Disaster Aid in Pakistan: an Opportunity for Maternal and Child Health Reform

CAITLIN C. EDGAR Washington and Lee University

Washington and Lee University

Maternal health is inextricably tied to the health of families, and, therefore, the health of a nation. A World Bank report on achieving the Millennium Development Goals for maternal health remarks, "Investments in safe motherhood not only improve a woman's health and the health of her family but also increase labor supply, productive capacity, and economic well-being of communities" (Lule 3). For example, children whose mothers die in childbirth have double the risk of under-five mortality (Lule 3). In countries where a woman's role is largely defined by bearing and raising children at home, her health as mother and primary caregiver is even more essential. In addition, studies show a lack of maternal autonomy in decision-making to be strongly associated with higher child mortality (D'Souza 4).

The country of Pakistan faces particularly grievous challenges both in women's empowerment and in family health. These challenges are rooted in the religious and cultural norms of Pakistani society, where certain interpretations of the Koran compounded with a deep respect for tradition and hierarchy have relegated women to restricted lifestyles. Women are discouraged from pursuing education once they have reached marriageable age, nor are they allowed to leave the home without a male family member as an escort. Young wives and mothers are also frequently subject not only to the authority of their husbands, but also to the hierarchal domination of their mother-in-laws. These societal customs compound the neglect of health determinants due to inadequate health infrastructures.

This paper first examines the health concerns in Pakistan before and after the 2010 flooding and then proposes a model for meeting Pakistan's most severe health needs. The model emphasizes supporting the goals and requirements of the Early Recovery Plan for Pakistan's health sector as proposed by the Health Cluster. The Word Health Organization coordinates the efforts in Pakistan towards emergency and recovery health relief through the Health Cluster, the official health-focused group of local and international NGOs and government agencies.

Introduction to Health in Pakistan

Located between its large neighbors, Iran, Afghanistan, India and China,
Pakistan's population of 177 million ranks sixth in the world (World Health
Organization 1). With a fertility rate of 4.1, experts project that its population will
reach 250 million by 2025 (Shadoul 3). The high fertility rate of Pakistani women is

due in part to a low 30% prevalence in use of contraceptives and presumably also related to the relatively young age at which most young Pakistani woman are married (Shadoul 2). Fifty percent of young women are married before the age of 20 (Sultana 2). For reasons additional to their high fertility rate, Pakistani women face severe risks during their pregnancies. According to the World Health Organization's health profile, Pakistan's current maternal mortality rate (MMR) fell to 276 per 100,000 live births in 2008 from 350 in 2000 and 550 in 1990 (World Health Organization 1). However, that rate is still about double the Millennium Development Goals' 2015 target of 140 deaths per 100,000 live births (Shadoul 9). For comparison, the United States' MMR is about 13 per 100,000 live births (CDC 1).

In Pakistan, the leading causes of death for women in the reproductive years are complications from pregnancy and childbirth. Hemorrhaging (uncontrollable) bleeding after childbirth) and sepsis (severe infection) are the most common forms of complications. The risk of hemorrhaging is compounded by the fact that 40% of Pakistani women are also anemic (Shadoul 3). In addition, risk of both of these infections greatly increases when a woman gives birth without skilled birth personnel participating. Skilled birth attendants are present at only 39% of births in Pakistan, and about two-thirds of births take place at home (Shadoul 2).

In response to the poor maternal and child health outcomes, in 1994 the

Pakistani government instituted the National Program on Primary Health Care and

Family Planning, which created a new group of service providers known as Lady

Health Workers (LHWs). LHWs were designed to be the backbone of the community

health programs and were trained to deliver the most essential and basic maternal and child health care and family planning services (Islam 2). Although the number of Lady Health Workers has risen, in 2003, the United Nations reported that access to health services is available to only 55% of the population and only 30% for maternal and child services ("Development Assistance Framework" 16). According to the World Health Organization (WHO), there are only 7.8 physicians and 3.8 nurses for every 10,000 members of the population of Pakistan (World Health Organization 22).

Besides maternal concerns, Pakistan also faces challenges in child health.

Based on 2009 data, the infant mortality rate (IMR) is 71 per 1000 live births compared to the global average IMR of 43 and the American IMR of 7 (World Bank).

While this number has dropped over the last decade, its reluctant decline is attributed to the stagnant neonatal mortality rate (NMR) of 56, which dropped by only two points in the last two decades. Again, the source of the stagnant NMR is strongly thought to be the lack of skilled birth attendants. A recent paper published on maternal, neonatal, and child health in Pakistan notes, "Current countrywide estimates of available skilled birth attendants, including obstetricians, nurses/midwives, lady health visitors and CMWs (community midwives), may not exceed 12,000, while the required midwifery workforce is estimated at 30,000 for the next 5 years" (Shadoul 9).

