

DIAGNOSING THE PROBLEM

Modern medicine has all the tools to diagnose disease; the challenge for social innovators lies in getting those technologies to the patients who need them. Fortunately, a handful of innovative solutions are already emerging.

- Mark van Dijk on behalf of SIHI

This past April, SIHI hosted a session at the Geneva Health Forum on Social Innovation in Diagnostics, where the problem of access to affordable diagnostic tools was addressed. The workshop looked at four case studies, working in different settings and following different models to develop their innovations. Each presented a unique - and transferable - approach to providing patients with affordable access to diagnostics.

'PUT IT IN PEOPLE'S HANDS'

In Peru, [Project Hope](#) provides cervical cancer (HPV) testing for women, using a network of 'Hope Ladies' - women drawn from local markets and schools, who are trained to provide information and screening kits to women at home for self-testing. The patients then send the results of these self-tests to healthcare centres using SMS messaging.

Speaking from her office in Lima, Prof Garcia explains how this diagnostic system has improved cervical cancer screening: 'Women talking with other women is a very powerful tool. This is an opportunity to create a bridge between women and healthcare centres. Many women were scared of going to the doctor for tests and for pap smears. This system allows them to test themselves, as they feel more comfortable.' Prof Garcia notes that: 'We need to think about diagnostics which allow people to take their own samples. Make it simple. Put it in people's own hands.'

That's exactly what the [Learner Treatment Kit](#) programme does in its work in rural Malawi. The programme trains teachers with the knowledge, skills and tools required to

diagnose and treat any school-age child who presents symptoms of malaria. The tools they use are called Learner Treatment Kits: simple wooden boxes containing multiple supplies and treatments required for managing common emergency illnesses.

[Operation ASHA](#) takes a similar approach in India. This project uses a community worker network to help people with tuberculosis (TB) receive testing, delivering the elusive 'last mile' in service delivery. Operation ASHA bridges the final - but crucial - gap between government programs and patients on the ground. The project partners with India's national government TB programme, and mobilises communities to play an active role in care delivery, using technology to track whether outcomes are achieved for people affected by the disease.

'SOMETHING SPECIAL WAS HAPPENING'

Meanwhile, [Embryyo Technologies](#) uses a combination of all three innovations in its fight against TB in India: self-testing, medical kits and last-mile delivery. Embryyo develop low-cost diagnostic devices, or digital pillboxes that automatically register when pills are taken, making the information available via mobile and web-based applications to all layers of Directly Observed Treatment short course (DOTS) staff, who can then effectively monitor patient compliance in real time.

Embryyo's diagnostic system recently came out of development, and is now in the roll-out phase. 'What we observed during

development was that the health system is extremely enthusiastic about having a solution like this,' Embryyo founder Nishant Kumar Kumar says from his base in Pune. 'They were at the forefront in giving us suggestions, from their field experiences and their core challenges, which we incorporated into the final design.'

"We need to think about diagnostics which allow people to take their own samples. Make it simple. Put it in people's own hands." - Prof Patricia Garcia, Project Hope

Kumar relates how the pilot-programme patients embraced the treatment: 'They wanted to know why they were being treated differently to the other patients! They were each given a new device as part of their disease management programme, and this led to positive reinforcement, and the notion that something special was happening with them.'

Embryyo's system was designed with India's public health TB control programme in mind. 'So,' says Kumar, 'wherever the DOTS programme is followed, this system can be incorporated.'

The workshop agreed that more attention is required on developing mechanisms to engage communities, and to sustain their engagement in the delivery of diagnostics. An opportunity was also identified to integrate social innovation projects into the broader health system to enhance the delivery of diagnostics. Having a good diagnostics tool does not mean that people in need will automatically have access to it. After all, diagnostics might be available, but they are not always accessible.