Peter Davis

Health Post-Pandemic
necessity the mother of intervention?

Abstract
The Covid-19 pandemic has provided the ultimate stress test of the New Zealand health system, confirming known weaknesses, but also facilitating useful responses and changes. We discovered an effective centre, as well as regional cooperation, and IT enhancements may finally have their day. The financial stress of family doctors revealed our patchwork funding system, and privacy issues in the use of identifiers and matters of jealously guarded scope of practice in the workforce were exercised under pandemic conditions. Hospitals were able to function at 50% capacity, and deficiencies were revealed in the aged care sector. Finally, we avoided gross health inequalities. With a review of the system recently released, this experience may advance the cause of reform.

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In August 2019 the panel of the Health and Disability System Review, chaired by Heather Simpson, published its 300-page interim report (New Zealand Health and Disability System Review, 2019). For anybody familiar with the sector, the report confirmed much of what we already knew: that is, while the New Zealand system performs adequately by international comparison, it is overly complex and lacks national coherence, its performance is not well monitored and enhanced, primary care and population health lag, digital technologies are underdeveloped and at odds with each other, there is a lack of responsiveness to Māori and Pasifika, and, overall, the system needs 'future proofing'. Perhaps surprisingly, pandemic preparedness was not an item of note, despite a recent international report placing New Zealand's 'health security' index score for public health emergencies well below international norms for a developed country (Boyd, Baker and Wilson, 2019).

The pandemic has provided the ultimate stress test of the New Zealand health system and, true to form, we 'muddled through', despite limited resources and a barebones pandemic

system, to a brilliant 'just in time' success with a mixture of luck (a small island state coming late to the crisis), outstanding political and bureaucratic leadership, sound if thin fundamentals, independent academic voices, superb professionalism on the ground in the district health boards, particularly from the general practice (GP) community, a touch of New Zealand ingenuity and improvisation, and strong public support.

In many respects the pandemic confirmed known weaknesses in the system, but it also facilitated a number of useful responses and forced some long-overdue operational changes which have the potential to form the basis of new, more productive and equitable ways of working.

Organisational

We rediscovered the centre. Aside from some minor missteps that were predictable in these rushed and unprecedented circumstances, daily we were witness to a coherent all-of-government approach that presented a strategic and operational presence in the health system that we had all but forgotten existed. May that sense of overall strategic direction and coordination continue.

Yet, for all the strategic and policy strength evident at the centre, the operational level demonstrated how far our decentralised health system has taken us towards quite a radical localism in the health system. Thus, the minister and the director-general were somewhat embarrassed in the early days of the pandemic when, under questioning from the media and the opposition, they could just not come up with an exact figure for the number of ventilators in the country. Similarly, part of the tardiness in providing essential public health information such as testing and contact-tracing results was down to the decentralised nature of local public health units that were not necessarily technically equipped or managerially oriented to assist the ministry with collating national figures in real time.

To balance this view from the centre, the experience I had as a DHB member in Auckland over the pandemic was that we were prompted to re-energise a regional community of interest. There has long been a formal cooperative working and planning arrangement among the three Auckland metropolitan DHBs and Northland. Under pandemic conditions this has necessarily been energised and strengthened to an unprecedented level. If the Health and Disability System Review were to go down the path of organisational rationalisation, one could envisage the emergence of a number (say, four–six) regional networks around the country, of which the Auckland metropolitan DHBs and Northland would be one fully operational working example. With these regional operational entities in place, together with a strengthened policy strategy centre with effective implementation, we might just be getting the balance right for an effective structural reconfiguration of the health sector.

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Enabling technology

One of the more depressing chapters in Health and Disability System Review report was the one outlining the failures and frailties of New Zealand's health data and digital system, an essential enabling infrastructure for a high-performing healthcare system. Among the issues canvassed were: the failure to use the National Health Index (NHI) to its full potential; the lack of integration and operability across different data and information systems; the multiple customised applications and 'work arounds'; the great number of small and competing vendors providing IT solutions and services; the technical silos between and within 20 DHBs; and, above all, the lack of consistent leadership and the failure to implement key strategic plans and opportunities over the last 20 years.

We have been waiting for these enabling technologies to deliver on their promise in New Zealand, and it looks as though the pandemic may finally force the pace of change and uptake to meet their full potential. While the patterns are evident in New Zealand, a lot of the evidence comes from the United Kingdom, where the ratio of face-to-face to virtual consultations in general practice has flipped from about 75:25 to the reverse (Royal College of General Practitioners, 2020). Furthermore, family doctors there have been asked to move to a triage-first model of care and the UK government is purchasing online triage tools for those without. In addition, 11 digital health suppliers have been selected to provide online primary care consultations. It has also been estimated that these techniques could reduce face-to-face hospital outpatient visits by a third (Reed, 2019). There is even an Australian platform to achieve flexibility in outpatient visits called Attend Anywhere. It is being implemented in the UK (Rapson, 2020).

