Improving the Health of Mother and Child: Solutions from India

Priya Anant, Prabal Vikram Singh, Sofi Bergkvist, William A. Haseltine & Anita George
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We appreciate the support and time provided by the leaders and team members of all the organisations that feature in this compendium and sincerely thank them for their support. We are grateful to the Centre for Emerging Market Solutions, Indian School of Business, Hyderabad for supporting us in bringing out this compendium. We thank Minu Markose for transcribing the interviews and Debjani Banerjee, Sreejata Guha, Kutti Krishnan and Mudita Upadhaya for helping us with the first draft of the cases. For editorial support, we thank Debarshi Bhattacharya, Surit Das, Anand Krishna Tatambhotla and SAMA editorial and publishing services.
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**Introduction**

In India, many private sector organisations are experimenting and innovating to ensure low-cost maternal and child healthcare services of high quality. There is a growing interest, around the world, in the new practices being developed by these organisations. In this compendium, ACCESS Health International has identified and documented some of these organisations and their successful interventions. This book can serve as a repository of information for healthcare providers, policy makers, researchers and other stakeholders who are interested in new approaches to maternal and child healthcare services.

The John D. and Catherine T. MacArthur Foundation have identified maternal and child health care as a priority area and extends support to creative people and effective institutions committed to reducing maternal and child morbidity and mortality. The MacArthur Foundation funded ACCESS Health International and the Centre for Emerging Markets Solutions at the Indian School of Business to develop short case studies that could inspire healthcare providers to adopt good practices.

In the book, we have identified and documented 16 providers of maternal and child healthcare services in India and their different approaches. Some of the selected organisations are for-profit, some are non-profit; some provide hospital-based services while others provide community-based services; some work closely with the government and some work independently. What the organisations have in common is interesting approaches to ensure affordability and access to services that other healthcare providers can learn from. The case studies also aim to aid teachers to educate students in medical, public health and business schools on entrepreneurial practices to advance healthcare for mothers and children.

This work is also a part of the broader effort by the Center for Health Market Innovations (Result for Development Institute, USA) under which more than 1,000 healthcare providers with interesting practices in emerging markets have so far been identified and documented. Additional information about this initiative is available at www.healthmarketinnovations.org.
Overview of the partners

ACCESS Health International, a non-profit organisation, aims to improve access to high quality and affordable healthcare services. We identify and document best healthcare practices and health financing mechanisms from around the world and help transfer this knowledge to new markets. We also work with governments and private healthcare providers to design programmes that will help improve access to high quality care.

The Centre for Emerging Markets Solutions at the Indian School of Business was established with the conviction that market-based solutions can be devised for many of the developing world’s problems as long as new products and services are developed, proof of concept demonstrated and capital raised to support the initiatives.

ACCESS Health International and the Centre for Emerging Markets Solutions came together in 2008 to identify and document good healthcare practices in India. We have visited managers, the staff and the clients of these organisations to understand and document the reasons behind their success. The work covers a broad range of healthcare services – from preventive and primary care to specialist tertiary care services.

Method

The process of identifying the organisations for the study started with literature reviews and inputs from partners and experts in the maternal and child health space in India. Afterwards, all the selected healthcare providers were visited between June 2010 and February 2011. Structured interviews were combined with long, informal discussions with the entrepreneurs behind these organisations. The process was complemented in most cases by meeting the users of these services and a review of the service delivery data. Inputs from the founders of these organisations helped define the focus of the case studies and identify what others can learn from their work.

There are many interesting healthcare organisations in the country; those presented here are some of the most established and appreciated. Many of them have helped influence healthcare policies in India and around the world.
The organisations were identified based on three criteria:

• improved access to care by providing products and services either in geographies previously lacking healthcare providers or to previously unserved segments of the population;
• low-cost of care translated to lower price for care to beneficiaries; and
• enhanced quality of care by setting standards and performing research to advance service delivery.

The organisations presented in this book are from both urban and rural geographies across India. The case studies showcase how different geographies are associated with different challenges. One example is how healthcare providers in urban areas fight employee attrition and innovate to retain professionals while those in semi-urban or rural areas face a greater problem hiring talent than retaining them. Many of the interesting practices are locale-specific, but the approaches can be applied to other geographies around the world.

Overview of the profiled organisations

This section provides a brief overview of the organisations documented in this compendium.

**Society for Education, Action and Research in Community Health (SEARCH)** designs its healthcare interventions in collaboration with the community. The organisation has influenced policies and practices globally. Their programme for home-based newborn care has been adopted across the world. The evidence from their research has changed global thinking on newborn survival and the role of community health workers.

**Mamidipudi Venkatarangaiya Foundation (MVF)** educates the community about their rights and encourages democratically elected representatives to pressurise poor performing public health organisations to improve.

**Ekjut** carried out a randomised control trial to demonstrate how participatory learning and action cycle with women’s groups can improve maternal and infant health outcomes.

**Karuna Trust** has engaged with governments to manage remote and non-functional primary health care and referral centres in a state. They demonstrate opportunities for the government to work with the private
sector to advance access to high quality healthcare services. They also support the government and private organisations to establish public-private partnerships for improved primary healthcare services across India.

**Action Research and Training for Health (ARTH)** demonstrates how nurses can be trained to independently manage deliveries with good health outcomes. The organisation invests in research to identify harmful practices that lead to poor maternal and infant health outcomes in the villages. They then develop effective communication tools for healthcare workers to reach out to the population and mitigate high-risk behaviours. ARTH has set up systems to help their staff provide timely care during home based deliveries even in hard to reach locales. The Government of Rajasthan has requested ARTH to design manuals and protocols for improving the quality of maternal and child health services in the public sector. This engagement has helped the organisation take its innovative practices to improve maternal and child health beyond the region of their direct engagement.

**School Health Annual Report Programme (SHARP)** demonstrates the need and relevance of school-based preventive health screening to improve children’s health. They provide the online health record of students to parents, schools and hospitals. Their financial model is based on member fees from participating schools. The operation has scaled to cover over 1.8 million children.

**Janani** expands the availability of contraceptive and family planning services through franchising. They work with existing providers in the private sector as well as establish new clinics to provide services. They demonstrate an opportunity for the government to reach target populations with a standard set of services at uniform prices.

**Child in Need Institute (CINI)** has done pioneering work and influenced policy to improve maternal and child health in India. They have demonstrated the importance of nutrition for maternal and child health and developed innovative approaches to address the concern.

**Self Employed Women’s Association (SEWA)** is the largest trade union of self-employed women in Asia. Their health work provides preventive and curative health care to the women working in the informal sector as well as their families.
SEWA Rural was one of the first private sector organisations in India to enter into a public private partnership model with the government to handle a Primary Health Care centre. It has done noticeable work in improving the maternal and child health indicators through community level and family centered interventions.

Alka Hospital focusses primarily on maternal and child health. They have developed a health-financing programme to provide women access to a range of cashless obstetric services at their hospital.

Kurji Holy Family Hospital is recognised for good quality of care and drawing high volumes of patients in an underserved state like Bihar. They are about to establish the first graduate school for nurses in the state to address the extreme shortage of nurses. They are advisors to the state’s health department.

Mahavir Vaatsalya Aspatal (MVA) has set up a state of the art Neonatal Intensive Care Unit at their hospital in Bihar. They provide technical expertise to the state government to establish such units across the state. They provide training in maternal and child health to the government staff and help them prepare protocols.

Fernandez Hospital develops evidence-based protocols, trains and engages nurses for management of obstetric complications.

Vaatsalya demonstrates the need, demand and feasibility of establishing small hospitals across India’s tier three (small) cities. Their model has helped people living in India’s smaller towns access quality healthcare services at affordable rates. They have inspired other entrepreneurs to enter these new markets.

LifeSpring Hospitals demonstrates the idea of a sustainable business model to reach the “working poor” in urban areas with good quality, low-cost maternity services, thus influencing the market around to respond to costs and quality of maternity care.

The following chapters present the individual case studies. They are followed by a summary of the challenges faced by these organisations and our observations.
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SOCIETY FOR EDUCATION, ACTION AND RESEARCH IN COMMUNITY HEALTH (SEARCH)
Maharashtra

Prabal Vikram Singh, Priya Anant & Annapurna Chavali
Society for Education, Action and Research in Community Health (SEARCH), Maharashtra

This case study documents the Society for Education, Action and Research in Community Health (SEARCH). The Non Government Organisation (NGO) was set up around 25 years ago in the tribal district of Gadchiroli in the Indian state of Maharashtra by a doctor couple – Abhay and Rani Bang.

The case focuses on SEARCH’s evidence-based scientific approach to address social concerns – ranging from prohibition to Maternal and Child Health (MCH) issues. This has helped the organisation gain credibility for global advocacy on the effectiveness of community-based participatory approaches in bringing about positive change for maternal and child health at low cost.

Acknowledgements

Thorough primary and secondary research on SEARCH, Maharashtra informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Abhay and Rani Bang for permitting us to visit SEARCH and sharing the information relevant to the case study. We also thank all the team members of SEARCH for their inputs and hospitality.
In 1985, Abhay Bang, along with his wife Rani Bang, co-founded SEARCH (Society for Education, Action and Research in Community Health) in the tribal district of Gadchiroli, in Western Maharashtra. In the words of Abhay Bang, they set up SEARCH “to find relevant solutions to rural health problems”.

Abhay Bang spent his childhood at Mahatma Gandhi’s Sevagram Ashram in Wardha in Maharashtra under the influence and guidance of Acharya Vinobha Bhave, Gandhi’s foremost disciple. After his MBBS, bachelor medical degree he took a post graduation course in internal medicine at Nagpur University, where he met his future wife, Rani Bang, who was specialising in obstetrics and gynaecology.

They moved to Wardha after their studies and started working in the villages. They soon realised that core clinical practice alone cannot address the healthcare problems and development issues of a community. Their desire to address larger community health care issues motivated them to take the Masters of Public Health course at Johns Hopkins University on a Ford Fellowship. Their aim was to learn the science of public health research to better address and find permanent solutions to health issues, especially in rural India.

They returned to India and started SEARCH to provide medical facilities to the local community as well as to do healthcare research to generate knowledge about prevailing afflictions. They called their headquarters

SEARCH campus Shodhagram at Gadchiroli

1Sevagram to Shodhagram – Journey in Search of Health for the People, Abhay Bang. 2Bachelor in medicine and bachelor in surgery
“Shodhagram”. It is a complex of huts designed like a tribal village. The campus comprises the tribal-friendly Ma Danteshwari Hospital, a research centre and a training centre.

The Ma Danteshwari Hospital has been designed keeping the cultural and religious beliefs of the tribals in mind. The tribals were weary of staying in a government hospital as their relatives could not stay with them during a long course of treatment.

To accommodate this concern, SEARCH designed its hospital like a tribal hamlet where each in-patient lives in a hut with his/her relatives in attendance.

The hospital offers outpatient consultations and is equipped to provide normal delivery services (Caesarean section is not conducted at the hospital), first-level neonatal care and antenatal care. It is an authorised centre for Medical Termination of Pregnancy (MTP) centre. The hospital conducts periodic surgical operation camps where specialist surgeons from different parts of the country conduct free surgery for different ailments. The hospital is also a Directly Observed Treatment, Short Course (DOTS) centre for tuberculosis (TB) patients. They offer post-operative care, ambulance services at subsidised rates and low-cost pharmacy and diagnostic services.

Ma Danteshwari is the supreme goddess in the tribal pantheon.
For Abhay and Rani Bang, the aim was not just to provide curative care for the ailing members of the community; instead, they wanted to build the capacity of communities to address their own health and development needs.

The Bangs’ philosophy was greatly influenced by Abhay’s childhood, spent at the Gandhi Ashram and Mahatma Gandhi’s books “Hind Swaraj” and “Rachmat Karyakram”. These books highlighted the importance of “owning the responsibility to create a positive change within the community and by the community”.

Inspired by Gandhi’s teachings, Abhay Bang coined the term “Arogya Swaraj”. “Arogya” means health and “Swaraj” means ownership or responsibility. The term implied the concept “people’s health in people’s hands”.

I feel that decisions regarding the type and level of health care should be determined after consultations with the people and not by professionals alone. For example, we asked the tribal community, what kind of pharmacy, hospital and services they wanted. We observed that the tribals were not availing the services at the existing government hospital. We asked them why that was so? They told us about the difficulties they face at the government hospital. This helped us understand how to build a hospital that was tribal friendly as well as easily approachable. The hospital was even designed in consultation with the villagers and keeping their cultural beliefs in mind. We asked the tribals what their health priorities were. We even consulted them on the type of research, SEARCH should undertake. They highlighted four major problems in the community and we did the research on these specific issues. During the research we unearthed a huge burden of disease and problems faced by the community. These four major problems were to a large extent, neglected by public health researchers. In fact, these diseases were not even covered in public health policies and that continues to be the case even to this today. We found that people can talk about their health problems very interestingly, they don’t need to have academic qualifications to do so.

Abhay Bang,
Founder, SEARCH

1 Gandhi’s political manifesto. 2 The book focuses on the issues of rural and underprivileged communities in India.
SEARCH adopted a three-step approach to identify and prioritise these problems. In the first stage, they encouraged people to talk about their daily lives and concerns. They held informal gatherings around a bonfire to encourage people to speak without fear or inhibition. At the second stage, the tribal men and women were asked to vote on priority health areas.

In the tribal areas, malaria was found to be the main health concern while the issues in non-tribal areas related to child mortality, female reproductive health and alcohol addiction.

A team including representatives from SEARCH, community members and government officials was then formed to develop "people-centric" intervention programmes that kept in mind the socio-cultural beliefs of the target population. This consultative approach helped inculcate a sense of responsibility and ownership among people and motivated them to become part of the solution process.

Exhibit 1: The SEARCH approach

Health and Development within the community

Search Aims: Research, Training, Shaping Policy

Stage 1: Initiate dialogue to assess demand and need of the community: Sensitise and encourage the community to talk about their problems

Stage 2: Problem identification and priority identification by the community

Stage 3: Contextual assessment and solution formation (to include and respect people’s thoughts, belief system and practices)

Wisdom Bank: Community Resources + SEARCH’s Philosophy
In the third stage, anthropological studies were carried out to understand people’s perceptions, belief systems and practices. The team started a centre called the “Wisdom Bank” to collect and record these view points.

Research about the main health problems afflicting the communities in Gadchiroli began in 1988. Abhay and Rani Bang created a network of 86 villages and gathered information about the common ailments in the villages, barriers to accessibility and availability of health care services, disease-specific mortality and morbidity rates, number of pregnancies and the birth outcomes. This ongoing process is one of the longest community-based data collection exercises anywhere in the world.

The data is collected through the local Community Health Workers (CHWs). In the absence of CHWs, local men and women are recruited for the process as local village health workers or “Arogya Doots”, as they are called in the local dialect. The male health worker primarily collects the research data, while the female health worker also conducts deliveries, carries out home visits and provides maternal, child health and home-based newborn care. SEARCH also identified and trained Traditional Birth Attendants (TBA) in the community to carry out these activities.

My favorite analogy is the story of Archimedes who told his king to allow him to stand outside and give him a lever long enough so that he could move the whole earth. People at that time laughed at him and the king also laughed at him. But he was right. Scientifically if the lever is long enough and if you have a place to stand outside, an old man like Archimedes can move the entire earth. Knowledge is that long lever in our hands. But we have to take the position to stand outside the government, outside the commercial system and have no stakes. You cannot stand inside the earth and move it because then you are part of the system. So you must have a place to stand outside the system and then you should have the lever of knowledge.

Abhay Bang,
Founder, SEARCH

*Translated, it means “health messengers”. “Sevagram to Shodhagram” by Abhay Bang*
Areas of Work

SEARCH learns from the community and its population as a “live laboratory”. They use participatory research methods to regularly monitor births and deaths in the villages as well as ascertain reasons for ailments.

Women’s Reproductive Health

In the early years of setting up SEARCH, the doctor couple found that a large number of women in the district suffered from gynaecological problems. They decided to research the extent of gynaecological problems among women in the community. Their research in the two villages of Wasa and Amirza revealed that 92 percent of women suffered from reproductive ailments. This research shed light on the burden of gynecological problems faced by women in rural India for the first time. In 1998, the research was published in the medical journal, Lancet.

At the time, the government policies and interventions focused mainly on family planning (FP) services and, as part of the target-based approach of family planning intervention, women were forced to undergo temporary or permanent methods of contraception under extremely difficult conditions. For example, inserting Copper-T into the uterus that was already infected and bleeding created further complications. Consequently, the women developed secondary infections.

“Our efforts have been to try to simplify and demystify every health problem, as much as possible, provide knowledge on the illness to the people and develop a solution that can be handled by the villagers so that they don’t have to come to us for a solution. The solution must be available either at home or at the most in their own village. We have not been able to find such solutions for each health problem but for some of the problems.”

Abhay Bang, Founder, SEARCH

A trained health worker with the newborn survival kit
The research helped change the focus of the world health community including the Indian government’s approach to women’s health. Following the publication of the research and strong advocacy efforts by a women’s organisations, the World Population Policy, declared at the Cairo Summit in 1994, stressed the need to go beyond family planning and address women’s reproductive health in a comprehensive manner.

Rani Bang trained 125 TBAs from the community to address women’s health concerns. Along with village health workers, TBAs were trained to conduct deliveries under hygienic conditions, do gynaecological examinations and treat reproductive tract infections. They were also trained to diagnose breast cancer and cervical cancer. They learned how to detect danger signs and high-risk cases among women and children. They became the “barefoot gynaecologists and obstetricians” who, in the absence of a doctor, took medical help to women across villages. However, the training of TBAs (or “dai”s as they were called by local people) was discontinued when the government changed its health policy and discouraged home-based deliveries and promoted institutional deliveries. In certain areas, where there is no public health service available, these barefoot workers continue to provide gynaecological services.

Infant mortality and neonatal care

One of the umbrella programmes initiated by the Bangs was to empower and sensitise the community to tackle the high Infant Mortality Rate (IMR) in the district. Like all their intervention programmes, the Bangs began with research to understand and assess the ground reality.

In 1993, they selected 39 villages for active intervention and 47 control villages for field study. They selected women health workers from each of the 39 villages and trained them to become health researchers or “Arogya Doots”. They were required to be present at the time of delivery and weigh the infant, record the body temperature, check for normal breathing, etc. These women regularly monitored the health of the mother and child in the weeks following the birth. The two-year study revealed that 42 percent of the newborns were malnourished at birth; 54 percent of the newborns suffered from diseases that required medical treatment; but only 2.5 percent of the newborns received any medical care. The IMR in the district was about 80 and most neonatal deaths took place within four weeks of birth7.

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Abhay Bang reasoned that even if pre-term birth and low birth weight cannot be prevented, neonatal mortality can be reduced – by either preventing or treating other morbidities, such as asphyxia or hypothermia. The research by SEARCH in the intervention villages had showed that pneumonia, meningitis and septicaemia accounted for almost 52 percent of neonatal deaths in the villages. Timely diagnosis and treatment could easily prevent these deaths.

Bang argued that since hospital care is neither available nor acceptable to parents in the tribal regions due to the cultural belief that a mother and newborn should not leave home, trained health workers in the community should provide the newborn care at home.

In 1995, the doctor couple initiated a new programme called Home-Based Neonatal Care (HBNC) at the intervention sites with the goal of reducing neonatal mortality through a low-cost, home-based model of primary neonatal care. SEARCH aimed to measure the effectiveness of the programme by comparing the change in Neonatal Mortality Rate (NMR) at the intervention sites after the introduction of HBNC with the change in NMR at the control sites, where government programmes continued.

The HBNC model was implemented with the support of trained Village Health Workers (VHW) selected from the community. The semi-literate VHWs were trained for 36 days in six months by SEARCH to take the history of pregnant women, observe the process of labour, examine newborns, administer approved medication (injectables and oral doses for treatment of sepsis), record data and manage pneumonia and neonatal sepsis among newborns at home. They made periodic visits to the homes of a newborn and examined the mother and the child. They also provided counselling to mothers and grandmothers about appropriate care and nutrition during pregnancy, prevention of infection, recognising symptoms of pneumonia and other ailments, the importance of exclusive breastfeeding until six months, ensuring right temperature for infants to prevent pneumonia and monitoring weight gain.

To combat deaths due to sepsis and pneumonia, the HBNC model trained the health workers to identify symptoms and administer the antibiotics Cotrimoxazole (oral) and Gentamicin (injectable). The health workers were also trained to administer vaccines. According to SEARCH’s annual report, approximately 15,519 injections (including Vitamin K injections) were administered to children at Gadchiroli and seven other sites in Maharashtra until 2005. No complication was reported in any of the cases.
Remuneration for the health workers under the HBNC model is performance-linked. For taking care of each mother and her newborn, the health worker makes INR250 ($5). SEARCH supervisors closely monitor the health workers and meet them every 15 days.

During 1988-1990 the IMR due to pneumonia was brought down by 75 percent, leading to an overall decline in IMR at the intervention sites by 25 percent. This field study about VHWs’ role in bringing down pneumonia was published in *the Lancet* in 1990. The research highlighted that infant mortality can be reduced even in communities that lack provision of institutional care by training semi-literate women in home-based neonatal care.

Following the HBNC initiative, the NMR in the 39 villages selected for intervention declined by 62 percent in comparison to control areas. This helped bring down the IMR at the intervention sites from 121 in 1987 to 30 in 2003.

**Action against Alcoholism**

During the meetings with women and youth, alcoholism was identified as another major problem in the villages. In 1988, SEARCH conducted a survey on the economic implications of alcoholism in the community. It was found that despite the central government’s directive against the sale of alcohol in tribal areas, alcohol worth INR200 million ($4 million) was sold every year in Gadchiroli. The development fund for the district was INR140 million ($2.8 million). So, clearly, a large sum of money which could help in the development of the community was being wasted on alcohol.

The findings of the survey were shared with the government officials and the tribal community. SEARCH then adopted the community participation approach to address the issue and seek solution against alcoholism. The process involved three vital elements:

- a collective realisation of the detrimental effects that excessive and uninhibited alcohol was causing to the community at large;
- consolidation of concrete facts to strengthen the case against illicit alcohol manufacturing, buying and consumption; and
- collective will to tackle the problem.

A series of public meetings were held to dwell on strategies to combat alcoholism. A large number of social activists, political leaders, villagers and government officials attended these meetings.
It was concluded that a two-pronged strategy should be adopted to tackle alcoholism in the community:

• launch a campaign to discourage the buying of alcohol; and
• demand from the Maharashtra government a ban on the manufacturing and sale of alcohol in Gadchiroli.

Substantial efforts from the SEARCH team brought the local women together to patrol the area to ensure the men did not buy alcohol. After six years of rigorous campaigning, the sale of liquor in the tribal zone was banned. However, despite the ban, there were around 8,000 people in the villages who were addicted to alcohol and unable to abstain.

SEARCH developed a programme called “Daru Mukti” to help these men. It was a three-tier programme with focussed efforts made to educate, prevent and treat the community from substance abuse. The education programme was run at the village and school levels. Dialogue and focussed sessions on the possible evils of addiction and methods of de-addiction were organised. These programmes were held with the active cooperation of the youth clubs, women’s groups and Gram Panchayat, elders’ and leaders’ groups within the community. The method of education comprised slide shows, motivational songs and focus group discussions. Prevention campaigns were carried out through “Vyasan Mukti Doot”, the village-based volunteers and ex-addict friends of SEARCH. Alcohol de-addiction camps were held, which included methods like medical detoxification, individual counselling, group counselling, group therapy and family counselling. Of the patients who attended the programme, 55 percent abstained from alcohol.

The campaign had many positive outcomes – about 6,000 farmers collectively took an oath to abstain from alcohol, 2000 alcohol addicts enrolled for the de-addiction and rehabilitation programmes and 150 villages shut down liquor shops in their areas.
The Impact

Following the success of the Home Based Neonatal Care (HBNC) model at Gadchiroli, SEARCH and seven other NGOs initiated project ANKUR to replicate the model in seven other sites of Maharashtra, supported by the “Saving Newborn Lives Programme”11.

The project covered 85 percent of newborn children under the HBNC. The initiative brought down neonatal mortality at the seven sites. As the health workers were trained to manage pneumonia and diarrhoea cases, the incidence of child mortality also reduced by nearly half. The cost incurred (recurring and non-recurring) per mother-newborn served was a trifling INR350 ($7).

The Ministry of Health and Family Welfare, Government of India also initiated a multi-site pilot project in five states to replicate the HBNC model through the platform of government’s flagship programme for children – the Integrated Child Development Services (ICDS). In 2010, the health ministry incorporated the HBNC approach as part of the training of Accredited Social Health Activists (ASHA)12. In 2011, the Ministry of Health & Family Welfare, Govt. of India has formally made Home Based Newborn Care an essential part of the mother and new born care service in the entire country. SEARCH has trained 200 trainers from different parts of the country to train the ASHA workers in HBNC.

In 2009, the WHO, UNICEF and USAID published a global statement endorsing the HBNC approach as an effective, low-cost approach in developing countries to bring down IMR, especially in areas where access to hospital care is not available. The HBNC approach has also been piloted by UNICEF Africa in six countries – Ethiopia, Malawi, Madagascar, Tanzania, Ghana and Uganda. It is also being replicated in Bangladesh and Pakistan.

11 A programme by the organisation Save the Children to reduce newborn mortality and improve newborn health. 12 A trained female community health activist selected from a village to work as an interface between the community and the public health system.
The Challenges

Abhay Bang describes the challenges faced by SEARCH in the following words,

“We are going through an epidemiological transition. Initially, we were facing the issues of infectious disease and maternal- and child-related conditions. We have been able to deal with them to some extent but they are still prevalent. Simultaneously now we are faced with rapidly growing chronic diseases. One of the major challenges that we are facing is this double burden of disease and ways to manage this. When people at Harvard or Delhi face this challenge, at least they have resources. Here we have nothing. Another challenge is in screening and diagnosing chronic diseases. We need to work on it and develop models for chronic disease care for the rural population.”

Abhay Bang,
Founder, SEARCH

The Way Forward

Even as SEARCH focusses on ways to tackle chronic diseases, it is also working towards creating a new generation of leadership who will carry the organisation forward. Abhay and Rani Bang have started an initiative they call the “Living University” to train young individuals on the participatory approach adopted by SEARCH to solve health problems.

“We have about 10-15 young boys and girls who come from Gulbarga (in the Indian state of Karnataka) to study. They live here, they work here and we hope that while working they learn. So that is one initiative to generate new leadership.”

Abhay Bang,
Founder, SEARCH
SEARCH have also started another initiative called “Nirman”13 to sensitise the youth in the state of Maharashtra about societal problems and to identify and nurture social change-makers. SEARCH has trained 300 youths in Maharashtra under the Nirman project.

Every year we select 60 youth from Maharashtra in the 18-26 age group who have an inclination towards taking up social challenges. We have developed a four-stage process to train them. They attend an eight-day camp at Gadchiroli and then return to their regular school or college. They identify problems in their immediate environments, and work towards rectifying them using the training they have received at SEARCH. They keep coming back to SEARCH and gradually over a period of two years, they undergo sensitisation towards societal concerns. We inculcate a sense of responsibility and a feeling that they need to work towards addressing these concerns.

Abhay Bang,
Founder, SEARCH

13Translated, it means “to build”.

Conclusion

Organisations founded and managed by strong leaders often face the challenge of sustained leadership. Many people question what SEARCH would be without the leadership of Abhay and Rani Bang. Their initiative to train young people may or may not solve the issue of leadership but it will help spread the culture of the organization and inspire young people. It will hopefully result in a new generation of leaders who will set up new organisations that recognise the importance of an evidence based approach and community research.
Disclaimer
The case study has been compiled after primary and secondary research on the organisation and has been published after due approval from the organisation. The case has been compiled after field visit(s) to the organisation in February 2011. The author of the case or ACCESS Health International are not obliged to incorporate and are not responsible for incorporating any changes that may have occurred in the organisation after receiving due permission from the organisation to publish the case. The case study has been developed with specific focus on highlighting some key practices/interventions of the organisation and does not cover the organisation in its entirety.

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MAMIDIPUDI VENKATARANGAIYA FOUNDATION (MVF)
Andhra Pradesh

Report-02

Priya Anant
Mamidipudi Venkatarangaiya Foundation (MVF), Andhra Pradesh

Mamidipudi Venkatarangaiya Foundation (MVF) is a Non Government Organisation (NGO) that has done seminal work in the Indian state of Andhra Pradesh to abolish child labour and send children back to schools. MVF has influenced policy and demonstrated the importance of bridge schools to mainstream out-of-school children back to school. They have demonstrated how community organisations and democratically elected bodies like the Panchayati Raj and Gram Sabhas can be informed, motivated and partnered with to bring about important social changes in a community.

During the course of their work to address child labour issues, the organisation realised that they need to take a broader approach to ensure child rights and child health. They should focus on maternal health and follow the child through pregnancy, birth, infancy, pre-school and school.

So, in 2004, MVF started working on Maternal and Child Health (MCH) so that they could engage with children’s lives early on and provide them a positive head start with respect to their health, education and nutrition needs. This case narrates the unique approach MVF adopted to achieve this.

Acknowledgements

Thorough primary and secondary research on Mamidipudi Venkatarangaiya Foundation (MVF), Andhra Pradesh informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges R Venkat Reddy for permitting us to visit MVF and sharing information relevant to the case study. We also thank all the team members of MVF for their inputs and hospitality.
The Mamidipudi Venkataramaiya Foundation (MVF) was started by Shanta Sinha in Hyderabad, Andhra Pradesh in 1981 as a family-owned non-profit trust to do research on issues related to social transformation. The organisation initiated several studies to understand the situation vis-à-vis women’s welfare in Andhra Pradesh. During the course of their research, they found that one of the problems among poor families in the state was bonded child labour.

In 1991, MVF reoriented their focus and made abolition of child labour their mission. Over the past 18 years, MVF has taken 500,000 children out of work, in 6,000 villages in 16 districts across India and sent them back to school.

In 2003, Sinha was awarded the Ramon Magsaysay award in the community leadership category for her pioneering work in liberating children from child labour and sending them back to school through “bridge schools”.

Over the years, MVF has evolved as an international resource centre on eradicating child labour and bringing children back to school. The Children’s Right to Free and Compulsory Education Act promulgated by the Government of India in 2009, which made education for children in the 6-14 year age group a fundamental right, vindicated MVF’s stand on primary education. The Act provides for the National Commission for the Protection of Child Rights (NCPCR), an autonomous body set up in 2007, to monitor the implementation of the Act together with Commissions to be set up by the states. MVF treats this Act as a triumph for those passionate individuals who pioneered the two-decade long work at MVF that went into demonstrating the need and possibility of a focused intervention to achieve significant gains in taking children out of work and back to school.

During the course of their interventions to end child labour, MVF realised that besides ensuring child rights and child health they should also focus on maternal health to ensure that a child gets a positive head-start from birth itself.

In September 2004, they initiated a 16-month maternal health programme in 37 villages of Mominpet mandal of Ranga Reddy district in Andhra Pradesh. The aim was to create awareness in the community about the importance of ensuring maternal health, especially pregnancy-related care. The intervention also aimed to facilitate the community’s access to the public healthcare system.
MVF’s approach centres on working closely with the community. They work with established democratic structures like the institutions of Panchayati Raj and Gram Sabhas and community organisations like youth wings and Self Help Groups (SHG) to create awareness in the community regarding important social issues – whether it is child labour, child health and rights or maternal health issues and rights. They believe that change has to be led and owned by the community to be sustainable.

MVF’s intervention to eradicate child labour follows the model given below.4

Exhibit 1: MVF intervention model
When MVF decided to work towards improvement of maternal health, they followed the same successful model. They selected a team from the field staff who had earlier worked in Mominpet to eradicate child labour. These “community organisers” were sent for training to NGOs who work in maternal and child health, like the Child In Need Institute (CINI), West Bengal; Society for Education Action and Research in Child Health (SEARCH), Maharashtra; and Comprehensive Rural Health Programme (CRHP), Maharashtra.

**During their intervention at Mominpet, MVF focussed on**

- collecting data parallel to the public system to identify inadequacies in provision of services to mothers and children through the public healthcare delivery system;
- communicating for improved health, nutrition-related care-seeking behaviour of women and children to create demand for services;
- creating and working through community-based structures and citizens’ groups to create pressure on the public system to deliver care;
- resolving the tensions between the community (Panchayati Raj or community organisations) and public health service providers (government staff) if any, through dialogue at various levels with providers and enablers, without sensationalising any of the challenges; and
- identifying and working on other healthcare-seeking patterns that may be adverse to improve health outcomes for mothers and children – for example, engaging with community and providers against seeking abortion services from unqualified health care providers at advanced stages of pregnancy.

Prior to the intervention, a baseline survey of all the new mothers was conducted in September 2004 to understand pregnancy-related care and practices in the community. Following this, the community organisers met women, husbands, family members and community and youth leaders to understand their view on maternal care.

It was found that maternal health was not a concern for the community leaders and the family perceived pregnancy as a normal event and a concern of the women. The husband, especially, did not feel responsible for the care of his pregnant wife. Since the villagers did not understand the importance of care during pregnancy, there was no effort to access the services offered by the public health system. Pregnant women did not make use of the antenatal care, nutritional supplements, institutional delivery services or skilled care mandated and provided for by the government.
Making the community care

Community organisers held activities including regular meetings with community and youth leaders and women’s self-help groups (SHGs) to raise awareness about pregnancy care. They held street plays, campaigns, rallies, put posters across the villages to drive home the message of proper nutrition, rest, antenatal care and skilled birth attendance for pregnant women, importance of institutional delivery and significance of exclusive breastfeeding to newborns.

They also raised the awareness of the gram panchayat members and youth leaders about their rights and role in ensuring services and seeking accountability from public health workers.

The village headmen and other community leaders were provided with documents that outlined the functions of government health centres. They were trained to use this document as a guideline to monitor the functioning of Public Health Centres (PHC), Community Health Centres (CHC) and government-appointed health workers like Auxiliary Nurses and Midwives (ANMs), Anganwadi Workers, etc.

These interventions helped put in place a system where the gram panchayats held regular review meetings to monitor the functioning of PHCs, CHCs and ANMs. The meetings were attended by representatives from local bodies and organisations, school principals, religious leaders, youth leaders, public health officials and workers. This ensured greater community participation in ensuring access to public health. The project instilled a sense of responsibility and ownership towards healthcare among residents.

During these meetings, the community pulled up non-performing health workers or health centres that did not deliver the mandated care. MVF ensured these meetings were non-confrontational. The meetings were also a platform where the health officials shared the problems they face in service delivery. Inadequate infrastructure support was a concern at many PHCs. In some cases, the community came together to raise funds to equip the health centres with necessities like fan, table, chair, tube lights, etc. However, if the health officials or health centres continued to perform poorly, the matter was taken up with higher district-level officials for redressal.

The interventions also made the community more conscious of putting in place a support structure so that women could access the health centre for
pregnancy-related care. To ensure transport facilities to hospitals, some village heads called a meeting of the auto-rickshaw owners in the village. The village head asked them to be available whenever a pregnant woman needed to be taken to a hospital. They were instructed not to haggle for fare with the family if the woman is in labour. The gram sabhas also promoted institutional delivery by discouraging TBAs from conducting deliveries at home.

**Making the family care**

Along with community-level mobilisation, MVF reached out to families to instil the importance of pregnancy-related care for women; especially, they met husbands and mothers-in-law at home and strove to bring about a sense of responsibility among them towards taking care of pregnant women. It was challenging to work against the mindset of husbands who perceived pregnancy-related issues a concern of women. Most were embarrassed to even discuss the topic.

To get past the reluctance, the community organisers held separate meetings with men. During these sessions, the husbands were encouraged to help their wives with household work and ensure the wives received nutritious food and have access to hospital care. They were encouraged to set aside money for the care of pregnant women. They were made aware of the free or highly subsidised public health care services that were available and the importance of institutional delivery. Private counselling was given to discourage alcoholism and domestic abuse. If a pregnant woman had reported abuse, instead of taking a confrontational approach, MVF talked about the issue in a general manner at community gatherings where they ensured that the particular family was present.

**Making the women aware**

The community organisers made regular visits to the homes of pregnant women and new mothers and advised them on nutrition and the importance of resting. The women were encouraged to register their pregnancy and go to the nearest PHC for the required three antenatal care sessions. They were advised to get in touch with the ANMs whose job was to provide immunisation (tetanus toxoid) and iron and vitamin supplements to pregnant women. The new mothers were informed about the importance of early and exclusive breast-feeding.

MVF workers also helped the women access health services and helped them in every way possible if these women did not have family support.
MVF works through volunteers along with the local public healthcare and nutritional service providers like the Health Sub-centres, ANMs and Anganwadi workers.

In every village, there are one to three volunteers, depending on the population. The villages are grouped in clusters and monitored by a cluster organiser. Every mandal consists of three to four clusters and is monitored by a mandal-in-charge. A division-in-charge monitors four mandals. The overall management of the programme is done by the programme-in-charge. An overall coordinator monitors the project area and reports to the board.

