SMARThealth: Case Study

The George Institute for Global Health (TGI) has developed the SMARThealth system, a low-cost, digital platform that supports clinical decision-making and improves the screening, detection, and management of adults with chronic disease around the world.

Commercialisation Journey

George Health Enterprises is the commercial arm of TGI, which has a goal of driving impact and generating financial returns to be invested back into the Institute. It has launched a commercial solution of SMARThealth with private partners and governments across Australia, China, and India. In India, a chronic disease management organisation uses SMARThealth as part of its telephone coaching service to patients with diabetes or pre-diabetes, allowing them to self-assess their risk levels and receive personalised recommendations on next steps. Telephone coaches use a portal dashboard to reinforce with patients the need for further risk factor assessment or attendance at a doctor. In Australia, a home care provider uses the tool to ensure its customers receive guideline-based care for cardiovascular disease and diabetes and to refer high-risk patients for medical review if required. In Australia, the tool is enabling population screening for chronic diseases amongst high-risk groups using a public health information website. All of these partnerships have involved adapting the platform to integrate into existing health systems and workflows. SMARThealth addresses multiple points of the care cycle to improve management of chronic disease. TGI’s goal is to grow SMARThealth to reach 3.8 million people in both Australia and low- and middle-income countries (LMIC) within three years. Financial returns from this program will be reinvested in the TGI SMARThealth research program.

Research and Trials

The SMARThealth program has completed four significant trials:

1. CVD management, 2012: Conducted in Aboriginal Community Controlled Health Services and mainstream general practices in Australia. Results of the trial showed a 10% improvement in the measured CVD risk factors.
2. CVD management, 2013-14: Conducted in Andhra Pradesh, India. Uptake of the program was high in the community; however, improved blood pressure control was not seen because of a range of local context and design factors.
3. Common mental health disorders (CMD), 2014-16: Conducted in Andhra Pradesh, India. This pilot study trained lay village health workers and primary care doctors to screen, diagnose and manage individuals with CMD using an electronic decision support system. Around 5% of participants were identified as having a significant CMD. Previously, fewer than 1% of these individuals had used mental health services; after the intervention, this increased to almost 13%.
4. 3.4. Extent trial for CVD, 2017-18: Conducted in East Java, Indonesia. Frontline health workers screened approximately 11,000 individuals. Results are currently under review for publication. Funding has been secured to conduct a ‘proof of concept’ scale-up trial in 102 villages. A number of new trials on modules for diabetes (India, China, and Thailand) and pregnancy (India) are currently underway.

Outcomes and Impact

In high-income settings, only around 50% of people with elevated blood pressure have their condition adequately managed. In many LMICs, the figure is under 10%. This equates to millions of people’s lives affected yearly by preventable disease. The SMARThealth program is building capacity to assist over 3 million of these people by 2022. The SMARThealth community-based screening and treatment programs in Aboriginal and Torres Strait Islander populations, India, and Indonesia have shown positive results in increasing the capacity to screen large populations, identifying those at highest risk and improving treatment rates for highly prevalent chronic diseases.

Current and future work is now focused on expanding the disease areas that are addressed within the SMARThealth program (including a new module targeting women with high risk pregnancies in rural India) as well as identifying relevant business models to implement the SMARThealth program at scale within health systems of LMICs.