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Curative Care as the Access Point to Rural Social Transformation a Case Study of the Comprehensive Rural Health Project

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Introduction

The State of Rural Health in India

Health inequities based on geographic differences and between rural and urban populations in modern India demonstrate the stark differences in health access and community development throughout the country. More than 70% of the Indian population lives in rural areas, and yet a greater proportion of health care spending is devoted to urban populations. In 2004-5, 29.2% of both central and state public expenditures were allocated to urban allopathic services while 11.8% went to rural allopathic services (Balarajan, Selvaraj, and Subramanian 2011, 508). There are more than twice as many government beds in urban than in rural areas and geographic distribution of health care services have been unplanned and unequal within India, to the detriment of the rural poor (CBHI 2008).

The Indian government has not been able to provide the timely and quality emergency medical services to the masses, particularly in rural areas. According to a report from the National Commission on Macroeconomics and Health, The Ministry of Health and Family Welfare (MOHFW), and the Government of India, the average villager has to travel 2.2 km to receive a paracetamol tablet, over 6km for a blood test, and 20km for hospital care (Garg *et al*. 2012). Studies have found that there are often problems in rural areas where the most basic emergency obstetric care has been found to be lacking (Subhan and Jain 2010). 39 million Indians per year fall into poverty from out –of-pocket expenditures for health care, and out of this 30.6 million are from rural areas (Balarajan, Selvaraj, and Subramanian 2011, 510).

These inequalities are evident in health outcomes and there are substantial rural and urban differentials in immunization coverage, which is used as an indicator of the utilization of preventative care. In 2005-2006, the rural immunization rate was 39% while the urban rate was

58% in India. Even within states that are considered to be developed, such as Kerala, the differential is still 17%, and in other states such as Uttar Pradesh the differentials are around 12% (Rama *et al.* 2010, 52).

Challenges in Rural Health Delivery

For a majority of the Indian population living in rural areas, geography and physical access is still a barrier to health care. It is not surprising that several studies have shown the utilization of health services by groups in rural areas diminishes the farther away people are from appropriate facilities (Pugh 2004; Balarajan, Selvaraj, and Subramanian 2011). It is also significant that distance is a greater barrier for women than men, and women seemed to be more affected by travel time and its related costs from *purdah* restrictions, transportation costs, and loss of time rather than to the expense of the health service itself (Vissandjee, Barlow, and Fraser 1997). Thus, the improper allocation of services in rural areas may disproportionally affect women's health and health-seeking behaviors and exacerbate the poor health and low status of women.

The difficulties in designing health interventions for rural populations lie in the underfunding of rural services as well as the inherently urban-biased assumptions made about rural needs and services. Frequently, an urban-based model is the de facto norm and in rare cases when rurality is acknowledged, the diversity and complexity of rural life is often ignored (Pugh 2004, 76). Policies aimed at improving health care in rural communities must navigate the complexities of social circumstances that revolve around caste, class, gender, age, and religion.

Another dimension of rural health is that the existence of local folk health traditions has been ignored by policy makers and has been viewed as a barrier to 'real scientific medicine' or as an outdated aspect of folk religion. However, Sujatha argues that folk health tradition is

integrated within a regional health tradition with other types of medical knowledge and practices and cannot easily be displaced. After studying folk medicine in a North Indian village, Carstairs theorized that traditional medicine continues to be practiced because it creates 'faith' and 'assurance' in patients. However, the introduction of modern medicines lacking this 'aura of conviction' is obligated to produce immediate results before obtaining trust from the people (Sujatha 2003, 15).

A study found that the family planning program run by the Indian government received negative responses from villagers, who found the practices coercive and were disappointed in the lack of curative services as well as the negligible effort from field workers to engage with the community. This led to many villagers not receiving their needs for family planning services and resorting to dangerous alternative methods to address their issues, such as the use of induced abortions (Banerji 1989, 1477). Pugh emphasizes how policy makers need to acknowledge than working in rural settings is markedly different from urban areas in terms of the relationship between people who require services and the service providers (2004, 76).

These studies suggest that many failures of government programs have been in inadequate outreach and cooperation with the needs and demands of rural villagers. Recently, health policy makers have begun to realize the importance of establishing trust and encouraging collective action from people to achieve goals beneficial for the entire population such as improving health (Gilson 2002). It is crucial that some trust be built into the relationships between providers and the communities they serve, or else implementations of government health schemes will likely continue to be ineffective.

The Comprehensive Rural Health Project

The Comprehensive Rural Health Project (CRHP) is a non-government organization situated in Jamkhed, Maharastra that works with improving health care and living standards of rural communities. The non-profit was founded by two doctors, Raj and Mabelle Arole, in 1970 to improve health indicators through community development programs and empowerment of rural villagers. CRHP has had success working in rural areas and studies have shown that it has effectively been able to lower child mortality in project villages, particularly in areas requiring preventative care and education (Mann *et al*., 2010).

The cornerstone of their program is the village health worker (VHW), women from the local communities who are trained to monitor and care for the health of the community and connect villagers to health services. Mobile health teams (MHT), comprising of a nurse, physician, social worker, and paramedic, visit project villages to support and mentor VHWs, as well as to refer complicated cases to the hospital. The secondary-care hospital is a 40-bed low-cost facility operated by CRHP that provides emergency, medical, surgical, and outpatient care to residents from the surrounding areas (Arole and Arole 1994).

