, there was no financial help provided for families with these children; at least among those who were interviewed in the study.

Why Did Our Children get Affected?

One of the biggest concerns with the children who were affected by polio virus is the fact that they all had received over 10 to 20 doses of polio vaccines and still were affected.

This of course was the big question in the families' mind which they wanted somebody to answer.

"I asked them how can she have polio? She has been taking drops and she had vaccinations. Her name was written down when she was born. When she was born, lady doctor (ANM) had come to the house and gave her drops and also wrote her name. So I asked then how can she have polio, you tell me? If we are not giving drops and child gets affected we can't do anything. They said it's type 3. I don't know what that is. We are illiterate people. We don't know anything." (grandmother of 1.5 yr. old child with polio (P3), identified 6 m. before)

In fact, many families were not able to obtain satisfactory answers. Sometimes no answer was given, and sometimes blame was put on them. These included the possibility of mothers missing out on polio drops, which they were sure they had not, and possibility of their children not having swallowed polio drops properly. However, the most common answer was that it was in "God's hands" or it was their "destiny:"

"They said: 'what can we do?' The doctors here said its god's will what we can do. They said there will be no complaints from this side as all your children had taken medicine (polio drops)." (father of 2.5 yr. old child with polio (P3), identified 8 m. before)

"They just said it was his destiny. Now we can't do anything and you can't do anything. They would just say that and leave." (mother of 3.5 yr. old child with polio (P1), identified 1 yr. 11m. before)

Perceptions of the Healthcare Providers and Key Informants on "AFP Cases"

In contrast to the previous section, perceptions of the health-care providers, the providing side of the AFP Surveillance, are explored here. Also, information obtained from key informants is used to help complement the findings.

Importance of AFP Surveillance

All healthcare providers were aware of their role in the AFP Surveillance and how the system worked. They were generally feeling confident about the system. This was especially strong among doctors regardless of public or private background or their position, and described the system as a “well-established” and “very much systematized” data collection system.

Every doctor interviewed at the periphery level believed it was their duty to be alert not to miss any children with AFP. One doctor stated:

“If there is any child and even if — because it is also in the WHO guidelines — even if you are thinking it’s not an AFP case, you have to send, to minimize the risk of the polio.” (PHC)

Also, they indicated the importance of informing the District Hospital and the NPSP-WHO office in the district as described by this doctor:

“Once it is clear that it is a fresh case of AFP, same day same time, we inform WHO and our district level, DIO (District Immunization Officer).” (PHC)

Furthermore, all doctors and international organization members, those who were involved in the diagnostic process of AFP, stressed the importance of stool samples, called them a “must,” and explained how they had to be done in a timely manner according to guidelines. This is well expressed in the comments given by this doctor:

“When a case is classified as AFP on the clinical ground, stool sample is done in ‘each and every’ case of AFP within 48 hours...We have to collect the stool as early as possible. Guideline says, we should collect the stool within 48 hours of the notification of the case.” (District-level provider)

On the other hand, when ANMs were asked about the AFP Surveillance, they explained that their role was to inform their nearby PHC “first and foremost” if there was any case suspicious of AFP. However, besides this, the work was not in their level, and did not have much idea around diagnosis and treatment of children with AFP.

The work of the AFP Surveillance is completed in the 60-day follow-up visit to children’s houses as explained by this doctor:

“Final follow-up is done, on 60th day of all sorts of AFP. All sort of symptoms, rather. In last follow-up, that is on 60th day, all the motor powers, sensory powers, or atrophy, either the circumference of the arms or circumference of the thighs, is done, so we have to see that patient has developed atrophy or not, or going to develop atrophy or not. So, last follow-up is done on the 60th day.” (District-level provider)

Benefits of AFP Surveillance for Children with AFP

Many health providers perceived AFP Surveillance as beneficial to children who were identified with the symptom. One district-level provider mentioned:

“In both cases, whether it is polio or whether it is AFP, non-polio AFP, the benefit goes to the programme as well as in favour of a child.” (District-level provider)

Common reason behind this perception was that the providers believed children identified were able to receive services which they could not have if they did not come under this system. These services included diagnosis being done free-of-cost, but also certain things such as attention of doctors.

"And meanwhile, we are giving them some extra medicines and sympathies, and all sorts of other things to this family and that family, all things." (PHC)

"As you know, AFP cases are very important for us. We are giving more and more attention to that child, so I think there is no lacking or there is no gap from the health point view of that child." (PHC)

Who is Providing Treatment? Whose Responsibility is it?

It is natural to have this question come up into one's mind when someone is diagnosed with a disease. When this issue was explored, though doctors at PHC were giving treatment also, it became apparent through interviews with private doctors and other key informants that more children with AFP were looked after at private hospitals. One private doctor revealed:

"Government doctors diagnose and they send the children back home, that's all. In the case of most of the patients, which we have been referring to hospitals, they will take samples of stools, they will diagnose whether it is a case of polio or not, and they ask them to go back to their doctor. Most of the time, they are not giving any treatment to that patient, or patient may not be following...that may be the reason. But most of the time, I have seen that patients come back to us only without any treatment."

Hence, despite these children's diagnostic processes were taken up under the AFP Surveillance, many children identified with AFP seemed not to have benefited in terms of treatment. This is because the AFP Surveillance is purely for identifying AFP cases to avoid spread of polio viruses. One academic described the AFP Surveillance as:

"Their sole concern is this: whether they find the virus or not."

The role of the WHO, which is the main organization running AFP Surveillance, was clarified by one of its members:

“The WHO has no supportive role in treatment or care. Families can seek for treatment in either private or public sector depending on what is available to them.”

Collecting all the information together, it may be said in conclusion that there was no defined route, rule, or system through which children identified with AFP could seek necessary treatment following their diagnosis under the AFP Surveillance.

Difficulties in Treating Children with AFP

In addition to paralytic polio, there are mainly three other conditions present with AFP, and these are Guillain-Barre syndrome, traumatic neuritis, and transverse myelitis. In addition, AFP sometimes manifest as side effects of drugs, and sometimes no definite diagnosis can be made. The research found that often AFP patients were treated according to symptoms they presented with.

As there is no specific “anti-viral drug” to cure paralytic polio, a diagnosis that confirmed polio was a challenge shared by every doctor in treating each child and interacting with their families. Supportive and symptomatic treatments were given including antibiotics, analgesics, and nutritional supplement in the form of calcium and additional protein. Added to these were vitamin B1, B6, and B12 to support normal neuro-development and sometimes zinc to enhance auto-immunity, though these treatments are not well evidenced.^{7,8} Only one traditional healer who was called the “polio expert” by people mentioned about the importance of physiotherapy, which is one of the key treatments for polio. Few families

mentioned about being told of doing exercises at their homes, but were not told how.

Support and Care for Families of Children with AFP and Residual Paralysis

It was a general perception among families of children with AFP and residual paralysis that there was no help for their children, and they had to manage everything on their own. This perception was stronger among families of children with residual paralysis, and in fact, all families believed so. Also, they often did not know where they can go and seek for help or what kind of help existed. Sometimes, they tried to seek for help but ended up in vain, as the experience of this mother with ANMs show:

“We also asked ANMs for suggestions but they said that they were sent from there for giving drops and that is what they do.” (Mother of 10 yr. old with residual paralysis, onset at 5 yr. old)

Moreover, even when they did have some information or have accessed services somewhere, things did not work rightly for them. There was an instance where low education level of the family hindered their action of going forth with what they were told.

“They said, write application. Now, who has skills to do all that? They had asked to write application but then who will write...” (Grandmother of 1.5 yr. old child with polio (P3), identified 6 m. before)

Also, some things did not happen as they were expected. One family said, they were told they would get some financial help after the stool test, which they never got. Two families had experience of having their photos and names taken, but nothing happened afterwards.

"I got my picture clicked; sent them to Pradhans; gave it in block office as well but nothing has happened so far...We went to Muzaffarnagar with her and we came back at 12-1 am at night, after all these hardships." (Father of 9 yr. old child with residual paralysis, onset at 1 m. after birth)

There was just one case where they were provided crutches when they went to city. Otherwise, parents made crutches from wood and bought tricycle for their children on their own.

"We bought him a cycle for Rs.2,500. I used to cry and think when I had to carry him for nine months (to school); why should I wait for the government; I will buy it from my own money." (Mother of 15 yr. old child with residual paralysis, onset at 1 yr. old)

When asked around support and care available for children with AFP and residual paralysis, many individuals including ANMs, Pradhans, international organization members, and journalists, were unaware of these services and were incapable of providing information.

Needs of Children with Polio and Non-Polio AFP

This section displays themes around needs of children with AFP which emerged from all interviews. Focus was put on the needs of polio-affected children, for they were the ones who were more in need of help.

"The fact of matter is that, I don't have much idea about this subject. We are not provided information." (Worker for International Organization)

Need of Education

Many families expressed eagerly the need of education for their children with residual paralysis because they

were unable to work as labourers just like their parents or their siblings. Their desire was to have their children educated so that he or she would “not be dependent on anybody,” “do something in life,” and “survive.” One mother stated:

“That is must; only education will help him. If he can’t do anything but if he will be educated, he may be successful in life.” (Mother of 3.5 yr. old child with polio (P1), identified 1 yr. 11m. before)

Healthcare providers and key informants also suggested the need of education for these children, called it their “basic need.”

Transportation Difficulties: Regardless of their strong feeling towards the need of education, most children with residual paralysis were not attending school solely due to difficulties in transportation. Among the few who were attending, a lot of effort was needed in doing so; sometimes their mothers carried them to school or the child skidded along on his or her knees. On the other hand, even those who could stand on their own feet but were still limping, their parents avoided sending them to school because they “fall down” from time to time. Many were unable to go out of their homes going to places, even to their relatives’ house. This father pleaded for his daughter:

“I just want that by whatever way she is just able to walk on her own. I don’t need money. I just want her to walk on her own.” (Father of 10 yr. old child with residual paralysis, onset at 5–6 yr. old))

Need for some kind of transportation arrangements to school also was a theme that emerged with healthcare providers and key informants. District-level providers suggested that more NGOs should come forward to distribute mobility aids.

Medicine and Nutrition

The need for sufficient medicine for these children was another common theme that emerged among families.

“Not even money, but at least medicines should have been provided. It’s government hospital, at least they should have given medicines.” (Mother of 1.5 yr. old child with polio (P3), identified 6 m. before)

Several PHC doctors and ANMs made a similar suggestion. In addition, some noted a need for improvement in the children’s nutrition status.

Expectations from the Government

Expectations from the government were heard from many places. A number of families held a perception that the government should offer more help and pay more attention to the problems of children and their families when the children were affected by polio. One father made a statement on what the government’s role should be:

“If somebody is affected by polio, government should act as a shield. In case people are not capable of managing on their own, then they should be supported by the government.” (Father of 12 yr. old child with residual paralysis, onset at 3 yr. old)

Another father gave a reason behind to why they should be helped:

“Government should help; when government is spending so much money for polio. Gives drops to so many children, going in villages, gives vehicles for it; government should work more rigorously. Something must be done or show them to a good government hospital. Then only one knows whether polio is getting cured or not.” (Father of 3.5 yr. old child with residual paralysis, onset at 2 yr. old)

Expectations from healthcare providers and key informants were also given to the government in helping polio-affected children by taking measures in fulfilling their needs in education, transportation, and healthcare. Moreover, some key informants indicated a necessity of looking into children who were classified as non-polio AFP, but if they were still classified as AFP under the system, they should be taken care of. One academic suggested:

“See, for them, any paralysis is polio. As ordinary people, why should I make the difference that this is due to poliovirus, and this is not. My child is affected. I feel that if I have given that dose, those two drops, why should my child get polio? ...Every child with AFP needed to be suitably compensated as well as rehabilitated, irrespective of polio cases or non-polio cases. That should be the government’s responsibility.”

No expectation

On the other hand, some families expressed no expectation not only from the government, but more generally from anywhere due to their previous experiences of not getting any help. This made them indifferent, and they were unable to come up with their own needs or suggestions. Underneath was this belief that they were poor and poor people never get any help.

DISCUSSION

Gap between the Perceptions of Families and Healthcare Providers

This study found experiences of families of children with AFP in using government hospitals were similar to those of other mothers from the community. The treatments and care they received were inadequate with all of them having to buy medicines from outside many times, sometimes being asked to seek care from other hospitals, and little attention was

paid for their affected children. Many complained that only stool tests were done, and reports were given to them which stated whether it was type P1 or P3 polio; whereas what all mattered to them was their children's illness. Most families were seeking treatments from private hospitals which imposed a considerable financial burden on them.

On the other hand, healthcare providers interviewed in the study believed the AFP Surveillance was beneficial to children, and many considered they were delivering a good service to them and their families. Doctors were sending stool samples according to guidelines, ANMs were reporting paralytic cases foremost to the nearest PHC, and reports were delivered to families at their houses. They were all performing and fulfilling their roles according to their positions.

The probable reasons behind for this gap relate to the nature of the AFP Surveillance and the poor quality of the health system in the area. AFP Surveillance is part of the Pulse Polio Programme which aims at global polio eradication, and its role is to detect children with WPV; so there will be no spread of the virus.⁹ Given this role under the programme, it has no responsibilities over treatment, care or support. This was also clarified by one of its members through the study's interview.

It is also important to recognize how Uttar Pradesh is still experiencing its early transition stage in terms of health system as indicated by Peters.¹⁰ Ramani et al.¹¹ have pointed out public health infrastructure is far from satisfactory in poorer states as the availability of services is constrained by "(1) non-availability of staff, (2) weak referral system, (3) recurrent funding shortfalls, (4) lack of accountability for quality of care, and (5) poor logistics management of supply of medicines and drugs." Access to services is an equally important determinant in meeting the healthcare needs of people especially in rural areas, but as echoed by the people in this study. they are not being met due to minimal or no

public transport between PHCs/CHCs and the district hospitals.¹² Many also mentioned how “poor” do not get anything. This also was a particular concern made by Peters¹³ that “pro-rich” distribution of public resources is exercised in Uttar Pradesh. Due to these factors, health status of the state is below average compared to many others.

In places with adequate health infrastructure, just identifying children with AFP will not cause so many problems because subsequent treatment and care will most likely be taken up by the health system of the area. However, in a place like Uttar Pradesh where the quality of health system is poor, problem arises for the families of children with AFP because they do not have adequate places to seek treatment and care afterwards. This results in an unbalanced provision of healthcare where on one side they are getting services for diagnosis from the AFP Surveillance, but on the other side, they are left without any treatment or care.

Needs of Children

The study identified the following needs of children with AFP through interviews with their families, families of children with residual paralysis, healthcare providers, and key informants.

Medicine and nutritious diet: Though medicines are symptomatic and supportive, there is a need for these medicines for children with polio. Secondary infections can be treated, and muscle pain in the affected-limbs can be relieved.¹⁴ Families in the study talked about their needs for medicines free-of-cost. They were substantially burdened with cost of medicines for their children, and this expectation for support with medicine can well be understood.

Need of nutritious diet was suggested by several doctors in the study, and good nutrition is indeed vital for a competent clinical management in poliomyelitis. Boines¹⁵

has drawn attention to the importance of nutrition status of poliomyelitis patients and stated that “two dietary essentials, proteins and calories, are mutually indispensable.” Proteins are especially important in polio patients for two reasons: for development of immunity against the infection and also for effective tissue synthesis for preventing muscle atrophy.¹⁶ Though the study dates back several decades ago, what he stated stands as of now. Recent studies refer to the role of protein in immunity as an already established fact.¹⁷

Rehabilitation therapy: Rehabilitation therapy for poliomyelitis includes physiotherapy, braces, corrective shoes and corrective surgeries. Free corrective surgeries were organized mostly by social organizations. Some doctors in the study area mentioned about a new scheme by the government for corrective surgeries for polio-disabled children and that they have sent a list of eligible patients. However, we could not find any documents concerning this scheme, and therefore, were not able to evaluate its accomplishment. What we were able to find from a government document which was accessible and from newspaper articles was a scheme introduced in 2006 whereby the government had allotted Rs.20 million for corrective surgeries for the polio-affected children in Delhi (i.e., city).^{18,19,20} Nonetheless, corrective surgeries are only needed when a child reaches to a point when he or she develops deformity in later life.

In contrast, physiotherapy is a core treatment for polio-affected patients, and early ambulation is suggested by many physicians.²¹ However, most families in this study were unaware of physiotherapy despite a few that were told to do exercises at their homes but never were told how. This unawareness for physiotherapy was also found in Kishore’s study.²² This study also found lack of awareness among healthcare providers. When they were asked about treatment for polio patients, very few mentioned physiotherapy.

Transportation facilities and mobility aids: The study found many children with residual paralysis suffered from transportation difficulties, and many were unable to go out of their houses because of not having any transportation means. This also hindered their access to education.

According to the government's policy, provision of access for people living with locomotor disabilities is ensured under the Persons with Disabilities Act, 1995.²³ Under this Act, mobility aids including tricycles, wheelchairs, and crutches are provided by the government. However, it is documented by World Bank²⁴ that this government's scheme is not reaching those in need especially in the rural areas and amongst the poor. The barriers to access to this public policy that this study was able to identify were: (1) lack of awareness of the provision among families as well as healthcare providers, and (2) poor education level of the families because the procedure for obtaining this certificate is complex, also requiring many written application forms.^{25,26}

Presently, distribution of mobility aids are done through "health camps"²⁷ by the government or by social organizations (e.g., Rotary Club, local NGOs, etc.), sometimes in collaboration between the two, and not through the Persons with Disabilities Act. This had its limitations in the number of patients and the area it could cover. Many families in rural areas were not aware of these camps.

Education: Education was mentioned by many families in the study as their needs for the children to be independent in the future despite their paralysis. This importance of education was also stated in the World's Bank document²⁸: "education is critical to expanding the life prospects of people with disabilities." Also, free access to education for the disabled is ensured by the Government of India under the Persons with Disabilities Act, 1995. However, in spite of families' strong desire and universal standard principle, very

few were attending school. The study found transportation difficulties as the biggest barrier to education for these children.

Awareness and sufficient information: As stated earlier, the study found awareness of both the families and the healthcare providers were lacking in what kind of treatments and services there were for children with AFP. There is a need for raising awareness and making information available for everyone in order to improve clinical management of AFP and to promote available services for these children.

Strategic Options for a Better Healthcare

The Pulse Polio Programme is currently the biggest public health programme in India. The government allocated Rs.10.4 billion into this programme for the year 2008–09, but this was solely for polio vaccines and logistics needed for its provision.²⁹ While the programme is conceived as a viable technological solution for reducing child mortality and improving social equity, ignorance in the aftercare for those diagnosed with AFP can be perceived as a shortfall in the programme. Hence, the programme needs to incorporate a scheme whereby it will be more responsible for these children. Several strategic options which can be added to the programme to overcome this shortfall can be drawn from this study's findings.

First, medicines including antibiotics and analgesics should be provided free-of-cost for all children diagnosed with AFP according to their conditions. This should also include nutrition supplements for as long as paralysis persists, for both polio and non-polio, and till then they have grown old enough to be in no need of such aids. Taking into account these children's low socio-economic status, supporting their nutritional needs should be considered as one of the priorities in their treatment.

Second, it is essential to raise awareness of both the healthcare providers and the families on the importance of physiotherapy and moderate exercise for polio-affected children. Awareness raising among the healthcare providers including PHC doctors and ANMs can be done within the monthly training sessions for the Pulse Polio Programme.

Third, information for available benefits and social welfare services (e.g., existence of government policy, health camps) should be provided adequately to the families. Individuals who are in good position to inform and help the families would be: ANMs, ASHAs, Anganwadis, Block monitors of the National Polio Surveillance Project (NPSP),³⁰ Block supervisors of the Pulse Polio Programme,³¹ private doctors, religious leaders and *Pradhans*. Using the network established through the Pulse Polio Programme, especially the Social Mobilization network, these groups should be made aware of available services for paralytic children and provide the families with the information.

Fourth, action should be taken to ensure that children suffering with residual paralysis are able to obtain a physically handicapped certificate under the Persons with Disabilities Act. This will help them obtain transportation means and education. A person or organization, for example Block supervisors of the Pulse Polio Programme, ANMs, or *Pradhans*, should be given the responsibility in facilitating the process of certification including writing applications on behalf of them. Also, simplifying procedures for certificates should be considered, and one measure may be taken by accrediting qualified private doctors for certification.

CONCLUSION

This study was able to uncover the realities faced by the children identified with AFP under the Pulse Polio Programme, a programme set up to achieve the goal of eradicating polio from India and from the world. The realities were: the chil-

dren were the most vulnerable in society, confronted with overwhelming poverty. Poverty made them susceptible to polio and other diseases, as well as to the poor healthcare provision they received after onset of their disease.

Qualitative methods used in this study helped elucidate these valuable findings, and no other methods could have achieved the same. They enabled the researcher to look into the issue from all kinds of angles, from the angle of families, from the angle of healthcare providers, and from the angle of key informants from the community, to develop a holistic picture to what had happened to these children.

For improvement, it is necessary to pay attention to these children who are identified with AFP, who they are, and enhance their quality of life by providing them adequate healthcare. This is important not just for the benefit of these children, but also for the programme itself in moving toward eradication of polio. Improvements in general living conditions, healthcare, education, all are needed to have the disease eradicated, and these needs can be met more if there is better understanding of these children. Thus, integrated approach is needed, both from the government and from the international powers, if ever this disease is going to be eradicated from the world.

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Assessing the Readiness of CHCs to Deliver Emergency Obstetric Care

A study in Wardha District, Maharashtra

4 CHAPTER

Abhay Gaidhane* and Zahir Razi Quazi*

INTRODUCTION

Despite major improvements in reproductive health, millions of individuals still continue to suffer. Although the number of under-five deaths worldwide has fallen consistently — from around 13 million in 1990 to 9.2 million in 2007 — maternal deaths have remained stubbornly intractable.¹ Since 1990, the estimate of the global annual number of maternal deaths has exceeded 500,000. This estimated number of maternal deaths translates to one woman dying every minute. Overwhelming majority of these deaths (98%) occur in developing countries.² The UNICEF report on “The State of World Children 2009” states that in India, the maternal mortality ratio is 450 maternal deaths per 100,000 live births. One woman dies every 5 minutes from a pregnancy-related cause in the country, most of which can be prevented. States with high maternal mortality include Rajasthan, Madhya Pradesh, Jharkhand, Orissa, Uttar Pradesh and Bihar.³

Nearly two-thirds of the maternal deaths worldwide are due to five direct causes: haemorrhage, obstructed labour, eclampsia (pregnancy-induced hypertension), sepsis, and

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unsafe abortion. The remaining third are due to indirect causes or an existing medical condition that is worsened by pregnancy or delivery (such as malaria, anaemia, hepatitis, or increasingly, AIDS).⁴ About 15 percent of all pregnancies are estimated to result in these complications.⁵ Despite years of research, still there is no reliable method of predicting the vast majority of cases of haemorrhage, obstructed labour and eclampsia. While the general health status of pregnant women is important for a positive outcome of delivery, deadly complications randomly occur in all women. In spite of these, nearly all these lives could be saved if affordable, good-quality obstetric care is available at all hours.⁶ For this reason, the focus for addressing maternal mortality has shifted from predicting complications during pregnancy to preparing for efficient emergency interventions. In general, emergency obstetric interventions are inexpensive and can easily be carried out by specially trained health professionals.

The World Summit for Children in 1990 introduced a target to reduce maternal mortality in developing countries by half between 1990 and 2000.⁷ The target was reaffirmed at the International Conference on Population and Development (ICPD) in Cairo in 1994 and again in 1995, at the Fourth World Summit on Women in Beijing. The fifth Millennium Development Goal set for 2015 aims to improve maternal health through a reduction of the maternal mortality ratio by three quarters.

The Context

The Safe Motherhood Programme of India, launched in 1987, emphasized the importance of access to emergency obstetric care (EmOC). Over the past decade, national plans and programmes in India have stressed the need for universal screening for high-risk pregnancies and for operationalizing essential and emergency obstetric care. In continua-

tion with the earlier efforts to improve maternal healthcare, NRHM proposes strengthening the CHCs and PHCs to make emergency obstetric and newborn care available to all women in its efforts to reduce maternal and child mortality. The JSY scheme also has provision of hiring private specialists by public healthcare facilities in case of complicated deliveries, for which monetary assistance is given by the government to the public healthcare system.

In spite of programmatic promises to reduce maternal mortality, India has a high rate of maternal mortality, as stated earlier, with wide inter-state and intra-state variations. For instance, Maharashtra has a state maternal mortality ratio (MMR) of 149 per 100,000 live births, while in Wardha district of Maharashtra, the MMR is as high as 450 per 100,000 live births; (i.e., three times higher than the state average). This is despite the fact that Wardha has high antenatal care registration of more than 85 percent, comparatively well-developed primary healthcare infrastructure and a fair percentage of professionally monitored deliveries; yet there has not been any substantial improvement in maternal mortality reduction. Therefore, a need was felt to have a deeper enquiry into the accessibility and quality of emergency obstetric services in India. Thus, the rapid assessment study was planned to find out the readiness of CHCs for providing EmOC services in Wardha district of Maharashtra.

Wardha district is located in the north-eastern part of the state. It has eight blocks (Wardha, Deoli, Seloo, Hinganghat, Ashti, Arvi, Karanja and Samudrapur). As per the 2001 census, the total population of the Wardha district is around 1.2 million. Majority (74%) of the population of the district resides in rural areas. The population of Scheduled Castes and Scheduled Tribes is around 12.83 percent and 12.49 percent of total population respectively. The birth rate of Wardha district is 16.7 per 1,000, whereas the infant mortality rate is 35.8 per 1,000 live births. ANC coverage in the district is just

15 percent. Sixty four percent of the deliveries take place in institutions.⁸

With regard to infrastructure, Wardha district has 27 primary health centres and 180 sub-centres, eight rural hospitals/sub-district hospitals/CHCs, a district hospital, a tuberculosis hospital, 21 ayurvedic clinics and 21 allopathic clinics. Nine hundred and eleven hospital beds are available in the government setup in the district. Wardha district has two medical colleges, both private with attached tertiary care hospitals. With regards to other private healthcare facilities, the district has 18 maternity homes, two major private hospitals and 48 clinics.

THE OBJECTIVES

1. To assess the readiness of two CHCs in Wardha district of Maharashtra for providing EmOC services with reference to the Indian Public Health Standards (IPHS) developed within the NRHM.
2. To understand and study the current utilization and referral pattern of EmOC at these two CHCs in the district.
3. To identify the “barriers,” and “facilitators” for providing EmOC at these two CHCs from both, user as well as provider perspectives.

METHODOLOGY

Study Design

This was a cross-sectional qualitative study. Socio-demographically, all the eight blocks of Wardha district are comparable. Therefore, considering the time available for the rapid assessment, it was decided to select two CHCs (CHC-1 is Arvi and CHC-2 is Hinganghat) for the assessment of EmOC.

The following stakeholders were identified and were contacted for participation in the study:

- Civil Surgeon and Medical Superintendent/In-charge of CHC or doctors at CHC — to assess the readiness of CHC for EmOC and secondary data review.
- Nurses/Documentation officer/clerk — for abstracting secondary data.
- Private Providers — to find out barriers and facilitators for EmOC at CHC from private providers' perspective.

Total ten women (5 from each CHC area) who had availed the EmOC in the last six months were identified, to study the barriers and facilitators for accessing EmOC, and to study the pattern of EmOC utilization. The women were identified through PHN/ANM/AWW.

Data Collection

Data was collected using qualitative techniques: Check-list for facility observation and secondary data with scoring; guides for interview and guide for FGDs. All the study instruments (guide for key informant interview and focus group discussions, observation checklist) were finalized in the protocol finalization workshop. The suggestions of public health specialists, consultants, and district health officials were incorporated in data collection instruments. Finally, the instruments were pilot tested and appropriate changes were made and then finalized for data collection. The research protocol, including all the interview schedules, was submitted to Institutional Ethical Committee for approval.

The matrix (Table 1) shows the source of information with sample to study the range of issues (specified objectives) related to EmOC services.

Data was collected by a team of two principal investigators and two research associates. Interviews of health providers were conducted at health facility. Private health providers were interviewed at their clinics, whereas local

TABLE 1: Sources of information

| Issues / Objectives | Interviews | Observation | FGDs | Secondary data |
|--|---|-------------|-------|-----------------------------|
| EmOC facilities at CHC as per the IPHS | <ul style="list-style-type: none"> Civil Surgeon CHC MO | CHC | | Review of district/CHC MIS |
| Facilitators/ barriers for providing EmOC | <ul style="list-style-type: none"> Civil Surgeon CHC MO Private provider | | | |
| Facilitators & barriers for accessing EmOC | <ul style="list-style-type: none"> Women (selected from CHC record) Local leader | | Women | |
| Pattern of EmOC utilization | Women (selected randomly from CHC record) Health provider | | | Review of MIS & CHC records |

leaders and women were interviewed at their homes. An anganwadi worker (AWW) from the respective villages assisted the Research Assistants for locating the homes of the selected mothers. Prior to interview, participants were fully explained the purpose of study and informed consent was taken.

Interviews of healthcare providers were conducted by principal investigators. Research associates conducted interviews of mothers and FGDs. Mothers' interviews and FGDs were conducted in Marathi. Observation of CHC and secondary data review using checklist was done by both principal investigators and research associates together.

Data Analysis

A scoring system was developed to assess the readiness of the CHCs for providing EmOC. Indian Public Health Standards for providing EmOC at CHCs as prescribed under National Rural Health Mission were considered while preparing scoring system but equal importance was also given to the local perspectives/situations in scoring. The

method for scoring was vetted by a group of five experts that included a public health expert, an obstetrician, an epidemiologist, and a programme officer at the district level, and the technical advisory group of RAHP and was finalized in the protocol finalization workshop.

The maximum possible score was 52. Emergency service available, human resource, training, EmOC equipment and drugs, infrastructures and transport facility for comprehensive EmOC services were considered for scoring. The components under each category were assigned a specific score. Details of components under each category are listed in Annexure 1. The actual score was converted into percentage score for comparison. Table 2 gives the conversion of actual score obtained into percentages. Based on the score obtained, the CHCs were assigned to specific categories and were given colour coding⁹ based on the percentage of scores obtained.

Qualitative/non-numerical data was transformed and coded for analysis. All the schedules were thoroughly reviewed by both the senior investigators. Free-listing of

TABLE 2: Allocation of score and its categorization

| Subcategory | Maximum score | < 50 % | 51 to 75 % | 76 to 90 % | >90 % |
|--------------------------------|---------------|--------|--------------|---------------|-------|
| Emergency Service Availability | 5 | < 2.5 | 2.6 to 3.75 | 3.76 to 4.25 | >4.26 |
| Human power | 15 | < 7.5 | 7.6 to 11.25 | 11.26 to 13.5 | >13.6 |
| Training | 4 | < 2 | 2.1 to 3.0 | 3.1 to 3.6 | >3.7 |
| Equipment | 6 | < 3 | 3.1 to 4.5 | 4.5 to 5.4 | >5.5 |
| Drugs | 8 | < 4 | 4.1 to 6.0 | 6 to 7.2 | >7.3 |
| Infrastructure | 10 | < 5 | 5.1 to 7.5 | 7.6 to 9.0 | >9.1 |
| Transport | 4 | < 2 | 2.1 to 3.0 | 3.1 to 3.6 | >3.7 |
| Total | 52 | < 26 | 26.1 to 39 | 39.1 to 46.8 | >46.9 |

Note:

Less than 50 % of maximum score => Poor Services

Between 51 to 75 % of maximum score => Needs considerable improvement

Between 76 to 90 % of maximum score => Satisfactory but there is scope for improvement

More than 91 % of maximum score => Good/excellent services

themes/concepts expressed was done and important thematic domains were identified. Responses with almost similar connotations were grouped together. Triangulation of qualitative data, data from observation checklists and secondary data from the two CHCs and from the district was done. In the final report, responses were organized and grouped as per the issues that were to be addressed. Comments from the respondents that are appropriate, important and illustrative have been used verbatim throughout the report wherever necessary, after analyzing them.

Limitations

To study the pattern of EmOC service utilization, the study randomly picked 10 cases from records, but it was revealed later from the interview of the staff nurse of a CHC that sometimes the emergencies that arrived in the CHC were directly referred to the higher facility without entering in CHC records. As five cases were randomly picked from the record to retrospectively track, the study might have missed some important cases that would have provided some additional insights. Other limitations could be due to the methodology used in the study. This being a rapid assessment study conducted in two blocks of the Wardha district using mainly qualitative methods, the findings may not be generalized to other regions of the state.

FINDINGS

Location of CHCs

Distance and time taken for reaching the health facility from patients' homes during emergency is an important determinant for utilization of that facility. The study found that both the CHCs were well-connected by road and there was adequate availability of public transportation in the

town where the CHCs are located. Most of the patients received by the CHCs were from nearby villages and towns. FGDs and in-depth interviews of mothers revealed that the average distance of CHC from their home was approximately 20 km. The main mode of transport from nearby villages during an emergency was by auto-rickshaw and the amount of money spent by the family on transportation ranged between Rs.50 to 400 (charges are higher during night). The average time taken by women to reach the facility by this common mode was around 2 hours. However, as the transport facilities from remote villages to the CHCs are far from adequate, CHCs are receiving very few clients from remote areas.

Readiness of CHC for Providing EmOC

Both CHCs were assessed separately to find out their readiness for providing EmOC (for details see Annexure 1). The study shows that CHC-2 (Hinganghat CHC) was performing relatively better compared to CHC-1 (Arvi CHC). However, CHC-2 was mostly providing selective services (non-emergency services) due to non-availability of the 24X7 specialist. The contractual specialist of CHC-2 has limited role in emergency, moreover, one of the contractual specialist (anaesthesiologist) was coming from a far off place (60 kms/2 hrs). CHC-1 does not have any specialist services. Thus, in absence of these specialists' services, it is difficult for these two CHCs to provide crucial services like EmOC and appropriate referrals. Physical infrastructure and equipments at both the CHCs were adequate but remained underutilized due to lack of trained personnel. Therefore, while giving score, we considered the functional status of the equipments or instruments and infrastructure. Score allotted to specific aspects/services and the percentages of score obtained by both CHCs and their interpretation is given in Table 3.

TABLE 3: Total Score of the Two CHCs

| Item | Max score | | Score obtained by CHC | | | |
|--------------------|-----------|-----------|-----------------------|------|------|------|
| | Number | % Wattage | Hinganghat | | Arvi | |
| | | | No | % | No | % |
| Emergency services | 5 | 29 | 5 | 100 | 3 | 60.0 |
| Manpower | 15 | 19 | 13 | 86.7 | 9 | 60.0 |
| Training | 4 | 15 | 4 | 100 | 2 | 50.0 |
| Equipment | 6 | 12 | 4 | 66.7 | 3 | 50.0 |
| Drugs | 8 | 10 | 5 | 62.5 | 3 | 37.5 |
| Infrastructure | 10 | 8 | 10 | 100 | 6 | 60.0 |
| Transport | 4 | 8 | 4 | 100 | 2 | 50.0 |
| Total services | 52 | 100 | 45 | 86.5 | 28 | 53.8 |

Various issues related to provision of EmOC at the CHCs as evident from Table 3 are explained below:

Availability of basic and comprehensive EmOC service availability: A facility is said to be equipped to provide basic EmOC services with regard to delivery care, if it has adequate facilities for parenteral administration of antibiotics, anticonvulsants and oxytocics, assisted vaginal delivery, manual removal of placenta and removal of retained products of conception. And for a facility to qualify for provision of comprehensive EmOC, in addition to the basic EmOC requirements as described above, the facility should have provision for caesarean deliveries, blood bank and blood transfusion facilities.

The study found that Arvi CHC has inadequate functional equipment for providing EmOC. Further, the clinical staffs needed to provide comprehensive EmOC were grossly inadequate. Therefore, only normal labour was conducted (mostly by the nurse/midwife/TBAs). The Hinganghat CHC had basic EmOC facilities and limited comprehensive EmOC services. Normal or assisted deliveries, routine MTPs, elective (non emergency) caesarean section deliveries were routinely performed at Hinganghat CHC. The utilization of facility for emergency obstetric services was limited due to shortage of

blood supply and absence of anaesthetist. (Annexure 2 provides details of services available at both CHCs)

Services for neonate: Neither Neonatal Intensive Care Unit (NICU) or Premature Baby Unit (PBU) was available at either CHCs. However, radiant baby warmers (to prevent neonatal hypothermia) were available, functioning and used frequently in both the CHCs. Since hypothermia is the main cause of neonatal morbidity and mortality in this region, the study concluded that the required basic service for neonates was adequate.

Infrastructural issues: Physical infrastructure at both CHCs was adequate as per the guidelines of IPHS for providing comprehensive EmOC. (Annexure 3 provides details of the physical infrastructure available at each CHC). Labour ward was in close proximity to the labour room and OT as recommended. Both CHCs had a well-equipped labour room with all facilities including oxygen, IV lines, suction machine, emergency tray and drugs. Enough mattresses were available in labour ward at both CHCs. The study found that all the ANC/PNC wards were well ventilated.

- **Operation theatre:** OT was available at both CHCs, but only functional at CHC-2. OT of CHC-1 was not utilized as there were no specialists. As per the records, all the necessary OT equipments were available at both the CHCs.
- **Blood bank:** Blood bank infrastructure was available at both the CHCs but was functional only in CHC-2, though not 24X7. Moreover, it was reported that there was often shortage of blood at the Hinganghat CHC, and clients had to procure blood from the district hospital blood bank, or they were referred for blood transfusion to the district hospital.
- **Drugs:**¹⁰ Minimum required quantities of drugs that are required for EmOC (as per the IPHS standard) were

available at CHC-2 as per the records. However, clients reported having to purchase drugs from outside. Some emergency drugs were available at CHC-1. On further enquiry, it was revealed that at both CHCs there were frequent shortages, especially for antibiotics. Women in FGDs revealed that the average cost of drugs that were prescribed for purchase from outside pharmacy was approximately Rs.1,000–2,000 at CHC-1 and Rs.500 to Rs.3,000 at CHC-2.

- **Equipment:** All equipments, recommended by the IPHS for EmOC were available at both the CHCs. Most of the equipments were functional at Hinganghat CHC, but at Arvi the equipments were either non-functional or not in use. Facilities for ultrasonography (USG) were not available at either CHC. Patients prescribed for USGs had to go to private facilities, which cost them around Rs.500 per USG examination. A few patients were also referred to the District Hospital for USG. Filled oxygen cylinders, functioning with appropriate valves and regulators were available at both the CHCs. (Detailed assessment of equipment is given in Annexure 4)
- **Hospital waste disposal facility:** Hospital waste disposal facilities (colour coded dustbins) were available at both CHCs, but segregation of waste at source was not happening. The final disposal at both CHC was done by deep burial method.
- **Human resource/clinical staff:** It was observed that both the CHCs were having adequate support staff for EmOC (Annexure 5 gives the details of staff available at both CHCs). However, critical clinical staff members, i.e., specialists, were found to be grossly deficient at CHC 1. At CHC-2, the most essential clinical manpower for providing EmOC, i.e., the gynaecologist/obstetrician and anaesthesiologists were available on contractual basis only. The contractual anaesthesiologist was from Wardha and

needed to travel a distance of 60 km(2 hours) to reach CHC-2. This arrangement was adequate for elective caesarean deliveries or elective operations, but was perceived as a probable barrier for accessing the emergency services. It is very difficult to predict which pregnancy will require emergency interventions.

- **Cleanliness:** The study found that overall cleanliness of both the health facilities needed improvement. Unclean and unhygienic environment could be the potential source of infection. This may further increase the duration of hospital stay and cost of treatment. Moreover, it could also be a barrier for accessing the services, as one mother in her interview told that the CHCs are very dirty, so they prefer not to go there, unless there is no other option available.

EmOC Utilization and Referral Pattern

To study the pattern of utilization of EmOC, the study retrospectively tracked down five cases from each CHC's catchment area who had received EmOC services and interviews of doctors. The pattern of EmOC services utilization was studied in terms of the preference or choice of facility for accessing services, facility at which EmOC services were finally availed, referral pattern, constraints/barriers for providing as well as accessing the services and direct cost for availing the EmOC.

In the absence of availability of trained staff, it was expected that the CHCs would have prompt referral services in place. The study found that both the CHCs had one ambulance for referral, but the services were available only at CHC-2. Though the ambulance was available 24×7, the charges had to be borne by the client (Rs.8 per km). Medical Officer In-Charge of CHC-1 reported that the ambulance was not in working condition and therefore clients are referred by other private vehicles. Some form of private transport facility was available at both the CHCs 24X7, though the cost was very high. People

accessing the services at CHC, being from poor socio-economic background, lacked the capacity to pay for the transport.

Arvi CHC (CHC-1)

The Arvi CHC, in spite of being equipped with good physical infrastructure for providing basic EmOC, is unable to provide EmOC (except referral services) due to lack of trained technical manpower as was revealed from the facility assessment.