Surviving pregnancy and birth is only the first health challenge a Pakistani child faces. The under-five mortality rate (U5MR) for a Pakistani child is 87 in 1,000

live births versus the global average of 61 (World Bank 7). Furthermore, for children in the wealthiest quintile of Pakistan this rate is 60 per 1000 live births, while the under-five mortality rate of children in the poorest quintile is 121 per 1000 live births (World Health Organization 2). Although breastfeeding is indisputably the best nutrition for infants and most often the easiest as well, only 37% of Pakistani children receive exclusive breastfeeding under six months (Health Cluster 18). Many new mothers in Pakistan have been superstitiously taught not to feed their children the first nutrient-rich clear breast milk for the first few days after birth and thus inadvertently greatly weaken their new babies' immune systems and impair their growth. It is worth noting that breastfeeding is also positively associated with temporary postpartum infertility (Huffman 1). Furthermore, more than 40% of children under the age of five are stunted in their growth, with a 13%

In addition, deplorably low immunization standards contribute to the high under-five mortality rate. Although 75% and 93% of Pakistani children have received their first doses of the DPT and polio vaccines, respectively, only 59% and 83% of children receive the corresponding third doses (Health Cluster 18). The children living in deepest poverty in Pakistan face significant inequities in the prevalence of immunization. For example, the rate of measles immunization for one-year olds is 76% for the wealthiest quintile of children and 36% for the poorest children (WHO health prof 2). Although infectious diseases have always posed a challenge, before the 2010 flooding the leading causes of under-five mortality were pneumonia, prematurity, diarrhea, and birth asphyxia. Communicable diseases

prevalence of acute malnutrition (Health Cluster 19).

played a lesser contributing role, but the conditions left by the flooding have increased the prevalence of infection and caused the low immunization rates to be a sharper cause of concern. Overall the flooding overwhelmed an already fragile health system with increased health risks and simultaneously destroyed or damaged much of the infrastructure needed to respond to those risks.

Impact of 2010 Floods

In mid-July 2010 the annual monsoon rains fell heavier than usual in Pakistan. The Indus River overflowed its banks and flooded the surrounding areas, spreading the flooding from Khyber Pakhtunkhwa in the north to Western Punjab and south into Sindh over an area the size of Britain as the rains continued for the next two months (Health Cluster 5). With 5.3 million people in need of jobs, 1.8 million households destroyed or damaged, 13,000 schools either destroyed, damaged or being used as shelters, and 8.4 million acres of crops lost, a country already facing infrastructural challenges faced devastating further losses. (*The Daily Times* 1, Oxfam America 1). An estimated 18 million people, 10% of the Pakistani population, have been affected by the flooding, and at the end of February 2011, 150,000 families were still in urgent need of assistance while another 350,000 families were still living in camps (Health Cluster 12).

The cramped conditions of relief quarters, contamination of water supply and lack of adequate food have compounded the health risks that already faced the Pakistani population. The five million children who live in flood-affected areas face an estimated U5MR of between 110 and 120 deaths per 1,000 live births, the rate

faced already by the poorest children in Pakistan (Health Cluster 52). In addition, about 10,600 of the Lady Health Workers in the flooded areas have been unable to function due to displacement of population. In fact, about one-third of human resources in flooding-affected areas have been lost (Health Cluster 53). The Early Recovery Plan proposed by the Pakistan Health Cluster goes on to note that the proportion of births attended by skilled health workers will decline by another 3%, resulting in an extra 15,000 pregnant women who will give birth without skilled assistance (53).

After the flooding, WHO and UNICEF issued an appeal for assistance in providing clean water and sanitation. Diarrheal diseases, acute respiratory infections, skin diseases and suspected malaria have been the leading causes of seeking health care in flood-affected areas due to how easily they are spread by close contact with other people (Weekly Epidemiological Bulletin 7, 28). Even before the flooding, poverty-related communicable diseases were a significant problem in Pakistan, aggravated by malnutrition and maternal risks. The high agricultural losses caused by the flooding have increased the risk of malnutrition in Pakistan, where an estimated 80% of the population depend on agriculture for their livelihood (Pak Health Recov 14). The Pakistan Health Cluster has done an admirable job in the last four months of treating immediate medical needs through diarrhea treatment centers and both static and mobile health outreach centers. "Official records state that of the 9,721 health facilities in the flood-affected areas, 329 have been partially damaged and 186 have been totally destroyed" (Nishtar 11). These numbers do not account for the additional privately run health facilities that

account for much of the infrastructure. As people begin leaving camps and returning to their homes, the approach is shifting from temporary relief to rebuilding the lost infrastructures. A clear vision is needed for implementing innovative medical systems that will meet immediate needs as well as improve long-term health outcomes.