According to the staff, the success of the implementation of programs is in the community trust and involvement that CRHP fosters and its work on comprehensive reforms for the betterment of the rural poor [8]. To begin building this relationship, the CRHP mission statement emphasizes the importance of providing curative services as an immediate solution to the medical needs of the villagers. Only until these curative programs have created trust and credibility for the organization can they introduce programs on preventative care and education. The MHT will take advantage of the gathering of people for curative services to also introduce health education and awareness campaigns, as well as social programs to encourage the

formation of farmers clubs, women empowerment groups, and programs for adolescent boys and girls. In this way, the community can effect enduring changes in lifestyle and change daily practices to prevent health problems from these root causes. However, preventative programs implemented in the villages need to have curative support in order to be effective (Arole and Arole, 249).

Purpose of the Study

Studies have focused on possible future public health delivery models for underserved populations, and a paper on Native American tribal needs emphasizes the importance of service delivery of both curative and preventative care (Allison *et al*, 2007). However, the need to serve differing cultures, populations, and geographies requires a more specific examination of appropriate service delivery models.

A paper on a 20-year long community-based management program of health in Nepal found that community health workers are effective at treating childhood pneumonia, but only when receiving supervision, feedback, supplies, and adequate support from health systems (Dawson *et al*, 2008). This provides an essential role for mobile clinics as a source of curative care as well as support and a source of credibility for the village health workers providing basic services.

Other studies have examined the effectiveness of the mobile clinic model compared to the community health worker in treating childhood pneumonia in remote areas. It has been found that having community health workers working in fixed positions may be more effective in certain situations and can be implemented in high-mortality rural areas (Pitt *et al*, 2012) . However, the quantitative analysis conducted was only able to compare these models as exclusive to each other and the results of what occurs when they operate independently. The

Jamkhed model integrates the mobile clinic and community-worker based systems. More study should be done on the interactions between these levels of care, and how they may reinforce or impact each other.

This study will examine CRHP and use the organization as a case study for community trust building in rural health development outreach programs. Specifically, this paper will explore how CRHP integrates curative and preventative care and how this builds trust in the community and establishes legitimacy. In this process, this paper will attempt to analyze how curative services can then act as the springboard for preventive services as well as for the introduction of empowerment and social change programs.

Other related questions are what the health priorities of rural villagers are and how their health seeking behaviors change over time through CRHP's involvement. The study seeks to examine the demand and supply sides of health care and how health needs of the population were met. Interviews focused in the main sources of outreach from CRHP to the community, through the work of the VHWs and the mobile health teams.

A previous study found that CRHP has effectively reduced childhood mortality rates in its project villages by 30% over the period of 1992-2007. The study used surveys and statistical analysis to conduct a retrospective comparative evaluation of CRHP's role in child mortality. Interestingly, CRHP has found to be effective in reducing overall childhood mortality rates but had no significant impact on neonatal mortality in project villages. The researchers attribute this to various possible causes, including increased awareness and accurate reporting about neonatal deaths in project villages compared to the underreporting of neonatal deaths as stillborns in other areas of Maharastra. They also suggest that the causes of neonatal deaths are different from post-

natal deaths. The latter is often caused by pneumonia, diarrhea, and malaria, which have WHO-recommended treatments that can be distributed at the community level and rely on preventative care . However, neonatal deaths are often due to birth asphyxiation, preterm birth, and neonatal sepsis, which require clinical services (Mann *et al*, 2010). This suggests that the village health workers were successful at prevention, early recognition and treatment of certain diseases but curative health services need to be further integrated.

As a follow up to this study, qualitative evidence needs to be obtained from villagers and the mobile health team about the curative services offered in the village and how to best address the integration of curative and preventative health care.

Methodology

Study Design

This study undertook 13 qualitative in-depth interviews that were semi-structured with men and women in CRHP model villages, rural private doctors working in Jamkhed block, the director of the Jamkhed primary health center, CRHP VHWs, and CRHP staff associated with the mobile health team. Three focus group discussions were held with VHWs at the CRHP training center about community trust building and services needed by the villages. Furthermore, observations were taken with translations sometimes available of a mobile clinic visit, an ASHA training session at a PHC, and a first meeting between CRHP staff and a new project village to select the village health worker.

Qualitative interviews were chosen the primary method of this study. Quantitative studies in the past have found that CRHP effectively improves health indicators in project villages (Mann *et al.,* 2010) but there are gaps in qualitative observations of how curative and

preventative services can be better integrated and how specifically health behaviors have changed. Since CRHP labels itself as a comprehensive health project, studies quantifying the improvement of health indicators in villages are not adequate to determine the full impact of its programs on attitudes and behaviors of villagers, as well as changes in the quality of life and other subjective measures.

CRHP was chosen as the case study organization because the Jamkhed model emphasizes the importance of building trust in a community and working with the poor and marginalized in rural areas. As a successful model in rural community development, some lessons can be taken to influence the building of other organizations in similar rural communities or in the design of national health policies in India targeting rural areas.

All villagers were from Kusadgaon or Nimbodi, both model villages working with CRHP. Kusadgaon began work with CRHP in 1983 until 1999 when the first VHW for the village died. Work resumed since 1999 when the village approached CRHP to train a second VHW and renew programs. Nimbodi is a younger village with work starting in 2009.

Data Collection

All interviews with villagers and VHWs were translated from local Marathi dialects to English by CRHP staff, and meetings with doctors were conducted in English with CRHP staff facilitating. All interviews were conducted in public areas and this could have contributed to the answers or attitudes of the interviewees.

Before each interview and focus group session, the researcher was introduced as an American student conducting a field study project with the guidance of CRHP. Also a brief description of the field study project was given as about the health priorities and profile of the

local village and the importance of curative and preventative services offered by CRHP. Perceptions about being an American could have created biases, although none of the interviewees seemed outwardly uncomfortable with the presence of foreigners.