Of the five cases, two cases were referred to the district hospital by the private provider. But as the family was poor and was unable to afford high cost of transport to the district hospital, both the families went to the nearest Arvi CHC. Both the women were 9-months pregnant and were in labour pains when they reached the CHC. They were kept for 6 and 8 hours respectively at the CHC. Then the medical officer at the CHC diagnosed them as cases of prolonged, possibly obstructed labour, and he also referred them to the district hospital. The MO helped the patients to arrange for the private transport on loan basis as the CHC ambulance was out of order. Both the women delivered by caesarean operation at the district hospital.

Other two cases, on their own, approached Arvi CHC, as they were poor and therefore could not afford other available private facilities. The health personnel available at the CHC then referred one of them who had a history of caesarean section to the district hospital, as trained personnel were not available to provide proper treatment. The CHC ambulance was not in working condition at the time of visit and the charges of private vehicle was very high. The woman said, "... We are from poor family; therefore we went to government hospital (CHC Arvi). But the nurse said there was no doctor and asked us to go to Wardha (district hospital). Whole day I was in pain in the Arvi hospital but they did nothing. We didn't have money, so my husband sold two goats and then he took me to Wardha hospital. We spent Rs.1,500 there for

drugs.” In case of the other woman, the staff nurse of the CHC conducted the delivery but was immediately referred to the district hospital at Wardha (65 Kms away) due to severe bleeding, where she was given blood transfusion.

The fifth case was referred to the CHC from a Primary Health Centre (PHC). She was 8-months pregnant and was diagnosed as a case of multiple pregnancy by the MO at the PHC. In spite of being registered for ANC and five ANC visits at sub-centre and PHC, the patient was uninformed of multiple pregnancy. After reaching the CHC, the staff nurse referred the woman to Medical College Hospital at Wardha for future management where she delivered two low-birth-weight babies by caesarean section.

There was one private provider (obstetric consultant) in Arvi town. An in-depth interview of the private provider revealed that a majority of the pregnant women from nearby area came to this consultant for delivery. The consultant was unaware of the benefit of PPP under JSY till the time of this interview. The private provider was referring most of the serious/emergency cases, especially from poor families, to district hospital or tertiary care hospital at Wardha, due to non-availability of anaesthesiologist and blood bank facility at Arvi CHC — “...as there is no blood bank facility in Arvi, patients have to bring blood from Wardha (65 Km) ... also we do not have anaesthesiologist in Arvi, so we have to call him from Wardha.... in times of emergency, we can't wait for anaesthesiologist or blood to come from Wardha. It will be costly for the patient and will also be a waste of time, so I directly refer them to district hospital Wardha. For those who cannot afford the transport cost go to the CHC. Here I only conduct normal delivery and elective operations, but very rarely emergency operations... only in exceptional situations when there is low or no risk.”

The medical officer of the CHC in his in-depth interview expressed constraints for providing the EmOC services at Arvi. He said, “I am the medical officer here. I have to look at daily OPD. The inpatient load is also very high and I am on call

24 hours. I am not an obstetrician or gynaecologist, so how can the government expect me to provide specialized services. We need a full time obstetrician or gynaecologist here at Arvi; then only we can provide (EmOC) services. Till then only option left is to refer (patients) to the district hospital.”

Hinganghat CHC (CHC-2)

Hinganghat CHC was found to be better than Arvi CHC in the sense that there are specialists who are associated with the CHC on contract basis, though many times their availability, especially of the anaesthesiologist, at the time of emergency was doubtful. This finding was well supported by the evidence generated from the tracking of five cases that have attended Hinganghat CHC for availing EmOC services.

Two of the five cases who availed the services of the Hinganghat CHC were referred from two different PHCs. Both the cases were attended by ANMs at their respective PHCs. In both the cases, the ANMs tried to deliver the baby for 3 and 5 hrs respectively, but were unsuccessful. The ANMs therefore diagnosed the cases as prolonged obstructed labour and referred them to the Hinganghat CHC. One was delivered by caesarean section and other by assisted vaginal delivery at CHC the next day. Anaesthesiologist was called from Wardha, who took 4–6 hours to reach the CHC (usual time is 1.5 hrs) after repeated telephonic calls. Patients had to bear the charges of anaesthesiologist (Rs.2,500).

Other two women who participated in the study said that they reached the CHC directly from home. The two were diagnosed as cases of ante-partum haemorrhage by the CHC Medical Officer. Both the cases were referred to the district hospital, as the required blood facility was not available. The CHC ambulance was made available to both of them. Both the cases received blood transfusion at tertiary care level and were delivered by caesarean section.”...I went to CHC as it was near my home and there is a good doctor (OB consultant —

contractual basis). But I was referred to the district place by the doctor saying there was no blood available here.”

The fifth woman interviewed was referred to the CHC by a private provider. The woman was 7 months 2 weeks pregnant with bad obstetric history (previous abortion and still birth) and was in labour pain when she reached the CHC. She delivered at the CHC through assisted vaginal delivery (episiotomy and manual removal of placenta). The newborn was low birth-weight and was therefore kept in warmer. The next day morning the mother along with her baby was referred to the tertiary care hospital as there was no paediatrician. The baby had to be kept in intensive care unit for 15 days.

From the mothers' interviews, the study found that the cost (direct cost) of EmOC services at Hinganghat CHC varies from Rs.5,000 to Rs.20,000. The reason for such high direct cost was identified as high fees charged by the anaesthesiologist, drugs (especially antibiotics which were to be purchased from the medical store), and transportation. As one of the five women said, “.... I made a mistake by going to the CHC. It cost me Rs.12,000. If I had gone to Wardha (district hospital) directly, my delivery would have cost me less. The anaesthesiologist came from Wardha and he takes high fees. Here we have to purchase all the medicines from outside. Nothing is available at the CHC.” Thus, the high cost of treatment at CHC was perceived as a barrier for accessing EmOC services at CHCs.

One private provider (obstetric consultant) was interviewed at Hinganghat. The interview revealed that the private consultant was also referring all the emergency cases to either CHC or higher level of healthcare. The reason for this was non-availability of anaesthesiologist in town, and they do not want to take risk in such situations. Only normal delivery and elective operations were performed there. He said, “...it is a risk to keep the emergency cases that need operation here. We do not have anaesthetist here. CHCs have blood bank but blood is not available most of the time. So why to take unnecessary risk? Ambulance is available at government hospital (CHC),

from there they are taken to district hospital. Your government doctors (CHC doctors) also do the same thing.”

CONCLUSION

Rapid assessment reveals that both the selected CHCs of Wardha district of Maharashtra had an adequate infrastructure to provide comprehensive EmOC. However, non-availability of full-time specialist doctors was the main barrier for providing EmOC at CHC level. The utility of the contractual staff in emergency was found to be limited, unless they are from the same town. At both the CHC areas, even though users prefer public care facility for EmOC services nearer to their home (as it requires less time and money for transportation), the pattern of EmOC service delivery and utilization was mostly skewed towards tertiary care centres because of lack of specialists at the CHCs. Serious cases of EmOC are usually referred to other tertiary care hospitals. The cost (direct cost) of services was also very high at the CHCs compared to district hospital or tertiary care hospital. Thus, at both CHCs, EmOC was not taking place in any real sense.

Adequate infrastructure is of no use without ensuring that the trained technical specialists and support manpower provide emergency services 24X7. To achieve the Millennium Development Goal (MDG) target of reducing the maternal mortality to 100 per 100,000 live births, it is very necessary that the Government of India's National Rural Health Mission addressed this workforce crisis in a comprehensive manner, as these are not just short-term gaps. Some of the recommendations that can address the workforce crises to some extent are as under:

- Increase the workforce of specialists. Skill building of staff for providing EmOC may also be of help. Short-term diploma/certificate courses in EmOC for the already existing full-time staff should be considered.
- Maharashtra has a large number of medical colleges (government as well as private). These colleges must

be involved in EmOC service delivery upto the level of CHC. However, this involvement must be to the extent of posting (PG students or lecturers) in rotation round the clock, i.e., 24X7, in CHCs, not just weekly visits. Medical colleges can also be used for capacity building process and by starting diploma or certificate courses in EmOC.

- Better involvement of private providers in EmOC services and public-private partnership (PPP) schemes needs to be implemented in true spirit. However, PPP cannot be considered as a substitute for building capacity of government staff and recruitment of full-time specialists.
- If contractual specialists are appointed at CHC for EmOC, they should be preferably from the same town.

NOTES

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8. RCH II survey
9. Red for less than 50 % of maximum score; Yellow for 51 to 75% of maximum score; Light Green for 76 to 90 % of maximum score; and Dark Green for more than 91 % of maximum score.
10. Referred to only those drugs that are necessary for EmOC as per the guidelines.

ANNEXURE 1: Detailed Scoring of the CHCs

| SN | Category | Details | Max score | CHC -1 Score | CHC -2 Score |
|----|---------------------------------|--|-----------|--------------|--------------|
| 1 | Availability of services | 24 * 7 emergency services | 1 | 1 | 1 |
| | | Not available | 0 | | |
| | | EmOC services | 2 | 0 | 2 |
| | | Available during day time | 1 | | |
| | | Not available | 0 | | |
| 2 | Manpower (clinical and support) | Neonatal resuscitation services | 2 | 2 | 2 |
| | | Available during day time | 1 | | |
| | | Not available | 0 | | |
| | | Full time | 3 | 0 | 3 |
| | | Contractual, living in town | 2 | | |
| | | Contractual, living in another town | 1 | | |
| | | No | 0 | | |
| | | Anaesthesia | 3 | 0 | 1 |
| | | Contractual, living in town | 2 | | |
| | | Contractual, living in another town | 1 | | |
| | Medical Officer (general) | No | 0 | | |
| | | Available (round the clock/full- time) | 2 | 2 | 2 |
| | | Available - Part time | 1 | | |

| SN | Category | Details | Max score | CHC -1 Score | CHC -2 Score |
|----|--|-------------------------------|---|--------------|--------------|
| 3 | Capacity building of manpower for EmOC Training (preferable knowledge + skill based) | Nursing staff (for OB care) | Availability 24 * 7 | 2 | 2 |
| | | | Available not 24 * 7/living in another town | 1 | |
| | | | Grossly inadequate | 0 | |
| | | OT attendant/s | Availability 24 * 7 | 2 | 2 |
| | | | Available not 24 * 7/living in another town | 1 | |
| | | | Grossly inadequate | 0 | |
| | | Laboratory technician/s | Available | 1 | 1 |
| | | | Not available | 0 | |
| | | | Available 24*7 | 2 | 2 |
| | | Dai | Available but not 24 *7 | 1 | |
| | | | Not available | 0 | |
| | | | All trained in EmOC | 2 | 2 |
| 3 | Capacity building of manpower for EmOC Training (preferable knowledge + skill based) | Clinical staff | Some trained in EmOC | 1 | |
| | | | None trained in EmOC | 0 | |
| | | | All trained in EmOC | 2 | 2 |
| | | Paramedical and support staff | Some trained in EmOC | 1 | |
| | | | None trained in EmOC | 0 | |
| | | | | | |

contd...

ANNEXURE 1: contd...

| SN | Category | Details | Max score | CHC -1 Score | CHC -2 Score |
|----|------------|--|-----------|--------------|--------------|
| 4 | Equipments | USG Machine | 2 | 0 | 0 |
| | | Available but not currently functional | 1 | | |
| | | Not available | 0 | | |
| | | OT equipments | 2 | 1 | 2 |
| | | All available but not functional or partly available | 1 | | |
| | | All available but not functional or partly available | 1 | | |
| | | Not adequately available to conduct caesarean section | 0 | | |
| | | All available/adequate & functional to conduct planned | 2 | 2 | 2 |
| | | Partially available & functional to conduct planned | 1 | | |
| | | Not adequate to conduct all types of assisted delivery | 0 | | |
| | | Available at CHC | 2 | 1 | 1 |
| | | Not available at CHC but can be made available from drug shop immediately | 1 | | |
| 5 | Drugs | Essential Antibiotics | 0 | | |
| | | Neither available in CHC nor could be made available from drug shop immediately | 0 | | |
| | | Anaesthesia drugs | 3 | 0 | 2 |
| | | Available at CHC | 2 | | |
| | | Not available at CHC but can be made available from drug shop immediately | 2 | | |
| | | Neither in available in the CHC nor could be made available from drug shop immediately | 0 | | |

| SN | Category | Details | | Max score | CHC -1 Score | CHC -2 Score |
|----|-----------------|--|---|-----------|--------------|--------------|
| | | Essential Obstetrics drugs | Available at CHC | 3 | 2 | 2 |
| | | | Not available at CHC but can be made available from drug shop immediately | 2 | | |
| | | | Neither available in the CHC nor could be made available from drug shop immediately | 0 | | |
| 6 | Infrastructures | ANC/PNC wards (adequate bed & mattresses-no floor bed, adequate light, adequate wall/floor protection, cross ventilation, adequate water, adequate labour tables, cleanliness of wards & toilets, facility for biomedical waste segregation) | Available – adequate | 2 | 2 | 2 |
| | | | Available – inadequate | 1 | | |
| | | | Grossly inadequate | 0 | | |
| 7 | | Labour room (adequate light, adequate wall floor protection, adequate water, adequate labour tables, adequate labour beds, cleanliness, facility for bio-medical waste segregation) | Available and functional | 2 | 2 | 2 |
| | | | Available but non-functional | 1 | | |
| | | | Not available | 0 | | |

contd....

Assessing the Readiness of CHCs to Deliver Emergency Obstetric Care:
A study in Wardha District, Maharashtra

ANNEXURE 1: contd...

| SN | Category | Details | Max score | CHC -1 Score | CHC -2 Score |
|----|----------|---|-----------|--------------|--------------|
| 8 | | Operation theatre (adequate fixed portable operating light, universal frame type operating table with light, adequate/ wall floor protection, adequate water, adequate sterilization facility & fumigation facility, facility for biomedical waste segregation) | 3 | 1 | 3 |
| | | Available and functional | 3 | 1 | 3 |
| | | Available but non-functional due to lack of facility | 2 | | |
| | | Available but non-functional due to lack of manpower | 1 | | |
| 9 | | Not available | 0 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 9 | | Blood bank (Blood storage unit adequate capacity, round the clock power supply with backup, facility for biomedical waste segregation) | 3 | 1 | 3 |
| | | Functional (24*7) | 3 | 1 | 3 |
| | | Partially functional (not 24*7) | 2 | | |
| | | Present but not functional | 1 | | |
| | | Not present | 0 | | |
| | | | | | |

| SN | Category | Details | Max score | CHC -1 Score | CHC -2 Score |
|----|-------------------|--|-----------|--------------|--------------|
| 10 | Transportation | Ambulance | 4 | 2 | 4 |
| | | Available round the clock (24*7) | | | |
| | | Available, but not round the clock (not 24*7) | 3 | | |
| | | Available but out of order since last one month | 2 | | |
| | | Available, functional but not operational due to lack of required manpower | 1 | | |
| | | Not available | 0 | | |
| | Grand total score | | 52 | 28 | 45 |

ANNEXURE 2: Details of the Service Availability and Investigations done as per the Record at Both CHCs

| S.N. | Service | Arvi | Hinganghat |
|-------|--|-------|------------|
| 1.1. | Specialist services availability | | |
| a. | Medicine | No | Yes |
| b. | Surgery | Yes | Yes |
| c. | Obstetrics & Gynaecology | No | Yes |
| d. | Paediatrics | Yes | No |
| e. | Emergency services 24*7 (medical & surgical) | No | Yes |
| f. | 24 hrs delivery service | Yes | Yes |
| g. | EmOC (surgical and medical interventions.) | No | Yes |
| h. | Newborn care | Yes | No |
| i. | Emergency care of sick children | Yes | Yes |
| j. | Family planning services including sterilization | Yes | Yes |
| k. | Safe abortion service (MVA), MTP service | Yes | Yes |
| l. | Treatment of RTI and STI | Yes | Yes |
| m. | Laboratory (blood, urine, stool, serology, microscopic examination of urine) | Yes | Yes |
| n. | Blood storage facility-Institute\Tie-up with local blood bank | No\No | No\Yes |
| o. | Referral transport service | No | Yes |
| 1.2 | Bed occupancy rate in last 12 months | >60% | >60% |
| 1.3 | Average daily OPD attendance | 129 | 440 |
| a. | Male | 73 | 183 |
| b. | Female | 56 | 257 |
| 1.4 | Type of special surgery | - | - |
| 1.5a. | Availability of counselling facility — HIV\AIDS\STD | Yes | Yes |
| b. | Is it a ICTC? | Yes | Yes |
| 1.6a. | Antenatal\Postnatal\Immunization clinics | Yes | Yes |
| 1.7 | Separate septic labour room | Yes | No |
| 1.8 | Availability of facilities for the department of OB-GYN | | |
| a. | Board\name plate to guide the clients | Yes | Yes |
| b. | Adequate working space | Yes | Yes |
| c. | Privacy during the examination | Yes | Yes |
| d. | Facility for counselling | Yes | Yes |
| e. | Separate toilet with running water | Yes | Yes |
| f. | Facility for sterilizing instruments | Yes | Yes |

ANNEXURE 2: contd...

| S.N. | Service | Arvi | Hinganghat |
|-----------------------------------|--|------|------------|
| Investigations done at CHC | | | |
| 1 | ECG | Yes | Yes |
| 2 | X-Ray | Yes | Yes |
| 3 | USG machine | No | No |
| 4 | Training on ECG to the nursing staff | Yes | Yes |
| 5 | Outsourcing laboratory tests to a private agency | Yes | Yes |
| 6 | All necessary reagents, transport facilities available | Yes | Yes |

ANNEXURE 3: Physical Infrastructure of the CHCs

| S.N. | Physical infrastructure | Arvi | Hinganghat |
|------|--|------------|-------------|
| 1. | CHC Located | In village | In village |
| 2. | Designated government building available | Yes | Yes |
| 3. | Construction of building | Completed | Completed |
| 4. | Cleanliness | Good | Good |
| 5. | Garbage\Cattle shed\Stagnant pool\ Industrial pollution | No | No |
| 6. | Location of CHC: <2hrs from farthest village\<4hr from district hospital; feasible to hold workforce | Yes | Yes |
| 7. | Availability of private setup\charitable hospital hospital\NGO hospital | Yes\No\No | Yes\Yes\Yes |
| 8. | Prominent display board in local language | Yes | Yes |
| 9. | Registration counter | Yes | Yes |
| 10. | Pharmacy for drug dispensing near main entrance | Yes | Yes |
| 11. | Separate public utilities for male and female visitors/clients | Yes | Yes |
| 12. | Suggestion/Complaint box | Yes | Yes |
| 13. | OPD rooms\cubicles | 8 | 6 |
| 14. | Adequate no. of window in each room | Yes | Yes |
| 15. | Family Welfare Clinic | Yes | Yes |
| 16. | Waiting room for patients and family members | No | Yes |
| 17. | Emergency room\casualty | Yes | Yes |

contd...

ANNEXURE 3: contd...

| S.N. | Physical infrastructure | Arvi | Hinganghat |
|-------------|--|-----------------|------------------|
| 18. | Separate ward for male and female patients | Yes | Yes |
| 19. | No. of bed male\female\paediatrics | 25\25\0 | 49\51\10 |
| 20. | Operation theatre –Fulfilling IPHS norm | Yes | Yes |
| 21. | Labour room-Present\used to conduct delivery | Yes | Yes |
| 22. | X-ray room with dark room facilities | Yes | Yes |
| 23. | Laboratory present\adequate equipment\maintained | Yes | Yes |
| 24. | Water supply-source\over head tank with pump\sufficient capacity\pump in working condition | Piped\Yes | Piped, well\ Yes |
| 25. | Sewage-type1-soak pit, 2-connected to local body, 3-open drainage | 3 | 2 |
| 26. | Waste disposal | Deep burial | Deep burial |
| 27. | Electricity — in all parts\regular power supply\working generator | Yes | Yes |
| 28. | Laundry facility available? (not available in both the CHCs) | on contract | on contract |
| 29. | Communication Telephone\number of lines\PC\NIC\ Email\accessible by road and rail | Yes\1\ Yes\ | |
| No\ No\ Yes | Yes\2\Yes\yes\ No\yes | | |
| 30. | Vehicle no. on road\sanctioned | 1\1 | 1\1 |
| 31. | Office room\store room\kitchen room | Yes | Yes |
| 32. | Diet provided by the hospital | No | No |
| 33. | Residential Facility (all staff in the CHC) | Yes | Yes |
| 34. | Dharamshala — stay facility\toilet\ cooking for patient-party | Yes\No\No | Yes\No\No |
| 35. | CHC OPD timing | 8-12,4-5- pm | 8.30-1pm |
| 36. | Manageable patient admitted\emergency t\t provided | Yes \yes | Yes \yes |
| 37. | For referred patient ambulance is provided\fuel charge | Yes \yes | Yes \yes |
| 38. | Behaviour per norm | Yes | Yes |

ANNEXURE 4: Details of Equipments Available at Both the CHCs

| S N | Equipment | Arvi | Hinganghat |
|-----|--|----------|------------|
| 1. | Blood storage unit | Yes | Yes |
| 2. | ECG machine | Yes | Yes |
| 3. | X-ray 100mA | Yes | Yes |
| 4. | OT air-conditioner | Yes | Yes |
| 5. | Boyle's apparatus | Yes | Yes |
| 6. | Oxygen\nitrous cylinder | Yes | Yes |
| 7. | EMO machine | No | No |
| 8. | Cardiac monitor\Defibrillator\ventilator | No | No |
| 9 | Horizontal\vertical high pressure sterilizer | No | Yes |
| 10 | Shadow-less lamp ceiling\pedestal | Yes | Yes |
| 11. | OT care\fumigation apparatus | Yes | Yes |
| 11 | Glove dusting machine | No | No |
| 12. | Hydraulic operation table | No | Yes |
| 13 | ILR\Deep freezers\Refrigerator | Yes | Yes |
| 14. | Intercom\personal computer | Yes | Yes |
| 15. | Ultrasound Machine | No | No |
| 16. | KIT-E\F\G\H\V\K\L\M\N\O\P (not available) | K,P only | No |

ANNEXURE 5: Availability of Trained Clinical and Support Staff for Providing EmOC at CHCs in Comparison to IPHS Norms

| S.N. | Personnel | IPHS norm | Arvi | Hinganghat |
|------|---------------------------------|-----------|------|-----------------|
| 1 | Obstetricians & Gynaecologists | 1 | 0 | 1 (contractual) |
| 2. | Physician | 1 | 0 | 1 |
| 3. | General surgeon | 1 | 1 | 1 |
| 4. | Paediatricians | 1 | 1 | 0 |
| 5. | Anaesthesiologists | 1 | 0 | 0 |
| 6. | Public health programme manager | 1 | 0 | 0 |
| 7. | Eye surgeons | 1 | 0 | 2 |
| 8. | Medical officers | | 6 | 2 |
| 9. | Nursing staff | 7+3 | 7+3 | 7+3 |
| 10 | Public health nurse | 1 | 0 | 0 |
| a. | ANMs | 1 | 0 | 0 |
| b.. | Staff nurses | 7 | 9 | 21 |
| c. | Nurse Midwife (Nursing sister) | 1 | 1 | 4 |
| d. | Dresser | 1 | 0 | 1 |

contd...

ANNEXURE 5: contd...

| S.N. | Personnel | IPHS norm | Arvi | Hinganghat |
|------|----------------------------|-----------|---------------------|----------------------------------|
| 11. | Pharmacist | 1 | 2 | 3 |
| 12. | Lab. Technician | 1 | 1 | 4 |
| 13. | Radiographer | 1 | 1 | 1 |
| 14. | Ophthalmic Assistant | 1 | 1 | 1 |
| 15. | Ward boys/nursing orderly | 2 | 5 | 9 |
| 16. | OPD Attendant | 1 | 0 | 3 |
| 17. | Statistical Assistant\ DEO | 1 | 0 | 0 |
| 18. | OT Attendant | 1 | 0 | 1 |
| 19. | Registration clerk | 1 | 1 | 2 |
| 20. | Any other staff | | Lab asst, Driver | Driver, office superintendent |

Note: Rows highlighted in grey show staff necessary for providing basic and comprehensive EmOC service

Are Arrangements for Public Private Partnerships for Emergency Obstetric Care Services Adequate under JSY?

A Study in Ahmednagar District, Maharashtra

5 CHAPTER

Sarika Chaturvedi* and Bharat Randive*

INTRODUCTION

Maternal mortality remains one of the most daunting public health problems in resource-poor settings, and reductions in maternal mortality have been identified as a prominent component of the Millennium Development Goals. The World Health Organization estimates that 515,000 women die each year from pregnancy-related causes, and almost all of these deaths occur in developing countries, particularly in rural settings.¹

The maternal mortality ratio for India is 254 per 100,000 live births,² compared to eight to 12 per 100,000 live births in North America. India contributes about 20 percent of maternal deaths globally. This situation is particularly tragic because no new technologies or drugs are needed to radically lessen maternal mortality. Eighty percent of the maternal deaths are due to five obstetric complications — obstructed labour, haemorrhage, sepsis, eclampsia and unsafe abortion, which can be well managed by provision of emergency obstetric care (EmOC).³ Significant declines in maternal mortality in Sri Lanka and Malaysia over the past 50 to 60 years provide evidence that the implementation of maternal health interventions in developing countries

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is feasible. Increased access to skilled birth attendance accompanied by the development of EmOC and other complementary health services were key contributors to the reductions achieved in these countries.⁴

The Government of India launched the National Rural Health Mission (NRHM) in April 2005 to address the country's health issues. Janani Suraksha Yojana (JSY) is a safe motherhood intervention under NRHM, being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among the poor pregnant women. The Yojana, launched on 12 April 2005, by the Hon'ble Prime Minister, is being implemented in all states and Union Territories (UTs), with special focus on low-performing states. The JSY is a 100 percent centrally sponsored scheme and it integrates cash assistance with delivery and post-delivery care.⁵

Over the years, the private health sector in India has grown remarkably.⁶ At the time of independence, the private sector in India had only 8 percent of healthcare facilities but today it is estimated that 93 percent of all hospitals, 64 percent of beds, 80–85 percent of doctors, 80 percent of outpatients and 57 percent of inpatients are in the private sector.⁷ Therefore, today one is unable to ignore the role of private sector in healthcare service delivery. India has a rich experience of Public Private Partnership (PPP) over the past five decades, but these were ad hoc and not organized or policy-driven.

Appropriately trained personnel and the provision of necessary supplies and equipment are critical to the development and implementation of effective EmOC services and the serious inadequacies in the public sector in this regard have long been identified. The Mission, therefore in its expectation to address the gaps in the provision of effective healthcare to the rural population, aims at fostering public-private partnerships in its supplementary strategies. Adjuvant to this strategy, the JSY has a provision

of subsidizing cost of caesarean section deliveries or management of obstetric complications through partnership with the private sector.

PPPs are collaborative efforts, between public and private sectors, with clearly identified partnership structures, shared objectives, and specified performance indicators for delivery of a set of health services in a stipulated time period.

The core elements of a viable partnership are beneficence (joint gains), autonomy (of each partner), joint-ness (shared decision-making and accountability) and equity (fair returns in proportion to investment and effort). A PPP is termed a successful one when the net benefits of the partnership exceed those of independent activities, and when joint efforts result in more efficient or effective services than independent actions.⁸ Some authors believe that PPPs have been associated with malpractices and private sector gains at public expenses — like subsidies to the pharma industry, to medical education and trust hospitals.⁹ Such outcomes may have resulted from inadequate mechanisms to regulate the private sector.

Research literature identifies varied types and models of PPPs in the health sector like: contracting (contracting out and contracting in), franchising, social marketing, joint ventures, subsidies and tax incentives, vouchers or service purchase coupons, hospital autonomy, BOT (build, operate and transfer), philanthropic contributions, health cooperatives, grants-in-aid, capacity building, leasing and social health insurance. Amongst all the models, contracting has been the most common form of PPP. These models existed in the country much before the NRHM was launched, but were never viewed as partnerships, rather regarded as subsidies or incentives, and it is under the NRHM that a more organized effort is being made to institutionalize PPPs.

The following paragraph, from JSY document elaborates the PPP initiative:

Subsidizing Cost of Caesarean Section or Management of Obstetric Complications

Generally, PHCs/FRUs/CHCs etc., would provide emergency obstetric services free of cost. Where government specialists are not available in the government health institution to manage complications or for caesarean section, assistance up to Rs.1,500 per delivery could be utilized by the health institution for hiring services of specialists from the private sector. If a specialist is not available or that the list of empanelled specialists is very few, specialist doctors working in the other government set-ups may even be empanelled, provided his/her services are spare and he/she is willing. In such a situation, the cash subsidy can be utilized to pay honorarium or for meeting transport cost to bring the specialist to the health centre. It may however be remembered that a panel of such doctors from private or government institutions need to be prepared beforehand in all such health institutions where such facility would be provided and the pregnant women are informed of this facility, at time of micro-birth planning.

Source: Section 4.12: of The Janani Suraksha Yojana, The National Rural Health Mission document Ministry of Health and Family Welfare, Government of India, www.mohfw.in/nrhm.

The Context

The JSY is implemented in all states and UTs of the country with a special focus on the low-performing states. Maharashtra is categorized as a high-performing state where the JSY is applicable to only those women either living below the poverty line (BPL), or to women from the Scheduled Caste (SC) or Scheduled Tribe (ST) families, and who are above 19 years of age, for the first two live births. The JSY for rural Maharashtra provides women a cash assistance of Rs.700 in case of institutional deliveries and Rs.500 in case of home deliveries. JSY also provides assistance of Rs.1,500 to manage obstetric complications or caesarean section through public-private partnership. Some state governments have added to the Rs.1,500 from the centre or have innovatively utilized the provision and have evolved different models of PPPs for EmOC provision; for

example, the Chiranjeevi scheme in Gujarat and the Ayushmani model in West Bengal.

The study was conducted in the Ahmednagar district of Maharashtra state in western India. The district has 14 blocks. The public health system in the district functions through 96 Primary Health Centres (PHCs) and 23 Community Health Centres (CHCs) that are the secondary care centres and a district general hospital at the district headquarters in Ahmednagar city. The private medical sector has a significant presence in the district with multiple speciality centres available at the block headquarters as well as in Ahmednagar city.

The socio-demographic profile of the district is summarized in Table 1.

TABLE 1: Socio-demographic profile

| Indicator | Ahmednagar | Maharashtra | India |
|-----------------------|------------|-------------|--------|
| Population (millions) | 4 | 96.9 | 1028.6 |
| SC (%) | 12 | 10.2 | 16.2 |
| ST (%) | 7.5 | 8.9 | 8.2 |
| BPL (%) | 30 | 30.7 | 27.5 |
| Birth rate | 22.3 | 19 | 23 |
| Death rate | 5.2 | 6.7 | 7.6 |
| MMR/1000 live births | <2 | <2 | 3 |

Since EmoC provision through PPPs is perceived as an immediate solution to the inadequacies in the public sector, it was felt essential to understand the mechanisms followed for the design and implementation of the same and how these affect the availability of EmoC services to women.

THE OBJECTIVES

The overall goal of the study was to collect and collate experiences of women, providers and administrators with regards to the PPP scheme for EmoC provision in selected blocks in Ahmednagar district in Maharashtra state of India.

Specific Objectives

- To investigate whether the PPP for EmOC under JSY is implemented as per the NRHM guidelines.
- To determine the sufficiency of monetary assistance provided under the scheme.
- To understand the difficulties in referral mechanisms and in proving eligibility for availing benefit, if any.
- To understand the views and perceptions of different stakeholders (implementers, service providers, women who had obstetric complications) about the PPP scheme for EmOC provision.
- To find out the reasons for not availing the benefit of the scheme.

METHODOLOGY

A cross-sectional study was conducted using the Rapid Assessment of Health Programmes Approach. The study duration extended from June 2008 to June 2009.

Sample Selection

Five blocks in the district were chosen for the study randomly using the lottery system. A list of the names of PHCs in the selected blocks was used to randomly select two in each block. One staffer, either medical officer or an ANM, was interviewed from each of the selected PHCs to participate as a public health provider. One private provider of EmOC services in a block from three of the five study blocks was selected for interview as a private health provider. Block medical officers in three blocks and the district health officer were also interviewed as administrators of the scheme.

Data from the block medical officers of the selected blocks was used to identify women who had delivered

between June 2007 and October 2008, and were beneficiaries of the EmOC provision under the JSY. Two women in each block were randomly chosen from these lists. The anganwadi worker in these locations was used as a link to reach these women, henceforth referred to as beneficiaries.

A list of women who had availed emergency obstetric care from the private providers and was eligible for the benefit of the JSY was obtained from the private practitioners at the block headquarters.¹⁰ Also names of women who had a complicated delivery were obtained from the anganwadis in the selected PHC areas. Of these, two women in a block were randomly chosen to participate in the study. Eligibility of these chosen participants for availing the benefit of the JSY was confirmed on meeting them. Women who had not received the benefit of JSY for management of obstetric complications or caesarean section were enrolled as participants in the non-beneficiary group. In case of unavailability of a chosen participant the next randomly chosen person from the particular study category was approached.

Data Collection

Qualitative methods were used to elicit information and data. These included semi-structured interviews (SSI) and focus group discussions. Semi-structured interviews were conducted with these participants at their homes using pilot tested interview guides. Semi-structured interviews were conducted with providers at their workplace.

Focus group discussions were carried out to complement the information received in the interviews and to add new perspectives. Two focus groups consisting of seven and six participants respectively, drawn from the ANMs working in sub-centres of the PHCs in chosen blocks, were held. Three key informant interviews were conducted, one each with a senior administrator in the district health unit, a block medical officer and an ANM working in a PHC.

TABLE 2: Overview of Methodology

| | Implementer of Scheme | Beneficiaries of Scheme | Non-Beneficiaries of Scheme | Private Health Service Providers |
|-----------------------------|--|--|--|---|
| Respondents | District level: DHO Block level: THO M. S. at CHCs PHC/SC level: ANMs, MOs | Women who have benefited from scheme for management of obstetric emergencies under the JSY. | Women eligible for but not benefited from scheme for management of obstetric emergencies under the JSY. | Obstetricians in private hospitals having facility for EmOC services. |
| Recruitment process | DHO and one block level respondent from 5 selected blocks were chosen. 1 respondent from each of the 2 PHCs in 5 selected blocks were chosen. | List of beneficiaries obtained from TMO & MO. 2 women in each block were randomly chosen from these lists | Names and addresses of women who undergone CS in private hospitals were collected from Pvt. hospitals and anganwadis in 5 blocks. Of these, two women in a block were randomly chosen to participate in the study. | One private provider in a block from five study blocks was invited to participate in the study. |
| Data collection method | SSI & FGD | SSI | SSI | SSI |
| Main areas of investigation | Implementation process, Hassles in implementation, Referral mechanisms for EmOC, Views, perceptions and suggestions about the scheme. | Mode of benefit, Difficulties in availing benefit, Sufficiency of benefit, Awareness about the scheme Suggestions, Cost and consequences of obstetric complications. | Barriers in availing benefit of scheme, Awareness about the scheme, Cost and consequences of obstetric complications. | Awareness about PPP for EmOC. Initiatives from public system for partnership. Experiences of / willingness for PPP, Views, perceptions and suggestions about the scheme |
| No. of respondent | District level - 1, Block level - 5 PHC/SC level - 10 | 10 | 8 | 3 |

Table 2 summarizes the respondent categories, number of respondents in each, the recruitment process and areas of investigation.

Data Analysis

Interviews and other information were all recorded in the local language, Marathi and audio taped and transcribed verbatim for analysis into English. The transcripts were read and re-read several times to allow the researchers to become increasingly familiar with the participants' experiences and meanings and to allow a more accurate and genuine depiction of the process. Field notes and reflections supported this. Themes emerging from the transcripts were assigned colour codes which were then used to assign quotes to particular themes. The data for each code were compiled in excel spreadsheets. These were then summarized to arrive at the results.

Ethical approval to proceed with the study was received from the Institutional Ethics Committee of the Foundation for Research in Community Health (FRCH). All respondents had the purpose of the study explained to them and their consent was sought. In case of non-literate participants, oral consent was taken.

Limitations

The findings of this study must be considered in light of its limitations as well. This study uses rapid assessment approach. Rapid assessments are, by design if not by definition, studies which opt for timely, focused and qualitative information at the expense of generalization of results through probability sampling. Although this study gives important insights into the operations of the scheme, the findings cannot be generalized to a population as a whole. The subjectivity resulting from the data collection methods

is another challenge. This study has been conducted as a part of training on rapid assessment methods with prevailing time and finance constraints.

FINDINGS

Implementation

The basis of PPP for EmOC service provision in Maharashtra state differs from NRHM guidelines. While guidelines from the centre recommend the scheme for management of obstetric complications and caesarean section (CS), the state guidelines mention only caesarean section. Those who required EmOC but not a CS are not considered eligible for the benefit. This was mentioned by all of the providers interviewed except a block administrator who mentioned of being unsure of the guideline in this regard.

The scheme is limited to cash assistance rather than service provision. The study found that not a single facility in the public health system of the district has entered into a PPP to provide EmOC under JSY. There is no accreditation of private facilities in the district. The guidelines issued by the Maharashtra State Public Health Department mention providing Rs.1,500 to the doctor conducting the caesarean operation in a private institute while rest of the hospital charges are to be paid by the patient. Thus, the institutional set-up ensures that the monetary assistance of Rs.1,500 provided for hiring specialists from the private or other public institutions is utilized as a subsidy after a caesarean operation.

There are variations in implementation; for instance, the study found that payments are being made to the private specialists in certain blocks, to the woman in others or to either in some. A medical officer (PHC, MO) said that he follows the norm of giving it to the woman if she comes with a receipt of the payment made for the surgery or else it is given to the private doctor who conducted the operation.

This is dependent on the interpretation of the guideline by the respective block medical officers. A cheque in the private doctors' name handed to the woman is another practice followed in some areas. In some blocks, a patient accessing care from the district general hospital or municipality hospitals, where it is provided free of cost, is considered eligible to receive the Rs.1,500 benefit while in others she is not. One public provider mentioned that registration of pregnancy before 12 weeks of gestation is mandatory to avail the benefit of the scheme. Table 3 presents a picture of JSY implementation from the District Programme Management Unit for a 6 month period during April to September 2008.

None of the public providers have any list of accredited facilities for maternal health in the area, in contravention to the NRHM guidelines. A medical officer noted that accreditation is expected but not mandatory for the doctors whose services are being covered under the scheme. Certain providers mentioned of denying the benefit in case of the hospital being non-accredited. Private doctors (obstetricians

TABLE 3: HMIS data for Ahmednagar district: April -September 2008

| INDICATORS | SC | ST | BPL | Total |
|--|------|------|------|---------------------------------|
| Estimated no. of JSY beneficiaries | 2489 | 2886 | 2319 | 7694 |
| No. of JSY beneficiaries registered | 2252 | 1434 | 1923 | 5609 |
| No. of JSY beneficiaries delivered at institutions | 1534 | 945 | 1435 | 3914 |
| No. of JSY beneficiaries delivered at home | 128 | 88 | 108 | 324 |
| No of JSY beneficiaries provided financial support (Rs.700 or 500) | 1822 | 1982 | 1692 | 5496 |
| No. of JSY beneficiaries paid Rs.1500/- for LSCS | 61 | 50 | 86 | 197 (2.5% of eligible women) |

Source: District Programme Management Unit, Ahmednagar

and gynaecologists), on the other hand, mentioned that patients' relatives, who come after a caesarean section to ask for doctors' signatures, gave them an idea of a subsidy being provided to such patients. However, none of them was approached for a partnership.

Though JSY is a referral based scheme, no documents about the referral of the patient are required, nor is any rationale required to be given for the CS being done.

With regard to the eligibility of poverty classifications and caste, some documents were found to be necessary. Accepted proof of a woman's caste is her caste certificate or a school leaving certificate. A block medical officer however contradicts this by claiming that they do not ask for the caste certificate, and will take the ANM's word for the same. One block medical officer said that he had issued guidelines for the BPL listing based on the 2002 demographic survey but pointed to lack of clarity on this aspect. Providers said that the woman is not required to provide a proof of her age as her word is accepted.

