What Health NZ is doing to help the growing healthtech sector

Healthtech: In the second of a three-part series, we look at the new health innovation model.

Te Whatu Ora is working on a new operating model for health innovation.

The Clinician co-founder and chief executive Ron Tenenbaum says when he was trying to establish the digital health company he tried to get a pilot for its Zedoc platform under way with the Auckland District Health Board.

It took 18 months to go through compliance and security to get the pilot under way, he says.

“You need a lot of in-market knowledge, technical capability, and funding to be able to just spin up a small pilot within Auckland Hospital. By comparison, to do the same thing in Brisbane took us about six months,” he says.

The Clinician was set up in 2015 to help healthcare organisations collect, analyse, and act on patient-generated healthcare data. Its aim is to counter the rapid increase in healthcare expenditure by capturing the data needed to understand the value of healthcare services delivered to patients.

It is one of a total 257 companies in the burgeoning New Zealand healthtech market. The latest TIN200 healthtech report shows 22 of the top 200 ranked companies are healthtech firms, with a combined $2.9 billion in revenue, and there is a big pipeline of startups.

Tenenbaum says the first question he was asked when he went to Singapore to set up the company was: ‘Have you sold it to hospitals in New Zealand?’ For a young company, credibility is super important to be able to do it in your own backyard before you go overseas,” he says.

International credibility

The company has gained international credibility after securing big national contracts with the Singapore government for its public sector and a similar contract this year with Clalit Health Services, Israel's largest healthcare organisation, to develop and deploy digital healthcare pathways across its patients, clinicians, community clinics, and hospitals.

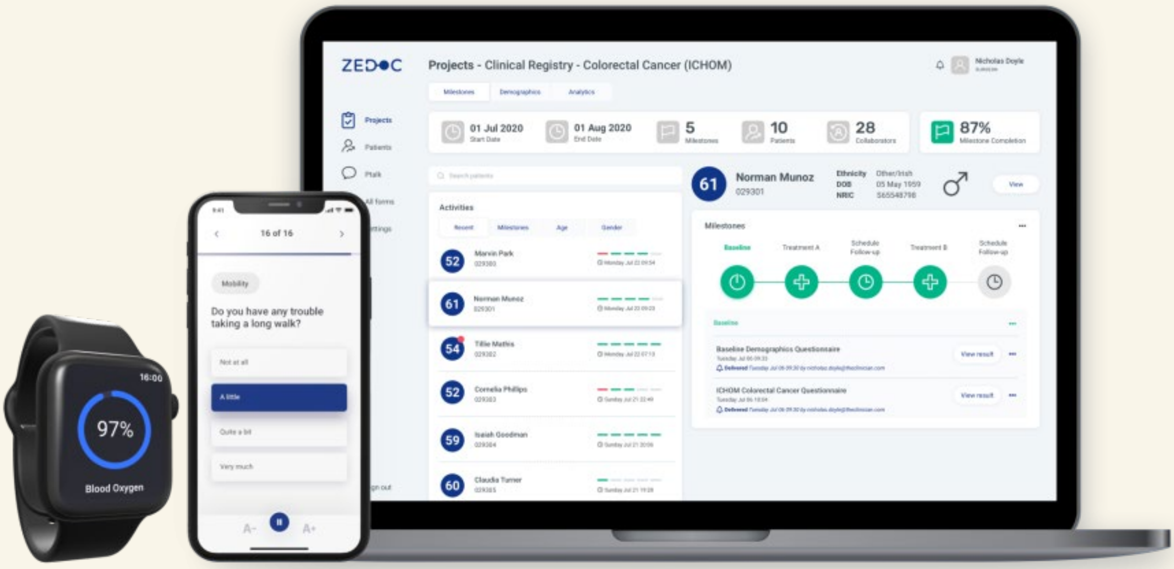
It now also has contracts with the Waitemata District Health Board and the Accident Compensation Corporation but Tenenbaum says you have to consider the return on investment for the time spent trying to sell the product to those providers.

Barriers to entry for Kiwi healthtech startups remain high and Tenenbaum thinks that could be reduced if the New Zealand ecosystem worked together more, including easier access to clinicians for trials and more clarity on the procurement side in the public health system.

"The ability to just do a pilot without needing to go through all the security compliances would mean a lot of young startups can come in and trial their solutions. I think that is very important," Tenenbaum says.

The question people need to ask is how well is New Zealand's healthtech sector benchmarking against other countries, the former surgeon says.

"There's going to be growth regardless of the country. I think the question is what that rate is in New Zealand – I think the revenue is growing by about 10% a year. If the industry comes together, they can definitely accelerate that."