Data Analysis

All interviews were thematically analyzed for results. Then results were processed through triangulation from the perspectives of the different stakeholders: local doctors, CRHP mobile health team staff, VHWs, and the villagers.

Ethical Issues

This study was reviewed by staff at CRHP for cultural appropriateness and by the CRHP research consultant. Participation was voluntary and spoken consent was given by all who were interviewed. Names of local villagers and doctors have been changed to maintain confidentiality.

All interviews were necessarily conducted in the presence of CRHP staff and could have contributed to the positive responses about CRHP programs. This paper acknowledges the vital role CRHP in helping to conduct research and will attempt to maintain an objective distance from the host organization.

Results

Villagers

Health Priorities

When questioned about the health needs of their areas, the villagers seemed well-informed about health issues and problems they wanted to be addressed. Since interviews were conducted in model villages where CRHP had been offering health services previously, many of their concerns centered on preventative and social issues. Villagers said that their common health problems included coughs, colds, fevers, and malaria [1,2].

They were also aware of how improper water sanitation led to common illnesses such as diarrhea, typhoid, and dysentery [1].Villagers were concerned with water issues such as increasing the use of toilets. There have been difficulties in implementation, despite government programs encouraging toilet use, because people often don't have enough water to clean the toilet and personal toilets are expensive to install in houses [2,13].

Women villagers emphasized the importance of preventing malnutrition and focusing attention on pregnant women and children [13,14]. Asha stated that women were the most important members of the family for improving health and interviews conducted with male and females in the village confirmed that the women tended to have more knowledge about health issues and CRHP programs than men did. She was very knowledgeable about the health status of her village, and talked about the transition in health problems to people over 40 who tended to have issues such as hypertension, heart problems, diabetes, or mental problems [2]. This issue was also mentioned by CRHP staff and local doctors who noticed the epidemiological shift [3,11]. Men tended to be more interested in issues addressing the water supply as well as in learning new agricultural practices to improve the economic status of the village [1].

Other concerns were centered on spreading health knowledge to other villagers and dealing with migration issues. The villagers were concerned about teaching everyone in the community about health issues and making sure newcomers knew about these issues. Many men work in the city and come back to the villages, so they need education about HIV/AIDS. Other women who marry into the village often do not have adequate knowledge about health and villagers felt that they should be trained by the VHW [13, 14].

People displayed enthusiasm about health education and spreading it to others to prevent sickness. Many said that knowledge of preventative medicine is important and that preventing a sickness is better than having to cure it later [2, 13]. In general, women were very knowledgeable about preventative health tactics such as the danger of stagnant water in causing diseases like malaria through mosquitoes [2, 13], how dirty water and poor drainage can cause diarrhea [1], and the importance of washing hands before eating [14]. People also seemed to be aware of cases when it would be necessary to seek curative care from a hospital, such as pneumonia, Caesarean sections, or head injuries [2,13].

The role of CRHP and trust-building

In general, villagers expressed a high level of trust in CRHP programs, even when they were unclear on the structure and specific aims of its work. The male villager interviewed had not heard of the farmers club and had not attended any community meetings run by CRHP because he had too much work to do, although he was interested in joining and his wife was the leader of the women's club and more involved in CRHP meetings [1]. However, he and the other villagers expressed a willingness to work with the organization and participate in its activities due to several key factors. These are mainly CRHP's accessible health education outreach tactics, the house to house visits done by CRHP staff, and the role of the VHW in the village.

Part of the philosophy of CRHP is the demystification of medicine and the dissemination of health knowledge to help empower rural communities. Raj Arole writes that "To ensure participation, medical professionals have to realize that health does not depend on medical services, rather it depends on what people do and what they believe. Health professionals have to let people take control" (1999, 2). Villagers displayed an understanding of their own health problems and also an enthusiasm for learning more about their health. One woman praised

CRHP for using flashcards, skits, and puppet shows to demonstrate health issues in an understandable way [2].

Another woman told a story in which she used knowledge passed down from CRHP to save herself from a snake bite. After being bitten she remembered to cut the bite and bind her upper arm before running for the hospital. After arriving in the hospital, she immediately fainted and had to stay for three months for the bite to heal completely. While in the CRHP hospital she reported being treated "like family" and was pleased with the services offered there. She praises CRHP for empowering the community through giving knowledge and working for the community. Sangeeta also commented that the village people were more empowered and were able to demand for immunization services from the government on their own [13].

The villagers said that they trusted and felt comfortable around CRHP staff because of the outreach programs and house to house visits done by the mobile health team (MHT). One woman said that "if they [CRHP] show they are working for the community, they deserve respect" [14]. Villagers were often well-informed about the activities of the MHT and how they conducted a house to house survey of all households. Amir expressed that he grew to trust the MHT because they showed that they would serve people from every social class, from infants to the elderly, and with all the groups within the village [1].

VHWs act as the crucial link between community members and the MHT. The VHW will refer more complicated health cases to the MHT, which will then visit the village and assist the VHW, give appropriate treatment, or refer to the hospital. All of the interviewees were familiar with the VHW and knew about her work in the village. Villagers were impressed by how she showed "interest and concern in the community" and her knowledge about health issues from

CRHP training. The VHW was able to give oral rehydration solutions for diarrhea cases, and monitored leprosy and TB patients [13].