A senior administrator found the PPP scheme useful for urban areas, as he perceived patients from rural areas being apprehensive of delays in arrival of specialists from towns. He elaborated: "...Calling a doctor from the town is equally good as taking the patient to the town. There are transport facilities now. If you tell a patient that a surgeon would come from the town, ...they request discharge and want to go to a higher facility, ...I do not feel that anyone bothers about money at that time... This arrangement of a surgeon coming from outside is feasible only in the cities... (District Official)

Monetary Assistance

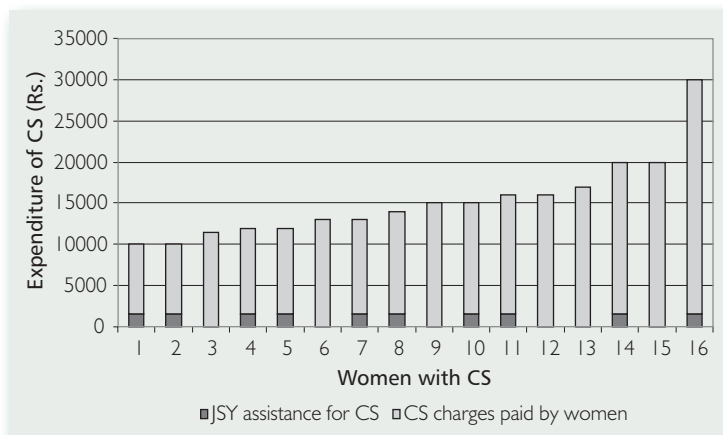
The overall opinion of providers and beneficiaries is that the amount of Rs.1,500 is not a sufficient amount. From the implementers' point of view, the amount is not always enough to attract private doctors. Speaking about the

possibility of the scheme being implemented as originally designed — providing free of cost care in public facilities by hiring specialists from outside, an MO opined about the lack of motivated doctors who would come to the rural hospital for just Rs.1,500. This is so because the prevailing rates for hiring a surgeon are Rs.3,100 and that for the anaesthetist Rs.2,200 for a Caesarean section.

A member of the Rogi Kalyan Samiti (RKS) of a sub-district hospital pointed out an experience of hiring a specialist from the private sector: “Dr..., a private gynecologist who is usually appointed on an on call basis in the hospital, is unwilling to come here, because of his interests in his own private hospital. The doctor feels that if he comes to the sub-district hospital, all his patients will not go to his own hospital. Who will want to spoil their own practice?”

Beneficiaries have pointed out that they have spent about ten times the JSY benefit amount. They said that the amount is not sufficient even for tablets and medications that were required during CS. Figure 1 shows the proportion of JSY assistance to CS charges paid by women to private

FIGURE 1: Proportion of JSY assistance to CS charges women paid to private hospitals



hospitals. It is evident that the Rs.1,500 received through the JSY did not significantly alter the expenses borne by families for CS in private facilities.

Amongst the beneficiaries of JSY PPP, with the exception of one participant who had her CS in the district general hospital, all have availed services from the private practitioners. The cost of hospital care ranged from a low of Rs.10,000 to a high of Rs.30,000, the average approximating Rs.15,000. This excluded transport and incidental costs, which come to about Rs.600 on average. The one participant who sought care from the district hospital spent Rs.2,500 for the suture materials and drugs that she was asked to buy from outside.

Thus, one can see that the cost of CS is a major burden to the families. Participants mentioned of mortgaging belongings of her natal home to arrange for hospital bills. One participant recollected: "...We had to take a loan for paying the bill. My parents (not in-laws) are very poor, they took a loan at 5 percent interest a month. They have already repaid over Rs.8,000, for the Rs.5,000 they had taken for my caesarean..."

Besides the amount of JSY benefit, the mode of payment also created difficulties for women. The JSY amount is paid to woman by cheque in most places to reduce corruption associated with cash payment. As one ANM expressed: "Women do not even know what a cheque means. I have to accompany them to the bank, but this is possible for me because the bank here is nearby, but what about those working in sub-centres? The woman then has to give the cheque to her husband, and in most instances the money does not reach the woman."

An administrator also said that the bearer cheque given within 7 days of delivery is inconvenient. "How can a recently delivered woman go to the bank?" She is in a different mindset that time, she gives off the cheque to someone, and then you know what happens to the money."

All the participants emphasized on the need to increase the amount of benefit paid. Most feel Rs.5,000 would be reasonable amount, with the exceptions of a woman who suggests it should be 50 percent and an ANM who suggests it be 75 percent of the hospital bill.

Referral Chains

To access services from a private facility, the woman in need of CS is expected to carry a referral slip from the ANM or medical officer and also a proof of her being either SC/ST or BPL as per JSY guidelines. In case of emergencies, when the CS is not pre-planned, and a referral slip for the CS operation is not available with the patient, the implementers are expected to verify the patient's address and her being from SC/ST or BPL community. The guideline also mentions that the private facilities when demanding the honorarium (Rs.1,500) should produce a proof to the Block Medical Officer of having operated on the beneficiary. The study found neither the practice of referral slip nor the demand from private facilities.

Instead the study found that almost all cases are direct self-referrals to the private specialists, or via smaller private centres. The medical officers and ANMs at the PHCs have no specific referral chains, they prefer to leave it to the patient to choose a higher centre. There is no accreditation of centres done for this scheme; hence, there exist no measures to ensure the continuum of care and minimize delays.

One ANM mentioned of having referred and accompanied two EmOC cases to a sub-district hospital. However, they were diverted to the private hospital of the consultant appointed on call in the sub-district hospital. Public providers from all the study blocks revealed that CHCs in their block do not have EmOC services and thus were forced to refer poor patients to nearby charity hospitals.

Transport System

The JSY guidelines talks of provision of free transport for EmOC. Differences in norms regarding provision of transport for EmOC were noticed. The amount is upto Rs.250 for a patient according to some implementer while others mentioned it to be Rs.500. A block administrator mentioned of wall paintings displaying phone numbers of vehicle owners whom the patient can contact in need of emergency transport and use the vehicle without payment, which are directly made to the transporter by the PHC later. In another PHC, the understanding is that the patient has to spend for the transport first and it can be reimbursed later from the Village Health and Sanitation Committee or from the Rogi Kalyan Samiti money if the medical officer feels the need to do so. In a few places the norm is to spend for transport from the money available for sub-centre strengthening. However, this study found no participant who benefited from transport provided from the PHC or reimbursement for the same. Transport facilities used by women were private vehicles hired at high rates.

Availability of Funds

In all the blocks, the officials at the block office feel the funds are adequate for implementing the scheme, though grassroots workers in two blocks mentioned shortages. ANMs reported they many times do not get the amount of Rs.5,000 that they are supposed to get. In one block, a delay of 6 months was reported. Road blocks in processing payments like the case of a Block Medical Officer who withheld payment to those women who delivered before he joined in July 2008 posed a significant problem.

Barriers in Claiming Benefits

Service area constraints pose a particular constraint. Traditionally, in Maharashtra, as in most parts of the country, women

go to their maternal homes for delivery, usually in the 7th month of pregnancy and return about 6–8 weeks after the delivery. This creates problems while claiming JSY benefits. The women eligible for JSY are expected to carry their JSY card when they go for delivery. ANMs in the maternal homes, (whenever they come to know of the delivery — sometimes at the time of child’s immunization), consider her to be from out of their service area and direct her to avail benefit in her usual residence area. This is because some feel that it would not help in their work profile if they help women from other area in availing JSY benefits. There is also some fear among implementers who feel that if a woman is given benefit at her natal home where she has gone for delivery and has not got her JSY cards, might again claim benefit using JSY card when she returns to her marital home.

A common problem women face while availing JSY benefit, is the time limit of 7 days given to claim the benefit. This study could not identify a single participant who received the benefit within the stipulated period of 7 days after delivery. This period varied from a low of 10 days for a participant to 5 months for another, the average being 3 months after delivery.

A participant who had her delivery by Caesarean section in her mother’s place tried to avail Rs.1,500 when she returned to her marital home mentions of the inconvenience in collecting the documents required as “...we have spent about Rs.500 just for this, it costs us each time at least Rs.100 to go and come... how many times we have done that?... Once she would give the white paper, then the yellow one, then she asked the doctors signature, then my school certificate, one at a time.....”

While in another case, a woman in the study, in accordance to the JSY rules, produced her JSY card in a government hospital near her natal home, four days after her caesarean operation, was denied the benefit, as according to the officials she could avail it only in her residence area.

When she attempted to seek benefit in her area, on her return, after she was discharged on the 12th day of her delivery, she was denied the benefit there as it was past 7 days of delivery.

Quite a few implementers noted that JSY benefits are not provided to the migrant populations as the pregnancy is not registered. Women are expected to produce their JSY card for availing the benefit, but it is often the case that women are missing their cards. One medical officer said that the norm being followed is that a woman coming for delivery from outside the PHC's service area has to produce a certificate from the PHC of that area, that she has not availed the benefit there.

Stakeholders Perceptions

A grassroots implementer sees the scheme as a good initiative to help the poor whereas one medical officer feels that it is a wastage of government money as many better off SC/ST families avail the benefit who are not really needy.

Performance based Pay Structure to Implementers

One block administrator was very positive of the initiative and felt that even PHCs should be allowed to hire specialists and provide caesarean section facility and that success of the scheme depended on the goodwill of the practicing medical officers. According to him, there was a need to change the attitude and behaviour of government doctors towards their patients which could be possible only with a performance-based pay structure.

A participant woman reiterated the need for provision of EmOC facilities in government healthcare facilities at village level and preferred it over any cash assistance. She says, "The facilities should be made available in the sarkari davakhana so that we do not need to go to the private. They should

provide the facility instead of the money... we poor do not have the money at that time to pay for the hospital, what if the government gives us the aid later on.....”

Other suggestions include:

- Clarity of guidelines.
- Changes in the criteria for eligibility to benefit from the scheme, viz., the poor not having BPL cards and who are not from SC/ST should be included.
- Relaxation of the two-child norm, especially for EmOC.
- Replacement of the caste criteria with income criteria.
- Timely supply of JSY cards to PHCs.
- No shortage of funds at grassroots level.
- Use of information technology so that update is available to any provider about payments made by other institutes. This would do away with the need to confirm non-receipt in other areas before disbursement of money which causes delays.
- Private providers of EmOC suggested that the scheme should be displayed in their hospital premises and that private practitioners could inform the public health system of the eligible patients availing EmOC services from them with the expectation of payments of the subsidy to them before the patient. In this way, the poor patient will have to pay less.

Non-Utilization of the Scheme and Denials

The bottlenecks in availing the scheme that this study identifies are lack of information and awareness of the scheme, difficulties in producing the required documents within 7 days of delivery and delay in registration of pregnancy.

The information is disseminated through household visits by ANMs, anganwadi workers, the gram sabha (village meeting) and wall advertisement in some public

places. There were wide variations of information level of the JSY scheme among potential beneficiaries. The study found women who had received the JSY cards, but were not aware of what it was and assumed it to be an immunization card. As women were not made aware of the potential benefit of the JSY card, they therefore forget to take the card with them during delivery, though they take other relevant documents with them like their laboratory and ultrasound reports.

The scheme expects the ANMs, when they register the pregnancy and conduct antenatal checkups, to ensure that the eligible women keep their BPL/caste certificates ready. This however is found to be missing.

The guideline to provide the benefit within 7 days of delivery, though intended to ensure assistance soon or at the time of expenditure, has however resulted in denials. The practical difficulties in producing the required documents in this period of time due to lack of prenatal preparations for the same is found to be highly prevalent.

The JSY is a conditional cash transfer scheme. Three ANC checkups with early registration of pregnancy (before twelve weeks of pregnancy) are important conditions for cash assistance. In one of the PHC areas visited, we found registration beyond 12 weeks as a reason for denial of benefit of the scheme whereas this condition is not strictly followed in other PHCs in the block and the district. Women held the ANM responsible for delay in registration and even mistakes in noting the pregnancy period that resulted in denial of benefit to them.

DISCUSSION

Scope of the JSY Scheme

Emergency obstetric care provision includes treatment of obstetric complications — anti-convulsants for eclampsia, blood transfusion for haemorrhage, antibiotics for sepsis,

caesarean section for obstructed labour and safe abortion facilities.

Nationally, 15 percent of all deliveries are expected to be complicated ones requiring EmOC and a minimum of 5 percent need caesarean section operation. The Maharashtra state JSY guidelines provide assistance of Rs.1,500 to women who will have a CS done, and not for other EmOC treatment, in violation of national JSY guidelines. Thus, by avoiding the term obstetric complications in the state guidelines, two-third of women in need of EmOC have been barred from the eligibility to the JSY benefit. The major causes of maternal mortality according to 2001–2003 SRS survey are shown in Figure 2. Distribution of causes of maternal mortality in the figure clearly shows that catering only to CS need, which handles obstructed labour, is a very inadequate measure in view of the goal of reducing maternal mortality.

In the district studied, as is evident from Table 4, the estimated number of JSY beneficiaries (as per central norms) is 7694, of these 1154 women are expected to need EmOC and 385 would need a CS. The change in the guideline at state level has resulted in excluding 769 eligible women

FIGURE 2: Causes of maternal deaths in India (SRS 2001-2003)

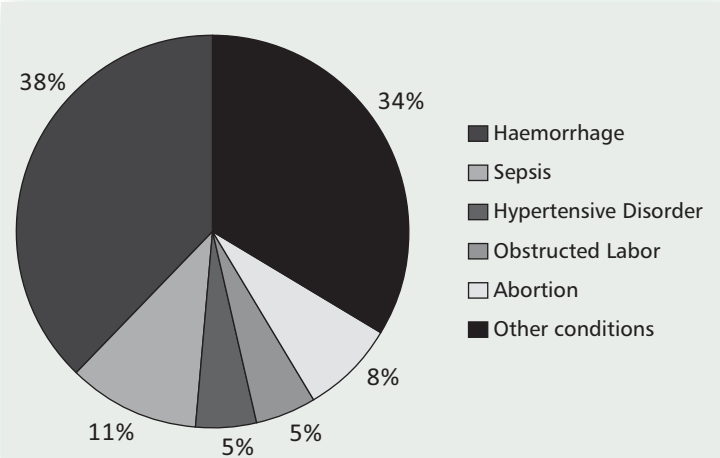


TABLE 4: Analysis of JSY Data for Ahmednagar District — April to September 2008

| Indicators | SC | ST | BPL | TOTAL |
|---|-----|-----|-----|----------------------------------|
| Expected complicated deliveries (eligible for assistance – Gol) | 373 | 433 | 348 | 1154 (15% of estimated benef) |
| Expected minimum no. of LSCS (eligible for assistance – MH) | 125 | 144 | 116 | 385 (5% of estimated benef) |
| Missed out by MS norms | | | | 769 (66%) |
| Eligible women but assistance not reached (Gol norms) | | | | 83% |
| Eligible women but assistance not reached (MS norms) | | | | 49% |

(66%) from the scheme, those who need EmOC but not a CS. The district has provided Rs.1,500 to 197 women. If one would apply the Central norms, 1,154 women would be eligible for the benefit which makes evident that the benefit has reached a mere 17 percent of the estimated, 83 percent being left unreached. Even if one restricts to the state norms, 385 women would be eligible for the benefit that has reached 197 women, leaving out 49 percent women eligible for JSY benefit.

Preference to Cost Subsidization over Contracting in

The provision of Rs.1,500 is for a PPP, i.e., for hiring specialist from the private sector, is a PPP by contracting in services. Contracting in services would mean contracting in specialist obstetric services from the private sector to the public facility. This implies utilization of the public infrastructure and drugs and supplies and hence free care to the patient. Thus, this form of PPP would provide cashless services to patients to improve access, as financial barriers are important reasons to defer treatment. This strategy could strengthen the public health system by filling the gap of skilled personnel. Monitoring the quality of care is comparatively easier in a

public facility than in the private sector which is well known to be unregulated.

However, implementers also have the option of cost subsidization where services from the private facilities are utilized and a certain amount of reimbursement given. This study finds that the second option was the one most preferred by all the implementers. The subsidy option, i.e., which is currently practiced, has no formal mechanisms, such as a formal contract, accreditation, quality control, accounting or information system. This is in a sense getting rid of the responsibility of EmOC provision. A senior district official responsible for empanelment of private providers believes this empanelment to be the responsibility of the civil surgeon. This points to lack of role clarity and specification of job tasks, the prerequisites for effective PPPs.

Subsidization of the cost of services is by payment of Rs.1,500 to specialists conducting CS in private facilities. This amount being far below the cost incurred in a private facility, the guideline clarifies that rest of the hospital charges are to be borne by the patient. This defeats the purpose of the scheme to increase easy access to EmOC services (only CS in this case). The family having to pay the entire hospital bill before discharge, is thus unaffected by the scheme at the time of payment, which questions the utility of the scheme. Though the guidelines strictly state disbursement of money within 7 days of delivery, but as the information of the delivery occurring reaches the system much later, as found by this study, the 7 day norm becomes irrelevant. The delay in reimbursement and small amount received as compared to money spent in CS, significantly do not help a poor woman's family to avail safe and quality delivery care services. Knowing the fact that a single hospitalization can push a quarter of the hospitalized Indians below the poverty line,¹¹ the subsidization option becomes a very limited effort to increase access to EmOC for preventing maternal deaths.

This situation is linked to the feasibility of contracting in. Contracting in specialists assumes adequate infrastructure and supplies availability in the public health system. Maharashtra stands better in comparison to the rest of India in this regard, and the Ahmednagar district scores comparatively better in the state. However, this seemingly better system is not equipped enough to provide EmOC just by hiring the specialists. The district and block administrators who did attempt the contracting in option find it unfeasible in view of lacking infrastructure especially blood storage facility, crucial to any EmOC centre. With long hours of power cuts in rural areas, 8–12 hours a day, providing electric backups to the available blood storage facilities has itself become a major difficulty. With the prevailing high rates of CSs and also the doubt whether a private specialist would risk losing clients by contracting in his/her services, it is doubtful that a private specialist would offer services for a meager Rs.1,500 provided by this scheme.

Implementation

The process of micro-birth planning is the essential pillar for successful operation of the JSY scheme, which this study hardly found in the practice. This has resulted in multiple operational failures of the scheme. Additional accounting and managerial personnel that the NRHM provides through district programme management units, to smoothen the implementation, do not seem to work as the study found that the flow of funds from the district to the block and then to ANM and beneficiaries is not happening properly.

The mode of payment by cheques, assumed to bring transparency, is however found to be acting as another barrier, as travel to and dealing with the banks is unfamiliar to rural women, and more so to those from the beneficiary communities.

The experience of JSY however raises a much larger issue — institutionalizing PPP, if successful to provide EmOC and reduce maternal deaths does not however address the root cause. The issue of lack of specialists in the public sector remains unaddressed. India has more than 20,000 obstetricians, of whom, only 780 work in the public health system at sub-district level in rural areas.¹² Hiring specialists from the private sector can only be an interim measure, the long-awaited changes in human resource policies need to be brought about to make the public sector capable enough to attract and retain specialists.

The present study raises serious concerns about the following enabling conditions for successful PPPs:

- Capacity and expertise of the government at different levels in designing and managing contracts (partnership).
- Appropriate organizational and management systems for partnerships.
- Strong management information system.
- Clarity on incentives and penalties.

CONCLUSION AND RECOMMENDATIONS

The study had made the following recommendations with regard to PPP participation in EmOC:

- Provision of free EmOC services in the public facilities is crucial. The public health system should be strengthened in terms of infrastructure and supplies as well to deliver EmOC services.
- The guidelines for implementing the PPP initiative in JSY should be inclusive, allowing eligibility and thus access to maximum women at risk of maternal death. The scheme should cover all life-threatening complications of pregnancy irrespective of whether they are antenatal, intranatal or postnatal.

- A systematic effort to identify centres where contracting in services could be feasible and a commensurate strategy rather than ad hoc guidelines needs to be developed.
- The capacity of the administrators to design and manage PPPs needs to be developed. Adequate systems for monitoring the PPPs are important.
- The cash assistance provided for hiring specialists should not be restricted to Rs.1,500. Approach towards pricing of tariffs for services should be based on competitive process rather than any standard calculation.
- Awareness of the scheme must be increased to generate demand from the beneficiaries immediately on need of EmOC service. The practices to ensure birth preparedness and complication readiness need to be emphasized.
- Availability of transport facilities to women in need of EmOC must be smoothened.
- The private sector being prohibitively costly and impoverishing there need to be mechanisms to ensure that the poor can access the services from the private partner.
- There need to be mechanisms to regulate the private health sector to ensure quality of care. A PPP should be able to guarantee a basic minimum quality of care. Mechanisms should also be conducive to create an environment such as the best of the private sector, in terms of fair play and social responsibility are encouraged to partner, rather than get harassed by the processes involved. Partner-friendly policies for accreditation, monitoring and accounting need to be followed.
- The government needs to ensure that the partnership brings private investment to public health system and not a mere transfer of public funds to the private corpus given the possibility of vested interests in a PPP. These options are minimized in the contracting in model, but performance indicators need to be instituted.

- Further research is needed to assess the effect of PPPs in reducing the risk of maternal deaths.

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NOTES

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Mapping Adequacy of Staffing to Ensure Service Guarantees

A Study of Ganjam District in Orissa

6
CHAPTER

Manmath Mohanty* and Amy Hagopian**

INTRODUCTION

The burden of increasing demand for health services and increasing cost in healthcare provision is being experienced by both developing as well as developed world due to the changing disease pattern and economic scenarios across the globe. India with a population of more than 1,140 million and limited funding on public health services is always in search of more efficient approaches to meet the demand for health and healthcare services through an equitable distribution of the healthcare provisions, particularly the healthcare providers.

A report of Government of India depicts the overall shortfall in the posts of Health Worker (Female)/ANM at 12.6 percent and for Health Worker (Male) at 55.4 percent of the total requirement. In case of Health Assistant (Female)/LHV, the shortfall was 32.8 percent and that of Health Assistants (Male) was 28.8 percent. For Doctors at PHCs, there was a shortfall of 7.8 percent of the total requirement. At the Community Health Centres (CHC) level, there was a shortfall of 64.8 percent specialists as compared to the requirement for existing infrastructure on the basis of existing norms as on March 2007. Even out of

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the sanctioned posts, a significant percentage of posts are vacant at all the levels.¹

It is a fact that in India staffing requirements vary widely between health facilities of the same type, according to their workloads because of the wide variation in demands for health services. However, staffing norms in the country is based on population ratios or standard staffing schedules. The non-availability of doctors, paramedics, shortage of Auxiliary Nurse Midwives (ANMs) and large jurisdiction under the health personnel, especially in hilly, tribal and inaccessible areas, has been one of the major constraints of health system in India. In many cases, the not-so-good functional facilities with inadequate service providers is a major contributing factor to decreased access and utilization of health services by the poor, especially in rural areas. The Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) are also unacceptably high except in a few states of the country.²

The National Rural Health Mission (NRHM) launched in April 2005 by the Government of India recognizes unsafe motherhood as a serious development concern. It aims at reducing maternal and infant mortality through various approaches and promotion of institutional deliveries and quality of services at functional health facilities. The framework for implementation of NRHM has also provided certain service guarantees for healthcare under the mission at each facility level.

Improvement in the health outcomes in the rural areas is many times directly related to the availability of the trained human resources there. NRHM aims to address the issue of trained manpower at all levels. It aims to increase the availability of manpower through provision of more than 4 lakh trained women as ASHAs/Community Health Workers (resident of the same village/hamlet for which they are appointed as ASHAs). The Mission also seeks to provide minimum two Auxiliary Nurse Mid-wives (ANMs) (against one at present)

at each Sub-Health Centre (SHC). Similarly, against the availability of one staff nurse at the PHC, there is provision of providing three Staff Nurses to ensure round-the-clock services in every PHC. In order to strengthen the out-patient care, NRHM gives posting/appointment on contract of AYUSH doctors over and above the Medical Officers posted at the PHCs. The Mission seeks to bring the CHCs on par with the Indian Public Health Standards (IPHS) to provide round-the-clock, hospital-like services. As far as manpower is concerned, it would be achieved through provision of seven specialists as against four at present and nine Staff Nurses in every CHC (against seven at present).

The provisions under IPHS for SHC were made on the basis of expected number of beneficiaries for maternal and child healthcare, immunization, family planning and other services. For PHC, it was made on the basis of 40 patients per doctor per day, the expected number of beneficiaries for maternal and child healthcare and family planning, and about 60 percent utilization of the available indoor/observation beds (six beds). Similarly, for CHC, the provisions under IPHS were made on the basis of average bed occupancy of 60 percent.

NRHM has not only raised the expectation of the community for universal access for institutional delivery but also for other healthcare aspects. However, it is very much essential to make a situational analysis whether, the government health facilities have adequate staffing to meet the service guarantees under NRHM by the already overstretched health system in India.

For example, due to various reasons the doctors and other health personnel live in district headquarters or cities. But more than 70 percent of population stays in rural areas in the country. The total number of health personnel in a district does not reveal the functional gaps at different health facilities outside the district headquarters or cities. More specifically, institutionalizing staffing norms based solely on

population or institutional size does not adequately take into consideration the wide variation in the country and results in inefficiency and inequity in the health system. In order to achieve staff adequacy, it is required to identify the staffing gaps for achieving goals of NRHM based on the workload analysis and staffing need of a particular area, e.g., district or state, to provide specific services.

Workload Indicators of Staffing Need (WISN) is a method of setting the correct staffing levels in health facilities. This method has been developed by Shipp J. Peter and popularized by the World Health Organization (WHO).³ It was developed to respond to the internationally felt need to ensure optimal deployment of staff, particularly in rural areas; the equitable deployment of staff in accordance with the demands actually experienced; and the optimal determination of staff categories.

LITERATURE REVIEW

The need for a rational method for ascertaining staffing need and workload estimation is an international need prior to 1980s, much before the globalization came into force. In fact, many terms were used to measure the workload capacity such as staffing requirements, workload, workload capacity, standard workload, staff intensity, activity, activity standard, caseload assignment and caseload management by different scholars.

Cavouras⁴ and O'Brien-Pallas and others,⁵ have attempted to classify the staffing methodologies adopted by various earlier researchers, particularly for nurses. Ridoutt Lee et al.⁶ broadly classified the available methodologies for measuring workload of health staff into four broad categories as: i) ratio-based methodologies, ii) procedure-based methodologies, iii) categories of care-based methodology, and iv) diagnostic- or case mix-based methodologies.

WISN is a ratio-based methodology and it determines staffing requirements for each category based on the workload of the facility. The calculated staffing requirements for each category are compared with the actual level. WISN is estimated dividing the actual staffing level by the required number of staff. It shows the workload pressure of a particular category of workforce in different health facilities. In fact, the conceptual approach behind WISN was described as early as 1980 in the Guidelines for Health Manpower Planning published by the WHO, Geneva.⁷ Consequently it was developed as an operational tool by Shipp J. Peter in 1984 for projecting staff requirements in Human Resource (HR) strategic planning. A few countries like, Tanzania, Papua New Guinea, Kenya, Hong Kong, Oman, Sri Lanka, etc., have set activity standards for various staff categories and subcategories. Besides, the development of WISN method continued with pilot application in countries like Bangladesh⁸ and Papua New Guinea.⁹ The development of WISN method culminated with its adoption, publication and promotion by the World Health Organization in 1999.¹⁰

However, to the best of our knowledge no study has been conducted in India to demonstrate how the WISN method could be used in Indian context. Hence, an attempt has been made to map the adequacy of staffing in a state having high Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) like Orissa in India with an IMR of 71 per 1,000 live births¹¹ and MMR of 358 per 1,00,000 live births through a rapid assessment study.

The Context

The state of Orissa has 4.74 percent of India's landmass and 36.81 million people (2001 census) with 3.58 percent of the population of the country. The NSSO 61st round, 2004–05 reveals that Orissa is the poorest state in the country with

about 40 percent of people living below poverty line which can exceed well over 50 percent if the international cut off point of people living with less than \$1 is used for defining poverty. Orissa is the poorest state not only in terms of "income poverty" but also in terms of "human poverty" as well.¹²

Under the healthcare provisioning of the state, there are 6,688 sub-centres, 1162 PHC (New), 314 block PHCs, 231 CHCs (mostly in Block PHCs), 120 area hospitals, 22 sub-divisional hospitals, 32 district headquarter hospitals (including one as capital hospital and the other as Rourkela Government hospitals) and three medical college hospitals. Besides, at the corporate and private levels, there are six tertiary hospitals in the state to support the system.¹³

Ganjam is one of the backward districts of Orissa with a population 34,85,100 as per Census 2001 and has the second highest number of blocks (22) in the state. The poverty is so acute that many of the people temporarily migrate to other states of India in search of jobs. It has been reported that the district has highest number of HIV/AIDS cases in the state.

The Objective

The study aims to assess whether there is adequate staffing for Maternal and Child Health (MCH) Services in government healthcare facilities to meet the service guarantees under NRHM in Ganjam district of Orissa.

METHODOLOGY

The study adopted WISN as a method of inquiry for setting the activity standard as well as calculating the adequacy of staffing in the Ganjam district of Orissa. The fieldwork was undertaken in the month of November 2008.

Sample Selection

Six out of 22 blocks in the Ganjam district were covered under the study. The blocks were namely Patrapur, Sorada (Badagada), Polasara, Buguda, Beguniapada (Kodala) and Jagannath Prasad. A total of 18 facilities were covered under the study including six CHC/Block PHCs, six PHC New and six SHCs. The details of government health facilities covered under these six blocks are presented in Table 1.

Data Collection

Information from both secondary and primary sources were collected and compiled for the purpose of study. The data from more than two sources were collected and analyzed in order to ascertain the reliability of the findings. The study adopted WISN method and wherever possible adopted the process outlined in the implementation manual of WISN of WHO, 1998. Records were reviewed at the facility level and secondary data were collected from following sources.

- Census of India 2001.
- HMIS data of Ganjam and respective blocks.

TABLE 1: Block-wise Facilities Covered under the Study

| Type of facility visited | Name of the Blocks | | | | | | Total facility |
|--------------------------|--------------------|-------------------|-----------|-----------------------|----------------------|------------------|----------------|
| | Patrapur | Sorada (Badagada) | Polasara | Buguda | Beguniapada (Kodala) | Jagannath Prasad | |
| CHC/Block PHC | Patrapur | Badagada | Polasara | Buguda | Kodala | Jagannath Prasad | 6 |
| PHC New | Baranga | Goudagotha | - | Karchuli | Beguniapada Rahada | Baragaon | 6 |
| SHC | | Goudagotha | Konkorada | Biranchipur Buguda-II | Kodala-II | Khamarpalli | 6 |
| Total | 3 | 3 | 2 | 3 | 4 | 3 | 18 |

TABLE 2: Method-wise Coverage of Primary and Secondary Data

| Methods | Sources of data/Respondents | Total Numbers |
|--|---|---------------|
| Key Informant Interview (KII) | MO (In-charge), doctor, staff-nurses, LHV, laboratory technicians | 24 |
| WISN-Workforce Indices of Staffing Need (WISN) | Secondary sources/Record review | 18 |
| Focused Group Discussion (FGD) | ANMs at CHC and PHC level | 6 |
| Indepth Interview (II) | ANMs participating in the FGD | 30 |
| Interview | Women who have delivered in the last 3 months | 10 |

- CSSM register of Health Workers at subcentres.
- Programme Implementation Plan (PIP), Ganjam.
- Year Book, 2006–07, Special Information on Health Infrastructure of Orissa, Government of Orissa.

The primary data were collected from health providers involved in the Maternal & Child Health (MCH) activities at different levels. Besides, information from women who have delivered in the last 3 months was also collected from the community to ascertain the quality of care aspect. The method-wise breakup for the primary data is presented in Table 2.

Data Collection Instruments

The following instruments were administered to elicit information.

- Key Informant Interview — Semi-structured questionnaire
- WISN-Guidelines for Activity Standards
- Checklist for record review
- FGD-Guidelines
- Interview with women-Interview schedule
- Interview with ANM-Interview schedule.

Analysis Approach

Although WISN method is based on the work which is actually undertaken by the health staff, the present study is based on the actual demand as per the service requirement as per the service guarantees under NRHM for MCH Services. However, the summary of the service guarantees for MCH under NRHM at SHCs, PHC (New) and CHCs is given below:

For Mother

- Full ANC care by ANM/SHC level with medical care for high risk cases.
- Full institutional delivery at PHC — Cases requiring EmOC going to CHC.
- Comprehensive EmOC facilities available at CHC.
- Postnatal care at home by ANM/SHC.
- Postnatal complications at PHC with referrals to CHC.

For Neonates and Children

- Immunization of all children at SHC upto 1 year of age.
- Care of common childhood upto five years of age.

Total Need and Supply of Service Guarantees

- ANC related services — SHC.
- Highrisk cases — SHC, PHC, CHC.
- ID — PHC, CHC.
- Comprehensive EmOC — CHC.
- Post natal care — SHC, PHC, CHC.
- Immunization — SHC.
- Care of childhood illnesses — PHC, CHC.

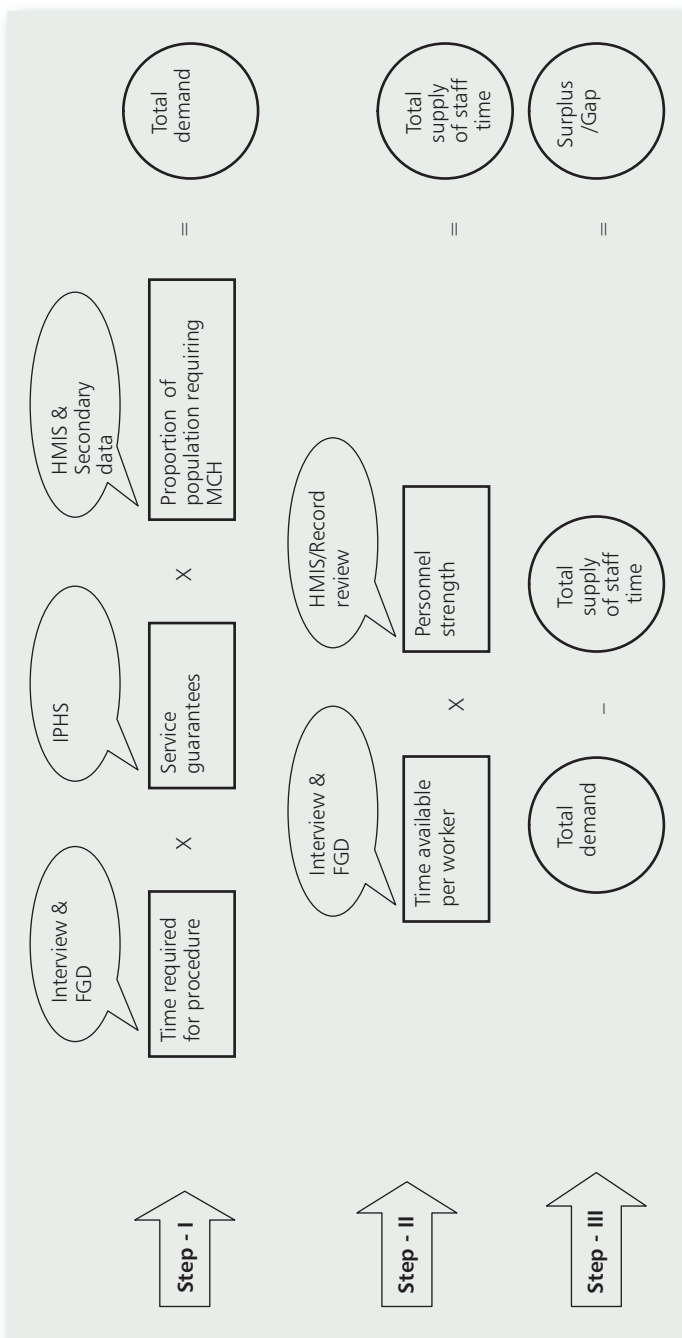
In order to find out the various services elements, Indian Public Health Standard (IPHS) documents were referred and discussions with senior staff under various categories at the CHC/Block PHC were made to ascertain their specific roles and responsibilities under MCH. Many health and non-health workers were involved to cover the entire range of services under MCH at different levels. However, for the purpose of the study, the researcher limits his investigation to Medical Officer, Staff Nurses, Laboratory Assistant, LHV, Health Worker (Male) and ANM/Health Worker (Female) category. The study findings reveal that major activities/roles need to be performed by different health workers under MCH are as indicated in Annexure-I.

However, on the basis of field observations and discussion with the key health staff during the fieldwork, certain assumptions were made in order to calculate the overall demand and analyse the staffing need. These include:

- Deliveries do not happen at SHC level; all deliveries should happen in health facility.
- Delivery do not happen at PHC (New) level as almost all the facilities visited do not have staff nurses, bed and other required facility and equipment for institutional delivery.
- About 15 percent women are referred to any facility.
- 30 percent children in (0–1) age group require treatment for ARI & Diarrohea from any facility.
- 20 percent Children in (2–5) age group require treatment for ARI & Diarrohea from any facility.
- Service Guarantee at CHC guarantees for additional specialized services besides the services available at PHC (New).
- People have a choice and may bypass the PHC (New) to utilize CHC services/facilities even if for minor ailments.

With these assumptions staffing needs were analyzed using WISN (see chart below) at sub-centre, block CHC/PHC and district levels for ensuring service guarantees for MCH under NRHM.

Figure 1: WISN Steps Chart



FINDINGS

Supply Factor: Available Working Time per Year

It was found that except Laboratory Technician every health worker studied were eligible for 101 holidays including 22 public holidays, 52 Sundays, 12 second Saturdays, 15 days sickness leave in addition to 30 days earned leave during the year 2007–08. Hence, a health worker is expected to work for 234 days in a year. In case of laboratory Technician, it is 298 days in a year as she/he is expected to work for 7 days in a week. It is estimated that the number of hours a health worker should be available for work is 1872 hours in a year. For Laboratory Technician, it is 2384 hours in a year. The number of working hours available in a year for each category of health worker is shown in Table 3.

Setting up Activity Standards

In order to set the activity standard, group discussions were held at the CHC/Block PHC level along with the ANMs/Health Workers (Female) in each block. Besides, interviews with key informants and senior staff at facilities were held. The activity standards were set as per the unit time/rate usually taken by an experienced and well-motivated staff. It was found that although it is expected to perform urine and haemoglobin test of pregnant mothers, the Health Workers (female) do not perform these tests as the equipments and supplies for the same are not available with them. The identification of high-risk pregnancy and JSY beneficiaries is usually done during routine ANC check-up and hence does not take any extra time for the same. Among the other work, on 15th of each month, the ANM referred the malnutrition cases to the CHC/Block PHCs and usually accompanied the patients to the health facility on the particular day. The ANMs also do not perform deliveries.

It is also revealed that the Infant and Child Care clinics were not being held at the community level by the Medical Offic-

TABLE 3: Supply Factor — Number of Available Working Hours
in a Year for Health Workers

| Norms/Eligibility for leave | ANM/ Health Worker (Female) | Health Work- er (Male) | LHV | Staff Nurse | Labo- ratory Techni- cian | Medi- cal Officer |
|---|--------------------------------------|---------------------------------|------|----------------|------------------------------------|-------------------------|
| Fixed number of working days in a week | 6 | 6 | 6 | 6 | 7 | 6 |
| Number of hours of duty in a day | 8 | 8 | 8 | 8 | 8 | 8 |
| Public holidays | 22 | 22 | 22 | 22 | 22 | 22 |
| Other holidays like second Saturday | 12 | 12 | 12 | 12 | 0 | 12 |
| Off-the-job training | - | - | - | - | - | - |
| Sickness and other leave | 15 | 15 | 15 | 15 | 15 | 15 |
| Earned Leave | 30 | 30 | 30 | 30 | 30 | 30 |
| Number of work- ing days | 264 | 264 | 264 | 264 | 328 | 264 |
| Number of avail- able working hours | 1872 | 1872 | 1872 | 1872 | 2384 | 1872 |

ers. The MOs also do not undertake recording and reporting of diarrhoea cases. The treatment of all ARI cases referred to PHCs and CHCs was undertaken by the MO themselves. Hence, they were not required to supervise the treatment made by ANMs/LHVs. The component of workload and activity standards for different health workers are mentioned in Annexure-II.

Available Workforce and Infrastructures in Ganjam District

An attempt has been made to find out the workforce for MCH activity at the district level. It was found that the total number of Health Workers (females) available were 480 and 319 Health Workers (males) were available to cater 460 sub

centres, 82 PHC (New) and 26 CHC/Block PHCs in Ganjam district. The allopathic, homeopathic and ayurvedic workforce for the district and the available health infrastructure is presented in Table 4.

TABLE 4: Available Workforce and Health Infrastructure in Ganjam District

| Type of System/ Health Infra- structure | ANM/ Health Worker (Female) | Health Worker (Male) | LHV | Staff Nurse | Labora- tory Tech- nician | Medical Officer |
|---|--------------------------------------|----------------------------|-----|----------------|---------------------------------|--------------------|
| Allopathic* | 480 | 319 | 70 | 94 | 66 | 234 |
| Homeopathic | 12 | - | - | 19 | 2 | 37 |
| Ayurvedic | - | - | - | - | - | 50 |
| | | | | | | |
| Total Sub Centres | 460 | | | | | |
| Total PHC (New) | 82 | | | | | |
| Total Block PHC | 7 | | | | | |
| Total Block CHC | 19 | | | | | |
| Medical College Hospital | 1 | | | | | |
| District Head- quarters Hospital | 1 | | | | | |
| Sub-divisional hospital | 2 | | | | | |
| Other hospital | 9 | | | | | |
| Total Medical Institutions | 121 | | | | | |
| Total Available beds | 1541 | | | | | |

Note: * Includes only staff of SC, PHC (New) and CHCs in Ganjam district

Proportion of Time Spent in MCH, Non-MCH and Other Administrative and Other Responsibility by Different Health Workers

In order to ascertain the proportion of time one health worker should spend, discussions were held with key informants

like Medical Officer (In-charge), Staff Nurse, LHV and Health Worker (Male & Female) and group discussions were held with ANMs/Health Workers (Female) at the CHC/Block PHC level in each of the six blocks covered under the study.