Pakistan Health Cluster Early Recovery Plan

The Pakistan Health Cluster has collected most of the information known about the effects of the flooding on maternal and child health. In mid-February 2011, the Health Cluster partners released the Pakistan Early Recovery Plan for the health sector in order to outline the necessary steps required for the transition from emergency relief to recovery and rebuilding. The plan focuses primarily on the first twelve months of recovery but does address critical health reform issues as well. stated goal is "to support the reactivation of the health care system in areas affected by the floods with special emphasis on maximizing access for the returning and resident population to a basic package of quality essential health services" (5). This goal has been adopted by the Pakistani government as the current primary objective in health care. Any strategy for coherently addressing the existing maternal and child health problems before the flood must take into account the loss of infrastructural capabilities and epidemiological changes that the flood caused to the health system. Furthermore, a successful approach will emphasize working with existing efforts as much as possible. Here this paper examines the Health Cluster's

proposal and projected impact on the flood-induced and pre-existing maternal and child health conditions.

The ten priority actions of the recovery plan follow the main priority actions of the National Health Policy released by the Federal Ministry of Health in spring 2010. They address six particular issues, specifically health information; leadership and governance; health workforce; health financing; medical products, vaccines and technology; and health services. Although the priority actions do not all directly address maternal and child health, they do tackle important determinants of health that crucially affect the quality, efficiency, and access to health care. Of most relevance to this paper are actions three, four, five, six, and eight, as they focus on flexible community-based provision, improving and retaining human resources, and

Wind singular and Lee University

Priority actions three and four fall under the category 'leadership and governance.' Action three addresses the issue of "District Health Planning," which is concerned with decentralizing health planning and giving more control to the district governments rather than leaving it in the hands of the larger provinces (Health Cluster 6, 31). The aim of this action is to increase both efficiency of delivery and access to the public health system by creating opportunities for greater accountability and improved management through direct community participation. The fourth priority action relates to public-private partnership and suggests outsourcing of services to private providers (7). The obvious challenge of outsourcing is the concern of coordination among providers. However, outsourcing

does allow the provision of health services to bypass some of the inefficiency and observed quality deficits of the public bureaucracy in favor of a more performance-driven private sector. The private sector can also be more motivated to develop quantitative measurements of quality for the purposes of cost-benefit analysis and patient satisfaction. Later on public programs often adopt these measurements as industry standards. A strong emphasis is placed in the recovery plan on promoting community responsibility for the administration of the local primary care health facility (33). Not only does this improve direct accountability between the administrators and the beneficiaries, but running health programs through connected local leaders also improves the efficiency and efficacy of resource allocation. Both actions three and four favor grassroots-level health provision and recognize the importance that the Pakistani health care infrastructure is responsive

The Pakistan Early Recovery Plan aims priority actions five and six at improving the health workforce. Action five focuses on short term goals of service delivery and staff retention while action six promotes the long-term development of human resources (Health Cluster 7). The first concern after the flooding is to figure out where and by whom services are to be delivered. Clearly the initial location targets are the districts most severely impacted by the flooding. However, the larger question remains whether to focus the provision of health services to rural areas, which face the greatest inequities in maternal and child health or to the urban areas where larger populations are easily reached. The challenge of staffing remains no matter what location focus is chosen. In the immediate aftermath of the flooding, the

to local needs and oversight.

recovery plan prioritizes retaining skilled health workers, female workers in particular. Short-term incentives of salary increases between 20 and 35% are suggested to motivate female physicians, nurses, midwives and lady health workers to restart their jobs in affected areas (34, 42). Maintaining a stable staff force is difficult in the face of massive population displacement, and female staffing issues are compounded by the fact that women typically have little say in family decisions about relocation. In the long term, the Health Cluster identifies a need for a unified and comprehensive plan among the provincial ministries for human resources development, focusing in particular on the lack of nurses and paramedics as well as female MDs and trained midwives. Considering the wide impact the lack of skilled birth attendants has on maternal and infant health, the recovery plan recognizes the need to holistically address this issue at the provincial level, considering not just the number of workers needed but the quality of the education given with regards to teaching facilities and curricula. (7, 34).

