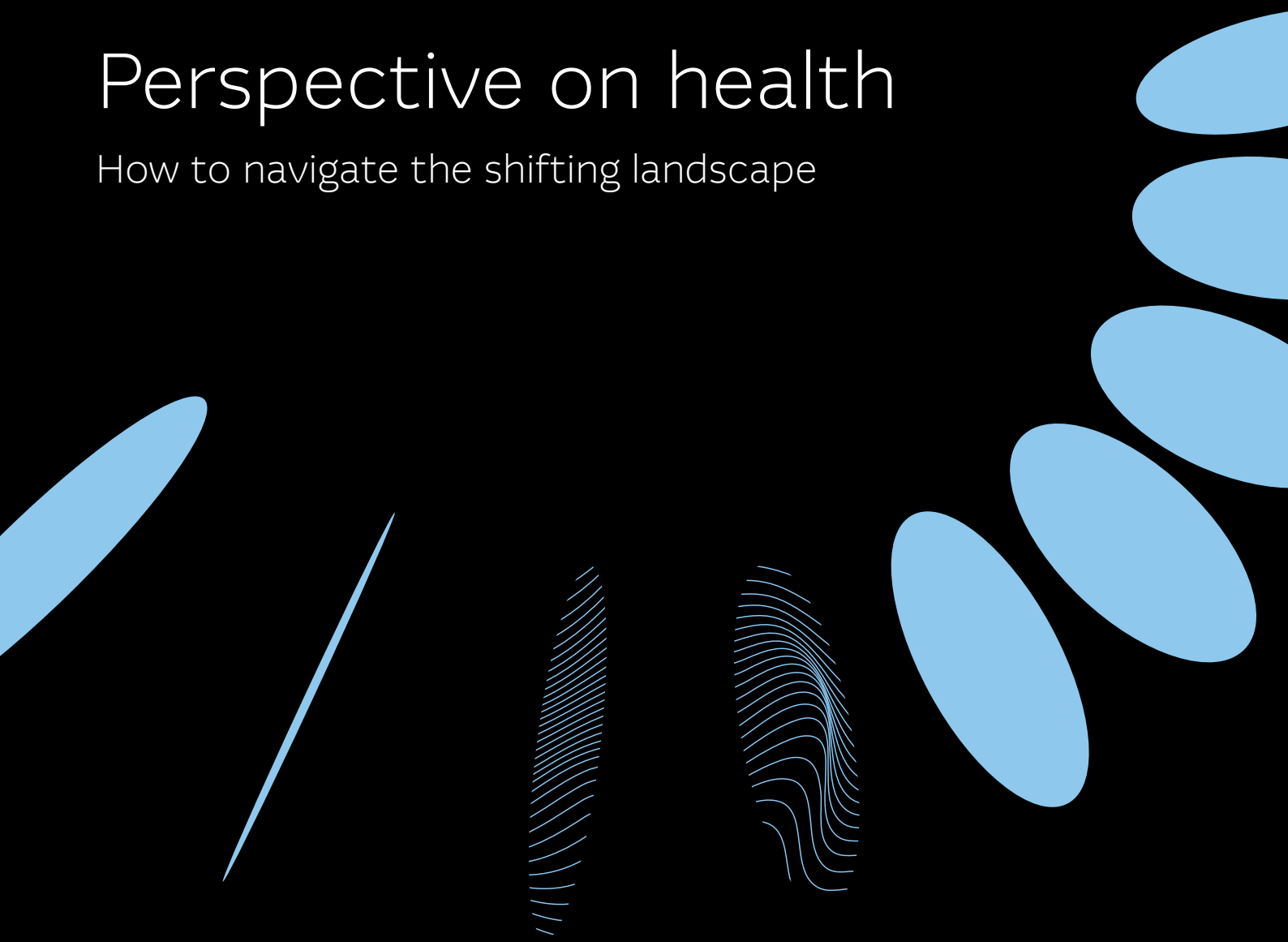
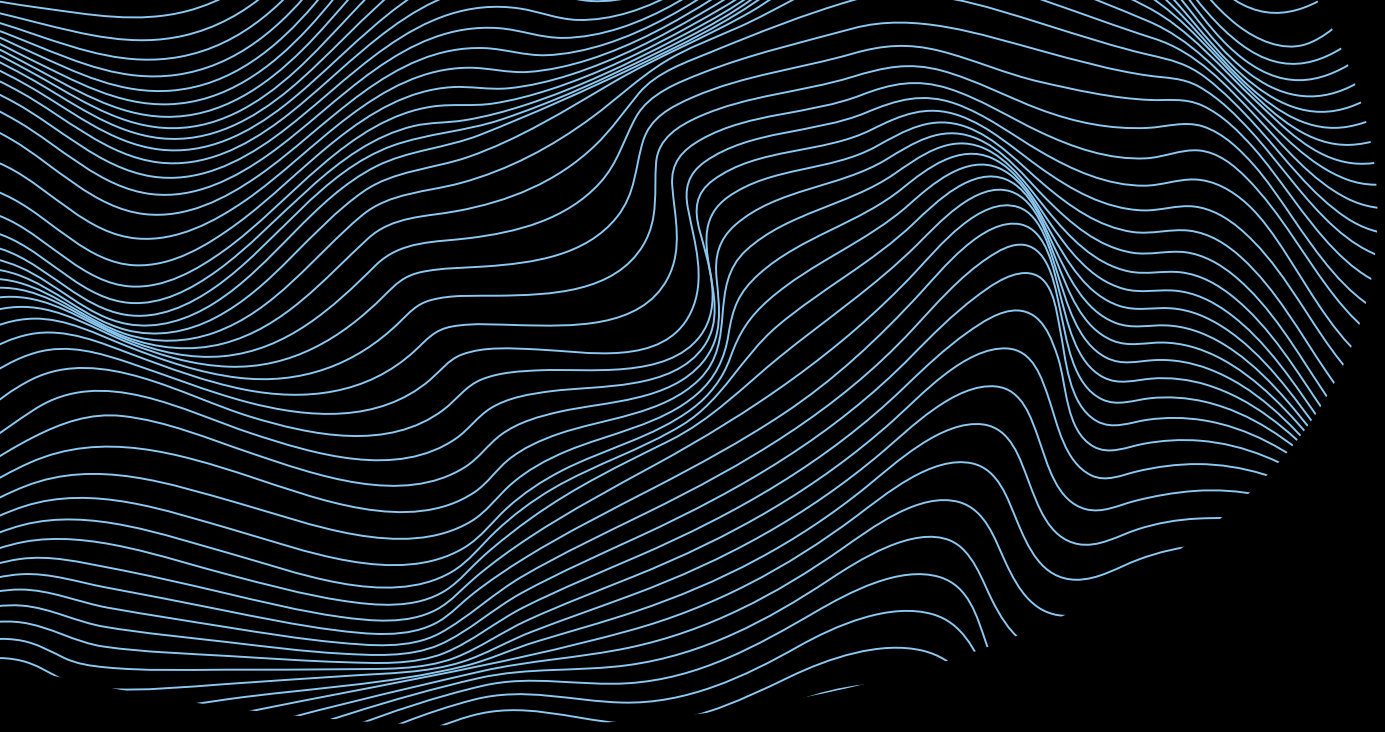
PERSPECTIVE

