

Mapping UNSW Impact Global Development

Primary SDG	3: GOOD HEALTH AND WELL-BEING
Broad theme	Training health workers, determining cause of death
Research	Training health care workers to test and treat patients for cardiovascular disease, determining best method for collecting information around cause of death
Impact region	India, Ethiopia, The Philippines, China
Faculty	Medicine
School/Institute	The George Institute
Academic	Associate Professor Rohina Joshi
Project partners	India: State Government, George Institute (India and Australia)
	Philippines, China: Bloomberg Philanthropies, University of Melbourne
Related SDGs	16: Peace, Justice and Strong Institutions
	4: Quality Education
	10: Reduced Inequalities

Elevator pitch

Rohina is assessing the role of community health care workers in rural Indian areas to prevent and control chronic diseases and improve individual wellbeing. She is also training doctors to find out the causes of death in the Philippines, helping the government to better understand and plan for mortality trends.

The Challenge: Doctors are limited in number, causes of death widely unknown

In India, there are regions across the country where people cannot easily access a doctor. The World Health Organisation says that on average there should be one physician for 1,000 people. In India, the figure is around 0.7. Health needs in low to middle income countries are vast, from infectious diseases like tuberculosis, HIV and typhoid, to an increasing number of non-communicable disease (NCD) cases that include heart disease, strokes and cancer. Health workers in these countries currently assist doctors around child and maternal health, and infectious diseases. With an increasing burden placed on doctors because of the rise of NCDs, can health workers be used more to treat patients?

In the Philippines, around 60% of people die in their homes or outside of hospitals. The cause of death for these people is not often investigated. Most deaths occur before the age of 70, suggesting a lot can be done to prevent death in the form of medication and policy intervention. But the government needs data to drive policy decisions.

UNSW's solution: Train health workers, develop protocol for understanding cause of deaths

Rohina was part of a research team in 2012 that showed community health workers can assist in the treatment of patients around heart disease and diabetes to improve health care access in rural and remote regions. In that project they trained community health workers and had them ask patients questions associated with cardiovascular disease. The workers were able to suggest appropriate responses, such as physical activity and diet, or refer the patient to a physician. Rohina and her team compared health worker advice to the advice of physicians and found the two agreed 90% of the time. Training addressed interview skills, the nature of NCDs, basic anatomy and physiology, medicine, and the life cycle of particular diseases.

Rohina is now investigating the success of the training and what improvements can be made, and the level of job satisfaction among health care staff. She is attempting to understand what motivates health workers and how they want to be remunerated. To find out, Rohina is collecting data from 200-250 workers in the Indian state of Andhra Pradesh, and she is examining government policy gaps and how policy is being implemented.

In another project, Rohina is researching the causes of death in the Philippines where deaths occur outside of hospitals. This information is often learned verbally. She is working with the University of Melbourne and the Philippines Department of Health to see how they can capture this information. One way is to use a standardised tool that involves asking a set of questions to a relative of the deceased. The answers are inputted into tablets where an app pinpoints a cause of death. Doctors can be trained to use the tool as they have to certify the death certificate. So far, most doctors have expressed interest in using it. The project ends 2019. Rohina has conducted similar studies in India and China.

The Impact: Increase health services in rural communities, help determine mortality trends and policy

Rohina's work provides further evidence around health workers acting in place of physicians to consult patients at risk of non-communicable disease. Her investigation of health worker training and job satisfaction will help governments and policy makers to better understand what works and doesn't work, how to attract workers, and how best to implement the idea on the ground. This will result in more people living in rural settings receiving accurate health treatment and medication, improving their wellbeing. Her research will also improve the conditions of the health worker, increasing job satisfaction and attracting more workers to the role.

The work on verbal autopsies is helping Philippine administrators to better understand mortality trends in their country. Rohina's work provides the government with data to shape policy decisions, increasing the likelihood that people at risk of cardiovascular disease will receive the treatment and medication they need, preventing premature death and improving life quality.

Researcher

Associate Professor Rohina Joshi is a National Health Foundation Future Leader Fellow, and a public health physician who works on developing low cost healthcare models for chronic disease management in resource-limited settings. She is currently involved in the Bloomberg Philanthropies funded Data for Health Initiative in 19 low to middle income countries. She co-chairs the verbal autopsy working group across the initiative and leads the implementation program in The Philippines. Rohina is passionate about improving access to health for disadvantaged communities.

Ben Falkenmire 25.06.18