



FUTURE OF HEALTHCARE

Transition & collision of the new and old world





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Health and well-being of people are determined by many factors including genes, culture, living conditions and social determinants. As health professionals and academics have known for a long time, social determinants influence and are influenced by economic, environmental and political determinants. There has always been call for politicians, policymakers, funders, providers and health professionals to look at the broader determinants of well-being. After some initial progress especially in public health recent progress, however, has been ad hoc and slow.

FUTURE OF HEALTHCARE

Most of the developed countries health system now faces unprecedented pressure. In the last few years there is growing concern that this pressure is reaching a tipping point. The convergence of these five main factors could tip these health systems over the edge:

- 1. Rapid change in these broader determinants.
- 2. Significant societal and demographic changes.
- 3. Shift in nature of demand for health services towards more support for life long, lifestyle and chronic conditions.
- 4-Continued slow progress to respond to the broader determinants, societal and demographic changes.
- 5- Exponential advances in life science, material science, engineering and digital technology.

The impact of the above five factors is fuelling current level of frustration and dissatisfaction of users, carers and providers of current health services as they watch the growing chasm in access, affordability and comprehensiveness of health services.

Reforms and improvements to-date have focus mainly on the "supply" side of the equation such as better horizontal and vertical integration of services, reducing harm and improving quality of services, better and more workforce, facilities and information, structural and organisation changes, more and different ways of funding, incentives, performance measures and accountability.

While some initiatives have focus on appropriate changes in demand, these have tended to initiated from the lens of professionals and providers rather than from the users. However, there is increasing signs that the impact of the current approach to change demand behaviours is waning. Lessons need to be learnt from non-health industries that are more up-to-date with influencing consumer behaviours.





THEMES OF FUTURE HEALTHCARE

Future healthcare in a 10 to 20 years horizon will have these themes:

- 6. Advances in and convergence of digital technology, physical, biological and material science and engineering will drive individualised, personalised and precision medicine.
- · Services in areas of prevention, screening, diagnosis, and treatment are increasingly reliant on insights from rapid advances in gene sequencing and editing.
- · The entire drug therapy research, trials and development process, timeframe and economics will change.
- The printing of drugs personalised to an individual genomics profile is well within this time frame.
- Future treatment will focus on intervention at a molecular level rather than the current invasive surgery, radiation and drug therapies.
- $7 \cdot$ Big data and advance analytics of traditional health
- · With data from life science, consumer technologies including other non-health data will provide the insights for development of new health services.
- · Initially these new services will focus on wellness, screening, diagnostics and some treatments.
- · Over time such insights will also change most treatment services as we know it today.
- 8. Behavioural science (the study of human psychology, sociology and anthropology) will be more prominent in helping to develop future well-being and health services.
- 9. New regulatory framework will emerge to respond to privacy, security and efficacy challenges presented by new individualised, personalised and precision wellbeing, screening, diagnostic and treatment therapies. Technologies like blockchain will likely feature in many systems to respond to protecting privacy and improving security over people personal data.
- 10-Players from non-health industries will increase their participation and role in the health care sector.
- · Early movers at this stage are eCommerce tech giants and insurance companies.
- · Other likely new entrants could include energy providers, housing, food, banks and transport.

- · These new entrants are unlikely to enter the health sector by themselves but will do so looking for like-minded partners and reformers from the health sector.
- 11. New services, new organisation models, new business models and new partners are inevitable. These in turn will result in changes in the nature of workforce, facilities and technologies.

MORE & MORE POINTS

In the last 12 months, more data points are emerging and signalling the momentum for change that is reaching the zenith of the exponential curve. This includes:

1. The package of changes signalled and underway in NHS England following a very difficult winter has many familiar strands including the call for more funding, more investment in social care, more staff and more facilities. The review of different aspects of their primary care is currently underway including a proposal to accelerate the adoption of a "digital first primary care".