Perspective on health

How to navigate the shifting landscape



MACQUARIE



Foreword

It has been a momentous time of change for Australia's healthcare community. The way care is accessed and delivered has been challenged, and business models have adapted rapidly.

As we've seen in other sectors, healthcare has been in transition for some time; coordinating the need for cautious evolution, against the imperative of evidence-based decisions. The forces that impacted the retail, media, banking, and financial sectors have been slower to move in healthcare, but the pace has quickened. Barriers to innovation are being overcome.

There may not have been a compelling need to change until recently, but the horizon shifted quickly.

Medical businesses will not be the same in ten years as they are now, with the evolving needs of patients and medical specialists ensuring that healthcare will be delivered and accessed in new and different ways; with COVID-19 accelerating the trajectory.

How can you orient and navigate the shifting landscape, innovating, improving outcomes and the experience for patients, protecting your income, and giving back to the profession in terms of legacy, while building and protecting business value? And how do you ensure a positive employee experience, while growing your business' value?

In this report, we share frameworks for consideration when assessing the momentum of change in a rapidly shifting landscape, stories of resilience and adaptation, alongside views of experts in the healthcare ecosystem.

Having worked with small and mid-sized businesses for over 30 years, we have seen many successfully navigate challenging situations and environments – building more adaptive organisations that continue to thrive. Our reason for being is to help businesses grow, change, capture opportunities, and realise their value, aligned with the owners' objectives.

We're passionate about building deep relationships, and enduring business value for our clients, sharing what we know, and connecting people to share their knowledge and experience, creating valuable networks. I hope that you enjoy reading this report. If you have any comments, questions, or challenges, our team would welcome the opportunity to speak with you.

Adele Creighton

Head of Healthcare

Macquarie Banking and Financial Services Group

Contents

The future of medical business

A path to prosperity

COVID-19 has motivated shifts in Australia's $185.4 billion a year healthcare sector[1] at a speed and breadth previously inconceivable.

Some time ago, when Macquarie began exploring how to support and grow healthcare businesses, with a view towards long-term prosperity, it was clear that technology alone wouldn't transform the sector. Although consumers had embraced digital tools elsewhere in their lives, healthcare businesses had provided few such options to improve their patients' experiences.

The healthcare sector has been necessarily burdened by risk aversion, and reluctance of payers – government, insurers, and patients themselves – to fund innovation. The mix of predictable, comparatively comfortable incomes, and absence of a 'burning platform' – a crisis to encourage radical change – hindered innovation in some areas.

The most generous assumptions were that Australian healthcare would cautiously evolve over a decade or more to embrace transformed business models, tools and philosophies that today are already commonplace in sectors such as retail, media, banking and finance.

What a difference a virus makes

Following national shutdowns, doctors and patients embraced digital platforms with astonishing speed, effecting '10 years of transformation in 10 days'. Most healthcare businesses that could shift, did so, demonstrating that humans embrace radical change when options rapidly narrow. COVID-19 accelerated structural reforms that were already in place, removing barriers and resistance.

Doctors who could no longer see patients in their consulting rooms and, supported by Government incentives, adopted new ways to work. And patients, fearful or unable to see their doctor in person, accepted the new normal of consultations 'face to face but far away', with some preferring it, for the enhanced safety and convenience.

In our view, businesses that demonstrate leadership, particularly in a crisis or challenging times such as these, distinguish themselves, and provide an environment where patients, their caregivers and the business owners may flourish.

Leading with purpose ripples out into all aspects of the business

People with vision who lead with purpose impact their team, patients, and business; motivating employees to perform as individuals and in teams, generating positive patient experiences and outcomes that elevate business performance.

Of necessity, innovative business owners find new ways to serve their patients, communicating a reinvigorated business case and welcoming change. This could mean reorganising a practice's 'flow' to limit disease transmission and improve patient experience; driving negotiations with payers; and even initiating customer communications an underserved area in healthcare that is ripe for transformation.

As the wavelengths between these ripples contract, innovation and adaptation gather pace despite challenges in the broader environment, delivering greater value to patients, that in turn lifts business' value.

Doctors whose practice was limited, invested time to reflect, observe and plan. This discipline allowed trial of new approaches, which may crystallise goodwill. This may include eradicating processes that add limited value, inhibit efficiency, blunt patient experience, or offer little benefit.

> "Your 'path to prosperity' starts with asking why you're in medical practice and then imagining where you will take your healthcare business."

How often are you challenged to consider the way you operate your business? Whether a sole practitioner, a larger partnership, or in a nationwide enterprise – changes in circumstances require consideration and investment in people, processes, premises, and equipment. Additionally, owners are alert to their own personal aspirations and plans, including contingencies for sickness, retirement, outside interests, and succession.

