# The COVID-19 push: Accelerating change in Australian industries

As part of Vocus' Industry Intelligence program, welcome to our first piece in The COVID-19 push: Accelerating change in Australian industries.

Created with The Economist Intelligence Unit, it's a series that looks at how COVID-19 has provided a powerful impetus to accelerate innovation and positive change in key industries, enabling them to bring forward significant benefits for customers, communities and the industries themselves.

In our first piece, we look at the healthcare sector, and how telehealth has been a slow-motion revolution transforming conventional healthcare systems around the world. That is until now, thanks to the COVID-19 push.

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# Supporting the growth of telehealth

We are in an age where digital and physical worlds are becoming increasingly integrated, bringing new ideas, approaches and solutions to overcome challenges or realise opportunities before us.

Underpinning this convergence, is high-speed, reliable and secure communications infrastructure, enabling the connection of devices, data, people and organisations like never before.

In healthcare, the value of this is ultimately measured in lives created, improved, extended and saved.

Across Australia, Vocus is supporting healthcare organisations with the infrastructure, connectivity and service to achieve these outcomes. With world-class expertise and a network that's purpose-built for business and government, we're enabling organisations to make and plan for ongoing improvements to the quality of care they provide Australians in city, regional and rural areas.

For innovations such as telehealth, this includes providing the fibre connectivity and solutions for the video, audio, data monitoring and transmission required to deliver vital services.

*With the COVID-19 push creating an urgent need for access to telehealth, there is a compelling case for accelerating its further development, for increasing the breadth and depth of services, and growing the user experience of health professionals and consumers alike.*

In the future, this growth will be further enabled by connected technologies and platforms such as distributed cloud and edge computing, with their low latency, cost efficiencies, and support for capabilities such as artificial intelligence and real time data analysis. Connected to high capacity fibre networks, these technologies will be a critical enabler in the further development and adoption of Australia's telehealth services.

In collaboration and partnership with healthcare providers across the country, we look forward to supporting an even more connected health sector, and better health outcomes for even more Australians.
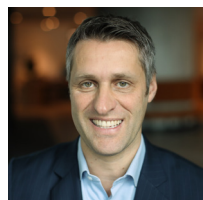


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# Reinvigorating healthcare with telehealth

Telehealth has received a shot in the arm from the COVID-19 pandemic. For long periods, patients were unable to visit healthcare centres due to restrictions on movement. But now, even with restrictions being eased in some markets, healthcare practitioners fear there could be medical escalations from patients not seeking remedial care when most needed owing to the perceived risks of exposure to the virus from visiting hospitals or their GPs.[1]

In Australia for instance, there has been a sharp decline in the diagnosis rates for cancer patients. This does not signal a positive trend implying better health; rather it is a dismal warning that there could be a spate of advanced stage diagnoses once patients actually begin visiting physical healthcare centres.[2]

With movement restrictions being eased, healthcare systems could possibly be faced with burgeoning demand. In this scenario, telehealth can help meet demand by helping administer care to a greater number of patients.

While healthcare services were being administered using two-way closed-circuit microwave television in as early as 1959,[3] technological developments in recent years—such as the laying of fibre optic cables—have enabled the creation of a more complete telehealth ecosystem by improving data transmission quality and speeds.

Technological advancements resulting in faster internet connectivity, high-configuration smartphones and secured mobile payment systems—coupled with increasingly busy lifestyles and growing healthcare costs—has resulted in the growth in telehealth services and a shift in the market towards taking the care to the patient, rather than the patient to the care.

A revolution has been transforming conventional healthcare systems around the world. Except, it has been a revolution in slow motion. Until now.

## The COVID push

Yeo Tee Joo, Assistant Professor, National University Heart Centre Singapore, says we "most definitely will be able to see a lasting digital shift". Technology is moving fast, and COVID-19 has just accelerated the development of this healthcare segment.

Social distancing measures have accelerated the adoption of telehealth services globally, with the "uptake of telehealth doubling in approximately three months," according to Neil Narale, Singapore business leader, Mercer Marsh Benefits. He adds that the ongoing pandemic "has accelerated a global shift of consumer preferences towards digital solutions", and the healthcare space is no different in this respect.

In Australia, as in other markets, COVID-19 has provided telehealth a "kick", says Robyn Gallagher, professor of nursing at the Faculty of Medicine and Health at Sydney Nursing School (University of Sydney). She cites the example of a public hospital in Dubbo in New South Wales, where she recommended the adoption of fitness activity trackers and a simple goal-based health app in November last year. Her suggestion was

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rejected. Now, however, with changes wrought by the pandemic, the cardiac unit at the hospital has converted completely to telehealth and its cardiac rehab staff are "absolute proponents".

"It is not perfect and it does not suit some people yet, but it supports a lot of people very well," Ms Gallagher says.

# Effective healthcare

As elsewhere, telehealth is proving to be effective in Australia in two key ways: it is helping bring down costs, and it is enabling the delivery of healthcare services and expertise to the country's remote and rural areas.

Australia's per capita expenditure on healthcare goods and services in 2017-2018 stood at AU$7,485 (US$5,757),[4] among the highest in the world.[5] Broader adoption and provision of telehealth services and

consultations can lower costs for healthcare systems and patients. Telehealth allows healthcare systems to better optimise finite resources such as personnel and time, lowering overheads. From patients' perspective, it reduces travel time and expenses, particularly for those requiring medical assistance outside of large cities.