Notably, one of the most supportive villagers was a male who thought the VHW program was especially beneficial because in the past villagers had to travel to doctors and pay the fees for preventable illnesses. Now that they have been taught how to take basic precautions and why people get sick there are fewer incidents. Furthermore, the VHW can dispense medicines for common problems like fevers, backaches, and headaches. Therefore the villagers can save money to use instead in businesses, agriculture, or in the home. He also stated that since he lived close to the VHW, it was easy to talk to her and ask her for help if needed [1].

Several villagers mentioned that the VHW worked in health but was also involved in the formation of the women's self-help group and the young farmers club. Sunita said that the VHW was also useful in advocating for a watershed and addressing social issues outside of health. At one point during the interview, Sunita became visibly distressed and began telling the VHW who was present about her family issues. This displayed the level of trust a village woman could have with a VHW and her willingness to talk about upsetting family issues, even in the presence of a foreigner and male CRHP staff member [14].

Social Change and Empowerment

Many of the villagers described the social changes that were taking place within the village and the impacts of having better community organization to accomplish their goals. One member of the women's group said that through the self-help group, women in the community were able to improve gender relations, provide safe drinking water, clean up the village, and take control of diseases. The self-group was also able to pool money to help members get treatment,

which they did with a woman who had low hemoglobin levels and needed a transfusion from the hospital. Community groups were also able to address issues such as female feticide [13].

In general, the women seemed confident that most issues could be solved at the village level and seemed to not expect services from CRHP. When asked about who she would most trust to help with a health issue, Asha responded that the most important services are offered within the village and that community members should try to solve a problem themselves first [2]. Women particularly stressed the building of community values, saying that the community needs to care about one other [13].

Asha said that her conceptions of community responsibility have changed after seeing the VHW work to improve health in the village. She stated that before, she used to think that cleaning meant sweeping garbage from her land onto other people's property. But now, she views garbage as a community issue and thinks the village needs to deal with the problem collectively to clean up their homes [2].

Village Health Workers

Building Trust

Many VHWs recounted stories of beginning work and having initial difficulties gaining the trust of others in their community. They described the old practices of villagers as harmful, especially for women and children, but people were resistant to changing tradition. At first, people didn't want to bring their children to the VHW for immunizations or weighing, and the traditional belief was to not feed the baby for 3 days. Furthermore, villagers thought that pregnant women should not eat certain foods such as papaya or bananas.

The VHWs worked to gain trust by changing their own practices first and using themselves as an example to the community. They used the training given by CRHP to conduct

deliveries around the village as proof of their knowledge, gave ORS to people with diarrhea, showed villagers how to make cold compresses for fevers, and accompanied pregnant women to the hospital to display their dedication to the village [14, 18]. By displaying their practical knowledge and willingness to help others, many VHWs said they were able to earn the trust of the community. Furthermore, as they continued working, infant deaths were reduced and people began to believe in the effectiveness of the VHW [18]. Although many said that this process could take up to one or two years before they could work effectively, the VHWs seemed to be patient and explained that they went through the same times of trust issues and attitude changes during CRHP training and therefore understood the difficulties the villagers had in changing health-seeking behaviors [17].

Several VHWs told stories of how they had saved a woman's life during delivery in order to gain the community's trust. One pregnant woman in a VHW's village had refused to come for checkups and then had profuse bleeding during her delivery. The VHW was brought because of the emergency and realized that the woman would require medical attention due to an anterior placenta. The family could not pay for transportation, so the VHW paid for the car and put the woman in the correct position as they drove. When they reached the CRHP hospital the doctor confirmed that the VHW's diagnosis and said that the condition could have been detected earlier if timely checkups had been done. The VHW said that after this incident the village always listened to her and respected her as knowledgeable about health.

In another instance, the community preferred using an untrained *dai* (a traditional midwife) to perform deliveries because the *dai* told villagers not to trust the VHW. However, when a pregnant woman had a breech baby, the VHW took her to the hospital to get the

necessary Caesarean section. Through this, the VHW was able to uphold her reputation over that of the unqualified practitioner [18].

These examples illustrate the dedication and knowledge of the VHWs. VHWs hold a unique position as people who come from and work for their own communities. These women are able to serve and educate their communities because of their sustained involvement and commitment in the village and with CRHP in a way that well-qualified doctors educated in cities could not necessarily do, even with the best intentions. In a way, the VHW works for her own good by working for the community and setting a good example, and this makes this model particularly sustainable because it is based on mutual trust between health care providers and receivers. As one VHW said, "with any program, you need to listen to the community, go back to their house with them to get cooperation… live in that house, talk to them, visit again and again. If you want to work with the community, you have to be like the community" [17].

During a focus group session, one VHW commented that "our work is like the trunk of the tree and our messages are like the branches" [18], meaning the VHW first must provide curative services and sustained dedication to the community and then she will gain trust from the village in her broader messages about preventative health and social change.

Another VHW emphasized the importance of practical teaching to other village women. To encourage women to feed their children early, she asked them why they fed baby cows and goats but refused to do the same for their own children. She told them that breast feeding the baby in the first couple of days is important for short and long term benefits. Giving the baby colostrum through breast feeding is important for improving the immune system of the baby. She also emphasized that it would benefit the mother and child psychologically and for the mother it

would expel the placenta and reduce bleeding after delivery [17]. This argument proved convincing for the mothers because it integrated curative results with preventative benefits and combined both reasons for changing behaviors.

CRHP Training and Support

While villagers found the mobile health team to be a convenient referral system for services, the VHWs strongly supported the MHT and emphasized its importance in creating trust in the village. Thus, the MHT seems to have a dual role of offering services to villagers, and perhaps more importantly, supporting and educating the VHW. The MHT members meet and train the VHW during CRHP sessions, so when the mobile visits the village the VHW is already familiar with the doctors and other workers. One VHW contrasts this relationship to that with of the ASHA (a government community village health worker) because the ASHA is afraid of her block supervisor, and gets no support from the government [10].