The Clinician’s Zedoc platform.

The road to export

Because the New Zealand market is small, most healthtech companies only generate a small part of their revenues domestically but most want to use this market as a launch pad.

However, as in The Clinician’s case, some have found it hard to interact with the DHBs, which have mainly focused on controlling costs rather than improving patient outcomes through innovation.

In a case study on the healthtech sector, the Productivity Commission’s 2021 report on Frontier Firms report says: “Opportunities for win-win benefits for the health system and New Zealand’s healthtech sector were being lost.”

It recommends the major public sector health reform should improve the mandate, funding, and incentives for DHBs to participate in the healthtech ecosystem for the mutual benefit of them and the sector. There also had to be changes under the new legislation for DHBs to be able to do joint ventures with the private sector.

Te Whatu Ora Health New Zealand was created from July 1 after merging the 20 district health boards, and a new Māori Health Authority works alongside it to jointly plan systems and commission services including Kaupapa Māori services.

Te Whatu Ora group manager emerging health technology and innovation Jon Herries is working on a new operating model for healthtech innovation, particularly from a data and digital perspective.

He says he wants the model to be one based on partnership within the sector and hopes to have the majority of it in place by the end of this year.

“There are lots of accusations that the health system has traditionally been very insular, like I said, like the country can be. What we’re looking for more is partnership and not just partnership with Māori but partnership with the private sector and how you best do that in order to solve the problems we have or make the solutions we have, better.”

It’s understood the health system brings value to innovation generally and aligns well with the Government’s industry transformation plans in terms of what it can deliver for New Zealanders but also support the export economy, Herries says.

“It’s recognising the health system is part of a bigger ecosystem of society and Aotearoa. So, start there and then say, there’s a really interesting question about when you’ve solved a problem: how do you get most value for the system? And we’re working on that at the moment.”

The big question is what does an innovation pathway look like?

“One of the questions we ask is: ‘Is scaling innovation actually innovation or is that a business-as-usual process?’ So there’s the proving that it’s innovative bit and proving that it has value, or is the innovation making that available to everybody? There’s a bit of debate on that because they’re quite different things.”

Often critics of the system don’t have first-hand experience of the problem in order for it to be solved well, Herries says.

“The example I would give is we had no shortage of people offering us advice about how to do contract tracing during the pandemic.

But when you talk to many of those people, and I was directly involved in that, they didn’t actually understand the business process that underlaid it. When you started to talk to them about their idea and why they thought their idea was great, it was built on a poor understanding of the problem."

Te Whatu Ora Health NZ's Jon Herries.

The hiatus

Until the new operating model comes into effect, the major challenge for New Zealand healthtech companies remains uncertainty around the changed landscape, says Cushla Currie, CEO of the Medical Technology Association of NZ (MTANZ), which represents both importers and local providers of medical devices.

"That's changed the way that procurement happens in New Zealand and it really is in a state of flux and so we don't quite know how that will land. There's also potential changes coming up to the role Pharmac has in medical devices here in New Zealand – it will start to take on a more active role in evaluating new technology."

Pharmac's brief to keep the cost of drugs down was expanded a decade ago to doing the same for medical devices but a review of the agency found in June that it had failed to deliver many savings in that area. It had also failed to set up a way to assess medical devices technologically.

The review not only says the Covid pandemic had exposed that Pharmac was "ill-placed" to coordinate the extremely complex medical devices supply chain but also recommends the function shift to Health NZ, something the Government has resisted at this stage.

MTANZ supports a shift to Health NZ, saying clinicians are ultimately the end users of the products with a vested in the health outcomes rather than just someone with an obligation to save money.

What needs to be considered is evaluating new technologies as part of the total cost to the health sector, Currie says.

“You can save $100 on a surgical implement but, if that same surgical implement is saving a night in hospital after surgery, in actual fact that more expensive item upfront is much better for health in general and outcomes. But, at the moment, we don’t have frameworks or methodologies to look at procurement in that way.”

Going global

Medical Technology Association of NZ CEO Cushla Currie.

On the digital health front, the 2021 Budget allocated funding of up to $385 million over four years to improve health sector IT, the first time money has been ring-fenced for this purpose.

The funding includes paying for Hira, formerly known as the National Health Information Platform, which is an ecosystem of data and digital services that will enable access to a virtual electronic health record for patients.

Digital Health Association chief executive Ryl Jensen is concerned that when Kiwi healthtech companies go global, customers want to see they have had some sort of successful procurement in New Zealand.

“The way we run procurement in the health system and across government is not necessarily conducive to that, so that can be a challenge for them,” she says.

