COVID-19 CHANGED THE HEALTH SECTOR – WHAT DOES THAT MEAN FOR THE FUTURE?

medical technology
ASSOCIATION OF NEW ZEALAND

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TECHNOLOGY-ENABLED HEALTHCARE

EXECUTIVE SUMMARY

This year's Medical Technology Association of New Zealand conference explored the effect of two major drivers for change in the health sector and in particular their impact on the medical technology industry: the COVID-19 pandemic and the *Health & Disability System Review 2020*. The role of value-based healthcare (VBHC) in responding to these issues, particularly in relation to the effects on the procurement supply chain, was also canvassed.

Four key themes emerged that will shape the future for the industry:

- The COVID-19 crisis accelerated change in the health sector through increased innovation, cross-sector partnerships, collaborative problem solving, progress in digital solutions and increased awareness of the need for and use of data.
- These developments align with the direction of change towards improved outcomes proposed in the *Health & Disability Sector Review,* such as greater national collaboration, reduction of service duplication and increased use of data and digital solutions.
- The medical technology industry stepped up to be part of solution during the local COVID-19 crisis (by collaborating with the government and other stakeholders) and learned lessons that prepare the industry for future challenges.
- There are opportunities to progress value-based healthcare (VBHC) as part of an innovative response to the ongoing global healthcare crisis, including in relation to supply chains for procurement of essential medical products.

These themes are explored below.

COVID-19 AND THE INDUSTRY RESPONSE

Although New Zealand had a pandemic response plan, conference speakers noted that the country was not prepared for the reality.

In terms of medical technology and pharmaceuticals, New Zealand is extremely vulnerable because so much product comes from overseas. Our geographical isolation meant that closed borders resulted in severely reduced airfreight capacity. This had an impact on medical supplies entering the country and it was a challenge to keep trade routes open.

While this was to some extent anticipated in pandemic planning, the level of disruption to supply chains was unexpected, as was the price inflation, challenging behaviours such as DHB stockpiling, people operating from silos, slow decision making and issues with quality.

While industry members had contingency plans for disrupted supply chains, what looked like diversification wasn't. Often two sources that appeared quite different weren't materially so, such as being in the same location or having the same source for components.

And despite what looked like ample stock on our shores, PHARMAC reported that the six months' worth of critical care stock volume in January and February was not enough.

Dr Peter Bramley, Nelson Marlborough DHB CEO and NZ Health Partnerships board member, commented that the lack of data and the complexity of the procurement and supply process created "a nightmare for supply teams". Endless phone calls and Zoom meetings ensued as people scrambled to find a rapid, coherent response.

The response

The systems weren't in place but were quickly stood up. As Pharmaco NZ Managing Director Chandra Selvadurai said, the industry had to "pivot quickly" and rapidly devise solutions to keep supplying products in uncharted and uncertain times. Quick work with international partners, for example, confirmed a delivery timeline of defibrillators and AEDs in weeks not months.

Similarly, within the country new networks and collaborative relationships were forged across the sector, not only among a range of government and health sector agencies, but with industry too. Moving out of silos and into some degree of central coordination improved the process.

People had to step outside their comfort zones and familiar ways and areas of work. PHARMAC, the Ministry of Health and Homecare Medical (HCM) speakers all described how they scrambled to respond to the crisis urgently, while at the same time moving staff to home-based work, or office-based work at a physically appropriate distance from each other. For HCM that involved setting up new offices, and for the Ministry and PHARMAC, staff were also seconded to other agencies.

PHARMAC Chief Executive Sarah Fitt described how the agency had to work with multiple organisations in relation to the supply chain, including many it had not needed to previously: the Ministry, suppliers, MFAT, MBIE, Air NZ and MTANZ on the supply chain.

Although the initial crisis had passed, as Chandra Selvadurai noted, "We will be in DC (during COVID-19) for some time, while also planning for AC

(after COVID-19), so we do better than before." The work is still unrelenting for the industry.

Speakers warned of the need to watch complacency and to use this window to develop and update processes and systems, explore supplier options and strengthen chains by substituting producers and countries.

There are still two to three years of ongoing impact and disruption to supply chains, so procurement will stay challenging, including freight costs, although Chandra noted that sea freight is a good option to explore. Supplier success is critical: there will be a surge in demand if COVID-19 returns.

The future

The sector is in a better position going forward, with established relationships, systems and processes in place.

Presenters described the level of liaison and collaboration during the crisis as phenomenal and concurred on the need to retain the partnerships developed so that everyone remains at the table: industry, the Ministry, NZ Health Partnerships, district health boards, PHARMAC and other government agencies. "Working together does work," said Chandra.

Chandra said the immediate focus needed to be on doing better in the next 6–12 months, as it wasn't possible to plan for 3–5 years in this environment. Plans include the cross-government group working on overseas procurement of vaccine delivery devices and a vaccine strategy with different scenarios is on the Ministry's website.