It is found that out of the available working time, ideally ANMs and LHV should spend about 70 percent time in MCH and 20 percent time in non-MCH activities and other 10 percent in discharging administration and other responsibilities. The proportion of time spent in MCH activities by Health Worker (male), Staff Nurse, Laboratory Technicians and Medical Officer is about 40 percent, 40 percent, 10 percent and 30 percent respectively. The proportion of time spent by different health workers for MCH, Non-MCH and other responsibilities are presented in Table 5.

TABLE 5: Proportion of Time Spent in Different Activities by the Health Workers

| Activities | ANM/Health Worker (Female) | Health Worker (Male) | LHV | Staff Nurse | Laboratory Technician | Medical Officer |
|---|----------------------------|----------------------|-----|-------------|-----------------------|-----------------|
| | % | % | % | % | % | % |
| Total time spent in MCH activity | 70 | 40 | 70 | 40 | 10 | 30 |
| Non-MCH Activities | 20 | 20 | 20 | 55 | 85 | 60 |
| Administration and Other responsibilities | 10 | 40 | 10 | 5 | 5 | 10 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |

District-level Vital Information of Ganjam

The district-level information was collected from HMIS sources. The mid-year population of Ganjam is about 34.85 lakhs and out of this the 0–1 year population is

79.46 thousand (CBR 22.8). The total number of pregnancies registered during the period was 43.38 thousand out of which the number of deliveries registered were about 96 percent. The vital information about Ganjam is presented in Table 6.

TABLE 6: Vital Information about Ganjam District

| Vital Information | Figure |
|--|---------|
| Total population as per census 2001 # | 3160635 |
| Mid-year population in the year 2007–08* | 3485100 |
| Crude Birth Rate (CBR, 2001) # | 24.0 |
| CBR, 2007–2008* | 22.8 |
| Total population of children in the age group of 0–5 years* | 157649 |
| Total population of children in the age group of 2–5 years* | 78189 |
| Total population of children in the age group of 0–1 year* | 79460 |
| Total number of pregnancy registered during the year 2007–08* | 43386 |
| Total number of women who received 3 ANC*s | 36504 |
| Total number of deliveries conducted during the year 2007–08 * | 41682 |
| Total number of institutional deliveries during the year 2007–08* | 21994 |
| Total number of home deliveries in the year 2007–08* | 8637 |
| Number of JSY cases identified during the year 2007–08* | 12396 |
| Number of Women received the JSY benefits during the year 07–08* | 12304 |
| Percentage of children received full immunization during the year 07–08* | 95.98% |
| IMR* | 32 |
| Total Infant deaths in 2007–08* | 1362 |
| Maternal Death* | 4 |

Note: # Census of India, 2001.

* HMIS sources

Population and Available Health Staff for MCH at the Facility Visited at Different Levels in Ganjam District

The population and the available health staff for MCH at Block PHC/CHC, PHC New and Sub-Centre levels were collected from the health facilities visited during the study.

The Block PHCs/CHCs under the study covered a population between 119,807 at Kodala CHC to 153,770 at Badagada. At the PHC New Level, it varied from 13,535 at Goudagotha PHC New to 29,690 at Beguniapada. At the SHC level, the population varied from 5583 at Konkorada to 8125 at Goudagotha. The Health Worker (female) at the block PHC/CLC level varied between 20 at Badagada to 26 in Jagannath Prasad Block PHC. The number of Health Worker (male) varies from eight at Kodala CHC to 15 at Badagada. The staff strength of LHV varied between one in Badagada to four in Patrapur Block PHCs. The number of Staff nurses varies from three to four at Block PHC level. The doctors' position varied from five at Kodala CHC to seven at most of the Block PHCs. At the PHC New level nowhere staff nurse was present. LHVs were present only in two PHCs and the staff position for Health Worker (female) varied between three at Goudagotha PHC New to seven at Begunapada PHC New. All PHC New were single doctored. At the SHC level, Health Workers (female) were present in all the SHCs and Health Workers (male) were not present in three SHCs out of six SHCs covered under the study. The population and staff position at various facilities is presented in Table 7.

Demand Calculation, Estimation of Standard Workload and Allowance Standards

The staffing requirement for each type of activity standard was converted into total demand for each of the sub-activity which was estimated based on the reported number of children in the 0–1 year population at each level of Ganjam district. Besides, a population factor of 1.1 is multiplied to number of population in 0–1 year age-group to arrive at the population of mothers with an assumption of 10 percent miscarriage. The standard workload for each category of staff was calculated based on the population estimates at each level. The standards common to each

TABLE 7: Population & Staff Position at the Health Facility Visited at Different Levels in Ganjam District

| Name of the Health Facility | Total Population 2007-08 | Base Population (0-1 years) | ANM/Health Worker (Female) | Health Worker (Male) | LHV | Staff Nurse | Lab Tech | MO |
|-----------------------------|--------------------------|-----------------------------|----------------------------|----------------------|-----|-------------|----------|-----|
| District Level | | | | | | | | |
| Ganjam District | 3485100 | 79460 | 480 | 319 | 70 | 94 | 66 | 234 |
| Block PHC/CHC Level | | | | | | | | |
| Patrapur Block PHC | 130361 | 2868 | 24 | 14 | 4 | 3 | 1 | 7 |
| Badagada Block UGPHC | 153770 | 3518 | 20 | 15 | 1 | 4 | 1 | 7 |
| Polasara Block UGPHC | 152665 | 4105 | 21 | 14 | 2 | 3 | 2 | 7 |
| Buguda Block PHC | 138494 | 3445 | 21 | 13 | 3 | 3 | 2 | 7 |
| Kodala CHC | 119807 | 3276 | 23 | 8 | 2 | 4 | 1 | 5 |
| Jagannathprasad Block PHC | 138191 | 3151 | 26 | 9 | 2 | 4 | 1 | 6 |
| PHC New Level | | | | | | | | |
| Baranga PHC New | 24818 | 546 | 6 | 2 | 0 | 0 | 1 | 1 |
| Goudagotha PHC New | 13535 | 395 | 3 | 1 | 0 | 0 | 1 | 1 |
| Karchuli PHC New | 19895 | 461 | 5 | 4 | 1 | 0 | 0 | 1 |
| Begunipada PHC New | 29690 | 719 | 7 | 3 | 1 | 0 | 0 | 1 |
| Rahada PHC New | 18328 | 418 | 5 | 2 | 0 | 0 | 1 | 1 |
| Baragaon PHC New | 35663 | 813 | 6 | 3 | 0 | 0 | 0 | 1 |

contd...

| Name of the Health Facility | Total Population 2007–08 | Base Population (0–1 years) | ANM/Health Worker (Female) | Health Worker (Male) | LHV | Staff Nurse | Lab Tech | MO |
|-----------------------------|--------------------------|-----------------------------|----------------------------|----------------------|-----|-------------|----------|----|
| Sub-Centre Level | | | | | | | | |
| Goudagotha SC | 8125 | 185 | 1 | 1 | | | | |
| Konkorada SC | 5583 | 118 | 1 | 0 | | | | |
| Biranchipur SC | 7248 | 181 | 1 | 1 | | | | |
| Buguda-II SC | 6666 | 175 | 1 | 0 | | | | |
| Kodala-II | 5723 | 123 | 1 | 1 | | | | |
| Khamarpali SC | 6829 | 145 | 1 | 0 | | | | |

category of staff and not based on population or not available under the service statistics were regarded as allowance standards for the staff category at each facility level. The demand for MCH activity for each staff category at each level is calculated through summing up standard workloads and allowance standards.

Appendix-III depicts the total demand including standard workload and allowance standards for each of the health workers category in Ganjam district in the year 2007–08. It was found that the total demand for MCH services as per the service guarantees under NRHM vary considerably among the staff categories. The total demand of time for MCH services is highest for female Health Worker (1,100,496.2 hours) followed by male Health worker (466,736.5 hours), Doctors (453,522.9 hours), Staff Nurse (194,677.7 hours), Laboratory Technician (85,075.47 hours) and LHV (71,886.3 hours) to cater to a population of 34,85,100.

Gap or Surplus of Health Workers in Ganjam for Providing MCH Services

The gap or surplus of staff required at district and other facility level is calculated by subtracting the total demand and total supply of time by each category based on the proportion of time spent on MCH activities by the staff category at different levels. Based on the time gap, the additional requirement or surplus of staff is calculated by dividing it with the supply factors (number of hours available in a year by the staff categories, i.e., 1872 for all category except laboratory technician and for laboratory technician it is 2384 hours).

Table 8 depicts the staffing requirement of ANM/Health Worker (female), Health Worker (Male), LHV, Staff Nurse, Laboratory Technician and Medical Officer at different levels of Ganjam district (The facility-wise distribution is given in Annexure III). The column (g) in each of these tables

indicates the work pressure of a category of health staff in a facility. The ratio closer to one implies a better situation and a ratio greater than one implies surplus. On the other hand, a wide difference between ratios also implies inequitable distribution of the workforce, and there is scope for improvement.

The findings indicate that at the district level, 251.87 number of additional ANM (female Health Worker) is needed to provide the service guarantees within MCH under NRHM. The overall staffing need ratio for female Health Workers is 0.57 at the district level. However, the ratio is higher than the district level in Badagada (0.52) and Polasara (0.53) UGPHC and Goudagotha (0.54) and Biranchipur (0.55) SHCs. However, even though there is a shortage of female Health Workers at each level the difference varies at district, Block and PHC New and SHC levels. The female Health Workers linked to PHC New level show a better presence than the SHC and Block PHC/CHC level in comparison to district.

With regard to male Health Workers, there is additional need of 121.73 male Health Workers at the district level to provide the service guarantees within MCH under NRHM. The overall staffing need ratio for male Health Workers is 0.51 at the district level. However, the ratio is lower than the district level in most of the PHC/CHCs at Block and PHC New level. The position is better at the SHC level. However, this calculation does not include the SHCs where the male Health Worker post was vacant at the time of survey.

The data indicates that there is a surplus of LHV, particularly for MCH activities, at all levels starting from PHC New to District. It varies from 0.99 at Badagada block PHC to 1.39 at Karachuli PHC New. At the district level, it is 1.28.

Ganjam district needs 66.39 number of additional staff nurses to provide the service guarantees under MCH under NRHM. The overall staffing need ratio for staff nurses is 0.36 at the district level. However, the ratio is lower than the district level in Polasara (0.25) and Buguda (0.30) block PHCs.

TABLE 3: Staffing Requirement of Health Providers at District Level

| Type of health provider | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff required | Ratio of Staff Supply/ Required (WISN) |
|-------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|--|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| ANM | 480 | 1100496.23 | 628992 | -471504.23 | -251.87 | 0.57 |
| Male Health Worker | 319 | 466736.5 | 238867.2 | -227869 | -121.73 | 0.51 |
| LHV | 70 | 71886.32 | 91728 | 19841.68 | 10.60 | 1.28 |
| Staff nurse | 94 | 194677.7 | 70387.2 | -124290 | -66.39 | 0.36 |
| Lab Technician | 66 | 85075.47 | 15734.4 | -69341.1 | -29.09 | 0.18 |
| Medical Officers | 234 | 453522.9 | 131414.4 | -322109 | -172.07 | 0.29 |

Note:

- a) Type of Health provider
- b) Number of health staff as on March 2008
- c) Total demand is sum of all the activities being undertaken for MCH by the staff category
- d) Total supply the proportion of time spent on MCH
- e) Gap/Surplus (c) – (d) in hours
- f) (e)/1872 hours
- g) WISN ratio is (d)/(c)

The number of additional laboratory technicians required at the district level is found to be 29.09 in order to provide the service guarantees under MCH under NRHM. The overall staffing need ratio for laboratory technicians is 0.18 at the district level. The ratio for Block PHCs is lower than the district for all blocks.

The number of additional doctors required at the district level is found to be 172.07 in order to provide the service guarantees under MCH under NRHM. The overall staffing need ratio for doctors is 0.29 at the district level. However, the ratio for Block PHCs is lower than the district for all blocks covered under the study.

CONCLUSIONS

The present study differs from other studies in a way that it adopted slightly modified method of WISN. The earlier studies undertaken by Belayet Hossain et al. in 1999¹⁴ and Serpil Ozcan et al. 1999 were based on the actual service statistics. The present study utilizes population estimates from HMIS source and calculated the guaranteed services based on certain assumptions for service utilization after group discussion with different category of staff under each facility. Population estimates like 0–1 year population was used and a population factor was derived based on the assumption that the guarantees for each of the services is expressed into units. In an attempt to simplify the calculation for demand, the study made a departure from earlier authors in calculating the standard workload and allowance. Instead of calculating the standard workload in a year for each of the sub activities it has converted into total demand (time required) for the sub activities for the assumed service guarantees. Each of the components of work and the category allowance is converted into the demand for that activity in hours.

Our study shows WISN is a relatively simple method, allowing reasonably precise estimation for predicting the

workload and staffing requirement at national, state and district level to make managerial decision. The present study with conversion of demand into hours for each activity of a population or facility further simplifies the method, particularly when we are interested in a particular activity like MCH or disease programme etc. While the earlier methods allow calculating the staffing need taking into consideration the total work, either at staff or facility level, the present modification allows calculating the work load for a particular activity within different staff categories based on the proportion of time spent in that particular activity in comparison to other work assignments.

The study further indicates that at the district level the overall health staffing for ensuring service guarantees for MCH as per NRHM framework is inadequate among female Health Workers (252), Doctors (172), male Health Workers (122), staff nurses (66) and laboratory technicians (29). It is found that LHV's were in surplus (11) based on the assigned duties under the MCH activities.

The gap or surplus of Health Workers shows that the additional staff required to ensure MCH is more for female Health Worker followed by doctors. The WISN ratio shows there is an immediate need to fill up laboratory technician posts followed by doctors and staff nurses posts due to the increased level of institutional deliveries at CHCs. The estimated results clearly indicate that the WISN method helps in determining the level of staffing need and requirement for additional staffing not only within the facility but also within the categories at each levels.

RECOMMENDATIONS

It is recommended that the WISN method should be used as a methodology to calculate the expected demand such a package of services should generate and ascertain the gap that exists between promises and delivery capacity.

Government health planners should use WISN methodology to consider the magnitude of staffing increases that would be needed to meet service guarantees, with specific staffing information by cadre of practitioner. Using salary data, planners can easily generate budgets required to fill the gaps.

The study generated time standards in minutes for each MCH activity promised by the NRHM. These standards could now be applied to other districts in India. Further, WISN can provide a useful tool for civil society advocates holding governments accountable for their health service guarantees.

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ANNEXURE-I: Component of Workload and Activity Standards for Health Workers

| Staff Category | Component of Workload | Activity Standard |
|-----------------------------------|---|-------------------|
| ANM/Health Worker (Female) | | |
| | Registration of pregnancy | 20 minutes |
| | Antenatal check-ups 1st | 45 minutes |
| | Antenatal check-ups Subsequent | 30 minutes |
| | Immunization-mother | 7 minutes |
| | Immunization-Polio | 3 minutes |
| | Immunization-BCG | 5 minutes |
| | Immunization-DPT | 5 minutes |
| | Immunization-Measles | 7 minutes |
| | Immunization-Vitamin-A | 2 minutes |
| | Conducting urine test | 15 minutes |
| | Conducting Hb test | 5 minutes |
| | Identification of high risk pregnancy and referral | 0 |
| | Conducting deliveries | 4 and half hours |
| | Supervision of delivery by TBA | 1 hour |
| | Referring cases with difficult labour and newborn abnormality | 45 minutes |
| | Follow-up of referred cases | 30 minutes |
| | Identification of JSY cases | 0 |
| | Documentation of JSY | 15 minutes |
| | Seeking approval for JSY | 2 days/month |
| | Disbursing the money to beneficiary | 30 minutes |
| | Making postnatal visits & counselling | 30 minutes |
| | Assessing growth & development of infant | 15 minutes |
| | Health Education to mothers individually | 20 minutes |
| | Health Education to mothers in groups | 4 hours |
| | Assisting MO/LHV in ANC/PNC clinics | 0 |
| | Referring cases with malnutrition | 4 hours/month |
| | Preparation of Reports | 17 hours/month |

contd...

ANNEXURE-I: Contd...

| Staff Category | Component of Workload | Activity Standard |
|-----------------------------|---|---------------------------|
| | Total time spent in MCH activity | 70 % |
| | Non-MCH Activities | 20% |
| | Administration and Other responsibilities | 10% |
| Health Worker (Male) | | |
| | Assisting ANM in administering vaccines to children | 15 minutes |
| | Assisting ANM in administering immunization to pregnant Woman | 20 minutes |
| | Total time spent in MCH activity | 40 % |
| | Non-MCH Activities | 20% |
| | Administration and Other responsibilities | 40% |
| LHV | | |
| | Conducting weekly MCH clinic | 2 hours for 4 days/ month |
| | Conducting deliveries | 5 hours |
| | Supervising & guiding the work of HW | 30 minutes |
| | Scrutinizing the reports | 2 hours for 3 days/week |
| | Reviewing the reports | 15 minutes/day |
| | Compilation of reports | 4 hours/week |
| | Diagnosis of pneumonia cases | 15 minutes |
| | Providing treatment to mild and moderate ARI | 5 minutes |
| | Referring doubtful and severe cases of ARI | 5 minutes |
| | Total time spent in MCH activity | 70 % |
| | Non-MCH Activities | 20% |
| | Administration and Other responsibilities | 10% |
| Staff Nurse | | |
| | Admission | 10 minutes |
| | PV Examination | 10 minutes |
| | Conducting delivery | 30 minutes |
| | Assisting in delivery | 1 hour |
| | New born care | |
| | Resuscitation | 5 minutes |
| | Cleaning | 15 minutes |
| | Pumping | 5 minutes |

| Staff Category | Component of Workload | Activity Standard |
|-----------------------------|---|-------------------|
| | Cord clamping | 2 minutes |
| | Record maintenance & documentation | 10 minutes |
| | PNC examination | 15 minutes |
| | Minor ailment treatment | 15 minutes |
| | Counselling for breastfeeding | 10 minutes |
| | Helping mother to breastfeed their infants | 5 minutes |
| | Oxygen support to infants | 2 minutes |
| | Injecting Injection | 10 minutes |
| | Total time spent in MCH activity | 40 % |
| | Non-MCH Activities | 55% |
| | Administration and Other responsibilities | 5% |
| Laboratory Assistant | | |
| | Conducting urine tests for pregnant women | 10 minutes |
| | Conducting stool tests for pregnant women | 10 minutes |
| | Conducting blood tests for pregnant women-Hb test | 15 minutes |
| | Conducting blood tests for pregnant women | 1 hour |
| | Sputum test for pregnant women | 1 hour |
| | HIV test for pregnant women | 1 hour |
| | Total time spent in MCH activity | 10 % |
| | Non-MCH Activities | 85% |
| | Administration and Other responsibilities | 5% |
| Medical Officer | | |
| | Attending the referral cases | 10 minutes |
| | Conducting OPD | 7 minutes |
| | In-patient care of critical cases | 1 hour/day |
| | Attending the ANC/PNC clinic | 10 minutes |
| | Supervision of delivery | 15 minutes |
| | Supervision of MCH activity in community | 30 minutes |
| | Correction of moderate and severe dehydration | 1 hour |

contd...

ANNEXURE-I: Contd...

| Staff Category | Component of Workload | Activity Standard |
|-----------------------|---|--------------------------|
| | Detection and treatment of pneumonia cases | 2 hours |
| | Supervising the treatment of ANM/LHV for ARI | |
| | Infant and child care clinic | 0 |
| | Monitoring all diarrhoea cases for children (0-5) years | 5 minutes |
| | Ensuring supplies and equipments | 4 day/month |
| | Recording & reporting all diarrhoea cases | 0 |
| | Training of Health Workers | 2 hours for 3 days/month |
| | MCH-related General administration | 3 hours/week |
| | Correction of malnutrition cases | 1 hour/month |
| | Total time spent in MCH activity | 30 % |
| | Non-MCH Activities | 60% |
| | Administration and Other responsibilities | 10% |
| MO (In charge) | | |
| | Administration and Other responsibilities | 6 hours/day |

ANNEXURE-II: Demand Estimation and Standard Workload and Allowance Standards for Health Workers for Ganjam District

| Component of Workload | | Activity Standard | Time units in hours | Number of population in the 0–1 years | Population Factor | Unit | Calculation of Demand in hours |
|--|------------|-------------------|---------------------|---------------------------------------|-------------------|-----------|--------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) | |
| ANM/Health Worker (Female) | | | | | | | |
| Registration of pregnancy | 20 minutes | 0.33 | 79460 | 1.1 | 1 | 29135.44 | |
| Antenatal check-ups 1st | 45 minutes | 0.75 | 79460 | 1.1 | 1 | 65554.73 | |
| Antenatal check-ups Subsequent | 30 minutes | 0.50 | 79460 | 1.1 | 3 | 131109.46 | |
| Immunization-mother | 7 minutes | 0.12 | 79460 | 1.1 | 2 | 20394.81 | |
| Conducting urine test | 15 minutes | 0.25 | 79460 | 1 | 1 | 19865.07 | |
| Conducting Hb test | 5 minutes | 0.08 | 79460 | 1 | 1 | 6621.69 | |
| Identification of high risk pregnancy and referral | 0 | 0.00 | 79460 | 1 | 1 | 0.00 | |
| Health Education to mothers individually | 20 minutes | 0.33 | 79460 | 1 | 1 | 26486.76 | |
| Make postnatal visits & counselling | 30 minutes | 0.50 | 79460 | 1 | 1 | 39730.14 | |
| Immunization-Polio | 3 minutes | 0.05 | 79460 | 1 | 4 | 15892.06 | |
| Immunization-BCG | 5 minutes | 0.08 | 79460 | 1 | 1 | 6621.69 | |
| Immunization-DPT | 5 minutes | 0.08 | 79460 | 1 | 3 | 19865.07 | |
| Immunization-Measles | 7 minutes | 0.12 | 79460 | 1 | 1 | 9270.37 | |
| Immunization-Vitamin-A | 2 minutes | 0.03 | 79460 | 1 | 1 | 2648.68 | |
| Assess growth & development of infant | 15 minutes | 0.25 | 79460 | 1 | 1 | 19865.07 | |

contd...

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ANNEXURE-II: Contd...

| Component of Workload | Activity Standard | Time units in hours | Number of population in the 0-1 years | Population Factor | Unit | Calculation of Demand in hours |
|---|------------------------------------|---------------------|---------------------------------------|-------------------|------|--------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Identification of JSY cases | 0 | 0.00 | 79460 | 1 | 1 | 0.00 |
| Documentation of JSY | 15 minutes | 0.25 | 79460 | 1 | 1 | 19865.07 |
| Disbursing the money to beneficiary | 30 minutes | 0.50 | 79460 | 1 | 1 | 39730.14 |
| Health Education to mothers in groups | 4 hours/4 days/month | | | | 480 | 92160.00 |
| Assisting MO/LHV in ANC/PNC clinics | 0 | | | | | 0.00 |
| Seeking approval for JSY | 2 days/month | | | | 480 | 92160.00 |
| Referring cases with malnutrition | 4 hours/month | | | | 480 | 23040.00 |
| Preparation of Reports | 17 hours/month | | | | 480 | 97920.00 |
| Travel | 4 hours/day for 14 days in a month | | | | 480 | 322560.00 |
| Total time spent in MCH activity | 70% | | | | | |
| Non-MCH Activities | 20% | | | | | |
| Administration and Other responsibilities | 10% | | | | | |
| Health Worker (Male) | | | | | | |
| Assisting ANM in administering vaccines to children | 15 minutes | 0.25 | 79460 | 1 | 9 | 178785.63 |

| Component of Workload | Activity Standard | Time units in hours | Number of population in the 0-1 years | Population Factor | Unit | Calculation of Demand in hours |
|---|-------------------|---------------------|---------------------------------------|-------------------|------|--------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Assisting ANM in administering immunization to pregnant Woman | 20 minutes | 0.33 | 79460 | 1.1 | 2 | 58270.87 |
| | 2 hours/day | | | | 319 | 229680 |
| | 40% | | | | | |
| Total time spent in MCH activity | 20% | | | | | |
| Non-MCH Activities | 40% | | | | | |
| Administration and Other responsibilities | | | | | | |
| LHV | | | | | | |
| Diagnosis of pneumonia cases (0-1) | 15 minutes | 0.25 | 79460 | 1 | 0.2 | 3973.01 |
| Diagnosis of pneumonia cases (2-5) | 15 minutes | 0.25 | 79460 | 4 | 0.05 | 3973.01 |
| Providing treatment to mild and moderate ARI (0-1) | 5 minutes | 0.08 | 79460 | 1 | 0.05 | 331.08 |
| Providing treatment to mild and moderate ARI (2-5) | 5 minutes | 0.08 | 79460 | 4 | 0.04 | 1059.47 |
| Referring doubtful and severe cases of ARI (0-1) | 5 minutes | 0.08 | 79460 | 1 | 0.04 | 264.87 |
| Referring doubtful and severe cases of ARI (2-5) | 5 minutes | 0.08 | 79460 | 4 | 0.01 | 264.87 |
| Conducting deliveries | 5 hours | 5.00 | 79460 | 1 | 0 | 0.00 |

contd...

Mapping Adequacy of Staffing to Ensure Service Guarantees:
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ANNEXURE-II: Contd...

| Component of Workload | Activity Standard | Time units in hours | Number of population in the 0-1 years | Population Factor | Unit | Calculation of Demand in hours |
|---|--|---------------------|---------------------------------------|-------------------|------|--------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Conducting weekly MCH clinic | 2 hours for 4 days/month 30 minutes / day | | | | 70 | 6720 |
| Supervizing & guiding the work of HW | | | | | 70 | 12600 |
| Scrutinizing the reports | 2 hours for 3 days/week | | | | 70 | 21840 |
| Reviewing the reports | 15 minutes/day | | | | 70 | 6300 |
| Compilation of reports | 4 hours/week | | | | 70 | 14560 |
| Total time spent in MCH activity | 70% | | | | | |
| Non-MCH Activities | 20% | | | | | |
| Administration and Other responsibilities | 10% | | | | | |
| Staff Nurse | | | | | | |
| Admission | 10 minutes | 0.17 | 79460 | 1 | 1 | 13243.38 |
| PV Examination | 10 minutes | 0.17 | 79460 | 1 | 1 | 13243.38 |
| Conducting delivery | 30 minutes | 0.50 | 79460 | 1 | 0.9 | 35757.13 |
| Assisting in delivery | 1 hour | 1.00 | 79460 | 1 | 0.1 | 7946.03 |
| New born care | | 0.00 | 79460 | 1 | 0 | 0.00 |
| Resuscitation | 5 minutes | 0.08 | 79460 | 1 | 1 | 6621.69 |

| Component of Workload | Activity Standard | Time units in hours | Number of population in the 0-1 years | Population Factor | Unit | Calculation of Demand in hours |
|--|-------------------|---------------------|---------------------------------------|-------------------|------|--------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Cleaning | 15 minutes | 0.25 | 79460 | 1 | 1 | 19865.07 |
| Pumping | 5 minutes | 0.08 | 79460 | 1 | 1 | 6621.69 |
| Cord clamping | 2 minutes | 0.03 | 79460 | 1 | 1 | 2648.68 |
| Record maintenance & documentation | 10 minutes | 0.17 | 79460 | 1 | 1 | 13243.38 |
| PNC examination | 15 minutes | 0.25 | 79460 | 1 | 0.15 | 2979.76 |
| Minor ailment treatment (0-1) | 15 minutes | 0.25 | 79460 | 1 | 0.25 | 4966.27 |
| Minor ailment treatment (2-5) | 15 minutes | 0.25 | 317841 | 4 | 0.1 | 31784.11 |
| Counselling for breastfeeding | 10 minutes | 0.17 | 79460 | 1 | 1 | 13243.38 |
| Helping mother to breastfeed their infants | 5 minutes | 0.08 | 79460 | 1 | 1 | 6621.69 |
| Oxygen support to infants | 2 minutes | 0.03 | 79460 | 1 | 1 | 2648.68 |
| Inject Injection | 10 minutes | 0.17 | 79460 | 1 | 1 | 13243.38 |
| Total time spent in MCH activity | 40% | | | | 94 | |
| Non-MCH Activities | 55% | | | | | |
| Administration and Other responsibilities | 5% | | | | | |
| Laboratory Assistant | | | | | | |
| Conducting urine tests for pregnant women | 10 minutes | 0.17 | 79460 | 1.1 | 1 | 14567.72 |

contd...

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ANNEXURE-II: Contd...

| Component of Workload | Activity Standard | Time units in hours | Number of population in the 0-1 years | Population Factor | Unit | Calculation of Demand in hours |
|---|-------------------|---------------------|---------------------------------------|-------------------|------|--------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Conducting stool tests for pregnant women | 10 minutes | 0.17 | 79460 | 1.1 | 0.1 | 1456.77 |
| Conducting blood tests for pregnant women-Hb test | 15 minutes | 0.25 | 79460 | 1.1 | 1 | 21851.58 |
| Conducting blood tests for pregnant women | 1 hour | 1.00 | 79460 | 1.1 | 0.5 | 43703.15 |
| Sputum test for pregnant women | 1 hour | 1.00 | 79460 | 1.1 | 0.02 | 1748.13 |
| HIV test for pregnant women | 1 hour | 1.00 | 79460 | 1.1 | 0.02 | 1748.13 |
| Total time spent in MCH activity | 10% | | | | 66 | |
| Non-MCH Activities | 85% | | | | | |
| Administration and Other responsibilities | 5% | | | | | |
| Medical Officer | | | | | | |
| Attending the referral cases | 10 minutes | 0.17 | 79460 | 1 | 0.15 | 1986.51 |
| Conducting OPD | 7 minutes | 0.12 | 79460 | 1 | 0.15 | 1390.55 |
| Attend the ANC/PNC clinic | 10 minutes | 0.17 | 79460 | 1.1 | 1 | 14567.72 |
| Supervision of delivery | 15 minutes | 0.25 | 79460 | 1 | 0.9 | 17878.56 |
| Supervision of MCH activity in community | 30 minutes | 0.50 | 79460 | 1 | 0 | 0.00 |
| Correction of moderate and severe dehydration (0-1) | 1 hour | 1.00 | 79460 | 1 | 0.5 | 39730.14 |

| Component of Workload | Activity Standard (b) | Time units in hours (c) | Number of population in the 0-1 years (d) | Population Factor (e) | Unit (f) | Calculation of Demand in hours (g) |
|---|--------------------------|-------------------------|---|-----------------------|----------|------------------------------------|
| Correction of moderate and severe dehydration (2-5) | 1 hour | 1.00 | 317841 | 1 | 0.3 | 95352.34 |
| Detection and treatment of pneumonia cases (0-1) | 2 hours | 2.00 | 79460 | 1 | 0.2 | 31784.11 |
| Detection and treatment of pneumonia cases (2-5) | 2 hours | 2.00 | 79460 | 4 | 0.05 | 31784.11 |
| Supervising the treatment of ANIM/LHV for ARI | 0 | 0.00 | 79460 | 1 | 0 | 0.00 |
| Infant and child care clinic | 0 | 0.00 | 79460 | 1 | 0 | 0.00 |
| Recording & reporting all diarrhoea cases | 0 | 0.00 | 79460 | 1 | 0 | 0.00 |
| Monitoring all diarrhoea cases for children (0-1) years | 5 minutes | 0.08 | 79460 | 1 | 0.5 | 3310.85 |
| Monitoring all diarrhoea cases for children (2-5) years | 5 minutes | 0.08 | 79460 | 4 | 0.3 | 7946.03 |
| Ensuring supplies and equipments | 4 day/month | | | | 234 | 11232 |
| Inpatient care of critical cases | 1 hour/day | | | | 234 | 84240 |
| Training of Health Workers | 2 hours for 3 days/month | | | | 234 | 16848 |
| MCH-related General administration | 3 hours/week | | | | 234 | 36504 |

contd...

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ANNEXURE-II: Contd...

| Component of Workload | Activity Standard | Time units in hours | Number of population in the 0-1 years | Population Factor | Unit | Calculation of Demand in hours |
|---|-------------------|---------------------|---------------------------------------|-------------------|------|--------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Correction of malnutrition cases | 1 hour/month | | | | 234 | 2808 |
| Total time spent in MCH activity | 30% | | | | | |
| Non-MCH Activities | 60% | | | | | |
| Administration and Other responsibilities | 10% | | | | | |
| MO (In charge) | | | | | | |
| Administration and Other responsibilities | 6 hours/day | | | | 26 | 56160 |

- Notes:**
- a) Component of workload listed from the review of IPHS guidelines and in-depth discussion with key health staff.
 - b) Activity Standards generated through focus group discussions and interview with healthcare providers in Orissa state in November 2008.
 - c) Unit of time converted into hours dividing the figures of column b/60.
 - d) Number of individuals in the (0-1 years age) estimated to need the stated services based on the Census of India 2001 data and HMIS.
 - e) Population factors were fixed based on the assumptions made on the basis of discussions and interview with the healthcare providers.
 - f) Units of multiplication factors were given based on the service guarantees under NRHM implementation framework 2005.
 - g) Demand is calculated multiplying figures of columns b x c x d/60 in each row.

ANNEXURE III: Staffing Requirement of Health Providers at Different Levels

| Name of the Health Facility | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff Required | Ratio of Staff Supply/Required (WISN) |
|-----------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|---------------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| ANIM | | | | | | |
| Patrapur Block PHC | 24 | 48451.82 | 31449.6 | -17002.22 | -9.08 | 0.65 |
| Badagada Block UGPHC | 20 | 50017.9 | 26208 | -23809.90 | -12.72 | 0.52 |
| Polasara Block UGPHC | 21 | 51885.91 | 27518.4 | -24367.51 | -13.02 | 0.53 |
| Buguda Block PHC | 21 | 47960.01 | 27518.4 | -20441.61 | -10.92 | 0.57 |
| Kodala CHC | 23 | 49570.74 | 30139.2 | -19431.54 | -10.38 | 0.61 |
| Jagannathprasad Block PHC | 26 | 52749.74 | 34070.4 | -18679.34 | -9.98 | 0.65 |
| Baranga PHC New | 6 | 11095.77 | 7862.4 | -3233.37 | -1.73 | 0.71 |
| Goudagotha PHC New | 3 | 6273.59 | 3931.2 | -2342.39 | -1.25 | 0.63 |
| Karchuli PHC New | 5 | 9282.18 | 6552 | -2730.18 | -1.46 | 0.71 |
| Beguniapada PHC New | 7 | 13432.85 | 9172.8 | -4260.05 | -2.28 | 0.68 |
| Rahada PHC New | 5 | 9025.68 | 6552 | -2473.68 | -1.32 | 0.73 |
| Baragaon PHC New | 6 | 12684.69 | 7862.4 | -4822.29 | -2.58 | 0.62 |
| Goudagotha SC | 1 | 2408.44 | 1310.4 | -1098.04 | -0.59 | 0.54 |
| Konkorada SC | 1 | 2009.9 | 1310.4 | -699.5 | -0.37 | 0.65 |

contd...

Mapping Adequacy of Staffing to Ensure Service Guarantees:
A Study of Ganjam District in Orissa

ANNEXURE-III: Contd...

| Name of the Health Facility | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff Required | Ratio of Staff Supply/Required (WISN) |
|-----------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|---------------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Branchipur SC | 1 | 2384.65 | 1310.4 | -1074.25 | -0.57 | 0.55 |
| Buguda-II SC | 1 | 2348.96 | 1310.4 | -1038.56 | -0.55 | 0.56 |
| Kodala-II | 1 | 2039.65 | 1310.4 | -729.25 | -0.39 | 0.64 |
| Khamarpali SC | 1 | 2170.51 | 1310.4 | -860.11 | -0.46 | 0.60 |
| Male Health Worker | | | | | | |
| Patrapur Block PHC | 14 | 18636.2 | 10483.2 | -8153.00 | -4.36 | 0.56 |
| Badagada Block UGPHC | 15 | 21295.37 | 11232 | -10063.37 | -5.38 | 0.53 |
| Polasara Block UGPHC | 14 | 22326.58 | 10483.2 | -11843.38 | -6.33 | 0.47 |
| Buguda Block PHC | 13 | 19637.58 | 9734.4 | -9903.18 | -5.29 | 0.50 |
| Kodala CHC | 8 | 15533.4 | 5990.4 | -9543.00 | -5.10 | 0.39 |
| Jagannathprasad Block PHC | 9 | 15880.48 | 6739.2 | -9141.28 | -4.88 | 0.42 |
| Baranga PHC New | 2 | 3068.89 | 1497.6 | -1571.29 | -0.84 | 0.49 |
| Goudagotha PHC New | 1 | 1898.42 | 748.8 | -1149.62 | -0.61 | 0.39 |
| Karchuli PHC New | 4 | 4255.32 | 2995.2 | -1260.12 | -0.67 | 0.70 |
| Beguniapada PHC New | 3 | 4305.02 | 2246.4 | -2058.62 | -1.10 | 0.52 |
| Rahada PHC New | 2 | 2686.67 | 1497.6 | -1189.07 | -0.64 | 0.56 |

| Name of the Health Facility | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff Required | Ratio of Staff Supply/Required (WISN) |
|-----------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|---------------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Baragaon PHC New | 3 | 4585.8 | 2246.4 | -2339.40 | -1.25 | 0.49 |
| Goudagotha SC | 1 | 1271.92 | 748.8 | -523.12 | -0.28 | 0.59 |
| Konkorada SC | 0 | | | | | |
| Biranchipur SC | 1 | 1259.98 | 748.8 | -511.18 | -0.27 | 0.59 |
| Buguda-II SC | 0 | | | | | |
| Kodala-II | 1 | 1086.95 | 748.8 | -338.15 | -0.18 | 0.69 |
| Khamarpali SC | 0 | | | | | |
| | | | | | | |
| LHV | | | | | | |
| Patrapur Block PHC | 4 | 3900.11 | 5241.6 | 1341.49 | 0.72 | 1.34 |
| Badagada Block UGPHC | 1 | 1322.82 | 1310.4 | -12.42 | -0.01 | 0.99 |
| Polasara Block UGPHC | 2 | 2281.7 | 2620.8 | 339.1 | 0.18 | 1.15 |
| Buguda Block PHC | 3 | 3517.75 | 3931.2 | 413.45 | 0.22 | 1.12 |
| Kodala CHC | 2 | 3950.77 | 5241.6 | 1290.83 | 0.69 | 1.33 |
| Jagannathprasad Block PHC | 2 | 2163.25 | 2620.8 | 457.55 | 0.24 | 1.21 |

contd...

Mapping Adequacy of Staffing to Ensure Service Guarantees:
A Study of Ganjam District in Orissa

ANNEXURE-III: Contd...

| Name of the Health Facility | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff Required | Ratio of Staff Supply/Required (WISN) |
|-----------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|---------------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Baranga PHC New | 0 | | | | | |
| Goudagotha PHC New | 0 | | | | | |
| Karchuli PHC New | 1 | 943.24 | 1310.4 | 367.16 | 0.20 | 1.39 |
| Beguniapada PHC New | 1 | 975.28 | 1310.4 | 335.12 | 0.18 | 1.34 |
| Rahada PHC New | 0 | | | | | |
| Baragaon PHC New | 0 | | | | | |
| Staff Nurse | | | | | | |
| Patrapur Block PHC | 3 | 6166.2 | 2246.4 | -3919.8 | -2.09 | 0.36 |
| Badagada Block UGPHC | 4 | 7563.7 | 2995.2 | -4568.5 | -2.44 | 0.40 |
| Polasara Block UGPHC | 3 | 8825.75 | 2246.4 | -6579.35 | -3.51 | 0.25 |
| Buguda Block PHC | 3 | 7406.75 | 2246.4 | -5160.35 | -2.76 | 0.30 |
| Kodala CHC | 4 | 6797.7 | 2995.2 | -3802.5 | -2.03 | 0.44 |
| Jagannathprasad Block PHC | 4 | 6774.65 | 2995.2 | -3779.45 | -2.02 | 0.44 |

| Name of the Health Facility | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff Required | Ratio of Staff Supply/Required (WISN) |
|-----------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|---------------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Baranga PHC New | 0 | | | | | |
| Goudagotha PHC New | 0 | | | | | |
| Karchuli PHC New | 0 | | | | | |
| Beguniapada PHC New | 0 | | | | | |
| Rahada PHC New | 0 | | | | | |
| Baragaon PHC New | 0 | | | | | |
| Lab Technician | | | | | | |
| Patrapur Block PHC | 1 | 3070.67 | 238.4 | -2832.27 | -1.19 | 0.08 |
| Badagada Block UGPHC | 1 | 3766.61 | 238.4 | -3528.21 | -1.48 | 0.06 |
| Polasara Block UGPHC | 2 | 4395.09 | 476.8 | -3918.29 | -1.64 | 0.11 |
| Buguda Block PHC | 2 | 3688.45 | 476.8 | -3211.65 | -1.35 | 0.13 |
| Kodala CHC | 1 | 3507.5 | 238.4 | -3269.1 | -1.37 | 0.07 |
| Jagannathprasad Block PHC | 1 | 3373.67 | 238.4 | -3135.27 | -1.32 | 0.07 |

contd...