Funding family doctors

One genuine surprise in the wake of the pandemic was the news that family doctors were doing it tough as patients stayed away and virtual consultations

were hard to charge for, with GPs laying off staff (including about 30 GPs closing their practices in Auckland). These are highly unusual circumstances, but it does highlight the one remaining major weakness in our health system – the lack of a long-term funding model for general practice. We are almost alone, along with the United States and Ireland, in our dependence on patient out-of-pocket payments. Such has been the pressure that many practices have been facing insolvency and a good number are being bought out by corporates. We are in danger of seeing a shift from a professional, albeit small-business, model of primary care to one that may well become corporate-driven with stronger commercial imperatives.

We should extend ACC to cover non-accident cases in primary care, similar to what Australia did via a levy back in the 1970s. Eighty per cent of doctors there accept the system, and care is free for their patients. We could boost our capitation system and incentivise family doctors to keep people out of hospital. In an ideal world we would do much more to shift our funding systems from a reliance on a narrowly based and fiercely contested tax system to a much more broadly-based social insurance scheme.

A positive outcome of the pandemic in the Auckland region has been the ability of family doctors to work well in networks. While there are some larger practices, many are small – even solo – and could be unviable on their own in circumstances out of the routine (e.g. regarding equipment, after-hours care, staff sickness, support staff). The UK is introducing primary health networks to service populations of about 50,000 (Murray, 2019). We should do something similar with, say, primary health and social care organisations, which would be enhanced practice networks, the principal objective of which would be to nurture the health, well-being and social care needs of their designated practice populations and keeping them out of hospital.

Privacy issues

One of the knotty issues brought to the fore by the pandemic has been rights of access to personal and patient details in the course of combating Covid-19. The privacy commissioner has been involved.

Our NHI number is a jewel in the crown of our health infrastructure, and yet we are hampered in our use of it due to privacy issues. In the context of the pandemic, Northland DHB, along with primary health organisations, was using the NHI to target vulnerable populations for flu vaccination. We need more of this, if we can get these issues resolved. This would allow us to ensure the comprehensive nature of enrolment with family doctors and the related capitation, call-back, screening and outreach systems, ensuring that disadvantaged groups are well represented in proportion to their numbers in the population.

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Hospital capacity

It was striking that, in conditions of the pandemic emergency, we could reduce the inpatient hospital occupancy rates from the usual 95% over weekdays to the weekend rate of 50%; and also free up our intensive care beds. This is heroic and marvellous, and, although a lot of this was due to deferred elective care and delayed patient presentation, it also suggests that we could be a lot smarter about the way we use these scarce resources in normal times, and maintain our current international benchmarks rather than building more beds.

For example, the UK faculty of emergency medicine, has argued that the pandemic was a sign that we could do without relying on hospital emergency departments as backstops to failures in the primary care and community-based care systems. Ambulance crews and other first responders should be able to triage requests for help so that only the acutely unwell and those for whom time-critical care is required are delivered to hospital (Royal College of Emergency Medicine, 2020).

Recently, Auckland was offered substantial capital funding for the children's hospital, and yet 30% of admissions among the under-fives are treatable at the community level. Furthermore, the scheme to fund doctors to treat cases that might otherwise be hospitalised could be developed further. Add to this the much higher proportion of procedures that could be performed on a day-stay basis and the striking fact that nearly 20% of hospital bed days can be accounted for by preventable treatment errors in a small fraction of patients, and you can see the potential for greater efficiency and demand reduction.

We need to become less reliant on costly hospital structures, and move to a model that can provide the same services, but 'closer to home' – at the level of family doctor, health centre and other services that are intermediate between hospital and community. An unexpected example of this has been the reported greater number of home births since the pandemic started. Despite New Zealand having community-based midwives, births still remain firmly hospital-based. Could the pandemic encourage a rethink here? Also, 'hospital in the home' is another viable option that merits much greater development (Hensher, Rasmussen and Duke, 2020).

This approach to a less hospital focus is already working overseas. For example, Denmark – a country of a similar

population size – has reduced the number of hospitals over the last 20 years from 98 to 32. This involved moving to a greatly expanded primary care system (Margo, 2019). Another example: the UK National Health Service uses over three times the number of acute hospital bed days for over 65s compared to the Kaiser Permanente in the US, a large non-profit, primary care-led organisation that uses active clinical management by cooperating specialists and primary care doctors (Ham et al., 2003).

Scope of practice

With the sudden pressure on existing staff, DHBs have been seeking temporary extensions to individual scopes of practice under the Health Practitioners Competence Assurance Act 2003 to allow greater flexibility of deployment under these extreme conditions. Can we continue this search for flexibility of practice? This should apply not just in hospitals but in primary care as well.

