

**Total organizational Budget: USD 103508**

**Total of Board members: 9 board members**

**Total of volunteers: 8 volunteers**

**Total of Paid staff: 30 paid staffs**

**Organizational Mission of statement:**

Pratiman-Neema Memorial Foundation (PNMF) advances the work of its academic institution Pratiman-Neema College (PNC) in the development of scholarship, research and community capacity-building. PNC pursues a holistic platform for engagements that give students, researchers, policy makers and community leaders a competitive edge in their deliberation, analysis and understanding of Nepal's complex, interdependent society. PNC involves our students for the community engagement work and they get broader perspective on identifying problems and finding ways to come up with solutions.

**Brief Description of the organization:**

PNMF, a non-profit organization, is a patron of a polytechnic college -- PNC, which is committed to advance education, research, and community capacity-building with the aim of producing well-rounded high-quality graduates. In addition, PNMF engages in activities that benefit the surrounding community. PNMF collaborates with the Nepal Study Center (NSC) at the University of New Mexico. Our most recent collaborations involve the development of a Citizen Science project that focuses on the collection of data from various environmental sensors (air pollution, water quality river depth, groundwater level, and weather), and using these data for research, education, and awareness. In addition, collaborative studies include: ground water arsenic contamination, household resilience against natural disasters, socio-economic consequences of cancer, women's hygiene, HPV vaccination awareness, WASH, and mental health. The latest example involves the training of the community mothers' groups of Siddharthanagar town in various basic health care issues such as: common pediatric illnesses and health injuries and accidents using a Female Community Health Volunteers (FCHV) model.

**Program project Name**

**Female Community Health Volunteer Training and Disease Surveillance in Province Five, Western Nepal.**

**Proposal summary (1- 3 sentences)**

Using the lessons learned from the recent pilot project in Siddharthanagar, this proposed project reinforces and expands the training and capacity of FCHV in other areas of the district of Rupandehi. Continuous trainings in first aid, hygiene, and appropriate response to minor illnesses and accidents has proven a successful strategy for improving child health using FCHV. Uniquely, disease and risk factor surveillance (and geomatics mapping) will be used to prioritize trainings and coordinate local medical and public health responses to identified neighborhood concerns.

## **Statement of the need and Background**

Nepal has experienced great improvement in child health outcomes reducing under 5 mortality from 1) overall mortality from 54 to 39 per 1000 live births, 2) infant mortality from 46 to 32 per 1000, and 3) neonatal mortality from 33 to 21 per 1000 (UNICEF, 2015). Community based programs using Female Community Health Volunteers (FCHV) played a large role in accomplishing these reductions. FCHV can be trained on a variety of issues related to child health and have proven to be important in community efforts to promote health and induce demand for health service use (Koirola et al, 2013). Low utilization of health services, high morbidity and mortality rates in rural areas of the country demand increased efforts using well established strategies. Use of FCHV can promote the health-seeking behaviors so that serious delays in receiving healthcare can be diminished.

Regional implementation of the FCHV strategy has been limited by a number of factors including lack of national government resources at local health centers, the need for ongoing training of FCHV, and limited information about specific local environmental and other risk factors (Khatri, Mishra, Khanal, 2017). This project addresses all three of these issues.

## **Goals of the Program**

We have implemented a pilot FCHV strategy in Siddharthanagar called the **Community Health Education, Awareness and Leadership Training for Women** Project. The goal of this project is to develop a cadre of knowledgeable and capable women in each neighborhood who can care for their families and inform neighbors of important health topics relating to child and maternal health, and also be first responders in case of emergencies. The key to a successful FCHV strategy is continuous training and support (Cunningham et al, 2016). This project proposes to provide our FCHV continued training on topics and home management identified as high priorities for these communities. Using disease and risk factor surveillance, priority training issues will be identified. Raising awareness and educating women in Nepal about preventive methods can lower the magnitude of many health issues but also increase appropriate use of health services (Maskey, 2014). Thus, we plan to continue to train FCHV in leadership skills required to conduct health improvement initiatives and increase the timely use of local health care services. We plan on expanding this successful pilot program in other areas of the Rupandehi district, thus setting the stage for its expansion into Province Five in the near future. Additionally, the PNMF organization's newly created community learning center will also be available as a matching asset to make this proposed program a success.

This project will 1) improve FCHV knowledge and skills in addressing high priority child and maternal health issues, 2) improve FCHV leadership skills, 3) facilitate bi-weekly FCHV meetings, 4) develop and deliver child and maternal health trainings to strengthen the FCHV network in Rupandehi, and 5) working with the NSC (research team and Meharry Medical College's National Community Mapping Institute), we will digitize the geomatics data on the website showing the contacts between the FCHV and patients to improve health surveillance and disease prevention efforts.

FCHV trained in Siddharthanagar received initial training in first aid and leadership skills. Refresher training and enhancement of skills has already been identified as a priority. Thus, this project will initially deliver the following 3 sets of trainings covering different communities in Rupendehi:

- 1) *Community Health Education, Awareness and Leadership Training.* The training will gather FCHV for a five day, healthcare-focused workshops, preparing participants for identification and response to common injuries and illnesses at home and referral to healthcare services, and increasing knowledge of healthy lifestyle patterns through proper nutrition, exercise and good hygiene practices.
- 2) *WATER, SANITATION, AND HYGIENE (WASH) TRAINING.* This training will teach FCHV how to improve water, sanitation, and hygiene. They will learn about different bacterial contamination in the water and how water gets contaminated through different malpractices of sanitation and hygiene. They will learn about the health impact (e.g. diarrhea, jaundice) of poor practices of sanitation, hygiene, and illegal dumping of waste. As an example, they will be taught how poor sanitation and hygiene lead to E.coli contamination of the water and causes waterborne diseases. They will learn how to protect against these negative health impacts by learning the rules of handwashing and practices to clean utensils. They will also learn how to filter water to increase its quality. Additionally, they will be shown how they can manage their waste by dumping it properly, and about organic gardening to dispose of organic waste.

3) *Air Pollution and health*

High levels of air pollution in the municipality Siddharthanagar has put health and economic well-being of the residents of the municipality at risk. A WHO report (2014) estimates that approximately 7 million people lost their lives in 2012 due to air pollution related illnesses worldwide. In this training FCHV will learn the basics of air pollution, including educating participants on different types of pollutants (e.g., CO<sub>2</sub>, Particulate Matter). They will learn about the health impacts of air pollution on children (e.g., asthma, bronchitis). Lastly, they will learn about actions individuals, families, and communities can take to improve air quality from using cleaner cooking technologies to reducing vehicle emissions to using facial masks during high concentration pollutant alerts.

### **How will you evaluate Success or failure of each goal?**

Despite the history FCHV in Nepal, best practices for community health worker program implementation are not known because of a dearth of empirical information (Bhutta et al, 2010). We have implemented a monitoring and evaluation system for FCHC patient encounters to assist in 1) identifying best practices and 2) target health issues trainings for FCHV.

Using a pre-post survey design, we will evaluate the women's knowledge before and after each training and periodically over the next six months to evaluate the impact of the leadership and health topic specific trainings. In addition, we will track FCHV patient encounters and environmental and other risk factors that may be addressed as part of any prevention initiatives undertaken by the FCHV. This disease surveillance activity can help us to better understand the local healthcare conditions and improve the trainings in support of this FCHV network. These encounters will be spatially mapped on the website of the organization PNMF to assist in health services planning and response.

## References

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