MVF does not have a dedicated HR department or established HR practices to manage the role and growth of an employee working for the organisation. Most of the staff start as volunteers and later rise to higher levels. Lateral entry is close to 1 percent of the total staff strength. However, MVF ensures that their staff gets enough opportunity to continually upgrade their skills and work in newer areas.

In 1997, MVF’s child labour work alone had 600 volunteers with 30 supervisors. Volunteers are the most important link of their work.

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4 The woman worker who runs an Anganwadi centre of the Integrated Child Development Service Scheme is called an Anganwadi worker.
Though there are no stringent qualification criteria, MVF prefers to select from the villages volunteers who have had at least ten years of schooling. Now, MVF’s total staff strength is 518.

MVF ensures that their staff gets enough opportunity to continually upgrade their skills and work in newer areas. They help build the capacity of their team so that they are equipped to work as important resources for training other organisations and helping them implement programmes to eradicate child labour.

**Investing in the growth of staff: An example**

Raju, who was undergoing a graduate course of study, joined MVF as a volunteer in 1994. His dedication and passion towards community work and his ability to mobilise the villagers earned him the role of a community organiser at MVF in 1995. Raju was encouraged to pursue higher education and given many opportunities to grow. Eventually, he was deputed to the United Nations Development Programme (UNDP) and United Nations Children’s Fund (UNICEF) projects in MVF. In the course of his association with MVF, he completed his Masters in Social Work and currently heads the district programme. MVF now sends Raju as an expert resource on child labour to neighbouring states and countries.
MVF has been working in the area of child labour for over 25 years. The vast experience has made the organisation a training centre and international resource centre for eradicating child labour. The staff, who have vast experience in the area, also work as trainers and consultants to organisations in related sectors both in and outside India. Senior volunteers from MVF are helping the state governments of Madhya Pradesh, Bihar, Assam and Chhattisgarh to develop and implement child labour eradication and interventional education programmes. They are also extending support to NGOs in Kenya, Uganda, Tanzania, Nicaragua and Guatemala in the process of creating child labour-free zones. These training and consultative work has helped MVF scale up their successful intervention strategies.

Their approach of working with communities on the principles of voluntarism, consensus-building, local ownership and universality around the issues of education, child labour and maternal health has contributed to a transformation of value systems and a change in social behaviour, not just among parents of working children, families of pregnant women but in the community as a whole. Panchayat and mandal officials, caste leaders, local religious leaders, employers, landlords, police officers block and district officials have increasingly developed a sense of ownership of the programmes – whether related to eradicating child labour or improving maternal health.

MVF recorded the following changes in Mominpet.

- Gram Panchayat and Youth Committee members considered health, especially maternal health, an important community need.
- The community groups ensured accountability from public health providers. They reported that as a result of direct interaction with government officials on problems faced by health providers and the community themselves, there was more openness among officials to resolve issues and a greater willingness to accept feedback from the community.
- The community assisted healthcare centres and health workers to improve facilities by either raising funds or putting pressure on the administration to equip the centres with essential equipment, manpower and medicines.
• At intervention sites, 63 percent of women agreed that compared to two years prior the intervention, ANMs are more responsive to their needs; 57 percent said unlike earlier, doctors and nurses attend to their duties and 53 percent of women said that the quality of services at the PHCs have improved.

• Family involvement in pregnancy-related care increased: 175 husbands attended group meetings held by community organisers to dwell on the importance of support to women during pregnancy; 74 percent of wives said that following these meetings their husbands discussed the need for them to rest and to have a nutritious diet; and 54 percent of wives said their husbands knew about institutional delivery. Husbands’ support in household work also showed a positive increase from 27 percent (baseline survey) to 42 percent at the end of the trial.

• The women adopted better pregnancy care practices: 76 percent of women said they had reduced workload; and 66 percent of women said they ate nutritious food. The percentage of women who took antenatal check-ups also increased from 90 percent to 96 percent and that of women who decided on institutional delivery from 67 percent to 79 percent.

• The Maternal Mortality Ratio (MMR) and Infant Mortality Rate (IMR) showed a decline from 100 per 100,000 to about 50 per 100,000 and from 120 per 1,000 live births to 45 per 1,000 live births respectively in the intervention areas during the 16-month trial from September 2004 to January 2006.

**MVF’s impact on child labour in the area**

• School enrolment rates in intervention areas have risen from 50 percent to 90 percent and have been sustained even after MVF’s withdrawal.

• School dropout rates have plummeted to 10 percent and has sustained at that level. The impact is all the more visible in the case of girl children.

• The number of villages free of child labour has risen steadily from 3 to 850.
Demonstrating the idea takes the longest time among the intervention processes and once the partnering organisations have absorbed the idea and implementation methods, they are able to ‘crash the time’ required by close to one-third.

Venkat Reddy, MVF National Coordinator

The Challenges

The approach of MVF is one of testing ideas and creating proof of concept at demonstration sites. For example, they have demonstrated their work on child labour and education in Ranga Reddy district, Andhra Pradesh from 1991-2001 and then taken it to scale within Andhra Pradesh (in the districts of Ranga Reddy, Nalgonda, Hyderabad, Warangal, Adilabad and Kurnool). They eventually expanded to other states such as Madhya Pradesh, Bihar, Tamil Nadu and Chhattisgarh through their own networks and to the states of West Bengal, Delhi and Maharashtra in collaboration with various partner organisations.

The intervention to improve maternal health was later expanded to only eight more mandals of Mominpet district and to nine mandals of Nalgonda district. Due to paucity of funds, MVF could not scale up the intervention or develop the proof of concept of their health work in Ranga Reddy and Nalgonda districts.

This was because all their work is grant-funded; MVF does not have any alternative source of income. The growth of this programme is completely supply-driven (in other words, there is no demand from the community). The demonstration site was funded as a part of a child labour grant and all the activities of this programme were undertaken as an extension of the child labour programme. When the funds for the latter were exhausted, MVF was unable to bear the expenses of the maternal health programme. Since the beginning of 2010, they have scaled down the programme significantly.

The second challenge is the community’s perception of MVF as a non-health organisation, given their recognition and accomplishments in the area of child labour. Due to this perception, MVF tries to tie up funding for the health work with the child labour project. The challenge for MVF is to demonstrate comparable outcomes and raise financial support for the child health programme as they cannot recover costs from beneficiaries in a programme of this nature.

Whatever we learnt from the pilot project, we try to incorporate in our child rights projects. Healthcare is being included as a second component in these activities in an informal way. We have not formalised healthcare into a project model. We have a strong presence in the community and have support groups like child rights protection forums for the villagers. These groups continue to incorporate awareness about healthcare. If there are funds we will do full-fledged work. But if there are no funds, we still do non-fund activity by linking it to existing programmes.

Venkat Reddy, MVF National Coordinator
MVF has managed to do two things that many other organisations struggle with: work closely with local governance structures and scale their model of child labour across states. They managed to do this using their staff as resources for advocacy. The staff had the technical skills but was trained in soft skills to communicate the success of the model. They then managed to pilot a good model for MCH with proven success but failed to scale it up due to the reasons mentioned above.
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The focus of this case is the evidence based intervention carried out by Ekjut, a Non Government Organisation (NGO), between 2005 and 2008 in the Indian states of Jharkhand and Orissa. The trial was done to test their hypothesis that a community-based participatory approach and work with women’s groups would reduce neonatal mortality and maternal depression and improve the community’s home care practices and health-seeking behaviour.

The study revealed a 32 percent reduction in neonatal mortality in the intervention clusters during the three year trial period and 45 percent reduction during the last two years. This was largely driven by significant improvements in home care practices. There was also a 57 percent decline in women with moderate depression. The trial proved that working with community groups can bring about a change in the health behaviour of the community. By following better care at home, the families can save their new born and help bring down the Neonatal Mortality Rate (NMR). The Ekjut trial was voted the “Trial of the Year” by the Society for Clinical Trials, USA in March 2011.

Acknowledgements

Primary and secondary research on Ekjut, Jharkhand informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Prasanta Tripathy and Nirmala Nair for permitting us to visit Ekjut and for sharing the information relevant to the case study. We also thank all the team members of Ekjut for their inputs and hospitality.
Ekjut is a non-profit organisation established in 2002. It has field presence in the states of Jharkhand, Odisha and Madhya Pradesh. They work predominantly with the isolated tribal communities of Ho, Santhal, Oraon, Juang, Munda and Bhuyian as well as socially disadvantaged non-tribal communities living in the remote regions of these states.

The tribal communities in these states speak different languages but share common socioeconomic and cultural characteristics. They survive on subsistence farming and forest produce. Many depend on wage labour to supplement their income. They live together as clans in nuclear and joint families in villages and small hamlets. These communities follow old traditions and every facet of their life is intimately connected with religious beliefs and ritual practices connected to nature worship. There is widespread poverty, illiteracy and malnutrition among tribals. Development challenges are exacerbated by the lack of adequate health infrastructure and the remote topography of the area in which these communities live. Few sick mothers and newborns reach a health facility. The incidence of maternal and newborn mortality in these rural tribal communities is very high.

Ekjut works towards the empowerment of these under-served, marginalised communities through community-based interventions. They focus on nutrition and maternal, newborn and child health.

They adopt a “three track approach” that includes monitoring, empowerment and advocacy to address health inequalities. They assume that peer groups, especially women’s groups, can enable behavioural changes and bring about community empowerment. Interventions that empower such community groups are more cost-effective and scalable than health education programmes targeted at individuals.

In the past decade, researchers have shown greater interest in community participation in healthcare within poor communities that suffer from resource and funding inadequacies, including the failure of health education programmes and existing healthcare infrastructure to deliver substantial health benefits to those in need. There has been substantial documentation that shows that community participation can serve as an important “behaviour change” tool for the communities involved, as it inculcates a sense of ownership and responsibility among people towards the issue in focus. It motivates people to work together and to recognise

1"Explaining the impact of a women’s group led community mobilisation intervention on maternal and newborn health outcomes: The Ekjut trial process evaluation” by BMJ International Health and Human Rights 2010
the long-term benefits of their involvement in solving problems at hand.

However, there has been little research on the health impact and cost-effectiveness of mobilising women’s groups towards improving the health status of a population. The trial conducted by Ekjut provides scientific validation to the effectiveness of such an intervention in India.

The trial also aimed to improve maternal and newborn health practices in the community through better birth preparedness and increased demand for public services. Ekjut aimed to achieve this by

- strengthening the links between the community and primary healthcare providers, by improving health service delivery and increasing the use of these services for routine care; and
- promoting good governance and influencing policy and practice

Ekjut was supported and funded by the Centre of International Health and Development (University College, London), Health Foundation, UK Department for International Development, Wellcome Trust, Women and Children First and the Big Lottery Fund, UK. These partnerships helped the organisation build its research capacities, strengthen the evidence base, disseminate findings, engage with government and network with stakeholders to scale up effective interventions.
The Approach

Ekjut identified the three adjoining districts of Jharkhand and Orissa, namely Saraikela Kharswan, West Singhbhum and Keonjhar, to field its trial. These areas were selected because they were socio-economically under-served and had relatively poor health indicators. The participants in the trial included women in the reproductive age group of 15-49 years who had given birth during the project period between 31 July 2005 and 30 July 2008.

The following two-step approach was taken to conduct the study:

- conduct a prospective baseline survey to measure maternal and newborn health status for the first nine months and thereafter track changes throughout the duration of the project; and
- measure the impact of working with women’s groups on maternal and newborn health through a cluster-randomised controlled trial.

The researchers identified 12 rural clusters with a mean population of 6,338 in each of the three districts – Saraikela Kharswan, West Singhbhum and Keonjhar. Of the 18 intervention clusters, 12 had limited access to the public healthcare system due to their remote topography. During the baseline study (2004-2005), it was found that the Neonatal Mortality Rate (NMR) in the clusters was 58 deaths per 1000 live births. About 80 percent of the births took place at home and were carried out by Traditional Birth Attendants (TBA) or relatives of the pregnant women.

Of the 36 clusters, 18 clusters (Step 1) had 172 pre-existing women’s groups who were working on small savings and inter-loaning activities. The remaining 18 clusters (Step 2) had no pre-existing women’s groups. Ekjut formed additional 72 groups in intervention clusters to reach out to the community. These 244 groups covered a population of 468 people per group at the trial sites.

Within each district, clusters were randomly allocated as intervention or control sites.
Each cluster had a facilitator to assist the women’s groups. She was selected from the community and trained by Ekjut in participatory communication methods to discuss health problems during pregnancy and childbirth. Her role was to

- activate and strengthen the groups;
- support them in identifying and prioritising maternal and newborn problems;
- help in identifying possible solutions; and
- support the planning, implementation and monitoring of solution strategies in the community.

Exhibit 1: Ekjut trial – the two-step approach

36 Clusters (12 Per District)

West Singhbhum (12 districts clusters)

Saraikela District (12 clusters)

Keonjhar District (12 clusters)

Step 1

7 clusters with pre existing women’s group: 4 allocated to intervention; 3 allocated to control

3 clusters with pre existing women’s group: 1 allocated to intervention; 2 allocated to control

8 clusters with pre existing women’s group: 4 allocated to intervention; 4 allocated to control

Step 2

5 clusters with no groups: 2 allocated to intervention; 3 allocated to control

9 clusters with no groups: 5 allocated to intervention; 4 allocated to control

4 clusters with no groups: 2 allocated to intervention; 2 allocated to control
The average income of a facilitator for conducting a village meeting was INR200 (US$4). Coordinators and senior team members from Ekjut provided ongoing support to the facilitator with documentation, field-related problems and health-related questions to the facilitators during weekly or fortnightly review meetings.

During the trial period, the women’s groups in intervention clusters met monthly in groups of 15-20 to discuss problems related to pregnancy, childbirth and the post-natal period. Non group members were also invited to attend the sessions. They held 20 such meetings during the trial period, during which the groups adopted a participatory learning and action cycle approach to identify and resolve concerns.

Exhibit 2: Ekjut trial – four phases

Phase One – During this phase, the facilitators helped the women’s groups explore local practices and beliefs associated with pregnancy. They helped them identify the problems of mothers and newborns in their community and prioritise the problems.

Phase Two – In this phase, they discussed the cause of problems among mothers and newborns in their community and identified solutions. These discussions saw large participation from various stakeholders in the community, including husbands of pregnant women, relatives, community leaders and government appointed health workers like the
Accredited Social Health Activists (ASHAs), the Anganwadi workers and the Auxiliary Nurse Midwives (ANMs).

Since the facilitators were selected by community elders, opinion leaders and headmen, they also received greater acceptance from the community and women’s groups. They were also able to draw extensive participation because they conveyed the information regarding safe delivery practices and neonatal care in a manner that was culturally appropriate and well understood.

Phase Three – After the consultative process with the community at large, the strategies to address maternal and child health issues were implemented. The participants discussed the need for safe delivery practices, ante-natal and post-natal care, home-based neonatal care, identifying life-threatening symptoms and the importance of visiting doctors during adverse conditions and the significance of exclusive breastfeeding for six months. The facilitators were quite effective in assisting the participants internalise these messages through pictorial presentations, games, dances, songs and stories.

Phase Four – In the last phase of the trial, the women’s groups evaluated the impact of their meeting and the change in health-seeking behaviour among participants.
The Impact

At the end of the three-year trial, there was a 32 percent reduction in neonatal mortality in the intervention clusters. The reduction was 45 percent during the last two years of the trial. The evaluation at the end of Phase 4 also revealed that during the trial period, maternal deaths at intervention clusters was 49 as against 60 deaths in control sites.

As the trial progressed, an increasing number of pregnant women participated in the meetings. In the first year of trial, 546 pregnant women participated. In the third year, 1718 women joined the process. The meetings helped create awareness about safe delivery practices among TBAs and the families of pregnant women. This had an impact, since about 80 percent of the deliveries at trial sites were being carried out at home.

The community was also better aware about government programmes and schemes like the Janani Suraksha Yojana (JSY) to help pregnant women. There was active community involvement to address maternal and child health concerns and people contributed to the emergency fund set up by the women’s group. The money was used to arrange for transport and to meet medical expenses at hospitals during emergencies.

Following the success of the trial at the intervention sites, Ekjut carried out similar interventions at the control sites and were able to bring down neonatal mortality and improve pregnancy-related care. The Ekjut trial was voted the “Trial of the Year” by the Society for Clinical Trials, USA in March 2011.
Challenges

Ekjut faced a number of challenges during the trial. While the discussion materials for meetings were developed keeping the cultural beliefs and social practices of the tribals in mind, there was occasional resistance from elderly women and TBAs who believed the new ways went against some age old practices.

While there was considerable improvement in home-based care for pregnant women and the newborns, the tribal communities continued to face health challenges due to lack of easy access to healthcare facilities — whether public or private. The remoteness of their villages, inadequate transport facilities and inaccessible roads made it challenging for them to reach a facility during an emergency. Therefore, while there was an increase in the number of women who opted for ante-natal and post-natal care and institutional deliveries, the percentage of institutional deliveries remained below the figures in control sites where there were better public health systems in place. Despite this, the Ekjut trial was encouraging because it scientifically proved that community-based interventions can play a crucial role in reducing infant mortality even in communities that lack adequate institutional facilities to meet the health needs of its people.

The Way Forward

Ekjut is determined to further the cause of evidence-based policy making. It is helping the state government of Jharkhand to integrate the strategy of community participation into the state’s Programme Implementation Plan (PIP) under the National Rural Health Programme. The ASHAs in the state are being trained in Participatory Learning and Action (PLA) approach, popularly called the Ekjut Model so that they can carry out similar interventions across Jharkhand. Ekjut’s PLA approach is now being piloted in Bihar, Jharkhand and Odisha to tackle malnutrition.
Disclaimer
The case study has been compiled after primary and secondary research on the organisation and has been published after due approval from the organisation. The case has been compiled after field visit(s) to the organisation in January 2011. The author of the case or ACCESS Health International are not obliged to incorporate and are not responsible for incorporating any changes that may have occurred in the organisation after receiving due permission from the organisation to publish the case. The case study has been developed with specific focus on highlighting some key practices/interventions of the organisation and does not cover the organisation in its entirety.

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Karuna Trust is a non-profit organisation that collaborates with state governments in India to provide primary healthcare services in rural, remote and difficult areas. Under a Public Private Partnership (PPP), the government hands over a non-functioning Primary Healthcare Centre (PHC) to Karuna Trust with the same infrastructure, resources and personnel that it invests in any other PHC. The Trust provides better and greater number of services related to mother and child healthcare at the contracted PHC than that provided by a government run PHC. They do it at the same cost or at 10 to 20 percent less than what the government spends.

This case study aims to capture the essence of this partnership. The narrative is based on ACCESS Health International’s visit to Gumballi PHC in the Yelandur taluka of Chamrajanagar district in southern Karnataka. Gumballi PHC was the first PHC Karuna Trust contracted from the Government of Karnataka in 1996. In 2011, Karuna Trust had contracted 54 PHCs across the country.

Acknowledgements

Thorough primary and secondary research on Karuna Trust, Karnataka informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges H. Sudarshan for permitting us to visit Karuna Trust and sharing the information relevant to the case study. We also thank all the team members of Karuna Trust for their inputs and hospitality.
Karuna Trust was formed in 1986 as a public charitable trust by H. Sudarshan, a doctor. He chose the profession as a tribute to his father, who lost his life to inadequate medical care. His personal hardships and early exposure to the teachings of Swami Vivekananda\textsuperscript{1} and the Ramakrishna Mission, Mahatma Gandhi and Albert Schweitzer\textsuperscript{2} motivated him to dedicate his life to improving the lives of the poor and the needy.

Sudarshan came across many leprosy cases among the tribals and the poor of the Yelandur taluk\textsuperscript{3} in the early 1980s while working with Vivekananda Girijana Kalyana Kendra (VGKK), an organisation working towards the integrated development of the Soliga tribal people living in the forests of BR Hills in southern Karnataka. To eradicate the widespread prevalence of leprosy, Sudarshan started Karuna Trust. With time, his efforts yielded encouraging results – the leprosy rate dropped to 0.28 per 1000 population in 2005 from 21.4 per 1000 population in 1987. This success led the Government of Karnataka to hand over the state’s leprosy control programme to Karuna Trust in 1987.

To run Karuna Trust, Sudarshan adopted the primary healthcare approach as envisaged in 1978 at the conclusion of the conference at Alma Ata. The approach advocated universal, community-based preventive and curative services. It laid great emphasis on community involvement in providing primary healthcare. Treatment was seen as a social process and was designed with the community’s social and cultural practices and its belief systems in mind.

With time, Sudarshan expanded the scope of Karuna Trust’s work to include treatment of other diseases, such as epilepsy and tuberculosis. They also provided healthcare to the mentally ill and helped bring the ailment into the realm of mainstream curative medical support. The organisation worked with the help of volunteers and health workers selected from the community. Over a ten-year period, it earned itself a good standing in the region.

In 1996, the Trust proposed to the Government of Karnataka to let them adopt and run a Primary Health Centre (PHC) in the Yelandur taluka to serve the community better. They believed that they should work with the government to run and strengthen its existing infrastructure instead of setting up a parallel facility. The state Department of Health and Family

\begin{itemize}
  \item \textsuperscript{1}Swami Vivekananda was the chief disciple of the 19th century mystic Sri Ramakrishna Paramahamsa and the founder of the Ramakrishna Mission. He is considered to have been the key in introducing the Hindu philosophies of Vedanta and Yoga in Europe and America.
  \item \textsuperscript{2}A Franco-German physician who was awarded the Nobel Peace Prize in 1952 for his philosophy of ‘Reverence for Life’.
  \item \textsuperscript{3}Administrative unit at sub-district level
\end{itemize}
Welfare accepted the proposal and handed over the management of the Gumballi PHC and its sub centres to the Trust as a pilot project. The PHC served 21,000 people in 14 villages in the district.

Under the PPP, the Government of Karnataka gave the Trust 75 percent of the funds that the state spends on running a PHC. The existing staff at the PHC was reassigned and the Trust was given the freedom to recruit and train their own staff. They selected people from the tribal regions and trained them to work as health workers at the PHC. This project marked the beginning of PPP in the management of a PHC in the state.

There is a misconception about PPPs that needs to be addressed. The community often fears that such a partnership means privatisation. It is our endeavour to reassure them and convince them about the benefits of such partnerships between the government and the private/non-profit sector.

H. Sudarshan, Founder, Karuna Trust
We look at health in a holistic manner. We have attempted to address, either directly or indirectly, every health need that people have, making people’s need the centre of action.

H. Sudarshan, Founder, Karuna Trust

Exhibit 1: Karuna Trust - Healthcare service delivery approach

Karuna Trust believes that primary healthcare is not about treatment alone – it must also include health education, promotion of nutrition, adequate supply of safe water, basic sanitation, maternal and childcare, family welfare services, immunisation against major infectious diseases and prevention and control of locally endemic diseases and injuries.

In the early years of their association with the government, Karuna Trust limited their expenses to government funds, to show that healthcare delivery could be significantly improved with the same funds or even less than what the state spends on their publicly managed PHCs.

Over a period of one and a half decades, the Trust successfully demonstrated that remote and difficult PHCs can be better managed through a PPP. Their success story has led the Karnataca government as well as other state governments to contract more PHCs to private organisations. Karuna Trust supports other NGOs in replicating their model of partnership with the government. Dr Sudarshan’s work has been recognised by policy makers and he is often consulted for policy advice. He has been nominated as the Chairperson of the “Task Force on PPPs in the Health Sector” constituted by the Union Ministry of Health and Family Welfare.
The Trust now manages 54 PHCs across India. It works in Karnataka, Arunachal Pradesh, Andhra Pradesh, Orissa and Meghalaya. It is also taking up new PHCs in Manipur, Maharashtra, Rajasthan, Chhattisgarh, Jharkhand and Jammu and Kashmir. In Karnataka, the Trust delivers essential Reproductive and Child Health (RCH) services and other primary care services through 28 PHCs in 23 districts.

Exhibit 2: The growth of Karuna Trust in Karnataka in the past six years

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<thead>
<tr>
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<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No of PHCs in Karnataka</td>
<td>16</td>
<td>25</td>
<td>25</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Population</td>
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<td>524688</td>
<td>529289</td>
<td>578410</td>
<td>553204</td>
<td>587986</td>
</tr>
</tbody>
</table>

However, the Trust now seeks additional grants from donors and contributions from Non Resident Indians (NRIs) to bring in additional services at PHCs and to further their community service initiatives beyond what the government’s budget makes possible.

In Karnataka, the Population Foundation of India4 is funding the Trust to introduce new health services in selected PHCs, which otherwise would not have been possible with the limited government funds. The Trust has trained its staff to provide these new services, which include medical termination of pregnancies, cervical cancer screening, HIV testing for antenatal cases, adolescent health, neonatal care, HBsAG (Hepatitis B) testing and geriatric health care with focus on elderly women. These new health services are being provided at PHCs in VK Salgar, Kohinoor, Hudem, SRR Pura, Nandikeshwara, Kannur and Chandrabanda.

“We deliberately decided not to add more funds into this [Gumballi] PHC – otherwise it would not have become a replicable model. The government would have said you have extra funds and that is why you can show those results. So, with the same funds and the same human resources, we aimed at optimisation and improved efficacy. For example, the government spends INR 24 lakhs ($48,000) on a building, but we have built it for INR 7 lakhs ($14,000) with locally available material and mirroring native architecture.

H. Sudarshan, Founder, Karuna Trust

4Population Foundation of India (PFI) is a national non-government organisation (NGO) established in 1970 by leading industrialists for policy advocacy and research on population issues in the country.
The Trust’s service delivery model takes the following three approaches.

1. **Building PPP for effective primary healthcare**
   The Trust credits their success to their ability to forge successful partnerships with the local community, government and private entities that share a common vision. The Trust gives great importance to community participation in running the PHCs. The Village Health and Sanitation Committee (VHSC) and the Aarogya Raksha Samithi (ARS) participate in planning, delivering and monitoring the services that the PHC provides. The focus is to enable, involve and educate the communities to seek preventive healthcare rather than curative healthcare. The Trust educates the community about basic good health practices like safe drinking water, hygiene, nutrition and sanitation.

2. **Building adequate capacity of service providers at various levels for providing primary healthcare**
   The Trust believes that every health worker and medical practitioner associated with the PHC should always be available at the centre. It is made clear during recruitment that the staff will have to stay at the PHC or the sub centre they have been assigned to.

   The Trust has created a set of modules for training PHC staff on technical issues (Reproductive Child Health (RCH), Maternal Child Health (MCH), HIV/AIDS and mental health), managerial issues (planning and budgeting, PHC management and waste management) and in other areas such as participatory rural appraisal and health awareness programmes.

   The Population Foundation of India is helping the Trust with funds to scale up the PPP model and train human resource.

3. **Strengthening Information and Communication Technology for appropriate and timely consultation and skills-building**
   The Trust recognises that PHCs can serve the community as hubs for integrated development and not merely as healthcare service centres. For this, the Trust has initiated a unique concept – it is setting up Village Resource Centres (VRCs) managed by the PHCs. The VRCs make use of extensive technology and deliver need-based services in education, health, nutrition, weather, environment, agriculture and alternate livelihoods.

   Currently, telemedicine facilities are also being provided in 19 PHCs in Karnataka in collaboration with the Indian Space Research Organisation (ISRO). The Trust plans to manage all PHCs via satellite link with ISRO’s support.

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I am an NGO. I have created some innovations, but I am not an alternative to public health services. I am part of the public health system. I want to strengthen the public health system. That is my aim. I do not think NGOs are alternative to the public health systems. The private sector can be a partner, definitely. They can scale it up in a big way and they have to focus on that. My model is to demonstrate that primary comprehensive health care for the population below poverty line is achievable for every state.

H. Sudarshan, Founder, Karuna Trust
The trust has also entered into an agreement with the Narayana Hrudayalaya hospital in Bangalore. Under the agreement, when an ECG is sent from any Trust-run PHC to a cardiologist at the hospital, the specialist sends back a detailed report within five minutes. The Trust is exploring similar partnerships with other organisations working in the healthcare sector.

**Areas of Work**

A Trust-run PHC delivers RCH and National Health Programmes.

- **RCH Programmes:** The PHCs provide antenatal care and post-natal care to pregnant women. They immunise children, administer tetanus toxoid injections and other vaccines and distribute iron-folic acid tablets. The PHCs have well-equipped, functional operation theatres where they conduct deliveries. Laparoscopic sterilisation is performed during family planning camps by qualified surgeons from the state government.

- **National Health Programmes:** The PHCs carry out all National Health Programmes of disease prevention and control including – but not limited to – malaria, tuberculosis, leprosy, cancer control, diarrhoea and filariasis.

While the Trust runs PHCs according to government guidelines, they include several innovations that aid preventive and promotive health as they recognise that these centres can provide care beyond curative primary healthcare services. The Trust also identifies the specific needs of the community they are working in and run programmes that are not government-designated. They seek help from private hospitals and healthcare professionals to manage these programmes and provide the services free or at a nominal charge. These programmes include the following.

- **Dental health:** The PHC is equipped with a dental clinic staffed with in-house surgeons from a private dental college. A fully equipped mobile dental unit stationed at Gumballi visits villages and sub centres in the PHC area and offers comprehensive dental care.

- **Diabetes and hypertension:** Medical officers and paramedical staff are trained to treat diabetes and hypertension at the primary
care level. Medicines are offered free of cost or at subsidised rates to patients depending on their income.

- **Curative services:** Emergency services are available round the clock at the PHC, as the staff is required to stay at the centre in accordance with their employment contract with the Trust. A panel of specialists has been enlisted for consultation.

- **Mental health:** The programme began with a renowned neurologist assisting the local doctors at Gumballi. Health workers were taught to detect mental illness in the community and the affected were treated at the PHCs. A referral mechanism to local hospitals was set up for cases that could not be treated at the PHC. Sir Ratan Tata Trust funded the initiative to integrate mental health programmes with general health services. The service is provided at 25 contracted PHCs.
**Blindness control programme:** Though blindness control is a vertical programme provided by all PHCs, the service is generally limited to preventive care. Some contracted PHCs have a well-equipped eye hospital where cataract surgeries are conducted. Extra-capsular extraction and intra-ocular lenses are provided at no charge to the patients.

The Gumballi PHC also offers efficient referral services. It is equipped with ambulance services for transporting patients who require secondary care. The Trust has entered into partnerships with private sector health institutions\(^6\) to make medical care available for cardiac and dental problems, diabetes, mental health and ophthalmology. Government-run PHCs usually do not provide these services.

Trust-contracted PHCs are also encouraged to integrate alternative systems of medicines like Yoga, Unani, Siddha, Homeopathy and Ayurveda into primary level healthcare. Some PHCs have herbal medicine gardens; Gumballi, for example, has a manufacturing unit for preparing 40 different kinds of Ayurvedic medicines. The Trust also encourages the use of traditional herbal medicine for cold, cough and fever, monitor the patients closely and attend to them if they do not respond to traditional medicine within a reasonable time. The use of traditional medicine is advocated only at the first level of care.

\(^6\)For example, Narayana Hrudayalaya (for cardiac care), Vittala International Institute of Ophthalmology, Samarth Diabetes Clinic and Department of Community Psychiatry, National Institute of Mental Health and Neuro Sciences (NIMHANS), all in Bangalore and JSS Dental College and Hospital, Mysore.
Other Areas of Work

The Trust focuses on integrated development of the community at the PHCs rather than limiting their engagement to providing primary healthcare. This is more so in the organisation’s home state, Karnataka. They seek the support of partners and funders to manage initiatives in areas not related to health.

• **Education:** In 2003, the Trust collaborated with the State Resource Centre (SRC) of Karnataka and the India Literacy Project (ILP) headquartered in the USA to launch the Samagra Shikshana Project in Yelandur taluka. The Project addresses the literacy needs of three groups in the community – the 0-6 year age group, the 6-14 year age group and the 15-35 year age group of productive non-literates. The project also helps improve the basic amenities at schools. The Trust has adopted 10 schools in Narasipura taluka as a pilot. They help these schools maintain the building and provide them access to safe drinking water.

• **Livelihood:** The Trust assists in the formation of Self Help Groups (SHG) to enable women. They help create awareness about health and sanitation and support women entrepreneurship. The community is encouraged to grow medicinal herbs in their backyard and to use indigenous herbal medicines.

• **Traditional seed conservation and organic farming:** The Trust has established a seed bank in collaboration with the Green Foundation7 to promote the use of organic seeds. They also encourage crop rotation and motivate community members with no or small land holding, to grow vegetables.

• **Facilitating income generating opportunities:** The Prakruthi Fruit and Vegetable Processing and Training Centre, Gumballi is a collaboration between the Trust and the Central Food Technology Research Institute (CFTRI). It trains women from the neighbouring areas in food processing methods, to help them complement their household income.

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7Leonard I Green founded a private equity (PE) firm called Leonard Green and Partners in 1989. The Green Foundation, based in California, with a primary focus on the arts, education and human services, seeks to preserve and enhance Green’s philanthropic vision.
Why do contracted PHCs work better?

When the government hands over a PHC to private organisations like the Karuna Trust, it is usually because these PHCs are not functioning or functioning sub optimally. Often, governmental expenditure on these health centres’ infrastructure, equipment, staff salary, drugs and other supplies and its sub centres is wasted. When a private organisation takes over such a PHC, it invests time and energy to manage the allocated resources better. They put in place better management practices to make sure the assigned staff delivers their duty.

Karuna Trust uses a uniform set of indicators to track progress at a PHC. It assesses the change at the PHC after takeover to give a measure of progress (parameters include change in the PHC building and staff quarters, sub centre buildings, equipment including cold chain and furniture, availability of skilled staff, medicines and emergency transport mechanisms, etc).

Some of the management practices that have helped Karuna Trust successfully run its PHCs are described below.

- **Rationalisation of positions**: PHCs have some positions that are part of a government PHC organogram. However, people with additional qualifications would add significant value to the workplace at no extra cost; for example, if additional administrative responsibilities are assigned to a clerk’s role and a person with better qualification is recruited for the post to handle the new profile, he/she will deliver more services to the PHC.

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*The bin card system is a method for scientific inventory management. A bin card records the receipt and issue of materials. The quantity of stores received is entered into its receipt column and the quantity of stores issued is recorded in its issue column. The balance of quantity of stores is ascertained after every receipt or issue. It shows the balance of stock at any time. The stock reorder levels are pre-defined.*
• **Essential Drugs:** The pharmacy at the PHC stocks high quality drugs and follows scientific inventory management methods like the bin card system. The basic drug supply to the contracted PHCs is through the government medical stores depot (similar to government-run PHCs). They follow the indenting mechanism of using a passbook entry, with an upper cap on supply. For additional drugs related to programmes that have been taken up independently, the Trust purchases from LoCost Pharmaceuticals, a public non-profit charitable trust that makes generic, essential medicines for health facilities that provide healthcare to the urban and rural poor in India.

• **Functioning infrastructure:** The Trust ensures round-the-clock water and electricity supply at the PHCs and its sub centres. The PHCs have 100 percent accommodation facility for their staff. They have installed solar panels at select PHCs to ensure back up in power-deficient areas. They ensure proper waste management at their centres. These sustainable initiatives bring about a significant change in the capability of a PHC to provide care. These factors help the Trust run a round-the-clock PHC.

• **Emergency services:** They have provision for emergency obstetric services. The Trust ensures that each PHC has a well-functioning mini-operation theatre where essential surgeries can be undertaken.

• **Patient-friendly atmosphere:** They ensure a gender-sensitive and cordial atmosphere at the PHCs. Each centre ensures cleanliness and a corruption-free administration.

• **Systematic oversight:** They conduct regular monitoring and review of each PHC to assess progress on performance indicators. The staff of poor-performing PHCs is provided regular feedback and support to improve performance.
The Impact

The Gumballi PHC has demonstrated the value of PPP in the health sector. The Trust’s pioneering role has brought about marked changes in the community.

- They helped create awareness about MCH, issues and rights. Many women now seek RCH services. This has helped reduce maternal and infant mortality rates in areas around Trust-run PHCs.

Exhibit 1: Comparison between RCH indicators of Gumballi PHC with a non-contracted PHC and the State
• Mental health has been included as part of PHC services across the state.
• Treatment of leprosy and epilepsy has improved considerably.
• In 2002, the Trust initiated a pilot project for community health insurance in two talukas with the help of United Nations Development Programme and the National Insurance Company. This first-of-its-kind programme benefited about 200,000 people at a time in India, when the public health system did not offer any such services.

It instilled the importance of health insurance amidst the community and encouraged a large segment to save for their medical expenses. The scheme has now been discontinued as the Government of Karnataka and the Government of India have introduced multiple demand-side financing schemes.
The Challenges

The Trust faces several challenges in its endeavours.

- Convincing the state governments of the need for PPPs and thereafter handling the unreal expectation that change will happen overnight.
- Getting governments to increase the per capita budget for primary health care so that add-on services like dental health, eye care and mental health can be provided at all PHCs, as is being done in some PHCs where non-government funds are available.
- Corruption is rampant in every government sector, and bribery is rife in the public health system. The Trust faced difficulties in getting their initial payments. However, Sudarshan’s formidable image as Vigilance Director in the Lokayukta9 as well as the Trust’s “corruption-free” image helped them overcome such hurdles with time.
- Attrition is a major challenge for the organisation. Important staff members leave to take up a secure government job, usually because a health worker or staff member is paid less at a contracted PHC than at a government-run PHC.
- The Trust faces challenges when they take up the management of a new PHC. The government staff at the PHC is given the choice to either continue at the PHC under the management of Karuna Trust or be reassigned. The existing staff or human resources available in the community is often not skilled or trained to handle the responsibilities the Trust needs them to fulfill.
- There is no second-line leadership at the Trust to scale up the work or take the organisation forward. Sudarshan has expressed the desire to step down but there is no leader who can take his place. It is a major challenge, especially as different state governments continue to invite the Trust to run PHCs.