Presenters discussed issues around central control of procurement to improve distribution and visibility. Peter Bramley said being more centralised could enable smarter decisions and have more visibility and less duplication of supplies. But he noted the need to also be responsive and creative and focus on the common purpose and urgent needs. While the current fragmented DHB system doesn't serve as a value-based procurement model, and it was necessary to centralise in the crisis, there needs to be a balance in order to keep supporting innovation, strengthen local industry and be responsive to patient needs.

Ministry of Health data and digital director-general Shayne Hunter saw the solution as being centrally run, with devolved maintenance. Standards were key to central visibility, such as that proposed in the national health information platform (nHIP) model: the data exists around the country but standards are needed to support a mixed model.

Speakers also addressed the need for better contingency planning that includes more scenarios, not just those grounded in historical situations. This remains a key focus in order to minimise impact of access to such things as hand sanitiser and ventilators.

Deloitte speakers advised New Zealand suppliers to consider global diversification of their tier two, three and four suppliers. They noted that some categories are more sensitive, not in in relation to dollar value but criticality of supply, so a "granular view" is needed.

They also noted that there is no point in moving assembly to New Zealand if raw ingredients are still offshore. Presenters also recommended considering more of an industry-wide solution, such as national supply chains, rather than rely on procurement by individual companies during a pandemic. There is a need to partner to find alternative suppliers and country producers.

The lack of data to inform decision making during the crisis emerged as a key issue. There was so much not known: the variety of definitions made it difficult and the status of supply was unknown. The need for more information is clear or else New Zealand remains vulnerable. New funding models are also needed so procurement can happen at speed.

There is a need to review the capacity to act, identify weak points and mitigate these where they can't be controlled. It was also important to go hard and early on cost – demand has dropped off so there is a need to mitigate costs.

Other future impacts include the delays to planned work. PHARMAC has had to extend or delay usual medicine consultations and put back work on the national catalogue of publicly funded devices. And the Therapeutics Products Bill amendments now won't get to Cabinet until after the September General Election. However, the delay enables time to shape input based on what was learned from the crisis, such as in relation to non-medical people seeking PPE who meant well but didn't understand the issues.

INNOVATION AT SPEED

The crisis required rapid digital development, some of which went more smoothly than the rest. Organisations delivered IT enhancements in record time, and want to learn from this how to speed up all implementations.

Shayne Hunter noted that COVID-19 provided "a massive cultural nudge" and has been "a great catalyst" for data and digital work. It was "an enabling environment" for change that included progress on existing projects and rapid development of new ones.

Necessity is the mother of invention and they didn't let perfect get in the way of good. He used the metaphor of redesigning a plane while it was in flight. The Ministry of Health did 18 months' work in 10 days.

ePrescriptions are now nearly 100% paperless and telehealth is being used in up to 80–90% of consultations in some practices.

Homecare Medical runs the National Telehealth Service (NTS) and had to scale up rapidly in response to the crisis. As one operational platform

for all health lines, the NTS had the capacity to do so; among other things setting up a dedicated phone line that had 2000 contacts per day at peak, requiring 771 extra staff (1200 in total) and offering help in 150 languages.

Homecare Medical CEO Andrew Slater said technical partner Spark enabled a five-month work from home project in five days. However, they were hindered by global tech supply chains not being able to deliver extra server capacity in the normal timeframe, and so have built that contingency into future planning.

Telehealth made big leaps in service delivery by learning from organisations overseas, with a goal to be "the fastest follower" of global developments.

Looking ahead

Shayne said the experience has led to a new confidence. While retaining rigour and documentation, they were much more agile and want to retain that. The situation is "opportunity rich" and "the challenge is to not revert nor to let the foot off the pedal".

He cited the medical device product catalogue as an example of leveraging the opportunity to make progress. The crisis demonstrated there is a lot of work to do regarding IT systems and the supply chain so that product specifications and the catalogue can be embedded in the system. Issues of security, privacy and trust remain key.

Andrew Slater sees having a scaled-up plan is key for everyone in the sector, as well as a need for an emergency management plan to cope with border disruption to the supply chain.

Chandra commented that "opportunity is born out of adversity," citing examples of microbial cleaners and disinfectants launching here and overseas.

Keynote speaker Professor Scott Wallace, from the Value Institute for Health & Care in Austin, Texas pointed out that it is more effective to innovate in multiple settings "frontiers", than having one initiative that gets lost. Building a network of innovators helps accelerate success. On the procurement side, this means agreed goals, but flexibility in how to deliver. It is not about volume versus value, but delivering high value at scale to everyone.