Many VHWs appreciated the MHT members for supporting and educating her to better help the village. When a VHW sees a complicated case that requires a referral or a patient who she has difficulty working with, the MHT team will intervene and help her with the situation. They also help her deal with community conflicts, demanding services from the government, and social problems [9,10].

As part of the CRHP philosophy of demystifying medicine, doctors on the MHT work closely with the VHWs to teach them about health, and also come to the community to give the VHW legitimacy and confidence. A VHW told a story where she was grateful for the doctor because he did not try to correct her in front of the community and embarrass her. Instead, he tried to convince her in private about the right action to take until she changed her mind on her own. She said that “a saint isn’t recognized in her own community” and stressed that the MHT

and CRHP had to give support and understanding to the VHWs starting work in the village [17]. Furthermore, the MHT members repeat the same advice the VHW gives and also hand out the same types of medicine so that the village will begin to trust that the VHW has skills and knowledge. Especially in an Indian context, where doctors are accorded high social value and are well respected, it is particularly important that the doctor provides support and publically works with community workers in order for them to gain the trust of villages and have confidence in themselves.

The Self-Perceived Role of VHWs

The VHWs' descriptions of their responsibilities and work were in close agreement with those described by villagers previously, as well as their descriptions of the health priorities of the village. In general, both groups responded with VHW duties including health education, working with child health, environmental sanitation education, and social work. While the villagers focused on the VHW work in providing basic curative services, health education for preventative practices, and in community organization, the VHWs discussed their responsibilities in more detail and with more emphasis on the importance of women empowerment in village life.

VHWs largely saw their role not only as a health service providers and a link to health resources through CRHP, but also more explicitly as community organizers and social change activists. A VHW recounted the change she saw in her village after she started working with CRHP, not only in improvements in health and education, but also in the changing of superstitions, improving economic conditions, empowering women, increasing access to financial resources and knowledge, and eliminating eve-teasing (the public harassment of young women) [14]. Many VHWs focused on the aspects of social change possible for the community and the importance of encouraging more education and empowerment. They often saw their own

work as the first part of a process to improve community responsibility. One said of her work, that she hoped "we [her village] can live together, we can share together… we can do our work with joy and happiness" [17]. Another said that families need to care for their neighbors, to "build community faith and rapport with each other…[and] love each other" [18].

Notably, most VHWs have intentionally been chosen by CRHP as low caste women, in the middle class, and many are illiterate. While interviewing villagers, it is possible that there was a bias towards higher status women or those who were more active and powerful in village life because they would be likely to have time and the inclination to be interviewed. This could explain the differences in attitudes towards social change, since villagers who are better off are less likely to want a change in the status quo. Interestingly, when questioned about which parts of society they found it hardest to work with, the VHWs often said that it was the high caste and rich group who refused to change their behaviors [17].

Women's Health as a Priority

The VHWs perceived their most important services to be delivering care to pregnant women and reducing mother and infant deaths by providing ante-natal and post-natal care [14,17]. Although none of the villager mentioned it specifically, many VHWs indicated that a priority for them was in educating adolescent girls about personal hygiene, nutrition, and marrying later in life [14, 17, 18]. One VHW said that her daughter married too early and then experienced problems, and that she uses this as an example when trying to convince other parents to wait for their daughters to turn eighteen before marrying [14]. Another said that this issue was the most important priority for her work as a VHW because the adolescent girls would become mothers in the future, and that a girl must develop fully before marriage [17].

Baby, a VHW, said that she sought help from the CRHP social workers because there were problems in the village over families who had a daughter but wanted a son and needed counseling [10]. Another VHW mentioned this problem and said she tried to educate families on the importance of daughters because daughters will care for the family and her parents [18].

VHWs, compared to the villagers, seemed to be more aware of gender discrimination problems in the village and supportive of social change and education. However, this could be due to the level of comfort the villagers had during interviews and any reluctance to admit that there were social problems in the village. The VHWs mentioned that villagers were reluctant to talk about any gynecological problems or family planning methods with anyone but the VHW, and did not even trust the MHT or CRHP staff to talk about such sensitive issues [18]. It is likely that villagers could have been unwilling to talk about these issues, as VHWs mentioned that they worked in stopping early marriages, family planning, and birth spacing but none of the villagers talked about these types of services. VHWs were likely to be more comfortable with these topics because of CRHP training addressing these issues and because they were more familiar with the CRHP staff and the presence of foreigners.

Access Points to Social Transformation

Parubai, a very active VHW, explained the varied changes that occurred after CRHP started work in her village. She said that rates of malnutrition and folic acid deficiency anemia have decreased. Sanitation and personal hygiene of the villagers have improved and they are aware that stagnant water is dangerous. Furthermore, she emphasized the social changes that occurred, as superstitions have changed, there is less eve-teasing, and people are more knowledgeable about banking and finance [14].

The VHW described how at first she gained trust only as a health worker and the villagers did not listen to her opinions on other issues. Since she had received training at CRHP about women empowerment and development issues, she was informed and wanted to spread this knowledge. During the *Gram Sabha*, the village council meeting, she was the first woman ever to speak at the gathering, and she took the opportunity to display her knowledge and ask for changes. She told the politicians that in the current state of village sanitation, it was shameful that their wives and sisters and mothers had to defecate on the side of the road in plain sight because the council failed to buy toilets. In this way, she publically shamed the people in power into working for change in the village. After this incident, she said that the village respected her opinions on social and development issues [14].