9The Lokayukta is an anti-corruption ombudsman organisation in Indian states.
The Way Forward

The Trust plans to engage with governments to

- increase the number of PHCs being run by the Trust or its partner organisations;
- train healthcare personnel (e.g. ASHA trainings) on elements of community-based primary healthcare provision;
- build capacities of district healthcare management teams so that they can effectively handle the responsibilities assigned to them by the Trust; and
- find a greater role for themselves in decision-making bodies like the National Rural Health Mission (NRHM), National ASHA Mentoring Group, Task Force on Public Private Partnerships, National Commission on Population, etc. These positions could give the Trust a seat of influence and help them bring about positive policy changes through their experience and expertise.

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ACTION RESEARCH AND TRAINING FOR HEALTH (ARTH) Rajasthan

Priya Anant
This case study focuses on Action Research and Training for Health (ARTH) – a non-profit research and training organisation that provides maternal and child care services to the underprivileged in southern Rajasthan through innovative initiatives. ARTH aims to “help communities access health care according to their needs and capacity, by using research and training initiatives”.

ARTH has demonstrated the feasibility of establishing clinics in remote rural areas that are successfully managed by trained nurses and midwives. Through their expanding clientele and positive health outcomes, they have shown how India can reduce dependence on medical doctors while retaining quality of care. This case study captures the “Nirantar Initiative”, ARTH’s clinic-linked outreach programme for mothers and neonates.
The government has set up sub-centres at the village level and Primary Health Centres (PHCs) across India to provide basic maternal and child healthcare services but the public health system fails to deliver the expected level of care across much of India’s remote, rural and tribal areas. It is this grim reality that made a group of public health professionals establish a non-profit society called Action Research and Training for Health (ARTH) in Udaipur, Rajasthan in 1997 to help rural communities access health care.

ARTH started with a survey in Kumbhalgarh block of Rajsamand district in southern Rajasthan to assess the health-seeking behaviour of women and adolescents. The survey recorded the socio-demographic profile of the women in the region and salient information on the extent to which their reproductive health needs were being met.

**Initial Survey Findings**

Kumbhalgarh is one of the seven blocks of Rajsamand district. The block had many tribal people and low literacy levels. The population lived in about 130 scattered hamlets of 10 low-income villages. While the main village had a mixed caste profile, the outlying hamlets were divided into caste groups.

The following table depicts the demographic profile of ten villages in Kumbhalgarh as revealed by the 1997 survey.

---

1Rajsamand district was carved out of Udaipur district in 1992.
The survey revealed that child marriage was common in the villages; hence, women began bearing children early and half the married women bore their first child while in their teens. The fertility levels were high but many women suffered frequent miscarriages, stillbirth or neonatal deaths. This trauma deeply influenced their reproductive intentions and health-seeking behaviour.

The survey also revealed a high unmet need for contraception for both spacing and limiting births. Frontline government workers, under pressure to achieve their “expected levels of achievement” for sterilisation, did not counsel women on all contraceptive methods; therefore, women had limited access to a wide range of contraceptives. Married couples did not use contraceptive services even if they were available because of their misconceptions about contraceptives and their fear of opposition from the family.

According to the survey, women did not have access to legal pregnancy termination services until December 1999, despite Government of India legislation in 1972 that mandated public health facilities make such services available.

Women sought antenatal care only if a problem occurred during pregnancy while postnatal care provided by skilled health care persons was almost absent. Pregnant women continued strenuous physical activity until late in their pregnancy and resumed work soon after childbirth. They were also underweight.

The prevalence of HIV/AIDS and its consequences was another concern in the villages. This was attributed to high male migration to urban areas in search of work. Villagers were hardly aware of HIV/AIDS.

We learnt that about 44 percent of the women reported a child death in the past. Either it was a stillbirth or newborn death, the death of a child later in life. We realised that this concern about the possible death of a child is a very big reason for their not wanting to undergo sterilisation. Especially if a woman has two daughters and one son and she might not want any more children, but may worry that one of her children might die, especially the son. That was an important reason why in spite of having the desired number of children, they did not want to undergo sterilisation.

Kirti Iyengar, Co-founder, ARTH

Exhibit 1: Demographic profile – ARTH field programme area

<table>
<thead>
<tr>
<th>Feature</th>
<th>ARTH Field Programme Area 1997 (10 villages)</th>
<th>Kumbhalgarh (Census 1991)</th>
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</thead>
<tbody>
<tr>
<td>Scheduled tribes (percent)</td>
<td>48.5</td>
<td>26</td>
</tr>
<tr>
<td>Scheduled castes (percent)</td>
<td>5.5</td>
<td>10</td>
</tr>
<tr>
<td>Total male literacy (percent)</td>
<td>2.3</td>
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</tr>
<tr>
<td>Total female literacy (percent)</td>
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<td>Tribal female literacy (percent)</td>
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<td>0.18</td>
</tr>
<tr>
<td>Sex ratio (females/1000 males)</td>
<td>985</td>
<td>993</td>
</tr>
<tr>
<td>Population density (per sq km)</td>
<td>159</td>
<td>146</td>
</tr>
</tbody>
</table>
The Approach

ARTH works to provide Reproductive and Child Health (RCH) services to the poor and focuses on influencing RCH policies in the country. They use the Safe Motherhood Approach and the Community Based Distance Education (CBED) Programme to achieve their goals.

Safe Motherhood Approach

To address the problems that emerged in the survey, ARTH set up two round-the-clock health centres in the villages of Kadiya and Kuncholi where professionally trained nurse-midwives provide maternal and neonatal health services. These two clinics follow the Safe Motherhood Approach, which rests on five pillars of action: contraception, antenatal and postnatal care, skilled attendance at delivery, essential obstetric care and safe abortion services. The nurse-midwives who run the clinics help avert most maternal deaths by providing these five services.

In addition, ARTH involves the panchayats\(^2\) and the men in the family to help ensure safe motherhood. They have established a reliable support system for pregnant mothers in these areas by setting up an obstetric “flying squad” comprising a nurse-midwife and a male field supervisor. Whenever an obstetric complication is reported, the flying squad immediately reaches the delivery site on a motor cycle with essential drugs and an equipment kit to treat the patient.

Our objective is to develop women-centred approaches to lower reproductive morbidity and mortality and unwanted fertility. Within reproductive health, we also aim to cover men’s health. In the field of child health we are trying to strengthen the primary healthcare approaches for lowering child mortality and morbidity. And in our work on health systems, we analyse the utilisation of resources for primary health care. We are advocating for policy change to enhance the equity, rights and quality within health systems.

Kirti Iyengar, Co-founder, ARTH

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\(^2\)Local institutions of self-governance
Community Based Education and Distribution (CBED) Programme

ARTH’s clinic-based services are complemented by the Community Based Education and Distribution (CBED) Programme, under which volunteers from the community are trained to help couples make an informed choice about family planning by advising them about various contraceptive methods and by providing them information about possible side effects.

Volunteers distribute oral pills, condoms and emergency contraceptives. They refer the couple to ARTH clinics after screening and counseling them on methods like Copper-Ts and injectable contraceptives. The CBED volunteers also provide doorstep pregnancy test services and are paid a fixed remuneration for the tasks.

ARTH categorises its interventions into four broad areas:

- Service innovation
- Technical assistance
- Research
- Advocacy
### Exhibit 2: Key ARTH initiatives – timeline

<table>
<thead>
<tr>
<th>Service Innovation</th>
<th>1997</th>
<th>Reproductive and Child Health Centres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
<td>First trimester abortion services</td>
</tr>
<tr>
<td></td>
<td>1999-2004</td>
<td>Intra Uterine Device as an alternative to female sterilisation</td>
</tr>
<tr>
<td></td>
<td>2003-07</td>
<td>Self Help Group for improving RCH</td>
</tr>
<tr>
<td></td>
<td>2007</td>
<td>Village pregnancy advisory services</td>
</tr>
<tr>
<td></td>
<td>2007</td>
<td>Continuum of maternal and neonatal-infant care</td>
</tr>
</tbody>
</table>

| Technical Assistance | 2001-02 | Technical assistance on RCH initiatives to eight NGOs in northern Rajasthan |
|                     | 2003    | Supporting NGOs for providing maternal-newborn related health services |
|                     | 2007-08 | Establishing a system for reviewing maternal deaths, using verbal autopsy technique in Udaipur district of Rajasthan |
|                     | 2007    | School of Midwifery Practice and Training in Primary Health Care |
|                     | 2007    | Strengthening government efforts to implement the Medical Termination of Pregnancy Act in districts of Rajasthan |

| Research            | 1999-2000 | Nutritional status of preschool children in southern Rajasthan |
|                     | 2000-01   | Auxiliary Nurse and Midwife: What determines her decision to reside in a work area? |
|                     | 2001-03   | Integrated Management of Childhood Illness Study |
|                     | 2002-09   | Home Based Management of Young Infants |
|                     | 2003-04   | Situation analysis of abortion services in Rajasthan |
|                     | 2005-07   | Qualitative study of newborn care practices |
|                     | 2007-10   | Maternal morbidity, its burden, consequences and options for interventions in a rural area in Rajasthan |
|                     | 2009-12   | Newborn survival project |

| Advocacy            | ARTH’s research studies have thrown light on crucial issues such as quality of delivery services, referral mechanisms, timing of discharge, costs of services and immediate neonatal and maternal care at home and in institutions |
|                     | 2010 | Seminar for faculty training institutions in Rajasthan on expanded role of nurse-midwives in providing reproductive health services |
|                     | 2009 | State level consultation of expert group on “evidence-based delivery and newborn care” |
|                     | 2010 | A booklet entitled “Recommendations for Key Delivery and Newborn Care Practices in Health Facilities of Rajasthan” was published; the Government of Rajasthan issued a government order instructing all public health functionaries to follow “evidence based obstetric care practices” |
|                     | Ongoing | ARTH has trained over 200 midwifery trainers of Rajasthan on following evidence-based practices; these trainers are also helped to plan how they would implement the practices in their institutions |
|                     | Ongoing | Prepared and published a range of training and educational materials and manuals, including one on skilled maternal-neonatal care for nurse-midwives and pictorial material for village health workers |

Based on the evidence from its initial survey, ARTH set up clinics and introduced community outreach interventions like the “Nirantar initiative” to improve women’s reproductive health status in the region.

**Reproductive and Child Health Clinics**

ARTH set up two Reproductive and Child Health (RCH) Clinics. The first clinic was set up in Kuncholi (located 52 kilometres away from ARTH’s head office in Udaipur) and commenced operations in October 1997; the second clinic was set up in Kadiya (located 25 kilometres away from Udaipur) and began operating in December 2002.

The clinics are four-bedded facilities, equipped with a labour room and an outpatient room. The clinics are intended to serve two purposes: first, to provide access to integrated reproductive health services to women and adolescents in the area and secondly, to learn about women’s needs, perceptions and constraints in seeking health care.

The clinics provide out-patient services through three nurse-midwives (trained either as Auxiliary Nurse Midwife or a General Nurse Midwife (GNM)), a gynaecologist and a paediatrician. Doctors provide consultations twice a week, and trained nurse-midwives manage the entire service as graduate nurses willing to live and work in rural areas are hard to find.

Before 2005, ANMs were not allowed by the health ministry to provide life saving drugs to manage maternal or neonatal emergencies. For example, they were not allowed to administer intravenous fluids or provide essential first line drugs for postpartum hemorrhage or eclampsia. In 2005, after much advocacy from different international agencies and organisations (including ARTH), the Government of India introduced new guidelines that allowed ANMs to administer these drugs and initiate treatment during maternal and neonatal emergencies.

Kirti Iyengar, Co-founder, ARTH
This clinic is like my home. I have two small children. I have put the elder child in a hostel, so that her education is not disrupted. Here, I handle many complicated deliveries. I have handled the birth of a 3.5 kg baby in a normal delivery without a single perineal tear. Cases like these make me feel confident and happy. Now I feel fully equipped to handle any complicated delivery. I don’t worry about any complications. If I have a doubt, I call either one of the doctors with ARTH or the senior nurses at Kadiya clinic.

A nurse, from Kottala, posted at the Kuncholi clinic since 2004.

ARTH invests considerable resources in training their nurse-midwives and takes great pride in their ability to handle critical maternal health care delivery responsibilities.

The confident, respected nurses who head ARTH’s clinics are standing evidence of how nurse-midwives can be trained to improve maternal survival and well being.

The clinic offers services including basic maternal and child health information, counseling on family planning, outpatient consultation for gynaecology, obstetric and paediatric conditions, immunisation, basic laboratory tests, pharmacy, diagnostic pelvic procedures and minor surgeries. A 24-hour delivery facility managed by nurse-midwives was added in 1999. Child health services at the clinics were strengthened through weekly visits by a paediatrician.

The following exhibit highlights the services provided at the clinics.
### Exhibit 3: Services at ARTH clinics

<table>
<thead>
<tr>
<th>Reproductive / Child Health Needs</th>
<th>Nurse-midwife</th>
<th>Gynaecologist</th>
<th>Paediatrician</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contraception</strong></td>
<td>Counselling, provision of oral pills, condoms, Copper-T, Copper-T removal, instructions about natural birth control methods</td>
<td>Same as nurse midwives + post-abortal Copper-T insertion, difficult Copper-T insertions and removal, administration of injectable contraceptive (Depot Medroxy Progesterone Acetate - DMPA)</td>
<td>Same as nurse midwives + post-abortion Copper-T insertion, difficult Copper-T insertions and removal, administration of injectable contraceptive (Depot Medroxy Progesterone Acetate - DMPA)</td>
</tr>
<tr>
<td><strong>Abortion</strong></td>
<td>Confirmation of pregnancy, counseling of women with unwanted pregnancy, follow-up of women seeking abortion</td>
<td>Same as nurse midwives + management of complications of spontaneous abortions, first trimester medical termination of pregnancy, follow-up of abortion clients</td>
<td>Same as nurse midwives + management of complications of spontaneous abortions, first trimester medical termination of pregnancy, follow-up of abortion clients</td>
</tr>
<tr>
<td><strong>Reproductive Tract Infections, Sexually Transmitted Diseases, gynaecological conditions</strong></td>
<td>Provisional diagnosis and referral for Reproductive Tract Infections (RTIs) and Sexually Transmitted Diseases (STDs).</td>
<td>Management of gynaecological conditions including infertility, menstrual disorders, prolapse, RTIs, STDs, etc.</td>
<td>Management of gynaecological conditions including infertility, menstrual disorders, prolapse, RTIs, STDs, etc.</td>
</tr>
<tr>
<td><strong>Maternal health</strong></td>
<td>Antenatal and postnatal care, normal home and institutional delivery, recognition of maternal complications, arrangement of transport and accompanying women to hospital for emergency obstetric care</td>
<td>Antenatal and postnatal care for women with obstetric complications</td>
<td>Antenatal and postnatal care for women with obstetric complications</td>
</tr>
<tr>
<td><strong>Child health</strong></td>
<td>Childhood immunisation, treatment of childhood illnesses</td>
<td></td>
<td>Treatment of childhood ailments of all children referred by paramedics</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Any other general health problem</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The two clinics have helped ARTH understand the community’s health problems and the numerous social aspects that influence them.

The consultations at ARTH’s health centres are free, while drugs and consumables are procured and provided to the patients at a no-profit basis.

The revenue generated from paying patients goes to a revolving fund, which is used to buy medicines and supplies and to maintain the clinics. ARTH also gets vaccines, contraceptives and a few free drugs from the government. National and international donors give ARTH grants to provide services at subsidised rates.

The graphs below details the outpatient flow as well as the number of deliveries conducted at the clinics over the past decade.

Exhibit 4: Outpatient flow at ARTH clinics

Our attempt was to learn how services can reach women, whether through clinics or through community-based outreach programmes. We call our health centre a ‘window to the community’ because when a woman comes to a clinic, we do not examine her only for her medical ailments and prescribe treatment – we also try to understand her social and economic situation and adapt the treatment to the best possible extent. This process has been full of insights for us, and we have learnt a lot from the community.

Kirti Iyengar,
Co-founder, ARTH
ARTH uses its clinics to train government health service providers and managers. It also bases its advocacy effort on its clinic experiences.

The Nirantar Initiative

Nirantar, a new ARTH initiative, is a clinic-linked outreach intervention aimed at improving maternal and neonatal survival and reducing maternal morbidity by delivering care to mothers and newborns during the postpartum period, irrespective of the place of delivery. The programme was started in January 2007. The early months were used to design the model and recruit health workers and train them in maternal and child care.

The intervention covers 49 villages surrounding the two ARTH Clinics. Under the initiative, doctors provide outpatient consultations at the clinics twice a week. The exhibit below provides information on the population covered by the clinics through the Nirantar intervention.

Exhibit 6: The Nirantar Intervention

<table>
<thead>
<tr>
<th>RCH Clinics</th>
<th>Block</th>
<th>Villages Covered</th>
<th>Population Covered</th>
<th>Percent SC/ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kadiya</td>
<td>Badgaon</td>
<td>22</td>
<td>21,720</td>
<td>42</td>
</tr>
<tr>
<td>Kuncholi</td>
<td>Kumbhalgarh</td>
<td>19</td>
<td>22,337</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Gogunda</td>
<td>8</td>
<td>10,595</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td><strong>49</strong></td>
<td><strong>54,652</strong></td>
<td><strong>46</strong></td>
</tr>
</tbody>
</table>

*ARTH Programme Brief: Nirantar Post-partum Care

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The Intervention Process

a. **Antenatal care:** Pregnant women in villages are motivated to seek at least four antenatal check-ups, including one at an ARTH RCH clinic and to deliver in a health facility.

b. **Reporting of all births in the field area irrespective of the place of delivery:** ARTH attempts to register all pregnant women in the ARTH field area through village-based workers or Accredited Social Health Activists® (ASHAs) of the National Rural Health Mission (NRHM). Villagers (VHWs, key informants, ASHAs, other field staff, and family members) report information on deliveries occurring in these 49 villages by calling or visiting the clinic in the vicinity. They receive a small incentive (INR 50 or $1) to report deliveries within 24 hours of the event.

c. **Postpartum home visits by nurse-midwives irrespective of place of delivery:** After the delivery information is recorded, nurse-midwives make two visits to the woman’s house, irrespective of the place of delivery, to provide maternal and neonatal care. The first visit is made within three to four days of delivery and the second visit two to three days after the first visit. Nurse-midwives use a structured checklist to detect and manage maternal and neonatal problems. Based on the severity of the complication, they either manage the woman or newborn locally, or refer them to ARTH’s RCH clinics or, in the case of a major complication, to a hospital at Udaipur. During the home visit, nurse-midwives follow the checklist below and offer services as listed.

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*ASHA is a resident village “volunteer” trained by the State Government to provide an array of health care services to all households needing assistance. She is a volunteer and is free to associate with other organisations besides working with the Government.*
Exhibit 7: ARTH home visit checklist

<table>
<thead>
<tr>
<th>Mother</th>
<th>Newborn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured questionnaire, including questions on postpartum depression and other maternal morbidity</td>
<td>Structured questionnaire, including questions on newborn</td>
</tr>
<tr>
<td><strong>Examination</strong></td>
<td><strong>Examination</strong></td>
</tr>
<tr>
<td>• General exam including pulse, blood pressure and respiratory rate</td>
<td>• Physical exam including temperature, respiratory rate</td>
</tr>
<tr>
<td>• Haemoglobin test for anemia</td>
<td>• Weight</td>
</tr>
<tr>
<td>• Breast and abdominal examination</td>
<td>• Observation for local infections in eyes, umbilicus</td>
</tr>
<tr>
<td>• Perineal and pelvic exam, if any complaint related to these areas</td>
<td>• Examination for sepsis</td>
</tr>
<tr>
<td></td>
<td>• Observation of breastfeeding</td>
</tr>
<tr>
<td><strong>Counselling and information on:</strong></td>
<td><strong>Counselling and information to mother on:</strong></td>
</tr>
<tr>
<td>• Diet and work</td>
<td>• Breastfeeding</td>
</tr>
<tr>
<td>• Danger signs</td>
<td>• Bathing, keeping the baby warm</td>
</tr>
<tr>
<td></td>
<td>• Danger signs</td>
</tr>
<tr>
<td><strong>Treatment and/or referral</strong></td>
<td><strong>Treatment and/or referral</strong></td>
</tr>
</tbody>
</table>

d. **Follow-up visits between 14 to 28 days by ASHAs or Village Health Workers (VHW):** An ARTH-appointed VHW or ASHA visits each woman and newborn 14, 21 and 28 days after delivery and thereafter at six months. She uses these visits to assess maternal morbidity and to provide the new mother and her family information on newborn and infant care, immunisation, complementary feeding and contraceptive use. At 12 months, a VHW or another ARTH staff member makes another home visit to enquire about the health status of the mother and her baby.
The Impact

Outcomes of the Nirantar Intervention

- High incidence of reporting and home visits: During the three-and-a-half year period between January 2007 and June 2010, ARTH worked in 49 villages, which had a total of 5023 deliveries. Owing to a cash incentive scheme for delivering in government institutions, many women had their children delivered in government institutions as depicted in the following graph.

Exhibit 8: Institutional Deliveries

- Of all expected births, 90 percent (4521 births) were reported to ARTH nurse-midwives. ARTH attended about 95 percent of reported cases. Early reporting, which is critical for better outcomes, showed visible improvement over the course of the intervention. Exhibit 9 shows the women who received at least one PNC by ARTH and the improvement over the project period in early birth reporting by the community.
• Detection and management of maternal and neonatal complications: Nearly two-thirds of women were detected with problems, most commonly postpartum anaemia (48.9 percent), fevers and infections (uterine, perineal and others, 10.4 percent) and lower abdominal/back pain (18.3 percent). Thirty one percent of newborns were detected to have low birth weight (24.5 percent) or infections (5.9 percent). Nurse-midwives managed these complications. They discussed severe complications with an ARTH gynaecologist before making a decision (referral to the doctor visiting the ARTH RCH clinics twice a week or to the medical college at Udaipur).

• Reduction in maternal and neonatal mortality: An end-line survey conducted in June-July 2010 showed proportionately fewer maternal deaths in the intervention areas than in the control areas. Similarly, neonatal mortality was found to be about 25 percent lower in the intervention areas than in the control areas.
Exhibit 10: End-line survey: comparison of intervention and control areas

<table>
<thead>
<tr>
<th></th>
<th>Intervention area</th>
<th>Control area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=60,889)</td>
<td>(n=33,119)</td>
</tr>
<tr>
<td>Receiving antenatal care (percent)</td>
<td>84</td>
<td>79</td>
</tr>
<tr>
<td>Undergoing institutional delivery (percent)</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>Receiving postnatal visit by nurse-midwife within first week (percent)</td>
<td>74</td>
<td>1.9</td>
</tr>
<tr>
<td>Women who consumed a tablet in the postpartum period (percent)</td>
<td>45.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Newborns who received some treatment (percent)</td>
<td>14.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Maternal deaths (number)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Late maternal deaths (43 days-12 months)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Maternal mortality ratio (per 100,000 live births)</td>
<td>206</td>
<td>757</td>
</tr>
<tr>
<td>Neonatal mortality rate (per 1000 live births)</td>
<td>51</td>
<td>68</td>
</tr>
<tr>
<td>Early NMR (per 1000 live births)</td>
<td>42</td>
<td>47</td>
</tr>
<tr>
<td>Late NMR (per 1000 live births)</td>
<td>10</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: Reported by ARTH

Source: ARTH Programme Brief: Nirantar Postpartum Care
Lessons learnt from the “Nirantar” Programme

ARTH’s experience of providing postpartum care shows that trained nurse-midwives working in a low-resource primary-care setting can feasibly provide home visits for maternal-neonatal postpartum care during the first week. However, there are important preconditions.

- All births must be reported within 24-48 hours.
- Transport must be arranged and the route must be planned to enable midwives to reach pregnant women’s homes in time.
- Clear detection, management and referral protocols for postpartum conditions and complications should be established and followed.

ARTH’s experience shows that timely detection and management of morbidities can prevent maternal deaths and long-term disability from conditions like severe anaemia. This intervention might be effective in reducing maternal, late maternal⁸ and neonatal deaths. ARTH’s intervention is the only one in India where women have been prospectively followed up after delivery and their morbidities have been detected in a community setting. The experience highlights the need for health programmes to introduce effective systems for postpartum referral, including financial subsidy for transport and treatment, since willingness for postpartum maternal referral appears to be low. However, this intervention’s effectiveness in improving maternal, neonatal and infant outcomes at the end of one year needs to be tested in a research setting.

⁸A maternal death that occurs between 42 days and one year of termination of pregnancy is defined as late maternal death. Late maternal deaths may occur due to untreated morbidity during the first few days after delivery.
The Way Forward

ARTH’s work focuses on improving reproductive and child health and on informing public health systems and policy through advocacy. They use the field based experience from research and pilot interventions to inform public policy. They work with the state and central governments at various levels. At the operations level, they train and communicate best practices related to maternal care to care providers in public institutions. Members of ARTH are represented on the district health societies of Udaipur and the Rajasthan State Health Society, on advisory groups of the National Rural Health Mission of Government of India as well as on the scientific and technical advisory group for reproductive health of the World Health Organization, Geneva9.

ARTH has established a training facility – a School of Midwifery Practice and Primary Health Care – close to Udaipur, where they train paramedical staff for improving knowledge and skills for maternal and newborn health services. ARTH works closely with the state government to improve the quality of delivery and newborn care services through public health facilities in the state and plans to continue this.

Conclusion

ARTH has a systematic method of examining a challenge – they first conduct research to understand the problem (both the medical and social aspect), look at locally feasible solutions, pilot such solutions, create proof of concept, publish it and use the research and publication to inform public policy and action and build capacity.

ARTH’s overall work has informed government approaches on reproductive, newborn and infant health care provisioning locally and nationally (e.g. the Government of India shifted to the 10-year IUD following ARTH’s work and acknowledged the same). Their presence on the ground, method of creating scientific evidence, publishing it in reputed national and international journals and experience of working with the people, voluntary agencies and creating proof of concept for various innovations has given the organisation’s work significant relevance and respect in the reproductive health care space.

9Source: http://www.arth.in/about.html
**Disclaimer**

The case study has been compiled after primary and secondary research on the organisation and has been published after due approval from the organisation. The case has been compiled after field visit(s) to the organisation in February 2011. The author of the case or ACCESS Health International are not obliged to incorporate and are not responsible for incorporating any changes that may have occurred in the organisation after receiving due permission from the organisation to publish the case. The case study has been developed with specific focus on highlighting some key practices/interventions of the organisation and does not cover the organisation in its entirety.

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SCHOOL HEALTH ANNUAL REPORT PROGRAMME
(SHARP) Delhi

Priya Anant
SHARP is a non-government organisation that provides India’s largest preventive health programme for school children. The organisation was started in 1990 by Puran Prakash. It addresses the health concerns of schoolgoing children in the country by conducting regular health checkups and health awareness sessions and digitising the health record of each child and making it available online. SHARP has created a panel of network hospitals to which a child is referred in case of ailments. SHARP covers 1.8 million children across 10,000 schools in the country. Schools enrol in the programme by paying a nominal fee.

This case study is based on conversations with SHARP team members and a visit to St Froebel Senior Secondary School, Delhi.

Acknowledgements

Thorough primary and secondary research on SHARP informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Puran Prakash and Menaka Sharma for permitting us to visit SHARP and the Principal of St Froebel Senior Secondary School, New Delhi for sharing the information relevant to the case study. We also thank all the team members of both these institutions for their inputs and hospitality.
SHARP is committed to safeguarding the health of millions of children in India and runs a comprehensive school health programme to achieve that end. The organisation started in 1998 with 10 schools and 12,500 children. Today, it reaches 1.8 million children in 10,000 schools across 20 states in the country.

Exhibit 1: SHARP’S national presence

<table>
<thead>
<tr>
<th>State</th>
<th>No. of schools</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi and National Capital Region (NCR), Haryana, Punjab</td>
<td>3,000</td>
<td>24</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>1,400</td>
<td>11</td>
</tr>
<tr>
<td>Karnataka</td>
<td>700</td>
<td>6</td>
</tr>
<tr>
<td>West Bengal &amp; North Eastern States</td>
<td>2,800</td>
<td>22</td>
</tr>
<tr>
<td>Andhra Pradesh, Orissa</td>
<td>1,500</td>
<td>12</td>
</tr>
<tr>
<td>Tamil Nadu, Kerala</td>
<td>500</td>
<td>4</td>
</tr>
<tr>
<td>Uttar Pradesh, Bihar, Jharkhand</td>
<td>500</td>
<td>4</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Himachal Pradesh, Uttarakhand</td>
<td>300</td>
<td>2</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>250</td>
<td>2</td>
</tr>
<tr>
<td>Gujarat, Rajasthan</td>
<td>1,500</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12,550</td>
<td>100</td>
</tr>
</tbody>
</table>

In 1990, Puran Prakash, a physician with a management education, conducted a small sample survey among schoolgoing children of Talwandi Ruka village in Hissar district of Haryana. The study revealed that preventive healthcare in schools could considerably reduce the student morbidity rate. It identified schools as the most cost effective platform to provide health services and health education to children in developing countries like India. Following the study, in 1998, Puran Prakash founded SHARP in Delhi to offer health services to schoolgoing children.
Areas of Work

SHARP offers four types of service.

School health services through preventive health check-ups
This is SHARP’s flagship programme. As a child spends most of his/her time at school, the school is an important platform to engage with children, to monitor their health and disseminate information about their overall well being. Under their school health service initiative, SHARP focuses on students from the nursery to the senior secondary level in both public and private schools.

SHARP’s school health services include nine components.

Exhibit 2: SHARP - school health services

- Health Education
- School Health Services
- Family / Consumer Education
- Physical Education
- Health Promotion of Staff
- Nutritional Counseling
- School Environment
- Family and Community Involvement
- Counseling and Psychological Services

SHARP charges schools an annual fee for these services. The school may choose to recover the fee from the students; SHARP does not influence that decision. Under the programme every student receives a complete health check-up once or twice a year, as decided by the school.

On the designated day, two physicians (one male and one female), a dentist and an optometrist – assisted by a volunteer and a health educator – visit the school to conduct health checkups. The class teacher and a helper from the school also assist the team. Female doctors and female staff are provided to girls’ schools. The team collects information on a form and later enters it into a computerised central database. The child is
then given a digitised health report card. The class teacher and the school are given a detailed report about each student’s health along with a list of students referred to hospitals for treatment for various ailments.

SHARP refers school students to private hospitals, which treat them at subsidised charges. In the case of public schools, children are referred to government hospitals. However, there is no mechanism to ensure that a child detected to have a disease and referred for treatment has taken the service. If a student is detected to have the same ailment in the following check-up, a remark is made on the health report card to draw the teacher’s attention again, who then follows it up with the parent.

SHARP also provides a consolidated annual health report with a detailed analysis that helps schools monitor the health of their students. For example, the health check-ups conducted at a private school in Delhi helped identify mental stress as a major concern among students. The students were subsequently either given professional help by SHARP counselors or referred to clinics.

*Exhibit 3: Schools covered by SHARP*

<table>
<thead>
<tr>
<th>Year</th>
<th>Private schools</th>
<th>Public schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Schools</td>
<td>Number of children</td>
</tr>
<tr>
<td>2005-06</td>
<td>315</td>
<td>1,57,500</td>
</tr>
<tr>
<td>2006-07</td>
<td>450</td>
<td>2,25,000</td>
</tr>
<tr>
<td>2007-08</td>
<td>600</td>
<td>3,00,000</td>
</tr>
<tr>
<td>2008-09</td>
<td>2,100</td>
<td>4,25,000</td>
</tr>
<tr>
<td>2009-10</td>
<td>4,500</td>
<td>5,00,000</td>
</tr>
</tbody>
</table>

1Local self government in Indian villages
SHARP also reaches students in the remote and rural parts of the country through its Gram School Health Programme (GSHP). Under the initiative, schoolchildren from marginalised communities in remote rural areas and slums are provided curative, preventive, promotive and referral care. These programmes are held in consultation with Gram Panchayats. SHARP carries out about ten such programmes each year.

SHARP partners with a number of private sector companies to manage their school programmes; for example, SHARP in partnership with Amul has set up milk clubs in many schools. The school milk club programmes educate children about the importance of milk and regularly provide them flavoured milk. SHARP organises various competitions to draw the student’s interest towards good food habits. This initiative won the organisation the “Global Dairy Innovation Award” runner-up title in 2008.

Exhibit 4: SHARP’s partnership with private sector organisations

<table>
<thead>
<tr>
<th>Company/ Institution / Brand</th>
<th>Project</th>
<th>Area Covered</th>
<th>Students Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morepen Laboratories Ltd. (Dr. Morepen)</td>
<td>Kids Tango School Newsletter</td>
<td>Delhi and NCR</td>
<td>100,000</td>
</tr>
<tr>
<td>Marico (Mediker)</td>
<td>Lice Free Haryana by 2010</td>
<td>Haryana</td>
<td>100,000 (eight year project)</td>
</tr>
<tr>
<td>Almond Board of California</td>
<td>Nutritional Counselling</td>
<td>Delhi</td>
<td>50,000</td>
</tr>
<tr>
<td>S.M. Sehgal Foundation</td>
<td>Mewat School Health Project</td>
<td>Mewat, Haryana</td>
<td>10,000</td>
</tr>
<tr>
<td>Johnson and Johnson; Federation of Obstetric and Gynaecological Society of India</td>
<td>Health and hygiene sessions for adolescent girls</td>
<td>Delhi, Mumbai, Pune, Bangalore, Chennai, Hyderabad, Kolkata, Lucknow, Ludhiana</td>
<td>300,000</td>
</tr>
<tr>
<td>Gujarat Cooperative Milk Marketing Federation (Amul)</td>
<td>School Milk Programme</td>
<td>Gujarat</td>
<td>300,000</td>
</tr>
<tr>
<td>ICICI Lombard</td>
<td>School Health Insurance</td>
<td>All India</td>
<td>100,000</td>
</tr>
<tr>
<td>INTEL India</td>
<td>World Ahead Programme</td>
<td>All India</td>
<td>1,000,000</td>
</tr>
<tr>
<td>International Olive Oil Council</td>
<td>National Olive Oil promotion activities in schools</td>
<td>“6 Metros” Delhi, Mumbai, Bangalore, Hyderabad, Kolkata and Chennai</td>
<td>300,000</td>
</tr>
<tr>
<td>Reckitt Benckiser India Ltd.</td>
<td>For young mothers’ education programme and School Handwash Programme</td>
<td>All India</td>
<td>500,000</td>
</tr>
</tbody>
</table>

\(^1\)Gujarat Cooperative Milk Marketing Federation (GCMMF), owner of the Amul brand, is India’s largest food products marketing organisation. It is a state-level apex body of milk co-operatives in Gujarat, which aims to provide remunerative returns to farmers (2.9 million producer members) and also serve consumers by providing quality products that are good value for money.
SHARP also publishes an electronic newsletter on health for school students that provides updates on health issues from around the world and information on and precautions against diseases. Students, parents and school administrations also get insights into the different SHARP initiatives. The newsletter reaches 50,000 people across India.

**Healthy Life Skills Workshops** are held at schools to educate students about health risks posed by habits, culture and the environment. The aim is to develop positive health-seeking behaviour among children. SHARP uses interactive methodologies like games, role plays, video shows, problem solving/simulation and counselling sessions to discuss adolescent health issues and impart positive life skill training. Children are also trained to provide basic first aid during these workshops. SHARP also undertakes campaigns like the “breakfast awareness programme” and “school canteen accreditation programme” to ensure good eating habits among schoolgoing children. Schools pay additionally for these workshops.

**Internet-based services** help SHARP make the health records of students available online. Using technology, SHARP seamlessly integrates health data and shares it with the child, parent, school, referral hospital and macro policy-making bodies. A unique identity and password is provided to parents, school administrations and other stakeholders to access the data. SHARP also offers free online counselling services.

**The community-based outreach programmes** include family health awareness campaigns, free health check-up camps for the general population, health check-up of children living in slums, disaster relief projects and blood donation camps. SHARP sets up camps in community halls and local schools to carry out these programmes. They have empanelled doctors, volunteers and health educators to provide a wide range of assistance.

A team of doctors (one male and one female), counselors (two male and two female) and support staff conducts the health check-ups in these camps. The team tests and identifies people with Sexually Transmitted Diseases (STDs) and other communicable diseases. These patients are then referred to the nearby government dispensaries. The Delhi State AIDS Control Society (DSACS) and philanthropic trusts like the Sehgal Foundation helps set up these camps.