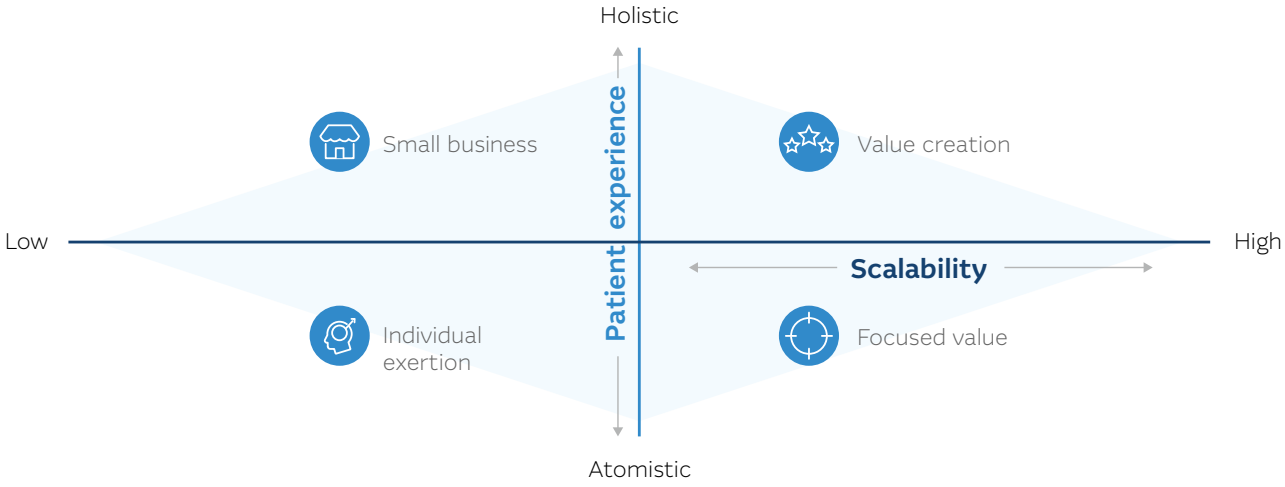
Enduring goodwill from scale and breadth of operations is a path to personal and professional self-determination, enabling exploration of other aspects of life, profession, or the fresh challenge of building and scaling a business. For instance, building a high-performing team around the primary clinician or practice owner will amplify and expand their ability to effect meaningful changes in business, patients' lives, and for the profession.

Small business

A doctor builds or buys a practice, and may partner with another specialist to spread risk. More services enhance patient experience. Referral trade increases, and the small business grows its influence network. But as with individual exertion, income is constrained by patient billing.

Enduring value

At the upper limits of scale and patient experience, a clinician may derive revenue streams from diverse activities, such as 'hubs' or short-stay hospitals. Diverse specialties may band together to pool patient data, enabling them to identify emergent needs more rapidly than stand-alone practices that silo patient data. As they do in other areas of their lives, customers (i.e. patients) may attach greater value to the brand and its experience, rather than to an individual practitioner. Owners of this type of business see their earning potential freed from their capacity to see patients.



The clinical business owner's path to prosperity

Individual exertion

Medical professionals tend to embark on their careers as individual, consulting practitioners. How many hours they work, how many and what type of patients they see, both determines and constrains what they earn. There is no 'goodwill' because there's no business to sell. But autonomy is high.

Focused goodwill

By investing in technology, people and other assets to scale, a clinician may develop a specialty beyond individual exertion.

A 'path to prosperity' model helps clinicians recognise their business' scalability, more clearly seeing the alternatives, and choices. The model explains alternatives made against an axis of scalability, and a choice between enterprises that are 'holistic' (diverse) or atomistic (narrow in specialty, focus, or revenue streams).

Doctors hold people's lives in their hands, so they don't tolerate failure, are risk-averse, and, with backgrounds in science, demand evidence. Any proposed action needs to be efficacious, safe and beneficial. And because the culture of medicine tends to be founded on the doctor, in any transformation, careful change management trumps business models, revenue mix, public policy or heritage.

Beyond the pandemic's shift to innovation

COVID-19's immediate requirements dispensed with rigid assumptions about the healthcare sector's appetite or capability to transform, along with elevated concern for patient and healthcare worker safety; which guided the imperative for reforms to protect both.

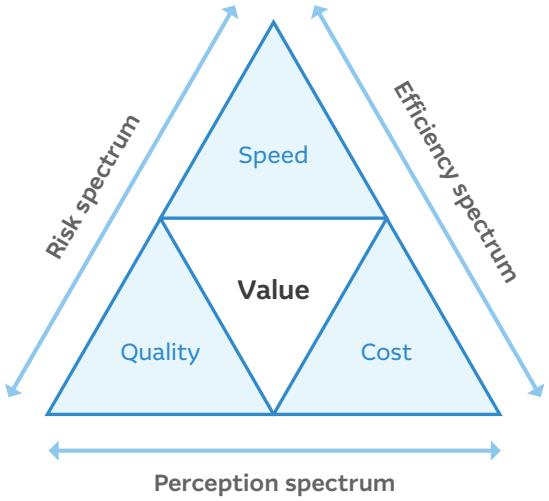
New MBS codes for telehealth and remote consultations, government-funded income support, and fever clinics program enabled practices to pivot into revenue-generating activities, while retaining staff. This empowered doctors' groups to publicly remind people not to sacrifice their ongoing care and treatment.

Many doctors' surgeries that reestablished contact with patients through new means gradually improved the number of their appointments. Even though income may not have recovered, adaptive healthcare businesses cushioned their earnings.

Many may be surprised at how they embraced and prospered. Those who may once have shunned transformation now find it saved them from pandemic-driven disruption and potential failure.

But the seeds were always there. If not COVID-19, another lever such as consumer sentiment, out-of-sector competitors, payer resistance or other straitening factor would have eventually forced change, albeit over a longer horizon.

With the confidence that attends surviving (and sometimes thriving) during the pandemic, and the time and space to consider meaningful change, healthcare business owners now have momentum to build enduring goodwill but must avoid the temptation to revert.



The goodwill triangle – technology negates the trade-off

In this new reality, scale may be a path to prosperity. Crafting a sustainable business structure lays the pipe for future opportunities, investment and patient care. It has headroom to deliver services and flexibility to continue delivering better and more economically sustainable services to customers that enhance their experience of seeing the doctor.

Patients have shown they are receptive to changes such as telehealth, which knits the imperatives of access, affordability and effectiveness.

The translation of this model to medicine plays out along spectrums of risk, efficiency, and perception. Accepted wisdom is that a choice must be made between speed, quality and cost. But the lesson of COVID-19 is that effective technology delivered at the right time and with the right financial incentives empowers doctors to deliver better services, faster, to more patients, at lower cost.

It's this reality that to resist transformation is the greater risk to driving stronger and more resilient healthcare businesses.

Background to healthcare transformation

How we got here, and where to go next

The emergence of COVID-19 in Australia ran headlong into established structural and attitude barriers even as patients, their caregivers and payers were long ready for new ways to receive healthcare.

Given the regulatory environment that healthcare operates within, among other factors driving inertia, healthcare lagged media, retail, logistics and financial services as sectors transforming around customer needs, enabled by digital technologies and challenging business models.