VALUE-BASED HEALTHCARE AS PART OF THE SOLUTION

Medtronic Director of Global Health Systems Policy and Global Government Affairs Dr Gabriela Prada said, value-based healthcare is a tool for value-based procurement. Value-based procurement is a collaborative multidisciplinary approach to partner for patient-centric, better quality and more sustainable healthcare and address key challenges in the provider/supplier relationship, leading to economic, most advantageous purchasing.

Traditional procurement focuses on costs, is volume based, fragmented, episodic, retrospective and transactional. Value-based procurement focuses on value, is outcomes based, integrated, focused on total cost, prospective and strategic.

Scott Wallace said healthcare is often seen as having two choices: spend more or ration care. This is a false dichotomy, with a third option being to improve value by improving the outcomes that matter most to patients. It's an ongoing journey of creating opportunities to improve outcomes – and there are more opportunities when things aren't going well.

True transformation braids together change at all levels and everyone wins with VBHC: it gives clinicians the satisfaction of doing things well, patients better health outcomes and payers better value. You get more value when you come together as a team. The lowest price is the sloppiest form of procurement. As US businessman and philanthropist Warren Buffet said, "price is what you pay; value is what you get".

Scott predicts more cooperation emerging across the sector, with New Zealand's organised and coherent response to COVID-19 being a model for this. He also foresees more focus on preventing chronic health conditions, given the disproportionate effect COVID-19 has on people with them.

Gabriela Prada said innovative procurement projects are now spread across Europe and for a range of health conditions. Collaborative formats are increasingly used for medical technology public tenders to build the solution together.

With COVID-19, where there are increased healthcare costs with stimulus packages, it's essential to make sure the spending is in the right place so the healthcare system recovers and there is VBHC.

THE FUTURE OF THE HEALTH SYSTEM

Just as the pandemic was forcing rapid change on the sector, the *Health & Disability System Review* was released, calling for a fundamental transformation of health delivery in New Zealand.

Author Heather Simpson said in her foreword the COVID-19 experience reinforced the Review's conclusions. "To meet the challenges of the future our population health focus has to be stronger, our preparedness for emergencies greater, and our system has to be much better integrated with clear lines of accountability and decision rights."

Conference speakers echoed this message, and concurred with the Review's identification of issues such as complexity and fragmentation of the sector, disparities in the system leading to inequity of health outcomes and the fact that transformation is a multi-year effort.

Peter said that we are currently counting inputs but if we only do that we miss a key outcome measure:

delivery of a healthy population. There's much room to move and we need to get smarter.

While agencies are working through the impact of the *Health and Disability System Review*, Shayne noted that one realisation for the Ministry was that regions are just lines on a map, and there will be a more national focus where needed. During its response it was aware of digital inclusion issues, such as equity of access to portals and telehealth, and also had to respond to mental health concerns.

And for HCM, Andrew Slater said while the service was critical in supporting people with both COVID-19 and non-COVID-19 health concerns during lockdown, they made rapid service improvements to reduce inequity, such as tweaking the recorded messaging and identifying ethnicity upfront. This led to an increase in access by Māori, Pasifika and Asian people. They have identified Māori and Pasifika staff to support this work progressing.

Scott Wallace noted that to improve health equity you need to find out what matters most to the underserved groups. Healthcare is currently not organised around people's health experiences. He cited research that identified chemotherapy patients most wanted to function without cognitive impairment, yet no centres measure 'chemo brain' as a patient outcome.

Yet in other sectors, such as fast food or technology, user experience is integral to success. Structural issues can be resolved by buying solutions, not services or devices; building clinical service partnerships; and changing the business model to an outcome measure – not the number of surgeries but the number of getting people well.

In terms of investment needed to address issues in the sector, while giving a caveat on the reliability of economic forecasts, independent economist and commentator Tony Alexander thinks the forecast for New Zealand may not be as bad as some have predicted. He said there were factors insulating the economy, such as low debt levels and interest rates, and some of the job losses being absorbed by immigrant workers who will return home.

The economy will start to re-grow from the September quarter. The Budget deficit (it will be 55% in two years) is still lower than the starting point pre-COVID-19 for the UK, US and Japan, and New Zealand has a record of good fiscal management and paying back debt. This means there will be enough funding available for health and welfare without the credit agencies being concerned.

CONCLUSION

The COVID-19 crisis created enormous upheaval in the health sector, requiring creative and rapid responses that in some cases enabled planned development in a significantly shortened timeframe. While the immediate crisis may have passed in New Zealand, it hasn't globally, and continues to affect supply chains in particular.

Coupled with the call for transformation in the *Health and Disability System Review,* this confluence of pressure for change creates an opportunity for making procurement decisions that are focused on value-based outcomes rather than on counting inputs.

Change is needed in the medical technology industry to adapt to the ongoing reality. It also has an opportunity to capitalise on its role around the table during the crisis and retain its voice in the wider sector.