SHARP takes corporate support to run community outreach programmes; for example, Cairn India supports the organisation in providing safe drinking water and sanitation in rural areas of Gujarat and Reckitt Benckiser supports them in providing health and hygiene education to young mothers.
SHARP deploys the following organisational growth strategies.

- **Advocacy:** Aims to create awareness among policy makers, the public, training and academic institutions, the community, parents, schools and students to achieve a common understanding of the concept of school health, its strengths, strategies and priority action areas.

- **Developing Partnerships and Alliances:** SHARP works with a network of parents, healthcare professionals, counselors, health educators, teachers, corporate houses and government agencies to carry out their programmes. SHARP works with the governments’ ministries of education, health, finance, environment and urban development on child health-related policy and advocacy issues. They support Government of India initiatives like the National Rural Health Mission (NRHM), Sarva Shiksha Abhiyan\(^3\) (SSA), etc. They have also joined hands with the governments of Assam and Jharkhand to strengthen the states’ school health programmes. They are in discussion with the Government of Gujarat to digitise the health records of the state’s school children.

SHARP partners with NGOs across India to mobilise the resources necessary for their programmes.

- **Strengthening national and local capacity:** SHARP undertakes a number of capacity building workshops to orient policy makers and community leaders towards child health issues and to train teachers and school administrators. Guidelines, manuals and tools are used to standardise the training. Such orientation ensures these stakeholders’ participation in needs assessment, programme planning, monitoring and evaluation.

- **Research, monitoring and evaluation:** The data collected from schools is used to evaluate, monitor and fine-tune SHARP’s school health programmes. They have put in place methodologies, guidelines, protocols and

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\(^3\)Government of India’s flagship programme for public primary education.

The school health check-up initiative is a very good attempt, which helps teachers and school authorities to deal with children in a friendly manner.

Shankar Choudhary, Project Officer, UNESCO
tools for situation analysis, monitoring, planning and implementation processes as well as programme evaluation.

SHARP’s data repository offers tremendous opportunities to understand the health needs of schoolgoing children in India and make policy decisions regarding them. For example, while conducting health check-ups in Delhi’s schools, SHARP found that diabetes was prevalent among students. This data was shared with health professionals and the health department. The issue was placed before the Indian Parliament where the need to scientifically collate the findings was stressed.

The Central Board for Secondary Education (CBSE) has now made it mandatory for all schools to have a regular health check-up mechanism for students. The directive has made it easier for organisations like SHARP to reach schools and sign them up for their health programmes.

**Revenue Generation**

SHARP’s major sources of revenue are school subscriptions, sponsorships and grants. A government school pays a significantly lower subscription rate than a private school; this requires SHARP to raise additional funds to cover the cost deficit. The service composition varies with the price point. SHARP has multiple subscription packages with ‘parameters’ ranging from 5-6 to 35-40, depending on the price point. Even for private schools, the price is customized to the school’s paying capacity or willingness.

Hospitals subscribe to SHARP’s list of referred hospitals by paying a one-time fee. They benefit by getting more referrals. SHARP has tied up with 1,300 public and private hospitals. The subscription fees from schools and hospitals help SHARP meet their recurring expenses, including the data management cost.
SHARP has put in place innovative practices to achieve growth. They have streamlined the school health check-up process by adopting technologies and ensuring task efficiency. The digitised health data of all children is stored in a central server using the electronic database and analysis software developed to track the health of Indian children.

All health data are validated by a doctor and routed through the software before being printed on a health card. Standard templates are used for school booking, registration, medical history, medical check-up forms, screening checklists and health report cards.

**Exhibit 6: SHARP health card**

SHARP is a member of the Intel World Ahead Program, a $1 billion initiative that helps underdeveloped countries by providing digitised innovations in healthcare, education and agriculture. Intel has helped SHARP launch the School Health Monitoring System (SHMS), developed to digitise the health records of schoolgoing children.

Under the project, a team of school students is selected and trained as health scouts and made responsible for their fellow students’ health. They are trained to diagnose common signs and symptoms of various major nutritional deficiency diseases with the help of a specially designed questionnaire. The children are also trained to take basic height and weight measurement and enter the data into a digitised database. The teachers are made the health leaders and they supervise the health scouts. This data is then made available to schools, parents and referral hospitals. In the case of public schools, the data is shared with the primary health

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*The Intel World Ahead Program works in over 70 countries to allow more people to participate in today’s digital world. With over 200 active programmes worldwide, Intel is putting technology in the hands of people and businesses to improve education and healthcare, stimulate economies and enrich lives. Collaborations with governments, industry leaders and NGOs have allowed them to accelerate access to technology for a billion people.*
centre where children with ailments are referred to. The digitised health records are also shared with state and government departments when needed.

The school health data as revealed in the chart below is also processed by a panel of doctors at a central repository set up by SHARP. They have partnered with Robertson Global Health Solutions to create a diagnostic programme that helps the doctors at the central repository to diagnose non-chronic illnesses. The programme combines SHARP’s assessment tool with the Nx Opinion software application.

Exhibit 7: Process flow of health check-up in schools.

SHARP’s next planned innovation is to use the mobile technology platform to send health messages and referral reminders to parents. SHARP ensures quality of service through a feedback mechanism. Their administrative expenditure is low. Supervision and daily field reports are managed through mobile phones. SHARP does not advertise and thus saves money on advertising, promotion and branding. They rely on word-of-mouth publicity to scale their operations – most schools have joined the network through reference from existing member schools.

Our school has been a member of SHARP since its inception and it has been successful in reaching out to the parent and student communities through the programmel.

A Templeton,
Principal, Somerville School,
Vasundhara Enclave, Delhi

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6Nx Opinion is a real-time diagnostic tool that provides information to help doctors diagnose non-chronic illnesses.
SHARP programmes are run by three cadres of non-medical staff. The first cadre comprises 1,500 volunteers, who are mostly college-going students. They help the organisation with school health awareness activities and public health awareness programmes. Volunteers are paid a small stipend and enrolled directly from colleges or through SHARP’s website.

The second cadre comprises health educators. These personnel undergo short training sessions to assist the medical team with processes like measuring the height and weight of children. They make up for the shortage of nurses and para-medical staff. They are also trained to conduct health education workshops in schools. This cadre comprises graduates recruited through advertisements in local newspapers and web portals. SHARP employs 700 health educators; they are paid a fixed honorarium.
The third cadre comprises school health entrepreneurs. These 1,000-odd individuals act like direct sales agents for SHARP and help them grow by reaching out to more schools. Their roles include making presentations at new schools and getting them to sign up for SHARP’s school health check-up programme, arranging medical teams and facilitating health checkups in member schools and do referral follow-ups.

SHARP has standardised modules to train school health entrepreneurs. They provide them all logistical and monetary support to work in different regions including far-flung, remote parts of the country. School health entrepreneurs are also trained to collate and upload the data collected during the health checkups on SHARP’S website. They are paid a fixed remuneration and a variable pay based on performance (the number of schools he/she gets enrolled).

Exhibit 8: SHARP’s organisational structure
SHARP’s school health outreach programme is the largest in the country. The organisation has grown from 10 doctors and 10 schools in 1990 to more than 200 doctors and 10,000 schools throughout India.

The school health check-ups help identify disease among children early and prevent the occurrence of many ailments. For example, in 1998, SHARP conducted a nutritional survey among 10,000 schoolgoing children in the 8-15 year age group. The survey found that about 13.5 percent of boys were overweight. Obesity made them vulnerable to diseases like diabetes, cardiac failures and other lifestyle ailments in later life. They also found that 20 percent of the girls were underweight and suffered from anaemia and hormonal imbalances. Following the findings, SHARP partnered with the Almond Board of California, USA to conduct nutritional counselling sessions in select schools in Delhi.

According to SHARP, their school-level intervention model has saved the country about $3 million in medical expenses between 1998 and 2003.

Exhibit 9: SHARP’s growth from 1998 to 2010

The figure is derived from the social audit of SHARP carried out by M/s Vishal Sandhir & Associates in 2005.
The Challenges

The biggest challenge faced by SHARP is the paucity of funds to run its school health initiatives. Neither schools nor governments are willing to pay for their services and hence the organisation is heavily dependent on corporate grants and donations. They also depend on subsidised medical help from private hospitals and practitioners to reach public schools who cannot pay for the services.

They also face a shortage of trained medical professionals across India. The increasing transportation costs, poor telephone and internet connectivity in many parts of the country also limits their reach.

SHARP has a rich repository of health data about schoolgoing children from 1991-2010. The data can be used to do extensive research about children’s health in India. However, this resource stays untapped.

The Way Forward

SHARP plans to expand their service to 215 cities across India by 2013 and want to:

- ensure more corporate funding;
- take on international projects;
- ensure higher engagement from teachers and parents;
- extend their reach to schools in rural areas and in urban slums;
- expand operations to smaller cities and towns in India; and
- explore the use of SMS technology for information sharing and follow-up.
Disclaimer
The case study has been compiled after primary and secondary research on the organisation and has been published after due approval from the organisation. The case has been compiled after field visit(s) to the organisation in January 2011. The author of the case or ACCESS Health International are not obliged to incorporate or responsible for incorporating any changes that may have occurred in the organisation after receiving due permission from the organisation to publish the case. The case study has been developed with specific focus on highlighting some key practices/interventions of the organisation and does not cover the organisation in its entirety.

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Janani, an affiliate of DKT International, a US-based contraceptive marketing company, has been providing family planning services in India’s poorest states and regions over the past 15 years. Janani started as a contraceptive social marketing company and then expanded their network and services to provide family planning and comprehensive abortion care services. This case study tracks the genesis, growth and consolidation of this organisation. It highlights how Janani has scaled up their family planning initiatives using a franchisee model.

The case also narrates how Janani partners with the vast network of informal health providers, also called Registered Medical Practitioners (RMP), to scale up their family planning services.

Acknowledgements

Thorough primary and secondary research on Janani, Bihar informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Shejo Bose for permitting us to visit Janani and for sharing the information relevant to the case study. We also thank all the team members of Janani for their inputs and hospitality.
Background

Janani is a non-profit organisation that has been delivering family planning and comprehensive abortion care services in India since 1995. The organisation works in Bihar and Jharkhand. In the beginning, Janani focused on the social marketing of condoms and oral contraceptive pills in the country. In 1998, they started their clinical programme by setting up the first clinic, called “Surya Clinic”, in Bihar’s capital Patna. The clinic was started to deliver a range of services, particularly spacing and limiting methods, to meet the huge unmet demand for sterilisation in the state.

Between 1999 and 2000, Janani extended their network by setting up 500 franchisee clinics in Bihar and Jharkhand, with funding assistance from the US-based Packard Foundation. These two states had low utility of family planning measures along with a lower perceived need among people for birth control measures.

Exhibit 1: Family planning indicators in Janani’s focus states: 2005-06

<table>
<thead>
<tr>
<th></th>
<th>Bihar</th>
<th>Jharkhand</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fertility Rate (children per woman)</td>
<td>4</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Women aged 15-19 who were mothers/pregnant at time of survey (percent)</td>
<td>25</td>
<td>27.5</td>
<td>16</td>
</tr>
<tr>
<td>Married women with two living children wanting no more children (percent)</td>
<td>62.8</td>
<td>65.8</td>
<td>84.6</td>
</tr>
<tr>
<td>Currently married women (15-19) using any modern method of family planning (percent)</td>
<td>28.9</td>
<td>31.1</td>
<td>48.5</td>
</tr>
<tr>
<td>Total unmet need for family planning (percent)</td>
<td>22.8</td>
<td>23.1</td>
<td>12.8</td>
</tr>
<tr>
<td>Current unmet need for spacing (percent)</td>
<td>10.7</td>
<td>11.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Current unmet need for limiting births (percent)</td>
<td>12.1</td>
<td>11.9</td>
<td>6.6</td>
</tr>
</tbody>
</table>

1Contraceptives are procured from companies selected by the Government of India and provided to various social marketing companies at a piece-rate subsidy for promotion and distribution. 2http://www.packard.org  3National Family Health Survey 3, Fact Sheets India, Bihar and Jharkhand, Indian Institute for Population Sciences, Mumbai.
The Approach

Janani has a three-tier approach towards delivering family planning-related products and services. This comprise of clinics and their franchisees that offer family planning services (Surya Clinics), the outreach network (Surya Health Promoters, formerly called Titli Centres) and the network of shops.

Exhibit 2: Janani’s service delivery approach

Surya Clinics: Janani set up the Surya Clinics to provide family planning and abortion services. They started with one clinic in Patna; today, they own and run 36 clinics in Bihar and Jharkhand. They also operate through 21 franchisee clinics run by private sector doctors.

Each Surya Clinic has 30 beds on average. They have a doctor, four nurses, a counsellor, an operation theatre assistant and around six female attendants who work on Janani’s payroll.
Exhibit 3: Scale of Janani’s operations in Bihar and Jharkhand

The Surya Clinics are also accredited by the government as training centres for family planning methods. All doctors attend a 12-day government-approved training course before they start practice at the clinic. The clinics are de-centralised and are located in cities as well as in remote villages.

Surya Clinics provide

• condoms,
• oral contraceptive pills,
• injectable contraceptives,
• intra-uterine device (IUD) insertion,
• ligation,
• non-scalpel vasectomy,
• emergency contraceptive pills,
• surgical abortion with manual vacuum aspiration and
• medical abortion.

*Referred: http://www.janani.org/products_2.htm
The Government of India has also contracted these clinics under its Public Private Partnership (PPP) model under the National Rural Health Mission (NRHM) to provide family planning services (sterilisations) in the states they operate in.

The Surya clinics provide free sterilisation services to the clients. In return the government reimburses INR1,500 ($33) per case to Janani. However, each Surya Clinic or franchisee needs government accreditation to enter into a contract under the PPP model.

As of now, 35 Surya Clinics have received accreditation; the accreditation process for the remaining clinics is under way. Since the franchisees cannot provide family planning services free to the clients unless they become part of the PPP scheme, Janani has begun the process to assist them with government accreditation.

To ensure quality across its clinics, Janani has established standard operating procedures for the following services:

- laboratory,
- nursing,
- operation theatre,
- sterile supply,
- emergency,
- medical record,
- hospital waste management,
- infection control practice,
- linen and laundry,
- maintenance,
- security,
- registration and admission discharge and transfer and
- housekeeping.
Janani aims to establish at least one Surya Clinic in each district of the two
states they work in and a franchisee in every block.

**Titli Centres:** During the initial years, Janani trained over 40,000
unqualified private medical practitioners and branded them as Titli
Centres. These practitioners formed the outreach network for the Surya
Clinics. In the absence of good doctors, the first level of contact in most
villages was this practitioner and Janani utilised this resource to reach
people.

These practitioners provided counselling about family planning methods.
They sold non-clinical contraceptives, including condoms and oral pills.
They also detected, diagnosed, treated and referred cases of Sexually
Transmitted Diseases/Reproductive Tract Infections (STD/RTI) for
specialised medical treatment at the Surya Clinics. They thus formed an
important link in the referral network for the Surya Clinic.

However, in 2008, research conducted by Janani showed that only 20
percent of the rural providers (Titli centres) were effectively contributing
to Janani’s work. Only 5 percent of the patients at Surya Clinics were
referred by outreach workers and they contributed just 18 percent of
condom sales and 20 percent of the oral contraceptive pill sales. The
survey showed that the considerable resources and time Janani was
spending in setting up Titli Centres did not translate to large inflow of
patients at Surya Clinics.

So, in 2008, Janani decided to add new types of members to the outreach
network. They tied up with government grassroots-level workers like
the Accredited Social Health Activists (ASHAs), Auxiliary Nurse and
Midwives (ANMs) and Anganwadi Workers (government non-health
workers) to form a new network of outreach workers called the Surya
Health Promoters (SHPs).

While 36 percent of the unqualified private medical practitioners were
retained from the earlier network of Titli Centres as SHPs, the remaining
were let go. The strength of this new network of outreach workers
(SHPs) was considerably brought down, to 5,660 (4,405 in Bihar and
1,255 in Jharkhand).

However the thousands of practitioners who earlier formed part of the
Titli centres were allowed to continue the sale of condoms and pills, even
though they are not formally part of the new network of SHPs.
Surya Health Promoters (SHPs)

The three main criteria for enlisting SHPs are:
• they do house-to-house calls in their villages;
• they have a bank account into which incentives can be paid;
• if more than one aspirant in a village meets these two criterion, the one working in healthcare is preferred.

The SHPs are given a two-day training during which all their expenses are taken care of. They are given Information, Education and Communication (IEC) materials as well as information brochures on family planning. After the training, the products, including condoms and oral contraceptives, are supplied to these practitioners so that they can sell them at a profit. A sales team visits them quarterly to replenish the contraceptives.

The SHPs refer clients to Surya Clinics for male and female sterilisations, IUDs, injectables and safe abortion services. For every sterilisation and IUD case referred, the SHPs are paid a motivation fee of INR 200 ($4). The SHPs now account for over 80 percent of all patients who come to Surya Clinics.

However, Janani is aware of the chances of false reporting. So they have constituted the following checks to minimise false reporting:
1. IUD numbers and client data are monitored very closely up to the SHP level; in case of sudden increases, back checks are done to authenticate numbers.
2. The incentive amount to the SHPs is made by account payee checks only after the data on each client is cross-checked by the Management Information System (MIS) department.
3. An external audit firm also verifies the data every quarter.
4. Janani is advocating that the government make available the funds earmarked for IUDs under the NRHM. However this government fund is small. So Janani will still be required to cross-subsidise or seek donor support to cover the cost of IUD insertions.

Network of Shops

Janani has a network of shops that stock and sell condoms and oral contraceptives. They also market family planning products under their brand name and sell them through the outlets across the two states it operates in. To market their condoms and contraceptive pills, Janani has created a system of 94 redistribution stockists. These stockists cater to pharmacies in urban areas.
Meanwhile, Janani’s own salespersons travel to villages to ensure that the approximately 4,000 shops in the rural areas in Bihar and Jharkhand stock their products.

The urban and rural markets have been segregated to increase distribution and create better access to products. This also helps Janani create greater visibility for its brand especially in the rural areas, where Janani’s field team on payroll focuses on the distribution.

Janani also partners with the government under the Contraceptive Social Marketing Programme (CSMP). Social marketing of contraceptives is an approach that uses private sector resources in advancing the social goal of making family planning information and services available more widely. The approach applies the marketing techniques and uses the commercial distribution network to dispense contraceptive products at subsidised rates. It is backed up by a strong advertising campaign and made visible through an independent logo. The three-pronged objective of the CSMP is to

1. contribute to the efforts being made through the public sector;
2. expand coverage for provision of services; and
3. make contraceptive products available at a reduced price.

Under the initiative, Janani is recognised as a social marketing organisation (SMO) for family planning products. The government procures the contraceptives from the manufacturer and pays Janani a certain fee to market and spread awareness about spacing and limiting options using these products. The government also provides these products (IUD, condoms and pills) free to Janani. In return, Janani has temporarily rolled back the user fee and is providing all contraceptives free to clients.

A major challenge is to help providers get over their biases on IUDs and create a critical number of satisfied users of this method. Sema, a doctor now permanently on the rolls of the organisation, is counselling a couple at the Patna Surya Clinic. It is an accredited clinic under the NRHM and also a government-approved training centre for abortion and family planning services.
Innovative Strategies

To bring innovative family planning products to its customers, Janani has tied up with the Indian Council of Medical Research (ICMR) to market a new product called Cyclofem – an injectable, non-steroidal contraceptive. Trials are being conducted and they plan to launch the product as an alternative to female sterilisation.

Janani is also conducting a study with the Population Council of India on expanding the provider base of medical abortion and manual vacuum aspiration through Ayurvedic doctors in India. They are looking at addressing the gaps in the referral services. It is looking to constitute a hub-and-spoke model under which a tertiary hospital will be set up where other Surya Clinics and the franchisees can send patients for advanced care.

Janani has already set up a hub clinic in Bhopal, Madhya Pradesh and is planning to replicate the model in Bihar and Jharkhand. The hub clinics will have sophisticated equipment and will provide more complex family planning services that need special skills and care.

Communication Strategies

Janani has an aggressive communication strategy to spread awareness about its family planning products and services. They use radio and television, conduct street plays, put up stalls in different fairs and rely on hoardings to get their message across. They also do mural advertising and use mobile vans that travel across villages as advertising vehicles.

The Women Outreach Workers form another important link in Janani’s awareness campaign. They visit families in rural villages and counsel them about maternal and child healthcare. Women Outreach Workers associated with franchisee clinics are also responsible for caring for patients in Surya Clinics and helping with emergency cases. Janani also hosts a dedicated docu-drama that is broadcast every week on radio. The programme addresses family planning issues in an entertaining manner. They have also set up a helpline number to counsel people on family planning measures and assist current users.

These communication strategies are geared towards meeting the unmet need for family planning and generating demand for family planning methods. Through deliberate overlapping of communication, Janani ensures that the target population is reached through distinct channels and family planning messages are reinforced. Janani has earmarked 40 percent of their budget for skill enhancement and behaviour change communication.
Janani has a head office and a network of officers who assist the organisation in their field activities. There are 100 Project Coordinators (PC) who deal directly with the clients and manage two administrative blocks each. The coordinators are in turn managed by 60 District Managers (DM). Janani’s field of work is divided into seven zones. Jharkhand is categorised as zone one while Bihar has been divided into six zones. Each zone is headed by a zonal manager.

For Janani, the cost of setting up a clinic is INR10,00,000 ($20,000) and the cost of running a clinic is around INR3,25,000 ($6,500). Of these costs, 70 percent is met by funds from two sources – the Surya Clinics that Janani set up with funding support from the Packard Foundation, which runs until 2015, and government reimbursement of INR1500 (US$30) under the NRHM. Janani also extends a loan of INR200,000 ($4,000) to franchisees that need monetary assistance to set up the clinics.

To meet the remaining 30 percent cost, Janani charges nominal rates for the provision of IUD, injectables and abortion services. They also earn revenue through social marketing and the sale of their own branded contraceptives.

Earlier, Janani used to generate 70 percent of its revenue by charging for the family planning services and products. But that changed when the government contracted the Surya Clinics.
Impact

Since 1996, Janani has provided family planning products and services to over 17 million couples to protect them from unwanted pregnancies. The average cost of protecting a couple for a year is INR91 ($2).

At present, Janani offers protection to over two million couples per year. Their target is to cater to five million couples by 2012.

Janani representatives are optimistic that the usage of family planning services will increase in the future as they have put all the systems in place and established the supply chain and service networks.

The information and contraceptives made available by Janani have led to a rise in the Couple Years of Protection.

Exhibit 5: Contribution of Janani in Government of Bihar’s Planned Parenthood services 2007-08 to 2009-10

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1One CYP is generated when one couple prevents a pregnancy for one year by using any contraceptive method. One birth is averted by 1.75 CYP.

2Data source: Based on data provided by Janani, November 2010
Exhibit 6: Family planning products and services

<table>
<thead>
<tr>
<th>JANANI</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCTS SOLD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoms</td>
<td>24,836,433</td>
<td>27,079,914</td>
<td>30,067,846</td>
</tr>
<tr>
<td>Contraceptive pills</td>
<td>2,159,675</td>
<td>1,726,365</td>
<td>2,591,072</td>
</tr>
<tr>
<td>Emergency contraceptives</td>
<td>111,257</td>
<td>95,786</td>
<td>436,062</td>
</tr>
<tr>
<td>Injectables</td>
<td>28,777</td>
<td>11,225</td>
<td>148,224</td>
</tr>
<tr>
<td>Intra uterine devices</td>
<td>9,568</td>
<td>21,859</td>
<td>43,276</td>
</tr>
<tr>
<td>Mifepristone and misoprostol</td>
<td>87,439</td>
<td>102,902</td>
<td>158,182</td>
</tr>
<tr>
<td>Manual vacuum aspiration kits</td>
<td>2,119</td>
<td>208</td>
<td>167</td>
</tr>
<tr>
<td><strong>DONE UNDER CLINICAL SUPERVISION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injectables</td>
<td>7,955</td>
<td>5,056</td>
<td>4,046</td>
</tr>
<tr>
<td>Intra uterine devices</td>
<td>6,176</td>
<td>13,390</td>
<td>13,325</td>
</tr>
<tr>
<td>Female sterilisations</td>
<td>26,601</td>
<td>42,546</td>
<td>49,088</td>
</tr>
<tr>
<td>Male sterilisations</td>
<td>3,157</td>
<td>2,006</td>
<td>1,097</td>
</tr>
<tr>
<td>Medical termination of pregnancy</td>
<td>21,462</td>
<td>16,508</td>
<td>18,325</td>
</tr>
</tbody>
</table>

**Challenges**

Janani is able to provide family planning services free of charge or at a price that large segments of rural population in India can afford because of huge funding from the Packard Foundation. But the grant is available only till 2015. After this, Janani will have to step up revenue generation by charging for services that are now provided free.

The organisation also faces human resource challenges. Often, the doctors who work for Janani are not keen to restrict themselves to only family planning services. It is difficult to have gynaecologists with postgraduate degrees on board. There is also a huge shortage of women doctors as many of these doctors with an MBBS degree have lucrative private practices and run profitable clinics and so are unwilling to join Janani.

The challenge is also to generate interest and involvement among a target population that does not foresee a need for family planning measures. The high infant and child mortality rates in Bihar and Jharkhand is also a big reason behind a family’s reluctance to opt for family planning measures.

Since Janani depends on the public health system for supplies, it also faces shortage, delay and non-availability of medicines, contraceptives, blood and anaesthetics.
Disclaimer
The case study has been compiled after primary and secondary research on the organisation and has been published after due approval from the organisation. The case has been compiled after field visit(s) to the organisation in January 2011. The author of the case or ACCESS Health International are not obliged to incorporate and are not responsible for incorporating any changes that may have occurred in the organisation after receiving due permission from the organisation to publish the case. The case study has been developed with specific focus on highlighting some key practices/interventions of the organisation and does not cover the organisation in its entirety.

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© ACCESS Health International and MacArthur Foundation.
The focus of this case is the pioneering role played by Child In Need Institute, Kolkata in addressing the issue of malnutrition and child health in India under the leadership of its visionary physician-founder Samir Chaudhuri.

CINI has played a pioneering role in piloting innovative interventions such as nutrition rehabilitation centres, community participation in health and nutrition and in building capacity of the field level functionaries of various government departments.

**Acknowledgements**

Through primary and secondary research on Child In Need Institute (CINI), Kolkata informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Rajib Haldar for permitting us to visit CINI and for sharing the information relevant to the case study and Samir Chaudhuri for taking time out and sharing his experience.

We also thank all the team members of CINI for their inputs and hospitality.

Child in Need Institute (CINI), West Bengal
The Child In Need Institute (CINI) was started in 1974 as a makeshift, after-school paediatric clinic by Samir Chaudhuri, a physician, and his colleagues, along with the Loreto Convent Sisters. During his clinical practice, Chaudhuri recognised malnourishment as the root cause of many ailments afflicting the community and started an initiative to provide care to severely malnourished children. He christened it the Loreto Child in Need Programme. Chaudhuri also started a nutritional service programme to support 1,500 children younger than five years living in the neighbouring slum areas and villages of Kolkata and to educate women in the neighbourhood on health issues. Catholic Relief Services, USA supported him with a one-time grant of $40,000.

The programme gained popularity when it was moved to Pailan in Kolkata and was held on Thursday, the weekly market day, at the village.

The Loreto Child in Need Programme ended in 1976. However, the popularity of the programme, along with increased donor interest, had by then motivated Chaudhuri to start CINI in 1975.

In the past 35 years, CINI has served over five million people across India. Today, it is recognised as an international humanitarian Non Government Organisation (NGO) that works in the areas of health, nutrition and education of underprivileged children, adolescents and women. CINI has its headquarters in Kolkata, West Bengal and independent units in the states of Jharkhand, Madhya Pradesh and Chhattisgarh. It has about 400 employees and an annual budget of over $35 million.

CINI’s success can be greatly attributed to founder Samir Chaudhuri’s rooted leadership and scientific approach. As early as in the 1970s, Chaudhuri recognised malnutrition as a major concern afflicting poverty-stricken communities and identified the need for institutionalised care to address the issue. He realised early that participatory approach is the way to bring about real difference in society. The first to join CINI were young women, selected from neighbouring villages and slums for their leadership qualities. These women were trained by CINI as health workers and were put in charge of a village or a slum.

Creating local leaders from within the community ensured long-term commitment, trust among the local community and dedication of these leaders towards community activities. Gradually, the team grew and
many more young men and women from the community were trained to become supervisors and managers.

"The community is the driving force that inspires action. Action is then tested in the field, with the community, the frontline staff and the professionals. Changes are made along the way, until the intervention reaches the quality standards that the organisation has set for itself." 

In its first decade (1974-1984), CINI’s emphasis was on preventing malnutrition. Towards this end, Nutrition Rehabilitation Centres (NRC) were started to counsel families about locally available nutritious food. Trained health workers also went from house to house to educate people about prevention of infectious diseases. Self Help Groups (SHG) were formed to help women improve their income and to assist communities in disaster management during calamities like floods and cyclones.

In the following decade, CINI restructured their administrative system and created specialist divisions to focus on various issues. Drawing from their experience in training their own health workers, CINI started training programmes for government health workers and other NGOs.

1Extract from CINI at Thirty Years, a compilation by CINI
In 1985, CINI CHETANA Training and Resource Centre was set up to address the institutional need for training. In keeping with his leadership style of decentralised intervention, Chaudhuri registered the unit as an independent body in 1989.

In 1989, the urban unit of the organisation – CINI ASHA – was started. With this, CINI expanded its work beyond the villages to address the needs of urban women and children living in slums and those left on the streets to survive in towns. In 2000, CINI set up an adolescent health resource centre – CINI-YUVA – to address the needs of the youth.

In its third decade, CINI is involved in a range of activities beyond malnutrition. They include programmes on literacy, income generation and empowerment of women. Most of the interventions are “donor driven”. An international donor support group in Italy, the UK and USA called “Friends of CINI” helps CINI raise funds from international donors.
The Approach

Participatory Planning

CINI’s success lies in its ability to initiate community dialogue and partnerships on various issues to garner a better understanding of the causes and extent of a problem. From its inception, the organisation adopted a community-driven approach. In the 1980s, they set up women’s groups in the South 24 Parganas district of West Bengal to spread awareness about health issues, specifically malnutrition. These women’s groups also focused on family planning and vocational training for young girls. They set up pre-schools called “Balwadis”, where they fed three-to-five-year-olds nutritious food and organised a mobile health clinic in their communities. The women, in essence, were trained to lead development activities in their communities.

CINI considers children important stakeholders in their own development. They have helped form Child Friendly Clubs (CFC) in different parts of West Bengal. Members of CFCs track school dropouts and motivate them to return to school and raise their concerns with school authorities as well as with Panchayats. In Murshidabad, the CFC has evolved into a local level Bal Panchayat (Children’s Parliament) that has a resolution. They demand, among other things, clean, safe places for children to play, budgetary allocation for child development initiatives, etc.

In 1990, CINI helped form Village Development Forums in the districts with the aim to support local communities identify and resolve local issues.

All CINI initiatives are driven by their core belief that sustainable change is possible through the collaborative effort of all the stakeholders. While its thematic divisions, geographical units and institute-based services (preventive/curative/rehabilitative) help the organisation remain grounded to field realities, partnership with the government and key civil society actors help the organisation scale up its practices and interventions.

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1Local self government at the village level in India  2Extract from CINI's Strategy Report, 2010-2015
Decentralised Management

Since inception, CINI’s policy has been in favour of decentralised management and autonomous decision-making. The organisation has created a platform for incubation of self-sustaining sister organisations. These are spin-offs from prior programmes of CINI that were initiated and managed by motivated social entrepreneurs in the organisation. The process involves

• need identification of a programme;
• formation of a programme-based organisation/unit;
• planning operation by training staff;
• creating resources and assets;
• separating the newly structured unit from its parent organisation; and
• setting up a monitoring and feedback system.

Examples of sister organisations that have been created through this process include CINI CHETANA - the training and resource centre, CINI ASHA - the urban unit that addresses the concerns of the urban poor. In 2000, CINI-YUVA was started as an adolescent health resource centre and in 2003, the organisation set up a separate division called CINI-BANDHAN to address the concerns of the population suffering from sexually transmitted diseases, including HIV/AIDS.
Child and Woman Friendly Communities (CWFC)

In 2007, CINI adopted a new approach called the Child and Women Friendly Communities (CWFC), which aims to create communities where children and women can claim and fulfil their rights in the critical areas of education, protection, health and nutrition.

“Communities, local government bodies and service providers - the three key actors - are encouraged to utilise the potential of participatory governance processes for local development. The emphasis is on ensuring informed dialogue, negotiation and action that promotes the best interests of children, women and other marginalised groups. CINI acts as a facilitator in these processes, building capacities and supporting the key actors.”

Through the CWFC approach, CINI aims to create an enabling environment where the poor and vulnerable will have access to knowledge and awareness about their rights and entitlements. This knowledge will help increase the demand for quality services related to Education, Protection, Health and Nutrition (EPHN) without any discrimination based on gender, ethnicity, religion, HIV/AIDS status or political affiliation. Once established, the community will make an effort to make the individual concerns of the marginalised population turn into collective voices. Through this approach, CINI facilitates women, adolescents and children to drive the efforts for their own development.

The Life Cycle Approach

From its experience, CINI recognised that malnourishment forms part of a vicious circle — malnourished women give birth to underweight babies who in turn grow up to become malnourished adolescent boys and girls. In 2002, it decided to adopt the Life Cycle Approach (LCA) to break this vicious cycle of neglect and comprehensively address a host of interconnected Reproductive and Child Health (RCH) issues and nutrition concerns.

The LCA is aimed at improving health by providing care at every stage of life. This intervention strategy encompasses the three critical stages of pregnancy, childhood (0-2 years) and adolescence (10-19 years). By ensuring mandatory health services for each of these categories, the interventions ensure improved nutritional status and health outcomes. CINI trained health workers to encourage husbands, mothers-in-law and other family members to provide support and care to the woman so that
she eats frequent and nutritional meals during pregnancy, has access to regular antenatal care and delivers safely with Trained Birth Attendants (TBA).

The Life Cycle Approach intervention aims to break the intergenerational cycle of malnutrition and ill health by targeting critical stages of the lifecycle viz., pregnancy, early childhood (upto 2 years), and adolescence (10-19 years). The approach thus provides a framework for addressing key concerns such as low birth weight, malnutrition and various reproductive and sexual health issues. The framework has evolved and is continually enhanced based on the learnings from the field and experiences elsewhere. It provides valuable means for contributing to key global and national priorities.

**Pregnancy**
- Early registration
- Ensure adequate weight gain
- Ensure Tetanus Toxoid, Iron and Folic Acid, 3 or more Ante Natal Checkups
- Attended delivery

**Early Childhood**
- Birth weight above 2500 gm
- Proper feeding as well as weaning
- Early stimulation
- Timely immunisation
- Prevent frequent illness
- Reduce incidence of death

**Adolescence**
- Adequate nutrition
- Reduce anaemia among girls
- Awareness regarding pubertal changes
- Develop life skills

*The CINI Life Cycle Approach*
Areas of Work

Nutrition

CINI has done pioneering work in addressing malnourishment in the country. The organisation undertakes a number of projects to eradicate malnourishment by educating women, especially pregnant and lactating mothers, about the importance of consuming locally available nutritious food and breastfeeding newborn babies. They were the first organisation to identify the need for institutional care to address malnourishment. CINI set up NRCs where undernourished children are treated. CINI sees the issue as one that requires behavioural change amidst family members. The NRC located at CINI’s main campus at South 24 Parganas, West Bengal is a 12-bedded unit where malnourished children live with their mother and are treated until they gain adequate weight. During the stay, trained health workers not only treat the undernourished children but also teach mothers how to prepare nutritious food.

CINI has also developed a low-cost nutrition supplement called Nutrimix. It is made of roasted wheat and green gram and fortified with iodine and iron. Each 20 grams of Nutrimix provides 3 grams of protein and 68 calories. The supplement is given to undernourished children at NRCs and health clinics set up by CINI.

Maternal and Child Health

CINI’s health interventions are community-based and, largely, preventive in nature. Through these interventions, CINI attempts to create greater awareness about positive health behaviours. They actively involve with various sections of the community and service providers, policy makers and local legislators to make the interventions feasible and sustainable. The key initiatives include:

Institution-based services

These are medical and counselling services available at the clinics located at CINI’s main offices. These services are primarily curative, and the patients visiting the clinics are provided medicines and counselling at nominal rates. The services are described below.

- Outpatient Department (OPD) services for children under five, where children are treated for a range of ailments, including acute respiratory tract infection, diarrhoea, malnutrition and skin infections. The clinic emphasises that the child should be accompanied by both
the parents, thereby increasing the father’s involvement in the child’s growth and development. About 13,500 patients visit these clinics annually.

- CINI organises Thursday clinics in villages. The services at these clinics include growth monitoring, general health check-ups, immunisation, health and nutrition education, treatment of ailments and referral services. The clinics also attempt to create awareness among people about preventable health concerns. The services are provided at a nominal cost of INR10 (21 cents) for first time patients and INR5 (12 cents) for later visits. The annual attendance at these clinics is close to 12,350.