Mapping Adequacy of Staffing to Ensure Service Guarantees:
A Study of Ganjam District in Orissa

ANNEXURE-III: Contd....

| Name of the Health Facility | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff Required | Ratio of Staff Supply/Required (WISN) |
|-----------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|---------------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Baranga PHC New | 1 | 584.58 | 238.4 | -346.18 | -0.18 | 0.41 |
| Goudagotha PHC New | 1 | 422.91 | 238.4 | -184.51 | -0.10 | 0.56 |
| Karchuli PHC New | 0 | | | | | |
| Beguniapada PHC New | 0 | | | | | |
| Rahada PHC New | 1 | 447.41 | 238.4 | -209.01 | -0.11 | 0.53 |
| Baragaon PHC New | 0 | | | | | |
| Medical Officers | | | | | | |
| Patrapur Block PHC | 7 | 15565.29 | 3931.2 | -11634.1 | -6.21 | 0.25 |
| Badagada Block UGPHC | 7 | 17575.42 | 3931.2 | -13644.2 | -7.29 | 0.22 |
| Polasara Block UGPHC | 7 | 19390.71 | 3931.2 | -15459.5 | -8.26 | 0.20 |
| Buguda Block PHC | 7 | 17349.66 | 3931.2 | -13418.5 | -7.17 | 0.23 |
| Kodala CHC | 5 | 12582.63 | 2808 | -9774.63 | -5.22 | 0.22 |
| Jagannathprasad Block PHC | 6 | 15792.47 | 3369.6 | -12422.9 | -6.64 | 0.21 |
| Baranga PHC New | 1 | 1262.15 | 561.6 | -700.55 | -0.37 | 0.44 |

| Name of the Health Facility | No. of Health Staff | Total Demand in Hours | Total Supply | Gap/Surplus | Number of Additional Staff Required | Ratio of Staff Supply/Required (WISN) |
|-----------------------------|---------------------|-----------------------|--------------|-------------|-------------------------------------|---------------------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| Goudagotha PHC New | 1 | 422.91 | 561.6 | 138.69 | 0.07 | 1.33 |
| Karchuli PHC New | 1 | 1110.5 | 561.6 | -548.9 | -0.29 | 0.51 |
| Beguniapada PHC New | 1 | 1570.82 | 561.6 | -1009.22 | -0.54 | 0.36 |
| Rahada PHC New | 1 | 497.41 | 561.6 | 64.19 | 0.03 | 1.13 |
| Baragaon PHC New | 1 | 1738.74 | 561.6 | -1177.14 | -0.63 | 0.32 |

Notes: a) Name of the facility visited.

b) Number of health staff as on March 2008.

c) Total demand is sum of all the activities being undertaken for MCH by the staff category.

d) Total supply is the proportion of time spent on MCH.

e) Gap/Surplus (c) – (d) in hours.

f) (e)/1872 hours.

g) WISN ratio is (d)/(c).

To What Extent Are ASHAs Able to Perform Their Assigned Roles?

A Study of Muzaffarpur District in Bihar

Alok Lodh,* M Haque,* Pranita Singh,*
Dinesh Singh Dipu,* Sushil Kumar*
and Gitanjali Priti Bhatia**

INTRODUCTION

The Government of India (GoI) launched National Rural Health Mission (NRHM) to improve the availability of and access to quality healthcare services, especially for the poor, women and children residing in rural areas. One of the specific goals of the mission is the reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR). And, to achieve this, one of the core strategies adopted is to promote access to improved healthcare services at household level through the female health activist, commonly referred to as ASHA in most of the states of India.¹ Within NRHM it was felt that due to the very nature of the job responsibilities of the ANMs and AWWs, they cannot take up the responsibility of being a change agent in the village. Thus, a new band of community-based functionaries, the ASHAs, was proposed to fill this void. The ASHA is supposed to be the first point of contact for any health-related demands of deprived sections of the population, especially women and children. She is supposed to counsel women on matters considered important

* Movement Against AIDS

** Centre for Health and Social Justice

Some of the roles & responsibilities of the ASHA within Ante Natal Care service provisioning as mandated by NRHM are-

- Early registration of pregnant women.
- Ensuring certification of BPL/APL.
- Conducting four Ante Natal Check ups/home visits for ANC and counselling.
- Detection of high-risk pregnancies with appropriate management.
- Mobilization of pregnant women to access institutional health services.
- Counsel women on birth preparedness, contraception, infection control & RTI.
- Depot holder for essential products and services like I&FA, contraceptives, ORS, DDK and OTC drugs.
- Escort pregnant women to pre-identified institutions.
- Organizing health days.
- Bringing the women to the community-based centres on pre-designated days.
- Updating registers.

from the viewpoint of maternal health. Along with her other responsibilities, she is also supposed to mobilize the community and help them in accessing health-related services. It is envisaged that ASHA, ANM and AWW will work in close coordination with each other.

The Janani Suraksha Yojana (JSY) is a safe motherhood intervention under NRHM, which is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among the poor in rural areas. The scheme provides for cash assistance along with antenatal, delivery and post-delivery care. The Yojana has identified ASHA, as an effective link between the government and the poor pregnant women in 10 low performing states,

i.e., EAG (Empowered Action Group; EAG states are states with very poor health indicators) and few other states.² ASHA is supposed to identify pregnant woman, provide or assist in ANC, INC and PNC services, motivate and help in institutional delivery. Work of the ASHA associated with Yojana is assessed based on the number of pregnant women she has been able to motivate to deliver in a health institution and the number of women she has escorted to the health institutions.³ It is thus evident that in providing maternal healthcare services to women in a village, ASHA is supposed to play an important role along with ANM and the AWW.

THE CONTEXT

Bihar is one of the EAG States in India as evident from its poor indicators on health and health infrastructure. The health infrastructure in Bihar is inadequate with a shortfall of 6,050 sub-centres, 841 Primary Health Centres and 552 Community Health Centres.⁴ The Maternal Mortality Ratio in Bihar is 312, which is higher than the national ratio 254.⁵ Only 5.8 percent women received all recommended types of antenatal care (the rate is second lowest in India) and only 34.1 percent women had at least one ANC visit, which is lowest among all states in India.⁶

Muzaffarpur district is situated on the Indo-Gangetic plain of North Bihar, and therefore is prone to recurrent flood, natural disasters and disease outbreaks. The population of the district is usually agricultural labour and has generally low socio-economic status. The female literacy of the state is as low as 35.8 percent. The district has significant proportion (15.9%) of SC population with negligible (0.09%) ST population.⁷ Chamar and Dusadh are the two main Scheduled Castes residing in the district. These groups usually live on the fringes of habitations and are largely left out from mainstream development. They are bereft of social security schemes, which are often the last, and only

TABLE 1: Health Services Indicator

| Indicators | Muzaffarpur | Bihar | India |
|---|-------------|-------|-------|
| % of women receiving at least 3 visit for ANC | 20.8 | 19.6 | 50 |
| % of women receiving full ANC | 5.3 | 5.4 | 16.4 |
| % of institutional delivery | 19.4 | 23.0 | 40.5 |
| % of delivery attended by skilled personnel | 24.2 | 29.5 | 47.6 |

Source: http://www.mohfw.nic.in/NRHM/PIP_08_09/Bihar/RCH_Text.pdf

recourse of many families living below poverty line. Health programmes like NRHM are yet to bring in positive change in their health situation.

In Muzaffarpur, institutional deliveries are limited to 19.4 percent. Government outreach of healthcare services is poor: only 57.6 percent children received the BCG and only 8.4 percent women ever used government health facilities⁸ and only 2.5 percent women are ever contacted by ANM.⁹ One of the reasons for low outreach health services may be due to the prevalence of untouchability among different castes in the state. Anecdotal evidence have shown that frontline service providers, selected from the upper middle castes, do not provide regular services to the women from the lower castes and these women are therefore denied of the existing healthcare/preventive/promotive services if any. When families from the lower castes access the formal health systems, they are often subjected to harassment, delays and non-cooperation, which further aggravate their already compromised situations. With nowhere else to go, these poor communities try to avail commercially available services from the unregulated private sector, which is beyond their economic means and therefore end up with compromises against their meager land holding, family assets etc.

Given this context, it was decided by Movement against AIDS (MAA),¹⁰ a grassroots-level voluntary organization, to

conduct a short-term rapid appraisal to assess the provisioning of antenatal care by ASHAs in Muzaffarpur district.

The Objective

To assess the difference in the level of ANC service provisioning by ASHAs to women from different social groups and the level of their coordination among ANMs and AWWs in the delivery of these services in Muzaffarpur district.

METHODOLOGY

The study was conducted in Muraul block of Muzaffarpur district. This block was chosen for study as it has significant proportion (20%) of SC population and also in this block the selection of ASHAs is said to be complete with one round of training.¹¹ The study was carried out from October 2008 to November 2008. The study used both qualitative and quantitative methods.

Sample Selection

From the Muraul block 12 ANMs, 16 AWWs and 15 ASHAs were selected for the study. For studying the response of the beneficiaries, two villages with high SC population were selected from the block. Twenty women, 10 from general category and 10 from SC category, who had delivered in the last 6 months preceding November 2008, were randomly selected from each village for the FGD.

Data Collection

The research team conducted in-depth interviews with the ANM, AWW and ASHAs. The interview schedule was prepared keeping the ANC service provisioning of the ASHA under NRHM in focus.

FGDs were conducted with potential beneficiaries. A total of four FGDs were conducted, two in each village. From each selected village one FGD was held with women from general and one with the SC population, each group containing 10 women.

A survey with 234 women who had delivered within the last 1 year in the block was also interviewed using a questionnaire about their perceptions on ASHAs.

Limitations

The rapid assessment was designed to have an overview of the process, which were taking place at grassroots level and was not designed to be a study in exactitude. The study did not take into account other external factors such as flooding, socio-political upheavals and the issue of radical naxalism, which may have affected health service provisioning.

FINDINGS

Profile of Study Participants

The study shows that majority of the frontline health providers were from higher castes, especially with regard to ANMs. With regard to economic status also majority of the providers, especially ANMs and ASHAs, were from APL category. It is surprising to find that all of the ASHAs selected were at least matriculates. Table 2 gives details of socio-economic profile of the participants of the study.

Awareness about ASHA

From among the women surveyed only 55 (23.5%) of the total 234 women surveyed stated that they know about the

TABLE 2: Profile of the Participants

| Characteristic | | ANM | AWW | ASHA | Women |
|-----------------|-------------------------|-----|-----|------|-----------|
| Social status | General | 7 | 6 | 7 | 28 (12%) |
| | OBC | 5 | 4 | 4 | 61 (26%) |
| | SC | 0 | 3 | 3 | 101 (43%) |
| | ST | 0 | 1 | 2 | 10 (4%) |
| | Muslim & Christians | 0 | 0 | 0 | 34 (15%) |
| Economic status | Above Poverty Line | 10 | 8 | 14 | 56 (24%) |
| | Below Poverty Line | 2 | 7 | 2 | 178 (76%) |
| Education | Non-literate | 0 | 0 | 0 | 141 (60%) |
| | Less than matriculation | 0 | 6 | 0 | 63 (27%) |
| | Matriculation | 2 | 0 | 7 | 16 (7%) |
| | Intermediate | 8 | 9 | 5 | 14 (6%) |
| | Beyond Intermediate | 2 | 0 | 4 | 0 (0%) |
| Work experience | 0-1 years | 0 | 1 | 6 | - |
| | 1-2 years | 2 | 4 | 1 | - |
| | More than two years | 10 | 9 | 9 | - |
| Total | | 12 | 16 | 15 | 234 |

ASHA as an “ASHA.” The rest 76 percent women were not really aware about the ASHA as a concept or her physical presence in the community even though some have actually received some of the services by the deputed ASHA of her village without knowing her actual designated identity. Among the women not aware, only 5 percent belonged to the General Castes as compared to a shocking 47 percent belonging to the OBC category, 44 percent belonging to the SC and 4 percent to the ST community.

The study found that the ANMs and AWWs were aware about the existence of the ASHA in their respective work areas. A few AWWs even stated the exact number of ASHAs selected and working in their respective areas, particularly where the village size is large and multiple ASHAs have been selected within the same revenue village.

But the FGDs with women revealed that majority (75%) of the women were not aware about the presence of ASHA as health worker.

Registration of Pregnancy under JSY

Out of the total of 234 women surveyed, only about 28 percent (65 women) had registered themselves under the JSY scheme. Table 3 reveals how the reach of JSY is eluding the marginalized sections of the society.

A majority of the ANMs expressed that the ASHA has been registering pregnancies through them. Most ANMs gave a figure between 30–70 registrations in the last 6 months per ASHA. This figure could not be corroborated from the ASHA or the AWW.

Five of the 16 AWWs said that the ASHA had registered between two to twelve pregnant mothers. The rest of the AWWs were not very sure about the number or the process that the ASHAs undertake to register pregnancies under JSY.

As compared to the above, most of the ASHAs said that they had registered anywhere between three to twenty five pregnancies each along with the ANM. Only one ASHA said that she is yet to register any pregnancy under JSY as she is not aware about it. ASHAs said that they have recorded about 25 percent of the total registered pregnancies within the first trimester, 69 percent in the second trimester, while the rest 6 percent pregnancies were registered in the seventh month.

This contradiction among different frontline level health providers and with the reality (as revealed by women) with regard to registration under JSY shows the quality of implementation of NRHM.

TABLE 3: Registration of Pregnancies by Social Status of Women

| Social status | Registration of pregnancies | | Total |
|----------------------|-----------------------------|----------------|-------|
| | Registered | Non-registered | |
| General | 24 (86%) | 4 (14%) | 28 |
| OBC | 5 (8%) | 56 (92%) | 61 |
| SC | 22 (22%) | 79 (78%) | 101 |
| ST | 3 (30%) | 7 (70%) | 10 |
| Muslims & Christians | 11 (32%) | 23 (68%) | 34 |
| Total | 65 (28%) | 169 (72%) | 234 |

Counselling Services by ASHA

Out of the total women surveyed, only 26 percent women stated that they had been counselled by the ASHA for availing institutional delivery and related services. Twenty-two percent stated that they have been intimated about the EDD, 30 percent reported that they had been advised about the financial benefits available, while 26 percent stated that they have been intimated about the travel-related benefits available to a registered pregnant woman under JSY. If we analyse the rest 73 percent (172 women) who have stated that the ASHA had not provided any such service it is seen that less than 1 percent of the General Castes had been left out as compared to an overwhelming 4 percent of the STs, 48 percent of the SCs and 47 percent of OBCs.

Most of the ANMs reported that the ASHAs counsel the “would be” mothers, particularly with reference to their diet and cleanliness. Three ANMs stated that the ASHAs in their area do not provide any type of counselling services.

As far as AWWs are concerned, half of them said that the counselling by ASHAs are mostly limited, with two specifically stating that it was only related to TT immunizations. Other AWWs said they are not sure if the ASHAs in their area counsel pregnant woman for institutional delivery or for any other services. They said that they only counsel pregnant woman and not the ASHAs.

With regard to the ASHAs themselves, only one of the fifteen ASHAs interviewed stated that she counselled on institutional delivery.

Home Visits by ASHA for Providing ANC

The study found that ASHAs had made home visit to only 22 percent (51 women) in the study area. Table 4 gives more detailed information about the outreach of ASHAs to different social groups of the community.

TABLE 4: Home Visits by ASHA by Social Status of Women

| Social status | Home visit | | Total |
|----------------------|------------|-----------|-------|
| | Yes | No | |
| General | 22 (79%) | 6 (21%) | 28 |
| OBC | 8 (13%) | 53 (87%) | 61 |
| SC | 22 (22%) | 79 (78%) | 101 |
| ST | 3 (30%) | 7 (70%) | 10 |
| Muslims & Christians | 7 (21%) | 27 (79%) | 34 |
| Total | 62 (26%) | 172 (74%) | 234 |

Half the ANMs interviewed stated that the ASHAs visit the houses of pregnant women, and few of them say that it is specifically for completing the TT immunization schedule and not for home visits *per se*. The rest of the ANMs disclosed that the ASHA does not do home visits.

Only a few AWWs reported that the ASHA conducts home visits for providing ANC care. Three AWWs said that the ASHAs in their area do not conduct home visits. Few AWWs were of the opinion that sometimes the ASHA goes to the homes of pregnant women but those visits are part of her social life and not specifically for providing ANC care.

Contrary to what was reported by the ANMs and AWWs, all the ASHAs said that they do home visits with three specifically stating that they do so because they have to ensure the immunization (TT), though none of them said that they complete all the three ANC visits per pregnant woman. Some said that they go to those homes that are nearby. Few of them said that they encourage consumption of Iron tablets during these home visits. Few ASHAs said that they undertake home visits because after delivery they get their money.

Most of the ASHAs usually perceive their primary ANC responsibility as that relating to ensuring timely immunization (TT), informing about the expected date of delivery, telling women about the need to go to the PHC, providing and ensuring consumption of iron tablets, counselling the

women on cleanliness of their surrounding, eating nutritious food and helping them to make contact with the ANM.

With regard to the type of women who should receive their services, most of the health providers said that it is the poor women who really need free health services irrespective of their class and caste. But in the reality it was a different picture.

In the FGDs women revealed that for their health-related needs during pregnancy they are served by either the informal service providers like the village *dai* or their own families and neighbours for delivery related needs or the village compounder and the untrained medical practitioners for injection or medicine related requirements. They said that only occasionally they get help from the ANM, who charges for her services. A few reported that the ASHA sometimes comes, but usually to the upper class houses where there is more money available. They said that she does not visit the marginalized ("*garib*")¹² households. A few said that taking help from the village *dai* is more suitable for them because if they are unable to pay her by cash for her services, she can be paid by kind like giving grains.

Referral for Institutional Delivery

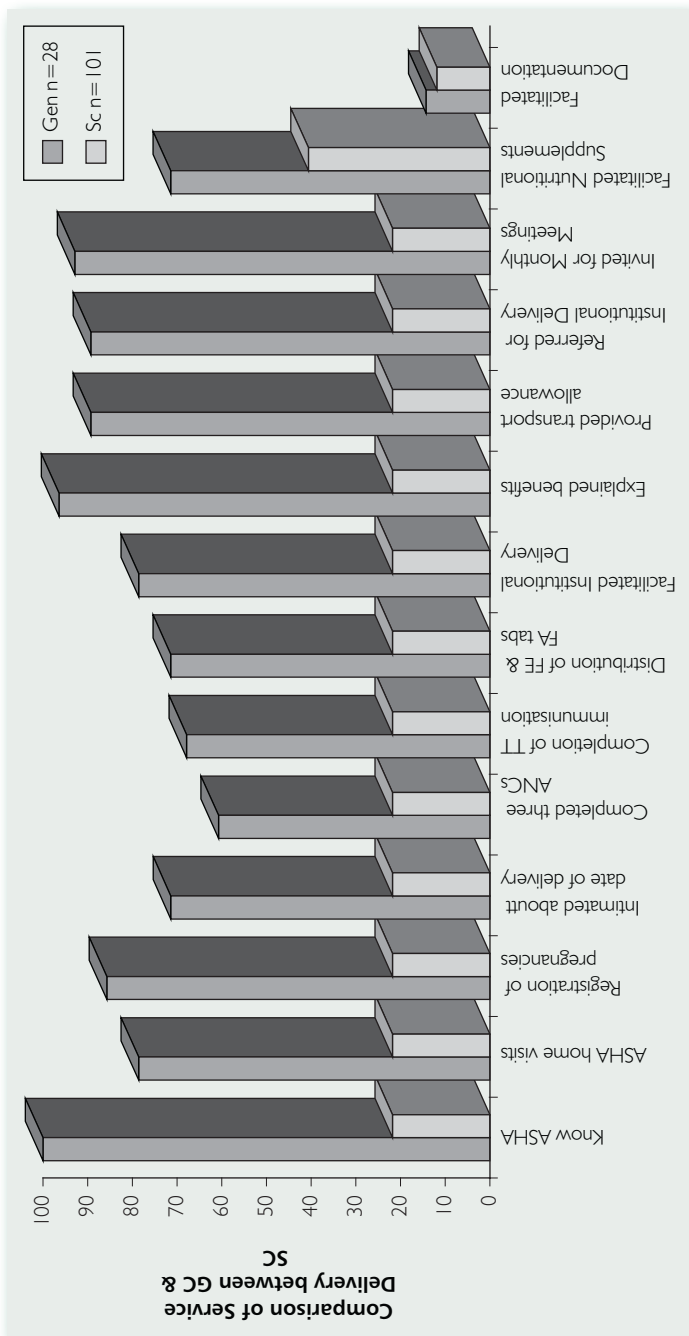
Out of the twelve ANMs interviewed, most reported that the ASHAs do not refer any expectant mother either to institutions for check up or for institutional delivery. Some cited poor knowledge of the ASHAs in understanding the various complications of pregnancy as the cause of not referring women to institutions. ANMs said that it is they who are instrumental in sending the patients for institutional delivery.

Most of the AWWs stated that the ASHA definitely does not refer any delivery case to the institutions, though a few of them reported that may be some ASHAs have referred some women for institutional delivery, as they get money for such referrals, but were not sure of how many such referrals have happened in their area.

The ASHAs, on the other hand, stated that they have referred delivery cases to institutions, but the numbers average between one to three cases per ASHA during the entire study period. They said that though they want to take women for institutional delivery, most of the times for various reason the delivery takes place at home only. One ASHA stated that though she sends cases for review by the doctor, the doctor does not properly check the woman and this discourage them to go again. Another ASHA said that she takes delivery cases to the ANM, and if the ANM refers her to the PHC then only the expectant mother goes to the hospital/ PHC for availing institutional services. Also the fact that even in a government health facility they have to incur high expenses for institutional delivery, compels poor and marginalized families to seek healthcare from unqualified and informal private practitioners (like *Bengali* doctor). Harassment by PHC staff, inadequate infrastructure, lack of transportation were said to be the other causes that discourage women to go for institutional delivery at government facilities, as reported by another ASHA. She said that then she had to coax and take them by spending her own money. Such instances of spending their own money were reported by few other ASHAs also. This has stopped other ASHAs from taking women for check-ups or institutional delivery with their own money. One ASHA recounted how she had to spend her own money while escorting a pregnant woman for availing health check-up services and that she could not recover her dues as the woman delivered at home later and she was refused the benefits on grounds of home delivery.

During the FGDs, women said that ASHA rarely takes women for delivery to the PHC. One woman said that ASHA is the one who apparently registers their name and facilitates release of money from the hospital, but she also said that the ASHA does not come to her area as it belongs to a lower caste section (See Figure 1).

Figure 1: Comparison of Service Delivery between General Castes and Scheduled Castes



To What Extent Are ASHAs Able to Perform Their Assigned Roles?
A Study of Muzaffarpur District in Bihar

Perception about ASHAs Roles and Responsibilities

Most of the ANMs perceive the ASHA as one who has the primary duty to identify the women in the village, register her through the ANM, help her in the immunization, look after her nutrition and take her to the hospital whenever required especially for availing institutional delivery. Few ANMs were also of the opinion that ASHAs should be involved in child healthcare activities also. Most of them expect her to assist her in all the immunization events taking place in the village. They said, since she is from the village most of them feel that she is best suited to roam about in the village and keep on bringing the new cases which they usually miss out on.

Most of the AWWs described the primary function of the ASHA as identifying pregnant women in the village and providing ANC care. They feel all the other workers such as the ANM or the immunization volunteers (Polio) only serve partially and do not provide comprehensive services. They feel that ASHAs are able to reach out to people better than them as they are based in the centre. Some of the AWWs desired that the ASHA assist her in bringing the women and children to the centre, since they are busy working at the centre and cannot go for calling the beneficiaries from their homes. AWWs said that they feel that the ASHAs are not properly fulfilling their duties related to ANC care and they take interest only in institutional delivery as they get money for that. Most of the AWWs cannot distinguish the separate functional areas of their respective services in the village.

When ASHAs were asked about their views on their own roles, some said that they feel their main responsibility is to facilitate institutional delivery by spending their own money. One of them said that she helps the woman through the local Self-Help Group by giving their money to the needy. Few of the ASHAs informed that family planning is a part of their responsibility and that one of them assists the women in accessing IUD-related services. One of them reported that

she helped in the regional polio immunization programme. Overall, the findings revealed that most of them were not clear about their roles and responsibilities, though they expressed a sense of pride in their job. They expressed their unhappiness too that in spite of doing a good job they do not get a regular income and thus gets disheartened.

FGDs revealed that most of the women could not differentiate the functions of the different frontline workers with only a few of them saying that the ASHA is supposed to help the pregnant women in the village while the ANM provides immunization, twice during a pregnancy.

Collaboration between ASHA and the Frontline Workers

Most of the ANMs expressed their happiness over the support they receive from the ASHA during the immunization events in the village. They feel that with the support of the ASHA none of the beneficiaries are left out of the schedule. They said that now that the ASHA is working they have a fair idea about how many pregnant women are there in their jurisdictional areas. Interviews with ANMs also revealed the fact that class and caste differences between ANM and ASHAs sometimes create animosity between them, though no one was explicit about it.

The study found that ASHAs and the AWWs coordinate between each other with regard to village level surveys, organizing immunization camps and Muskaan days or the Mothers days and filling up the schedule for immunization. Some of them stated that they take the help of the ASHA in distribution of the ration and weighing of the babies. Few AWWs reported that it so happens sometimes that when they go to meet a woman at her home after closing the anganwadi centre, many times the woman is not available at that time. In that case they expect the ASHAs to go and meet the woman at the time when she is at home which coincides with the opening hours of the anganwadi centre.

Both the AWW and ANMs reported that ASHAs are better placed to ensure geographical coverage of the services that they provide.

Most of the ASHAs are clear about their positioning in the chain of services; that they are supposed to visit the houses in the village, whereas the ANM and the AWW are supposed to provide services from certain fixed points. They also noted that they are not equipped to provide services directly to the women unlike the ANM and the AWW who either gives injections or makes available nutrition respectively directly to the beneficiaries. Their role is to facilitate access to such services. The study found few ASHAs, who were unable to distinguish their role from the ANMs and AWWs.

Most of the ASHAs reported that they are happy with the level of cooperation offered by the ANM and the AWW. They also said that they coordinate with them in various activities like distribution of IFA tablets and supplementary nutrition, immunization, etc. Some ASHAs stated that some ANM asks money for medicines they take for providing services to women in their villages, which hinders their relationship. A few of the ASHAs reported that since they do not get regular incomes they do not maintain regular contacts with the ANM or the AWW.

Most of the women during the FGDs could not identify instances where the ASHA received any support from other health functionaries in providing the ANC services though a few could conversely identify the AWW who is helped by the ASHA in the meetings at the centre. Some of the others could identify her as helping the ANM in giving the polio drops.

VHSC and ASHA

None of the AWWs or the ASHAs could tell anything about the existence of the VHSC or whether it had been formed at the villages.

Training of ASHAs

While few ASHAs were satisfied with the training, others were not. Those who were unsatisfied said that the training was not properly done and that they could not understand anything. One ASHA said that they expected the training to address early childhood care so that she can extend such services to the babies in her community. Some opined that joint trainings with the AWW and the ANM would have ensured that they also know what is to be done and would have helped in future work collaboration. The ANMs and AWWs were also of the same opinion. Few ASHAs said that there should be a periodic training.

With regard to the mode of training one ASHA commented that there should be more demonstrations rather than theoretical trainings. Few ASHAs said that they are yet to get the total training. Like the ASHAs, ANMs and AWWs were also of the opinion that they should be involved in the training process.

Challenges Faced by the ASHA

The study found that the ASHAs face a wide array of challenges and constraints in their work. They are listed as follows:

- **Demand of money by the service providers:** AWWs reported that when the ASHA takes women for delivery to the PHC, the ANM demands money from her. One ASHA recollected an incident where one of the PHC staff threatened to not register the mother's name unless the ASHA paid up.
- **Inadequate compensation:** After completion of delivery if the beneficiary does not get her money then she blames the ASHA for taking away all her money. Some AWWs reported that when the beneficiary does not

receive the JSY benefits in time she usually misbehaves with the ASHA.

- **Inadequate honorarium:** AWWs felt that as the ASHAs do not get regular honorarium they therefore cannot be made accountable for their services.
- **Monetary assistance under JSY:** ASHAs said that they do not get monetary assistance in advance to pay for the expenditure incurred for taking and getting an institutional delivery done, whereas the women who is about to deliver does not want to spend any money because she feels that institutional delivery at government hospitals are “free” and she is not supposed to pay. ASHAs reported that they should be remunerated at every stage starting from registration itself, which will encourage them to work more.
- **Transportation:** Both ASHAs and AWWs shared that non-availability of cheap transport at the village level hinders ASHAs in taking a woman for institutional delivery.
- **Family resistance and security issues:** Some ASHAs said that she faces resistance from her family as she does not get any payment. She also has restriction on her travel, especially during night.
- **Lack of awareness:** The study found that both ASHAs and women were not aware about the various benefits and requirements under JSY. Many ASHAs also reported that they are not aware what services ANMs are supposed to provide at village or sub-centre level.

Positive Achievements in Recent Years

Though the study found that there are many aspects in health service delivery that needs improvement, yet one could notice some positives changes being brought by the

implementation of NRHM in the district. Few aspects are listed below:

- Sensitization to a certain extent of the public health machinery, especially the service providers with regard to ANC needs of women, including quality of care concerns.
- NRHM has been able to generate awareness within the frontline workers especially the ANM, AWW and the ASHA about the intention of the government in encouraging and popularizing institutional deliveries.
- Creating a cadre of rural health volunteers who may be eventually successful in improving the maternal and child health.

CONCLUSION

The rapid assessment provided an empirical understanding of the dynamics existing at community level among the frontline health workers and the beneficiaries. Some of the important findings of this report are mentioned below:

- The ASHA who is looked upon as the basis of implementation of NRHM, is still, after 3 years of its launch, struggling to establish her identity both within the community where she is serving, as well as among the formal sector service providers who she is assisting in providing the statutory health services at village level. The health services provided by the ASHA have serious limitations in terms of outreach as well as quality. Even after two to three years of functioning she has not been able to establish a significant relationship with her own community. This is possibly due to the lack of inclusiveness in the planning process at various levels, improper selection procedure, inadequate and poor training process,

lack of clarity on programme objectives and a plethora of socio-economic factors.

- Inadequate health provisioning at PHC level and the subsequent referral units of the government health provisioning further limits the quality and authenticity of services that ASHAs are supposed to provide at village level.
- Inadequate compensation for the services and time volunteered by the ASHA and the reimbursement driven system that is in existence at most of the government institutions have demoralized the ASHA.
- The front line health workers such as the ANM and the AWW are not clear about the roles and responsibilities of ASHA which hampers proper coordination among the different frontline health workers.
- Even though some women are today availing the JSY benefits, yet those belonging to the marginalized lower castes face a strong and significant social exclusion and have been largely left out of the benefits provided by the ASHA at community level. It is due to various socio-economic, religious and cultural issues at both the community level as well as at the level of the service providers where caste, creed and monetary affluence most often decide who will receive what services and when.
- The Village Health & Sanitation Committee as envisioned within the bottom-up planning process of the NRHM was nowhere to be seen. Neither the community members nor the frontline health workers were aware about any such stipulation. This lack of community participation has ensured that such health services are only in the domain of either the service provider or the recipient.

Based on its findings, the study recommends few strategies that can be adopted to improve the functioning of ASHAs:

1. There is a need to establish the presence of ASHA within her community. This can be achieved to a large extent by-
 - a) Formation of VHSC at village level.
 - b) Proper selection of ASHAs according to NRHM guidelines.
 - c) Generating more awareness about the health services she would be providing and the delivery mechanism through village meetings.
 - d) Orienting the frontline workers (ANM, AWW and the ASHA) by joint training and collaborative planning.
2. ASHAs need to be made more effective as an instrument of service delivery by —
 - a) Ensuring adequate number of quality trainings.
 - b) Making available proper service kit.
 - c) Encouraging collaborations with the ICDS and sub-centre at community level for service delivery.
 - d) Addressing the financial constraints and rethinking the cash delivery models of JSY.
 - e) Working out suitable mechanisms for compensation.
3. There is a need for developing community-based mechanisms that press demand for services to ensure adequate provisioning of service. This can be done by-
 - a) Proper functioning of VHSC.
 - b) Orienting the PRI representatives about the provisions under the NRHM.

NOTES

1. NRHM (2005-12): *Mission Document*.
2. Ministry of Health and Family Welfare, Government of India, NRHM website-JSY as in October 2006.
3. JSY Guidelines downloaded from <http://india.gov.in/allimpfrms/alldocs/2384.pdf>
4. Ministry of Health & Family Welfare, Government of India (2007): *RHS Bulletin*.

5. http://censusindia.gov.in/Vital_Statistics/SRS_Bulletins/MMR-Bulletin-April-2009.pdf
6. NFHS -3, Bihar.
7. Census 2001.
8. DLHS-RCH round -II.
9. IIPS: Key indicators: RCH Data 2002-2004, Mumbai.
10. MAA works in the area of reproductive health among the marginalized families with a special focus on services in and around the expectant mothers.
11. Medical Officer in charge, Muraul block
12. *Garib* in Bihar is usually referred to those from the marginalized lower caste families living on the fringes of mainstream rural society, usually Harijans, Mushahars and Tulas.

Assessing the Preparedness of CHCs as First Referral Units in Meghalaya

8 CHAPTER

Ibadasuklin Kharshandi* and Mornrina J Nongkynrih*

INTRODUCTION

The population of Meghalaya is 2.32 million according to 2001 census and is scattered over seven districts, 39 blocks and 6026 villages. The State has the population density of 103 persons per sq. km. As against decadal growth rate of 21.5 percent at the national level, the population of the State has grown by 30.6 percent over the period 1991–2001. The sex ratio of Meghalaya at 972 females to 1,000 males is higher than the national average of 933. Female literacy of the state rose to 60.4 percent in 2001 from 44.8 percent in 1991. Thirty four percent of its population are below the poverty line.

Meghalaya has come a long way in improving citizens' health status in the last 25 years, yet there are aspects that need improvement; for instance, reduction in maternal mortality and morbidity. As per the NFHS-3 survey in 2005–06, institutional deliveries were only 30 percent in the state. This is because of lack of qualified staff, medicines and infrastructure at the health centres, compelling people to either return home without being treated or access the district hospitals in the urban area. The district hospitals, which act as referral hospitals, are distant and inaccessible to most villagers.

* North East Network

TABLE 1: Health profile of Meghalaya

| Indicator | Meghalaya | India |
|--|-----------|-------|
| Crude Birth Rate (SRS 2008) | 25.2 | 22.8 |
| Crude Death Rate (SRS 2008) | 7.9 | 7.4 |
| Total Fertility Rate (SRS 2007) | NA | 2.7 |
| Infant Mortality Rate (SRS 2008) | 58 | 53 |
| Maternal Mortality Ratio (SRS 2004–2006) | NA | 254 |

NRHM has the goal of improving accessibility to health-care services in rural areas, with a special focus on poor women and children, water, sanitation and hygiene, immunization, nutrition and reducing both the IMR and the MMR. The Rogi Kalyan Samiti (RKS) at the CHC level is one of the key components responsible for provisioning, controlling and managing public health services and also for receiving funds to improve health standards. With the implementation of the NRHM programme in the state (Meghalaya is a high focus state under NRHM), overall numbers of health infrastructure and manpower have increased; however, there are areas that need improvement (see Box 1).

The Context

DLHS-3¹ data reveal that only 13 percent mothers in the state received full ANC and 32.5 percent received PNC. Only 24.4 percent of all deliveries were institutional, though there still exists the preference for home delivery in spite of emphasis for institutional delivery under NRHM. When faced with obstetric complications like haemorrhage or obstructed labour, there is considerable delay in reaching these hospitals, which results in maternal deaths.

The general health conditions of the women in the state are poor and are attributed to lack of awareness and education about their own health needs. According to a study done by the Hyderabad-based National Institute of

Box 1: Overall improvement in health system since NRHM

Achievements made

- Increase in general utilization of OPD and indoor services, institutional delivery, and immunization.
- Improved infrastructure and construction of new PHCs
- VHSC and RKS instituted at village and facility level.
- ASHAs are active, involved in VHND, JSY and immunization activities.
- Almost every Sub centre is functional with one ANM.

Areas for further improvement

- Strengthening of delivery services is required
- Rational utilization of RKS fund for patient care.
- Strengthening of ASHA programme is required.
- Encourage involvement of greater NGO support.
- HR positioning at CHC needs to be improved.
- Few PHCs in the state are functioning on 24x7 basis, the state needs to augment the process.

Infrastructure

- Further strengthening of infrastructure is needed.
- Need to optimize utilization of existing infrastructure through HR rationalization and better supervision to ensure accountability.

Source: http://www.mohfw.nic.in/NRHM/Documents/NE_Reports/Meghalaya_Report.pdf

Nutrition (NIN),² it was found that Meghalaya mothers were among the most anaemic in the country. The common ailments suffered by women are gastroenteritis, tuberculosis, malaria and general debility.

In addition, there is a severe shortage of medical personnel in the northeast region. The staffing levels of doctors are not even 50 percent of the IPHS standard. As a result, community health centres are not being able to admit patients.

Box 2: Strengthening CHCs for first referral care

A key strategy of the NRHM is:

- Operationalizing 3222 existing Community Health Centres (30-50 beds) as 24 Hour First Referral Units, including posting of anaesthetists.
- Codification of new Indian Public Health Standards, setting norms for infrastructure, staff, equipment, management etc. for CHCs.
- Promotion of Stakeholder Committees (Rogi Kalyan Samitis) for hospital management.
- Developing standards of services and costs in hospital care.
- Develop, display and ensure compliance to Citizen's Charter at CHC/PHC level.
- In case of additional outlays, creation of new Community Health Centres (30-50 beds) to meet the population norm as per Census 2001, and bearing their recurring costs for the Mission period could be considered.

Source: NRHM: Mission Document 2005-12

There is also an unwillingness of specialist doctors to join the public health system.³ In addition to that, improper storage system of medicines and irregularities in despatch of medicines to the various health centres⁴ compound the problem further. A lack of coordination and infrastructure also plague the public health system and therefore the delivery of service under NRHM.

Given the context, to get a clearer picture and understanding of the prevailing situation in peripheral areas and with regard to the new initiatives of NRHM, specifically to maternal and child health services, a study on "Strengthening CHC for First Referral Care" was undertaken by North East Network (NEN). Of the seven districts of Meghalaya, four districts namely East Khasi Hills, West Khasi Hills, Ri Bhoi District and Jaintia Hills district were chosen for assessing

the quality of services in the community health centre (CHC) with regard to NRHM standards.

The Objective

The present study sought to assess the preparedness of the CHCs to deliver MCH services as per NRHM norms.

Specific Objectives

- To map out the target population that the CHCs cater to.
- To understand and describe factors concerning availability and quality, accountability and affordability.
- To map and analyze existing healthcare delivery systems and concrete service guarantees from CHCs laid by NRHM in the context of maternal health.

METHODOLOGY

Sample Area

The population for the study was purposively selected by the State Programme Manager, NRHM. Four CHCs from four districts of Meghalaya were selected for conducting the study. These include Khliehriat CHC from Jaintia Hills district, Nongpoh CHC from Ri-Bhoi district, Pynursla CHC from East Khasi Hills district and Mairang CHC from West Khasi Hills district.

Sample Selection

The sample size of the present study consisted of about 63 respondents. The sample comprised:

- Seven staffs from each CHC who include medical health officers, nursing staffs, technicians, pharmacists and block programme manager.

- Five clients (pregnant women/mothers who have delivered their first or second child within a period of six months) accessing services from the least functional CHC.
- FGDs of five women each from three localities of the least functional CHC.

Purposive sampling was used for interviewing the CHC staff but for exit interview with clients, selective sampling was used. For house-to-house interview with the women from the three localities and FGD with RKS members and Women's Group of the least functional CHC, the sample was drawn through snowball technique.

Data Collection

A semi-structured, open-ended questionnaire was prepared to assess the functioning of the four CHCs in the four districts of Meghalaya (henceforth referred to as audit study). To prepare the questionnaire, several secondary data were referred to. The secondary data included browsing of different NRHM websites, referring proforma for CHCs on IPHS and books and research studies on NRHM. A pre-testing of the instruments was done during the initial stage of the study and adjustments and corrections were made for the tools for carrying out the field study. The parameters used in the tools were supplemented, subtracted and changes made according to the type of respondents.

Slight variations were made in the tool used for interviewing the Medical Health Officers, Nursing Staffs, Technicians, Pharmacists and Block Programme Manager. The questionnaire used for exit interview of clients, and that used for the house-to-house interview with the women from three localities of the least functional CHC were designed differently. A separate tool was again constructed for FGD with the RKS members and the Women Groups of the least functional CHC.

The questionnaire used for assessing the four CHCs had three sections, i.e., the 3As, viz., Availability and quality, Accountability and Affordability.