Received wisdom was that the healthcare sector would transform over the next decade, but the recent pandemic accelerated urgent reforms.[2] Concerns about efficacy, safety, privacy, cybersecurity, cost and change management were obliterated by the stark reality that patients couldn't – or wouldn't – see their doctors.

This spurred questions about how doctors could reorient and navigate a landscape where revenue was under pressure, as the nation locked down and physical distancing and isolation became the norm; along with the significant risk to patient care, should chronically or acutely ill people not attend medical appointments, driving public concern that needed to be addressed. Expectations of business transformation horizons shrank from years to weeks and even days.

Drivers of change in Australian healthcare

An innovator's challenge in healthcare was the perceived lack of a 'burning platform' – a compelling and immediate need to do something differently. Within Australia's healthcare environment, cushioning forces against innovation kept the need for change, that other industries faced into, at bay.

Although disruptors in other sectors exploited regulatory and incumbent inertia (Uber, transport), hidden capacity (Airbnb, accommodation), improving infrastructure (Netflix, entertainment), or scale economies and consumer sentiment (Amazon, retail, logistics and 'cloud'), the spark to transform healthcare had not flared.

Historically, war motivated rapid healthcare advances, such as organised hospitals, infection and disease control, and treatment of wounds and trauma. But on the business of medicine, the same urgency that mainstreamed penicillin, prosthetics and paramedics was largely absent until COVID-19.

Indeed, the reforms of 2020 were so rapid, they may obscure levers that had stalled innovation and which must continue to be pulled for further gains to be made. To capitalise on these lessons, five levers must continue to be exerted into the future.

- **Funding appetite is whetted –** Aware of what is possible, payers such as government, insurers, patients and their caregivers will seek further transparency from doctors, especially when justifying medical interventions and in-person presentations
- **Access and integration for all –** Empower patients to seek care and expect equal treatment, wherever they are and when they need it
- **Regulatory reforms accelerate –** Rationale that processes and cultural conventions are immovable no longer fly as policies for privacy, data-sharing, licensing etc were rapidly rewritten
- **Patients embrace an active role in their own care** – Assertive patients continue to seek change, so doctors must prepare for greater sharing of data and involvement of patients in their own care
- **Digital disruptors dismantle barriers –** Creative outside innovators are emboldened to expand their niches through partnerships and greater awareness of the benefits they bring.

While many smaller providers and innovators now have a very visible platform on which to promote their solutions, not all entrenched cultural and social aspects were erased. For instance, doctors still tend to learn from peers or in silos, which may slow reform. And once funding for the immediate threat stops, some may be tempted to pause.

But it's too late to stuff the genie back into the bottle. Innovation will continue. And it will speed up.

While COVID-19 shortened reform horizons, digital and business model transformation was already well underway in pockets of healthcare.

Adroit medical specialists now know how to care for the whole patient in context, thereby creating enduring business value or 'goodwill'. It could crystallise as a 'one-stop' practice of diverse specialties that collects and shares data to gather a greater share of a patient's wallet and their referrals.

The benefits of a model that privileges the patient experience are immense. They attend (virtually or in person) one location; identify themselves once; be cared for in a logical progression; recite their history just once or even not at all because the specialist sitting opposite knows their circumstances. And, potentially, the patient may deal with a single biller for greater payment transparency, and fewer surprises.

It relieves the patient of their physical and mental burdens, while lifting the medical practice's value. The business owner who skills up their staff to work within such processes and enabling technology will craft a more efficient, accurate, comfortable and profitable experience.

No longer an afterthought to efficient and effective health care, the patient experience becomes the whole experience supporting maximum beneficial outcomes for all stakeholders.

Australian patients, payers and practitioners have long been primed for deep and meaningful transformation; they just lacked the impetus to coalesce around a new and better way to deliver healthcare.

But we now know Australian healthcare is capable of — and even hungry for — rapid and coordinated change. All it takes now is a continued commitment to value that improves health outcomes while driving greater business goodwill at a cost the community can accept.

Doctors will continue to reform how they work; the most successful will align their business strategy to emergent opportunities.

The patient perspective

Easing the patient journey

The paradox of the Australian healthcare system is that, while it's engineered for the operation of industry, patients and their caregivers carry the greatest burdens in terms of gaps. Patients must find, comprehend, remember, repeat, share, wait, carry and afford their care, when they are most vulnerable.

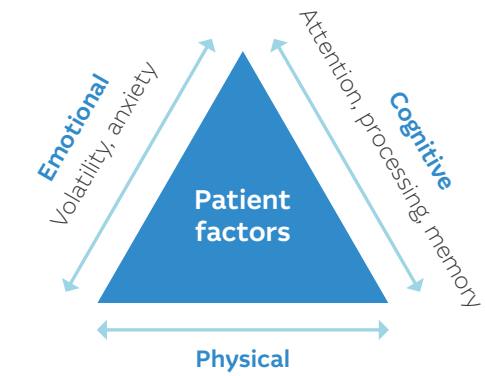
Healthcare businesses that focus on lightening the patient's burden will enhance goodwill, as they become preferred centres of care.

Aided by recent shifts in patient perceptions, aspirational business owners have permission to innovate — especially in virtual care — for superior health outcomes and elevated business goodwill.

And there's evidence that medical practices were already on this trajectory, as services integration (e.g. pharmacy and pathology) had risen from 2013–2020, in part lifting real GP incomes 1.8 per cent a year after inflation.[3] Further innovation in healthcare business models will improve patient experience, and return greater value to the business.

The loads your patients carry

Macquarie collaborated with Australian healthcare design consultancy, Tobias, to learn how clinicians could lower the burden for patients, especially those with chronic or debilitating conditions. Through extensive research, Tobias reported that the four dimensions that most impact patients are:



Patient factors and dimensions

- **Physical –** a patient's strength and stamina is stressed; even trivial tasks like attending and waiting in consulting rooms, or carrying results and specimens, are ordeals, especially if their coordination and sensitivity is hampered
- **Cognitive –** with decreased cognitive function or attention span, patients may struggle to learn and process complicated information, and may forget critical details to share with their doctors
- **Emotional –** even small challenges may evoke intense feelings, and as anxiety builds, a patient may drift from the task at hand
- **Financial –** even supported by health systems and private insurers, there are significant out-of-pocket expenses that Australian healthcare consumers must meet – often when they're least able.