- The weekly Reproductive Health Clinic provides curative and counselling services related to reproductive health. Voluntary counselling and HIV testing facilities as well as family planning services are provided at these clinics. Condom vending machines have been installed at the clinic premises to promote the usage of contraceptive and reduce incidents of reproductive tract infections and sexually transmitted infections. About 1,221 patients visit the clinic annually.

**Education and Protection**

CINI’s work in the field of education focuses on supporting deprived rural and urban children to access formal education and stay in schools, developing curricula for bridge courses to help out-of-school children return to age-appropriate classes in mainstream government schools, etc.

CINI-ASHA also runs schools for children caught in the grind of child labour under the National Child Labour Project. To facilitate retention CINI conducts community backed coaching at support coaching centres. They also work towards ensuring a child-friendly school environment where children’s rights are protected.

CINI provides protection and care to vulnerable street children, child labourers, children of sex workers and of migrant labourers by providing residential services like halfway and short stay homes, drop-in centres and child helpline services.

**Training and Capacity Building**

CINI draws from its vast experience to provide a range of training and capacity building modules to different NGOs, government health workers and other stakeholders in the development sector.
In 2002, the Ministry of Family and Health, Government of India identified CINI Kolkata as the Regional Resource Centre (RRC) for the states of West Bengal, Jharkhand and the Andaman and Nicobar islands. CINI RRC provides technical assistance to other NGOs to implement the Government of India’s various RCH programmes. They train and build the capacity of health workers, help them with data management, documentation, etc.

CHETANA, CINI’s training unit, specialises in training needs assessment, curriculum development, training package development, and in organising, facilitating and evaluating training programmes. They train health workers of the government’s child development initiative – the Integrated Child Development Scheme (ICDS) – the Anganwadi workers, helpers and supervisors. They also conduct specialised training in behaviour change communication for partner NGOs across India, community-based training on RCH for different levels of government functionaries and NGOs. They also conduct Training of Teachers (ToT) programmes for the ASHA trainers in West Bengal. CINI Chetana also conducts training of students from various academic institutes like the University of Calcutta, Indira Gandhi National Open University (IGNOU) and other government as well as private nursing institutes.

The Impact

In the late 1990s, the Ministry of Health and Family Welfare, Government of India recognised CINI as the “National Mother NGO” under its RCH programme. At the same time, the National Institute of Health and Family Welfare (NIHFW), New Delhi recognised it as a collaborative training institute. CINI currently boasts of the largest training facility in West Bengal for training health workers in nutrition, safe motherhood and HIV awareness.

CINI’s pioneering approaches and services for reducing child malnutrition have been widely recognised and are being scaled up with the support of government and non-government agencies. These include models such as NRCs and the use of Nutrimix.

CINI has played a crucial role in influencing policy at the state and national levels. Specific strategies and resource materials developed by CINI have been incorporated in national and state level programmes.
Examples include the adoption of CINI’s cohort register as a monitoring tool for ASHAs in West Bengal, recognition and use of CINI’s accelerated learning packages in government education programmes in West Bengal and Jharkhand and the adoption of CINI’s drop-in centre model in the juvenile justice system and the Integrated Child Protection Scheme (ICPS).

Over the past two decades, CINI has been able to mainstream more than 18,000 children into formal schools in West Bengal. They are recognised as a training centre for health and nutrition and education-related areas by several national and state level agencies.

Challenges

CINI faces a number of challenges, including fundraising and curbing attrition. Due to the remote location of CINI units, the organisation finds it difficult to attract professionals. After gaining experience at CINI, many leave to work with international development partners and UN agencies. The organisation do not have an established system of documenting their work because of which, successful interventions and learning from its projects are not well documented for later reference or for dissemination to internal or external stakeholders. The organisation needs to build a second-line leadership to take CINI forward and to take more pioneering steps to address maternal and child health concerns in India.

The Way Forward

The organisation needs to build a second-line leadership to take CINI forward and to take more pioneering steps to address maternal and child health concerns in India.
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Lok Swasthya Sewa Mandali
(Health cooperative promoted by the Self Employed Women’s Association, SEWA), Gujarat

The Self Employed Women’s Association (SEWA) is the largest trade union of self-employed women in Asia. It has a membership of over one million poor women from the informal sector in India. Since much has already been written about the organisation, this case focuses on the health work carried out by SEWA in Gujarat through its health cooperative Lok Swasthya Mandali (LSSM). The LSSM aims to provide preventive and curative healthcare to women working in the informal sector as well as their families.

LSSM also runs four pharmacies that sell low-cost generic drugs and Ayurvedic medicines. The revenue generated through the pharmacies is used to support the health activities of the organisation. The case delves into the opportunities and challenges that LSSM faces in its endeavour to scale up the pharmacies and achieve sustainability.

Acknowledgements

Primary and secondary research on SEWA and Lok Swasthya Mandali, Gujarat informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Mirai Chatterjee, Director, SEWA Social Security, for partnering with us and for sharing the information relevant to the case study. We also thank all the other team members of the Lok Swasthya Sewa Mandali for their inputs and hospitality.
Women working in the informal economy live in chronically resource-constrained environments. Being self-employed, they do not have a fixed employer-employee status and are unable to access labour laws and welfare benefits. Most of these women lack regular income, access to health facilities and food security. This dismal reality led Ela Bhatt to start the Self-Employed Women’s Association (SEWA).

Ela Bhatt was a college student in Surat, Gujarat during India’s struggle for independence. She participated in the freedom movement and was greatly inspired by the teachings of Mahatma Gandhi. In the 1960s, she joined the Textile Labour Association (TLA)¹ and headed its women’s wing. Under her leadership, the wing assisted women from mill workers’ households to earn a livelihood. They set up centres across Gujarat and trained the women in sewing, knitting embroidery, spinning, press composition, typing and stenography.

In the early 1970s, the women’s wing conducted a survey to probe into complaints made by women tailors about mistreatment by mill contractors. The survey revealed exploitation of women workers across the informal sector. During this time, Ela Bhatt also met women cart pullers and head loaders. She was deeply touched by their poor living conditions due to low and erratic wages. In 1972, she along with TLA president Arvind Buch decided to start SEWA, to assist these women fight against exploitation. The organisation was registered as a trade union of women workers from the informal sector under the Indian Trade Union Act of 1926. In 1977, Ela Bhatt was awarded the prestigious Ramon Magsaysay Award, which brought international recognition to SEWA.

Over the years, SEWA’s membership has increased steadily, and today it includes women from diverse occupations. In 2011, it had a membership of 1.3 million women, making it the biggest trade union of women from the informal sector in Asia. The organisation works in nine states of India – Gujarat, Madhya Pradesh, Uttar Pradesh, Bihar, Delhi, Rajasthan, Kerala, Uttarakhand and West Bengal.

¹India’s oldest and largest union of textile workers – founded in 1920 by Anasuya Sabhaji, a pioneer in the labour movement.
The Approach

Of the female labour force in India, 94 percent is employed in the unorganised sector. SEWA’s primary goal is to organise these women so that they have economic and social security.

SEWA is a national union. Its members define the organisation’s mandate and undertake activities to meet their own needs and address their own concerns.

The members of SEWA are categorised under four types of self-employed women workers:

- Women who work from their homes, such as potters, weavers, tailors, etc. They are called home-based workers
- Vendors who sell goods like fruits, vegetables, clothes etc
- Manual labourers and service providers like agricultural and construction workers
- Small producers who have small set-ups such as shops or earn a livelihood by manufacturing goods

Any Indian, self-employed woman worker can become a member of the SEWA union by paying an annual membership fee of INR5 (US10 cents).

Exhibit 1: SEWA membership in 2010

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Membership Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>All India Membership</td>
<td>1,347,305</td>
</tr>
<tr>
<td>Gujarat membership</td>
<td>823,883</td>
</tr>
<tr>
<td>Urban membership</td>
<td>46%</td>
</tr>
<tr>
<td>Rural membership</td>
<td>54%</td>
</tr>
</tbody>
</table>

Full employment means employment whereby workers obtain work security, income security, food security and social security (at least health care, child care, insurance, pension and shelter). SEWA organises women to ensure that every family obtains full employment. By self-reliance we mean that women should be autonomous and self-reliant; individually and collectively, as well as both economically and with regard to their decision-making ability.

From the SEWA manifesto

"Our bodies are our only assets. Our home is our work place and our children and family our priority. Our goal is full employment and self-reliance, employment that ensures income security, work security and social security."

Subhardraben, A small farmer and SEWA member in Gujarat.

*Sewa report, 2007  Self-reported*
The Organisational Structure

A three-tier structure of elected representatives governs the SEWA union. Members of each trade elect their representatives in the ratio of one representative per 500 members. These representatives then form the Trade Council, called the ‘Pratinidhi Mandal’.

In addition to the Trade Council, there are Trade Committees in each trade. The Trade Committee has between 15 and 50 members. The members meet every month and discuss the problems of their trades and possible solutions. The Trade Council members are also the members of their respective Trade Committees.

Every three years, the Trade Council elects an Executive Committee of 25 members. The representation on the Executive Committee reflects the proportion of their membership. The office bearers of the trade union are elected from among the executive members. The member with the largest trade membership is elected as the president.

SEWA follows a decentralised model to achieve its aims. It has set up a wide range of sister-organisations in the form of cooperatives, financial institutions (SEWA Bank) and social security organisations (Lok Swasthya Sewa Health Cooperative) to assist its member’s access better health, insurance, education and livelihood opportunities.
Areas of Work

One of the key concerns for women working in the informal sector is access to proper healthcare. A substantial amount of their income is spent on medicines and as doctors’ consultation fees. To address these concerns, SEWA has been working from the beginning to ensure maternity benefits, occupational health services and health education for its members and their families.

SEWA has trained a team of women health workers to coordinate efforts in each district and bring to the members, facilities related to general health, reproductive health, family planning, immunisation, micronutrient supplementation, tuberculosis treatment, traditional medicine, acupressure therapy and referral services. The team also coordinates diagnostic camps for general medical check-ups, eye care and Maternal and Child Health (MCH).

Exhibit 2: Major outreach activities in 2010

<table>
<thead>
<tr>
<th>S.No</th>
<th>Particulars (Numbers)</th>
<th>Outreach (No.of beneficiaries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primary healthcare</td>
<td>1,16,520</td>
</tr>
<tr>
<td>2</td>
<td>Curative care</td>
<td>50,352</td>
</tr>
<tr>
<td>3</td>
<td>Tuberculosis referral</td>
<td>3,562</td>
</tr>
<tr>
<td>4</td>
<td>Family planning, Contraception distribution</td>
<td>60,714</td>
</tr>
<tr>
<td>5</td>
<td>Maternal and child health</td>
<td>1,772</td>
</tr>
<tr>
<td>6</td>
<td>Eye camps (120)</td>
<td>6,448</td>
</tr>
<tr>
<td></td>
<td>General camps (8)</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Diabetes check up (18)</td>
<td>439</td>
</tr>
<tr>
<td></td>
<td>Heart camp (4)</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>Gynaecology camp (3)</td>
<td>71</td>
</tr>
<tr>
<td>7</td>
<td>Health education – group (1954)</td>
<td>50,809</td>
</tr>
<tr>
<td></td>
<td>Health education – Individual</td>
<td>1,26,000</td>
</tr>
<tr>
<td></td>
<td>SEWA Sabha (130)</td>
<td>9,450</td>
</tr>
</tbody>
</table>

The government has substantially improved the public health infrastructure and human resources. We want to facilitate access to these services and not duplicate efforts. We also aim to fill the gaps in the public health system. We also focus on preventive care by generating awareness within the community through health information and education.

Mira Chatterjee,
Director, Social Security, SEWA
All health activities are developed keeping in mind the primacy of SEWA members’ work and work security. The health team coordinates efforts to take healthcare to the very doorsteps of the members. The work on health is also interwoven with the other needs of members such as insurance, childcare, housing and sanitation. This approach of comprehensive care helps to improve the health and well-being of the women and their families.

Most activities are run in partnership with the government and private healthcare providers. This helps SEWA members get access to quality services at a low cost from private providers and government network.

The Lok Swasthya Sewa Mandali (LSSM)

In 1984, SEWA started a state-level community health cooperative called the Lok Swasthya Sewa Mandali (LSSM) in Ahmedabad and several other districts of Gujarat to provide healthcare to its members in the state. Currently, LSSM runs 400 stationary health centres that help conduct mobile health camps and four medical shops. They have 400 community health workers who are called Swasthya Saathis, 45 Sevikas or full-time community health educators, 500 midwives, and 100 full-time health organisers who help SEWA members and their families obtain proper health care.

The Structure of LSSM

LSSM has a general body that is made up of the local health workers including Traditional Birth Attendants (TBAs) and midwives. The general body has a membership of 1102 people. These members elect a board of fifteen directors and these directors manage the cooperative and make policy decisions. Each member is a shareholder in the cooperative and each share is priced at INR100 (≈ $2).

Swasthya Saathi (Health Promoters)

LSSM has trained a cadre of over 400 community health promoters to serve as primary health care providers in Gujarat. They carry out the role of a community link health worker, barefoot counsellor, traditional medicines promoter

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4Source: Lok Swasthya Sewa Mandali as retrieved from http://www.sewa.org/images/Archive/Making_our_lives.pdf as on 14th February 2011
and insurance promoter. SEWA calls them Swasthya Saathis. In addition to ensuring safe deliveries, immunisation and primary level curative care, the Swasthya Saathis also carry out various Information, Education and Communication (IEC) activities to generate awareness and impart health education related to issues like basic hygiene, maternal care, nutrition, family planning, HIV/AIDS etc.

Activities of LSSM
LSSM undertakes the following activities to provide affordable quality healthcare to SEWA members.

Low-cost Pharmacies
Out-of-pocket expenditure for healthcare is a major concern among low-income households. Most of this expenditure is incurred on medicine. To address this concern, LSSM has set up four low-cost pharmacies in Ahmedabad.

The pharmacies sell low-cost generic medicines as well as Ayurvedic medicines to SEWA members, their families and public at large. While two shops are located near low-income urban neighbourhoods (Gomtipur and Rangbhuvan), the other two pharmacies have been set up near the municipal corporation-run Shardaben General Hospital and the LG Hospital. The pharmacy at the hospitals is open to the public round the clock.

SEWA directly procures the drugs from pharmaceutical companies and sell them at a 17 percent discount on the Maximum Retail Price (MRP). The medicines are further subsidised for the customer depending on his/her paying capacity. They do this by keeping a lower profit margin than other pharmacies.

SEWA caters to over 225,000 people annually through its four pharmacies. The combined revenue generated by the pharmacies over the past five years is given in Exhibit 3.
The pharmacies are the main revenue centres for SEWA. They have a turnover of about INR 25.4 million ($ 508,000). The organisation uses the modest surplus to cross-subsidise various activities like organising health awareness camps, capacity-building of LSSM staff, paying staff salaries, acquiring new equipment like computers, renovating shops and setting up new shops.

**Unit for Manufacturing Ayurvedic Medicines**

LSSM has also set up an Ayurvedic medicine manufacturing unit. An Ayurvedic doctor supervises medicine production and quality. The medicines are tested in the laboratory associated with the production unit.

The manufacturing unit has given women an opportunity to own a healthcare business and also benefit from the low-cost Ayurvedic medicine produced by the unit. However, the unit, at present, is not a revenue centre.

**Occupational Health**

Occupational health is one of the important focus areas for SEWA. In 1988, a report\(^5\) which looked at the occupational health problems of self-employed women, found that they spent 16 hours a day in income-generating activities, besides doing their household chores.

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\(^5\) Shramshakti report of the National Commission on Self Employed Women
the work places for these women usually are tiny rooms without proper lighting, ventilation and toilet facilities. the women were frequently exposed to hazards like toxic chemicals, dust and fumes without adequate protection. they were often required to sit in the same posture for many hours. despite this hard work, their earnings were poor, because of which they were undernourished and anaemic. the burden of frequent pregnancies took a further toll on their health. alcoholic husbands and quarrelsome in-laws sometimes made their plight worse. to cap it all was the physical and financial inaccessibility to proper healthcare.

it also highlighted that self-employed women had limited means for adequate nutrition and healthy, hygienic living.

to address the women’s concerns related to occupational health, SEWA organises screening camps to diagnose and treat conditions like back pain, pain in limbs, asthma, tuberculosis and hypertension. women are then counselled to get appropriate treatment from the government set primary health care (PHC) centres and get medicines from the low-cost SEWA pharmacies. patients in need of specialised medical care are also referred to private clinics with which SEWA has established strong referral linkages. the members are given free or subsidised treatment at these centres.

SEWA has also expanded its health programme to urban areas in cities of Ahmedabad and Surat. health programmes are being conducted for SEWA members and their families in more than 100 urban slums of these two cities.

Reproductive and Child Health (RCH) Mobile Camps

In response to the demand from its members and the community at large, SEWA regularly organises mobile camps to address reproductive health, family planning (involving both men and women) and child health concerns. In the beginning, SEWA organised these camps with funding support from the United Nations Populations Fund (UNFPA) and the Government of India (GoI). Today, these camps are held independently by the GoI’s primary health care centres and by private providers.

The camps have a nominal attendance fee of INR10 (US20 cents). The services and medicines are either subsidised or offered free depending on the patient’s paying capacity.

Health Education

LSSM also organises annual camps for health education and approximately 6,000 adult women participate in these sessions every year. A nominal fee of INR5 (US10 cents) is charged for participation. Each session lasts two days.
The courses offered during these sessions include basic first aid, awareness about general diseases, HIV/AIDS, immunisation, childcare, airborne and waterborne diseases and tuberculosis. They also hold a “Know Your Body” session during which women learn about sexual and reproductive health. SEWA has trained a staff of 35 grassroots trainers and managers to facilitate these sessions. They also conduct health programmes in more than 100 urban slums in Ahmedabad and Surat.

**Tuberculosis Detection and Treatment Unit**

From 1999 to 2011, SEWA ran tuberculosis detection and treatment units that covered a population of 525,000 people residing in the north and east zones of Ahmedabad. The program was carried out in collaboration with the Gujarat state government, Government of India and the World Health Organization (WHO).

By 2011, more than 5,000 people had received treatment for tuberculosis at these centres. The centre monitored patients’ health by conducting home visits and by counselling the dropouts. According to LSSM, the dropout rate among patients who were looked after by the Sevikas was less than 5 percent, and the sputum conversion rate among those who completed the treatment was close to 90 percent. The government also incentivised the patients and the providers to reduce dropouts: each patient who completed the treatment successfully was given INR 1500 (US$ 30), and the provider was given INR250 (US$ 5).

In 2011, the state government took over these centres as its capacity to manage the tuberculosis detection and treatment programme increased.

However, LSSM has set up two decentralised Directly Observed Treatment Short course (DOTS) centres to serve tuberculosis patients under the Revised National Tuberculosis Control Programme (RNTCP). Under the RNTCP, the patients receive free diagnostic services and medicines. The course of treatment would otherwise cost a patient anywhere between INR 7,000 to INR 9,000 (US$ 140-180).
Financial Sustainability

LSSM’s investment in low-cost pharmacies has helped the cooperative attain some level of financial sustainability. The pharmacies make an annual profit of 10 percent, which help LSSM offset the cost of their community health activities, such as health awareness campaigns and capacity-building initiatives. It also helps them pay the staff salary.

Another source of revenue for the cooperative is the fee it levies to train health workers. They conduct training for Traditional Birth Attendants (TBA’s), health link workers, block-level nurses and paramedical staff.

LSSM has also been able to get grants and donations for research activities, documentation and production of audio-video material to disseminate basic healthcare knowledge among its members and the civil society at large.

Various national and international funding agencies and organisations also assist LSSM with grants to manage their health initiatives. The mobile Reproductive and Child Health (RCH) camps are funded by the United Nations Fund for Population Activities (UNFPA). The health education efforts are supported by Government of India, UNFPA and the Ford Foundation. While these collaborations have benefited SEWA members, it has also helped the funding organisations reach some of the poorest people working in the informal sector.
LSSM faces a number of challenges in the execution of its low-cost medicine and pharmacy business.

**Exhibit 4: Financial performance of pharmacies**

- As evident from the graph, the Gomtipur and the earlier Chamanpura pharmacy are not making profits. SEWA needs to find the reason for the poor performance of these two pharmacies, which is offsetting the 8-13 percent profits being made by the Shardaben and Rangbhuvan pharmacies. In 2011, the Chamanpura pharmacy was closed and instead LSSM opened a new one outside the LG Hospital, a well-attended health facility run by the Ahmedabad Municipal Corporation. Their performance, however, remains to be seen.

- Human resources – SEWA has been operating as a non-profit organisation for several decades. Scaling the pharmacy operations at the wanted pace will require a business-oriented team. They need to find professional managers willing to take the business forward as well as willing to work at less-than-market-rate salaries because the clients are poor and revenue margins for the pharmacies are small. The shops have to be operational round the clock. It is hard for LSSM to find personnel who are willing to work at odd hours. An additional
challenge is the working environment. According to Mirai Chatterjee, they need to find professional managers who “are ready to work shoulder-to-shoulder with the poor and the women”.

• Industry nexus – Strong linkages between the local doctors in the state and the private pharmacists/distributors have hampered the sales of LSSM pharmacies. As a result, LSSM had to close down two of its stores and relocate them to regions with relatively lower entry barriers and competition from other pharmacies. They also recognise the need to professionalise the branding of their products and services.

• High set-up cost for new shops – While the combined revenue generated through medicine sales covers the operating expenses of the pharmacies, the high cost of setting up a new shop poses a challenge in scaling up of this initiative.
LSSM did not start its pharmacy operations with the intention to create a scalable business but to serve a local need for low-cost medicine. It is now evident that there is a business opportunity to scale the operations and generate more revenue to subsidise other activities. This is an experience that many other non-profit organisations can learn from to reduce donor dependency.

However, some of the main questions are how to make sure new pharmacies are established in locations that can generate revenue and not run into loss. Until the end of Financial Year 2011, LSSM had four pharmacies, two of which generated a positive cash flow, while the two others reported operating losses. In 2012, LSSM shut down one of the loss-making pharmacies and opened another one near a well-attended hospital.

The question is - Is the organisation confident of scaling up the pharmacy business after running the existing four units?

The other questions are how to attract a professional management team and what kind of capital should be raised to meet the capital costs. LSSM can look at the growing number of “social investors” in India who are looking for opportunities to invest in businesses serving the poor. However, this kind of equity funding comes with strings and expectations of return on investment. It can be a challenge to gain the confidence of investors when the organisation has a long history of non-profit management. It could also be difficult to meet profitability expectations when LSSM aims to use its revenue to support its other social activities.

Debt financing is an option. However, the interest on capital can take away a large part of the profit margin, which currently stands at about 8 percent.

The way LSSM manages to scale these pharmacies can serve as an important lesson for other organisations with an interest in reducing donor dependency. LSSM also holds some lessons with regard to collective businesses run by, for and with the women workers themselves. Sustainability, both financial and in terms of decision-making and control, are being attained by the Lok Swasthya Sewa Mandal.

The Way Forward
Disclaimer
The case study has been compiled after primary and secondary research on the organisation and has been published after due approval from the organisation. The case has been compiled after field visit(s) to the organisation in October 2010. The author of the case or ACCESS Health International are not obliged to incorporate and are not responsible for incorporating any changes that may have occurred in the organisation after receiving due permission from the organisation to publish the case. The case study has been developed with specific focus on highlighting some key practices/interventions of the organisation and does not cover the organisation in its entirety.

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SOCIETY FOR EDUCATION, WELFARE AND ACTION – RURAL (SEWA RURAL) Gujarat

Prabal Vikram Singh
This case study focuses on Society for Education, Welfare and Action – Rural or SEWA Rural. This non-profit Non-Government Organisation (NGO) is based in a rural tribal area in Gujarat called Jhagadia. The organisation was set up in 1980 to improve the health and life of the vulnerable tribal and poor population of the region.

In the 1980s, they set up the 20-bed Kasturba hospital to provide Maternal and Child Health (MCH) services to the people of Jhagadia. Today it has grown to become a 100-bed multi-specialty hospital. It is one of the few non-government facilities in the country to be recognised as a First Referral Unit (FRU) by the Government of India and UNICEF for maternal and neonatal care.

It was also the first NGO in the country to be contracted by the government to run a Primary Health Care Centre (PHC) under a Public Private Partnership (PPP) model.

Acknowledgements

Thorough primary and secondary research on Society for Education, Welfare and Action – Rural or SEWA Rural informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Dr Pankaj Shah for permitting us to visit SEWA Rural and sharing the information relevant to the case study. We also thank all the team members of SEWA Rural for their inputs and hospitality.
Jhagadia taluka\(^1\) is located in the rural tribal belt of Bharuch district, in Southern Gujarat. The population consists largely of marginal farmers and landless laborers. In the 1980s, over one third of the population lived below the poverty line. The literacy rate among the populace was a dismal 30 percent while female literacy was just 18 percent\(^2\). It was a backward tribal area and the region lacked basic health infrastructure and services. Health indicators such as morbidity and mortality rates were significantly high. There was lack of awareness about basic concepts of health and hygiene.

Since it was a tribal belt, the community had limited resources and finances to combat preventable diseases like measles, diarrhoea, malaria and tuberculosis. Maternal healthcare was completely neglected because women lived an underprivileged life. There was high incidence of anaemia and malnutrition, and this led to high maternal and child mortality and a high morbidity rate.

These dismal circumstances made a group of young doctors and professionals, led by Anil and Lata Desai, to commit themselves to address the concerns of the marginalised, below-poverty-line population of Jhagadia. Their dedication to serve the poor in the remote tribal villages of Jhagadia led to the beginning of Society for Education Welfare and Action – Rural (SEWA Rural) in 1980.

In 1982, SEWA Rural did a baseline survey, which revealed that the Infant Mortality Rate (IMR) in Jhagadia was a high 172 and the Maternal Mortality Ratio (MMR), a startling 700 per 100,000 live births.

Many of these deaths were caused by preventable diseases. SEWA Rural started a number of curative, preventive and outreach initiatives to address the health concerns of the community.

\(\)\(^1\)Taluka : Administrative unit  \(\)\(^2\)SEWA survey in 1980

“Every third family was living below the poverty line. Of every twelve children born, one was destined to die before its first birthday. The worst enemies of people living in our villages were ill-health, poverty and superstition born out of a lack of awareness. In addition to health services, what our people required was education, awareness and fair economic conditions.”

Dr. Pankaj Shah, Managing Trustee, SEWA Rural Jhagadia.
The Approach

SEWA Rural’s mission and ideologies are inspired by the teachings of Sri Ramakrishna Paramhansa, Swami Vivekananda and Mahatma Gandhi. The founders believed that it was important not only to offer basic preventive and curative healthcare but also to integrate education and employment opportunities within their programmes to sustain the development effort. They sought to adopt an approach that balanced the three principles of social service, scientific approach and spiritual outlook in all their work. This goal constitutes the underlying philosophy of the organisation. SEWA Rural believes that since women, children and the aged are at greater risk and are weaker, dependent and often oppressed, any development work should reach them first.

Another value upheld by SEWA Rural is to treat all patients equally irrespective of religion, colour, caste or creed. Over the years, the local community has come to hold the organisation in great regard. The staff of SEWA Rural has also been sensitised towards ensuring gender equality within the organisation. Women staff members are encouraged to assume positions of higher responsibility in management as well as SEWA Rural programmes. The organisation takes special care to ensure that it is not influenced by any political or power group. They collaborate with government, private and foreign institutions, public trusts, academic institutions and individual donors to improve the growth and development of the marginalised and under-served sections of society.
Exhibit 1: The SEWA Rural approach

Clinical elements for the development of vulnerable sections of society, especially women, children and the elderly

Management and Planning: Establish a base organisation with clear focus, mission and future vision based on existing needs of the community. Collaborative planning and capacity building

Community mobilisation to stimulate involvement and action
Use of locally available resources

Grant, financial aid generation through public-private-NGO partnership and appropriate allocation to various heads
Data collection, analysis, timely documentation; advocacy at national and international level

Health
Primary level care (outreach activities by link workers, referral networking with 108 service and local vendors), Information Education & Communication (IEC) and counselling for health promotion and preventive behaviour
Secondary care (Obstetrics/Gynecology, Pediatrics, general medicine, Inpatient Care, pharmacy, lab, ultra sonography, X-Ray, blood bank
Tertiary level care (eye care): outreach camps and speciality clinics

Financial stability
Financial stability for tribal youth by vocational training
Financial stability for women through vocational training (garment making, food production packaging)
Networking and placement of all the trainees either through self employment or in nearby industries

Education
Counselling to women and adolescent girls on reproductive health and hygiene
Remedial classes to schoolchildren

Informed and aware community
Widespread behaviour change

Feedback to community, stakeholders and policy makers

Targeted action and intervention
Areas of Work

Medical and Health services
SEWA Rural runs various programmes with emphasis on maternal, neonatal and eye care to improve the health outcomes of the community. The founding members of SEWA Rural were mainly doctors and they believed that curative services form an integral part of preventive health services. They identified the lack of adequate facilities for curative treatment as a major gap in Jhagadia and set up facilities to plug the gap.

Secondary care Hospital
SEWA Rural set up the Kasturba hospital in Jhagadia in 1980, to provide comprehensive curative services to the poor and the tribal community at subsidised rates. The hospital started as a 20-bed facility that offered only maternity care. Today it has grown into a 100-bed multispecialty hospital that offers round-the-clock emergency services, reproductive and gynecological care, child care, comprehensive eye care and diagnostic services including X-ray, sonography and laboratory tests.

The hospital is recognised by the Government of India and UNICEF as a First Referral Unit (FRU) and a Comprehensive Emergency Obstetric and Neonatal Care (CEmONC) centre where maternal and neonatal care is available round the clock. The hospital serves patients from over 5,000 villages in Bharuch and nearby districts.

According to SEWA Rural, the yearly outpatient load at the hospital is approximately 70,000 patients. They admit close to 11,500 patients every year and conduct over 2,000 deliveries and about 7,000 surgeries. In addition to providing basic healthcare services, the hospital also performs cataract and eye surgery and conducts infertility treatments.
Exhibit 2: Patient load at Kasturba Hospital

<table>
<thead>
<tr>
<th>Details</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infertility</td>
<td>671</td>
<td>684</td>
<td>646</td>
</tr>
<tr>
<td>Sonography</td>
<td>1,280</td>
<td>740</td>
<td>2,302</td>
</tr>
<tr>
<td>Maternal Admissions</td>
<td>1,327</td>
<td>1,431</td>
<td>1,614</td>
</tr>
<tr>
<td>NICU Admission</td>
<td>171</td>
<td>281</td>
<td>281</td>
</tr>
<tr>
<td>ICU Ward Admission</td>
<td>167</td>
<td>179</td>
<td>257</td>
</tr>
<tr>
<td>Diode laser/Yag laser,Yag PBI</td>
<td>521</td>
<td>445</td>
<td>395</td>
</tr>
<tr>
<td>Phaco Surgery (Cataract)</td>
<td>752</td>
<td>461</td>
<td>355</td>
</tr>
<tr>
<td>Microscopic Eye Surgery (SICS)</td>
<td>3,473</td>
<td>3,861</td>
<td>4,470</td>
</tr>
</tbody>
</table>

The services provided at the hospital are strongly supported by a well-equipped modern laboratory, X-ray and sonography units, operation theatres and a blood bank. Medicines are made available to patients at the hospital campus at a lower-than-market cost.

Most services provided to poor patients at the Kasturba hospital are either subsidised or free. According to the “hospital” 70 percent of the indoor patients and 40 percent of the outdoor patients are treated free; 18 percent of the indoor and OPD fee is generated from paying patients who help meet the recurring expenditure; 46 percent of the funds are given by the state government as grants; and the remaining 36 percent deficit is met by raising donations every year.

A major portion of the expenditure incurred by the hospital is the salary of the professionals and staff at SEWA Rural. The remaining is spent on medicine, transportation and other miscellaneous outreach activities.

Comprehensive eye care

Through a survey in 1997, SEWA Rural found that one of the most important needs of the community in Jhagadia was eye care. They designed a comprehensive eye care programme to meet this need.

In addition to basic eye care services offered at Kasturba hospital, the organisation set up a tertiary level eye care centre called the ‘Netra Raksha Kendra’. The centre is equipped with operating facilities including microscopes, auto refractors, lasers, phaco emulsifications and automated perimetry. SEWA Rural organises special cataract camps at the centre where procedures including Keratoplasty and Intraocular lens placement are made available free of cost to the poor patients. The organisation has also made arrangements to distribute free spectacles at the hospital as well as during the outreach camps. Diagnostic eye camps are also regularly organised in remote villages of Bharuch, Narmada, Surat and Vadodara districts.

SEWA Rural believes in the community participation approach and involves people from the villages at each level of care. Volunteers from the local community are employed to create awareness within the community about the outreach eye camps. They also provide support during camp days.

3Translated this means ‘Eye protection centre’.
SEWA Rural is also a member of the nationally run advocacy group “Vision 2020, The Right to Sight India Programme” that aims to reduce blindness. It is a registered eyeball collection centre under the Eye Bank Association of India.

Community health programmes

SEWA Rural was the first NGO in the country to enter into a Public Private Partnership (PPP) with the government in 1982 to manage a Primary Health Care (PHC). They were given the responsibility to manage the PHC at Jhagadia that covered a population of over 40,000 people. Under this pioneering initiative, the Government of Gujarat designed health programmes and gave SEWA Rural 100 percent grants-in-aid to implement the programmes and meet targets. They were given complete autonomy to recruit staff, budget and execute outreach activities in the 39 villages covered by the PHC. Through innovative approaches SEWA Rural met the target set under the “Health for All by 2000 AD” initiative much before the deadline. They helped bring down the Infant Mortality Rate (IMR) and Birth rate in Jhagadia and also helped improve the antenatal care and immunisation coverage in the region.

In 2003, SEWA Rural handed back the PHC to the government and started another collaborative programme with them in Jhagadia, called the “Family Centred Safe Motherhood and Newborn Care Project”. They are running the programme in partnership with the district-and block-level government health departments.

The programme aims to conduct evidence-based research and develop unique community based models that will help reduce maternal and neonatal mortality and morbidity in resource crunched settings. It covers 168 villages with a population of 175,000.

Under this programme, about 3,600 pregnancies are registered and monitored every year and appropriate care is provided to the mother during the pregnancy and after child birth. To ensure proper care SEWA Rural has built a “first-line cadre” of local volunteers, similar to link workers\(^4\) in the government. They call these volunteers “Arogya Sakhis”.

Along with 100 Trained Birth Attendants (TBAs), 165 Arogya Sakhi’s have been recruited and trained by the organisation for outreach and referral activities. They conduct community- and family-level outreach activities to ensure the family and the community become important partners in ensuring proper antenatal care (including aspects of birth

\(^4\)Village level Accredited Social Health Activist (ASHA) alike women volunteers
preparedness and complication readiness), intranatal and postpartum care to a pregnant woman.

SEWA Rural has also set up a sound communication and transportation network between the remote villages and the Kasturba Hospital at Jhagadia. It has evolved a referral system that links the “healthcare” at the village level to the hospital.

Exhibit 3: Referral Mechanism at Kasturba Hospital

If outreach workers cannot provide curative care, they give patients a referral slip, which includes details about the patient’s ailment and economic condition. The patient presents the slip at the hospital to receive free or subsidised treatment. Upon discharge the hospital adds information about the diagnosis, treatment given and advice on the follow-up in the referral slip. The patient returns the slip to the outreach worker who in turn ensures the necessary follow-up and care.

Health training and resource centre

In 1990, SEWA Rural established a training centre at their main campus in Jhagadia with funding support from the US-based Share and Care Foundation. The centre offered courses to train health workers from NGOs as well as private and public sector organisations. They also trained TBAs, Community health volunteers, Anganwadi workers, ASHAs, paramedics, health supervisors, project managers, doctors, government health officials and staff from NGOs. Every year SEWA Rural trains over 1000 people from about 50 organisations and international academic institutions.

5The foundation is promoted by Non Resident Indians
To meet the increasing demand for training, SEWA Rural set up in 2010 a new health resource training centre at Gumandev, about five kilometres from Jhagadia, with funding support from the Government of India and MacArthur Foundation. The Government of India and UNICEF recognise it as a centre for training on Integrated Management of Neonatal and Childhood Diseases (IMNCI).

**Human Resources**

SEWA Rural not only focusses on the person being served but also on the person serving. It values its employees and provides them a number of opportunities to learn and grow, both through in-house training as well as external training programmes.

They also believe in building their human resource capital from within Jhagadia’s community. Since it was a challenge to find qualified paramedical staff to work in this remote region, SEWA Rural selected men and women from within the community in the early 1980s and trained them to assume these roles at the hospital.

The organisation also encourages the youth and women from within the community to apply for various positions. There is limited hierarchy and the organisation encourages horizontal linkages, particularly in work related to training, research and referral services.

They have a total staff strength of 200 full time professionals which includes about 100 staff members at the base hospital (25 clinicians, 40 nursing staff and 20 paramedical staff including technicians, 10 administrative staff, 10 attendants and sweepers). They also have an extensive network of outreach workers comprising of supervisors, women health workers called Arogya Sakhis and voluntary workers.

