Healthcare: A wide-angled view

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Somewhat out of character, I thought I would do something risky and daring this morning – I want to provide an insight into how economists think about health care, which could (perhaps) be insightful for you and it could be dangerous for me.

But I wanted to provide a sense as to why, when the Commission released *Shifting the Dial* in 2017, the first chapter was devoted to trends in productivity and living standards and the second to health.

Many would have asked: what does health have to do with productivity, to which the answer is: a lot.

Firstly, because a healthier workforce is more likely to participate in work — and the community — and to be more productive in so doing.

Secondly, because trends in productivity impact on the health system. But not always of their own accord. Policy can play a role facilitating, or at least not inhibiting that process.

It has been the great fortune of humankind, particularly in what we now term developed economies, to have experienced rapid growth in incomes and living standards over the last 200 years.

There are two ways to think about that.

First, you can look at how cheap and affordable some basic household items have become.

We have made some estimates of this by asking the question: if you earned an average income, how long would you need to work in order to pay for certain things? And we ask that question looking at the year 2000 and the year 1901.

So, as you can see, in 2000 it would take you 2.8 hours to earn enough to pay for a pair of women's shoes. You could come into work in the morning, duck out at lunch and buy some shoes and basically break even.

But in 1901, it would take you 16.8 hours to earn enough for a pair of shoes. And by that time, the male breadwinner might have spent the money on a carton of beer and a rump steak, which would take 9.4 hours.

By contrast, in 2000 you could buy the shoes, the beer and a steak all with 4.5 hours of work.

The reason for this change is productivity.

Through innovation, technology and greater capital intensity, we worked out how to produce these items using fewer resources overall — thus making them cheaper and more accessible.

Then there is the second angle: rather than looking at the things we had in 1901 and how much cheaper they are today, we can look at the things we *didn't* have in 1901 which we now take for granted.

Things like TV, dishwashers, aviation, smartphones and internal plumbing.

We facetiously put anti-biotics on the list — with a cost in 1901 of infinity (we didn't have them) and a cost of 0.4 hours in 2000, based on advertised prices at Chemist Warehouse.

The point is that economic progress isn't just about having more or cheaper 'stuff', but about having qualitatively different 'stuff' due to innovation and technology. After all, how many beers, steaks and pairs of shoes does one really need?

Where does health care fit into this picture?

Like anti-biotics, there are a number of things we didn't have in 1901 but do today: vaccines, statins, MRI, pathology, high quality anaesthetics and new surgical techniques.

All of these have been major technological innovations. All of them have made our system better.

Not one of them made it cheaper.

Here's another question: what if we had added a half hour consultation with a GP as an item on our comparative list between 1901 and 2000?

We know from OECD data that Australian GPs earn roughly twice the average income. So logically, an average worker would need to work for one hour to pay for a 30 minute consultation (this is in terms of the total underlying cost, leaving aside the distribution of contributions between the individual and the taxpayer).

And in 1901? It would have been something very similar.

Because this aspect of the health system is highly labour intensive, as long as the relativity is maintained between doctors' incomes and the average income, and people still want to go to the GP, then the cost of the GP's time relative to the average worker's will remain constant.

Unlike steak and beer and shoes, these services don't get much cheaper.

That is true irrespective of broader trends in productivity and living standards.

Of course, it's a higher quality half hour, because your GP in 2000 knows a lot that he or she did not in 1901.

But unless you can somehow economise on that time spent by the GP, that part of total health system costs don't fall, and that remains the case for as long as one-on-one practitioner consultations remain the staple of the system. The same applies to the involvement of clinicians across the whole system.

So it's no accident that overall health prices across the world tend to be correlated with average incomes, as you can see from this chart.

Australia actually does well, being so close to the Organisation for Economic Co-operation and Development (OECD) average, given that our income is above the average. Above us are high income countries like Switzerland, Norway, the US and UK. Below us are lower income countries like Greece, Portugal, Poland and Turkey.

Nor is it an accident that health prices rise over time, relative to the overall Consumer Price Index (CPI) and more so relative to goods like motor vehicles, which are internationally tradable and for which technology, capital and innovation have provided a dividend in terms of lower real costs.

This relates to the two features I mentioned:

- first, that a large part of the health system is labour-intensive and real cost reductions are hard to achieve
- second, that where technology and innovation have been evident, they have been focused on improving quality rather than cutting cost.

That is to say we have seen lots of innovations which have given us better diagnoses, treatments and cures, but fewer (such as we have seen in relation to beer and steak and shoes) that give us lower cost treatment overall.

Probably this is fair enough.

People naturally feel that health care is different and are less focused on cost when quality is rising.

We can think of this as a sort of grand bargain: we will pay more as a share of income in return for higher life expectancy and healthier lives.

Broadly speaking that is the grand bargain we have struck and it has served Australia fairly well.

Spending is up as a share of Gross domestic product (GDP) over the long term, as you can see in the chart.

Life expectancy is also up — initially through lower infant mortality and more recently through prolonging lives at older ages.

Australia also performs well on healthy life expectancy.

And overall, it looks as though Australia gets good value from the system. There are countries — like Switzerland and Japan — that spend more on health (as a share of GDP) and have higher life expectancy.