After the Health Cluster addresses governance and human resources, priority action 8 considers the inescapable question of funding. Currently the public sector in Pakistan spends 1.16% of its GDP on health (Nishtar 17). The Early Recovery Plan aims for minimum of 4% of GDP by 2017 and emphasizes clear cost estimates and identification of duplicate expenditures and other wastage as important steps in advocating for increased public expenditures (Health Cluster 7, 35). An important goal in funding the recovering health system is to relieve the burden of out-of-pocket expenditures on the poor. Beyond generally improving access to public services, decreased co-pay costs encourage women financially dependent upon their

husbands to seek reproductive health services. Contingent upon the improved regularization of the public and private health systems, a second long-term objective supported by the Health Cluster is a revision of the difference in fees between the two systems, narrowing them in order to relieve the burden of out-of-pocket expenses and allow improved increased access. However before Pakistan will be able to reach its funding objectives, it will have to decrease its dependency on the resources of external donors, who have begun pushing for more self-sufficiency. A small earmarked, indirect tax on some product or transaction has been suggested as one way of indigenously financing health programs (Nishtar 18). Dr. Sania Nishtar, leading expert on Pakistani health policy and planning, points out that such a tax, as for example a 0.38% tax on bank transactions, is often seen by citizens as a

humanitarian contribution and provides significant resources that are a much more certain supply than other methods of financing, such as voluntary contributions (18).

Lastly, the Pakistan Health Cluster devotes an individual section of the Early Recovery Plan to gender concerns in the health sector. It states,

Gender inequality and in particular disadvantaged access of women and children to health care is an important issue in Pakistan. Women's inability to travel alone as and when they wish is viewed as a significant barrier to improve their health. The majority of Pakistani women report they are unable to go to a health facility unaccompanied; male family members must accompany them. This requires a gender-responsive approach that meets needs equally and recognizes the different capacities and vulnerabilities of women, girls, boys and men (38).

Strategies for a "gender-responsive approach" include ensuring equal representation of men and women in assessment and planning, collecting disaggregated data by age and sex in all reports on health concerns, recruiting women associations for involvement in various programs, emphasizing sexual and reproductive health programs, and supporting the training of female health professionals (Health Cluster 39). The comparative lack of female physicians in Pakistan remains a huge barrier to health care access for women. Even when health care facilities are accessible, discussing reproductive health or any physical concerns with a male physician is viewed as socially unacceptable for women, rendering the available health services inaccessible. It is vitally important for maternal and child health to have female health professionals on hand at primary health care facilities in order to discuss confidential health issues and provide

obstetric/gynecological care.

Most of the health concerns in the Pakistan Early Recovery Plan are not unique to the 2010 flooding. However, the disaster situation has worsened existing problems and revealed the extent of the gaps in health provisions access and quality. The priority actions of the Health Cluster explain the areas of greatest need and outline strategies for meeting those needs. The plan however lacks a concrete vision and model for how to practically provide vital services within the current social and political context. As Dr. Sania Nishtar points out, it is "critical to use this rebuilding opportunity to test the feasibility, acceptability, and effectiveness of outof-the-box service delivery options, which would also mitigate against current weaknesses in public delivery at the grass-roots level" (14).

One such "out-of-the-box" option is the community-based public health solution developed by Dr. Vera Cordeiro in Brazil. Since as of the spring of 2011, a successful model for community-based health has not yet been developed for Pakistan, other existing systems were analyzed. Although Brazil is geographically and culturally distant from Pakistan, Associacao Saude Crianca Renascer demonstrates enormous potential for a model of health care delivery in Pakistan that also supports the goals of education, employment, and women's rights. This model presents intriguing possibilities for meeting maternal and child health needs in a way that empowers women while remaining culturally sensitive.

A Sustainable Model for Community-Based Health Provision

Sindh Health Minister, Dr. Saghir Ahmed, has affirmed the Pakistan government's commitment to training nurses and midwives in order to meet the shortage of health professionals and in order to achieve the fourth and fifth Millennium Development Goals specific to maternal and child health (*Associated Press of Pakistan* 2). However, more than just properly-trained heath workers, improved maternal and child health in Pakistan requires structures that holistically support the provision of social health determinants. As Norman Daniels says in his book, *Just Health: Meeting Health Needs Fairly,* "Health is produced not just by having access to medical prevention and treatment but also, to a measurably great extent, by the cumulative experience of social conditions across the life course" (79). These social conditions, also known as the social determinants of health, encompass far more than just income poverty and range from socioeconomic status (income,

education, and social status) to race and ethnicity disparities. The importance of social determinants is shown by the fact that universal health care alone has not been demonstrated to bridge the gap between health inequalities as well as the fact that poorer countries pursuing public health policies focused on social determinants have achieved admirable collective health outcomes (80). Surprisingly, Costa Rica's life expectancy is similar to that of the United States, even though the gross domestic product per capita differs by a deficit of \$21,000 (83-84). While income poverty alone does not explain bad health outcomes, inequalities in income, as well as inequalities in human capital and personal autonomy, are linked to health inequalities. For example, developing countries that emphasize education, particularly equal educational opportunities for men and women, have better health

Furthermore, the higher socioeconomic status one has and the more control one has over personal decisions and work, the better one's health is (Daniels 83, 88). Thus, it comes as no surprise, that when considering the deplorable maternal and child health outcomes in Pakistan, a lack of female autonomy, education, and employment is also noted. To the end of holistic provision of health determinants, the formation of at-place health structures supports both Pakistan's immediate recovery requirements and long-term goals. These community-based systems address needs that diverge from merely the obviously medical and extend support that promotes the development of human capability over the long-term.

outcomes than those that do not invest as significantly in human capital.