SEWA Rural offers a consolidated salary package and ensures transparency in accounting policy, practices and procedures. The transparent work culture has earned the organisation tremendous respect from its staff members.

The organisation has an advisory committee that comprise government representatives, important members of SEWA Rural and experts from the area of public health. The advisory committee provides technical and managerial support. They also facilitate training and research programmes.
The Impact

The safe motherhood and newborn care programme being run in Jhagadia has helped bring down region’s Maternal Mortality Rate (MMR) from 594 in 2002 to 189 in 2010 and the Neonatal Mortality Rate (NMR) from 47 in 2003 to 31 in 2010.6

Meanwhile, through their provision for comprehensive eye care, SEWA Rural has managed to make Jhagadia and its neighboring block Valia cataract-free as per the 1998 WHO norms.

Exhibit 4: Impact of the Programme (2008-2010)7

<table>
<thead>
<tr>
<th>Activity</th>
<th>2008-2009</th>
<th>2009-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal Registration</td>
<td>3,746</td>
<td>3,320</td>
</tr>
<tr>
<td>Mothers Referred to Hospitals</td>
<td>1,157</td>
<td>1,350</td>
</tr>
<tr>
<td>Hospital Delivery</td>
<td>54%</td>
<td>66%</td>
</tr>
<tr>
<td>MMR</td>
<td>122</td>
<td>187</td>
</tr>
<tr>
<td>NMR</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Number of patients treated by Arogya Sakhis</td>
<td>20,520</td>
<td>17,450</td>
</tr>
<tr>
<td>Health Awareness Camps Held</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>Number of people who attended the health awareness camps</td>
<td>2,750</td>
<td>2,890</td>
</tr>
<tr>
<td>Gynaecology camps held</td>
<td>13</td>
<td>10</td>
</tr>
</tbody>
</table>

6Source: SEWA Rural Annual report 2009-2010  7Source: SEWA Rural Annual report 2009-2010
The Challenges

According to founder Pankaj Shah, volunteer efforts drive community participation in SEWA Rural health initiatives. The women, elders and youth in the community are often unwilling to become stakeholders and leaders of their own development. The management also feels that SEWA Rural has limited bargaining scope in the community because it expects health services free and often takes the organisation’s efforts for granted.

They say substance abuse and tobacco chewing are the two major challenges in the community that SEWA Rural will now try to address. They stress the need to improve basic amenities like drinking water and sanitation in Jhagadia to ensure good health in the community.

The senior management also face constraints while working with the government. Administrative delays often hinder the timely sanction of financial aid and grants from the government. Since SEWA Rural depends hugely on government funds, these delays often affect the working and motivation level of the staff.

The organisation is hesitant to replicate its models of intervention because they fear scaling up could dilute the core values and work ethics of SEWA Rural.

Although considerable time and effort is spent on training health workers and professionals, the organisation finds it difficult to retain the staff. SEWA Rural works in remote geographies with limited socio-economic development. It is a challenge to draw professionals to work in these regions.

The Way Forward

The organisation also needs to invest time and efforts to put in place a better knowledge management system. They should do systematic research and document their vast field experience and successful interventions. They need to improve data collection and publish papers in peer reviewed journals for future advocacy and dissemination.

The base hospital at Jhagadia offer limited services related to maternal, child and ophthalmology care. There is a pressing demand from the community to include other essential services such as cardiology, oncology and orthopaedics.
Disclaimer
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This case focuses on the Sampurna Suraksha Card (Complete Protection Card) scheme launched by Alka Hospital in the Mehsana district of northern Gujarat. Under the initiative, expectant women can avail antenatal care, delivery services (including Caesarean section) and postnatal care at the facility by paying a one-time fee of INR 1,500 (less than $30). They can also ensure neonatal coverage under the scheme by paying an additional INR 1,500. The scheme was launched in 2004.

Acknowledgements

Thorough primary and secondary research on Alka Hospital informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Dr. Harshad Vaidya for permitting us to visit Alka Hospital and sharing the information relevant to the case study. We also thank all the team members of Alka Hospital for their inputs and hospitality.
The state government of Gujarat has made considerable progress since independence in improving the health of its people. Gujarat’s health indicators are better than the national average – its Maternal Mortality Ratio (MMR) was 160 deaths per 100,000 live births between 2004 and 2006 while the national MMR was 254 deaths per 100,000 live births\textsuperscript{1}. The Infant Mortality Rate (IMR) in the state was 48 for the same period, against the national average of 50\textsuperscript{2}. However, these indicators are still high.

Besides, 60.8 percent of pregnant women in the state are anaemic, only 64.9 percent women receive antenatal care and just 54.6 percent women have access to institutional deliveries\textsuperscript{3}.

The prime reason cited for Gujarat’s poor maternal and child health indicators is the healthcare delivery system’s incapability to meet the demand for round-the-clock emergency obstetric and neonatal care\textsuperscript{4}. Rural areas face the problem of inadequate infrastructure and medical equipment at hospitals and a shortage of trained medical staff. The villagers do not have access to timely and affordable referral service. Most deliveries are conducted at home by untrained birth attendants. Only people with high disposable incomes are able to afford private sector medical care.

Government health insurance programmes such as the Chiranjeevi Scheme\textsuperscript{5} and Rashtriya Swasthya Bima Yojana (RSBY)\textsuperscript{6} cover people below the poverty line. Cases of post-partum haemorrhage, hypertension and obstructed labour require emergency response to mitigate high-risk or life-threatening complications but many people above the poverty line in rural areas cannot afford emergency services or transport to the nearest government facility.

To meet this need, Harshad Vaidya, a medical doctor, launched the 50-bed Alka Hospital in 1994 in the Kheralu block of Mehsana district in northern Gujarat. Vaidya launched the Sampurna Suraksha Card (SSC) scheme in 2004 to provide women access to cashless obstetric services at the hospital. Pregnant women can enrol themselves in the scheme by paying a one-time fee of INR 1,500 (less than $30). Currently the scheme serves 200,000 to 300,000 people in the Mehsana district and nearby talukas\textsuperscript{7}.

\textsuperscript{1}According to the latest available data from the Registrar General of India.  
\textsuperscript{2}Source: SRS Bulletin 2009  
\textsuperscript{3}Source: National Family Health Survey 3, 2005-2006  
\textsuperscript{5}A Government of Gujarat demand-side financing initiative that provides cashless delivery services to women living below the poverty line in the state.  
\textsuperscript{6}A Government of India health insurance scheme for families below the poverty line.  
\textsuperscript{7}A subdivision of a district; a group of several villages organised for revenue purposes.
The hospital allows pregnant women with the Sampurna Suraksha Card, access to:

- antenatal care services, which include any number of antenatal checkups, sonography, color Doppler, indoor management (if required) and fetal monitoring;
- all types of deliveries whether vaginal, complicated or Caesarean section;
- post-natal care up to one month; and
- post-delivery family planning surgeries.

Pregnancy-related risks are natural and unpredictable. Early detection of complications through regular and proper Antenatal Care (ANC) during pregnancy helps minimise maternal morbidity and mortality.

Vaidya and his team felt that the patient should not be made to pay extra for emergency management of pregnancy or Caesarean sections. Hence they made the SSC card to cover both normal and complicated deliveries as well as regular ANC check-ups and investigations such as ultrasound, colour Doppler, fetal monitoring etc. These checks help detect abnormalities and ensure proper foetal development and mother’s health.

We ensure that all high risk patients get frequent antenatal checkups and are screened regularly without having to pay anything extra out of their pocket. There is no inhibition from the consultant’s side in carrying out these treatments, as most of the expensive tests like USG, Doppler are covered under the card. We ensure, the patients and their relatives do not experience any stress due to economical burden at the time of delivery. We give the maximum co-operation necessary for timely and appropriate patient care.

Harshad Vaidya, Director, Alka Hospital
The beneficiary also has free access to any inpatient service including any number of emergency visits during the entire period of pregnancy and one-month post partum.

Another challenge faced by the community was the lack of affordable referral transport. High-risk patients and their relatives found it difficult to arrange for ambulances in time to reach the facility and this delay was critical for the patients. To address the issue, Alka Hospital started a round-the-clock ambulance service at a pre-negotiated fee of INR 100 (less than $3) to SSC cardholders as an add-on service.

However, the Sampurna Suraksha Card scheme does not cover the cost of medicines and lab investigations other than those mentioned earlier. A cardholder does get a discount of 10 percent for lab tests.

Unlike government schemes like Chiranjeevi, the SSC scheme has no eligibility criteria and is open to patients across economic strata. The patients approaching the hospital are counselled and briefed about the advantage and benefits offered by the SSC and they are free to opt for the scheme or choose general services. The card is essentially suited for high risk, low-income patients.

In 2004, Alka Hospital also started a Neonatal Intensive Care Unit (NICU) with 13 radiant warmers for newborn children. They extended the benefits of the SSC card to include neonatal care.

Parents were scared and tense because they did not have the money to pay for neonatal care; they used to say no to NICU and lose the baby. Now they can have NICU facilities covered for indefinite number of days for INR 1500. Similarly, for some patients who have problems other than obstetric, like patients with TB, pneumonia and other metabolic diseases, we have requested other physicians in the district to offer care at concessional rates.

Harshad Vaidya,
Director, Alka Hospital
coverage for children at an additional cost of INR 1500 (less than $30). The hospital also empanelled paediatricians from the vicinity to offer discounts on neonatal consultations to babies covered under this scheme.

The maternal and neonatal programmes run by the hospital have gained immense popularity in the district by word of mouth and an increasing number of families are now seeking coverage under the schemes.

**Financial stability and sustainability**

Alka Hospital recovers 100 percent of its total operating cost and has attained financial viability. The hospital has not received any external donations or grants either from the community or from the government. The hospital generates 60 to 70 percent of its revenue by providing general obstetrics and gynaecology services. While the SSC cardholders contribute 30 to 40 percent of the total revenue generated by the hospital.

Even for patients who are not covered under the SCC scheme, fees for obstetrics-related services are less than at other private clinics at the vicinity. This is because the hospital has standardised the cost of delivery services. The hospital charges the same fee for high-risk or low-risk vaginal deliveries as well as Caesarean section deliveries. This uniform price structure attracts more patients to Alka Hospital who could not otherwise afford private hospital care in the case of high-risk deliveries. By keeping the cost structure simple and clear, the hospital has also won the trust of the community.

While obstetric services are offered at the same cost to SSC cardholders as well as non-cardholders, the hospital has employed differential pricing for rooms. Patients pay more for better rooms in the hospital and the management uses this extra revenue to cover subsidised costs for poor patients.

**Maximised use of local resources**

Vaidya realised early in his career the importance and necessity of skilled human resources to tackle the high maternal mortality rates. He envisioned his hospital to be well equipped

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8The fee for normal delivery at a private hospital is INR 2,500-3,500 ($50-$70) and for Caesarean delivery is INR 5,000-10,000 ($100-$200).
Currently, the hospital has a dedicated staff of around 30 people including three full-time consultants, 14 qualified and trained staff members, drivers and cleaners. The trained staff at the hospital is mostly women because of the nature of medical services offered.

with all the necessary technology as well as a skilled team of medical personnel. As Kheralu is a remote area, the hospital faced shortage of trained medical professionals. Therefore, Vaidya started a professional one-year full time programme accredited by the Gujarat technical board and the state government, to train hospital assistants and technicians. He saw this as an opportunity to provide employment opportunities to people from the community.

While the tutoring was outsourced to faculty members from nearby nursing schools and Auxiliary Nurse Midwife (ANM) colleges, the students were given hands-on training at the hospital. After clearing their exams, these qualified medical technicians and administrators were recruited by the hospital. The training school also helped Alka Hospital manage the high rates of attrition (migration due to job opportunities in urban cities). The strategy also helped the hospital overcome the bottlenecks of recruiting and maintaining a pool of skilled staff members.

Vaidya foresaw that if he had a pool of skilled staff and his hospital provided quality medical services at affordable price, the patient inflow would increase and he would be able to sustain the hospital financially. This turned out to be true.
Alka Hospital had handled over 24,000 deliveries by 2009. With its innovative ideas, good work ethics and delivery of quality medical services, the hospital has earned high standing within the Mehsana district as well as the larger medical fraternity. The SSC initiative has drawn the interest of medical practitioners around the country and the model is being studied for replication\(^9\).

One-fifth (2600 deliveries) of the deliveries conducted between 2005 and 2009 at the hospital were covered under the SSC scheme.

Today, the hospital conducts 50 percent of the total deliveries conducted in Mehsana district and its catchment area\(^{10}\). The total inflow of patients is 60-70 per day and the average length of stay is two to three days.

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\(^{10}\)Serving approximately 200,000 to 300,000 population including near around villages and smaller towns like Vaidpura (11 km) and Sahina (25 km).
According to hospital statistics, there have been no maternal deaths in the hospital during the past three years.

The team at Alka Hospital believes that it is the responsibility of all members of the society, especially the medical fraternity, to reduce maternal and neonatal mortality. They believe everyone in a community has a role to play if we are to achieve the Millennium Development Goals (MDG) of bringing down MMR and IMR.

“There is one demand from our side that whatever instructions are given to a patient, they need to follow it. It is question of their own security so they do it and they know that at the time of delivery whether she has complication or normal, she would be given all the services, at no extra cost.”

Harshad Vaidya, Director, Alka Hospital
The Challenges

The SSC model adopted by the Alka Hospital is scalable and can be adopted by readjusting the pricing in accordance with the economic status of the community. However, the hospital faces certain challenges. First among them is the long-term sustainability of the organisation in the absence of the present leadership. Vaidya is the only permanent gynaecologist at the hospital. There were times when he had to singlehandedly manage the entire case burden at the hospital in the absence of another practitioner to share the load. The management also finds it challenging to convince doctors in the vicinity to offer services at subsidised rates to the patients referred under the SSC scheme.

With rising inflation and no external source of funding, the hospital at times finds it difficult to maintain the low cost of obstetric services and other additional services under SSC scheme. Despite this concern, the management says it will not increase the fees because the paying capacity of the community in the Mehsana district has not kept pace with the booming economy.

The Way Forward

Organisation should look at scaling of their training initiative and look at it not only from managing attrition perspective but also as a source of revenue.

They also need to focus on sustaining quality of service and also work towards developing second line leadership.

“Maternal fatalities and disabilities reduction is possible by proper ANC and skilled deliveries at well-equipped health centres. Poor people cannot pay for most of the services and we cannot accept a system where there is no option left for them.”

Harshad Vaidya,
Director, Alka Hospital
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This case study documents Kurji Holy Family Hospital (KHFH) located in Patna, Bihar. KHFH is a 300-bedded multi-specialty teaching hospital, with a focus on maternal care. The hospital has existed over the past seven decades in what was until recently one of India’s poorest and worst governed states.

The hospital is a faith-based non-profit organisation that provides not just quality healthcare but also undertakes a number of development initiatives in the region. It is also a centre for training medical professionals. It has been running nursing programmes in the state since 1940 and was recently given the permission to set up the state’s first accredited nursing college. The compassion and care given to the patients by the Sisters who run the hospital is inspirational.

Acknowledgements

Thorough primary and secondary research on Kurji Holy Family Hospital (KHFH), Patna informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Sister Juliana D’Cunha for permitting us to visit Kurji Hospital and sharing the information relevant to the case study. We also thank all the team members of KHFH for their inputs and hospitality.
The state of Bihar has seen one of the greatest turnarounds in the past five years and exhibits the second highest gross domestic product (GDP) in actual terms in the country at present. However, the quality of healthcare in the state continues to be abysmal, because of decades of underdevelopment combined with poor access to public health facilities and lack of awareness among people about good health practices.

The multiple challenges include high morbidity and mortality rates among women and children due to early marriage practices followed by early childbearing and short pregnancy intervals. Inequity in the utilisation of reproductive health services has contributed to high fertility rates in the state. In 2011, Bihar’s population was over 100 million¹. The Infant Mortality Ratio (IMR) in the state is 55 and the Maternal Mortality Ratio (MMR) is 305². Meanwhile, 40 percent of the state’s healthcare needs remain unmet³. The government hospitals cater to a small percentage of the people’s health needs and a majority of the state’s population is forced to depend on private healthcare providers.

It is in this context that Kurji Holy Family Hospital (KHFH), a private faith-based hospital, has been providing quality healthcare in the state capital, Patna. It was the first non-government hospital to be set up in Bihar, in 1939 at Padri Ke Haveli. The hospital was later moved to its present location in Kurji in 1958 to cater to a larger section of society. KHFH was set up by Anna Dengel, an Austrian doctor and founder of the Medical Mission Sisters⁴, to cater to the unmet healthcare needs of the people of Bihar.

Since 2000, the Hospital has collaborated with the Sisters of Charity of Nazareth to further its “health, healing and wholeness” mission.

¹Census 2011 ²Annual Health Survey 2010-11 ³National Family Health Survey (NFHS)-03 ⁴Medical Mission Sisters was founded in 1925 in Washington, DC by Austrian-born physician Anna Dengel. Working in what was then North India in the early 1920s, Anna Dengel experienced firsthand the unnecessary sickness and death of countless Muslim women and children, whose customs isolated them from medical care administered by male physicians. She became convinced that a group of women health professionals, who dedicated their lives to God, could make a difference in helping women to have access to the healthcare they deserved.
The Approach

The hospital has achieved its “health, healing and wholeness” goal over the years by providing quality healthcare services at a comparatively low cost to the sick and the needy. The hospital prides itself as being an organisation that uses compassion to define a “holistic approach” to health.

The hospital is a mission hospital with the vision: “Drawn by God, partnering in mission towards fullness of health and empowerment of all”. The hospital is run by nurses called the Mission Sisters.

Organisation Structure

The hospital management consists of two “sponsoring partners”: the Medical Mission Sisters and Sisters of Charity of Nazareth. The general body, which meets once a year, has nine members from each group. To maintain the balance of power, the president is chosen alternately from one of the two organisations.

Exhibit 1: The KHFH organogram
The administrator and the treasurer may or may not have medical backgrounds while the doctors in the obstetrics and gynaecology department (four senior consultants and 12 junior doctors) are chosen from the local community. The Head of Department (HoD) of the obstetrics and gynaecology department, the medical director and the nursing director at the hospital meet on a monthly basis to review the functioning of the hospital while the administrative team that oversees the everyday operations at the hospital meet daily.

The hospital has also created an additional layer of staff – the nursing assistants who help the nurses with their work. The assistants are selected from poor families and offered a one-year course on nursing at subsidised fees. The assistant nurses help the hospital meet their staff requirements as retaining qualified nurses is a challenge in the under-developed region. The state also lacks qualified nurses due to the absence of accredited nurse training colleges in Bihar.

Training is an important part of the hospital’s activities. In 1940, the hospital set up a school of nursing. The school offers a three-and-a-half year diploma course in general nursing and midwifery and a two-year course for Auxiliary Nurse Midwife (ANM) degrees. These courses are recognised by the Indian Nursing Council. The hospital also started the School of Medical Laboratory Technology in 1971. The Medical Council of India (MCI) recognises the course run by the school and conducts the all-India entrance exam for it.

The hospital is also a recognised centre for intern-houseman programmes for new doctors. The Medical Council of India (MCI) and the Diplomate of National Board (DNB) have also approved the training programme conducted by the hospital in the departments of paediatrics, gynaecology and medicine.

In September 2011, the hospital received the sanction from the state government to start the first graduate nursing college in Bihar.
Areas of Work

Provision of Healthcare

The 300-bedded hospital caters to the large unmet need for quality medical care in and around Patna. Patients come from in and around the city as well as from neighbouring districts.

The hospital was the first to provide specialised maternity care in Patna. Over the years, it has retained this focus and 80 of its 300 beds are devoted to obstetrics and gynaecology. Paediatrics and obstetrics together account for around 135 beds in the hospital. The hospital’s fee for both in-patient and out-patient care is 30 percent less than other private, profit-making hospitals in the state.

The hospital also offers immunisation, antenatal care, growth monitoring, family planning counselling and health education services for the small fee of INR55 (about $1). Antenatal coverage for patients including diet counselling and urine test is offered at a marginal fee of INR85 (about $2). However, being a faith-based organisation, the hospital does not offer family planning services or contraceptives to their patients.

The hospital also has a 12-bedded paediatric intensive care unit in addition to a separate neonatal care unit.

Some of the other key activities undertaken by the hospital are:

1. Community health and development services in 15 villages surroundings the hospital
2. Tuberculosis DOTS (Directly Observed Therapy, Short Term) provision
3. Provision of institution-based care and support to HIV-positive people through its Navjeevan community care centre, including provision of anti retroviral therapy through government centres
4. Nursing (ANM, GNM, Post Basic BSc) and paramedical training

Source: An Assessment of Public Private Partnership in India. A report by Department of Humanities and Social Sciences, Indian Institute of Technology, Madras.

“Navjeevan” means “new life”
Community Health and Development Services

As part of its mission to provide access to quality healthcare to the poor, the hospital also runs two community health centres. As Sister Juliana reiterates, the real work is to be done in the villages where most people lack quality healthcare. One community centre is located within the hospital compound while the other one has been set up 30 km away in the rural area of Maner.

These community centres are co-ordinated by one of the Medical Mission Sisters who is also a social worker. She has a team of four health workers who are recruited from the village and trained, two ANMs and a group of doctors from the Kurji hospital. The community centre offers general health care services to the public once a week. They also host regular obstetrics and gynaecology clinics as well as special camps for immunisation and eye check up.

All patients coming to the community centre receive a medical card. Poor patients who have the card issued by the community centre are charged only 50 percent of the hospital fees for all outpatient department charges at the Kurji hospital.

Alternative Medicines

The hospital also emphasises a spiritual dimension of healing as they believe that health is more than just about physical well-being. Patients are encouraged to participate in daily prayers and pastoral services are offered to those who request them. Social workers and counsellors also pay regular visit to the patients and offer them support and counselling.

The hospital also encourages and practices the use of alternative systems of medicine like homeopathy, Ayurveda, acupuncture and yoga.

Raising Awareness and Education

To raise awareness about good health practices and care, the hospital regularly organises and conducts street plays, village meetings, information surveys, environment programmes and school health programmes.
The hospital staff makes routine visits to villages located in the interiors to generate awareness about immunisation. This kind of information-sharing and awareness-raising is of significant importance in a state with poor literacy rates (63 percent)\(^7\) when compared to the national average.

The hospital works specifically in villages with the lowest socio-economic denominators. For instance, the community workers have been actively engaged on the issue of health problems in the Musahar community\(^8\), where ills stemming from extreme poverty, including alcoholism, violence, sexual harassment and wife-beating, are rampant.

The hospital has set up a pre-school and made it compulsory for parents living in the vicinity to send their children to study if they want to avail the medical care offered by the community health centres. Eighty children are enrolled in the school. They are admitted to government schools after the one-year pre-school training.

**Women’s Empowerment**

The Sisters working at the hospital also work towards improving the health of women in the community. This endeavour stems from the belief that women’s health is inextricably linked to their empowerment. The hospital has set up Self Help Groups to raise awareness about good health practices among women and their families.

These initiatives have given rise to the formation of a core group of women who work closely with local leaders to solve day-to-day issues like sanitation, clean drinking water, etc. The Sisters encourage the women to take up leadership roles in the community and become important stakeholders in their own progress. The hospital organises events on days like International Women’s Day, during which women are given an opportunity to raise their concerns with local politicians and community leaders.

The organisation has also initiated programs to protect women in the community from different forms of violence – both within their homes and outside. The hospital has set up the Sangharsh Mahila group to attend to the complaints of women in open forums where all involved parties are brought together. The community respects these efforts of mediation and recognises their spirit of service. In keeping with their faith, the Sisters adopt a non-confrontational approach to bring about change in society’s behaviour towards women. The initiatives have helped to bring about better standing and respect for women in the community.

\(^7\)The Musahar community was rat catchers who live across of Bihar, but this activity has been abandoned. They are now mainly landless agricultural labourers. They are one of the most marginalised groups in India.
The Impact

The major impact of the programme has been in making reproductive and child healthcare services available to vulnerable sections of society in an underdeveloped state like Bihar. The hospital’s outreach has been overwhelming. In 2010, they recorded close to 400 deliveries a month and approximately 13 childbirths a day. The steady rise in the number of patients, as depicted in the graph below, indicates the hospital’s increasing popularity and ability to meet community needs at affordable prices.

Exhibit 2: Annual deliveries at the KHFH (2000-2010)\textsuperscript{9}

According to the hospital, it has successfully met the targets for immunisation and antenatal coverage set by the government for the region and helped reduce the incidence of infectious diseases.

The hospital has set up a special wing to test and provide care to HIV-positive and HIV/AIDS patients. They work with people living with HIV/AIDS through projects funded by Catholic Relief Services and the Tides Foundation\textsuperscript{10}. The patients are given care and counselling. According to hospital records, none of its HIV/AIDS patients has acquired an infection in the hospital. This reflects the high quality of care and support the hospital offers its patients.

\textsuperscript{9}From data provided by the hospital administrator
\textsuperscript{10}US based non-profit organisation
Challenges

According to the hospital, the biggest challenge facing the organisation is one of human resources and high attrition rate amongst doctors.

Funding is a constant challenge for the organisation. The hospital receives no funds or subsidies from the state government. Efforts are on to procure medicines from the government, particularly for patients from the poorer sections of society who are unable to pay and hence incur heavy debts to afford hospital care.

Procurement of new age equipment to treat patients remains yet another overwhelming challenge. For example, equipment for critical patient medicine monitoring, like syringe pumps, cost approximately INR50,000 ($1,000) each. One critical patient may need more than one at a time and the patient or the hospital may not be able to afford the cost.

The hospital cannot afford ventilators for their neonatal wards as they are too expensive and depends on neighbouring hospitals for these facilities.

The organisation also sees an urgent need to set up more community centres to offer subsidised healthcare to the poor in the state. However, they lack the funds. The hospital itself was built on donations from local and international organisations and individual donors. In recent times, these donations have reduced drastically.

Few doctors feel that they are paid enough and as a result are not wholeheartedly involved. This is a serious obstacle in our work. People and their suffering have to motivate you. I tell them [doctors] that when they [poor people] don’t have [money] from where will they bring? However, commitment of this nature is missing.

Sister Juliana D’Cunha, Hospital Administrator, Kurji Hospital
The Way Forward

Despite the challenges, the hospital aims to continue its services to ensure quality healthcare. Kurji Holy Family Hospital has established itself as a centre for quality treatment and nursing care in a state where years of poor governance had prevented people from accessing healthcare services.

The nursing college and other paramedical training will go a long way to ensure that skilled caregivers are available and ready to serve the state. In a country where concerns about poverty subsume concerns about health, the hospital facilitated a platform as early as the 1970s through which community health initiatives could be taken. How the hospital manages to balance its mission of serving the needy despite the constant pressures of high cost of health care and technological need will determine the future of this service-oriented model.
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Mahavir Vaatsalya Aspatal (MVA), Bihar

Mahavir Vaatsalya Aspatal (MVA) is a 100-bedded, multi-specialty hospital in Patna, Bihar. Established in 2006, it is one of the three large hospitals owned by the Mahavir Temple Trust.

As part of its social initiative, the trust focuses on providing quality healthcare to the poor and the indigent.

MVA specialises in paediatric care. It has a well-equipped neonatal unit with state-of-the-art facilities. The hospital offers high quality care at a price lower than most other private hospitals in a region that lacks adequate public health infrastructure to address infant and maternal care. This case study narrates MVA’s work in Patna over the past six years.

Acknowledgements

Thorough primary and secondary research on Mahavir Vaatsalya Aspatal (MVA), Patna informs this case study.

Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges S.S. Jha (Director, MVA) and Rakesh Singh (Head of Paediatrics, MVA) for permitting us to visit the hospital and sharing information relevant to the case study. We also thank all the team members of MVA for their inputs and hospitality.
Background

Mahavir Mandir (Hanuman temple) in Patna, Bihar is one of the oldest temples and the second most visited shrine in North India. This temple has been in existence for over half a century, and receives a large number of pilgrims from across the state and region. The daily earnings of the temple are estimated at over INR100,000 ($2,200).

In 1987, the temple set up a trust called the Mahavir Sthan Nyas Samiti to run the temple and set up charitable institutions that could benefit from the temple’s surplus donations and earnings. The trust set up educational institutions, libraries and homes for the disabled and leprosy-affected persons.

They also started three hospitals in Bihar – Cancer Sansthan (Cancer Institute) in Phulwari Sharif, Mahavir Arogya Sansthan (a multi-specialty hospital) in Kankarbagh and Mahavir Vaatsalya Aspatal (MVA) in Kurji.

MVA was set up to provide paediatric services, especially neonatal care, in Bihar. The state suffers from high infant and maternal mortality rates. The Infant Mortality Rate (IMR) in the state is 52 per 1,000 live births\(^1\) and the Maternal Mortality Ratio (MMR) is 312 per 100,000 births\(^2\), compared with the national average of 50 and 254 respectively.

The high rates of IMR and MMR are attributed to the non-availability of healthcare services. In a resource-scarce setting like Bihar, MVA stands out for providing high quality medical care, especially to the poor, at affordable prices – even as the organisation strives for financial sustainability.

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\(^1\)SRS Bulletin, Sample Registration System, Registrar General, India, Volume 45, No. 1, January 2011
\(^2\)Special Bulletin on Maternal Mortality in India, 2005-06, Sample Registration System, Registrar General of India, April 2009
MVA is a 100-bedded, multi-specialty hospital that focuses mainly on paediatric and neonatal care. Of the 100-bed capacity, 30 beds are allocated for maternity care, 40 beds are allocated for paediatrics and the remaining to other departments.

They handle large volumes of patients every day. The outpatient visits at the hospital range from 200 to 300 patients per day. About 50 to 60 new patients come to the hospital every day for paediatric care and the hospital conducts three to four deliveries per day.

MVA also has a 35-bed Level II Neonatal Intensive Care Unit (NICU) with seven ventilators.

To reduce the financial burden incurred by the families for NICU care, the hospital follows a policy of early discharge after ensuring that the baby is able to maintain its temperature and blood sugar levels and the mother is confident of taking care of the baby at home. The mother is advised on how to care for the baby at home and the infant is closely monitored in the outpatient department (OPD). According to the hospital, the newborns do well at home despite being discharged at a lower-than-acceptable discharge weight.

The NICU is also reported to have a low rate of hospital-acquired infections because they ensure that the medical staff complies strictly with proper hand hygiene.

The central line-associated infection rate is also reported to be low because the hospital has invested in high-cost infusion pumps, which ensure infrequent disconnection and minimal handling of central line ports.

The hospital has also set up a state-of-the-art mobile neonatal transport unit to transfer sick neonates from maternity homes or other centres. This is one of the few mobile neonatal units available in Patna. The unit is fitted with all essential equipment, including a ventilator. Given that transport of a sick neonate is crucial for its survival, this new addition to

"This is the only facility in Bihar capable of providing long-term ventilation and nutritional support to pre-term infants."

Rakesh Singh, 
Head of Paediatrics, MVA

Neonatal Intensive Care Unit
MVA assumes significance and adds to its capability to function as a neonatal referral centre.

MVA also provides free ambulance services within the city limits of Patna.

A better outcome for admitted neonates and children is drawing increasing numbers of patients to the hospital.

Exhibit 1: Paediatric and neonatal intensive care unit cases, 2006-10

![Bar chart showing the number of pediatric cases and neonatal intensive care unit cases from 2006 to 2010]

<table>
<thead>
<tr>
<th>Year</th>
<th>Pediatric Cases</th>
<th>Neonatal Intensive Care Unit Cases</th>
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</thead>
<tbody>
<tr>
<td>2006</td>
<td>2762</td>
<td>542</td>
</tr>
<tr>
<td>2007</td>
<td>3271</td>
<td>862</td>
</tr>
<tr>
<td>2008</td>
<td>4952</td>
<td>1377</td>
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<tr>
<td>2009</td>
<td>5758</td>
<td>1454</td>
</tr>
<tr>
<td>2010</td>
<td>8401</td>
<td>1910</td>
</tr>
</tbody>
</table>

If you take the population of the state, the birth rate of the state, the neonatal mortality of the state, then I think we would need at least fifty more units like this. We are still catering to a very small segment of the society because I feel most of the babies do not reach us. They do not reach us ... because there is no referral mechanism. Seventy percent are babies in rural areas, 30 percent do not have neonatal transport – the ‘golden hour’ for the baby is lost.

Rakesh Singh, Head of Paediatrics, MVA
A price comparison with a similar private institution reveals that MVA charges 50 percent to 80 percent of the market rate for non-surgical processes and 60 percent to 90 percent of the rate for surgical processes.

Exhibit 2: Cost comparison – surgical and non-surgical procedures
MVA has a secular approach and provides care to everyone, irrespective of their religious affiliation. A number of patients who cannot afford to pay come seeking care at the hospital. They also provide subsidies to patients based on the recommendations of the head of department.

The graph below depicts the discounts given to the poor over the past five years. In 2010, the discounts amounted to 5.7 percent of the total revenue.

Exhibit 3: Discounts to the poor, 2006-10^4

The paediatric department gives the maximum subsidies (62 percent) to patients (see Exhibit 4).

Exhibit 4: Discounts by department

The effective functioning of an NICU requires much more than mere infrastructure. The private facilities that provide Level III care are very expensive and the Patna Medical College NICU (one of the five Level III public NICUs in the state) is often full. Therefore, MVA, whose services are priced below the existing market rates, provide an option to the households that can afford [the services] to pay at a rate below the existing market rate.

Rakesh Singh, Head of Paediatrics, MVA

Self-reported
MVA has stringent measures in place to ensure safe and high quality services at the hospital. There are different committees to ensure quality management. Drugs are purchased only from reputed pharmaceutical companies and the procurement committee takes responsibility to ensure the quality control for drugs.

They have put up a *shikayat peti* or complaint box for patients to lodge complaints anonymously. The complaint forms are regularly examined by a committee and corrective action is taken. However, MVA is yet to apply for healthcare quality accreditation from the government.

The Organisational Structure

Although the hospital has been set up by a religious trust, MVA enjoys considerable autonomy. The hospital is managed by a governing body comprising of prominent public figures from the state.

The MVA governing body meets twice a year to discuss strategic issues. They take decisions with regard to expansion of existing services, addition of new services and infusion of additional funds from the trust to cover deficits in running the hospital. They regularly audit the organisation and submit the reports to the Bihar State Board of Religious Trusts once a year.

Since MVA is a faith-based organisation, many employees choose to work here at lower-than-market remuneration. The hospital pays minimum wages as per the government rules to all its employees. It also attracts retired medical practitioners who are eager to contribute socially. Many healthcare professionals also provide voluntary services at MVA.

Over the years, the hospital has established itself as a centre of excellence. Their brand image also draws a number to practitioners to become associated with the hospital despite their lower-than-market remuneration.

MVA has also set up a paramedical training and research institute within the premises of the hospital. This government-approved institute offers basic certificate-level nursing courses to twenty nurses every year. It also offers paramedical training. They enroll 125 students every year and train them in four roles: operation theatre assistant, radiologist, physiotherapist, dresser and lab technician.

‘One reason why doctors stick to MVA is the reputation of the hospital. Once they move on to private practice, the experience at MVA helps them’

SS Jha,
Director, MVA
The Impact

Neonatal intensive care is an elaborate, demanding and expensive service. Neonates requiring intensive care are either very sick or have very low birth weight (below 1500 gm). An unwell newborn requires the constant presence of a dedicated nurse and a paediatrician on call around the clock. They also require extended stay at the hospital (of up to two months in some cases) to recover.

Despite these challenges, the trust has set up the Neonatal Intensive Care Unit (NICU) at MVA and invested in modern equipments and dedicated staff to provide specialised care to the sick newborns at highly subsidised rates. The facility is a boon to poor parents seeking critical care for their babies. Since it has a Level II NICU, many patients are referred from maternity hospitals in Patna as well as from neighbouring districts, adjoining states and even neighbouring countries like Nepal.

In a span of six years, MVA has established good credentials for itself as a hospital of excellence in neonatal care. As a result, the state health society, Government of Bihar is seeking MVA’s support to set up NICUs in public hospitals in different districts of the state. MVA also assists the government with training staff in neonatal care.

Although MVA does not offer any health insurance scheme, it has tied up with the public sector company Bharat Sanchar Nigam Limited to offer cashless healthcare facilities to their employees.

\[\text{Level II provides intermediate or special care for premature or ill newborns. At this level, infants may need special therapy provided by nursing staff, or may simply need to be monitored in the hospital for more time before being discharged.}\]
Attrition remains a major challenge for MVA, especially with respect to nursing staff. In the absence of any graduate nursing college in the state, Bihar suffers an acute shortage of nurses. To address the shortage, MVA recruited nurses from other states and trained them in neonatal care. However, they could not retain them as the demand for well-trained nurses, particularly in neonatal care, is high across the country. They are paid higher salaries and MVA could not offer better remuneration to retain the nurses.

While the hospital manages to earn good revenue from patients, it is not able to break even because of the huge interest it has to pay on the loan they took from banks to set up the hospital. It is currently running at a loss, although the deficit in operational cost is compensated by the temple trust - Mahavir Sthan Nyas Samithi Trust.