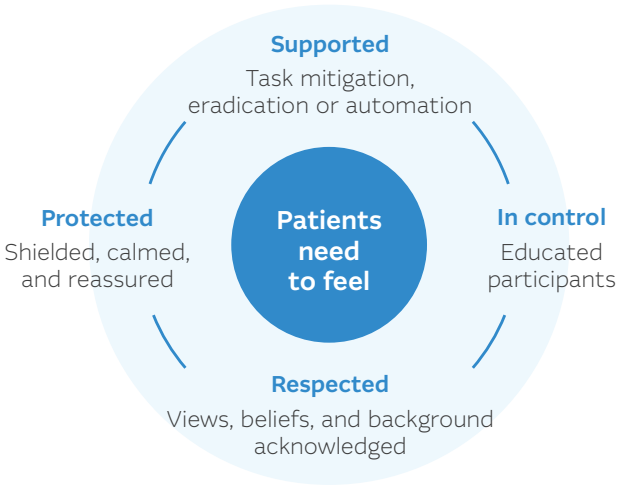
How to lighten your patients' burdens

A patient's ability to participate in their treatment will experience peaks and troughs, from the effects of illness, medication, unique factors in their lives, and the burdens the healthcare system places on them. Although healthcare professionals do their best, particularly at point of care, to ease these burdens, processes and interactions may be less supportive.

Tobias research found that patients want to feel or be:

- **In control –** an active participant who is educated and involved in their own treatment, alongside their doctor and/or caregivers
- **Protected –** shielded from excessive sensory stimulus, calmed during stressful times, and reassured
- **Supported –** taxing tasks are eradicated, mitigated or automated, while repetition is avoided (e.g. reciting a medical history, repeating procedures with different physicians or care teams)
- **Respected –** their views, beliefs, background and independent research is acknowledged and supplemented by their doctor.

Of all the ways a healthcare business can enhance goodwill and healthcare outcomes, delivering a better patient experience is of primary interest, and completely within possibility. A healthcare service provider who embraces a better way to serve patients will become a preferred provider of care, with attendant improved financial outlook and growth prospects.



Lightening the burdens patients carry

Redesigning the patient experience for a post-pandemic world

The risk of infection from in-room presentations of patients, already of keen concern for medical practice owners and doctors, has received renewed scrutiny.

Practitioners and practice managers were confronted with sudden changes to operations that meant many were unable or unwilling to see patients in their rooms. Those that remained open, confronted profound changes to the physical flow of patients. Waiting rooms and other public gathering areas—long of concern for their potential to spread disease—were radically retrofitted to limit dwell times and the risk of contagion.

April Armstrong expects general practitioners to adopt better flow through their practices with fewer 'dwell' areas. Dr Armstrong, convener of Business for Doctors, a peer support network of 50,000 Australian doctors, says physical changes such as mandatory handwashing on arrival, physical distancing, explicit processes for those experiencing symptoms associated with COVID-19, and separate doors for entry and exit will be common. Payment methods may also change to privilege contactless payments.

Doctors may now create seamless patient experiences akin to those deployed by banks and shops for their customers, says Bronwyn Le Grice, Managing Director of ANDHealth, Australia's National Digital Health Initiative and former Investment Director with leading healthcare venture capital firm BioScience Managers.

"Virtual care and consults will become part of the new normal. A savvy practice will make sure their virtual experience is as welcoming and comfortable as physical delivery." That could extend to sending the patient a diagnostic test kit after an initial telehealth consultation, with further care and monitoring at a distance without the need to attend a doctor's surgery, especially in cases of readily transmissable infection, she says.

Le Grice says it's now in doctors' best interests to involve their patients more directly in their care: "As more health data moves out of the clinic, the patient becomes more powerful and patients will increasingly demand a say in how they interact with their care teams. Similarly, physicians have the opportunity to benefit from enormous amounts of objective health data generated by patients in their real world setting."

> **"Patients may also have part of their consultation via phone or telehealth prior to their physical consultation"**
>
> Dr April Armstrong

The trajectory of change

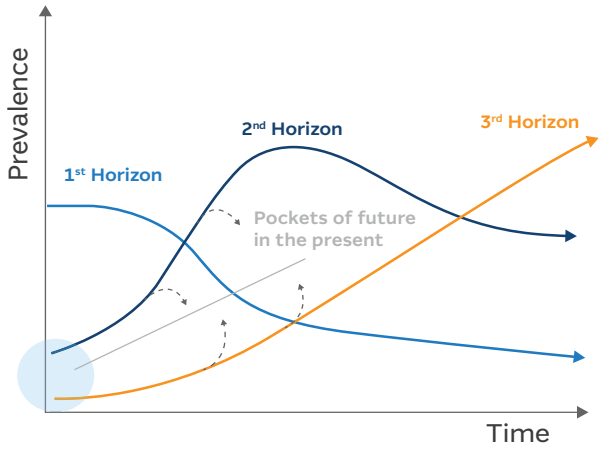
Change is here and it's continuing

For Australian healthcare providers to fully embrace transformation, there must be a path to profitability – a roadmap for culture, process and technology changes.

These truths have underscored the rapid adoption of digital and business model transformation. When doctors' patient service, business and revenue models were challenged, they quickly embraced new ways to work, even in areas where they were once hesitant to move.

But the immediate drive to serve nearly 26 million people locked out from seeing many of their doctors (while maintaining their medical practice cashflows, and ensuring continuous, consistent care for patients) dissolved barriers to adoption including security, privacy and efficacy concerns. While these are still imperative, the profession found ways to mitigate risks, concurrently providing care. Government facilitated with new telehealth payments in the Medicare Benefits Schedule (so practitioners could remotely serve patients that were closer to the business than previous codes allowed), while fast-tracking transformational initiatives such as remote consultations, allied health care plans, fever clinics, e-prescribing and dispensing.[4]

Three horizons in the present



Three horizons in the present (Bill Sharpe) shows how businesses and individuals may haul "pockets of the future in the present" through experiments & innovation at the confluence of BAU and transformation.

The 'Three horizons in the present' model illustrates how Australian doctors rapidly adapted to new requirements of physical distancing and remote care. It has three 'horizons' or assumptions:

- **First horizon –** 'Business as usual' delivery of once profitable services that decline in value and popularity over time, due to innovation
- **Second horizon –** Rapid improvement and transformation, unshackled from practical considerations
- **Third horizon –** Incremental improvement realised as a result of the tension between the first two horizons.

"The future is already here; it's just not very evenly distrubted."