The association works with New Zealand Trade and Enterprise with companies individually to help them go global but Jensen also thinks that is the wrong approach: “My personal belief is that we need to go wider than that, we need to look at a country like Ireland which does innovation extremely well and they look at the whole sector and promote it and they really push it forward.

“We could learn from overseas models and I don’t think we should just stick within our New Zealand silo.”

Jensen says an innovation framework would provide a pathway for growing healthtech.

“That might not just be new companies coming in. That might be companies that are established but have seen another problem and are doing a new line or a new roadmap and product development. We have got a significant amount of digital health companies in New Zealand and we need support for them to grow and we need a structured approach to their innovation which will then allow them to go overseas.”

She says the innovation framework needs to be up and running for digital health as quickly as possible because investment is crucial.

“If someone has an idea they can test it, build a proof of concept in an environment that would support that, and perhaps even get given some seed feeding, especially in the Māori and equity space.”

If we get it right for Māori, we get it right for everyone, so we could be world leaders in that equity space.

New Zealand’s advantage

Herries agrees that New Zealand’s healthtech sector has an advantage in the fact the country recognises Māori and matauranga Māori (Māori way of engaging with the world) through the Treatry of Waitangi. “We are one of the few countries to do that,” he says. “I think that is one of our biggest opportunities as a country to stand out on the world stage.”

“That offers a really interesting perspective to solving problems, so we’re not just solving problems for a Western white population, we’re actually solving more complex problems, which is of interest to many of the partners we talk to.”

Being English-speaking is also an asset for selling into some of the biggest health systems in the world and another advantage is New Zealand does quite well out of the money it invests in research and development, even if that amount is not as high as it should be.

Working out how to scale innovation under the framework will be slower than fostering innovation, Herries says.

Toku Eyes raised $3.6 million last year to develop its AI software.

He cites the example of Toku Eyes, which has developed a machine learning algorithm that can carry out mandated diabetes-related eye health checks, eliminating the need for the involvement of clinicians in many cases.

There are 32 contracts in place with optometrists to deliver those eye checks in the public health system so supplanting those with Toku

Eyes is not something than can happen tomorrow, it is a question of when those contracts come up for renewal, Herries says.

Beyond that, questions arise over running a fair procurement process to ensure it is not just Toku Eyes that gets the benefit, as someone else might have built something comparable that has to be considered.

“You can start to see what felt like a really good innovation is not so much about the innovation, it’s more about how does it fit into what is a relatively complex contractual framework that the public expects. On top of that, where the health system outsources contractual risks of costs and delivery? Does Toku Eyes take on that risk? Does it take on the responsibility? And how do you manage the transition from one provider to another?

“You’ve got all these things which become issues when you start to scale things that aren’t apparent necessarily when you do the innovation. That’s not to say these are things we shouldn’t resolve, and we would, but the lead time becomes one which is driven by contractual requirements and transition requirements rather than with how good the innovation is.

”What we’re doing is removing parts of a million-piece jigsaw and making sure we’re removing the right parts.”

A faster procurement process doesn’t necessarily make it more transparent or one suppliers would win more often, Herries says. There are also trade-offs because of the size of Te Whatu Ora, which makes it less agile around change.

“If you wanted one contract with Te Whatu Ora and it turns out if you lost that contract, you lose all of your health business in New Zealand or 90% of it, so they have to be careful what they wish for.”

Herries says Te Whatu Ora wants to avoid the situation it got into the mid-2010s when the then IT health board told people there was one supplier for this type of thing or that type of thing in the health system and the upshot was a number of suppliers left the country.

“So we ended up, when you then go to the next round of procurement, with one respondent. So, effectively, we kind of killed the market ourselves because we’re the biggest monopsony or the biggest buyer, we’ve got this risk of creating monopolies so we have to manage that as we go.”

Another major challenge is just how many problems the health system manages on a daily basis, Herries says.

“It’s not so much that we have a shortage of ideas or a shortage of innovations, but which is the most important innovation to support because, even though we’re a really big organisation, change takes a lot of effort and a lot of cost and there’s this opportunity/cost question for us always.

“It’s the ability to distill that down and say how big is the impact? How big are the benefits? Who does it affect? And who doesn’t benefit? That’s a really difficult thing in the health system and one of the things that slows us down – that focus on the problem of the day more than this strategy for tomorrow.”

But Herries says his priority remains working in partnership with innovators to showcase their technology to the world.

“You’re not going to get rich in medtech selling stuff to New Zealand, not when you could sell it to the US or Europe or even Australia. But, what can we do to give you credibility and give you a point of difference? That to me is what our job needs to be.”

In the third part of our Healthtech series tomorrow, we look at the need for specialist investment in the sector.