MVA estimates that 80 percent overall occupancy at the hospital will help it become financially sustainable. But being a referral centre, their NICU cannot by itself draw the volume of patients required to meet the occupancy target. They need to build strong referral linkages but this has been a challenge. The private hospitals are reluctant to send referrals to the hospital for the fear of losing out on patients since MVA offers similar or better quality care at a lower price. MVA is looking at opportunities to tie up with the state government for referral in tertiary-level newborn care.
The Way Forward

MVA believes that there is a need to expand to respond to the growing demand for their quality care paediatric services. They plan to add two more floors to the operation theatre complex to meet the need.

The hospital needs to have facilities for paediatric cardiac surgery to achieve the Level III accreditation from the Neonatal Forum of India. MVA is in the process of setting up the facility to achieve this accreditation.

The temple trust plans to set up new hospitals in Bihar. They include a cardiac hospital in Muzaffarpur, another maternity hospital in Sitamarhi, a cancer hospital and a terminal care centre in Hajipur, a geriatric care hospital in Kurji and a 200-bed hospital in Begusarai that will form the nucleus of a medical college, which is likely to have 100 seats. MVA is also going to start a training programme for Auxiliary Nurse Midwives and may start a nurse training institution after receiving government approval.
Disclaimer
The case study has been compiled after primary and secondary research on the organisation and has been published after due approval from the organisation. The case has been compiled after field visit(s) to the organisation during October to January 2011. The author of the case or ACCESS Health International are not obliged to incorporate or responsible for incorporating any changes that may have occurred in the organisation after receiving due permission from the organisation to publish the case. The case study has been developed with specific focus on highlighting some key practices/interventions of the organisation and does not cover the organisation in its entirety.

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Fernandez Hospital started as a two-bed hospital in 1948. In a span of about five-and-a-half decades, it has established itself as one of the most reputed hospitals for maternity care in the city of Hyderabad in the south Indian state of Andhra Pradesh. Today, the hospital is a 230-bed facility spread over two locations in the city. The hospital provides a wide array of super-specialty gynaecological, obstetric, paediatric and neonatal services.

Fernandez Hospital has become one of the most important referral centres for maternity care in the state, which has a population of over 80 million. Today, it leverages its brand value and reputation for high quality care to improve the quality of medical services in Andhra Pradesh by training both private sector and government medical staff.

Acknowledgements

Thorough primary and secondary research on Fernandez Hospital, Andhra Pradesh informs this case study. Several individuals have contributed significantly to its development.

ACCESS Health International acknowledges Evita Fernandez for permitting us to visit the Fernandez Hospital and Pramod Reddy and T. Uma for sharing information relevant to the case study. We also thank all the team members of the hospital for their inputs and hospitality.
Fernandez Hospital has its origin in the philanthropic vision of doctors Leslie and Lourdes Fernandez, who started the hospital in June 1948 with two beds. By 1996, it had grown into a 130-bed hospital. Their daughter, Evita Fernandez, an obstetrician and gynaecologist, took charge of the hospital in 1993. Today, it is a 230-bed modern institution that offers the latest medical expertise in Hyderabad through two branch hospitals.

The hospital is known for providing high standard medical care and has over the years become a referral centre for tertiary care in obstetrics, gynaecology and neonatology. The obstetric department of the hospital handles over 4,000 deliveries every year.

Exhibit 1: Case mix – outpatients

A nursing school and research wing attached to the hospital has further established it as a centre of excellence. The hospital opened a dedicated academic wing in 2003 and is recognised as a reputed teaching institute today.
The Approach

Fernandez hospitals are known for their infrastructure and team of expert gynaecologists and obstetricians who provide a range of services for maternity, infertility and menopausal problems as well as paediatric and neonatal care.

While the hospital does not offer free services, their flexible model allows families to choose a tier according to their capacity to pay. There are no pre-determined eligibility criteria for the lower tiers. Financial counsellors interact with families to determine their financial ability and offer a subsidy based on their discretion. Once the package is fixed, the hospital pays for all additional emergency components. The hospital does not have a set definition of “poor” but operates according to the patient’s stated needs and its assessment of the case. A needy patient with a poor obstetric history, for example, would be treated irrespective of her paying capacity. Many women, children and pregnant women come here from rural areas as well.

Patients who come through a referral network can avail emergency surgeries and maternity care at a minimal cost. Citing one example, Uma, a financial counsellor at Fernandez Hospital, said,

“The couple who just came to see us has had a bad obstetric history. Her husband is a labourer, and they are from Nagarkurnool. She has had five abortions and this is her sixth pregnancy. Her husband told me that he thought that only film stars and rich people come here, because of the high-end ambience, but I told him that, that is not so and that our aim is to solve whatever problem they have.”

A member of the senior management team reiterated the same and said that ventilator services are provided free to those who cannot afford them.

Exhibit 2: Percentage of maternity patients receiving subsidies

<table>
<thead>
<tr>
<th>Year</th>
<th>Subsidised total deliveries</th>
<th>Subsidised normal deliveries</th>
<th>Subsidised Caesarean deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>12.2</td>
<td>11.5</td>
<td>13.9</td>
</tr>
<tr>
<td>2007</td>
<td>10.7</td>
<td>9.1</td>
<td>14.1</td>
</tr>
<tr>
<td>2008</td>
<td>8.5</td>
<td>8.5</td>
<td>10.9</td>
</tr>
<tr>
<td>2009</td>
<td>8.1</td>
<td>8.2</td>
<td>13.2</td>
</tr>
<tr>
<td>2010</td>
<td>10.4</td>
<td>10.4</td>
<td>12.9</td>
</tr>
</tbody>
</table>

Source: Self-reported
Almost half the patients come through a referral network, and half of them cannot afford full treatment costs. Keeping this in mind, the overall costs for farmers, labourers and those from low-income groups are subsidised\textsuperscript{3}. For example, a Caesarean operation, if necessary, is done at a lower cost. Fernandez Hospital can do this as it employs most of its doctors at a fixed salary; their pay is not dependent on the number of paying patients they treat.

The hospital follows a differential pricing system vis-à-vis the allocation of hospital beds. They have a four-tier model: general wards, cubicles, private rooms and deluxe rooms. The charges for the more expensive rooms are able to absorb the low cost for the wards and cubicles without affecting service quality. In a country with iniquitous resource distribution, this has often been found to be a working model for cross-subsidisation.

The hospital stresses that the quality of the service rendered to patients is the same across all tiers. The resident doctors visit all the patients. Once the patients are registered with the hospital, they have equal access to labour rooms, nurses and doctors.

\textbf{Some of the other services provided by the hospital include:}

- Breast clinic
- Cancer screening
- Infertility treatment
- Pre-pregnancy counselling
- Early pregnancy assessment
- Multiple pregnancy clinic
- Obstetric intensive care
- Nutrifit clinic
- Menopause clinic
- Bereavement counselling

\textsuperscript{3}It is not possible to establish the financial value of these discounts.
New Initiatives and Partnerships

In response to the growing demand for their high quality medical care, Fernandez Hospital set up a new facility in Hyderabad in December 2010, about one-and-a-half kilometres away from the old hospital. This facility has a capacity of 100 beds. The tiers of beds available are the same as in the first hospital.

Another group of patients who benefit from the services of Fernandez Hospital are people living with HIV/AIDS. The hospital partners with the World Health Organization (WHO) and conducts counselling sessions for people living with HIV/AIDS. Charges for ante-natal consultations and investigations of these patients are minimal.

The Fernandez Hospital also has a long-term tie-up with the Mamidipudi Venkataramaiah Foundation (MVF), a non-profit organisation based in Andhra Pradesh that works on community-based action for eliminating child labour. Under the tie-up, the doctors from the Fernandez Hospital used to visit the PHC at Aloor village in Ranga Reddy district regularly. They ran an antenatal and gynaecology clinic and MVF volunteers mobilised the patients and spread awareness about the availability of these services. The initiative improved the reach of clinical care in the villages significantly (see Exhibit 3). These clinics were discontinued in 2012 as a new medical college came up in the area that now caters to the health needs of the people in Aloor and surrounding villages.
Fernandez Hospital also works with the Institute of Rural Health Services (IRHS), an NGO that works towards improving maternal health among the poor living in the Mahbubnagar district (one of the backward districts) of Andhra Pradesh. Fernandez hospital provides free care to serious, complicated cases referred by the IRHS.

**The Academics Department**

The academics department of the hospital was established in 2003 to train the medical fraternity and undertake research. It has helped Fernandez Hospital’s renown as a hospital-cum-medical training institute. Doctors from the hospital conduct workshops and conferences, develop protocols and guidelines and do peer reviews, audits and research. The emphasis on medical research has translated into quality treatment for patients. This sound academic grounding has improved medical care and has consolidated the hospital’s reputation of offering protocol-based patient care derived from evidence-based medicine.

The hospital also holds in-house sessions three times a week, during which resident doctors share information about their research or about the latest developments in their area of specialisation. These sessions enable the entire team to stay abreast of the latest advances in medical science and

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*Source: Self-reported*
Four years ago, we began to admit tribal girls giving them three and a half year free nursing education with a condition that they will work with us for two years. This year (2010), the Government of Andhra Pradesh has enhanced the total number of seats from 45 to 60.

Evita Fernandez,
Managing Director, Fernandez Hospital

The School of Nursing

Fernandez Hospital commenced its school of nursing in July 2005 with government permission. The school aims to provide superior, in-depth training to produce a new generation of confident and truly skilled nurses.

Fernandez Hospital attracts observers and interns from all over the country and the world. Medical students from the UK (Oxford University and Dundee University) and Australia (University of Queensland, Brisbane and Notre Dame University, Perth) come to do their “Overseas Elective – Clinical Attachment in Obstetrics and Gynaecology” course. They come as observers and work on projects that are either presented or published in their respective university journals. The hospital has an internal institutional review board that examines all research conducted by hospital staff.

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Exhibit 4: Training activities at Fernandez Hospital.\textsuperscript{5}

### Training Programmes

<table>
<thead>
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<th>Training Activities</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<tbody>
<tr>
<td>Basic ultrasound training in obstetrics and gynaecology</td>
<td>12</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Cardiotocography</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Colposcopy</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Overseas students</td>
<td>6</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Observers in obstetrics and gynaecology</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>High-risk pregnancy observation</td>
<td>-</td>
<td>-</td>
<td>2</td>
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### Academic Sessions

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<tbody>
<tr>
<td>Talks</td>
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<td>54</td>
<td>22</td>
</tr>
<tr>
<td>Papers / posters</td>
<td>7</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Number of workshops conducted</td>
<td>9</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Publications (papers, chapters, review articles)</td>
<td>-</td>
<td>3</td>
<td>4</td>
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### In-house Academic Sessions

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<tr>
<td>Academic classes</td>
<td>153</td>
<td>183</td>
<td>208</td>
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<tr>
<td>Diplomate of National Board (DNB) - post graduate sessions</td>
<td>51</td>
<td>68</td>
<td>62</td>
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### Workshops

<table>
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<th>2010</th>
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<tbody>
<tr>
<td>Obstetric emergencies and life support skills workshops</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(72 delegates)</td>
<td>(70 delegates)</td>
<td>(30 delegates)</td>
<td></td>
</tr>
<tr>
<td>Basic surgical skills workshops</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(14 delegates)</td>
<td>(15 delegates)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perineal repair workshops</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(12 delegates)</td>
<td>(15 delegates)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{5}Source: Self-reported
Most of Fernandez Hospital’s employees, including doctors, have worked there for most of their career. This reflects the good working conditions the hospital provides its staff. The staff praises Evita Fernandez’s leadership and says that the hospital is like a large family and that its work culture gives them a sense of belonging.

In one of her presentations on how to retain the best medical experts, Evita Fernandez described her recruitment style. “I look at a person to see if this is the person that I would like to age with. This evaluation is an important part of selection, particularly at higher levels.” The senior-most doctors have all been with the hospitals through the years and, in that sense, have truly aged with her!

Uma, a financial counsellor, has worked with the hospital for over two decades. She speaks glowingly about the way Fernandez Hospital supported her through her college years. Uma feels a sense of ownership with the place.

“We feel wanted. Since I stepped in here, I never thought that I should go out and search for a job. This is my first and last job.”
The opportunity to achieve professional excellence and to serve people is obviously a fillip to all those who are affiliated with the organisation. Moreover, the feelings voiced by the women employees are a testimonial to the support, Fernandez hospital extends them. This is in line with the Fernandez manifesto – support women throughout their lives.

The Impact

The hospital has responded to the growing needs of the community and has kept pace with changes in clinical and management practices. Even fourth-generation patients return to Fernandez Hospital for their deliveries.

According to Fernandez staff, this is because patients are provided good and humane care. Each patient is treated like a family member and the staff provides the much-needed personal touch to a system that can be otherwise daunting and disembodied. This increases patients’ confidence. Services such as financial counselling further help a patient who cannot afford expensive care.

Fernandez Hospital handles mostly complicated cases that require advanced skills, equipment and infrastructure; this makes the quantity and quality of their work especially impressive. The number of deliveries has increased steadily for the last four years. In 2010, there were 5,341 deliveries (including Caesarean and normal) in the old 130-bed hospital. This is a staggering number for a private hospital like Fernandez, where charges for services from most patients range from medium to high.

Of the 5,341 deliveries in 2010, there was only one stillbirth. Considering that this is a referral centre that sees many complicated cases, such good quality of care has earned the hospital its reputation and a large clientele. The hospital also handles a large volume of neonatal and gynaecological conditions.

The details of the deliveries, including their annual rate of growth, are captured in the following exhibits.
Exhibit 6: Number of deliveries – normal and Caesarean

<table>
<thead>
<tr>
<th>Year</th>
<th>Total deliveries</th>
<th>Normal deliveries</th>
<th>Caesarean deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>3876</td>
<td>2099</td>
<td>1777</td>
</tr>
<tr>
<td>2007</td>
<td>4408</td>
<td>2283</td>
<td>2125</td>
</tr>
<tr>
<td>2008</td>
<td>4715</td>
<td>2526</td>
<td>2189</td>
</tr>
<tr>
<td>2009</td>
<td>4896</td>
<td>2600</td>
<td>2296</td>
</tr>
<tr>
<td>2010</td>
<td>5341</td>
<td>2854</td>
<td>2487</td>
</tr>
</tbody>
</table>

Exhibit 7: Annual growth rate of deliveries – normal and Caesarean

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>4.89</td>
</tr>
<tr>
<td>2008</td>
<td>3.84</td>
</tr>
<tr>
<td>2007</td>
<td>2.93</td>
</tr>
<tr>
<td>2006</td>
<td>13.73</td>
</tr>
</tbody>
</table>
Most people’s perception of Fernandez is that of an expensive hospital, but there is more to it than meets the eye. Their flexible model enables them to provide treatment to economically weaker patients, who make up to 10 percent of their patients. However, many patients who require such subsidised services are often deterred by the “high end appearance” of the hospital, as pointed out by Fernandez staff. The hospital should perhaps undertake initiatives to reach out to the rural communities that need their help and communicate to the poor that they can access care at the hospital. They also need mechanisms to determine the amount of waivers they can provide to avoid slippages in their model and serve the community better.

The second hospital was established in December 2010. Until then, the load on the first hospital was such that all outpatient appointments were closed down for many days at a stretch, and many patients who required care had to go elsewhere. With the second hospital, the challenge is to ensure that the client load required to ensure sustainability of this unit are available. Engaging staff at fixed salaries is unusual; there is mounting internal pressure to reconsider this arrangement. Any revision in the mode of engagement of doctors would affect the bottom line, and the ability to provide subsidised care.
Evita Fernandez shared that until the new hospital was established in December 2010, the first hospital was a tertiary care centre. However, with the new hospital, the old hospital would act as a secondary care centre and support the new hospital.

Fernandez Hospital also aims to consolidate their learning and contribute to the reduction in maternal deaths by training a cadre of “competent midwives”. Towards this end, they are piloting a midwifery training course; eight qualified nurse-midwives will undergo a one-year course on midwifery. The curriculum is drawn up by the International Confederation of Midwives.

After the year-long training, the midwives will go through another year of practical training to conduct deliveries. These nurses will then be placed in primary healthcare centres in urban slums in Andhra Pradesh. Here they would handle normal deliveries but refer complicated cases and cases requiring Caesarean section to hospitals.

The hospital plans to train about 100 such specialised midwives. According to Evita Fernandez, if the pilot succeeds, other healthcare institutions could adopt the training model. The state could also adopt the birthing model for midwives in the urban health centres.

Fernandez Hospital also plan to network with private practitioners to improve the quality of maternity care in the state through capacity-building exercises and appropriate referral mechanisms. They already enjoy the Indian medical community’s respect for being an excellent training institute. The hospital plans to consolidate their position by bringing together the fragmented, unregulated private maternity care market through an efficient referral system.

“This network has to be defined and established. There is enough work for all providers of healthcare. They do not have to compete. This is a way to reach pregnant woman that are otherwise difficult to reach. All pregnant women do not need to go to a high-level hospital. A well trained midwife is sufficient to handle a normal, non-complicated delivery.”

Evita Fernandez, Managing Director, Fernandez Hospital

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*These are primary health centre equivalents in urban areas of Andhra Pradesh. There are over 200 such institutions across the state.*
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The availability of good quality healthcare at affordable prices is a major challenge for people living in India’s tier II and tier III cities. Patients who require secondary level care often travel long distances to towns and cities. The additional cost of travel adds to the family’s financial burden.

Vaatsalya is a network of hospitals that aims to plug this gap by establishing good quality hospitals in tier II and tier III cities of the country. It has set up a network of 15 hospitals in the states of Karnataka and Andhra Pradesh. They plan to set up another 20 hospitals by 2015 in similar geographies.

This case captures the genesis and growth of Vaatsalya since 2005. It examines how this professionally managed chain of hospitals delivers care and has managed to scale up rapidly with the help of investments from venture capitalists.

Though Vaatsalya is a chain of multi-specialty hospitals, it gives special focus to maternal and child healthcare services. They also serve the poor in these cities free or at subsidised rates through partnerships with the respective state governments.

This case is based on our visit to the Vaatsalya hospital in Shimoga district of Karnataka.
Background

The Vaatsalya chain of hospitals was founded in 2005 by Ashwin Naik and Veerendra Hiremath, two doctor friends who studied together at Karnataka Medical College, Hubli. The hospitals were set up to provide accessible, affordable and efficient care to the rural and semi-urban people of India living in tier II and tier III cities.

The founders came from similar towns and understood the ground realities and challenges of the health scenario in such geographies. Their initial plan was to set up a chain of outpatient and daycare clinics in tier II and tier III cities that also offered daycare surgeries. However, the founders soon realised that good quality in-patient services in these cities represented a huge service and business opportunity.

Funding and Growth of Vaatsalya

In 2004, Naik and Hiremath raised INR7.5 million ($150,000) from angel investors in the US and Europe to start Vaatsalya. They also invested their own money. They created a proof of concept to test “the feasibility of establishing a financially sustainable hospital in India’s small towns”.

When the proof of concept was demonstrated in 2005, Avishkar, a social venture capital (VC) firm, invested INR7.5 million ($150,000) in Vaatsalya. These initial funds helped Vaatsalya set up their first hospital in Hubli in 2005. They set up two more hospitals in Karwar and Gadag the same year.

In 2006-2008, a paucity of funds prevented Vaatsalya from scaling up the hospital chain. During this time, their annual revenue was under INR10 million ($200,000). They met about 46 funding agencies and finally two of them agreed to invest in Vaatsalya.

In 2009, Avishkar and another social VC firm, Seedfund, invested INR7.5 million ($1.5 million) in the hospital chain. This helped Vaatsalya set up three more hospitals in Mandya, Raichur and Hassan. With the additional three hospitals, the annual revenue touched about INR30 million ($600,000).

1An angel investor or angel (also known as a business angel or informal investor) is an affluent individual who provides capital for a business start-up, usually in exchange for convertible debt or ownership equity.
Encouraged by its success, Seedfund and Oasis Funds, another VC firm, invested an additional INR210 million ($4.2 million) in 2009 to help Vaatsalya expand.

Vaatsalya used the funds to set up five more hospitals (Mysore, Gulbarga, Vizianagaram, Narasannapeta and Ongole) by 2010. They also revamped the Shimoga hospital and set up a rural birthing centre\(^2\) at Kotumachige.

Seedfund\(^3\) and VC firm Aquarius invested another INR10 million ($10 million) in 2011; it helped the organisation add four more hospitals (Ananthpur, Tarikere, Malur, Hanumkonda) between June 2011 and January 2012.

Investment from VC firms continues to help Vaatsalya scale up at a rapid rate across India. They now have 15 hospitals – 10 in Karnataka (Gadag, Bijapur, Gulbarga, Shimoga, Tarikere, Hassan, Mandya, Mysore and Malur) and five in Andhra Pradesh (Vizianagaram, Anantapura, Ongole, Narasannapeta and Hanamakonda).

The core specialties provided at each of the hospitals include gynaecology, paediatrics, general surgery and general medicine. The hospitals are equipped to provide primary and secondary care. Selected hospitals also provide advanced services like dialysis, paediatric surgery, diabetology and neurosurgery. The management decides to provide advanced services at a hospital based on three factors – people’s needs in the region, gap in health service provision and the availability of doctors either locally or of those who are willing to move to that geography.

The organisation is headquartered in Bengaluru, Karnataka. The head office handles strategy, expansion, recruitment, training, fund raising and allocation of funds and equipment to the hospitals in the network. It is also the repository of all data from individual hospitals. In the future, Vaatsalya plans to set up head offices in different zones of the states to decentralise the management.

“We are proud to be associated with Vaatsalya. Their model shows that low cost does not necessarily mean low quality and that scalable and profitable business models can be built while providing lower-priced healthcare services.”

Bharati Jacob,
Founder-partner, Seedfund.

\(^2\)Rural Birthing Centre is a Public-Private Partnership (PPP) project funded by Deshpande Foundation. The centre’s objective is to provide safe, low-cost birthing-related services to the poor. \(^3\)One of the investors in Vaatsalya.
Many doctors who hail from small towns like those in the northern part of Karnataka are keen to return to their home towns. But since hospitals with the requisite infrastructure were not available in their home towns, they were working in Bengaluru, the state capital or other metropolitan cities. When Vaatsalya decides to set up a new hospital, they track down the doctors who hail from these towns and try to bring them back to their home towns by offering adequate compensation including a well-established and -equipped medical centre to work in. Since they also get a part of the revenue earned by the hospital, the doctors do not lose financially when they work in their home towns.

Bhargava Swamy,
Hospital Administrator, Vaatsalya Shimoga

The Approach

Vaatsalya uses standard criteria to identify a location for a new hospital: population, medical facilities available in the city, socio-economic demography, distance of the prospective location from the nearest metropolitan centre and availability of inputs like human resources, banks, etc. A dedicated business development and marketing team at the Bengaluru head office is responsible for market research.

The team prepares a shortlist of suitable cities and visits the different hospitals there to assess the existing gaps in medical care. They identify hospitals that can be acquired and meet Vaatsalya’s requirements of total space, scope to expand, number of specialties, etc. They assess the doctors working at the hospital, their existing practice and the volume of patients they attend to as well as their willingness to be a part of the Vaatsalya chain.

In India’s tier II and tier III cities, most financial transactions are conducted in cash, but Vaatsalya carries out all its transactions by cheque and ensures its businesses meet all legal and tax requirements. Hence, it is imperative that the prospective acquisition agrees to these terms and conditions.

Once a hospital is finalised for acquisition, Vaatsalya’s vice-president of marketing and business development negotiates and signs the agreement with the new hospital. If Vaatsalya does not find any hospital for acquisition within a time frame, it recruits a team of doctors and paramedics and sets up a new hospital in the city. A Vaatsalya hospital has an average staff strength of 80 to 100 people, including the doctors on their payroll. The doctors appointed at a Vaatsalya hospital are most often natives of that city.

Vaatsalya has a communication team that handles the marketing of a new hospital. To announce the arrival of a new hospital, they organise screening and general health check-up camps. Patients are charged a nominal fee of INR10-20 (20-40 cents). They also promote the hospitals through talk shows on the radio, where listeners can seek advice from Vaatsalya doctors.
When Vaatsalya enters a new city, it tries to build trust and goodwill with existing local practitioners; it does not compete with them for “general” cases. Before a new hospital is inaugurated, Vaatsalya’s marketing team visits all important practitioners in the region. During the inauguration, they invite local practitioners to tour the new hospital’s facilities. Doctors with outpatient practice are encouraged to use Vaatsalya’s facilities for their inpatient care requirements, on a revenue-sharing basis. Through these approaches, Vaatsalya hopes to build a strong referral network for services not offered at their hospitals.

Outward Referral Mechanism
Vaatsalya does not yet have formal referral arrangements with other hospitals for advanced care. When a patient needs a surgical procedure not offered by Vaatsalya (kidney transplantation, for example), they are referred to tertiary care hospitals like Columbia Asia and Manipal Hospital in Bengaluru. The patients are treated there at a lower cost. The arrangement is informal, and Vaatsalya does not earn a share of the revenue for such referrals.

Monitoring Mechanism
Vaatsalya tries to ensure employee and patient satisfaction and have set up a customer care cell at their head office in Bengaluru. The cell is supported by a call centre where employees and patients can call, register complaints or give any other feedback in complete anonymity.

They also call the patients after their discharge. All of the in-patients and 25 percent of the outpatients are contacted to track their feedback on the quality of services. This activity is outsourced to an agency that shares the responses with Vaatsalya at an agreed frequency.

Each hospital also has a patient care coordinator. She/he collects the customers’ feedback when the patient is being discharged and forwards it to the hospital administrator. Every month all the feedback is shared with hospital administrators, the nursing department and the accounts office to consolidate good practices and plug inefficiencies.

To ensure quality healthcare, we only associate with reputed doctors and collect feedback from the patients about the care delivered. In the future we plan to monitor objective quality metrics to ensure patients receive good quality services.

Ashwin Naik, Co-founder, Vaatsalya
Human Resource and Training

Vaatsalya has a staff strength of 1,200 employees and 500 doctors. The doctors treat about 600,000 patients annually. Vaatsalya spends a larger percentage of its total revenue on doctors’ salaries than the industry average. This helps the hospital attract qualified doctors.

Another incentive for medical practitioners is the relatively greater autonomy they enjoy at Vaatsalya hospitals – the hospital administrator and the main doctors are consulted on every hospital-related decision. Vaatsalya also provides them the opportunity to maintain the quality of practice they desire. They also strive to create a transparent work culture in each of their hospitals.

The Staff Structure

Exhibit 1: The network and hospital-level organogram

At the unit level, a Vaatsalya hospital is headed by a Medical Director (who is usually the hospital’s lead doctor) and a Hospital Administrator (who manages the hospital’s day-to-day functioning).

A doctor who moves from a metro looks for name, money and satisfaction and all these are found in a small city. Identity is quick to come while money and satisfaction comes from the freedom to work, freedom to help poor (give discounts, as per discretion).

Dhananjay Surji, Medical Director, Vaatsalya Shimoga
The Hospital Administrator is assisted in administrative activities by an Administrative Officer and his team, who manage billing, accounts, human resources and the facility (housekeeping, security, repairs and maintenance).

On the clinical side, the Hospital Administrator is assisted by a Nursing Supervisor and her team of senior nurses. The administrator is also assisted by a Patient Care Coordinator who collects feedback from patients about their experience at the hospital.

Doctors associated with Vaatsalya fall into three categories.

Full-time doctors work exclusively for Vaatsalya. In the first year of their association, they are given a fixed salary and a share of the revenue they generate. The fixed salary is to guarantee income to the doctor before he/she has built a reputation in the community. By the end of the first year, the fixed salary forms only a small part of a doctor’s compensation. From the second year, this fixed salary is withdrawn and the share of revenue constitutes the total compensation.

The second category of doctors works part-time with Vaatsalya. They regularly attend to patients but also have a private practice or consult at other hospitals. They are paid a share of the revenue generated by the patients they treat at Vaatsalya.

The third category of doctors works as consultants with Vaatsalya and provide consultancy services in their area of specialisation as and when required. They are paid on a fee-for-service model.

The hospitals also have clinical assistants in the Outpatient Department (OPD) who take care of pre-OPD formalities, such as checking records for the patient’s history, etc. He/she handles all the non-medical aspects and thus reduces the load on consultants and frees their time for patient treatment. Some clinical assistants are also practitioners of Indian systems of medicine like Ayurveda.

All the nursing staff at Vaatsalya are qualified General Nurses and Midwives (GNMs). A nurse who works for a year at a Vaatsalya hospital and meets the requisite standards is made responsible for six general ward patients in one shift.

Gulbarga is a very remote place in Karnataka where there is an acute shortage of qualified people. Most of these places have general nurses or ANMs. We could get nurses from Madhya Pradesh and Kerala to work there for 6-12 months in the Neonatal Intensive Care Unit. But we saw that the turnover was very high. Then we started taking local nurses. They may not be as skilled, but they are willing to take postings away from their homes for a fixed period as they know that they will not be posted there permanently. They are willing to go there because they know that they can come back to their native place (when a unit opens there). In that time they can transfer their skills to the local staff. That would not have happened if it was a stand-alone hospital. So we are able to leverage our network even for administration.

Bhargava Swamy,
Hospital Administrator, Vaatsalya Shimoga
It is a semi-entrepreneurship model with these highly skilled doctors who come back to smaller towns to head our hospitals.

Veerendra Hiremath, Co-founder, Vaatsalya.

While making the duty roster we ensure that we have a good mix of juniors and seniors in every shift as far as possible, and over time we try to keep the whole team together so that they all get trained. We conduct written exams periodically to assess staff. A month ago we started a dialysis unit here in Shimoga. Hubli already had one year of experience in running a dialysis unit and Bijapur had three years’ experience. We trained the newly recruited staff at Shimoga by sending them to the Hubli and Bijapur hospitals. I am basically from this region and I joined one and a half years ago. I have worked in Bijapur and Gulbarga as a Hospital Administrator. Now that there is a hospital in Shimoga I have moved back to my location which is nearer my home town.

Bhargava Swamy, Hospital Administrator, Vaatsalya Shimoga
Financial Sustainability

Vaatsalya attempts to keep its investment and recurring costs low. Its strategy of leasing a facility long-term and not purchasing land or hospital properties reduces initial investment. Apart from the hospital in Gadag, Vaatsalya owns no other buildings.

A Vaatsalya hospital attains financial sustainability (revenue covers operational cost) within a year and a half on average and breaks even in four to five years. An acquired hospital takes less time to break even than a greenfield hospital as it already has an established clientele. Five Vaatsalya hospitals are greenfield.

The organisation has a centralised procurement system for supplies and equipment for all its hospitals; the economy of scale helps them reduce cost. The use of a software package called “Procure Express” helps them further streamline procurement for all their hospitals.

The pharmacies and the diagnostic services at the hospitals are managed in-house. The pharmacies keep branded generics and ensure low-price, good-quality drugs for both in-house and outpatient use.

Vaatsalya invests in medical equipment only if many patients at a hospital need it. Each purchase needs to be justified by the Hospital Administrator and the Medical Director. They are required to define the expected volume of users of the new equipment and the expected return on investment. These commitments are made in good faith; if the equipment is under-utilised, it is moved to a hospital where it can be better utilised.

They also use IT-based tools to coordinate their operations and improve efficiencies, asset utilisation and billing. They use Medics Enterprise, a web-based Enterprise Resource Planning (ERP) solution for integrating financial data across their chain of hospitals.

While a 50-bed corporate hospital may need INR50-60 million ($1-1.2 million) to set up..., we require INR10-15 million ($200,000-300,000). So, our set-up cost is 20 percent of the industry average.

Veerendra Hirenath, Co-founder, Vaatsalya

Although the volume of patients treated is high, most hospitals offer secondary level of care (general medicine, general surgery, obstetrics, gynaecology and paediatrics) where the total revenue per patient per day is low as compared to hospitals offering tertiary care. Hence the fixed costs of the hospital have to be in line with the expected volume of the patients and the expected revenue from them. While taking over a hospital Vaatsalya makes a revenue projection for that hospital, following which the costs are consolidated. For example, 10 percent of the total revenue is earmarked for rent. Thus, at the time of setting up the hospital itself, Vaatsalya demarcates the percentage of the estimated revenue available for operating expenses.

Bhargava Swamy, Administrator, Shimoga hospital

*Break even is the point at which cost or expenses including the capital cost have been covered. *A newly established hospital.* This end-to-end software package solution for managing equipment procurement, customised for Vaatsalya, automates the procurement process — from a hospital unit placing an indent for equipment purchase and internal approval to delivery and post-delivery servicing.
Pricing

Vaatsalya follows a tiered pricing system. The hospitals have a general ward, a semi-private ward and a private ward. The general ward comprises six to seven individual beds separated by curtains, the semi-private ward has two beds and a private ward has a single bed.

The Shimoga hospital is an 80-bed facility that focuses mainly on maternal and child care related specialties. It has a paediatric department, a Newborn Intensive Care Unit (NICU) and a Paediatric Intensive Care Unit (PICU). They have 36 beds in the general ward, 18 beds in the semi-private and private wards, 13 beds in the NICU, eight beds in the PICU and five beds in the Intensive Care Unit (ICU) for adults.

The hospitals offer packages for procedures like deliveries (Caesarean section or normal). For others, the room rent is fixed, as are the fees for nurses, doctors and other surgeries. The only variable fee is for the surgeon for different types of surgery and the anaesthetist, and the charges for the operation theatre. There are no packages for the ICU.

Patient Discounts

A common problem that the healthcare industry in India faces is that many patients are unable to pay for the services they require. Vaatsalya offers need-based discounts to needy patients based on the treating doctor’s recommendation. The discount is not tied to any particular service but offered on the total bill.

Each hospital gives discount to about five to ten patients every month. Most discounts are given to patients in the newborn intensive care unit since their families often cannot pay the treatment cost. However, since Vaatsalya runs its hospitals on the revenue from patients, discounts are restricted to one percent of a hospital’s revenue.

“..."The treating doctor has the freedom to reduce or even waive the total hospital bill of a needy patient. Part of the burden of this reduction/waiver is borne by the doctor and the rest is borne by Vaatsalya. This ensures that the doctor truly considers the need of the patient before advising on a discount. If it is only the hospital taking the burden there is no incentive for the doctor to judge the merit of the case."

Bhargava Swamy, Administrator, Shimoga hospital
Areas of Work

Maternal and Child Health (MCH)

All Vaatsalya hospitals focus on MCH services. The Shimoga hospital treats an average of 5,000-6,000 outpatients every month in the paediatric department, provides inpatient care to about 300 children and handles about 50 deliveries. Of these, about 30 to 35 are vaginal deliveries and the rest are Caesarean sections. They manage an average of 300 deliveries a month across the chain of hospitals. The good quality of care offered by Vaatsalya hospitals draws many patients.

“I have tried several local physicians, the government hospital as well as other private hospitals here. But only here my child got cured. So, I don’t mind all the difficulty (of long travel and waiting time at hospital)... I want good treatment for my son.” A mother who had brought her only child to the Shimoga hospital after travelling for one and a half hours and was awaiting her turn to meet the paediatrician.

Health Services for the Poor

To provide healthcare services to the poor, Vaatsalya partners with state governments. They offer services to the needy either free or at subsidised rates. The government reimburses the cost to Vaatsalya although at a lower rate than what general patients pay out of pocket.

In Karnataka, Vaatsalya is partnering with the state government under the National Rural Health Mission (NRHM) to provide neonatal intensive care services to the poor.
The public hospital in Shimoga district does not have an NICU. The closest NICUs are 72 kilometres (km) away in Davanagere, 110 km away in Manipal and 200 km away in Mangalore.

When Vaatsalya set up its hospital in Shimoga, it identified the lack of a NICU as a major gap in the district. The NICU at the Gadag hospital was set up for the same reason. The NICUs at Gadag and Shimoga have helped parents in the district save valuable time and money in getting their newborns treated.

After setting up the NICU at Shimoga, Vaatsalya accepted the state government’s offer to accredit the Shimoga Vaatsalya as a First Referral Unit (FRU) for neonatal care. Under the scheme, the hospital provides cashless hospitalisation and NICU care to infants referred from Primary Healthcare Centres (PHCs) in Shimoga and the adjoining Chikmagalur district. The government reimburses the fees incurred at a predetermined rate based on Vaatsalya’s “patient treated” reports. Patients come to the NICU from far away because the hospital has established itself as a centre for quality care. Since the partnership began, the number of NICU patients at the Shimoga hospital increased from 50-60 babies a month to 80-90 babies a month.\(^7\)

Vaatsalya has NICU facilities in 10 of its 15 hospitals; four of which the Government of Karnataka has recognised as FRUs.

\(^7\)This scheme has now been discontinued by the government.
The shortage of well-trained doctors and nurses to deliver MCH services is a challenge that has to be overcome if we are to deliver [MCH services].

Ashwin Naik,
Co-founder, Vaatsalya

In the present model, Vaatsalya is able to serve the poorest section of the society only when the care is funded by the government through social health insurance schemes. Vaatsalya is trying a new model for delivery of MCH services through Rural Birthing Centres. It is a PPP (Public Private Partnership) aimed to reach the poor in villages around our hospitals.