For instance, West Moreton Health in Queensland introduced a programme in 2016 that incorporates technology, home support and education, to help with early intervention. Since its implementation, the hospital has seen the number of potentially preventable hospitalisations of chronically ill patients decline by 28% and a 53% decrease in hospital emergency department visits.[6]

The second key benefit is that telehealth helps overcome the barriers of distance and reach. According to Ms Gallagher, telehealth is already used "reasonably widely in remote and rural areas".

Large parts of Australia are very sparsely populated, and some areas can be up to seven hours away from a metropolitan hospital, so virtual clinics are held and virtual consultations offered. "Australia is leading the world in some ways," she says, adding that it is possible to remotely send ECGs and beams from smaller hospitals to larger ones, for example. The remote monitoring of heartcare patients is also popular.

"In the case of any chronic disease, telehealth allows patients to access expert health professionals for expertise and assessment."

*"There are huge areas that have very poor healthcare professional coverage in rural Australia – telehealth can be a game changer in that regard," Ms Gallagher adds.*

These benefits also extend to aged care, another health arena hit hard by COVID-19. In many regional areas, aged care facilities are attached to hospitals and rely on the same infrastructure.

By providing greater access to health professionals through telehealth, patients can also benefit from continuity of care, which has been associated with better medical outcomes such as lower mortality rates.[7]

In acknowledging the importance of telehealth in dealing with the COVID-19 pandemic, the Australian government put together an AU $669m support package[8] to expand Medicare-subsidised telehealth services for all patients from 30 March to 30 September, referring to it as "a key weapon" in the fight against COVID-19.[9]

Royal Prince Alfred (RPA) Virtual Hospital, Australia's first such hospital, had opened its doors just a week after Australia registered its first COVID-19 case. As of the end of April, it had seen 422 COVID-19 patients registered for care, of which 348 were discharged.[10] It is quite likely other such hospitals will be seen soon.

# Changes that will stick

It isn't just governments, healthcare providers and patients that stand to benefit from the wider adoption of telehealth. Companies too are taking notice. "Corporate investment in the future of health, including digital health solutions, is set to grow over the next five years," says Mr Narale, as employers view digital health as a critical way to improve employee morale and engagement, and increase productivity.

He goes on to add that the growth of telehealth services will help organisations contain costs. With the industry's evolution, telehealth providers may seek to offer more solutions that will further impact costs over the long term. "They are already evolving from the formative days of offering doctor-in-a-pocket to services such as health screening and chronic disease management programmes to compete with traditional medical services providers," Mr Narale adds.

*"Real-time monitoring with video will be the gold standard, along with checking vital signs," says Dr Yeo.*

He adds that it has already become apparent during the COVID-19 period that for stable, follow-up consultations in cardiology, "we don't need the patient to come in physically if they are well". These consultations can be done over the phone or via video.

Remote rehabilitation options are also being recommended by many large cardiology institutions, but there is no consensus on its efficacy yet, Dr Yeo says, given that there is insufficient clarity on how risk assessments of patients can be made yet. "Real-time monitored rehab is the eventual goal," according to Dr Yeo.

If and when this happens, it will signal a lasting shift to "a new normal" where services can be accessed remotely through technology and care management may be more frequent and accessible, particularly for those with chronic conditions, which require more regular visits, Mr Narale says.

# Challenges remain

For telehealth adoption to stick, there are multiple variables such as software, hardware and funding that must be considered, says Dr Yeo. In addition, a broader shift towards telehealth also requires investment in training among healthcare staff and patients. From the patients' standpoint, the availability of relevant hardware—such as laptops, tablets or smartphones with reliable internet connections—and the know-how to use them can be limiting factors, and create uncertainty and stress among patients.

Inability to access the internet in rural areas is a key impediment. For example, in remote and very remote areas of Australia, 20% of individuals didn't use the internet in 2017, as compared to 12% in major cities.[11] For telehealth use to become more common, investment must be made in infrastructure in rural areas to enable easier and affordable access to data connectivity, through the laying of fibre optic

networks, expansion of mobile and satellite services, as well as data plans by service providers.

Ms Gallagher says that even in an advanced economy such as Australia, "poorer health literacy is a problem among the older population". She says they typically will not have smartphones, and if they do, they would typically be using it only for voice calls and not to their full capacity.

A greater limiting factor is resistance to change – both among patients as well as healthcare staff. The healthcare industry is notorious for its reluctance to change, so shifts in mindsets are important for telehealth adoption to be maintained.

Whether we will see the widescale adoption of telehealth is out of the scope of individual institutions, according to Dr Yeo, who says governments must play a lead role in terms of infrastructure provision and the right legislation, particularly around cyber security.

Cyberthreats have become a pressing concern in recent years, with cyberattacks such as those on Singapore's SingHealth and the UK's National Health Service exposing vulnerabilities.

This underlines the importance of implementing cybersecurity measures and enhancing IT systems' security, particularly if patients are expected to buy-in to the benefits of telehealth.

## Going forward

Industry experts believe many of the changes being witnessed will stick, despite the challenges seen today. This is because the adoption of telehealth brings several efficiencies the sector would not want to let go of.

Needless to say, telehealth uptake will be largely dependent on how self-sufficient the ecosystem is – particularly in terms of infrastructure, the training of medical staff and the willingness of patients to favour the virtual over the real.

But for now, Ms Gallagher says, "As a digital health advocate, being forced to do things is turning out pretty well."

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