Ethical issues in research were adequately dealt with. Steps included:

- Acquisition of introduction letter from the funding organization in order to obtain an official permission from the State to conduct the study.
- Gain informed consent of the respondents.
- Maintain anonymity of the respondents.

Analysis of Data

The maximum obtainable score and minimum obtainable score for the responses to each of the items in Table 2 was scored based on the availability and functionality of the equipments, availability and sufficiency of the staff and number of funds received by the CHC as per the Indian Public Health Standard. The CHC equipped with all the equipments, staff strength and received majority of the funds as per the Indian Public Health Standard will obtain the maximum obtainable score whereas the least equipped CHC will receive the minimum obtainable score.

TABLE 2: Item-wise Maximum and Minimum Possible Scores

| Sections | Items | No. of items | Maximum Scores | Minimum Scores |
|--------------------------|--|--------------|----------------|----------------|
| Availability and Quality | • Laboratory Equipment | 10 | 10 | 0 |
| | • Equipment for Labour Room and Neonatal Resuscitation | 23 | 23 | 0 |
| | • Operation Theatre Equipment | 14 | 14 | 0 |
| | • Staff strength | 16 | 16 | 0 |
| Accountability | Funds received | 8 | 8 | 0 |

All items on the assessment tool were scored in binary fashion with unavailable/non-functional/inefficient/unclean being given a score of 0 and if present/functioning given a score of 1. Under affordability, free services got a score of 1, while if charges were levied, the score given was 0.

FINDINGS

I. From the Audit Study (see Annexure 1)

Availability and Quality

1. **Monitoring:** It was found out that the Medical Health Officer is in charge of all the four CHCs.
2. **Equipments and functionality:**
 - a) **X-ray machine:** In terms of the availability of X-ray machine, all four CHCs shared an equal score 1 whereas 0 score was given to Pynursla and Khliehriat CHCs for non-functionality of the X-ray machine.
 - b) **Laboratory facility:** Under laboratory facility are the essential laboratory services, availability and functionality of the laboratory equipment and blood storage facility.

In the essential laboratory services, scores are given according to the basic tests conducted in the laboratory like blood smear test, malaria parasite test, sputum test for TB and pregnancy test. The CHCs which conduct all the basic lab tests were given a score of 4. All four CHCs obtained a maximum score for conducting the basic tests. Sugar/Albumin test and urine test is the additional test conducted in Pynursla and Nongpoh CHCs respectively.

The CHC equipped with all the equipments under the laboratory according to the IPH Standard will get a score of 10. Based on the availability and functionality of the laboratory equipments, the scores vary from 7 to 9 and 4 to 6 respectively, among the four

CHCs. None of the four CHCs have a blood storage facility and were given 0 score.

- c) **Labour room:** All the four CHCs gained a maximum score 2 for the availability and functionality of the labour room.

In terms of labour room and neonatal resuscitation equipments, the CHCs equipped with all the labour room and neonatal resuscitation equipments according to the IPH standard were given a score of 24. Pynursla and Nongpoh CHCs got the highest score of 20 and 19 respectively in terms of availability of equipments in labour room and neonatal resuscitation and acquired a score of 18 each for functional ability of the equipments. Khliehriat CHC which got the lowest score did not even have a delivery table and was found utilising the bed as a delivery table and the footstep as a stool. None of the four CHCs had a radiant warmer for neonatal care.

- d) **Operation theatre:** All four CHCs have a separate room for operation theatre and obtain an equal score of 1. However, in terms of functionality, all the four CHCs have 0 score since the operation theatre is never utilized and is in a poor physical state.

In terms of OT equipments, the CHCs equipped with all the OT equipments according to the IPH Standard were given a score of 14. Khliehriat CHC was found to be the least equipped CHC in terms of OT equipments and Nongpoh CHC was somehow better-off in OT equipments.

- e) **Drugs and Medicines:** The supply of medicines from the headquarters was found insufficient as most of the patients had to buy medicines from outside even for minor ailments like fever, diarrhoea etc. So a score of 0 was given to all four CHCs.

3. **Facility for sterilising instruments:** Nongpoh, Mairang and Pynursla got a score of 2 each for availability and functionality of the instruments and the Khliehriat CHC got a score of 0. Pynursla CHC was found inadequate with regard to sterilizing instruments whereas Nongpoh CHC was comparatively better equipped in terms of facility for sterilizing instruments. Nongpoh CHC was using electrical autoclave and heater autoclave for sterilizing instruments. Mairang CHC was using Lysol for sterilizing sharp instruments whereas blunt instruments were boiled in a heater. Stoves were used when there is no electricity. Khliehriat CHC was using stoves or heater for boiling instruments.
4. **Provision of food to indoor patients:** Only Mairang CHC was found providing food for the indoor patients, so got a score of 1. Despite the availability of a kitchen and a cook, the other three CHCs did not provide food to the indoor patients because there was no allotted budget for that provision. However, Nongpoh and Pynursla CHC were planning to start providing food to the CHC patients.
5. **Medical Care services:** Scoring of services is done based on the cases attended by the CHC, providers' attitude, maintenance of privacy and quality of service delivery. A score of 1 each is given if the CHCs are attending EmOC cases, normal cases of delivery, assisted cases of delivery and complicated cases of delivery and 0 score for not attending. Scoring for providers' attitude is based on satisfactory (1 score) and unsatisfactory (0 score) attitude. Satisfactory attitude indicates being courteous, listening attentively to the patient's complaint, examining properly and overall impression based on patient's response. Maintenance of privacy is scored based on the availability of curtains and bed-side screens to maintain privacy while examining the patients. Quality of service is scored based

on the number of deliveries conducted per month and discipline maintained in the CHC like in the duty timing and availability of doctors for conducting of deliveries.

All the four CHCs scored 1 for attending cases of normal delivery. Three of the CHCs scored 1 each for attending EmOC cases and assisted cases of delivery conducted mainly through forcep delivery and vacuum delivery. Only Nongpoh CHC to some extent attended cases of complicated delivery while in the rest of the three CHCs, high-risk cases were referred to the District Hospital.

Providers' attitude in all the four CHCs was found satisfactory. Privacy was maintained in the three CHCs with bed side screen available in every OPD clinic, emergency and labour room except for Khliehriat CHC which got a score of 0.

Three CHCs got a score of 1 each for satisfactory quality of service delivery whereas Khliehriat CHC scored 0. However, it may be noted that the number of deliveries per month in the three CHCs ranged from 6–20 cases, whereas the Khliehriat CHC, in spite of its poor infrastructure, was found handling about 150 cases of delivery per month. This high caseload might be one of the reasons for poor quality service delivery like nursing sisters conducting many cases of delivery. In this CHC, there was no provision of warm water for conducting of deliveries whether it is during the hot season or cold season, and there was lack of discipline in the CHC whether it is in the duty timing of the medical health officer or the dress code of the nursing sister which makes it difficult to distinguish between the nursing and non-nursing staff.

6. **Opening timings:** Scoring of this factor is done based on the 24 hours emergency services and delivery services and OPD timing. A score of 1 each is given if emergency and delivery cases are attended for 24 hours and 0 if not

attended. Scoring for OPD timing is done by calculating the mean from the OPD hours in the four CHCs, i.e., four hours. The CHC whose opening times fall below the mean are given a score of 1 and those with opening times above mean a score of 2.

Nongpoh and Mairang CHCs scored 2 each whereas Pynursla and Khliehriat CHCs got a score of 1. All four CHCs scored 1 each for providing 24 hours emergency services and delivery services though many times the CHC staffs were not available after the OPD timings.

7. **Referrals:** Zero score was given to all four CHCs as cases requiring surgical interventions like caesarean sections were referred to the District Hospital and CHC was not acting as a first referral unit.
8. **Transport:** 1 score each was given to Nongpoh, Mairang and Pynursla CHCs for the availability and functionality of ambulance for referral transport services whereas 0 score was given to Khliehriat CHC for the non-availability of transport. Pynursla CHC has a TATA Sumo ambulance which is mostly used for transporting medicines, fieldwork and immunization but is sometimes used for transporting women patients with complications during pregnancy and delivery and for infants with complications.
9. **Staff strength:** Scores are given according to the availability of staff based on the minimum requirements for quality care as per IPH Standard. The maximum obtainable score is 16. Nongpoh CHC was well equipped in terms of staff strength with a score of 14, followed by Mairang CHC (with a score of 11) and a score of 10 each for Pynursla and Khliehriat CHCs. It may be noted here that the low scores in the staff strength is mainly due to the unavailability of clinical manpower like the general surgeon, physician, obstetrician/gynaecologist, paediatrician, anaesthetist, and support manpower like the ward boys/nursing orderly.

Accountability

1. **Framework for information dissemination:** From a maximum score of 5, all the CHCs scored only 1 each because posters on NRHM were only available. Posters on NRHM were displayed in the maternity ward or family welfare room. Wall painting on family planning, prenatal care, immunization schedule, information on JSY in a local language were also seen in all the CHCs. But except the posters, other things like citizens' charter, list of medicines, banners or hoardings on NRHM were not available. List of medicines were maintained either in the register or on a piece of paper attached to the furniture.
2. **Knowledge about RKS:** All four CHCs were given a score of 0 as knowledge about RKS is shared only among the members, some non-members who participated in the RKS meeting like the Block Programme Manager and NRHM accountant. The majority of CHC staff and the community are not aware of the RKS.
3. **Knowledge about funds:** All four CHCs were given a score of 0 since most of the community people as well as CHC staff were not aware of the types of funds received by the RKS except its own members. Even majority of the beneficiary were not aware of the JSY funds and the reason for getting it. In Khliehriat CHC, only the member secretary and one doctor knew about the funds.
4. **RKS members:** RKS is formed in all the four CHCs. RKS of Nongpoh, Mairang and Pynursla CHCs met IPH standards whereas Khliehriat CHC, with only five RKS members, did not meet the stated standards. RKS meetings in Nongpoh, Mairang and Pynursla CHCs were held quarterly, whereas in Khliehriat CHC, the meeting was held once in six months. Because of its improper formation and functioning, Khliehriat CHC got 0 score, whereas the rest three CHCs got a score of 1.

5. **Funds received:** Scores are given according to the amount of funds received under the NRHM scheme, viz., annual maintenance fund, untied fund, RKS fund, JSY fund, VHSC fund, referral transport fund, VND fund and MSS fund. The CHC which received all the funds was given a maximum score of 8.

All four CHCs got the maximum score as they received all the mandatory funds except that Nongpoh CHC did not receive the MSS fund for the year 2008 and Khliehriat CHC did not receive the referral transport fund.

6. **Redressal mechanism:** All four CHCs got a score of 0 as they did not have a system for the public to redress their grievances. For any inconvenience suffered, the patients either grumbled among themselves or complained to a Medical Health Officer.

Affordability and Medical Expenses

The study found that all the four CHCs provided free medical service to the patients except for the Rs.2 that had to be paid for registration and so all the CHCs got a score of 1 each. However, there are other costs that patients had to bear in certain circumstances. For instance, in Mairang CHC, the patients had to pay Rs.50 for the X-ray film but for poor patients this charge is waived. In Khliehriat CHC, the women patients had to bear travel expenses for referral cases of delivery as the CHC did not have an ambulance nor provided referral transport money since the CHC did not receive it.

Infrastructure Facilities

1. **Electricity:** Zero score is given to all four CHCs for occasional power failure but got 2 score each for availability and functionality of stand-by facility.
2. **Water:** Only Mairang CHC received 24-hour water supply and got a score of 1 whereas the remaining CHCs did

not receive regular supply of water and therefore got a score of 0. Mairang and Nongpoh CHCs got a score of 1 for water sufficiency. There was water shortage in the other two CHCs. In fact, Khliehriat CHC was not admitting patients because of water scarcity. Arrangements for drinking water was available only in Mairang CHC for indoor patients and so got a score of 1 and the rest three CHCs got 0 score. In these CHCs, the patients either had to bring water from home or fetch it from outside canteen.

3. **Toilet facilities:** Separate toilet facility for males and females were available only for the indoor patients of Mairang and Pynursla CHCs; so 1 score each was given to both CHCs. None of the four CHCs had toilet facility for OPD patients and therefore all got a score of 0.
4. **Cleanliness:** The CHC is said to be satisfactorily clean and given a score of 1 point based on the following observations:
 - a) Walls were clean — white washed or not.
 - b) Clean cemented floor — daily wiping was done or not.
 - c) Toilets were cleaned or not.
 - d) Laboratory was maintained in an orderly manner or not.
 - e) Medicines in the storeroom were properly arranged or not.

Cleanliness was also assessed based on the availability and unavailability of waste disposal and incinerator with a score of 1 point each.

In terms of cleanliness, Khliehriat CHC scored 0 since the wards in the CHC were not in a good condition and windows needed renovation. The toilet was in a pathetic condition. The laboratory also was not clean and there was no proper place to keep the slides. The storeroom was not properly maintained as the space was not

sufficient and the ANM room was also used for storing medicines. The rest three CHCs scored 1.

Regarding waste disposal, Mairang, Nongpoh and Pynursla scored 1 each for availability of waste disposal whereas Khliehriat CHC scored 0 for unavailability of waste disposal. Medical wastes from the Mairang, Nongpoh and Pynursla CHCs were either burnt or buried or were disposed off in covered and sharp pits. Previously, Khliehriat CHC had a place for waste disposal but with the extension of the CHC as a 100-bedded hospital, wastes were now disposed off openly and were found littered everywhere.

None of the four CHCs had a safe method for disposal of syringes (incinerator), hence all scored 0.

5. **Record maintenance:** 1 score each was given if records were computerized, a personal computer was available, and if there was access to the internet. Mairang CHC was the only CHC which had a personal computer, so records were maintained both manually and electronically. The other CHCs got a score of 0. None of the four CHCs had an internet connection.
6. **Storage:** Scoring for storage is done based on the availability and sufficiency of a storeroom. All four CHCs scored 1 each for availability of storeroom for storing medicines, furniture and equipments. However, the space available for storage was not sufficient except for Mairang CHC.

The above findings revealed that the Khliehriat CHC was the least prepared in terms of providing quality of care to its patients. Therefore, to get the providers' and beneficiaries' views of the Khliehriat CHC, FGDs and interviews were conducted and the findings are presented below.

II. Findings from FGDs and Interviews

- The women beneficiaries had very little knowledge about the health programmes, its function, and various

provisions under NRHM. Some did not even know about the existence or role of the ASHAs.

- They did not have any knowledge about the existence of RKS.
- The RKS members in this CHC consisted of only five members, which did not fulfil the criteria as per the IPH Standard. Besides the members were not active and did not attend the meetings regularly. During their absence, the RKS Member Secretary who was also in-charge of the CHC took decisions in the meeting along with the other members present. Few days prior to this study, new members were elected for the RKS. During the focus group discussion, no information could be obtained from the members about the way of functioning of the RKS, the

Box 3: Ground Reality of Khliehriat CHC

- According to one woman who accessed service from Khliehriat, "there is no proper or strict rule followed for registration amount as I was made to pay Rs.30 for immunization card and OPD registration." She was also promised the JSY amount by the ANM, but till date she had got no reimbursement, though it had been 10 months since her delivery.
- Most of the women interviewed said that they never got the JSY cash incentive when they were discharged from the CHC and they have now stopped asking about it because "authority keeps on claiming lack of funds."
- Most of the women don't even know who the ASHAs were and their roles in the community.
- The women were of the view that the CHC services needs to be upgraded and improved as it is the only refuge for the poor and needy, particularly those who can't afford to bear heavy expenses for healthcare.
- No referral amount is being given by the CHC even though the case had been referred by the CHC. A woman was not even aware of the fact that she can ask money for arranging transport. She eventually spent Rs.1700 for her transport.

problems they encountered as this was their first meeting and most of the RKS members were unaware about their roles, except the Member Secretary.

- Records were not maintained to show the utilization of funds and the expenditure incurred for maintenance of the CHC.

CONCLUSION

The findings of the study indicate that all the four CHCs under study were not up to the standard laid down under the IPH guidelines and the worst affected one was the Khliehriat CHC. The CHCs need to meet the standards of the IPH guidelines in order to strengthen themselves. The study also brought forth the fact that all the four CHCs were not fully equipped with infrastructure and trained staffs, which is one of the reasons most of the CHCs were not able to treat and cater to cases of complicated deliveries, resulting in a situation where cases were being referred to the District Hospitals increasing their case load and thereby affecting quality of services. The present study was able to bring forth the issue of improper implementation of the NRHM programmes and also denial of healthcare rights to the community.

Suggestions

Based on the findings, some suggestions were made as follows:

- There is a need to provide adequate trained staff.
- Extensive training for the RKS members is required.
- The existing infrastructure, especially referral transport system needs to improve.
- Hygienic disposal of medical wastes and provision of necessary equipments or facilities for treating the wastes should be taken care of.

- Provision of separate and hygienic sanitation for IPD and OPD patients.
- Records need to be maintained properly as per guidelines.
- Timing for OPD must be fixed at convenient time for women to access health services.

NOTES

1. Ministry of Health and Family Welfare, Government of India: DLHS – 3, 2007-08.
2. mohw.nic.in/NRHM/State%20Files/Meghalaya.htm-91k- Accessed on 10 July 2008.
3. *Shillong Times* (2008): "Medical staff crisis hits rural health care," 1 May.
4. *Shillong Times* (2008): "Pariong detects spoiled medicines in NRHM stores," 6 August.

ANNEXURE 1: Scoring of the CHCs from the Audit Study

| Sl. No. | Items | Nongpoh | Mairang | Pynursla | Khliehriat |
|---------|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. | Monitoring | Medical officer in charge available | Medical officer in charge available | Medical officer in charge available | Medical officer in charge available |
| 2. | Equipments and functionality | | | | |
| (i) | X-ray | | | | |
| | • Available | 1 | 1 | 1 | 1 |
| | • Functional | 1 | 1 | 0 | 0 |
| (ii) | Lab facility | | | | |
| | • Essential laboratory services | 4 | 4 | 4 | 4 |
| | • Laboratory equipment | | | | |
| | • Available | 7 | 8 | 8 | 9 |
| | • Functional | 6 | 8 | 8 | 4 |
| | Blood storage facility | | | | |
| | • Available | 0 | 0 | 0 | 0 |
| | • Functional | 0 | 0 | 0 | 0 |
| | Labour room | | | | |
| | • Available | 1 | 0 | 1 | 1 |
| | • Functional | 1 | 1 | 1 | 1 |
| | Equipment for labour room and neonatal resuscitation | | | | |
| | • Available | 19 | 17 | 20 | 10 |
| | • Functional | 18 | 17 | 18 | 8 |
| (iii) | OT | | | | |
| | • Available | 1 | 1 | 1 | 1 |
| | • Functional | 0 | 0 | 0 | 0 |
| | Operation theatre equipment | | | | |
| | • Available | 9 | 7 | 3 | 1 |
| | • Functional | 9 | 7 | 2 | 1 |
| (iv) | Drugs and medicines | | | | |
| | • Available | 1 | 1 | 1 | 1 |

| Sl. No. | Items | Nongpoh | Mairang | Pynursla | Khliehriat |
|---------|---|---------|---------|----------|------------|
| | • Sufficient | 0 | 0 | 0 | 0 |
| 3. | Facility for sterilising instruments | | | | |
| | • Available | 1 | 1 | 1 | 1 |
| | • Functional | 1 | 1 | 1 | 1 |
| 4. | Diet services | 0 | 1 | 0 | 0 |
| 5. | Services | | | | |
| | • Attending EMOC cases 1 | 1 | 0 | 1 | |
| | • Normal cases of delivery | 1 | 1 | 1 | 1 |
| | • Assisted cases of delivery | 1 | 1 | 0 | 1 |
| | • Complicated cases of delivery | 1 | 0 | 0 | 0 |
| | • Provider's attitude | 1 | 1 | 1 | 1 |
| | • Maintenance of privacy | 1 | 1 | 1 | 0 |
| | • Quality of service delivery | 1 | 1 | 1 | 0 |
| 6. | Time | | | | |
| | • 24 hours Emergency services | 1 | 1 | 1 | 1 |
| | • 24 hours delivery services | 1 | 1 | 1 | 1 |
| | • OPD timing | 2 | 2 | 1 | 1 |
| 7. | Referrals | 0 | 0 | 0 | 0 |
| 8. | Transport | | | | |
| | • Available | 1 | 1 | 1 | 0 |
| | • Functional | 1 | 1 | 1 | 0 |
| | Referral transport services | 1 | 1 | 1 | 0 |
| 9. | Staff strength | 14 | 11 | 10 | 10 |
| 10. | Framework for information dissemination | 1 | 1 | 1 | 1 |

contd...

ANNEXURE 1: Contd...

| Sl. No. | Items | Nongpoh | Mairang | Pynursla | Khliehriat |
|---------|--|---------|---------|----------|------------|
| 11. | Knowledge about RKS | 0 | 0 | 0 | 0 |
| 12. | Knowledge about funds | 0 | 0 | 0 | 0 |
| 13. | RKS: Formation and function-ability | | | | |
| | • Formation | 1 | 1 | 1 | 1 |
| | • Functional | 1 | 1 | 1 | 0 |
| 14. | Funds received | 7 | 8 | 8 | 8 |
| 15. | Redressal mechanism | 0 | 0 | 0 | 0 |
| 16. | Cost of medical services | 1 | 1 | 1 | 1 |
| 17. | Electricity | | | | |
| | Available for 24 hours | 0 | 0 | 0 | 0 |
| | Stand-by facility (generator) | 1 | 1 | 1 | 1 |
| | • Available | 1 | 1 | 1 | 1 |
| | • Functional | 1 | 1 | 1 | 1 |
| 18. | Water | | | | |
| | • Availability of 24 hour water supply | 0 | 1 | 0 | 0 |
| | • Sufficient | 1 | 1 | 0 | 0 |
| | • Arrangements for drinking water | 0 | 1 | 0 | 0 |
| 19. | Toilet facilities | | | | |
| | • Separate for male and female | 0 | 1 | 1 | 0 |
| | • Separate for OPD and IPD | 0 | 0 | 0 | 0 |
| 20. | • Cleanliness | 1 | 1 | 1 | 0 |
| | • Waste disposal | 1 | 1 | 1 | 0 |
| | • Availability of incinerator | 0 | 0 | 0 | 0 |

| Sl. No. | Items | Nongpoh | Mairang | Pynursla | Khliehriat |
|---------|-------------------------------------|---------|---------|----------|------------|
| 21. | Record maintenance | | | | |
| | • Computerized | 0 | 1 | 0 | 0 |
| | • Availability of personal computer | 0 | 1 | 0 | 0 |
| | • Access to NIC terminal / E-mail | 0 | 0 | 0 | 0 |
| 22. | Store room | | | | |
| | • Available | 1 | 1 | 1 | 1 |
| | • Sufficient | 0 | 1 | 0 | 0 |

Assessing the Readiness of the Health System to Address Maternal Mortality

A Study in Uttar Pradesh

9
CHAPTER

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INTRODUCTION

Achieving the 5th Millennium Development Goal (MDG)¹ of improving Maternal Health by reducing three quarters of the Maternal Mortality Ratio (MMR)² by 2015 still remains a global challenge. A woman's risk of dying from treatable or preventable complications of pregnancy and childbirth in her lifetime is about one in 22 in sub-Saharan Africa, one in 120 in Asia, compared to one in 7,300 in developed countries.³

In India, the major policy and programme goals aim to reduce the Maternal Mortality Ratio (MMR) to less than 100 by the year 2012.^{4,5,6} The MMR for India as a whole was 407 per 100,000 live births in 1997–98 which decreased to 254 in 2004–06⁷; however, this conceals wide disparities among the states:

- MMR ranging from 300 to 500 in Orissa, Assam & other "backward states."
- MMR around 100 or less in states like Tamil Nadu, and Kerala.

Uttar Pradesh (UP) is the largest state in India in terms of its population which was 166 million during the census of 2001, and is probably now approaching 200 million. The

* SAHAYOG

TABLE 1: Maternal Mortality Ratios 1997–2006 in India and Uttar Pradesh

| Year | MMR (India) | MMR (UP) | Difference in MMR |
|---------|-------------|----------|-------------------|
| 2004–06 | 254 | 440 | 1.73 times |
| 2001–03 | 301 | 517 | 1.72 times |
| 1997–98 | 398 | 606 | 1.52 times |

Source: Sample Registration Survey of India, Registrar General of India

state of healthcare services, particularly for maternal and child health continue to be extremely poor in the state.

Table 1 shows that while the proportion of women dying is reducing in Uttar Pradesh, the gap with the national average has gone up. Even at this reduced MMR there are an estimated 28 thousand maternal deaths in the state every year, and over five and half hundred thousand women facing life-threatening situations during pregnancy, or after childbirth or abortion.

MMR can only be used as a rough indicator of the maternal health situation in any given country. This is because to calculate this figure, a huge denominator is required which is difficult to obtain in many countries. Hence, other indicators of maternal health status like antenatal check up, safe delivery etc., should be used for this purpose.⁸

A summation of such indicators (Proportion of Births attended by Skilled Birth Health Personnel; Contraceptive Prevalence Rate; Adolescent Birth Rate; Antenatal Care Coverage; Unmet need for Family Planning) from the data of the District Level Household Survey 3 (2007–08)⁹ conducted in India shows that Uttar Pradesh is lagging far behind the country, and we also see that there is a great disparity between the rural and the urban indicators: both in India, as well as Uttar Pradesh, the rural indicators are much worse than the urban.

Since CSSM Programme (Child Survival and Safe Motherhood) in 1992–93, promotion of maternal health has been an objective of the Family Welfare Programme in India. The

TABLE 2: Maternal Healthcare in Rural and Urban India and Uttar Pradesh (DLHS 3)

| Determinant | DLHS 3 (India) | | | DLHS 3 (Uttar Pradesh) | | |
|---|----------------|-------|-------|------------------------|-------|-------|
| | Total | Rural | Urban | Total | Rural | Urban |
| Proportion of births attended by skilled health personnel | 52.6 | 43.5 | 75.8 | 30.1 | 27.0 | 47.1 |
| Contraceptive Prevalence Rate | 54.1 | 51.2 | 60.4 | 38.4 | 36.7 | 46.8 |
| Adolescent Birth Rate ¹ | 5.8 | 6.6 | 3.6 | 6.3 | 6.8 | 4 |
| Antenatal Care Coverage ² | 75.3 | 70.7 | 87.2 | 64.4 | 62.8 | 73.6 |
| Unmet need for Family Planning | 21.5 | 23.0 | 18.2 | 33.8 | 34.8 | 28.4 |

Notes: 1. Adolescent Birth Rate is the annual number of births to women 15–19 yrs of age per 1000 women.
2. Antenatal Care Coverage means any percentage of mothers who received any antenatal visit

Reproductive and Child Health Programme (RCH) was launched in October 1997 and is now in its second phase. In 2005, the Indian government launched the National Rural Health Mission in which maternal health was a high-focus issue. With dedicated budgets for promotion of institutional delivery, the government also created a cadre of community health workers to ensure health education and motivate pregnant women to attend health centres towards reduction of maternal mortality.

The primary determinants of maternal mortality have been identified as including delivery by skilled birth attendant (doctor/nurse/midwife), access to emergency obstetric care, effective functional health services, effective medicines, equipments, referral and transportation.¹¹ Yet Sen, reflecting on experiences of rural Karnataka, goes beyond this: “Making reproductive and sexual health services accessible to poor women certainly requires more government spending on health, better management, logistics and staffing in public systems, better regulation of private providers, and the checking of rampant malpractice and price-gouging. But all these can be dependent for their effectiveness, as we see

in too many instances, on a change in attitudes and mind-sets at many levels of both public and private providers.”¹²

The Context

SAHAYOG, a voluntary organization, has been working on promoting women’s right to maternal health with partner organizations in Uttar Pradesh since 2000. In the course of the last ten years of working with the rural poor on maternal healthcare entitlements, a gap was observed between health programme design, and its implementation as experienced by the women users. The provision of maternal health services sometimes had a pre-condition of informal payments, and sometimes women from poorer and marginalized communities were turned away or denied care.¹³

On comparing the facility-level staff assessment of DLHS 3, we found the DLHS 3 Facility surveys had no data on how providers in government health facilities respond to serious health issues such as maternal mortality. This study has the following hypothesis: In addition to the primary determinants of maternal mortality (as above), we suggest that the responsiveness of the health system (through its providers) to poor women users is also a determinant, which can be measured by studying their perception of the importance of maternal health, their knowledge of danger points, and their personal motivation to take initiative. Those identified individuals will need to be motivated as well as knowledgeable and capable, in order to effectively improve the quality of maternal health services being provided to the poor within their district.

In this context, SAHAYOG engaged in a process of action research from 2008 to investigate whether organized women users could negotiate their healthcare entitlements (within the NRHM) through dialogue with various stakeholders within the district health system. In order to map out which stakeholders were already concerned about maternal health, and had the capacity and motivation to bring about change, this

Stakeholder Assessment Study was conducted in five selected districts of UP to identify possible “change-makers” within the system: knowledgeable, capable and motivated individuals (or “key stakeholders”) from among the providers, managers and users who are ready to work together at district level for improving quality of care. The current paper refers to the facility-level staff assessment which was part of the bigger study that was conducted at the district level in five districts of Uttar Pradesh, aimed at mapping stakeholders who might be able to take some initiative to improve the status of maternal health.¹⁴

The Objective

The objective of this facility-level assessment was to assess within five districts the readiness of the health system to bring down the level of maternal mortality.

METHODOLOGY

Sampling

The five districts were selected among the 12 districts where SAHAYOG is currently working in Uttar Pradesh on the basis of three criteria: socio-economic indicators (Census 2001), regional distribution across the state and the strength of the women “user-group,” that is the Mahila Swasthya Adhikar Manch (MSAM)¹⁵ organization. Among the various socio-economic indicators that were chosen are population indicators (percentage of rural population to total population, percentage of Scheduled Caste population to total population), literacy indicators (female literacy rate), religion indicators (percentage of Hindus in total population, percentage of Muslims in total population), and infrastructure and amenity indicators for villages (percentage of villages with drinking water, percentage of villages with electricity, population covered by one medical facility, population covered by one PHC, population covered by one sub-centre, percentage of villages with some

TABLE 3: Characteristics of Sample Districts in Uttar Pradesh

| District | Region | Performance on socio-economic indicators (Among the 12 districts where SAHAYOG is working) | Institutional delivery performance | MSAM Status |
|---------------|---------------------|--|------------------------------------|---------------|
| Muzaffarnagar | Western | Best performer | 30-40% | Medium active |
| Mirzapur | Eastern | Best performer | 20-30% | Most active |
| Gorakhpur | Northern | Average performer | 30-40% | Most active |
| Bareilly | Central | Worst performer | Less than 20% | Beginning |
| Chitrakoot | Bundelkhand (South) | Worst performer | Less than 20% | Beginning |

form of communication facility, percentage of villages with bus facility, percentage of villages with paved roads and percentage of villages with mud roads). We selected two districts which had better socio-economic status, two which were quite poor and one which was average. Similarly, we selected two districts with stronger well-established MSAM groups, two with fairly new MSAM groups and one which had neither very strong nor too new MSAM group.

Later data (DLHS 3 state summaries) indicate that the five districts are also varied in terms of levels of institutional delivery. Gorakhpur and Muzaffarnagar which were average and best performer respectively on socio-economic indicators had about 30–40 percent of institutional deliveries; Mirzapur which is one of the best performers on socio-economic indicators had about 20–30 percent institutional deliveries; while Bareilly and Chitrakoot which were the bad performers on socio-economic indicators had the lowest rate of less than 20 percent institutional delivery.

Data Collection

The data for this study has been generated from both secondary and primary sources with reference to five districts. The

secondary data was taken from District Level Facility Survey 3 (DLHS 3, 2007–2008) for assessment of facilities in five districts of Uttar Pradesh, i.e., Bareilly, Chitrakoot, Mirzapur, Gorakhpur and Muzaffarnagar to understand facility readiness.

The primary data was collected through a survey that was done in the same five districts of UP with the public health providers (clinical staff and support staff) from the District Hospital, Community Health Centres (CHC) and Primary Health Centres (PHC) over a period of four months (January 2009–April 2009).

To understand the service providers' perspective, the study also undertook a survey with the providers in these five districts. The lists of service providers were generated at the District Hospital, CHC and the PHC level in the five districts that added up to 664. Not all of them were available at the time of the survey or free to give information to the survey team. The survey was therefore conducted with those 438 service providers (out of a total sample of 664) who were available, working in 28 PHCs, two CHCs and four district hospitals, and gave their consent for the same. The numbers of respondents have been categorized as follows:

- Type 1 — 163 clinical staff that comprised ANMs, Staff Nurse and Doctors.
- Type 2 — 159 paramedic staff including Health Visitors and Supervisors, Health Educators, Pharmacists, Basic Health Workers, and Laboratory Technician
- Type 3 — 116 support staff such as Sweeper, Ward Boy, Driver, Guard, Clerical Staff and other miscellaneous categories.

The survey consisted of both close ended and open ended questions. The survey questionnaire covered the following issues among the providers:

1. Knowledge about Maternal Health related problems and danger points.

2. Knowledge about Public Health Programmes related to Maternal Health.
3. Appreciation of urgency of Maternal Mortality as a problem.
4. Understanding of socio-cultural determinants that affect access to healthcare.
5. Assessment of system readiness for reducing Maternal Mortality.
6. Suggestions regarding changes required.
7. Readiness to take individual initiative to bring a change.

The survey was conducted by the staff of the partner organizations who were trained by SAHAYOG staff.

Data Analysis

The data was analyzed under four categories — Infrastructure, Human Resource, Performance and Supply. Following were the components that were analyzed:

TABLE 4: Selected Categories of DLHS 3 Data

| Sub-Centre Level | Primary Health Centre Level | Community Health Centre Level |
|---|-----------------------------|-------------------------------|
| Infrastructure | | |
| Govt. Building | Op. Theatre with Anesthesia | Op. Theatre |
| Separate Lab. Room | Lab. Room | Lab. Room |
| Communication Facility | Normal Delivery Kit | Blood Storage Facility |
| Res. Quarter for ANMs | Neonatal Incubator | Ambulances |
| ANMs staying in Sub Centre village | Res. Quarter for MOs | |
| Human Resource | | |
| ANMs with Integrated Skill Development Training in the last 5 years | Lady Medical Officer | General Surgeons |

TABLE 4: Contd...

| Sub-Centre Level | Primary Health Centre Level | Community Health Centre Level |
|---|--|---|
| ANMs with Integrated Skill Development Training ever | Lab Tech | Obs and Gyne |
| ANMs with Skilled Birth Attendant Training | PHCs with at least one MO who has received Integrated Skill Development Training for 12 days in the last 5 years | MO received training for EmOC in last 5 years |
| Performance | | |
| | In-patients (Last 1 month) | In-patients (Last 1 mth) |
| | Referred Cases (Last 1 month) | Referred Cases (Last 1 mth) |
| | Hb Test Done (Last 1 month) | Deliveries (Last 1 mth) |
| | Deliveries (Last 1 month) | |
| | Beneficiaries of JSY (Last 1 month) | |
| | Postnatal Care (Last 1 month) | |
| | New-Born Care Provided in the past 1 month | |
| Supply | | |
| SHCs where Auto Disposable Syringes present | | 24 hr delivery services |
| SHCs where IFA tab out of stock for more than 10 days in last 1 mth | | 24 hr New Born Care |

The survey data was analyzed according to the type of providers — clinical staff, paramedic staff and support staff. During data collection, ethical principles were upheld by taking informed consent from all the individuals with whom survey was conducted and by keeping all the data confidential. Verbal informed consent was taken from the respondents, during which the respondents were informed about the objective of the research, the identities of the research team, SAHAYOG, IDRC; why they had been chosen for the research,

the benefits of the research, confidentiality, future use of information, and regarding their right not to participate. Special ID numbers were generated for keeping the identity of the individuals confidential; only one member of the research team has the names for the ID numbers. All the data were fed into excel sheets so that electronic copies of the data could be preserved and analyzed using SPSS software.

Limitations of the Study

- At the district level, out of all the facilities that were covered, some didn't have enough number of staff participating in this survey and hence their findings were not included in this article.
- SAHAYOG with its limited capacity as voluntary organization and within the capacity of the project could only manage to carry out the study in five districts of Uttar Pradesh, therefore it is not claimed to be applicable to the state as a whole.
- The sample size was variable in the districts, depending upon the number of blocks where the lists of providers' names could be generated by local study partners, and the availability and readiness of the providers to be part of the study.
- The health facilities that we studied are not necessarily the same as those surveyed by DLHS 3.
- The analysis of the primary data is done on the basis of health-facility staff categories (clinical staff, paramedics and non-clinical staff), whereas the DLHS data is analyzed on the basis of facilities across the five selected districts.
- The analysis of DLHS refers to sub-centres, PHC and CHC, whereas the facilities surveyed in the primary study refer to district hospitals, CHC and PHC.

Findings

Part 1: Facility Capacity Assessment (Based on DLHS 3)

Upon examining the facility-level analysis within the DLHS-3,¹⁶ we found data on staff availability, staff training, equipment and infrastructure at each health centre and patient load.

At the Sub-Centre level

It is noteworthy that residential quarters for ANMs are available in almost all sub-centres of Mirzapur, yet hardly any

TABLE 5: Sub-Centre Level Data (DLHS 3)

| | Bareilly | Chitra-koot | Gora-khpur | Mirza-pur | Muzaffar-nagar |
|--|----------|-------------|------------|-----------|----------------|
| INFRASTRUCTURE | | | | | |
| SUB-CENTERS | 33 | 35 | 39 | 41 | 36 |
| Govt. Building | 9 | 14 | 9 | 34 | 20 |
| Separate Lab. Room | 19 | 20 | 28 | 39 | 13 |
| Communication Facility | 0 | 0 | 0 | 0 | 0 |
| Res. Quarter for ANMs | 11 | 12 | 16 | 37 | 16 |
| ANMs staying in Sub Centre village | 1 | 0 | 12 | 4 | 5 |
| HUMAN RESOURCE | | | | | |
| ANMs with Integrated Skill Development Trg in the last 5 yrs | 3 | 14 | 8 | 8 | 22 |
| ANMs with Integrated Skill Development Training ever | 7 | 35 | 41 | 41 | 36 |
| ANMs with Skilled Birth Attendant Training | 14 | 15 | 8 | 8 | 17 |
| SUPPLY | | | | | |
| SCs where Auto Disposable Syringes present | 25 | 33 | 35 | 41 | 35 |
| SCs where IFA tab out of stock for more than 10 days in last 1 month | 24 | 32 | 15 | 17 | 27 |

ANMs are staying there. In three districts (Bareilly, Chitrakoot, Gorakhpur), not even half of the centres have government buildings, consequently very few ANMs are staying in the centres. Human Resource availability is best in Muzaffarnagar with maximum number of recently trained ANMs, followed by Chitrakoot. Except Bareilly, one ANM with Integrated Skill Development (ISD) training is available at almost all Sub-Centres in the districts.

None of the sub-centres had any communication facilities, but a laboratory room is present in many which provide a facility to perform necessary tests. When we look at the supply side, auto-disposable syringes were available at almost all the centres except in Bareilly; however, the IFA tablet appears to have been out of stock in most of the Sub-Centres in the districts of Bareilly, Muzaffarnagar and Chitrakoot.

At the PHC level

Despite the NRHM promotion of institutional delivery, the basic supply of the Normal Delivery Kit at the health centre is missing at most of the PHCs of Mirzapur, Gorakhpur and Chitrakoot districts. In contrast, all the centres of Bareilly and almost all (7/9) centres in Muzaffarnagar had Normal Delivery Kit available, making it logical that these PHCs handle an average of 45 and 22 deliveries per month, which is far higher than the others. It would not be possible for the primary health centres to handle maternal or neonatal complications, as hardly any of them have an operation theatre with anesthetic facilities, nor do any centres have neonatal incubators except one at Gorakhpur.