For another VHW, after she finished training at CRHP, the CRHP doctor invited the *Sarpanch* to meet with her during a village meeting to discuss social issues, village quarrels, development, and health. After she showed a willingness to help solve these problems in the village and knowledge about what to do, the head of the village started to listen to her and earn respect from the men and others in the village [18].

Parubai recounted how in the past women were treated like nothing and weren't allowed to make decisions for themselves. However the women were able to empower themselves and increase their self esteem after joining women's self help groups and creating a loan system for each other to use. The women's group began as a way to spread health education and run microloans, but it later became powerful enough to confront and counsel an abusive husband. It is now active in efforts to ban alcohol in the village and to stop women harassment. The group is also working to improve water management and petitioned the *Sarpanch* to convince the village to pool money so that they can dig a new well [14].

CRHP mobile heath team

The Role of CRHP in the community

Members of the mobile health team were interviewed to determine their views of services offered and access points to social change. The mobile medical unit is composed of the clinical team as well as the health team to integrate curative and preventative services. The mobile clinic is the curative services team that is comprised of a doctor, nurse, and pharmacist. They visit project villages on a fixed schedule and offers routine examinations and primary health services. The conditions they most frequently see include common colds, headaches, backaches, general weaknesses, skin problems such as scabies, diarrhea, vomiting, and intestinal worms. As a preventative measure, the team also takes blood pressures and sends those with a risk of hypertension on referrals to the hospital [11].

The MHT coordinated closely with the VHW and the hospital to provide appropriate care. The VHW had a kit to measure blood sugars and blood pressure, and issues would be referred to the MHT and then to the hospital if needed. The clinic offers basic medicines and they are the same type that the VHW dispenses [11].

The MHT members also emphasized the multirole organization of the team and how they must work together to provide outreach and convince all groups within the villagers to get involved. Thus different tactics are used by the different members of the team so that they can engage as many people as possible. As the doctor sets up the clinic and the nurse talks to patients, the social worker will walk around the village and talk to community members. Furthermore, it is important that all members be willing to use their skills and help as community organizers [11].

To the doctor, the key to efficient service was to use community participation to identify those in need. He found that the VHW was the agent of transformation and her knowledge of basic medicine convinced the villagers that CRHP would be beneficial for their health. CRHP also offered training to the young farmers club and taught them to survey the village [11]. Jayesh Kambale, a CRHP social worker, stressed the importance of rural community leadership in any successful outreach program and that a mobile heath team will not create lasting change without supplementing curative services with preventative care and empowerment of the local community to implement programs [8].

Traditional Practices and Education

The villagers described how it was traditional to put snake bite victims in a temple and how this persisted because it worked occasionally and when it failed it was assumed to be a command from god. There were also other superstitions such as the belief that diarrhea was due to a god's curse [13]. One woman emphasized that people when to traditional healers or magicians because there were no other accessible medical facilities and because of this many children died [14].

In the initial stages of work, the CRHP clinic would come to the villages with doctors but people were not using the services because they believed that sicknesses were a curse from god. Dr. Patekar, a doctor working on the mobile clinic, said that the villagers used to believe illnesses were caused by gods and goddesses and would visit traditional healers. They used to put garlands around their neck and go to the temple to pray [11]. Even for organizations such as CRHP, which has been working in the Jamkhed block for 40 years, it is difficult to build trust and community engagement in new villages as well as displace harmful traditional tactics without infringing on the rights of the community. Jayesh described several incidences where

villages were wary of CRHP's involvement because they thought it was a missionary program intended to proselytize Christianity among the people [8].

In other instances, it was a traditional practice in the village to use ash on the forehead to cure diseases. Instead of enforcing allopathic practices on villagers, the mobile health team convinced them to take both the ash and an appropriate pill for the disease. After offering these sustained medical services in the villages, people began to realize that the pill was much more efficacious than the traditional ash and began to trust modern medicine and seek further care when needed [8].

The ASHAs also faced problems with quacks or traditional healers operating in villages and drawing people away from using available modern resources. Oftentimes, even VHWs would still believe in traditional healing done by others in the village. CRHP's model emphasizes the importance of demystifying medical science to all, and held demonstrations where Raj Arole invited traditional healers to work their magic on leprosy patients or children with diarrhea. With these presentations, the people could decide on their own whether they thought modern medicine or magic was more effective at curing the disease. In similar presentations done during VHW training, doctors would put of slides of health normal blood and blood from a sick person to show how disease worked and what doctors used to diagnose patients. They also took this opportunity to show VHWs the blood of people from different castes and how it was the exact same type, and that the caste distinctions were social and not biological or inherent [8, 15].

However, another danger was in conveying too much trust in allopathic curative services. The MHT did not provide injections because of the belief of some villagers that the more deep

and painful of an injection, the more effective it would be in curing a sickness. Thus many villagers would ask for injections, thinking that it could be the definitive cure to all of their problems. This belief could easily be manipulated by untrained medical practitioners who will give injections and charge exorbitant fees, and the MHT worked to combat this by educating villagers on how injections should not be necessary [11]. Reports of this belief have been noted before by government health workers who struggle to compete in the offering of visible curative services against local untrained practitioners, and the use of a MHT doctor's authority to dispel the misconception is another support mechanism for the VHW (George 2010, 21).