Here the development and mission of Brazilian Associacao Saude Crianca Renascer (also known as ASC or Rebirth: Association for Children's Health) is examined in order to demonstrate that it provides a model for a community health organization that supports pre-existing infrastructure while revolutionizing both primary and secondary health care delivery. Cordeiro, a Brazilian doctor, originally founded Renascer in Rio de Janeiro after becoming frustrated with the cycle of care for the poor, particularly the pattern of treating children for diseases and then releasing them to the exact same conditions that caused their ill-health. The children she treated in the public hospitals exhibited many of the same diseases that health professionals in Pakistan repeatedly face: skin disease, diarrhea, acute respiratory infections. Oftentimes the causes of child health problems are related to living conditions of poor sanitation and water quality, malnutrition, and unhygienic standards of cleanliness. Children brought into the hospital or clinics are treated for their illnesses and then released right back into the disease incubator they came from. It can hardly be surprising in such circumstances when the same children are intermittently treated for the same conditions over and over again, a cycle that often ends in pre-mature death. Eventually, like Daniels argues, Cordeiro recognized that

Cordeiro originally established Renascer in order to help mothers of vulnerable children learn how to prevent recurrences of illness by improving hygiene and nutrition. In order to guarantee the mothers' cooperation, she offers free nutritional supplements and medicines for six months in exchange for maternal office visits at least twice a month. After Cordeira's colleagues at the hospital

one cannot separate health issues from social conditions. As she explains, "Hospital

treatment as it is conducted today – ignoring poverty and the conditions of the

family – is a *false* treatment" (Bornstein 130).

identify at-risk children about to be discharged, Cordeira enlists nurses, social workers and nutritionists to develop time-bound objectives and treatment plans with the mothers. Goals include everything from making a habit of boiling water to fixing a roof or modifying a child's diet. Cordeira is also clear with her clients that while Renascer seeks to support and help mothers, its support is temporary and focused on establishing individual competence.

According to Odilon Arantes, the director of the local public hospital's pediatric unit, between 1991 and 1997 Renascer brought a 60 percent drop in readmissions in the unit (Bornstein 135). Arantes told David Bornstein, author of *How to Change the World*, "Before Renascer, we used to spend lots of effort and money in the emergency room or ICU [intensive care unit] on treatment knowing that there was a high probability that kids might die afterward from lack of assistance and follow-up at home. Now when we discharge a poor child, we can feel at peace. And this makes our work more meaningful and rewarding" (135-136). Bornstein points out that success of Renascer lies in its focus on a specific, achievable purpose with measurable and time-based goals. Cordeira has learned that on average it takes eight months of consistent contact with a community organization equipped to handle a range of social problems in order to establish the mother as an independent manager of her family's health (136).

The primary objective of at-place preventative health and follow-up organizations is obviously to improve health standards. The outcomes of Renascer demonstrate its success in reducing hospital visits and improving the home

environment. Simultaneously, developing a sustainable system also improves levels of education, invests in job creation, and empowers women. The success of Renascer's approach lies in its holistic capabilities, its support network of social workers, nutritionists and nurses, and its foundational educational commitment.

Although the Renascer model's holistic approach to health determinants

shows remarkable promise for replication in Pakistan, the two countries are indisputably different geographically, politically, and religiously. It is in particular the cultural perspectives on women and outsiders that presents unique challenges to the implementation of this model in Pakistan. The prevailing perspective on family hierarchy emphasizes male authority and female submission (Jejeebhoy 690). Although female educational opportunities have improved in recent years, particularly in urban areas, women are generally expected to marry and particularly in urban areas, women are generally expected to marry and leave home without her husband's permission (Mumtaz 1752). As a result of the emphasis on marriage and male dominance, Pakistani women face difficulty in taking advantage even of the existing educational opportunities. Thus not only are there fewer women capable of providing health services, but as recipients of care,

On a business level, the Pakistani people are wary of outsiders and generally support nepotism in both service use and provision as means of identifying trustworthy relationships. This perspective poses an employment and utilization

they are often also unable or consider themselves unable to make independent

decisions about the appropriate course of action for themselves and their families.

hurdle for any outsiders seeking to establish new services. In order to alleviate some of the potential difficulty of both these community challenges, care must be taken to establish relationships with trusted members of the local society and to emphasize inclusive family education and awareness in both policy and practice, winning fathers and husbands to the cause of improved health provision as well as mothers and wives.