One of the most surprising things to learn in my brief time on the Auckland DHB is how the staff shortages that are hampering normal business are not among nurses and doctors (although those exist), but among technicians. There is a multiplicity of these and they all have their own fiefdoms of training and practice that are hard to change, that can block recruitment from overseas, and in many instances are hard to justify. On top of that we have been dogged by industrial action among these groups. This can be crippling.

Performance and quality, including in the aged care sector

The aged care sector needs a thorough review. The DHBs have very limited powers to check the quality of care in this sector. Furthermore, families have very little objective quality of care information to go on in deciding where to place an elderly relative.

More broadly, one might advocate for some authority to publish public information about the quality and performance of all our publicly funded healthcare agencies. We just do not have adequate public information about how well our healthcare delivery system is performing, including the efficiency of its operations, the effectiveness and quality of its work, and its impact on equity (Davis et al., 2013). No public agency has this task. Perhaps the remit of the Health Quality and Safety Commission could be broadened so that patients and taxpayers could be better served with some key, internationally benchmarked performance indicators?

> We have inherited some useful tools from those earlier periods of experimentation, including cost-utility analysis used at Pharmac to evaluate new drugs, clinical priority assessment criteria (CPAC) to guide clinical decision making, and WIESNZ, the cost weight methodology for hospital case-mix funding.

Public health and health inequalities

You don't miss public health – until you miss it. The country has been very fortunate during the Covid crisis that it has a stellar public health professional leading the Ministry of Health. This in part makes up for the erosion of key infrastructure and its radically localised nature under our existing DHB structure. This is quite aside from dealing with the coming epidemics of diabetes and obesity.

One of the most positive outcomes of the pandemic has been the failure of ethnic and socio-economic inequalities to emerge in the way they have in other countries, such as the US and the UK. Although their health circumstances were likely set back by the pandemic, disadvantaged ethnic minority and lower socio-economic groups were not disproportionately infected by Covid-19 in New Zealand. The disease was brought to this country by members of the public travelling internationally. These tended to be younger, more affluent, and predominantly Pākehā. Indeed, Pākehā contributed 70% of all reported infections, matching their proportion in the population, and the virus clusters identified by the Ministry of Health largely represented ethnic and socio-economic networks related to this original source group (except for the largest cluster at Auckland's Marist College, an institution with a large Pasifika and Māori enrolment). Putting aside the unusual nature of a predominantly infectious disease epidemic, what this suggests is that inequalities of ethnicity and socio-economic status, while stable and enduring, are not 'carved in stone' and can be modified if we are able to shield institutional and dense populations, and reduce differentials in exposure to health risks and in access to care as we move quickly to provide preventive, curative and rehabilitative services according to need.

Conclusion: why did it need a crisis?

Many of the changes prompted by the pandemic and outlined here as possible ways to the future in the health system have long been championed by independent observers. But the need has never been sufficiently acute to overcome professional inertia, the short-term horizons imposed by the electoral cycle, political timidity, weaknesses in strategic direction and effective change, the radical localism of the current DHB system, and the usual 'push and pull' of powerful special interests

and public sentiments that dominate the everyday politics of healthcare in New Zealand. Perhaps this time will be different and we will see some worthwhile changes in practices and policy.

One evident weakness in the sector has been the lack of analytical capability (including any epidemic modelling in humans). At one time the Department of Health (as it then was) hosted the Management Services and Research Unit, which did essential analytical and planning work for the sector. This unit was disbanded while governments experimented, first with the forces of the market and business acumen in the 1990s, and then with local democratic accountability and professional leadership in the 2000s. We have inherited some useful tools from those earlier periods of experimentation, including cost-utility analysis used at Pharmac to evaluate new drugs, clinical priority assessment criteria (CPAC) to guide clinical decision making, and WIESNZ, the cost weight methodology for hospital case-mix funding. Yet, for all that, our analytical, planning and management capabilities could still be better.

Take the UK, for example. In the wake of the pandemic three major health policy charities – the King's Fund, the Nuffield Trust and the Health Foundation – have formed an analytical collaborative to work with the NHS on providing analytical and planning expertise (Strategy Unit, 2020). We have nothing to compare in New Zealand, particularly since the Health Research Council shifted the funding goalposts in such a way as to make large-scale independent, non-clinical health systems and policy research almost impossible to undertake.

In the last year our healthcare system has had to deal with a series of external shocks – the dead and wounded from the Christchurch mosque attack, the horrific burns from the White Island eruption, and now Covid-19. The system has shown remarkable resilience and responded brilliantly. And then it has returned to business as usual. This time, with a recently completed review of the system, can we take on some of the lessons learned from new ways of working and responding, and apply them to thoroughly future-proof our healthcare arrangements?

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