Muzaffarnagar has residential quarters for Medical Officers (MOs) in all centres, followed by Bareilly (in six out of eight centres), while the rest of the three districts had only few centres with quarters available for MOs. None of the PHCs in the five districts had a Lady Medical

TABLE 6: Primary Health Centre Level Data (DLHS 3)

| | Bareilly | Chitrakoot | Gorakhpur | Mirzapur | Muzaffarnagar |
|--|----------|------------|-----------|----------|---------------|
| INFRASTRUCTURE | | | | | |
| PRIMARY HEALTH CENTERS | 8 | 14 | 15 | 10 | 9 |
| Op. Theatre with Anesthetist | 0 | 1 | 1 | 0 | 3 |
| Normal Delivery Kit | 8 | 2 | 3 | 4 | 7 |
| Neonatal Incubator | 0 | 0 | 1 | 0 | 0 |
| Lab. Room | 8 | 3 | 6 | 3 | 9 |
| Res. Quarter for MOs | 6 | 3 | 3 | 1 | 9 |
| HUMAN RESOURCE | | | | | |
| Lady Medical Officer | 0 | 0 | 0 | 0 | 0 |
| Lab Tech | 3 | 2 | 1 | 1 | 7 |
| Recently trained MO* | 1 | 3 | 3 | 3 | 5 |
| PERFORMANCE | | | | | |
| In-patients (Last 1 mth) | 1515 | 44 | 7 | 0 | 308 |
| Referred Cases (Last 1 mth) | 25 | 63 | 33 | 34 | 58 |
| Hb Test Done (Last 1 mth) | 4 | 0 | 45 | 0 | 0 |
| Deliveries (Last 1 mth) | 359 | 16 | 28 | 48 | 201 |
| Beneficiaries of JSY (Last 1 mth) | 170 | 11 | 25 | 6 | 133 |
| Postnatal Care (Last 1 mth) | 184 | 16 | 41 | 59 | 201 |
| New-Born Care Provided in the past 1 month | 184 | 16 | 60 | 42 | 201 |

Note: * PHCs with at least 1 MO who has received Integrated Skill Development Training for 12 days in the last 5 years

Officer. Human Resource availability is better in Muzaffarnagar with highest number of laboratory technicians (7/9) and recently trained Medical Officers present; but the remaining 47 PHCs have only seven lab technicians available. Bareilly and Muzaffarnagar have laboratory rooms at all the centres, but the other districts have hardly any.

However, across all districts the number of basic laboratory tests done for maternal health such as haemoglobin was minimal (zero in Muzaffarnagar despite the staff and the lab rooms being in place).

Patient work load is highest in PHCs of Bareilly followed by Muzaffarnagar, while it is comparatively low in the other three districts. The average number of in-patients at each centre in Bareilly in the past one month is 190 with an average of 45 deliveries conducted each month, perhaps because six out of eight PHCs had a residential quarter for MOs. In-patient load and deliveries are second highest in Muzaffarnagar, where all the PHCs have residential quarters for MOs. In comparison, there are no in-patients at PHCs and barely five deliveries a month on the average in Mirzapur where only one out of 10 PHCs has a residential quarter for MOs. Similarly, at the PHCs in Chitrakoot and Gorakhpur, an average of one and two deliveries are conducted each month.

At the CHC Level

Most of the infrastructures and essential supplies were present at the CHCs in all the districts. For instance, the operation theatre and laboratory room were present in most of the centres, and all appeared to provide 24-hour services for delivery and new-born care. However, an important lacuna for maternal health is that blood storage facility was not available in any of the centres besides two CHCs of Gorakhpur. Ambulances were missing in several CHCs of Gorakhpur and Mirzapur, in spite of the fact that many patients were being referred out in Gorakhpur.

Despite presence of required infrastructure at CHC level, skilled human resource continued to be scarce, with a very low number of general surgeons (except for Bareilly), resulting in non-utilization of OTs. Only 10 obstetricians and gynecologists were available for the 52

TABLE 7: Community Health Centre-Level Data (DLHS 3)

| | Bareilly | Chitra- koot | Gora- khpur | Mirza- pur | Muzaf- farnagar |
|---|----------|-----------------|----------------|---------------|--------------------|
| INFRASTRUCTURE | | | | | |
| COMMUNITY HEALTH CENTERS | 6 | 6 | 18 | 16 | 6 |
| Op. Theatre | 6 | 5 | 18 | 15 | 5 |
| Lab. Room | 6 | 5 | 18 | 15 | 5 |
| Blood Storage Facility | 0 | 0 | 2 | 0 | 0 |
| Ambulances | 5 | 4 | 10 | 9 | 5 |
| SUPPLY | | | | | |
| 24 hr delivery services | 6 | 5 | 18 | 16 | 5 |
| 24 hr New Born Care | 5 | 3 | 15 | 15 | 5 |
| HUMAN RESOURCE | | | | | |
| General Surgeons | 8 | 2 | 6 | 3 | 3 |
| Obs and Gyne | 1 | 0 | 2 | 3 | 4 |
| MO received training for EmOC in last 5 years | 4 | 3 | 5 | 1 | 7 |
| PERFORMANCE | | | | | |
| Deliveries (Last 1 mth) | 89 | 615 | 1384 | 338 | 166 |
| In patients (Last 1 mth) | 204 | 292 | 1455 | 1409 | 431 |
| Referred Cases (Last 1 mth) | 29 | 17 | 56 | 22 | 29 |

CHCs in spite of the fact that CHCs were meant to serve as referral centres.

In Gorakhpur, 5/18 CHCs have MOs with EmOC training, and only 2/18 have an Ob/Gyn; yet on the average the CHCs did an average of 77 deliveries each month. The CHCs in Chitrakoot were doing an average of over a hundred deliveries, although none of them had an Ob/Gyn and only three MOs had EmOC training out of six CHCs. In contrast, although 7/9 MOs in Muzaffarnagar had been similarly trained and four out of the nine CHCs had an Ob/Gyn in place, they on an average did less than 30 deliveries. Bareilly was also showing an average of barely 15 deliveries in each CHC, despite having four MOs trained on EmOC in the six CHCs and surgeons in all of them.

Summary of Findings from DLHS 3

When we looked at both the infrastructure and human resource capabilities of the system through this small sample, we saw that the vital components required for providing maternal health services were missing. The health system is lagging behind at all the essential levels of infrastructure, supply, human resource and performance. We see that most of the sub-centres do not have government buildings, and there is a lack of residential quarters for ANM at the sub centres and for MOs at the PHCs, although districts where PHCs have quarters for MOs are showing more patient attendance and deliveries. Similarly, there is no blood storage facility available at the CHC level as well as a gross lack of specialized health personnel. Recently trained frontline providers are missing at all levels of service provision. A basic supply such as the Normal Delivery Kit is missing in many PHCs, yet those districts with PHCs that have the Kit show far higher averages of deliveries conducted. Even the basic lab test of haemoglobin is not being performed at the PHCs.

However, the compliance of CHCs with regard to infrastructure requirements was far better compared to the compliance by PHCs and sub-centres in this aspect, though still not up to the ideal standards. The lack of skilled personnel at CHCs that conduct a significant number of deliveries each month raise the possibility that these centres are largely dealing with normal deliveries that do not require specialized personnel. Moreover, where the PHCs are handling higher number of deliveries in Bareilly, the CHC seem to have fewer deliveries to handle; but it is the other way around in Gorakhpur and Chitrakoot, where CHCs are handling high number of deliveries as the PHCs are handling hardly any delivery cases.

Part 2: Providers Survey

SAHAYOG's primary field observations indicated that there are factors beyond facility, equipment and staffing that

were affecting poor women's access to maternal care. Some aspects that SAHAYOG considered significant included:

- The staff's understanding of the danger-points and the barriers that prevent women from accessing life-saving care.
- The motivation of the health staff to take initiative or their self-perception as agents of change to improve maternal healthcare.

The clinical staff which is trained to deal with the issue of Maternal Health was expected to fare better on the questions. Therefore, the analysis was done differentially for the three different categories of personnel which is explained below.

- Knowledge about maternal health related problems and danger points.
- Knowledge about public health programmes related to maternal health.

This section dealt with knowledge of providers about pregnancy complications, stage in which maximum maternal deaths occur, and the most common reason of death in the post-partum period. There were also questions to check respondents' recognition of public health programmes around maternal health. For clinical staff, the score was developed as a sum of positive for correct answers and negative for wrong answers. The responses for these questions were scored on a total score of 22, and then percentages were calculated. Table 8 shows how the respondents scored. It is interesting that knowledge scores over 70 per cent are slightly more in nurses (39/42) than in doctors (37/43).

- Appreciation of urgency of maternal mortality as a problem.

TABLE 8: CLINICAL STAFF KNOWLEDGE REGARDING MATERNAL HEALTH

| Type of Clinical Staff | Number of respondents scoring above this percentage | | | | | |
|------------------------|---|-----|-----|-----|-----|-----------------------------|
| | 50% | 60% | 70% | 80% | 90% | Total = 152/163 respondents |
| ANMs | 39 | 26 | 17 | 8 | 2 | 67 |
| Doctors | 25 | 25 | 20 | 12 | 5 | 43 |
| Nurses | 28 | 24 | 17 | 14 | 8 | 42 |

- Understanding of socio-cultural determinants that affect access to healthcare.
- Assessment of system readiness for reducing maternal mortality.

The appreciation of urgency of maternal mortality as a problem was assessed on the basis of its priority in comparison to other problems such as child health, HIV/AIDS, TB and Polio. The objective was to assess the importance respondents gave to Maternal Health in comparison to other priority health issues. The assessment was done on the basis of rank given to Maternal Mortality as an issue. About 54.6 percent of type 1 or clinical service providers ranked it among the top two priority problems as compared to 38.9 percent of type 2 or paramedical staff and 38.8 percent of type 3 (non-clinical support staff) providers. This indicates that a slightly larger proportion of clinical personnel perceive maternal mortality to be an urgent health issue, compared to paramedic and support staff, therefore there is much room for improvement here.

There were also questions to investigate the respondents' understanding of some socio-cultural determinants that could prove to be barriers to Maternal Health such as transport, lack of knowledge about health facilities, poverty, and local beliefs and customs. There were also questions to gauge respondents' opinion on system

TABLE 9: Health Facility Staff Recognition of Barriers to Maternal Care

| Providers' Acknowledgement of Possible Barriers * | Type 1 -163 (Clinical) | Type 2 -159 (Paramedical) | Type 3- 116 (Support Staff) |
|--|------------------------|---------------------------|-----------------------------|
| Poverty, lack of information, local cultural practices | 49% | 55% | 52% |
| Accessibility, transportation and delay in identifying the appropriate facilities | 51% | 55% | 46% |
| Lack of services/personnel at facility, high costs and discriminatory behaviour with women | 8% | 4% | 9% |

Note: *The data given in the table refers to those respondents who were able to recognize all the barriers within a particular category.

readiness towards Maternal Mortality such as availability, accessibility and affordability of services, and discrimination with patients on the basis of class or caste. They are analyzed in Table 9 in terms of the socio-cultural determinants of health.

Roughly half the providers in all categories (46% to 55%) do recognize the decision-making and transportation barriers that rural women face in seeking care during obstetric complications that may cause delays at community-level in receiving care. However, only 4 to 9 percent acknowledge that there may be any shortcomings at the level of the facility. Given the data from DLHS- 3 regarding the shortages in staffing and equipping the health facilities in these very districts, the responses are noteworthy.

- Suggestions regarding changes required.
- Readiness to take individual initiative to bring a change.

The respondents were first asked a dummy question about their satisfaction with the programmes run by the government for maternal health, in order to facilitate the next set of questions about the Health System. The respondents were then asked whether changes are required anywhere,

TABLE 10: Health Facility Staff Opinion of Required Change and Personal Role

| Types of health facility staff | Type 1 -163 (Clinical) | | Type 2 -159 (Paramedical) | | Type 3- 116 (Support Staff) | |
|--|-----------------------------|---------------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------------|
| Suggested Realms of Change | Agree that Change is Needed | Willing to Play a Personal Role | Agree that Change is Needed | Willing to Play a Personal Role | Agree that Change is Needed | Willing to Play a Personal Role |
| Changes in the health system (Budget, Human Resource, Trainings, etc.) | 55% | 0.6% | 62% | 0 | 64% | 0.9% |
| Changes in the health services (Availability of Doctors, medicines, equipments, etc.) | 59% | 1.8% | 61% | 0.6% | 59% | 2.6% |
| Changes in the level of community awareness (Awareness about their health and health rights) | 75% | 6.8% | 61% | 3.8% | 67% | 6% |

and three realms of change were suggested. Here, despite having expressed satisfaction with government programmes, all categories of respondents seemed to feel that changes are certainly required.

This section also examined whether the respondent was willing to take an individual initiative to bring about any changes in any of the three realms, to improve the status of maternal health. It is noteworthy that only 0.6 to 2.6 percent of the facility staff displayed willingness to play any personal role to bring about a change in the way health services were provided; and almost none stated they were willing to bring about any changes in the health system. In comparison, a few more providers appeared willing to work for changing levels of community awareness.

SUMMARY OF PRIMARY FINDINGS

DLHS-3 (2007–08) data reveals that the district level health system has quite some way to go in UP in terms of ensuring the minimum standards of services. It is lacking in many aspects such as infrastructure, human resource, supply and performance indicators. A basic supply such as the Normal Delivery Kit is missing in many PHCs, which adversely affects the averages of deliveries conducted in a month. Although the residential quarters for MOs can increase use of the PHCs, this is missing in many districts. Even the basic lab test of haemoglobin is not being performed at the PHCs, and almost none of the CHCs have blood banks, although heavy bleeding is responsible for one-third of maternal deaths. The weakness of the PHCs translate into higher case-load at CHCs in some districts. Despite better infrastructure, CHCs were unable to provide care for maternal complications as many did not even have either a surgeon or an Ob/Gyn doctor, therefore most may be only providing normal delivery care.

SAHAYOG's primary survey data from 2009 corroborates this, where two-thirds of health facility staff recognizes the

need for change in the health services as well as the health system. But when questioned about whether there could be barriers at the facility level for women trying to access care, hardly any facility staff acknowledges that these shortcomings could prevent women from accessing care. Nor were they willing to play a personal role in improving the way health services were being provided. It is, however, encouraging that almost half or more of the facility staff recognizes the socio-economic barriers poor women face in accessing maternal care.

The primary study assessing health facility staff also threw light on another dimension of the health system's capacity to respond to the needs of poor women, beyond the DLHS investigations on staffing, infrastructure and supplies. This is providers' perception of the seriousness of the issue and their willingness to play a role in improving the system or the way services are being provided. Although more than half the clinical staff and more than one-third the paramedical staff acknowledge the seriousness of high maternal mortality in Uttar Pradesh, less than 10 percent of them are able to identify facility-level barriers for poor pregnant women accessing care. Although almost two-thirds of the staff acknowledged that changes are required, less than 3 percent show readiness to work for changes in the facilities or within the health system. Around half the providers display understanding of the socio-cultural barriers pregnant women face in accessing healthcare. However, only 4 to 7 percent staff seemed inclined to make more efforts to bring about changes in community awareness.

CONCLUSIONS

Since 2005, the Indian government is strongly promoting institutional deliveries for improved maternal health, yet the primary data of 2009 from the health centres in five districts of UP shows that only around half the clinical providers

and a little over one-third of the paramedical staff feel that maternal mortality is an urgent issue. This correlates with the fact that even basic provisions for maternal healthcare have not been put in place on priority basis by the health system in these districts of UP.

According to our hypothesis, the responsiveness of the health system (through its providers) to poor women users is a determinant in addressing the readiness of the system for improving maternal care. This paper began by examining the readiness of PHCs, CHCs and sub-centres to provide maternal care (as per DLHS 3), and attempted to relate this to the responsiveness of the health system, which can be measured by studying the facility staff's perception of the importance of maternal health, their knowledge of danger points, and their personal motivation to take initiative.

Despite the NRHM having its focus on improving maternal health through promotion of institutional delivery and strengthening infrastructure since 2005, this study indicates that the public health system needs far more strengthening to deal with the issue of high maternal mortality. The secondary data (District Level Household Survey or DLHS 3) gives a dismal picture of infrastructure, human resource development, performance and supply side of the health system in the same districts of Uttar Pradesh. This appears to adversely affect the personal willingness of facility staff to play a role in improving the situation, which is a cause for concern. With so many missing elements, the health providers are actually in a disadvantaged position which can lower staff morale.

SAHAYOG conducted this small assessment to identify possible "change-makers" within the district-level system: knowledgeable, capable and motivated individuals (or "key stakeholders") from among the providers, managers and users who are ready to work together at district level for improving quality of maternal care. We found it very difficult to identify health facility staff who are motivated,

knowledgeable as well as capable of bringing about improvements. While some providers do understand that maternal mortality is a serious problem, yet better working conditions are required to enhance their motivation to improve the system. We also realize that in such a scenario, it is very difficult to identify individual change-makers within the system, as none of them are ready to take an individual initiative given the adverse conditions within which they work.

NOTES

1. The Millennium Development Goals (MDGs) are eight goals to be achieved by 2015 that respond to the world's main development challenges. The MDGs are drawn from the actions and targets contained in the Millennium Declaration that was adopted by 189 nations and signed by 147 heads of state and governments during the UN Millennium Summit in September 2000.
2. Maternal Mortality Ratio (MMR) is defined as the number of maternal deaths per 100,000 live births due to causes related to pregnancy or within 42 days of termination of pregnancy.
3. UN (2008): *The Millennium Development Goals Report*, <http://www.un.org/millenniumgoals/pdf/The%20Millennium%20Development%20Goals%20Report%202008.pdf>
4. National Commission on Population, Government of India: "National Population Policy 2000," http://populationcommission.nic.in/npp_obj.htm
5. Ministry of Health and Family Welfare, Government of India: "National Health Policy- 2002," <http://www.mohfw.nic.in/np2002.htm>
6. Planning Commission, Government of India: *Eleventh Five-Year Plan (2007-2012)*, http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v2/11th_vol2.pdf
7. Sample Registration System (2009): *Special Bulletin on Maternal Mortality in India 2004-06*, Office of the Registrar General of India, Ministry of Home Affairs, Govt. of India, http://censusindia.gov.in/Vital_Statistics/SRS_Bulletins/MMR-Bulletin-April-2009.pdf
8. Mavalankar, Dileep (n.d.): "State of Maternal Health in India," www.azadindia.org/social-issues/maternal-health-in-india.html
9. DLHS 3, <http://www.rchiips.org/> DLHS is a household survey at the district level and in DLHS-3 the survey covered 611 districts in India. The total number of households representing a district varies from 1,000 to 1,500 households. The DLHS-3 is designed to provide information on family planning, maternal and child health, reproductive health

- of ever married women and adolescent girls, utilization of maternal and child healthcare services at the district level for India. In addition, DLHS-3 also provides information on new-born care, Postnatal care within 48 hours, role of ASHA in enhancing the reproductive and child healthcare and coverage of Janani Suraksha Yojana (JSY). An important component of DLHS-3 is the integration of Facility Survey of health institution (Sub-Centre, Primary Health Centre, Community Health Centre and District Hospital) accessible to the sampled villages.
10. The Child Survival and Safe Motherhood Programme (CSSM) was launched in 1992–93 by integrating all the basic MCH (Maternal and Child Health) interventions with Universal Immunization Programme, aimed at reducing the maternal, infant and child mortality. From 1997–98, the CSSM programme has been integrated in the Reproductive and Child Health Programme (RCH) by adding the components of Reproductive Tract Infections (RTI) and Sexually Transmitted Infections (STI).
 11. Achura, Bob Marley (n.d.): “Strong health system key to achieving MDGs,” <http://endpoverty2015.org/maternal-health/news/strong-health-system-key-acheiving-mdgs>
 12. Sen, G. (2009): “Health inequalities: Gendered puzzles and conundrums. The 10th Annual Sol Levine Lecture on Society and Health, 6 October,” *Social Science & Medicine* 69 (2009): 1006–1009
 13. Sahayog (2009): “Public Dialogue on the right to Maternal Health in Uttar Pradesh, Lucknow, 28 May 2009,” www.sahayogindia.org/pages/programmes/maternal-health-and-rights/events.php
 14. In these five districts, SAHAYOG worked with its partner organizations:
 - a) Suchetna, ASSISSI Health Centre, Bareilly (Baheri Block).
 - b) Ibtada Sangathan, Chitrakoot (Pahari and Chitrakoot Block).
 - c) Baba Ram Karan Das Gramin Vikas Sansthan, Gorakhpur (Jungle Kaudia and Chargawan Block).
 - d) Shikhar Prashikshan Sansthan, Mirzapur (Pahari and Rajgarh Block).
 - e) Astitva (Purkaji Block).
 15. Mahila Swasthya Adhikar Manch, or Women’s Health Rights Forum, a grassroots organization with 8000 members in 10 districts of UP, see <http://www.sahayogindia.org/pages/programmes/maternal-health-and-rights.php#Womens-health>
 16. DLHS 3, <http://www.rchiips.org/>

Does Community Monitoring Improve Delivery of Maternal Health Services?

Examining the Role of VHSC in
Mayurbhanj District, Orissa

10
CHAPTER

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INTRODUCTION

Community-based monitoring (CBM) is a form of public oversight, ideally driven by local information needs and community values, to increase the accountability and quality of social services. Within the CBM framework, members of a community affected by a social programme generate demands, suggestions, critiques and data that they then feed back to the organization implementing the programme or managing the environmental change. CBM aims not only to generate the appropriate information for high quality service delivery but also seeks to strengthen local decision-making, public education, community capacity and effective public participation in local government. Ultimately, CBM is a tool to facilitate more inclusive decision-making on issues deemed important to members of a community with respect to public service delivery.¹

Community Monitoring has been included as an accountability mechanism in the Indian government's National Rural Health Mission (NRHM) launched in 2005, to ensure that

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the services reach those for whom they are meant, especially for those residing in rural areas, the poor, women and children.² The whole framework of Community Monitoring aims at placing various groups such as community members and beneficiaries, community-based organizations and NGOs working with communities, along with panchayat representatives, at the centre-stage, allowing them to actively and regularly monitor the progress of NRHM interventions in their areas. Community monitoring is also seen as an important aspect of promoting community-led action in the NRHM and Village Health and Sanitation Committees (VHSCs) are one such tool to monitor health services at the village level. Separate committees are constructed to monitor public health services at the Primary Health Centre (PHC), block and district levels. VHSCs meet to monitor and plan public health services at the village level. It is assumed such feedback from direct users will lead to improved accountability, increased utilization of services and ultimately affect health outcomes.

VHSCs are composed of (a) members of local government (Gram Panchayat), (b) community health workers (Accredited Social Health Activists orASHAs) (c) outreach functionaries of the public health system (Auxiliary Nurse Midwives (ANMs), Multi-Purpose Workers (MPWs) and preschool/nutrition workers (Anganwadi workers)) and (d) representatives from community groups. In certain places, NGOs have been given responsibility to form the VHSCs. According to the NRHM guidelines, there is also provision of untied grants up to Rs.10,000 per year for the VHSC for use by the committee for household surveys, health camps, sanitation drives, revolving funds etc. The role of the VHSC is to create awareness about essentials of health programmes with focus on people's knowledge of entitlements to enable their involvement in the monitoring and to develop a village health plan based on the village situation and priorities identified by the community. It is also responsible for maintenance of village

health register and ensuring that the ANM/MPW visit the village on the fixed health days (FHD) and perform antenatal and postnatal check up and counselling on supplementary nutrition.

The Context

The Advisory Group on Community Action (AGCA— a standing committee of the NRHM) coordinated the first phase of Community Monitoring in nine States of the country during the period 2007–2009³. Community Monitoring was also initiated in Orissa as part of this initiative and Society of Development Action (SODA) was involved in implementing this programme in 15 villages under three PHCs in Bangriposi block in Mayurbhanj district. Training of VHSC members about NRHM-mandated health entitlements and mechanisms were crucial components in empowering VHSCs to their roles within the community monitoring methodology. This study was initiated to understand how the functioning of trained VHSC influences the functioning of the ANMs, and the delivery of MCH services. With regard to MCH services, an ANM is supposed to perform the following tasks: registering pregnancies, providing TT injections, conducting

TABLE 1: Rural Mayurbhanj: Some Sociodemographic data

| Characteristic | %age |
|--|------|
| Literate population (7+) | 62.7 |
| Have access to toilet facility | 14.7 |
| Use piped drinking water | 2.6 |
| Have a BPL card | 62.1 |
| Girls marrying before 18 years | 38.4 |
| Use of any contraceptive method | 48.6 |
| Mothers with 3ANC in last pregnancy | 64.9 |
| Mothers receiving PNC visit within 48 hours of last delivery | 95.7 |
| Children (12–23m) fully immunized | 55.3 |

Source: (from: DLHS 3, 2008-09)

antenatal and postnatal health check up, dispensing iron, folic acid and chloroquin tablets, in addition to providing advice for rest and food and so on during pregnancy. She is also supposed to advise pregnant women about various services available for delivery, Postnatal care and new-born care.

Mayurbhanj district is one of the backward districts of Orissa. Of the 593 districts studied under the District-level Household and Facility survey, Mayurbhanj district ranked 397.⁴ According to DLHS – 3 survey, full immunization coverage of children aged 12–23 months, one of the important functions of ANM was found to be between 45 to 60 percent only.⁵ Bangripasi block where the study was conducted is one of the tribal blocks in Mayurbhanj district. Sixty-eight percent of the population is tribal. The literacy level is 38 percent only.

The Objective

The objective of the study was to understand whether functioning VHSCs affect or influence service delivery by ANMs especially in the context of maternal health services. The important task in this study was to set criteria for functioning VHSCs, and then compare service delivery for maternal health in villages with a functioning VHSC with those without a functioning VHSC. This would provide a comparison of services provided by ANMs working in villages covered under community monitoring with those that are not covered under community monitoring. In effect, the study was meant to provide an understanding of how community monitoring could possibly affect service delivery.

METHODOLOGY

The study had three discrete components, and used both quantitative and qualitative methods. The first section

comprised selecting the seven villages with functioning VHSCs (intervention arm) and seven comparison villages where VHSCs were not functioning. In the second component, 20 women who had delivered in the last three months from each set of villages were interviewed to obtain information about the services they had utilized during their pregnancy, delivery and post-partum period. In the third part of the study, 14 Fixed Health Days were observed by the study team in each arm of the study (two in each of the cluster of seven villages) to directly note the MCH services being provided in these camps.

Sample selection: There are 96 villages in Bangriposi block, of which 81 didn't have VHSCs at the time of the study and 15 had VHSCs formed and trained as a part of the first phase of the Community Monitoring process. From the villages where there are VHSCs, seven villages were selected using a scale to score the VHSC functioning (See Box 1 for the criteria of VHSC functioning used in this scale). For villages where there are no VHSCs, all

Box 1: Criteria of VHSC Functioning

- The VHSCs, which are already formed and are functioning for at least a period of 3 months.
- Have adequate number of members as per NRHM guideline, i.e., ANM, ASHA/AWW as Convener, PRI member as Secretary, PTA/MTA member, SHG leader, CBO representative and user groups representation.
- Members were sensitized about their roles.
- The VHSC is conducting a meeting of its members at least once in a month.
- The ANM/ASHA/AWW are present in the meeting.
- Have prepared village health register and updating it periodically.

villages having a common ANM with the intervention arm villages were eliminated. In order to reduce chances of contamination, those villages adjoining the intervention villages were also removed. Also those villages having the same health day for health camps were eliminated for logistic purposes. A set of seven villages were then randomly selected from the remaining villages using the lottery method.

After selecting the villages, a list was drawn up of all women who had delivered in the last three months and from among these, two lists of 20 women each were selected randomly from VHSC villages and non-VHSC villages who have delivered in the last three months for interview. So a total of 40 women were interviewed.

For the final component of the study, two consecutive fixed health days were observed by the field researchers in all the 14 villages for noting service delivery through this mechanism.

Data Collection

Three different methods were used for the three different components of the study. In order to score and rank VHSCs, interviews were conducted with mothers, members of VHSCs and ANMs. Verification of VHSC records was also undertaken for scoring the functioning of VHSCs. A 69-point scale covering the different criteria for VHSC functioning was drawn up. The highest score was 41 (59%) and lowest score was 19 (28%) and those selected for the study had scores in the range 33–41.

In-depth interviews were conducted with the forty women from the 14 villages using interview guides and checklists. Direct observations with checklists and detailed field notes were used for fixed health day visits. The data was collected by a team comprising the first and second author and five field investigators.

FINDINGS

The findings from interviews are summarized below:

Antenatal Care

The study reveals that in functioning VHSCs where community monitoring has taken place, 70 percent women (14 out of 20) were registered within 12 weeks of pregnancy compared to none in the non-VHSC villages. According to the mothers, it was the AWW who was registering the pregnancies in most of the villages. Further analysis of different types of services that women received during their pregnancy reveals that except for TT injections and IFA tablets, other antenatal care (ANC) services like BP measurement, weight measurement, abdomen check-up, medical advice, VHSC villages were better served than non-VHSC villages (See Table 2). When ANMs from non-VHSC villages were asked about this difference, in most of the cases they said that the BP instrument was out of order. In VHSC villages, 18 women (90%) received advice about common problems during delivery from ANM, and of them 10 were advised

NRHM service guarantee – In order to reduce maternal and child mortality, NRHM standards indicate that all pregnant women should be registered in first trimester by the ANM with support from the ASHA.

TABLE 2: ANTENATAL SERVICES RECEIVED

| Service Status (n= 20 for each) | VHSC Villages | N- VHSC Vil- lages |
|------------------------------------|---------------|-----------------------|
| No BP exam | 0 | 14 |
| BP exam 3 times | 19 | 3 |
| No Abdomen exam | 2 | 17 |
| Abdomen twice | 14 | 2 |
| Weight taken twice | 19 | 0 |
| IFA 100tabs given | 20 | 20 |
| TT 2 | 20 | 20 |

to seek medical attention during delivery. In comparison, in non-VHSC villages, no woman was given any advice about delivery care by the ANM.

Intranatal Care

The study found that in both types of villages institutional delivery took place among 60 percent women (12 women in each group). The ASHA accompanied the women to the institution in all cases in both sets of villages. As far as ANM attendance during home delivery is concerned, out of the eight women who delivered at home, three women (37.5%) from VHSC villages were attended by the ANM during deliveries, whereas, in the case of non-VHSC villages none of the eight women who delivered at home received any assistance from the ANM.

NRHM service guarantee – NRHM is promoting institutional delivery through the Janani Suraksha Yojana which provides a financial incentive of Rs.1400 to women to deliver in institutions. The ASHA also received performance based incentive of Rs.600 for accompanying the woman to the institution. It also guarantees skilled attendance at home deliveries as and when called for as well as appropriate and prompt referral.

Postnatal care

It was found that in the VHSC villages the ANM had visited 65 percent (13 women) of the women interviewed after delivery whereas, in the non-VHSC villages it was only 20 percent (4 women). While women from VHSC villages reported that they received advice for early breast-feeding, personal hygiene and on diets, on the other hand, none of the women from non-VHSC villages reported receiving any such advice.

NRHM service guarantee – In order to reduce maternal mortality, NRHM guarantees a minimum of two post-partum visits by ANM.

Neonatal Care

With regard to neonatal care, 19 women (95%) from the VHSC villages said that the ANM had advised them about maintenance of temperature of the new born where as in the non-VHSC villages the advice was given to only two women (10%). Only three women (15%) from non-VHSC villages reported receiving advice on exclusive breastfeeding, as against almost all women (95%) from VHSC villages receiving such advice.

NRHM service guarantee – In order to reduce child mortality and morbidity, NRHM guarantees counselling on diet and rest, hygiene, contraception, essential new born care and breast feeding practices.

Regarding immunization, the study reveals that 18 women (90%) from VHSC villages received advice on complete immunization compared to six women (30%) from non-VHSC villages. It was also found that despite ANMs from VHSC villages informing the mothers about the immunization schedule, they themselves were not able to stick to the schedule while administering OPV and DPT vaccines because of lack of supply of vaccines. From VHSC villages, 14 women (70%) reported that their child got BCG within 45 days, as against only two mothers (10%) from non-VHSC villages.

Maternal Health Services Scores

In order to understand the difference in services received by the women in the two sets of villages, each mother was given a score depending upon the number of services she had received. The different services which were included in each score is given in Box 2. Each of the antenatal, intranatal, postnatal and neonatal service score was converted to a ten-point scale in order to facilitate comparison. An average score was computed for each of these service aspects for the women from VHSC and

non-VHSC villages. The difference in average scores between the two groups was found to be 1.4 times for antenatal services, 2.1 times for intranatal services, 20 times for post natal services and 5.6 times for neonatal services.

Box 2: Maternal Health Services Scores

Services included to compute each score

- ANC score – Registration, ANM checkup, Weight check, Blood Pressure check, Abdomen, TT 2, IFA, ANM advice.
- INC score – Institutional Delivery, Delivery advice, ASHA accomp, risk related counselling, ANM advice.
- PNC score – PNC check, Number of checks, ANM counselling, Diet counselling, rest counselling, Hygiene counselling, Contraceptive counselling
- NNC score – Temperature related, breast feeding related counselling and BCG, Polio and DPT vaccine received.

Findings from observations of FHD camps are summarized below:

Attendance of Personnel and Women

From the observations of 28 FHDs in 14 villages, it was found that in both the VHSC and non-VHSC villages the attendance of ANMs, AWWs and ASHAs was universal in all camps. The ICDS supervisor was present in three FHDs in VHSC villages and members from SHG, PRI, or VHSC were present at least for sometime in all the FHDs in VHSC villages. In contrast,

TABLE 3: Attendance at the 28 FHDs Observed

| | VHSC | non VHSC |
|--------------------|------|----------|
| Children 0–1 | 200 | 175 |
| Children 1–5 years | 753 | 707 |
| Pregnant women | 101 | 111 |
| Lactating women | 103 | 106 |

from non-VHSC villages, neither the ICDS supervisor nor any members from SHG/PRI were present in any of the FHDs. The total attendance of women and children in all the camps is summarized in Table 3. A total of 28 and 39 women received ANC services in VHSC and non-VHSC FHDs respectively, while 30 women from VHSC villages received PNC services compared to 16 from non VHSC villages.

Antenatal, Postnatal and Neonatal Care and Counselling Services

A larger range of services were provided in FHDs held in VHSC villages compared to non-VHSC villages. It was found that most of the women who attended FHDs of VHSC villages received BP examination, weight and abdominal check-ups. Of the 14 FHDs from seven VHSC villages, counselling of pregnant women was done in six FHDs, but it was not done in any of the FHDs from non-VHSC villages. Only with regard to TT injections, IFA and chloroquine tablets, one did not notice much of a difference between the FHDs conducted in the two types of villages. On an average a woman from the VHSC villages received six out of seven types of services available at the FHD compared to the non-VHSC villages where a woman received only three out of these seven services.

In all the 14 FHDs of VHSC villages, women received PNC services, but PNC services were hardly available in FHDs of non-VHSC villages. PNC services observed at VHSC FHD were dietary counselling, rest counselling, hygiene counselling, contraceptive counselling, newborn care counselling, feeding counselling as well as RTI/STI and HIV related counselling. In only one FHD from non-VHSC villages did women receive some information on newborn care and STI/RTIs. For PNC and neonatal counselling, the women from VHSC villages on an average received five out of eight services made available. No such average could be arrived at for non-VHSC women because such services were barely available in non-VHSC villages.

CONCLUSION

The study was conducted in a very small sample of 14 villages in one block, and by the same agency that did the intervention, which is an important limitation of the study. However, at the same time a rigorous selection procedure was used both for the intervention and comparison arm of the study to avoid selection bias. The findings from both sources — interview with women who have undergone delivery as well as the observation of FHDs are consistent, lending additional weight to the conclusions of the study. While no generalization can be attempted about the extent of change that is possible through VHSC training, because the quality and content of VHSC training may differ from place to place, the study findings are significant. The study reveals that the presence of VHSC has had an overwhelmingly positive influence on the delivery and utilization of maternal and child health services provided by ANMs in these villages. Villages without a VHSC hardly received any PNC or neonatal care services. The aspect of counselling was not noticed at all in non-VHSC villages.

The impact of VHSC training that is evident at the village level may be influencing this change in service delivery behaviour of the frontline workers and the concomitant improvement in the utilization of services by women could possibly be happening in the following way.

- a) The formation of VHSC in the village and training them about NRHM entitlements and their roles and responsibilities is promoting the presence of SHG, PRI and VHSC members during FHDs.
- b) Presence of trained VHSC members is acting as a positive feedback to service providers like ANM, AWW and ASHA and has improved the range of services being provided during the FHDs.
- c) Women from villages with trained VHSCs are being encouraged to receive NRHM-mandated services and are

not only coming in greater numbers to FHDs but are also receiving substantially more services — especially, with regard to PNC and neonatal care, an important component for reducing maternal and neonatal mortality.

Based on the experiences of the study, the following recommendations are being made:

- Formation of VHSC should be done soon in other villages.
- There is a need to ensure proper composition of VHSC members, and their training should include a clear articulation of their roles and responsibilities at the community level for promoting community action and involvement in NRHM services. The criteria for selection and training should follow the pattern suggested by the first phase of the community monitoring process.
- VHSC meetings should include the presence of PRI, ANM and SHG members and they should all be present at FHDs and represent the community interests.

The selection and training of VHSCs in this case followed the template developed by the AGCA and which has been subsequently adopted by the Government of India. The states have been recommended that they adapt it to their realities, so such a template is available for use by other states and agencies. It is hoped that the findings from this study gives further fillip to the process of communitization within NRHM and strengthens the role of VHSCs within its overall framework.

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NOTES

1. Adapted from: The Ecological Monitoring and Assessment Network Coordinating Office and the Canadian Nature Federation (2003): "Improving Local Decision-Making through Community Based Monitoring: Toward a Canadian Community Monitoring Network." <http://www.ccmn.ca/english/library/ccmn.pdf>
2. National Rural Health Mission: "Community based Monitoring of Health services under NRHM," <http://www.nrhmcommunityaction.org>
3. For further details of the implementation of the first phase please see www.nrhmcommunityaction.org
4. http://www.jsk.gov.in/indices%5Corrisa%5Corrisa_Mayurbhanj.pdf
5. <http://www.jsk.gov.in/dlhs3/orissa.pdf>

Role of the Sahiyya in Delivering ANC Services

A Study in East Singhbhum District, Jharkhand

11
CHAPTER

Isita Ray* and Nandalal Bakshi*

INTRODUCTION

The National Rural Health Mission (NRHM) is a strategy for integrating vertical health and family welfare programmes, and addressing issues related to the determinants of health, like sanitation, nutrition and safe drinking water. The NRHM seeks to adopt a sector-wide approach and aims at systematic reforms to enable efficiency in health service delivery. One of the key components of the NRHM is to provide every village in the country with a trained female community health activist — “ASHA” or Accredited Social Health Activist. Selected from the village itself and accountable to it, the ASHA will be trained to work as an interface between the community and the public health system. The ASHA will mobilize the community and facilitate them in accessing health and health-related services available at the village/Sub-Centre/Primary Health Centres, such as immunization, ANC, PNC, ICDS, sanitation and other services being provided by the government. She is supposed to counsel women on different issues including birth-preparedness and importance of safe delivery. She is also supposed to arrange escort/accompany pregnant women and children requiring treatment/admission to the nearest pre-identified

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health facility, i.e., Primary Health Centre/Community Health Centre/ First Referral Unit (PHC/CHC /FRU).¹

Some of the roles and responsibilities of the ASHA within the ANC service provisioning as mandated by NRHM are:

- Early registration of pregnant women.
- Ensuring certification of BPL/APL.
- Conducting four Ante Natal Check-ups/home visits for ANC and counselling.
- Detection of high risk pregnancies with appropriate management.
- Mobilization of pregnant women to access institutional health services.
- Counsel women on birth preparedness, contraception, infection control & RTI.
- Depot holder for essential products and services like I&FA, contraceptives, ORS, DDK and OTC drugs.
- Escort pregnant women to pre-identified institutions.
- Organizing health days.
- Bringing the women to the community based centres on pre designated days.
- Updating registers.

In Jharkhand, the ASHA is known as “*Sahiyya*.”² In order to provide quality healthcare services to the “last person in the last household of the last village,” the Government of Jharkhand (GoJ) initiated a community-based approach called *Sahiyya-Movement*. A pilot introduction of Sahiyya programme was done in 2004, with a view to encourage community participation in delivering quality healthcare to the needy and empowerment of women.³ It is being implemented in the field by NGOs with constant supportive supervision from the state. The backbone of the programme is a strong Village Health Committee comprising village leaders and others, which has the responsibility of selecting Sahiyyas at the village level. This was supposed to be an

excellent example of community mobilization and community empowerment.⁴

The selection criteria for Sahiyyas were different from the national norms. Nationally, it is one ASHA per 1,000 population and is expected to have a minimum educational qualification of eighth class pass. In Jharkhand, Sahiyyas can be selected on the basis of one for every hamlet ("*tola/mohalla*") and there are no educational restrictions. Sahiyya is to be selected by the entrusted NGOs as per laid down norms. Beyond training she is not to be given any financial support.

The Context

East Singhbhum district has high concentration (27.8% as per 2001 census) of tribal population. *Santhal*, *Bhumiz*, *Ho*, *Munda*, *Kharia* and *Sabar* are the main tribes. Their culture is still largely intact and they retain their own dialect, social rules and festivals. The Manjhi and the village Pradhans traditionally guide them. Most of the tribes are educationally backward, living below the poverty line. They largely live in the inhospitable parts of the state where they can hardly access the development programmes run by the government like health services, education, etc.

