

# Mapping UNSW Impact Global Development

<b>Primary SDG</b>	<b>3: GOOD HEALTH AND WELL-BEING</b>
<b>Broad theme</b>	Documenting tuberculosis
<b>Research</b>	Researching and designing an app health care providers can use to document tuberculosis
<b>Impact region</b>	India
<b>Faculty</b>	Medicine
<b>School/Institute</b>	School of Public Health and Community Medicine
<b>Academics</b>	Professor John Hall, Dr Padma Narasimham
<b>Project partners</b>	Vellore Institute of Technology (India), The George Institute for Global Health (India)
<b>Related SDGs</b>	10: Reduced Inequalities
	16: Peace, Justice and Strong Institutions

## Elevator pitch

John and Padma are looking to design an app informal healthcare providers in India can use to improve the documentation of tuberculosis and the policy and medical responses to sufferers, saving and improving lives.

## The Challenge: Tuberculosis cases are not well documented and treated in India

Health information reporting is weak in India. It is currently estimated around 1,416 people die from tuberculosis (TB) and 7,671 new cases are identified in India every day. Evidence suggests these numbers are only 50% of the true figures. Many living in rural areas have limited access to health care services. People are not getting the treatment they need, and those that are, are not finishing their treatments properly, resulting in effects such as drug resistance.

In rural India, around 75% of health care providers are private and informal with no basic medical education or qualifications. Informal providers typically do not document cases of TB even though the government has provided a web-based platform for this purpose. Computer use is very low in India: around 10% in urban areas and even lower in rural areas. Yet the vast majority of informal providers have and use mobile (smart) phones.

## UNSW's solution: Create a recording app that informal health providers can use

John and Padma are currently seeking seed funding to develop a highly useable mobile phone health app that will encourage informal providers in India to report TB encounters. They are first looking to understand the cultural and socio-economic conditions around informal healthcare delivery, and associated barriers and motivations to using a health app. The investigation will also consider potential designs and incentives that could promote app use. This kind of information is not currently known.

As a part of the project, John and Padma are hosting a workshop in India together with the Vellore Institute of Technology (VIT) University for public health authorities and researchers involved in the TB control program in India. The workshop will focus on understanding current practices and feature a student competition for the design of the app, with the winner announced on the day. Student teams will be given a month's notice to come up with an app design. In the second phase, John and Padma will pilot the selected app with 50 informal health care providers in the Vellore region in cooperation with The George Institute of Global Health in India. The app's effectiveness will be tested and assessed over a twelve-month period in 2019. Based on the success of that test, they will look to scale up the project in 2020 with other local districts and states in India.

### **The Impact: Improve TB reporting, and the chance of sufferers surviving**

The app will be designed in cooperation with local authorities and researchers, increasing the likelihood of its relevancy and effectiveness. A successful app for informal providers will improve TB reporting in the rural community. This data will inform local government and health care providers about the true state of TB in their region, and what funding and medication is required where. This will ultimately benefit sufferers of TB who will receive the treatment and medication they need.

Providers will be trained in the use of app, expanding their skill set and experience. Women, who are less likely to leave the village to seek help for disease than men, will especially benefit from this app, with informal providers more likely to have access to these women. Students involved in the app competition will get invaluable experience designing something for real world use.

### **Researchers**

John Hall is Professor of Primary Care at UNSW. He has worked as a volunteer doctor in South Korea and Pakistan and is a Fellow of the Australian College of Rural and Remote Medicine. After completing a Master of Tropical Health at the University of Queensland he became Principal Medical Officer, Community Health, in Vanuatu in the Pacific, before joining the Western NSW Public Health Unit in Dubbo as its Director. Throughout his career, he has consulted to DFAT, WHO, UNICEF, ADB and USAID in the Pacific (Vanuatu, Papua New Guinea, Solomon Islands, Marshall Islands), Asia (Pakistan, Korea, Indonesia, Vietnam) and Africa (Kenya, Botswana). John is passionate about delivering equitable primary care services to people living rurally.

Dr Padmanesan Narasimhan lectures at UNSW's School of Public Health and Community Medicine. He completed his Master of Public Health and PhD in the area of tuberculosis transmission among household contacts in south India. In 2009, Padma helped coordinate workshops between the SPHCM and the Christian Medical College in Vellore. He also supervised e-health research projects in collaboration with the Asia Pacific Ubiquitous Healthcare Research Centre (a WHO collaborating centre for eHealth) at UNSW Business School, and has recently been appointed its assistant director.

Ben Falkenmire 10.07.18