Despite the challenges of application, the lessons learned from the Renascer model address the concerns of leadership and governance, human resources, and gender considerations that have been raised by the Early Recovery Plan by the Health Cluster. Because of the flexibility of the organizational structure and its basis within neighborhood communities, ASCR can be implemented both in rural and urban areas. As a primary health resource, it can serve as a connection between the local community and the larger secondary health facilities, both referring patients who need immediate interventional care and following up on discharged clients. Monitoring of ASCR-model organizations and coordination with secondary health structures is best controlled by district governments where individuals from the different communities can have a voice in directing the resources and attention of the community-based health structures. An ASCR-like community health organization also requires less physical facility infrastructure, making it an ideal model to use and implement widely from the beginning of recovery and reconstruction. Although a central office would be needed in each community, consultations with clients could easily be home-based eliminating some of the need

for women to travel independently. Home-based care and education also allows direct evaluation of the program's benefits and efficacy to the individual families.

Not only does an organization like ASCR build the human capability of its clients through maternal and child health education and access to resources, but it builds the capability of the staff it employs as well. In order to encourage confidence in the delivery of health services, a primary health organization must be staffed by women. This will require a concerted push for women to receive health professions education whether as midwives, nutritionists, nurses or physicians, or social services education, as social workers and counselors. In the meantime, other sources of staffing must also be considered.

Three sources of staff ought to be utilized in different capacities. Sending foreign social workers and nutritionists to support the initial development of preventative community health systems is important both to meet immediate needs and to teach local women some of the technical skills needed in filling the institutional roles. However, a specific timeline for transitioning to a completely locally run system must be clearly communicated by those who initially organize and build it. Stephen Glain warns of a troublesome tendency in foreign development aid, "Sustainable development' for distressed economies is increasingly interpreted as sustainable employment for those foreigners who run donor-financed programs. These organizations tend to be just effective enough to show results but not so conclusively that they are no longer needed" (302). Both sides must know that the foreign assistance is temporary. This is a particular danger in Pakistan where much

of the social services programming is run on outside donations and staffed by foreign aid workers (Nishtar 17).

The second source of staff is the pool of existing local professionals and experts. It is imperative to partner with community leaders in identifying and recruiting talented personnel who are familiar with their local environment to oversee building the organizational system. This parallels the goal of the Health Cluster to provide short-term motivation for current skilled female health workers to resume working in flood-affected areas (Health Cluster 7). In the long term, young women must be encouraged to seek educational training to become health professionals, nutritionists, counselors, and social workers. This will require specific policy strategies such as external and internal scholarships. Furthermore, both the Pakistani people and their government must be convinced of the vital need for skilled female professionals for the good of their families and for the good of their country's broader economy and financial future.

Lastly, the ASCR model of a community health organization addresses concerns over gender discrimination in Pakistan. As women partner together to meet the needs of their families and community, both the providers and the clients will gain increasing female and maternal autonomy. As mentioned earlier, a lack of maternal autonomy in choosing of healthcare providers, suggesting treatment, taking the child to a hospital, or making decisions regarding cost has been linked to higher risks of child mortality (D'Souza 2). In addition, education is one of the factors likely to influence maternal autonomy (D'Souza 5). These community

preventative health organizations will encourage women to pursue personal educational and career goals, nurture healthy families, and invest in their wider community. In addition, equipping more of the population with knowledge of hygiene and sanitation is a form of future disaster prevention, decreasing some of the risk of communicable disease in the aftermath of another complex humanitarian emergency. As development economist William Easterly describes innovative aid solutions, "This scheme is not a magical panacea to make aid work under all circumstances; it is just one creative response to a particular problem" (14).

However, a concern remains over the sources of funding. As Dr. Sania Nishtar repeatedly observes in her report on the aftermath of the flooding in Pakistan, health services were already greatly funded by outside donations before the flooding, and since the relief efforts, health delivery has been coordinated by the Selection Health Cluster in Pakistan. As Nishtar points out, "This arrangement is heavily dependent on external resources, which means that as time progresses and interest wanes it will become very difficult to sustain. Ideally, there should be a minimally functioning, coordinating arrangement already in place that can be [implemented] as the need arises" (9). Foreign aid is vital to beginning the process of recovery and in designing and laying the foundation for a framework of ASCR-like community health organizations. However, once the initial foundation has been laid, this model is extremely competent for national autonomy.