Local Public and Private Doctors

Challenges of Doctors Working in Rural Areas

It is a well-known issue that it is difficult to attract educated and dedicated doctors to come to rural or underserved areas for work. Of the doctors interviewed for this study, all had decided to work in rural areas because of personal and family connections and faced unique challenges. One doctor worked for five years in his village but then opened a clinic in town in order to make money. He said that he left because there were no medicines, no transportation system, and economic difficulties in the village that made it impossible for him to work and treat people. Furthermore, the farmers that worked there had no water or crops and were deep in poverty and could not support his practice [3].

Even as acknowledged by a doctor working for CRHP, working in a rural hospital creates much less income than in an urban area and since medical college is very expensive, it is difficult to attract doctors to a place with poor infrastructure [11]. Other doctors cited difficulties with electricity, transportation, drug supplies, finding drinking water, good schools, communication, and poverty [4, 5]. As relatively isolated practitioners, local doctors complained that there was

not adequate support from the health system and the area needed more specialist doctors and surgeons [3, 5].

Due to the lack of incentives and monitoring systems, it has been difficult to provide rural areas with qualified doctors and to provide them with adequate infrastructure and support to work effectively. One government doctor recommended that medical schools should increase enrollment and the government should increase the salaries of doctors working in rural areas to attract more resources to the area. However, this would be a costly expenditure for the government and do little to resolve the deep structural issues that plague the rural areas of India and damage health indicators. While it is important to attract quality doctors to underserved areas, even an incredibly well-qualified doctor can do little without a support health system and adequate trust from the community.

Engagement with CRHP

All sources confirmed that CRHP maintained a good relationship with local doctors and government facilities. One doctor received assistance from CRHP and was able to refer complicated cases to the better-equipped CRHP hospital. He also said that he could refer the poorest patients there who were not able to afford care so that CRHP could offer cheaper services. However, in general people came to his clinic because of the extra amenities and special care, as well as his trusting relationship with the villagers [3]. In this way, working with private doctors can be beneficial for both parties, since CRHP can also gain trust from the community through working with local doctors while offering resources the health services already in place.

All doctors acknowledged the importance of preventative care and health education, but besides the government doctor, they did not have a way to run outreach programs. One local

private doctor praised CRHP and the education they spread for preventing many diseases and improving food and hygiene standards. However, he said that problems such as improper diet, lack of exercise, poor sanitation, and dirty water were still present in the villages [4]. Since these issues can all be addressed through preventative education, it seems that more outreach and education is necessary.

Effectiveness of National Programs and the National Rural Health Mission

There has been poor implementation of government schemes to improve health care access for rural populations. Compared to the private sector dominance in urban areas, reforming government rural health services will have a substantial impact on reducing the out of pocket costs for patients, increasing accessibility of health services, and providing an opportunity to disseminate health knowledge and awareness to remote areas. In 2005, the Government of India introduced the National Rural Health Mission (NRHM), which displayed an effort to increase public health infrastructure and decentralize care for more effective outreach to rural populations (Sharma 2009). The NRHM created a form of the community health worker in each village, called ASHAs (accredited social health worker). The ASHA is a female health worker chosen by the village *grampanchayat* and acts as the interface between the community and the state public health system. She is an honorary volunteer who receives incentives for promoting certain health practices and also carries a basic drug kit for common ailments.

The different groups interviewed had several conflicting issues with the implementation of the program. The head of the Jamkhed PHC said that NRHM had administrative problems because government employees such as the ASHA did not receive enough of a salary to do her job effectively. He said that although many of the ASHAs were successful at their job, well educated, interested in community building, and were working voluntarily, they deserved to get

more of a salary to survive. However, otherwise the ASHA program was succeeding in addressing community needs and improving health indicators [5].

Although Raj Arole was an advisor in the creation of NRHM and the mission takes some inspiration from the Jamkhed model, Jayesh expressed great disappointment at the program's implementation and corruption of some CRHP principles, primarily the NRHM's emphasis on increasing institutional delivery. He argues that the government has been ineffective at using community engagement to implement its programs and often policy changes are made by rich men who are distant and incapable of understanding the hardships of rural women. Jayesh critiques the government for emphasizing hospitalization of rural women when it is unreasonable and ineffective to require them to go to a distant location to deliver, especially when many rural areas lack basic infrastructure such as roads. This creates an unnecessary burden for poor women, especially when the CRHP model has demonstrated that using a VHW to deliver babies can still dramatically reduce child and maternal mortality (Mann *et al.*, 2010). The VHWs interviewed also agreed with this and said that enforcing institutional deliveries would be too difficult for women living in a rural area without infrastructure [9].

Both Jayesh and the VHWs pointed out that the ASHA incentives program encourages them to focus on programs that have high incentives, such as increasing institutional deliveries, and ignore other areas of health. Furthermore, there have been problems when the ASHAs have demanded that they be recognized as government workers or when high status villagers have started to abuse the position. This has led the VHWs and social workers of CRHP to regard the ASHA as a pawn of the government, where she can no longer act as an advocate for the community because of this affiliation. One of the VHWs criticized the ASHA for merely

working for the money and prestige of being associated with the government and not having the best interests of the community at heart [15].

Furthermore, the government education requirement of ASHAs to be literate and to have completed ninth grade has limited the selection process and exacerbated social divisions in the village. According to Ravi Arole, the government failed to listen to Raj Arole's suggestions to select community health workers who were not necessarily educated and from a low caste in order to start changing social attitudes. Thus, the program failed to improve health because it continued to neglect the underserved and was quickly manipulated by the privileged [12]. Oftentimes the ASHA selected are high caste and upper class, and who the VHWs have accused as having an ego of a "bigger" person. Knowledge is not spread to the people but instead the ASHA will use her medicines only for her family and in her own self interest. Therefore, guidelines for selection should be for choosing a woman from the middle class who will work for the community [16]. The VHWs also stressed the importance of their training from CRHP and recommended that ASHA training should be continuous and comprehensive about health as well as about encouraging community participation and social issues [18].