In the space between these three horizons are 'pockets of the future in the present', carved out by the tension between a business' or sector's inertia, quest to transform business models, and a compromise to steady evolution. These pockets vary in shape and size depending on the business or sector, and even between geographies over time. An innovation in one specialty, geographic area or practice may not ignite a wider revolution, especially if the lessons learned aren't widely shared, valued and emulated.

Or as author William Gibson said, "The future is already here; it's just not very evenly distributed".[5]

But without a 'burning platform'—critical and immediate need for drastic and radical change—those future pockets of innovation in the present lacked momentum, which slowed progress along the third horizon.

Although wars have catalysed rapid healthcare transformation, a pandemic is a close second in its imperative for action. Urgency pushed up the second horizon, while steepening the curve of the third horizon, to free opportunities for rapid reform and innovation in the space between.

The lesson is that those healthcare businesses already experimenting (or receptive to transformation) quickly pivoted to serve patients and bolster themselves, where they could. The speed at which change was required was astounding. Some flourished; others floundered.

Looking ahead, healthcare innovators will build on early successes and integrate them into their businesses. This may springboard them into even more valuable (and valued) patient care, with increase in goodwill, which patients, payers and investors reward. Patients, motivated by the reinvigorated focus on their needs and proliferation of services they value, will make preference for those providers.

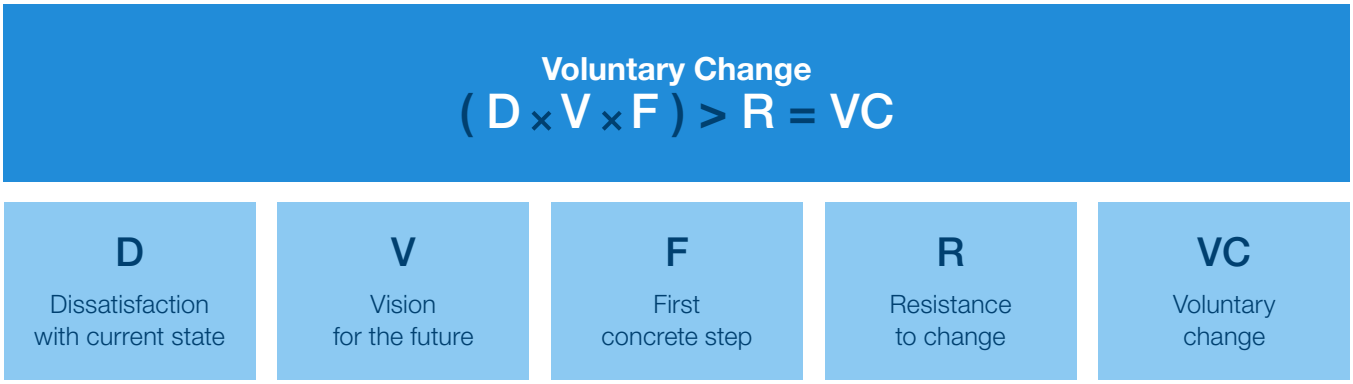
And as medical providers' experiments grip the road, the lessons they learn and the products they build may spread into the wider healthcare community. This is especially important because Australian doctors tend to seek guidance from peers and mentors within their specialty, cascading influence from learned experiences. As more doctors and businesses gain confidence with new ways to deliver care, previously incremental change may shift up a gear.

Although many doctors and medical businesses changed voluntarily, the pull towards stability exerts pressure against advances, which should be resisted to bank lasting benefits. The reality of change is that reversion to previously held views and behaviours is challenging. Those who are more relaxed with discomfort, and lead with purpose, will disproportionately benefit. Outsized gains will be seen by those who innovate, driving value into their business through goodwill, enhanced patient experience, and efficiencies.

Now the challenge for Australian healthcare is to lift its eyes to the third horizon and push out on its transformation trajectory. The opportunity to ensure many more future lives will be improved is real, and realisable. If not grabbed by existing healthcare providers, new entrants will fill the void.

The next shock to the system is just around the corner.

Smashing through the barriers of change and perception

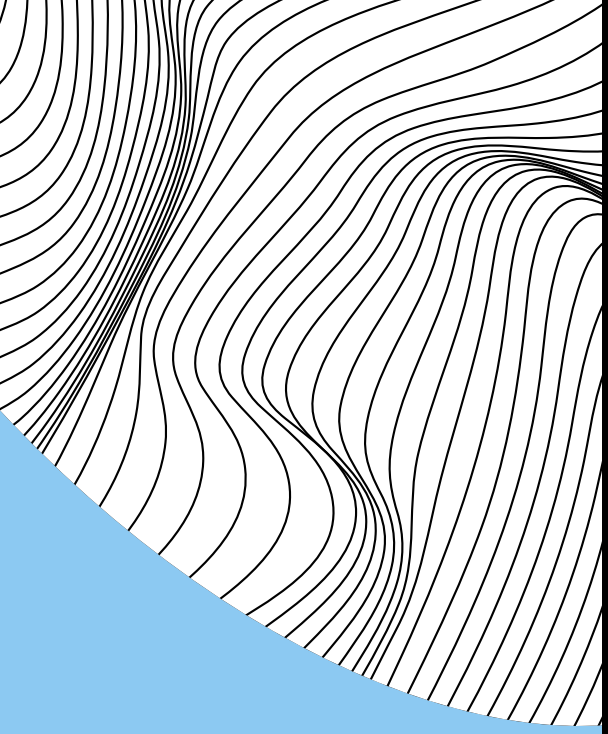


The Gleicher–Dannemiller Formula for Change is a useful model for understanding factors to consider when embarking on an innovation or change program. It suggests that strong dissatisfaction multiplied by a clear vision and practical first steps for action overcome humans' natural resistance to change.

Setting incremental and realistic goals neutralised resistance, because humans are more attuned to (perceived) losses in the present than (potential) gains in future, as measurement of current conditions and circumstances is simpler than forecasting the unknown. A loss of revenue tends to overshadow promises of greater autonomy, greater patient satisfaction and more goodwill, even if income rises over time to offset initial investment. But a clearly articulated and communicated vision, backed by tactical goals with quick wins tends to energise people and encourage change.

Although it discomforted Australian healthcare providers, the events of 2020 dictated involuntary change ('burning platform') because previous models and methods were unfit for purpose. This sharpened a future vision for healthcare that enlisted doctors into rapid transformation instead of the slower evolution that was expected.