East Singhbhum district of Jharkhand state shares border with West Bengal and Orissa. Patamda block is located on the West Bengal side to the east. According to the 2001 census, total population of the block was 1,31,879. The Scheduled Tribe (ST) population of the block was 40.4 percent. Apart from the tribes, most of the population of this area belonged to backward caste communities. Thus, concentration of marginalized population was reasonably high in this block. Average population per village was 800. While the official language of Jharkhand is Hindi, in this block, most of the population speaks either *Bengali* or *Santhali*. Here, the major occupation is agriculture. Location wise, this block

TABLE 1: Key Indicators of Health in East Singhbhum District

| Indicators | East Singhbhum | Jharkhand | India |
|---------------------------------|----------------|-----------|-------|
| IMR | 58* | 68.7 | 57 |
| Institutional delivery (%) | NA | 18.3 | 38.7 |
| Maternal Mortality Rate* | 375 | 371 | 301 |
| Mothers receiving 3 ANC (%) # | 58.8 | 32.8 | 51.0 |
| Full immunization coverage (%)# | 36.2 | 29.3 | 54.1 |

Source: NFHS 3, 2005–06

DLHS 2003, Jharkhand

* District Health Action Plan, East Singhbhum, 2007–08.

can be considered the backyard of Jamshedpur, one of the famous industrial towns in the country. The TATA Group of companies control the entire economy of Jamshedpur, as well as its surroundings.

As evident from Table 1, the study district has poor health indicators. Therefore, it is very important to know how the Sahiyyas are performing in the given context to improve ANC care to pregnant women in the district.

The Objective

The study was conducted to assess the perceptions and experiences of women among different social groups and frontline service providers (ANMs and AWWs) about the role and performance of ASHAs (*Sahiyyas*) in providing ANC services in Patamda block of East-Singhbhum district of Jharkhand.

METHODOLOGY

Sample Selection

In order to have a better understanding of the role of Sahiyyas, effort was made to select Sahiyyas through a stratified sampling method.

Village selection: Patamda block comprises of 157 revenue villages (*mouza*). For the purpose of the study, ten per cent (ie.,16) of the villages from Patamda block were to be selected. While selecting, care was taken that half of the sampled villages are from high ST population and the rest have less concentration of tribals. Also, half of the villages selected were bigger villages and the rest small size villages. These sixteen villages had a total population of 14745.⁵ Of the 16 villages, seven villages had more than 800 people each and were inhabited by less than 40 per cent of ST population. The rest of the nine villages had a population of less than 800, but were inhabited by more than 75 per cent of ST population.

Women: The sample size of 197 women for a population of 14745 was estimated by taking into account the crude birth rate of Jharkhand which is 26.8 according to NFHS-3. Subsequently, a list of women, who had given birth in last six months from the identified villages, was prepared. The list was drawn up from secondary sources, i.e., (a) Registers of Anganwadi Centres (ICDS) and (b) Health Sub-Centres (ANM's Centre). The list was verified with Rural Medical Practitioners, Traditional Birth Attendants (TBAs) and with elderly women of the respective villages. A final list of 193 women was generated which is very close to the estimated sample size.

ANMs: Lists of ANMs were collected from the registers of sub-centres and Block Primary Health Centres (BPHC). Fifteen sub-centres where 15 ANMs are officially posted are providing services in these 16 identified villages.

AWWs: The list of AWWs was collected from the office of the Child Development Project Officer (CDPO) office of Patamda block. Twenty AWWs are posted in these 16 villages.

Sahiyyas: Lists of Sahiyyas collected from the Tata Steel Rural Development Services (TSRDS), Jamshedpur, the NGO assigned for the identification and training of Sahiyyas in Patamda block were verified with the ANMs, AWWs, and *Gram Pradhans* (village leaders). Finally, a list of 34 Sahiyyas from the selected area was identified for the study.

Data Collection

In-depth Interview and Survey

In-depth interviews were conducted for all ANMs, AWWs, and Sahiyyas. The guide-lines for the in-depth interviews had open-ended questions.

All 193 women who had given birth in last six months were interviewed using a pre-tested, structured questionnaire. Field testing of the questionnaire was time-consuming but increased the level of involvement of the team. The questionnaires were then translated into Bengali.

During the survey, team members would discuss their daily experiences in detail in the evenings and researchers prepared notes based on their comments and experiences. Researchers reviewed the notes from the interviews and gathered summative data about respondents' awareness on Sahiyya services.

Focus Group Discussion (FGD)

Two researchers with research assistants, conducted FGDs with women who had given birth in the last 6 months and their mothers-in-law in two villages, having highest (100%) and lowest (4.74%) concentration of tribal population. 12 –15 women took part in each of the FGDs. The medium of discussion was Bengali. Both FGDs were conducted at

anganwadi centres, where both the anganwari sewika (ICDS Teachers) and assistants were present during the discussion.

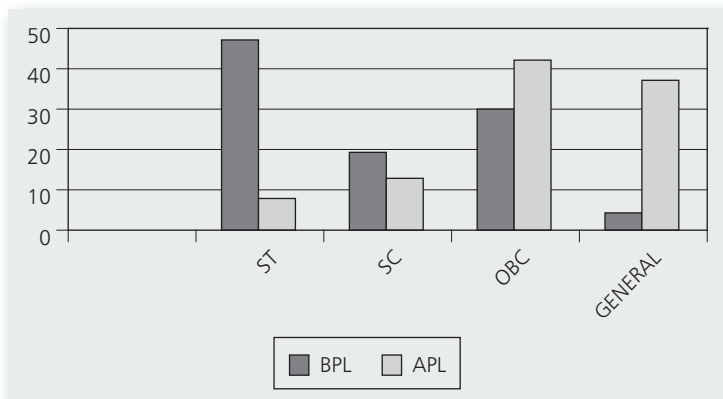
Findings

Socio-Economic Background of Respondents

Women: Of the total 193 women who have given birth in last six months, 84 percent (162) belonged to below poverty line (BPL) category, of which 47 percent (76) are ST, 30 percent (49) are OBC, 19 percent (31) are SC and only 4 percent (6) of BPL families were from General Castes. Thirty one out of 193 women belonged to above poverty line (APL) category, of which 8 percent (2) were from ST families, 13 percent (4) from SC families, 42 percent (13) from OBC and 37 percent (12) from General Castes.

Sahiyya: The study found that adequate representation from disadvantaged population groups is ensured through Sahiyya's selection. Our study area shows that out of 34

FIGURE 1: Castewise Distribution of Women Respondents



selected ASHAs, 14 were from the ST Communities, 11 from OBCs, eight from SC families and only one from general castes. Educational levels of Sahiyyas were found to be very low. The highest level of education received is up to matriculation. Only twenty two percent Sahiyyas from APL and 4.5 percent from BPL families were able to sign their names.

Front line service providers: The study found that majority of the frontline service providers were from marginalized sections of the society. Out of 15 ANMS only two were from general castes, six were STs, two were SCs and five were from OBC families. Among 20 AWWs, only one was from general castes, four from STs, three from SCs and 12 were from OBC families.

Knowledge of Existence/Role of Sahiyya

Sahiyyas own Perceptions

The study found that with regard to their own selection process, 24 percent Sahiyyas expressed that neither did they know the reason nor the procedure of their selection. Some of them mentioned that during the time of selection, they were not present but on behalf of them, their guardians, mostly husbands, were present and took the decision on their behalf. Only one of the Sahiyyas mentioned that she was selected in a public meeting at her own hamlet in the presence of many villagers. This meeting was convened by the AWW where TSRDS officials were also present.

Few of the Sahiyyas mentioned that Gram Pradhan and other opinion leaders had called a meeting for their selection, though TSRDS officers actually conducted these meetings, where they declared the need for a woman for each village to act as a health worker. They also added

that in those meetings, TSRDS mentioned that these newly appointed health workers initially would not get any money from the government. The impression that they got is that they might get some monetary benefit later from TSRDS as the entire economy of this region is dependent on that organization.

One of the Sahiyyas said, "Sahiyya programme is a collaborative programme of TATA Company and government. Therefore, in the future, there would be a chance to get big monetary benefits."

ANMs about Sahiyyas

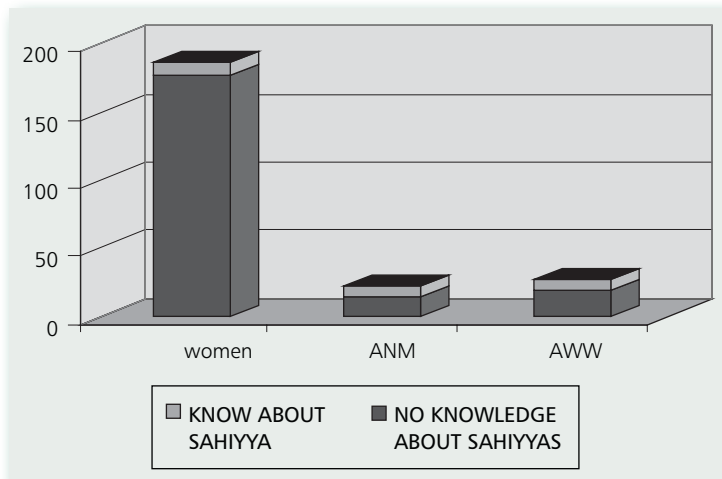
Seven out of fifteen ANMs reported that they did not have any information and orientation about Sahiyya programme before its initiation.

Regarding the selection process of Sahiyyas, 40 per cent ANMs replied that they were present in the selection meeting. Most of them attended the selection meetings after being invited by the concerned NGO, though few said that they got a verbal order from the Minister in-charge for attending the meeting. Others came to know unofficially that one NGO from Jamshedpur is assigned to select Sahiyya as village health volunteer in their working areas.

With regard to the role of Sahiyyas, few ANMs mentioned that they thought the Sahiyya is someone like the ICDS helper who will assist them in running health sub centres to deliver health services like immunization etc. In the words of ANM, *"It is not possible for us to go in the up-hill villages daily, so Sahiyyas can act as a link between the women and us. Thus, it is a good programme to spread our health programme activities."*

Figure 2 shows that only 8 out of 15 ANMs and 8 out of 20 AWWs and only 9 out of 193 women, who have given birth in last 6 months, knew about Sahiyyas.

FIGURE 2: Perceptions regarding sahiyya



AWWs about Sahiyyas

Most of the AWWs from the study area were not much aware about the Sahiyya programme, They mentioned that neither were they informed officially nor oriented properly regarding the programme. One of the AWWs said, “I think it is a programme of the health department, thus, we were not been informed so far officially.” Few AWWs informed that they attended the selection meeting in their villages with other people, including the ANM. “Like many other government programmes which come and go, eventually Sahiyya could be one of them” commented one AWW.

Many of the AWWs apprehended that this programme would create an additional burden and their department will create pressure on them without any provision for additional benefit and money.

Village Women about Sahiyyas

Our present survey shows that only nine (5%) women who had given birth in the last 6 months were familiar with the

word, Sahiyya, but were not much aware of their roles and responsibilities. Seven women, who heard about the word Sahiyya, knew that Sahiyyas are only engaged for supplying Iron-Folic acid tablets to pregnant women at their homes.

Training of Sahiyyas

Nine out of thirty-four Sahiyyas have not received any training so far. Many of them who got training complained that the language of training was in *Hindi* and not *Bengali*, the language that they speak and are familiar with. The Sahiyyas said that they did not understand the subject, nor were they able to understand their duties.

ANMs are doubtful regarding the Sahiyyas' capacity-building training programme. Many of them believed that with such a low education level, it would not be possible for Sahiyyas to cope up with the training. "Most of the Sahiyyas are illiterate or have low educational qualifications. This kind of a tough job is not possible for them." The ANM also added, "though we have got many trainings, as well as better qualifications than them, even sometimes we face a problem. To make the programme successful, they need more capacity building; otherwise outcome of services expected from them will be very poor in quality."

According to many ANMs and AWWs, most of the Sahiyyas went to Jamshedpur, the nearest industrial town, for their first training. After that, they attended only two one-day meetings at the PHC level with selected Sahiyyas. ANMs complained that Block Health authorities never bothered to invite them to such programmes. Thus, they know nothing about the topics discussed, or on what subject Sahiyyas received training. ANMs also mentioned that they do not know the trainers who trained the Sahiyyas. Few ANMs and AWWs reported that they got extremely negative feed back from their respective Sahiyyas regarding the training they received.

Services Provided by Sahiyyas

Most Sahiyyas mentioned that no one has explained them about their tasks and duties. They also have no idea about whom to report to. Some of them mentioned that they were going to pregnant women's homes for distributing *red pills* (IFA tablets) as and when directed by the ANMs. Few of them reported that they help AWWs in arranging food distribution camps.

Only seven of the respondent women reported that Sahiyya made home visits during their pregnancy.

According to frontline service providers, Sahiyyas sometimes help in vaccination or in the distribution of food at the ICDS centres. They said that Sahiyyas do not follow any duty schedule and attend camps according to their own convenience. Frontline service providers are not sure whether they can ask for any service from Sahiyyas or can supervise them.

No knowledge about JSY and VHC: JSY and VHC are two very important components of NRHM linked with ASHA/Sahiyya services, which are totally missing in the studied block. As far as JSY is concerned, the study shows that 18 (53%) out of 34 mentioned that they have no idea about JSY. Nine (26%) of the Sahiyyas reported that no one from their villages got this benefit so far but they knew about it through the media, especially radio.

CONCLUSION

The study in Patamda block of East Singbhum district of Jharkhand shows that the concept of Sahiyya and their availability in the community is hardly noticed. Only 5 percent of the women respondents knew about the Sahiyyas and only seven got their services at their home during their antenatal period.

Sahiyya is considered a movement in Jharkhand but the present study brings forth that many of these women selected as Sahiyyas do not have any knowledge, idea, and

purpose for their selection. It is therefore obvious that the orientation of Sahiyyas was not up to the mark and there are many ambiguities and no transparency in their selection process. The only positive aspect is the fact that most of the Sahiyyas selected were from the marginalized section of the society and therefore the probability that they would reach out to those sections of the population with their services was more.

The study also reflects that any effort for their capacity building and skill development is missing from the entire process. The training designed for the Sahiyyas did not serve the purpose.

Lessons Learnt

Need of community involvement: The study indicates that the lack of transparency in the selection of Sahiyyas has created an uncomfortable environment for different health workers like ANMs, AWWs and Sahiyyas to work together for a common goal of providing better healthcare services to the community. In fact, the NRHM guidelines on ASHA's selection are categorical about the involvement of the community. It says "ASHAs will be chosen through a rigorous process of selection involving various community groups, Self-Help groups, Anganwadi institutions, the Block Nodal Officer, District Nodal Officer, the Village Health Committees and the Gram Sabha."

Better training: The training process and curriculum needs to be reworked to make it more appropriate to the need of the Sahiyyas. Also, the content of the curriculum should take into account the present capacity of the trainees. Training should make them aware about their roles and responsibilities. There is also a need to involve other frontline service providers like ANM and AWW in their training, so that they feel a sense of involvement.

Need for better guidance: The study clearly portrays that there is no clarity of roles and responsibilities for the Sahiyyas. They do not even know what they are supposed to do or whom to report. Frontline service providers also have ambiguity for taking any responsibility for Sahiyyas or delegate duties for the improvement of the health status of the concerned block.

Need of initiative from the government: The NGO, TSRDS entrusted by GoJ for selection and training of Sahiyyas in the Patamda block, after initiation of the programme withdrew their services by proper intimation. But following their withdrawal, the government took no initiative to run the programme in a meaningful way. This lack of initiative has not only led to lack of motivation of the Sahiyyas but also of other frontline service providers like ANM and AWWs.

Though the Sahiyya was promoted as a flagship initiative of the Jharkhand government, yet in this block, this programme is absolutely neglected. So far, no bank account had been opened in the name of Village Health Committee for handling funds. On the other hand, there is no monitoring system established by the State Health and Family Welfare Department.

Need of incentives: Sahiyyas, who were selected but not working at present, mentioned that without money, their families do not allow them to "roam" in the villages. Most of them feel that without any incentive, this activity is a waste of time and energy.

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NOTES

1. National Rural Health Mission (2005-2012): "Mission document," http://mohfw.nic.in/NRHM/Documents/Mission_Document.pdf
2. Sahiyya means support in local language.
3. IBEF (2007): Jharkhand, December, www.ibef.org
4. Ministry of Health and Family Welfare, Government of India: State PIP, 2007-08, Jharkhand
5. Census 2001

Role of JSY in Institutional Delivery

A Study in Churachandpur District, Manipur

12

CHAPTER

Peter ZM Hangmi* and Jamhen Kuki*

INTRODUCTION

Manipur is a strategically located state in the North Eastern region bounded by Nagaland in the north, Assam to the west, Mizoram to the south and sharing a long international border with Myanmar to the east and south. It has eight districts, of which five districts are in the hilly regions. Majority of population in the hilly districts is tribal with very less urbanization. Urbanization is mostly confined to the plains.

In recent years, armed conflict in many areas of Manipur has resulted in lack of basic services including health to the people of the state. To combat terrorism, many health facilities are occupied by the Army. In such a situation, the health providers are not in a position to perform their field activities, especially in the border areas. The budget allocation in health by the state has suffered because a large portion of the state budget is used for counter-insurgency in the state. This has hampered the procurement of drugs and other health equipments. Civil works are also affected because the militants demand share of fund sanctioned for the same, causing poor infrastructure and maintenance.

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TABLE 1: Health Indicators

| Background Characteristics | Churchandpur | Manipur | India |
|-------------------------------------|--------------|---------|-------|
| Sex ratio (2001 Census) | 993 | 978 | 933 |
| Crude birth rate (SRS 2001) | NA | 18.3 | 25.8 |
| Infant mortality rate (SRS 2006) | NA | 13 | 58 |
| Maternal mortality ratio (SRS 2001) | 303 | 374 | 301 |
| Institutional delivery (NFHS 3) | NA | 49 | 38 |

Manipur has some unique health indicators (see table 1); for instance, while a very low IMR of 13 (as compared to all India figure of 58) suggests that the state has been able to reduce infant deaths, it has, on the other hand, not been able to reduce maternal deaths at the same rate. The state has a high MMR of 374 (significantly high compared to the national figure of 301). Therefore, the Janani Suraksha Yojana (JSY) scheme launched in April 2005, under the umbrella of India's National Rural Health Mission (NRHM), is of great significance for a state like Manipur.

JSY is implemented to address poor maternal and child health outcomes in India by encouraging institutional delivery among poor women and promote the use of health services during pregnancy, delivery and post-pregnancy. The programme differentiates between States with low and high rates of institutional delivery, providing benefits to all women in "low-performing states" (LPS) and targeting vulnerable women in "high-performing states" (HPS). Manipur falls in the HPS category. In HPS, only women who are classified as living below the poverty line (BPL) or of Scheduled Caste (SC) or Scheduled Tribe (ST) backgrounds are eligible for benefits provided they are 19 years of age or older and giving birth to their first or second child in government health centres, with the exception of women who are referred from a government facility and are in possession of a JSY card. Under JSY, a woman is also eligible for cash assistance for transport to the nearest government

health facility for delivery. Besides cash assistance during institutional delivery, JSY also has a provision of a cash assistance of Rs.500 for women who deliver at home, in both LPS and HPS, but only if 19 years of age and older, living below the poverty line (BPL) and giving birth to their first or second child.¹

The Context

Churachandpur district, which is chosen for this study to understand the implementation of the JSY programme, is one of the five tribal populated hill districts of the state. It has a high MMR of 303 (SRS 2001). The government delivers its reproductive and other health services in the district through its network of PHCs and subcentres. The district has one district hospital, one CHC, nine PHCs and 64 sub-centres.

Henglep block, where a part of the data collection was done, is in the most interior western part of Churachandpur district, where road and communication is worst compared to the whole State. There are only two options to reach Henglep headquarters, one by walking for at least two days, and, the other, taking the Shaktiman truck (see picture below) which plies between Henglep and the district town once a week.



The only means of transportation & communication with the road's condition.

The Objective

The study aimed at understanding the implementation of the JSY programme at the Churachandpur district, from both beneficiaries' as well as providers' perspectives.

METHODOLOGY

Sampling

The study was undertaken in two blocks of Churachandpur district of Manipur. Saikawt (Block A) and Henglep (Block-B) PHC is situated near to Lamka town, and had a better road connectivity, whereas, Henglep PHC is situated in the interior areas, and did not have proper road connectivity. People of Henglep Block are cut off from the rest of the district during monsoons and had to walk three to four days to reach district headquarters.

Ten villages under each PHC were selected randomly and two women who had delivered during the last 6 months were randomly selected from each village and interviewed. The help of ASHA and village chief was taken for identifying the women who had delivered recently. So a total of 40 mothers were interviewed. While selecting the women, efforts were made such that out of the two women from each village, one who has delivered at home and the other at institution, was selected.

To get the views of providers, ASHAs, ANMs and PHC doctors were interviewed. From the Saikawt PHC, all the 10 villages selected had one ASHA each, so all 10 were interviewed. From Henglep, of the selected 10 villages, only three villages had ASHAs, so they were selected for the study. In total, 13 ASHAs participated in the study. From each PHC, one doctor was interviewed to know their views on JSY, the issues they are facing with regard to the implementation of the programme.

Data Collection

The study used qualitative methods for data collection. A semi-structured questionnaire was used to interview women

who had delivered babies at home or in an institutional facility to explore their experiences and views. A semi-structured questionnaire was also used to interview the ANMs and doctors. Separate FGDs were conducted with mothers who delivered at home, at institutions and with the selected ASHAs.

Secondary data was collected from District Family Welfare Office, Project Officer NRHM Manipur, District Medical Officer's Office, PHC, and Village Chiefs.

Data Quality

For the study, a team of five field researchers, of whom two were female, were provided two weeks training. The tools of data collection were pre-tested before they were administered. The data collected were thoroughly checked to ensure quality of the data.

In order to facilitate the process of data collection, village chiefs were the point of first contact as per custom demands. From here the team accessed and identified the VHSC and the ASHA, and also got permission to interact with them and the women who had delivered babies.

FINDINGS

Services Received under JSY

Of the 20 women selected from Saikawt (Block A), four had home delivery and the rest had institutional delivery, mostly in private institutions. In Henglep block, only seven delivered at institutions and the rest at home.

Interviews with mothers revealed that in both the blocks, mothers received their ANC, INC and PNC care from the NGO that served these two areas. Though in Saikawt (Block A) block all the mothers interviewed were registered by ASHAs, they did not receive MCH services from them. For instance, neither did the mothers receive any travelling allowances for delivery nor any ANC services like TT injections. None of

the mothers had JSY cards. Both the PHCs did not have any transport system available, nor any partnership with specialists for delivery services.

Of the 16 women who delivered in institutions from Saikawt (Block A), only two benefited from the JSY scheme amounting to Rs.700 each. Other women are yet to receive JSY money and would have to wait for the notification of disbursement to be made in local newspaper. They said that the DMO/CMO had informed them that their names would be published in the local newspaper as and when the JSY funds are available.

Reason for not Availing Public Institutions for Delivery

The 40 women interviewed were asked a common question as “What problems made them deliver at home or private institutions?” Table 2 gives the main reasons cited by mothers for having home delivery:

TABLE 2: Reasons Cited by Mothers

| Sl No | Main Reasons | No. of Women | |
|-------|--|--------------|---------|
| | | Saikawt | Henglep |
| 1 | Financial problem (Travelling, Medicines and Service charges to Doctors and Nurses) | 10 | 12 |
| 2 | No JSY even if delivered in government hospitals, so look for better care and service either at home or private hospitals. | 13 | 1 |
| 3 | Difficulty in accessing public institutions | 12 | 16 |
| 4 | Concept of interference by governmentt. doctors & nurses | 1 | 5 |

The above table reveals that majority of the women felt that high costs incurred in availing services from public facilities, including transport and improper implementation of the JSY programme are the two main reasons for not accessing government institutions. Poor quality of care at government institutions is yet another cause cited by women for preferring home delivery.

Box 1: GROUND REALITY

i. Institutional Delivery

- Case 1: As I was told by ASHA that hospital delivery is safe for mothers and child, I went for delivery but was uncared by the doctor and nurses till the last moment of labour pain and I had to stay for 4 days. Medicines were prescribed that had to be purchased from pharmacy. It was too expensive. I did not get any compensation as told by the ASHA.
- Case 2: I went to hospital for delivery leaving my small kid at home. It was a long stay. It was expensive. The doctor and nurse did not care for me. In hospital, we were despised and uncared as we are from remote villages. They cursed me that I am too dirty.

ii. Home Delivery:

- Case 1: I preferred home delivery because, I have my mother, sisters to serve me hot water, make the place warm and comfortable. In hospitals, we get bad words from nurses.
- Case 2: I preferred home delivery because hospital delivery is costly and expensive. The doctors and nurses have their own pharmacy adjacent to the hospital and prescribe a lot of medicines to purchase.
- Case 3: I preferred home delivery because I have no doctor/nurse relatives in hospital.
- Case 4: I wanted to deliver at hospital but for that I have to travel/walk miles on foot crossing riverlets, hill terrains. I am afraid of leeches. Arranging transport would have been very expensive. So I delivered at home.
- Case 5: We are poor; though we want to deliver at institution/hospital we are from far-flung villages and have no money and alternative means to travel. On the other hand, we learned that no compensation has been paid to others who earlier delivered at District Hospitals/ Institutions as told by our ASHAs.

Selection and Training of ASHAs

Of the 13 ASHAs selected for the study, seven were selected in 2006, five in 2007 and one in 2008. According to NRHM guidelines, selection of ASHA is supposed to be

done through a rigorous process involving various community groups, SHGs, Anganwadi Institutions, the Block Nodal Officer, District Nodal Officer, the Village Health Committee and the Gram Sabha. But the study revealed that in many of the cases this norm was not adhered to. Seven ASHAs reported that officials were present during their selection, and the rest were unsure about their process of selection. One of the ASHAs interviewed said, "I did not know how I was selected for the village ASHA because I was not present in the village meeting. May be, I was selected because I am a trained nurse or may be I belong to the village chief's family." In fact, in one village one male person was selected as an ASHA and he was replaced by his wife during training.

All the ASHAs said that they had undergone training. Eight of them had undergone training for more than three times, two of them two times and the rest one time. Yet the study finds that the ASHAs were not clear about their roles. Most of the ASHAs were not satisfied with their trainings. They said that they couldn't understand what they were taught because the trainers were Manipuris while they spoke a tribal dialect. Hence they did not understand that language. One of them expressed that, "We did not understand what they taught us in the training because of the language. It would be good if we were trained by our PHC staffs." It was also found that the trainings were organized by the Malaria Department and not by the concerned Health Department.

Views of Healthcare Providers

The study revealed that the post of ASHA was not a source of prestige in the village, largely because of the failure of the JSY programme to deliver on its promises. Most ASHAs interviewed expressed with shame that, "We registered, counseled and made awareness of the JSY scheme to all village

mothers during the village meetings (especially to pregnant women, but when women are denied their JSY money it's shameful for us."

ASHAs during the FGD reported that "Ever since our appointment and training we have been faithfully discharging our assigned duties but in spite of that we are being betrayed by the authority concerned by not paying incentives and compensation to mothers."

"Mothers think that we are cheating them. We are ashamed and reluctant to mention about JSY benefits to our women now."

PHC doctors were of the view that the VHSCs should be given more awareness about NRHM and JSY. With regard to delay in monetary assistance, they expressed helplessness with the administrative machinery leading to severe delays. The doctors said that, "Women frequently come to them and claim JSY money. But disbursement is done only at District Family Welfare Office and CMO's office. So we sent them there since we have already submitted the list of registered women. They went there but mostly all of them came back empty handed because the authority there simply told them there is no fund. It's really a shame for us to talk about JSY anymore to the women." One of the doctors suggested that for the improvement of JSY scheme, the village chief who is also the chairman of VHSC, can approach the District Health Department for necessary action/payment of compensation to the mothers and incentives to ASHA.

The doctors also spoke about the lack of human resource, especially about many vacant posts of ANMs at Henglep block, hampering proper outreach services.

CONCLUSION AND RECOMMENDATIONS

The study reveals that though Saikawt block had better road connectivity, it did not result in better implementation of the

JSY programme in particular or MCH service delivery by the government in general. Serious gaps especially with regard to fund disbursement under the scheme, restricted most of the families from availing the public facilities for delivery. Moreover, lack of public transport and bad road connectivity added to the problems in accessing services from the government facilities.

Though in all the villages in each of the blocks, ASHAs were selected and given training as per the requirement of NRHM, much needs to be improved in terms of their selection process and training, if they are supposed to improve maternal health in real sense.

The study brings forth certain areas which needs improvement:

- Enhance the capability of government health facilities, in terms of human power, infrastructure including transport and drugs and equipments, to handle all cases of delivery so as to reduce MMR in the state.
- Have better and cheap road connectivity.
- Proper selection and training of ASHAs.
- Recruitment of different types of healthcare providers for the existing vacant posts.
- Proper and timely disbursement of JSY funds.
- Decentralization of disbursement of JSY funds at block level.

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NOTE

1. http://www.rbfhealth.org/rbfhealth/system/files/RBF_Country_INDIA_R1.pdf

Glossary

| | |
|-------|--|
| AFP | Acute Flaccid Paralysis |
| APL | Above Poverty Line |
| ANC | Ante Natal Care |
| ANM | Auxiliary Nurse Mid-wife |
| ASHA | Accredited Social Health Activist |
| AWW | Aanganwadi Worker |
| BDO | Block Development Officers |
| BEE | Block Extension Educator |
| BPHC | Block Primary Health Centre |
| BPL | Below Poverty Line |
| BPO | Block Programme Organizer |
| CBO | Community based Organization |
| CDPO | Community Development Programme Officer |
| CHSJ | Centre for Health and Social Justice |
| CSSM | Child Survival and Safe Motherhood |
| DLHS | District Level Household Survey |
| DMIMS | Datta Meghe Institute of Medical Sciences |
| EAG | Empowered Action Group |
| EmOC | Emergency Obstetric Care |
| FGD | Focus Group Discussion |
| FHD | Fixed Health Day |
| FPIS | Family Planning Insurance Scheme |
| FRCH | Foundation for Research in Community Health |
| GoJ | Government of Jharkhand |
| GP | Gram Panchayat |
| HDF | Human Development Foundation |
| HMIS | Health Management Information System |
| HPS | High Performing States |
| I&FA | Iron and Folic Acid |
| ICPD | International Conference on Population and Development |
| IDI | In-depth Interview |
| IIHMR | Indian Institute of Health Management Research |

| | |
|-------|---|
| IMR | Infant Mortality Rate |
| INC | Intra Natal Care |
| IPHS | Indian Public Health Standards |
| IUD | Intrauterine Device |
| JSY | Janani Suraksha Yojana |
| LPS | Low Performing States |
| MAA | Movement Against AIDS |
| MDG | Millennium Development Goal |
| MIS | Management Information System |
| MMR | Maternal Mortality Rate |
| MO | Medical Officer |
| MSAM | Mahila Swasthya Adhikar Manch |
| NEN | North East Network |
| NFHS | National Family Health Survey |
| NGO | Non Government Organization |
| NRHM | National Rural Health Mission |
| OBC | Other Backward Caste |
| ORS | Oral Rehydration Solution |
| OTC | Over the Counter |
| PHC | Primary Health Centre |
| PHN | Public Health Nurse |
| PPP | Public Private Partnerships |
| PRI | Panchayati Raj Institution |
| QAC | Quality Assurance Committee |
| RKS | Rogi Kalyan Samiti |
| SC | Scheduled Caste |
| SDO | Sub-Divisional Officer |
| SHC | Sub Health Centre |
| SHG | Self Help Groups |
| SODA | Society for Development Action |
| SSI | Semi Structured Interviews |
| ST | Scheduled Tribe |
| TSRD | Tagore Society for Rural Development |
| TSRDS | Tata Steel Rural Development Society |
| USG | Ultrasonography |
| VHC | Village Health Committee |
| VHSC | Village Health and Sanitation Committee |

About Organizations

ANKUR Welfare Association is located at Gagret in Una district of Himachal Pradesh. It also has field offices in all the major districts of Himachal Pradesh. It started in the year 1994 with the main objective to develop the socio-economic status of the women and children through education. The strategies adopted by Ankur are community mobilization, service delivery, capacity building, research and training. Under RCH programme, Ankur was declared Mother NGO for the district of Hamirpur. Empowerment of Single Women, arresting declining sex ratio and reproductive rights, domestic violence, organizing seasonal labour are key issues for advocacy for the organization. Ankur initiated Micro Banking Programme in the year 1999 to develop entrepreneurship skill among the women through self help groups with the help of NABARD. Presently it has more than 400 self help groups in the Gagret block. Watershed Development Programme, Village Development Plan are few new innovative programmes that are being experimented in the district of Una by the NABARD with the help of Ankur. It also runs a vocational training center. Ankur is also a part of the network of ICIMOD (International Center for Integrated Mountain Development) Kathmandu, Nepal.

Centre for Health and Social Justice (CHSJ) located in New Delhi is a health policy resource centre which works to bridge the space between policy intent and people's experience of services in the context of health equity and social justice. CHSJ is involved in conducting research and advocacy and building capacity among individuals and organizations to do the same. The Centre has established its credibility for providing technical and supervisory support to state health

systems and civil society organizations involved in community actions in the health sector. CHSJ successfully developed and supported the implementation of community monitoring within the National Rural Health Mission (NRHM) as a large-scale, effective accountability mechanism. CHSJ works in close collaboration with Universities, civil society organizations as well as with governments.

Datta Meghe Institute of Medical Sciences (DMIMS) is an experienced community-based Public Charitable Trust committed to the cause of providing comprehensive & holistic healthcare. Since then, DMIMS has been expanding continuously in terms of educational programmes and infrastructure. While responding to the changing needs of the health and educational system in the country, DMIMS has gone far beyond the initial concern of education. Thus, what started as a small institution offering education in Medical College in 1990 grew into a Deemed University recognized by the University Grants Commission in 2005 and acquired the status of a full fledged University as “Datta Meghe Institute of Medical Sciences University” and was accredited with an “A” grade by the National Assessment and Accreditation Council (NAAC). DMIMS has excellence in Health Sciences providing effective and affordable preventive, promotive, curative and rehabilitative healthcare services to the needy by promoting a network of medical centres of excellence in all systems of medicine under one roof. DMIMS has made significant contribution in health sector by innovative intervention to improve the health status of the rural poor.

Department of Global Health, University of Washington, Seattle is one of the oldest universities in the US and the School of Public Health and Community Medicine is among the leading public health institutions in the world. The Global Health Leadership Program (GHLP) is an educational programme of the Department of Global Health (DGH) that works through partnerships with ministries of health, universities, and other stakeholders to strengthen

health systems in developing countries by enhancing their leadership, management, and policy development capacity.

Foundation for Research in Community Health (FRCH) was established in 1975 as a non-profit voluntary organization to promote the concept of healthcare rather than the mere care of illness. This entails the study of health in its wider perspective in order to improve the health of our people with emphasis on the problems of the underprivileged sections of our society, especially women and children. Our staff from various disciplines are engaged in conducting both conceptual research as well as field studies into the problems faced in achieving Health for All. This is to help in devising alternate models of health and medical care in keeping with the social, economic and cultural reality of the country. The aim is to influence government policy and sensitize the people at all levels to the problems and possibility of achieving good health at affordable cost. FRCH aims to create a People's Health Movement by demystifying medicine and increasing public awareness on health, especially at the grassroots level, and by strengthening the age old health culture of our people based on our own systems of health and medical care. This is to be achieved, by publishing and disseminating information on all aspects of health and related subjects and also by conducting participatory training and interacting with the community.

Human Development Foundation (HDF) is a not for profit organization mooted by a group of young professionals with strong commitment to build human capital and to work for vigorous programmatic interventions for all round and inclusive development of Orissa. It has two wings. The academic wing offers quality education at affordable cost on Management studies, Development Studies, Social Sciences and Skill Development. As a first step the Trust has established a School of Management with AICTE recognition. The other programmes are in the pipeline. The Centre for Development Action and Research (CDAR) wing is dedicated

to focus on policy research and programmatic intervention in the areas of Health, Education, Livelihood and Governance. The CDAR's strategy includes field study, implementation of innovative pilot projects, monitoring the outcome of development projects and advocacy for realignment of policies and effective implementation.

Movement Against AIDS (MAA) was established in the late 90's when a group of medical and health professionals working in the hilly areas of Himachal Pradesh came forward to provide need based support to the people living there. The group activities were fully supported by Hospital Designers & Developers (a corporate entity based in NCTR). In 1998, the group formally organized itself and gave a name "Movement Against AIDS." Further, after realising the necessity to comply with legal requirements, the group was registered in the name of "MAA Activists" in 2001 in Delhi. After few years, Dr. Alok Lodh, the then President of the trust came to Bihar for some project assignment under World Health Organization. He eventually migrated out of the organization and got engaged full time with the activities of MAA and established a local branch of the society in Muzaffarpur. Currently, the society is running various projects supported by government and other funding agencies. MAA aims to achieve a reduction in the impact of STI/HIV/AIDS and improve the reproductive health of women living below poverty line, specifically in the Northern and Eastern states of India and in general the rest of the country and concurrently achieve an increase in the capacity of the community to fend for themselves against their compromised socio-economic and health status.

North East Network (NEN) is a woman's organization working on rights issues in parts of North East India. Ever since its inception, it has strived to empower women of northeast around issues of peace, livelihood, and reproductive health. Its goal is to ensure fundamental change in the region's development perspectives from needs to rights and to work

towards gender justice and frame gender just policies to promote and protect women's human rights in all fields and through social action. In the process NEN has believed in undertaking the following three processes — research, sensitization through trainings and advocacy and networking. It engages in information dissemination and training at the grassroots level to mobilize communities, especially women on rights, gender and health issues. NEN members usually carry out primary research on various issues like health, social and economic status of communities, existence of natural resources, prevalence of violence against women, incidence of domestic violence and the impact of armed conflict on communities, particularly that of women. Advocacy at this level has involved campaign on CEDAW, VAW, monitoring the implementation process of the PWDV Act and a joint collaboration with Government Institutions in addressing VAW in Meghalaya.

SAHAYOG is a non-profit voluntary organization working in India since 1992, with the mission of promoting gender equality and women's health from a human rights framework by strengthening partnership-based advocacy. Currently SAHAYOG's work is focused on the following areas; women's right to maternal health services, young people's reproductive and sexual rights and health, work with men on gender equality, masculinity and ending gender based violence. SAHAYOG facilitates issue-based partnerships, provides capacity-building and field support, carries out studies and documentation, as well as information dissemination activities. Through its networking, SAHAYOG also anchors campaigns and engages with the media. While SAHAYOG builds capacities of rural women and youth to know and claim their entitlements, it also works with partners within the state of UP, and at national and international level on policy advocacy.

Society for Development Action (SODA) is a non-governmental, non-political, non-religious, non-partisan, secular

and non-profit making voluntary organization engaged in developmental work in Orissa since 1984. It is an association of the young professionals like lawyers, doctors, social workers, researchers, communicators and faculty members from University and reputed institutions who strongly believe in democracy, collective decision making and non-bureaucratic, non-hierarchical working systems. Main aim of SODA is to integrate the indigenous health knowledge and workers in to the formal system and to spread knowledge among the people on all subjects related to their all round welfare and development in a popular and attractive manner. The key beneficiaries of the organization are the common masses, specially tribals, dalits and downtrodden population in the rural and inaccessible areas. Our mission is to empower people about their rights, available resources and how to get maximum benefit out of them for better life and livelihoods.

Tagore Society for Rural Development (TSRD) was founded in 1969 by Pannalal Dasgupta and Loknayak Jai Prakash Narayan, two eminent freedom fighters and political leaders. From its beginning with a small drought relief programme in Birbhum, TSRD today works out of 10 project locations in the three states of West Bengal, Jharkhand and Orissa. They were among the first NGOs to work in the Sunderbans and Dandakaranya region of Orissa and almost all of their project locations have been in underserved and remote locations that usually have a high percentage of tribal/Dalit population. Sectors like Agriculture, Education, Environment, Forestry, Health, and Livelihoods are the foundations of their comprehensive rural development agenda. TSRD started the Reproductive and Child Health (RCH - Innovative) Programme in 1999 and was the only NGO in Eastern India to work under the Innovative Programme under the Ministry of Health & Family Welfare, Government of India. They have a substantial RCH (Health and Family Welfare Dept, Government of West Bengal) portfolio which includes

Maternal Care, Adolescent Care, and Child Care and Family Planning etc. In three island blocks of the Sunderbans, TSRD is rendering RCH services along with advocacy and motivation under Innovative Programme of RCH-II. They have been proud partners of Bread For the World, KKS and EZE, all from Germany, ICCO, Netherlands, Action Aid, UK, and the Kyoto Forum, Japan and the World Bank among many others. In the changing development scenario of today's India, TSRD seeks to play a larger role in the critical areas of Advocacy, Civic Engagement and Research.

Zougam Institute for Community Resources Development (ZICORD) was formed in 1994 with a vision and mission to help realize normalcy and peace in the society by taking up needed development of the vulnerable section of society. As an apex organization of civil society, it continues striving together with people to realize set vision by conducting research, documentation and dissemination of issue based information, conducting programmes for organizing people to build a self reliant society and introduce alternative means of livelihood along with knowledge on local resource mobilization and participatory involvement towards development of the society. Key strategies adopted by Zicord are - design project and programmes on community perception of needs and priority; community capacity building for rendering ownership of responsibility and management; and integration of social inputs with economic support activities in harnessing community science and values.