Then there are countries like Turkey which spend less and have lower life expectancy. And there are those countries — like Germany and the US — which spend more and still have lower life expectancy than Australia.

Overall, Australia is estimated to out-perform the estimate of what our life expectancy should be for the amount of money we spend.

So what is the problem?

There are two.

The first is contextual. The burden of disease has shifted, and continues to shift, to chronic and complex conditions, like diabetes, cardio vascular disease and mental illness.

Thus the needs of the system have changed and will continue to change.

In one sense, this is a symptom of success. As causes of death are eliminated or mitigated and lives prolonged, chronic illness is the thing that's left for us to deal with.

In Australia we now have a high number of years lived in ill-health, both in absolute terms and as a share of average life expectancy.

Much of this is amenable to preventative effort. The Australian Institute of Health and Welfare (AIHW) estimated that 31 per cent of the burden of disease was preventable.

Our risk factors vary — the incidence of adult smoking is low in Australia, but the incidence of obesity is high, relative to global peers.

This calls for a strong emphasis on prevention and on disease management.

Are there likely to be big gains from technological breakthroughs? Maybe, but it is also likely that we need a different sort of innovation — one focused on changing systems, funding strategies and business models.

This leads to the second challenge. Thus far, the health system has been selective about the type and direction of technology and innovation.

It is very strong at adopting new health-specific technology, but a laggard when it comes to adopting general purpose technologies to make the system better for its users.

Think of the paper records, hand-written scripts, the use of faxes and slow take up of telemedicine.

Data is a case in point: in the context of a clinical trial to test the efficacy of a new drug, the system can use cutting edge data analysis.

But try using data to link up parts of the health system, such as the acute and primary systems and it all seems very difficult.

It is hard to escape the conclusion that this reflects a supplier-centric system — one which embraces technology to improve clinical treatment but much less so to try and re-imagine the business model and re-shape it around the consumer.

This is true of innovation in health business models more generally.

It is reminiscent of the old adage that when you have a hammer, everything looks like a nail.

We don't have a hammer. We have two hammers: the acute hospital system and the fee-for-service Medicare system for out of hospital treatment.

Both have grown disproportionately in contrast to preventative measures and system integration.

It is as though when we have a health challenge, we increase beds, expand hospital activity or come up with a new Medicare Benefits Schedule (MBS) item. I don't want to sound too judgmental: look at our mental health report and we certainly talk about the need for acute inpatient beds and make a number of recommendations about new MBS items.

But the broader point holds: the efforts to do things differently — like commissioning primary health services through Primary Health Networks (PHN), trialling Health Care Homes, instituting navigation trials like Nurse Navigators in Queensland or the Western Sydney integrated health trial — have all been a hard slog.

We need to keep trying and, to be fair, Governments are doing just that.

But the dominance of ABF(Activity Based Funding)-funded acute care and MBS funded primary care is fairly clear from the chart.

Both are fairly efficient in a narrow sense — activity based funding drives efficiency in hospitals and fee for service drives volume in primary care.

Overall, it appears that Australia has a volume-heavy system. More of our increased dollars spent are going into increased volume (as distinct from higher prices) relative to others in the OECD.

But these approaches risk inefficiency in a broader sense. One because it has proven a big struggle to integrate the two systems adequately.

But also because they risk crowding out other, clinically effective and potentially more cost-effective approaches to dealing with our health challenges.

Stephen King will talk later about *Better Access* — an important program for a lot of people with mental ill health. But is it really the best approach for 1.3 million Australians?

We think there is considerable scope for greater use of practitioner supported online treatments — an approach that offers clinical effectiveness for many with mild symptoms, flexibility and convenience, no stigma and targeted use of practitioner time.

It involves harnessing a general purpose technology (the Internet and digital) to change the business model to the benefit of the consumer.

And it does break down the dominant structure of the one-on-one physical consultation with the health practitioner. (Accepting that online treatment is not the right option for everyone.)

But we lack an obvious funding stream for this sort of innovative treatment.

So we have a system which, despite its overall benefits to date, has some challenges:

- is efficient within narrow streams but risks inefficiency more broadly
- it drives innovation in a particular direction (higher quality and higher cost), but has struggled with innovation to improve the consumer experience.

In a way it is reminiscent of the Soviet Union, which had the technological sophistication to put cosmonauts into space, but lacked the wherewithal to feed the population or produce shoes that were the size people wanted (though the Soviet Union did famously produce a very large number of shoes).

When the Commission put together *Shifting the Dial*, and in our subsequent work, we have put forward the following attributes of an integrated, patient-centred system:

- fewer boundaries between parts of the system
- incentives for practitioners to cooperate
- having the consumer as the locus for that cooperation
- better use of data to integrate the system and guide decision making
- stronger health literacy and engagement
- a service continuum to reflect a continuum of underlying need
- active use of general, as well as health-specific, technology to drive new services and business models for the benefit of consumers.

In many ways, these innovations are as hard as the ones that involve cutting edge scientific breakthroughs, given that they must contend with the complex world of human behaviour and public systems.

If we get these things right, then in 100 years, the Chair of the Productivity Commission can stand up in front of the CHF and identify all the ways in which service innovation has changed lives since 2019.