The big plans and strategies of the Pakistan Early Recovery Plan for the Health Sector do reveal the dire needs faced by the Pakistani population. However,

they also lack a directed, achievable goal. Associacao Saude Crianca Renascer was not a plan developed by an aid employee sitting behind a desk in Washington, D.C. Dr. Cordeiro was a "Searcher" who found a solution to meeting the health needs of children in here developing community. Creativity and responsiveness to challenges are required to appropriate the concept of a Brazilian ASCR for the post-flooding situation in Pakistan. In addition, in light of the extensive damage and loss experienced in Pakistan, the resources, both human and financial, offered by foreign donors is critical to kick-starting the relief process. However, because the focus is on building the capabilities of local communities to provide for basic health determinants, the network of health delivery will quickly become independent of its foreign advisors and support.

Washington and Lee University

Maternal and child health are critical determinants of the futures of developing countries. Due to a variety of factors, cultural, geographical, and political, Pakistan in particular faces severe challenges in maternal and child health.

Furthermore, health concern have been exacerbated by the conditions created by the 2010 flooding. In the aftermath of that flooding, an opportunity is available to implement the reforms proposed by the Federal Ministry of Health in the spring of 2010 and reiterated in the Early Recovery Plan in such a way that sustainable solutions are found for improving female, reproductive, and child health. The critical concern is creating access to determinants of health for women who are traditionally marginalized members of the population and their families. The model

of Associaca Sauge Crianca Renascer, developed by Dr. Vera Cordeira in Brazil shows promising potential for providing a structure for maternal and child health delivery. Beyond typical health care, though, an ASCR-like organization focuses on building the array of tools and health resources needed for families to build their collective human capability.

Grade B+ Caitlin, you have made enormous progress in integrating the elements of this paper with a focus on maternal health and its consequences for child health. The paper drifts at times and the general observations form Daniels and form ASCR could still be linked more tightly with the specific circumstances in Pakistan. You have a ways to go before you understand and convey to others the specific impediments to maternal heath in different parts of Pakistan. Nevertheless, you have a start that I—and I hope you—have learned from. I will incorporate the cosmetic revision in the tracking mode into the draft we post, unless you specify otherwise.

Vashington and Lee University

Bibliography

- Associated Press of Pakistan. "Health Minister acknowledges shortage of nurses in health sector." May 5, 2010.

 http://app.com.pk/en_/index.php?option=com_content&task=view&id=102323&Itemid=2.
- Bornstein, David. How to Change the World: Social Entrepreneurs and the Power of New Ideas. New York: Oxford University Press, 2007.

Daniels, Norman. *Just Health: Meeting Health Needs Fairly*. New York: Cambridge University Press, 2008.

- "Development Assistance Framework for Pakistan, 2004 2008." United Nations Development Programme. March 2003.

 http://www.undp.org/asia/country_programme/UNDAF/PAK_UNDAF_2004-2008.pdf.
- D'Souza, Rennie M. "Role of maternal autonomy on child mortality in slums of Karachi, Pakistan." *World Health and Population*. 4, no. 1 (2001). http://www.longwoods.com/publications/world-health-population/389.
- Easterly, William R. The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good. New York: Penguin. 2007.
- Floods in Pakistan. "Focus on Health Cluster Response in Dadu District Sindh." Pakistan Health Cluster. 1, no. 22 (2010). http://www.whopak.org/idps/documents/bulletins/Pakistan Health Cluster Bullet in 22 FINAL.pdf.

- Glain, Stephen. *Mullahs, Merchants, and Militants the Economic Collapse of the Arab World.* New York: Thomas Dunne Books, 2004.
- Health Cluster Pakistan. "Pakistan floods 2010: Early recovery plan for the health sector." Health Action in Crises. www.who.int/hac/crises/pak/pakistan_early_recovery_plan_12february2011.pdf (accessed March 29, 2011).
- Hardy, Justine. In the Valley of Mist: Kashmir: One Family In A Changing World. New York: Free Press, 2009.
- Huffman, Sandra L. "Determinants of Breastfeeding in Developing Countries: Overview and Policy." *Studies in Family Planning* 15, no. 4 (Jul. Aug., 1984), pp. 170-183.
- Islam, A., A. Malik, and S. Basaria. "Strengthening Primary Care and Family Planning Services in Pakistan: Some Critical Issues." *Journal of Pakistan Medical Association*. 52, no. 2 (2002).
- Jones, Owen Bennet. *Pakistan: Eye of the Storm.*" 3rd ed. London: Yale University Press, 2009.