Dissatisfaction and discomfort are essential for progress, and while no one would volunteer a pandemic to motivate change, it has provided the forum in which patient experiences will continue to be transformed.



The healthcare business of tomorrow

It’s here today (if you look closely)

You don’t need a time machine to visit the future clinic, because chances are, you’re becoming very familiar with the basics through increased use of tools and approaches that deliver more holistic experiences.

When shifting to new models of care and business, innovative healthcare businesses can harmonise empathetic patient care, mediated by emerging innovations with the economics to receive a healthy financial return. It will align with government, insurer and banking systems for frictionless payments, deploy automation to streamline processes, and ease the burden of patients and their caregivers to deliver more individual care.

If your practice collocates specialties and allied service providers, makes the most of technological and digital tools, and revolves its processes and payments around your patients’ needs, you’re on the path to improving patient experience, and transforming business.

Recognising it could pull the access and integration lever, Cornerstone Health collocated multidisciplinary and specialty clinics on the urban fringes of eastern states capitals, at hours suiting its patients. While smaller practices may lift fees and decrease bulk-billing, Cornerstone parlays scale to better serve patients.

Healthcare businesses are also experimenting with consulting room layouts and floor plates to smooth flow, comfort (reducing physical burdens) and calm or soothe patients. They create ‘pockets of the future in the present’ to gain competitive advantage and differentiation.

Step-change in Australian healthcare is often a series of small experiments, marginal on their own, that sum a transformative whole.

“How do you optimise delivery of healthcare and still keep the values that are special to you? Automation helps, but you must make sure you don’t lose that personal contact of care. It’s about what you value in that relationship and not losing that.”

GP, Tasmania

Task shifting delivers equal care more cost effectively when and where patients need it.

People are accustomed to receiving services in ways that suit them, yet healthcare is rarely perceived as comfortable, convenient or efficient.

So a way to preserve budget for the new things that matter most is to eliminate waste.

For instance, general practitioners now do tasks once only performed by other specialists; including skin checks, mental health assessments and plans, diabetes management plans. A GP may shift routine medical examinations to their nurse. Administrative and reception staff may be entirely outsourced or automated (think, patient consultations booking apps). Notes, records, results, and patient materials are stored in secure, shared repositories. Collocated allied healthcare professionals step up to provide new services and perspectives. Pharmacists may provide services once offered only by GPs, especially to patients with chronic conditions.

This creates a more cohesive and connected medical community, and benefits the patient directly in terms of cost, access to care and how they transition between caregivers with the least amount of friction.

The greatest gains for future healthcare practices will come when technology supplements and strengthens human caregivers, to ease patient and clinician burdens. For instance, nurses and doctors at clinical telehealth hubs could see remote patients or those with chronic conditions cost-effectively, with greater cohesion, more frequently. Referring to a patient's digital health record and augmented by diagnostic engines informed by 'deep learning' algorithms, they might deliver an equal level of care, more conveniently and at lower cost than attending a GP surgery today.

An example of this trend is in Asia, where an Australian institute equipped community health workers (who are not doctors) with tablet devices to screen and manage heart disease.[6] They used diagnostic apps to identify long-term heart attack risks related to blood pressure, cholesterol and diabetes. Similar technology has been piloted in remote First Nations and Asian communities to monitor high-risk conditions such as heart disease and diabetes.[7]

Augmenting the doctor–patient relationship with smarter tools

Physicians are bombarded with information from sources as diverse as medical colleges, professional journals, government health agencies, pharmaceutical companies, patients, peers, educational forums, social media and news reports. Making sense of this raw information while staying on top of movements in their field and the health of their patients may be challenging.

Artificial intelligence (AI) promises to relieve a gap in the doctor's surgery and Australian economy. The World Health Organisation estimates that by 2035, there will be a global shortfall of 12.9 million healthcare workers.[8] While it takes about 10 years for a GP to be fellowed in Australia, medical officers with less training, but empowered with smart machines, could fill this expert gap, and deliver equal care more cost effectively to an ever growing cohort of patients, relinquishing specialists of lower value tasks, to focus on activities that deliver genuine value to patients, profession, and community. A fundamental challenge remains to monetise and enable the business aspects of AI; implementing AI is difficult, as who pays for it, and how is investment recovered? Implementation implies better patient outcomes, but business profitability and recovery of investment is a core challenge, which we see in many medical businesses. How can technology augment the business and patient experience, improving outcomes for all?

Recent administrative changes to the Medical Benefits Schedule and a greater appreciation of the value of videoconferencing has seen more GPs and specialists collaborate closely with patients on their medical conditions even when far away.

At the coalface of a frontline clinic such as those in ophthalmology or orthodontics, a managing physician oversees assistants and intercedes in complex cases. This could bring high-quality care to remote or lower socioeconomic communities for the first time.

Physician-not-present model delivers persistent care

One of the more provocative propositions for the medical practice of tomorrow is that not only may they not need an attending physician, they may need no human support staff at all. On a similar trajectory as retail banking, medical practices are experimenting with frontline automation.

In South Africa, vending machines that resemble ATMs dispense drugs to patients with chronic conditions such as AIDS. The nation's health ministry hopes to cut patient waiting times and congestion in public healthcare facilities.[9] In 2020, Australian doctors and practice management software vendors rolled out live trials of e-prescribing, necessary for end-to-end e-dispensing to become mainstream.

And although kiosks that enable patients to check in on arrival and enter their details become increasingly familiar sights, machines may one day dispense advice or divert patients to the appropriate human expert on-site or at a remote healthcare service hub. Some solutions widely in use in Australian clinics suggest preventative healthcare such as flu checks and care plans based on a patient's profile. Systems often integrate with online or app appointment booking engines to streamline the flow of patients through a practice.

Kiosks may capture and check basic health measurements, including blood pressure, weight, height, along with personally identifying data such as age and gender. US kiosks, often in high-traffic areas such as supermarkets and pharmacies do eye tests, assess sleep apnoea, and check symptoms. More complex cases are referred over video link to a remote physician. With doctor approval, pharmacists dispense prescription medicines on the spot, a cost-effective future revenue stream.

Digital technologies save hospital emergency departments

In 2018–19, 695,831 patients presented at Australian EDs with non-urgent conditions, 8.3 per cent of the 8.35 million presentations across the nation that year.[10] Although this was a slight drop from the year before, the rate remains stubbornly high as cuts to GP services push people, particularly of lower socioeconomic status (SES), on to the public hospital system for their primary healthcare.