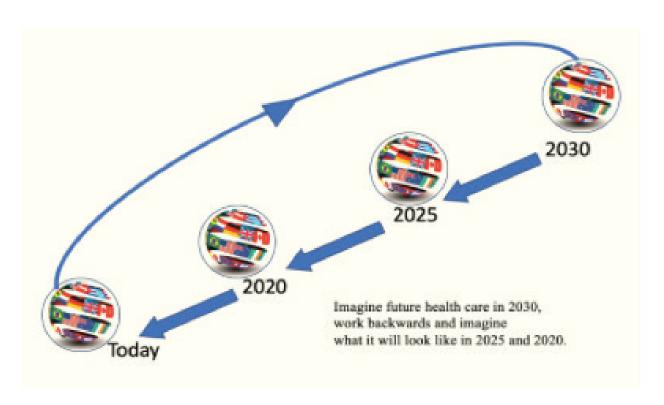


- 2. Brexit impact on healthcare system in Britain and EU countries is also important to note. One of the main discussion points is poaching and movement of health professionals. There are raising concerns over possible significant post Brexit disruption to their health services.
- 3- Announcement of Dr Atul Gawande to head the new Amazon, Berkshire and JP Morgan Chase health venture has highlighted the increased mergers and acquisitions activities in traditional and non-traditional health entities such as Walgreens/Rite Aid, Walmart/Humana, CVS /Aetna and Amazon/PillPack
- 4. Chinese tech giants (Alibaba and Tencent) and large insurance companies (Prudential, Ping An Insurance) are partnering and injecting significant capital for investment into their health ventures.
- 5. A number of countries funded by National Health Insurance such as Canada and South Africa are under pressure to look at issues of access and comprehensiveness of their coverage.
- 6. The recent data breach of 1.5 million patient records in Singapore highlights the need for cyber security as health system moves rapidly to a digital environment.
- 7- Health and social care system in aged society (Australia, New Zealand, UK, USA, France and Taiwan) are struggling to care for their seniors.
- 8. While countries such as Germany and Japan are still in the super-aged group (21% or more above 65 years), it is seen that 34 countries including New Zealand will enter into the super-aged group in 2030 and health and social care system is an even bigger challenge for them.

TRANSITION & COLLISION OF THE NEW AND OLD WORLD

Creating a future healthcare system requires an approach that starts by imaging the future and work backwards in terms of what needs to be done. Imagine what future health care will be like in 2030 (12 years away) work backwards and imagine what it will look like in 2025

and 2020. Come up with an agile plan of what needs to be done in 5 years, 1 year, 1 month and 1 week. Mistakes, pauses, U-turns and de-tours are to be expected but each of these provides insights towards progress.



Graphic.1. Future back thinking on healthcare (adopted from GeniusWork 2018)

Current health organisations that will emerge in this future health system would have adopted an implementation that retain and strengthen the relevant core services AND create new services and products. On this topic, different books have written by thought leaders such as M.J. Arena (Adaptive Space) and S.D. Anthony, C.G. Gilbert & M.W. Johnson (Dual Transformation). Successful implementation of such approach will require different mind-set and capabilities.

The transition from where most current health systems are today to where they will be in the future will be difficult, challenging and disruptive. The inevitable collision between the slow decision-making process and reluctance to embrace change by some incumbents on the one hand and the arrivals of new entrants partnering with reformist health partners is underway.

TWO SCENARIOS GOING FORWARD

There are two broad scenarios of what is going to happen with First world health systems:

In the first scenario, some First world health system will cross that tipping point. Despite significant more funding, it will experience services failures resulting in negative consequences on people health. This will be the

catalyst for change but at expense of people health and well-being.

In the second scenario, decision makers make changes now to create a system that will feature the themes set out above and avoid the chasm. They get to shape the future of healthcare.

The door to be part of the second scenario is open. Accepting this invitation will require an open mind-set, willingness to be part of a team and partnering with the new and different type of partners.

This journey starts with accepting that what has been done and most of what currently is being planned (more and different ways of funding, more staff, more facilities, organisation & structural changes, better integration, better quality and safety) is NOT going to be enough!

There are enough recent literature and publications on how and what needs to be done to transition. These are just tools that need courageous professionals with new mind-sets, talents, capabilities to implement change and a culture of taking responsibility rather than blaming others for these challenges.

FINAL WORD

Imagine in 10 to 20 years of time what will the population look like, how will people live their lives and when they come into contact with well-being and health services how will they experience it?

Imagine what is possible at home, in the community, in primary care and hospitals?

One thing is certain it will not look like today! So those making decisions today for significant capital investments in fixed physical facilities like rest homes, high street primary care facilities and large hospitals facilities - hope your designs are not hard-wired and can be easily be re-configured for different uses.

Future healthcare system must address the issues of access, affordability, comprehensiveness and relevance for the users. It must start by imaging what that future looks like and make the decision today for a dual transformation to move to that future.

The final word goes to Jeff Bezos, CEO of Amazon reported comments on the Amazon Berkshire JP Morgan Chase ventured headed up by Atul Gawande - "we said at the outset that the degree of difficulty is high and success is going to require an expert's knowledge, a beginner's mind and a long-term orientation".