Kronstadt, K. Alan. "Pakistan U.S.-Relations." Congressional Research Service. 2009. TO and Lee University

- Jejeebhoy, S.J. "Women's autonomy in India and Pakistan: the influence of religion and region." *Population and Development Review.* 27, no. 4 (2001).
- Lule, Elizabeth, G.N.V. Ramana, Nandini Ooman, Joanne Epp, Dale Huntington, and James Rosen. "Achieving the Millennium Development Goal of Improving Maternal Health." Health, Nutrition, and Population. siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/LuleAchievingtheMDGFinal.pdf (accessed April 5, 2011).
- Mahmood, M. A., J. Moss, and R. Karmaliani. "Community context of health system development: implications for health sector reform in Pakistan." *La Revue de Santé de la Méditerranée orientale*. 9, no. 3 (2003).
- Mumtaz, Z. Z. "I never go anywhere': Extricating the links between women's mobility and uptake of reproductive health services in Pakistan." *Social Science and Medicine*. 60, no. 8 (2005).
- Natsios, Andrew S. U.S. Foreign Policy and the Four Horsemen of the *Apocalypse*. New York: Praeger, 1997.

- New America Foundation and Terror Free Tomorrow. "Public Opinion in Pakistan's Tribal Regions." September 2010.
- Nishtar, Sania. "Through the Health Lens: the Aftermath of the 2010 Pakistan Flood." Heartfile. www.heartfile.org/pdf/Report_Pakistan_Flood.pdf (accessed April 2, 2011).
- Oxfam America. "Oxfam Fact Sheet: Pakistan floods." September 2010. http://www.oxfamamerica.org/publications/pakistan-floods-fact-sheet.
- "Pakistan covets trade, not aid: Zardari." *Dawn*. September 19, 2009.

 http://news.dawn.com/wps/wcm/connect/dawn-content-library/dawn/the-newspaper/front-page/pakistan-covets-trade,-not-aid-zardari-999.
- "Pakistan: Health Profile." World Health Organization. August 2010. http://www.who.int/gho/countries/pak.pdf.
- Rempel, Hilmar, Sandro Schmidt, and Ulrich Schwarz-Schampera. *Annual Report 2009: Reserves, Resources and Availability of Energy Resources*. Hannover: German Federal Institute for Geosciences and Natural Resources, 2009. http://www.tsl.uu.se/uhdsg/Data/BGR/BGR2009.pdf.
- Riedel, Bruce. "Pakistan and Terror: the Eye of the Storm." *The ANNALS of the American Academy of Political and Social Science*. 618, no. 1 (2008): 31-45.
 - Sen, Amartya. "The Man Without a Plan." Foreign Affairs. March/ April 2006.
 - Shadoul, A. F., F. Akhtar, and K.M. Bile. "Maternal, neonatal and child health in Pakistan: towards the MDGs by moving from desire to reality." *Eastern Mediterranean Health Journal 16*, Supplement 10 (2010): 39-46. http://www.emro.who.int/publications/emhj/16_Supp/article5.htm (accessed March 28, 2011).
 - Sultana, Munawar. "Culture of Silence: a Brief on Adolescent and Reproductive Health in Pakistan." The Population Council. www.popcouncil.org/pdfs/Pak AYP001.pdf (accessed April 4, 2011).
 - The Daily Times. "Floods may affect 5.3m jobs: ILO." September 08, 2010. http://www.dailytimes.com.pk/default.asp?page=2010\09\08\story_8-9-2010_pg7_6.
 - U.N. General Assembly, 96th meeting. "Chapter Two: Towards Sustainable Development." *Resolution 42 [Report of the World Commission on Environment and Development: Our Common Future.]* 11 December 1987. Retrieved: 2010-12-29. http://www.un-documents.net/wced-ocf.htm

- U.S. State Department, *Quadrennial Development and Diplomacy Review: Leading Through Civilian Power*. Washington, D.C. 2010.
 http://www.state.gov/documents/organization/153108.pdf.
- The White House. May 2010. *National Security Strategy*. Washington, D.C. http://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy.pdf
- Walsh, Declan. "Polio cases jump in Pakistan as clerics declare vaccination an American plot." *The Guardian*. February 16, 2007. http://www.guardian.co.uk/world/2007/feb/15/pakistan.topstories3.
- Weekly Epidemiological Bulletin. "Flood Response in Pakistan." 1, no. 16 (2010). http://www.whopak.org/idps/documents/wmmrs/wmmr_flood_w48_2010.pdf.
- The World Bank. "Indicators | Data." Data | The World Bank. http://data.worldbank.org/indicator (accessed April 5, 2011).
- World Health Organization. "Pakistan: Health Profile." Pakistan. www.who.int/gho/countries/pak.pdf (accessed January 8, 2011).

Washington and Lee University