"Patients living in areas classified as being in the lowest two SES groups made up more than half of all non-urgent triage category presentations in emergency departments," the Australian Institute of Health and Welfare wrote in 2017–18 on figures that remained broadly in line with the subsequent report.[11]

At a cost of $561[12] (or five extended, Level D 40-minute GP consultations[13]) for each ED presentation not admitted to hospital, savings are potentially huge from diverting non-urgent patients at this point of care through the use of apps, kiosks and other machine-mediated and automated systems.

An integrated, frictionless back-end IT and communications system, so you can focus on your patients

Feedback from physicians and practice managers indicates that information and communications technology—especially at the interface with payer systems such as insurers and government—still challenges business efficiency.

A suggestion to ensure that future practice management systems continue to innovate and gain adherents was to create 'lightweight' patient electronic health records held on third-party digital wallets. By situating patient records "in the payment path", it was suggested that practices, physicians and patients would be more inclined to interact with them. The suggestion was mandated electronic health records are too "heavy", difficult to search and from which to derive clinical insights.

As practices diversify into new revenue streams through collocation of specialists, allied health practitioners and referral businesses such as pharmacies and pathologists, they have a burning need for a unified and secure patient platform on which to collaborate. Such a system speeds patients through the medical practice, cuts human error from multiple data entry and inconsistent record tagging, and saves money through efficiencies. A single view of the patient helps physicians and their support staff to spend more quality time with patients and waste less time on low-value administrative tasks.

The medical business of the future isn't an impersonal one; it's one where personalisation smooths the entire experience of doing business with one's health. Removing friction from areas that add no value (but do add frustration, time, cost, human capital, unnecessary interventions, and error), and focusing on areas that add genuine value, will be profitable from patient, professional, legacy, and broader community standpoints.

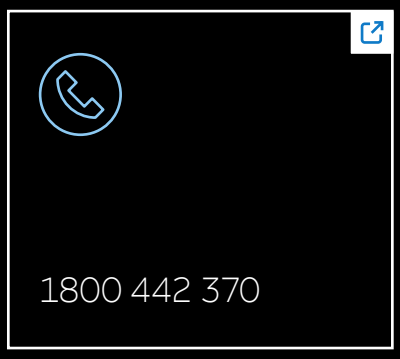
Some businesses are already making progress in innovating towards a patient-centric business model. What are you doing with your medical business? If you're considering how best to build and scale a medical business, please get in touch. Our team of dedicated healthcare specialist bankers would love the opportunity to discuss your goals, and ways to achieve them, sooner.

How Macquarie can help

At Macquarie, we're passionate about building deep relationships, and enduring business value for our clients, sharing what we know, and connecting people to share their knowledge and experience, creating valuable networks.

To find out more:

Contact your **Macquarie Relationship Manager** or check out the links below



1 Australian Institute of Health and Welfare 2019. Health expenditure Australia 2017–18. Health and welfare expenditure series no.65. Cat. no. HWE 77. Canberra: AIHW.

2 "Physicians planned to increase their use of digital tools, but COVID-19 accelerated that effort. In response to the pandemic, physicians quickly increased their use of telehealth and remote patient monitoring." Bain & Co, 2020. Covid-19 Is Accelerating the Adoption of Healthcare's Digital Tools, Available at: www.bain.com/insights/covid-19-accelerating-adoption-healthcare-digital-tools-snap-chart

3 Health Sector Report: The Future of the Medical Workforce, p4, Anthony Scott, ANZ/Melbourne Institute of Applied Economic and Social Research (University of Melbourne); melbourneinstitute.unimelb.edu.au/__data/assets/pdf_file/0008/3069548/ANZ-MI-Health-Sector-Report-Future.pdf

4 Department of Health. 2020. Electronic Prescribing. Available at: www.health.gov.au/initiatives-and-programs/electronic-prescribing

5 "The future is already here; it's just not very evenly distributed. And these changes [are] emerging sufficiently quickly these days that that can very easily pass for prescience, if you don't look at it too closely." Talk of the Nation, "The Science in Science Fiction", 30 November 1999. [radio programme] NPR.

6 Peiris, D. (2012). Keep it local – innovation changing world health. [online] The George Institute for Global Health. Available at: https://www.georgeinstitute.org/news/keep-it-local-innovation-changing-world-health [Accessed 20 Feb. 2020].

7 NHMRC (2019). Smart Health: Case Study. Canberra: Australian Government. Available at: www.nhmrc.gov.au/sites/default/files/documents/Case%20studies/smarthealth-case-study.pdf [Accessed 20 Feb. 2020].

8 World Health Organisations (United Nations) (2013). Global health workforce shortage to reach 12.9 million in coming decades. Available at: www.who.int/mediacentre/news/releases/2013/health-workforce-shortage/en/ [Accessed 20 Feb. 2020].

9 Mkhize, D. (2018). ATM pharmacy to cut queues for South Africa's AIDS patients. Reuters. [online] Available at: https://www.reuters.com/article/us-safrica-aids-arv-atm/atm-pharmacy-to-cut-queues-for-south-africas-aids-patients-idUSKCN1GR2CO [Accessed 20 Feb. 2020].

10 Australian Institute of Health and Welfare (2020). Emergency Department Care 2018-19 (spreadsheet). Emergency Department Care. Canberra: AIHW, tables 3.3, 3.4. Available at: www.aihw.gov.au/reports-data/myhospitals/sectors/emergency-department-care [Accessed 20 Feb. 2020].

11 Australian Institute of Health and Welfare (2019). Emergency department care 2017–18. Canberra: Australian Government. Available at: www.aihw.gov.au/reports/hospitals/emergency-dept-care-2017-18/contents/use-of-services/variation-by-socioeconomic-status [Accessed 20 Feb. 2020].

12 National Hospital Cost Data Collection Round 22. (2020). Sydney: Independent Hospital Pricing Authority, p.2. Available at: www.ihpa.gov.au/sites/default/files/publications/round_22_nhcdc_infographics_emergency.pdf [Accessed 20 Feb. 2020].

13 Government Department of Health (2019). Medicare Benefits Schedule Book (Operating from 1 July 2019). Canberra: Australian Government, p.199 (A1.General practitioner attendances to which no other item applies, level D, fee 44). Available at: www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/E45D240FB9C1C74FCA2583DD00074EC3/$File/201907-MBS%201Jul2019.pdf