Mapping UNSW Impact

Global Development

Primary SDG	**3: GOOD HEALTH AND WELL-BEING**
Broad theme	Primary health care
Research	Strengthening primary care systems by upskilling health workers
Impact region	Indonesia, India, Myanmar
Faculty	Medicine
School/Institute	The George Institute for Global Health
Academics	Professor Anushka Patel, Professor David Peiris
Project partners	NHMRC Global Alliance for Chronic Diseases and Program Grants, Pfizer Foundation, community and district health authorities, state, provincial and federal governments, universities
Related SDGs	10: Reduced Inequalities

Elevator pitch

Anushka and David are using mobile technology to help healthcare workers in low resource, rural settings to identify and treat people at high risk of life long diseases, preventing premature death and disability, and improving the well-being of these communities.

The Challenge: Low income rural health systems are not equipped to deal with life long disease

Communities in low resource settings in countries such as India and Indonesia often live in rural settings and receive inadequate primary health care support. Health care systems in these communities are built to treat infectious diseases and conditions relating to maternal and child health, but are not equipped to identify and treat life-long conditions (non-communicable diseases or NCDs), despite NCDs being the leading cause of death worldwide. People at high risk of NCDs are typically asymptomatic – they don't make themselves known until an event, like a heart attack or stroke, happens. Prevention is critical. Evidence shows people at high risk of NCD benefit greatly from lifestyle change and preventive drugs, yet most patients don't receive treatment.

UNSW's solution: Train non physicians to identify and treat people at high risk

Anushka and David identified the problem that people in these low income, rural communities who were at high risk of NCD are not getting the treatment and medication they need. Their solution is the SMART*health* (system medical appraisal referral and treatment) model. At the core of SMART*health* is the shifting and sharing of roles traditionally provided by physicians to non-physician workers. Mobile technology helps these health care workers to identify patients at high risk, manage the patient, and refer them to a physician when required. This ensures systematic continuity of care for community members.

Instead of a disease focussed model, SMART*health* increasingly focuses on conditions to prevent diseases of multiple kinds. It is treating the patient, rather than the disease. Anushka and David partner with local academics and health authorities to implement SMART*health* for each region. They make adjustments in algorithms behind the mobile technology and provide training to support all types of health care workers and

to help deliver the right treatment and make the right decisions. After the intervention they measure the impact, who the intervention worked for and who missed out, the cost to the local government, and the potential to scale up the intervention across multiple communities.

Anushka and David first tested SMART*health* in Australia. They are now trialling it with 150,000 participants in multiple countries. In Indonesia they saw dramatic improvements in the preventive management of cardiovascular disease in four villages where 11,000 community members were screened by non-physician healthcare workers. Compared to a control group where only 15% of patients who were at high risk of cardiovascular disease were receiving blood pressure lowering medication, 90% of patients at high risk in the SMART group received the appropriate medication.

SMART initially focussed on cardiovascular disease, and Anushka and David are now expanding it for other chronic conditions, such as diabetes, chronic kidney diseases, mental health, and women with high risk pregnancies. In collaboration with the Kirby Institute, they are now expanding into other areas such as HIV. Projects are currently underway or being developed in China, India, Indonesia, Thailand and Myanmar.

The Impact: More people receiving care and medication, preventing disease and improving well-being

SMART*health* is an intervention in primary care ecosystems to improve the delivery of primary healthcare to communities with a focus on preventative care. It better identifies people at high risk of NCDs, preventing premature death and disability though treatment and the provision of medication. Community members are receiving health care they would not have otherwise received, improving their overall health and reducing the long term impact on public health care systems. Health care workers are upskilling, enhancing their long term employability.

Researcher

Professor Anushka Patel is a Professor of Medicine at UNSW, a cardiologist at Royal Prince Alfred Hospital, and Chief Scientist of the George Institute for Global Health. Her personal research interests focus on developing innovative solutions for delivering affordable and effective cardiovascular care in the community and in acute care hospital settings. Anushka is supported by a Principal Research Fellowship from the Australian National Health and Medical Research Council (NHMRC). She is passionate about providing affordable effective care for chronic diseases to populations that have least access to such care.

Professor David Peiris is Director of Health Systems Science at the George Institute, a Professor in Medicine at UNSW, a practising GP, and an NHMRC Career Development Fellow. He was the 2015-2016 Australian Harkness Fellow in healthcare policy based at Harvard School of Public Health. He has been a board member with the Royal Australian College of General Practitioners National Faculty of Aboriginal and Torres Strait Islander Health and sits on several government, non-government and research advisory committees. David is passionate about making high quality primary health care accessible to under-served populations worldwide.

Ben Falkenmire 20.06.18