Ashwin Naik,
Co-founder, Vaatsalya

**Challenges**

One of the main challenges faced by Vaatsalya is to find and recruit the right staff.

While the hospital chain has a large pool of junior-level staff, senior-level attrition is a major concern. Unlike industry practice, Vaatsalya does not make employees sign an employment contract that binds them to work at the hospitals for a minimum duration. So, the hospital faces problems when employees leave the organisation without notice.

The second challenge is with building a critical patient volume. The hospital in Raichur was closed down because of an insufficient volume of patients. Usually, a new Vaatsalya hospital has a core set of two or three doctors; in Raichur, the full-time doctors who were to be part of the core team backed out at the last minute. However, as the physical infrastructure was in place, Vaatsalya decided to go ahead with the hospital. But not enough patients visited the hospital and it incurred a loss. This experience made Vaatsalya realise the criticality of the senior doctors who lead the institution in building patient volumes.

Vaatsalya also faces challenges in providing maternal and child health services to the poor. This has, in some of the hospitals, been managed through contracts with government subsidising selected MCH services for the poor.

Another significant challenge is to keep the founding members’ core, ethical values alive across geographically spread-out units. Vaatsalya tries to address the challenge by formulating a core value system or an ethical backbone that they hope will percolate down to the last rung of the organisational ladder. This includes not taking bribes or “cuts” on referrals, etc.
The Way Forward

Vaatsalya proposes to set up 20 more hospitals by 2015 in Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu and Goa. It feels that expanding to contiguous districts eases the operational challenge; for example, when Vaatsalya started their second hospital in Gadag, logistics and manageability was easier as they had a hospital in nearby Hubli.

A business development team is scouting hospitals for potential acquisition in Karnataka, Andhra Pradesh, Tamil Nadu and Maharashtra.

Vaatsalya co-founder Ashwin Naik also plans to create a network of entrepreneurs (not limited to healthcare entrepreneurs) in the rural and semi-urban areas of India. He believes such a platform will help the organisation share expertise and learning from mutual experiences.

“Starting a venture in an emerging territory has the [first-mover] advantage... Hence, it receives better brand recognition at an early stage. Enterprises in small towns face similar problems, challenges and opportunities. So an online network of enterprises focused on rural and semi-urban areas, where best practices and technical expertise can be shared, would be of great help for aspiring rural entrepreneurs and also for the existing ones.”

Ashwin Naik,
Co-founder, Vaatsalya

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8See http://economictimes.indiatimes.com/et-high-flier/small-towns-big-goals/articleshow/4511395.cms
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Challenges: A summary

We have covered two kinds of organisation in our study: ones that are dependent on grant-based funding and others that work on a cost recovery model. The major challenges these organisations face are with regard to sustainability, leadership, human resource, demand side issues, government support, documentation, dissemination and scalability.

Financial Sustainability

Financial sustainability is the main challenge for many organisations. They seek grants and funds to meet their expenditure as they do not want to increase the cost of service to the customer. Many organisations explore multiple sources of funds – ranging from faith-based donations to bank loans to venture capital. They also focus on minimising operating costs and capital requirements. A common approach is to create cross-subsidy mechanisms to serve the most vulnerable individuals and families by charging a premium from the customers who have the means to pay. However, there are various challenges to establishing these mechanisms.

Organisations receiving grants from institutions abroad are concerned about long-term financial sustainability. The global economic recession has affected the flow of grants to these organisations, which are trying to deal with the situation in two ways: first, by focussing on raising funds from local grantors and second, by exploring the possibility of raising revenues from their existing operations. Some facility-based organisations seek new revenue sources by empanelling themselves in public health insurance schemes. A few also venture into revenue-generating activities with the intention of ploughing back earnings to their development work. Another reason for seeking new sources of revenue is that grants usually limit the scope of work and tie organisations to a particular set of activities/interventions.

Leadership

Most organisations are over-dependent on a single person – the founder or a charismatic figure. Most of the organisations we surveyed are in their first generation of leadership. These organisations need to nurture a second line of leadership to thrive in the long term. Most of the organisations acknowledged this challenge and some of them have initiated the process to ensure continued leadership.
Human Resources

The turnover in these organisations’ human resources is high; finding committed and qualified professionals and support staff is a challenge. Most organisations are too small to offer a clear plan for career growth. The for-profit organisations profiled in the study fared better in attracting staff than non-profit organisations. One of the main issues is that there is a shortage of healthcare professionals in India. Hence, the people qualified to work in healthcare have many opportunities and tend to change jobs frequently. Organisations serving low-income populations need to keep costs low and cannot compete with corporate hospitals on salary. Despite that, the profiled organisations attract professionals because many, especially young professionals, consider them a fertile learning ground.

Demand Side Issues

Organisations find it difficult to generate demand despite offering their services at an affordable cost or (in some cases) free. Three-fourths of the organisations work through community-level workers to create awareness and positive health-seeking behaviour, an activity that requires financial support that is often not available.

Government Support

About two-thirds of the organisations profiled in this book work with governments in some capacity, and many of them find collaboration a challenge. One of the main areas of concern is the ability of the public healthcare system to meet the demand for services. As the majority of the organisations work to raise community awareness and improve health-seeking behaviour, they depend on a functioning healthcare system to provide the needed services. The public healthcare system has an important role in many of the areas, but is rarely able to meet the demand for services.

The organisations providing healthcare services often depend on public hospitals for referrals of patients in need of specialist services. They face the same challenge, as public hospitals are unable to provide the needed services.
Documentation and dissemination

Dissemination of successful programmes is another challenge. We found that only a minority of the groups are effective in the dissemination of their work. There is a clear need for these organisations to improve their communication skills.

Scalability

We found that the ability to scale up operations is limited. Most of the organisations we studied serve local needs. Some believe that scaling would dilute the focus of their work. The exceptions are those organisations that support themselves from their operations. Organisations with revenue-generating operations are more likely to work at a large scale and to have the ambition to scale up further.
Observations: An overview

This section outlines some of the approaches that we believe are useful examples from which others can learn.

Access to Care

We identified five distinct approaches to improve access to care by private healthcare providers.

Effective management of existing infrastructure

Infrastructure is available in many places but healthcare workers are not present to provide services. Some organisations take over existing infrastructure to improve service availability and the quality of care provided. In some cases, governments contract organisations to manage service delivery in the premises of malfunctioning government facilities. The organisations set service standards and improve availability of services at these facilities.

Working with existing providers

Some organisations provide additional training to existing healthcare providers, in particular for maternal and child health services. They may also work to improve the referral system and access to drugs and supplies. They improve the provision of care to mothers and children through the available human and infrastructure resources.

Creating demand for health services

There are several examples of investments made in the community to raise awareness of health needs and entitlement to services. Investment may generate increased demand, which pressurises healthcare providers and local political leaders to ensure service availability.

Serving an unmet need

There are many healthcare providers in urban areas, but that does not necessarily translate to access to care. Some entrepreneurs have begun to serve low-income families that are unwilling to seek care in public facilities and are unable to afford the existing private healthcare. These entrepreneurs focus on providing low-cost, high-quality services.

Training and providing incentives to healthcare workers

There are no qualified providers of healthcare services or service infrastructure in some areas. Some organisations innovate to provide services in those locations and train paramedical staff to provide services to reduce dependence on medical doctors.
The following section presents these five approaches with examples from the organisations.

Management of infrastructure

The Government of India has established vast infrastructure to provide healthcare services across the country. However, these services are inadequate to meet the health needs of the people. Many centres lack medical supplies, and doctors, if available, are either absent or are available only for a few hours a day or week.

Society for Education, Welfare and Action, Rural (SEWA Rural) was the first non-profit organisation contracted by the Government of Gujarat to use the government’s infrastructure to provide services. As demand for such services grew, so did SEWA Rural. They established a larger hospital to manage more hospitalisations. The government agreed to support the extension and now contracts SEWA Rural to provide services in the upgraded secondary hospital.

Karuna Trust learned from the success of SEWA Rural and applied similar practices in the state of Karnataka. Karuna Trust approached the state government to manage primary healthcare centres under a contract. They were successful in improving health outcomes, and many other state governments have come forward to request Karuna Trust to manage primary healthcare centres in their states. At present, Karuna Trust provides services in 54 primary care centres across five states. They have requested to enter six more states and are currently planning to do so.

As promising as these developments are, our study raises some questions. The government does not monitor the services provided by the organisations or measure the quality of care. The quality of care at the contracted primary care health centres has improved; but without established mechanisms by the government to monitor the change, it can be assumed that the improvement is due to the organisations’ operational excellence and work ethics. To scale this public-private partnership arrangement for primary care and improve services in other regions, the government must manage these contracts more actively and hold the organisation to account. Other organisations may not have the ethics evident in the examples of these two organisations and might require more monitoring by the government to achieve the expected results. Karuna Trust has developed an internal performance management system over the years and is transparent about the parameters it uses to monitor and improve services at the contracted Primary Health Care centres; the government could adopt these standards and apply them in their contracting arrangements.
Another service provider, Vaatsalya, did not take over government infrastructure but acquired private hospitals in small cities that were not functioning properly or to their full potential. They invested in the infrastructure and, most importantly, brought in management to ensure better service provision in the hospital. Vaatsalya has used existing infrastructure and improved access to high quality healthcare services.

Work with existing providers

Mothers and children do not get the services they need from healthcare providers because the mothers may not be aware of what services they need; or the healthcare provider may not know of appropriate care methods; or the supplies and drugs necessary for treatment may not be readily available or, in some cases, financially infeasible to provide.

For example, many healthcare providers are unaware of the magnitude of the need for family planning services and are not familiar with the taboos associated with the topic. Janani created a network of informal service providers and trained them to communicate with patients about family planning services. Janani also subsidised supplies to ensure availability.

Another innovative example is the School Health Annual Report Programme (SHARP). SHARP is the largest provider of school health services in India, and works with the school system to generate demand for services. SHARP links the schools with healthcare providers in the city, conducts annual check-ups of all the children and provides access to health records online to parents, children and teachers. They conduct research on children’s health status and use the evidence to inform schools about the importance of routine check-ups and preventive care. They are rapidly scaling up their services and have now entered 10,000 public and private schools in India. They serve over 1.8 million children.

The Child in Need Institute (CINI) is one of the largest healthcare training institutes in India. They identified nutrition as a main cause of maternal and child morbidity and established nutrition centres to curb malnourishment among mothers and children. CINI uses its vast experience to train existing healthcare providers on a range of maternal and child health services.

Generate demand

Throughout India, there is a gap between what the government promises and what they deliver. Many people are unaware of the services that should be available and therefore do not demand them. Many organisations help people demand the services the government has
promised. One such organisation, Ekjut, works in the area of maternal and child health. They managed to reduce the Neonatal Mortality Rate by 32 percent in three years just by raising awareness and facilitating a dialogue between service providers and the community members.

An organisation working with a similar approach is SEWA, a trade union of over 200,000 self-employed women. It is one of the largest organisations of informal workers in the world. They work with women and educate them to seek care and demand quality healthcare services. Mirai Chatterjee, Director of Social Security at SEWA, stated:

“Now, the government has substantially improved public health infrastructure and human resources. Services have been largely strengthened. There are various government schemes running at the district levels. We believe in facilitating access to these existing public health services, as we do not want to duplicate efforts. We aim at filling the gaps in the public services. Our focus is preventive care, through health education, occupational health education, adolescent education etc. We aim to generate awareness in a community through health information and education.”

SEARCH is another organisation that works with the community to not only raise awareness and generate demand for services but also to understand the problems, find solutions and work to change the system. Abhay Bang of SEARCH compares their approach to that of Archimedes of Syracuse, the ancient Greek scientist:

“Knowledge is the long lever in our hands. But we have to take the position to stand outside the government, outside the commercial system and have no stakes. You cannot stand inside the earth and move it because then you are part of the system. So you must have a place to stand outside the system and then you should have the lever of knowledge.”

SEARCH’s research-oriented work with communities has resulted in globally recognised approaches to home-based newborn care. They have actively led local movements towards better health, such as management and reduction of alcoholism.

**Serving unmet needs**

In many areas, people do not have access to services despite the availability of government facilities and private healthcare providers because private healthcare providers are too expensive and government hospitals are not reliable, as staff and medical supplies are often not available. The larger cities have corporate hospitals where quality is
perceived to be better, but the working poor cannot afford them.

Two organisations – Vaatsalya and LifeSpring – provide high-quality and affordable services to people in smaller cities. They have put in place protocols to standardise care, train their employees in good health practices and achieve economies of scale by establishing chains of hospitals. They communicate the image of quality by branding hospitals. Both Vaatsalya and LifeSpring are rapidly scaling up their services with private equity funding and gaining international recognition for their approach to cater to underserved market segments.

Training and offer incentives to healthcare workers

One of the major cost heads for healthcare providers is human resources. We found that many organisations adopt task shifting to address challenges with cost and availability of medical professionals. More than 75 percent of the studied organisations have trained lower level staff in tasks usually performed by doctors or nurses.

ARTH trains nurses to manage deliveries to minimise the dependency on doctors in areas where they are difficult to recruit. The nurses provide good quality care and no maternal deaths have been reported under them. A study in 2010 of 49 villages surrounding ARTH’s clinics and in control areas showed proportionately fewer maternal deaths in the intervention areas than in the control areas (Maternal Mortality Ratio of 206 in the intervention area and 757 in the control area). Similarly, the Neonatal Mortality Rate was found to be about 25 percent lower in the intervention areas than in the control areas. ARTH is now training nurses from other organisations and the use of nurses for deliveries is expected to grow. ARTH also educates the men in the family and panchayats to play an active role in ensuring safe motherhood; they are encouraged to contact ARTH when they need assistance. ARTH has established an obstetrics “flying squad” and an alert system to deliver care for deliveries outside a medical facility. They ensure that a nurse-midwife and a male field supervisor reach the delivery site with essential drugs and a delivery equipment kit. ARTH also ensures availability of emergency transport and referral and outreach services in underserved areas.

One other organisation renowned for task shifting is SEARCH, in Maharashtra. They train villagers in healthcare work. They even train them to administer vaccinations like Gentamicin for serious infections. Through research and regular monitoring, SEARCH has proved that this is an effective way to ensure care in the absence of adequate medical
staff in a community. They have reported no adverse effect. LifeSpring is another example. The chain of maternity hospitals trains paramedical staff to undertake community nursing and perform several tasks generally performed by doctors. The division of work aims to use all staff effectively and let doctors focus on tasks only they can perform.

While task shifting has emerged as one of the most common measures to improve access to trained healthcare providers and to reduce the cost of service delivery, there is still a need for doctors and senior managers. Vaatsalya establishes hospitals in areas where recruiting such staff, especially specialist doctors, is difficult. While recruiting doctors for smaller cities, Vaatsalya found that many were willing to work in small cities and towns away from major metropolitan areas if given part ownership of the hospital and some degree of managerial independence. Therefore, while a manager at a Vaatsalya hospital may part-own the facility and build one’s own team, he must also comply with certain protocols to ensure quality and common branding.

The case studies reveal that providing incentives, as in the case of Vaatsalya, and task shifting are two of the most critical approaches to improve access to care.

**Affordability**

Access to care often depends on people’s ability to pay; therefore, affordability is one of the most important aspects of healthcare services. Studies show that the issue of cost of care delays treatment, especially for women and children. All the studied organisations have made efforts towards affordability. Task shifting has already been presented as an approach to improve access to care and reduce cost for services. In addition to that, we have identified three other approaches that could ensure affordability: cross-subsidies, health financing through third-party payments and economies of scale.

**Cross-subsidies**

Nine of the 16 profiled organisations have some form of cross-subsidy to support people who cannot afford the full cost of care. Organisations like Kurji Hospital and Vaatsalya allow doctors to subsidise treatment to a patient or provide it free. At LifeSpring and Fernandez Hospital, different prices are associated with different levels of comfort, such as a private room, a semi-private room or a general ward. Those who want a private, exclusive room pay a significant premium, which is used to cover some
of the costs for the poorest patients. Some hospitals, such as Fernandez and Mahavir Vaatsalya Aspatal, have a formal system to assess a patient’s ability to pay on certain criteria. The quality of care is said to be the same for all patients; the level of comfort is the only thing that differs.

Doctors in India are generally paid per patient rather than a fixed remuneration; they make more money by treating more patients. That structure can make many doctors resistant to subsidise care. The two maternity hospitals (LifeSpring and Fernandez) employ doctors on their permanent roll and pay them fixed salaries; doctors are more open to see poor patients as their personal income is not compromised.

Very few hospitals have transparent pricing. Multiple diagnostic tests and pharmaceuticals can significantly inflate the bill, which is presented to a patient only at the time of discharge. The fear of incurring high cost restrains many in need of care from seeking it. Alka Hospital recognised this and developed an insurance plan for maternity services, which entitles a pregnant woman to all necessary services at a fixed price. Under the scheme, the patients are not charged extra even for emergency procedures like a Caesarean section. This also helps Alka Hospital address the information asymmetry; patients know exactly how much the pregnancy will cost and this makes them feel comfortable.

SHARP has built its financial model on a membership fee structure. Each school pays a fee to participate in the programme. SHARP serves all sorts of schools – from exclusive private schools to government schools with limited resources. SHARP subsidises government schools for participating in their programme but charges private schools a premium. The cross-subsidy is certainly one of the most important approaches to enable access to care for the poorest people.

**Third-party payments**

The organisations profiled here provide excellent service, but many depend on donations and cannot scale up services as operational costs would overshoot funding. However, some of them are now drawing benefits from government-sponsored insurance schemes like the Rashtriya Swasthya Bima Yojana (RSBY). Under the scheme, the government contracts private and public hospitals to provide services to families living below the poverty line. The government pays the hospital a premium for the services.
Hospitals with maternity services like Kurji and Mahavir Vaatsalya Aspatal are supported by religious organisations. They give donations to manage the hospitals and provide care for the poor. Now, Kurji is empanelled with the government-sponsored insurance programme RSBY and can bill the insurance company to cover costs of services of poor patients. This has helped reduce the hospital’s dependence on donations.

Kurji aims to establish more community centres but funding has been a problem. As the RSBY increases coverage in Bihar, the number of patients paid for by RSBY is likely to increase; this may allow Kurji to scale up community work. SEWA Rural is also empanelled under the RSBY and patients can now receive cashless treatment at the hospital. The RSBY rates are higher than SEWA Rural’s normal rates and this additional income helps the organisation cross-subsidise its other activities.

Several other organisations are contracted by the government. Janani provides free family planning services; this contract is one of its main sources of income and has enabled the organisation to scale up services.

**Economies of scale**

There are many strategies to reduce the cost of care and make services affordable for patients. Vaatsalya and LifeSpring focus on cost control in their chains of hospitals. Based on an analysis of their operational cost structures, they decided to lease facilities for the long term rather than own them. They also outsource non-core functions like laboratory and pharmacy services to third parties who manage large volumes. Karuna Trust on the other hand meets the demand for medicines not provided by the government under its partnership with the state by procuring low-cost generic medicines from LoCost. LoCost is an innovative experiment by a Gujarat-based organisation to demonstrate that high volumes of good quality drugs can be manufactured and marketed at low prices.

All three organisations have a “chain” of institutions. The economy of scale let them charge lower prices. Vaatsalya and LifeSpring also use technology to ensure that their infrastructure, equipment, human resources and drugs are utilised optimally and ethically.

**Quality**

The Indian healthcare market lacks regulation; quality of care is a major issue. Patients generally go by word of mouth and hence the experiences and health outcomes of patients at a hospital can directly translate into volumes at health facilities. While volume is not an optimal measure of...
quality of care, it certainly indicates the perceived service levels. The studied organisations manage very large volumes of patients.

Most of the profiled organisations have standardised both clinical and management processes to ensure service quality. ARTH, an organisation with a nurse-centric approach to maternity services, conducts research on current practices of providers and on beneficiary behaviour. They use the research to develop training modules and train their own staff. From the beginning, ARTH recognised the need to reduce the dependence on medical doctors and have established and proven the feasibility of nurse-run clinics. They train the nurses and have created a checklist to standardise services at their clinics. They have instituted systems to ensure the support of a gynaecologist and a paediatrician in case of an emergency. The doctors also make weekly visits to the ARTH clinics. Fernandez Hospital has customised the evidence-based protocols from the National Institute of Clinical Excellence in the United Kingdom to local contexts in India. LifeSpring Hospitals also captures and analyses clinical data to measure performance and continually improve processes. LifeSpring collaborated with the U.S based Institute for Healthcare Improvement to improve processes across its chain of hospitals and reduced primary Caesarean sections to 24 percent from 37 percent over a year.

As described above, many organisations collect process indicators of the services they provide. However, few organisations collect and manage the longitudinal data of beneficiaries to monitor and analyse the outcome of the services over time. SHARP is an exception – the organisation follows up with all the beneficiaries over a period and uses the data to evaluate the effectiveness of its approach. They also engage a panel of doctors to review the data and guide service design.

Vaatsalya has developed strong, information technology-supported management processes. Each hospital sends the details of the patients discharged and the resources used at the clinic to the hospital headquarters in Bangalore at the end of each working day. The data on operational efficiencies and asset utilisation is analysed to improve service and efficiency. The hospitals also collect patient feedback and discuss it every month with hospital administrators, the nursing department and the accounts office. This helps identify and consolidate good practices and continuously improve services. LifeSpring, Mahavir Vaatsalya Aspatal and Kurji also collect, review and discuss patient feedback with staff.
While the documented organisations provide excellent services, their sphere of influence in terms of direct service delivery is limited – they serve only a fraction of the Indian population. However, some of these organisations have had a broad influence on maternal and child health services in India. They have shared their work with service providers nationwide and influenced their practice. Several organisations have also influenced health policy in the country through active engagement with policy makers, by putting forth and publishing research based evidence for good practices, by training government health personnel and by building the capacity of other healthcare providers.

In the following segment, we outline some of the strategies to scale up.

**Ambassadors to drive scale-up**

SHARP has managed to grow organically, and now operates in 10,000 schools across India and serves 1.8 million children. They hire and train people to become “School Health Entrepreneurs”. Their task is to persuade schools to participate in the school health programme. The entrepreneurs are paid a fixed salary and an incentive for every school they recruit to the programme. Currently, 1,000 such entrepreneurs drive SHARP’s scale-up efforts.

MVF in Andhra Pradesh adopted a similar approach to replicate their programme to reduce child labour. They recruited and trained ambassadors to scale up the work. Persons involved in the design and development of MVF’s flagship programme to reduce child labour were trained in soft skills such as communication and capacity-building methodologies so that they could expand the practices to other states and even other countries.

Ekjut proved through a field study that the organisation’s community participation approach through women’s groups could reduce neonatal mortality and improve maternal health. The organisation has managed to draw the interest of stakeholders towards their approach through evidence-based research. They are committed to scale up their work to new geographies, but are yet to decide on the strategy. They could potentially use the strategy of SHARP and MVF: standardise an implementation process and train “ambassadors” to communicate and manage the process across geographies.
Training of others

India needs to focus on training its healthcare workers. Many healthcare providers, especially in rural areas, lack formal medical training. They are often referred to as registered or rural medical practitioners. They administer allopathic as well as traditional medicines to people with ailments. Even if they have formal medical education, very few of them get refresher training. They are rarely introduced to new evidence-based practices and there is very little support to help them improve their knowledge.

However, the organisations profiled in this book invest in providing continual medical education to its staff and encourage them to do research. Some of these organisations have gained national and global recognition for good practices. The government as well as other healthcare providers come to the profiled organisations for getting their staff trained in the good practices developed by them; nine of the 16 organisations have established formal training institutions to meet the demand for healthcare training.

SEARCH’s programme for home-based newborn care was adopted by the Government of India as a national policy. The organisation supports the government in developing training-of-trainers modules to scale up the programme through thousands of community health workers across India. Government representatives from other countries also visit SEARCH to understand their programme. The practice is now being adapted and implemented in four African countries.

Bihar is a state of about 83 million people but does not have a graduate course for nurses. The Government of Bihar has finally recognised Bihar’s desperate need for training its own cadre of nurses and has requested Kurji Hospital to start a graduate nursing school in the state. The hospital has been working in Bihar for many decades and is reputed for its high quality care and strong ethics. The nursing school will help the state meet its shortage of nurses and have good quality nurses trained by Kurji hospital.

Mahavir Vaatsalya Hospital in Bihar also provides technical expertise for establishing Neonatal Intensive Care Units across the state. They train the public healthcare staff and help the government prepare protocols for ensuring good care.

There is also a pertinent need to train the managers working in the healthcare sector to improve service delivery and care. Karuna Trust
not only manages several non-performing Primary Healthcare Centres under a public private partnership model with the state governments but also train other non-government organisations to enter into similar partnerships and manage public health delivery centres.

One of the biggest challenges facing healthcare delivery in India is the lack of adequate research to provide evidence for good practices and improve care. There is not enough information about the impact and cost-effectiveness of best practices being followed by many good organisations. There are, however, exceptions.

SEARCH has conducted rigorous research of its programmes. ARTH founders were determined from the outset to generate evidence for their successful practices. Both organisations have won credibility and recognition through their research that have been published in The Lancet. Ekjut’s research based intervention to improve maternal and newborn care earned them international fame when their work was also published in The Lancet. Both Ekjut and SEARCH are now collaborating with the Government of India to scale up their interventions.

It is important to note that the organisations who adopt a research-based approach to their work are led by people who are trained in or understand evaluation methods. It is evident that exposure to the effectiveness of an evidence-based intervention in affecting policy and improving operating models inspires research.

It is encouraging to see increased partnership between the government and private healthcare providers in training healthcare managers and providers. There is, however, growing evidence of how training alone has limited impact on quality of services. A multi-pronged approach is required to improve services. The interventions that combine training with changes in the accountability system, establishment of referral systems and (in some cases) financial incentives have demonstrated significantly higher impact than mere training. There is also a need for greater coordination between different stakeholders to best utilise these organisations’ training resources.

**Capital to scale**

The past decade has seen a major increase in new sources of capital. Private equity through various funds with mandates to invest in healthcare has drastically increased. Private healthcare providers have historically been dependent on family and friends or bank loans to fund infrastructure and equipment to start a facility. Now, these new investors are looking
to fund healthcare entrepreneurs who aim to scale up their healthcare practices across geographies. Vaatsalya and LifeSpring could probably not have scaled up their operations at the current pace without private equity funding. To draw these funds, organisations need a strong management team and standardised processes. That facilitates scale-up of services and addresses some of the risk of turnover in senior management.

However, there are challenges. Investors usually look for an exit in five years or earlier and want to ensure significant scale-up in that time. Maintaining quality of care during rapid scale-up can be a major challenge. Many organisations face challenges in finding the right location. Both Vaatsalya and Lifespring had to close some hospitals and relocate others as they could not generate the required volume of patients.

CINI and SEWA are both established and reputed non-profit organisations. They have identified revenue-generating opportunities and now have to decide how to scale these up. CINI has set up a unit to produce nutrition supplements, a product that has a large market in India. However, they need capital investment to expand the production capabilities and efficient managers to scale up the work. SEWA has set up low-cost pharmacies to generate revenues. Profit from this venture is used to subsidise their healthcare work. They are now trying to scale up the number of pharmacies. Expanding these activities can reduce donor dependence for CINI and SEWA, but they need capital investment. Organisations like Mahavir Vaatsalya Aspatal in Bihar opted for debt financing but find it difficult to pay the interest on bank loans. The increasing number of social investors could potentially provide the capital required to support these organisations.

Today, most organisations in India raise donor funding to support their activities; only five of the 16 organisations profiled in this book are capable of sustaining their work without government subsidy or donor support. SHARP is one of the few non-profit organisations that have scaled up significantly without much donor support, because their practice is service-oriented and not capital-intensive – they earn revenue through membership fees.

Therefore, there remain questions regarding the appropriate source of capital for an organisation to scale up.

**Influencing policy**

There are many examples in India where an organisation’s work has resulted in policy dialogue and change. Karuna Trust’s successful
engagement with the state government of Karnataka, in managing a
dysfunctional government Primary Healthcare Centre, paved the way for
many other state governments to explore similar partnerships with non-
profit organisations. Today, Karuna Trust is actively involved in policy
discussions on how public-private partnerships in the healthcare sector can
be structured and contract arrangements improved.

SEARCH’s programme for home-based newborn care, as described
earlier, has been adopted by the government and is being introduced to
community health workers in many states. SEARCH used research-based
evidence to persuade policy makers of the effectiveness of their approach.

ARTH adopted a similar approach to influence government policy on
nurse-run medical centres and currently assist the Government of India in
formulating guidelines for such practices.

SHARP offers another example. They did a study on schoolgoing children
in Delhi and found that childhood obesity was very common. They
published the results, and it drew the attention of legislators in Delhi. The
study was discussed in the Parliament, following which the Central Board
for Secondary Education made it mandatory for the affiliated schools to
perform regular health check-ups of schoolchildren. SHARP has a large
database containing information about the changing health status of 1.8
million children in their network over time. This information offers huge
potential to do research and inform policy makers. They have already
shown how even a small study can change policy.

Ekjut’s intervention in Jharkhand similarly influenced the state
government’s approach to maternal and child health. Following their
success in improving maternal and infant mortality and morbidity at the
intervention sites, the government asked the organisation to develop a
module for community-based intervention for implementation in the
state.

All these examples indicate the willingness of government and policy
makers to adopt evidence-based solutions developed by the private sector.
The success of most organisations featured in this book can be attributed to strong leadership. Over half the profiled organisations grew under the charismatic leadership of the founding members. The practices and approach reflect the leader’s ideology and commitment to a philosophy. It is unclear how the leader’s absence will affect the organisation’s growth. Few organisations have managed to meet the challenges of depending on an individual’s leadership.

The founder of Karuna Trust managed to build close relationships with governments and serve as a strong team leader to develop and manage operations. His personal aura and ethical stance influences the organisation’s relation with governments and partners. He is now trying to find a professional who can institutionalise the ideologies and approach of Karuna Trust so that the organisation continues to grow on the same trajectory after him.

SEARCH and ARTH, both founded by doctor couples, operate in rural areas. To meet the challenge of finding second-generation leadership who will continue their work, the founders have developed programmes to groom new leaders. The new managers are trained to design research-based community interventions in keeping with the organisations’ approach.

However, there are examples in the book of organisations where the leadership is not strongly associated with one individual. The cooperative SEWA differs from other organisations in that it is membership-based. The members elect the managers from among them. The ownership of the organisation rests with the members and, hence, there is no threat to the survival and growth of the organisation.

Vaatsalya and LifeSpring, with their chain of hospitals, can be considered to belong to a new generation of professional healthcare organisations. They have invested in a second line of management and developed standardised management processes. The professionalism mitigates the risk of change in senior management. The hospitals provide good examples in effective management practices.
Concluding remarks

The overview presented here illustrates how private organisations have innovated and developed approaches to improve access, affordability and quality of healthcare in India. These organisations have not, and cannot, address the full range of problems that challenge the country. However, these documented practices can serve to stimulate the government and other healthcare providers to adopt good practices that have proved effective in improving maternal and child health care. These approaches cannot only be adapted across the country but also around the world. With its diversity, India is a microcosm of the world and, hence, a perfect testing ground for new approaches in healthcare. Work in India can therefore represent what can be done in other countries. We have already seen encouraging partnerships between governments and private organisations to bring good practices to large scale. These partnerships are focussed primarily on training and on policy framing. The effort to measure the impact of training is limited. The healthcare sector also lacks systems to measure the performance of healthcare providers – both in the public as well as the private domain. These organisations can serve as important examples for instituting guidelines and training programmes that will help improve healthcare delivery and performance monitoring in India and other countries. They can serve as partners in growth for any stakeholder in the healthcare sector.
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<td>ANC</td>
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<td>ARTH</td>
<td>Action Research and Training for Health</td>
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<td>CBED</td>
<td>Community-Based Education and Distribution</td>
</tr>
<tr>
<td>CBSE</td>
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<tr>
<td>CEmONC</td>
<td>Comprehensive Emergency Obstetric and Neonatal Care</td>
</tr>
<tr>
<td>CFTRI</td>
<td>Central Food Technology Research Institute</td>
</tr>
<tr>
<td>CHC</td>
<td>Community Health Centre</td>
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<tr>
<td>CHW</td>
<td>Community Health Worker</td>
</tr>
<tr>
<td>CINI</td>
<td>Child In Need Institute</td>
</tr>
<tr>
<td>CRHP</td>
<td>Comprehensive Rural Health Programme</td>
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<tr>
<td>CSMP</td>
<td>Contraceptive Social Marketing Programme</td>
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<tr>
<td>CWFC</td>
<td>Child and Woman Friendly Communities</td>
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<tr>
<td>DOTS</td>
<td>Directly Observed Treatment, Short course</td>
</tr>
<tr>
<td>DSACS</td>
<td>Delhi State AIDS Control Society</td>
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<tr>
<td>ECG</td>
<td>Electrocardiogram</td>
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<tr>
<td>EPHN</td>
<td>Education, Protection, Health and Nutrition</td>
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<tr>
<td>ERP</td>
<td>Enterprise Resource Planning</td>
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<tr>
<td>FRU</td>
<td>First Referral Unit</td>
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<tr>
<td>GNM</td>
<td>General Nurse and Midwife</td>
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<tr>
<td>GoI</td>
<td>Government of India</td>
</tr>
<tr>
<td>HBNC</td>
<td>Home-Based Neonatal Care</td>
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<td>HR</td>
<td>Human Resources</td>
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<td>Description</td>
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<tr>
<td>ICDS</td>
<td>Integrated Child Development Services</td>
</tr>
<tr>
<td>ICMR</td>
<td>Indian Council of Medical Research</td>
</tr>
<tr>
<td>ICPS</td>
<td>Integrated Child Protection Scheme</td>
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<tr>
<td>ICU</td>
<td>Intensive Care Unit</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, Education and Communication</td>
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<tr>
<td>IGNU</td>
<td>Indira Gandhi National Open University</td>
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<tr>
<td>IMNCI</td>
<td>Integrated Management of Neonatal and Childhood Illnesses</td>
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<tr>
<td>IMR</td>
<td>Infant Mortality Rate</td>
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<tr>
<td>IRHS</td>
<td>Institute of Rural Health Services</td>
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<td>ISRO</td>
<td>Indian Space Research Organisation</td>
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<tr>
<td>IUD</td>
<td>Intra-Uterine Device</td>
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<tr>
<td>MBBS</td>
<td>Bachelor of Medicine, Bachelor of Surgery</td>
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<tr>
<td>MCH</td>
<td>Maternal and Child Health</td>
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<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MIS</td>
<td>Management Information System</td>
</tr>
<tr>
<td>MMR</td>
<td>Maternal Mortality Ratio</td>
</tr>
<tr>
<td>MRP</td>
<td>Maximum Retail Price</td>
</tr>
<tr>
<td>MTP</td>
<td>Medical Termination of Pregnancy</td>
</tr>
<tr>
<td>MVA</td>
<td>Mahavir Vaatsalya Aspatal</td>
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<tr>
<td>MVF</td>
<td>Mamidipudi Venkatarangaiya Foundation</td>
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<tr>
<td>NCPCR</td>
<td>National Commission for the Protection of Child Rights</td>
</tr>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<tr>
<td>NICU</td>
<td>Neonatal Intensive Care Unit</td>
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<td>NIHFW</td>
<td>National Institute of Health and Family Welfare</td>
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<td>NMR</td>
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<tr>
<td>NRC</td>
<td>Nutrition Rehabilitation Centre</td>
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<td>NRHM</td>
<td>National Rural Health Mission</td>
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<td>NRI</td>
<td>Non Resident Indian</td>
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<td>OPD</td>
<td>Outpatient Department</td>
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<td>OT</td>
<td>Operation Theatre</td>
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<tr>
<td>PIP</td>
<td>Programme Implementation Plan</td>
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<td>PLA</td>
<td>Participatory Learning and Action</td>
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<td>PPP</td>
<td>Public Private Partnership</td>
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<td>RCH</td>
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<td>RRC</td>
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<td>RSBY</td>
<td>Rashtriya Swasthya Bima Yojana</td>
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<td>RTI</td>
<td>Reproductive Tract Infection</td>
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<tr>
<td>SEARCH</td>
<td>Society for Education Action and Research in Child Health</td>
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<td>SEWA</td>
<td>Self Employed Women’s Association</td>
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<tr>
<td>SFA</td>
<td>Safe Motherhood Approach</td>
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<td>SHARP</td>
<td>School Health Annual Report Programme</td>
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<td>SHG</td>
<td>Self Help Group</td>
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<td>SHP</td>
<td>Surya Health Promoters</td>
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<td>SSA</td>
<td>Sarva Shiksha Abhiyan</td>
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<tr>
<td>STD</td>
<td>Sexually Transmitted Disease</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<td>TBA</td>
<td>Traditional Birth Attendant</td>
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<td>United States Agency for International Development</td>
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<td>VC</td>
<td>Venture Capital</td>
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<td>Vivekananda Girijana Kalyana Kendra</td>
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<tr>
<td>VHSC</td>
<td>Village Health and Sanitation Committee</td>
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<td>VHW</td>
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<td>VRC</td>
<td>Village Resource Centre</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<td>WOW</td>
<td>Women Outreach Worker</td>
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