The villagers were less informed about government programs, but in general they expressed moderate satisfaction with available services in the village. However, some complained that although there was increased presence from the government in recent years, government workers do not offer regular services so it was only sometimes helpful [2]. When pressed, one villager admitted that she did not know what an ASHA was or who it was supposed to be in her village [14]. It is unclear how much impact the ASHA has on the entire village or how aware people are of the government program.

The ASHA is intended to be a grassroots activist for change, similar to a VHW, and fulfill the role of a respected woman in the village who can deal with social development issues. While the ASHA program has had successes in increasing institutional delivery rates, the VHWs argue that this may be the extent of her usefulness under current NRHM programs because she is motivated merely by the incentives system, has little training, and is perceived by the villagers as just another governmental worker. Unlike VHWs, she is not approached by the community as a respected or empowered woman to resolve social conflicts or deal with caste issues in the village. When questioned whether an ASHA would be equipped to handle caste issues in the village, all of the VHWs replied vehemently that an ASHA could never be as effective as a VHW in dealing with social issues [16]. It appears that the success of the VHWs in achieving community engagement and trust has been because of the extensive training and support the VHW receives from CRHP and the sustained interest the organization shows towards the village.

Conclusion

This study found that the success of CRHP's community trust building programs is due to the consistent outreach of the organization, the demystification of health, and the bottom-up empowerment of rural communities. The implementation of the VHW program with ample support and training have enabled these women to be the drivers of change within their own villages and combat Pugh's observations of how rural people are "marginalized by a lack of power, choice, and opportunity" (2004, 79).

Not surprisingly, research has shown that marginalized communities in South India respond better and have a higher acceptance rate for cataract surgeries when sustained outreach clinics are organized with regular times and locations compared to irregular outreach. It also found that acceptors of procedures were more likely to come from a smaller and more supportive

family, as opposed to a large family with less support so that transport and distance from the clinic became issues. Furthermore, having previously undergone an eye surgery was a strong predictor for acceptance of a cataract surgery (Finger *et al*., 2011). This demonstrates that the increased access and availability of modern medicine to rural populations is crucial to increasing awareness and then utilization of these resources. The argument that rural ignorance and traditional medicine lead to non-compliance and ineffective uses of resources has been shown to be a poor explanation of rural health practices and a rationalization for the unequal allocations of resources favoring urban areas. Furthermore, the formation of urban slums is from the large influx of the rural poor into cities in the hopes for job opportunities and increased access to resources. Improving the lives of people living in rural areas is the only sustainable solution to preventing the worsening of conditions in urban slums and stopping the migration from villages to cities, which often can lead to more social and medical problems such as HIV/AIDS.

India has the unique opportunity to improve the quality of life for poor and rural populations and increase strengths in community engagement and development that some NGOs have been able to demonstrate. After the adoption of the National Rural Health Mission, the Indian government has displayed a new engagement with grassroots efforts at delivering care to underserved populations in rural areas but it needs to learn lessons from non-profit organizations such as CRHP that have been working in rural populations for years. Although CRHP takes a very grass-roots approach with limited scope, the government can still take some lessons from the work done at CRHP when attempting to scale up rural health programs. The ASHAs will need a better support and outreach system such as the MHT to support her work, and training needs to be more consistent and comprehensive so that she will be empowered as an individual and gain trust from the community.

A rural development work moves forward, there is an imperative to change the current top-down mindset of governmental officials and programs. Well-meaning medical professionals insist that more doctors and facilities need to be sent to rural areas, while villagers often point to their own communities as the real source of change. This paradigm of increasing doctor salaries and working in rural areas is not appropriate for a rural, impoverished community in the Jamkhed area nor for a government with little infrastructure in India. This mindset seeks to use brute force and money to reverse the 'brain drain' when in reality it only maintains the concentration of medical knowledge and health empowerment into the hands of the few and away from the community that requires it.

Though many times it is assumed that community trust building means convincing a community to trust a certain service provider, in the case of true empowerment, it means that the community has trust in itself: in the validity of its own needs and in the ability to address its own issues and requirements.

Recommendations for Further Study

Possible further studies could be focused more specifically on government programs in rural areas and how to better improve NRHM. This study found that CRHP staff and VHWs were disappointed with the work of the ASHAs and villagers did not seem to be well aware of these government initiatives. It would be useful to compare case studies of the government model against the CRHP model and examine the strengths and weaknesses of both and any functional differences.

Glossary

ANM- an Auxiliary Nurse Midwife, name for a government worker involved in maternal and infant health

ASHA- an Accredited Social Health Activist, name for the government community health worker under NRHM

CRHP- The Comprehensive Rural Health Project, a non-profit organization working in Jamkhed block

Dai- traditional Indian village midwife

Eve-teasing- harassment and cat-calling of women by young men, common term in India

Grampanchayat- Indian village level local government with elected members

Gramsabha- a village council meeting, held by the *grampanchayat*

MHT- Mobile Health Team, team of CRHP workers that drive and visit villages to hold clinics and village meetings

NRHM- The National Rural Health Mission, a government scheme created in 2005 to improve health indicators in rural areas of India

Purdah- traditional practices of female modesty and proper behaviors, usually more common in rural areas

Sarpanch- the elected head of the Indian local village government (*grampanchayat*)

VHW- Village Health Worker, name for the CRHP community health worker

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