

Future of Health

Shifting Australia's focus from illness treatment to health and wellbeing management

SUMMARY

Where are we now?

Australians rank amongst the healthiest in the world, largely due to the high standard of living, education, and healthcare accessibility.^{1,2} Australia's health system is also one of the most efficient and equitable in the world, ranking fifth of 163 countries on Bloomberg's 2017 Healthiest Country Index.³

To help address these issues and facilitate improved health and wellbeing outcomes for all Australians, CSIRO has undertaken a highly consultative process to develop a report which aims to shape future investments in the health system. While the health sector will always be required to deliver a degree of illness treatment, improvements to health outcomes can arise through a shift in focus towards cost-effective and evidence-backed preventative, precision-based, and digitally enabled health and wellbeing solutions.

However, the nation's strong health outcomes hide a few alarming facts:

Australians spend on average 11 years in ill health the highest among OECD countries.⁴



63% (over 11 million) of adult Australians are considered overweight or obese.⁵

There is a 10-year life expectancy gap between the health of non-Indigenous Australians and Aboriginal and Torres Strait Islander peoples.⁶



60% of 15-74 year olds have low levels of health literacy.⁷

The majority of Australians do not consume the recommended number of serves from any of the five food groups.⁸



What challenges do we face?

Changing national health profile

There will be a continued and increasing need to support the ageing population and better manage chronic disease and mental health and wellbeing. However, these needs will compete for resources and investment with the emerging impacts of biosecurity issues, climate change, an increase in neurodegenerative disorders, and a changing spectrum of cancers as the common cancers become more survivable.

Inequity in access and experience

Realising substantial improvements in national health outcomes will require providing access to quality health services for all Australians and shifting away from a one-size-fits-all service model.

Consumer behaviour and trust

Consumers are demanding more from their healthcare experiences and embracing new technology for low-risk decision making relating to their health.

Adjusting to an increasingly digital world

Trust in data sharing, digital and health literacy, data ownership, system interoperability, and Australia's current digital infrastructure present as key barriers to a more integrated and data-enabled health system.

Fragmented and inflexible health systems

Barriers to an integrated health services model include multiple and complex funding arrangements, siloed data streams, ever-evolving regulatory requirements, and dated infrastructure.

Unsustainable financing

Healthcare costs and the dependency ratio continue to rise, placing significant financial pressure on all stakeholders. Some solutions are gaining traction, however require significant changes to financing structures, cultures, and expensive initial outlays.





Vision

Value will be rewarded over volume, consumers will be empowered and viewed as a valuable health resource, humanity and relationships will be essential elements of care, and technology will be used to decrease costs and increase access to care.

How do we enable the shift?

1 Empowering consumers

Consumers are an underutilised resource in the health sector. Consumers can be empowered to better prevent illness and manage their health by improving health literacy, reducing information asymmetry, expanding telehealth services and developing consumer focussed health solutions.

2 Addressing health inequity

Supporting groups that have inequitable health outcomes to move up the health curve will provide greater social and economic returns than extending the lifespan of those most advantaged. This will require improved access to clinical care, but also tailored initiatives around healthy behaviours, social and economic support, and interactions with the physical environment.

3 Unlocking the value of digitised data

Behavioural change is needed by all healthcare stakeholders to ensure the growing volume of personal health data is of high quality and is securely shared, collated, analysed, interpreted, and paired with action for improved health outcomes and enhanced trust in digital tools.

4 Supporting integrated and precision health solutions

Greater systems integration and precision health solutions must be underpinned by improved predictive analytics, an outcomes based mindset, and a new set of skills for health professionals.

5 Integrating with the global sector

Enhanced global integration will help the sector connect and contribute to world leading health and management solutions. Improved pathways to market could encourage the development of novel and globally exportable solutions in Australia.

Read more in the full report:
www.csiro.au/futureofhealth

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WE DO THE EXTRAORDINARY EVERY DAY

We innovate for tomorrow and help improve today – for our customers, all Australians and the world.

Our innovations contribute billions of dollars to the Australian economy every year. As the largest patent holder in the nation, our vast wealth of intellectual property has led to more than 150 spin-off companies.

With more than 5,000 experts and a burning desire to get things done, we are Australia's catalyst for innovation.

WE IMAGINE
WE COLLABORATE
WE INNOVATE

CSIRO FUTURES

CSIRO Futures is the strategic advisory arm of Australia's national science agency. We work with senior decision makers in Australia's largest companies – and government – to help them translate science into strategy and plan for an uncertain future. We build on CSIRO's deep research expertise to help our clients create sustainable growth and competitive advantage by harnessing science, technology and innovation.

CSIRO HEALTH AND BIOSECURITY

Working with partners, CSIRO Health and Biosecurity conducts scientific research and develops products and services to address the complexity and interdependencies of human, animal and environmental health and biosecurity challenges to provide benefit to Australia and the world.

CSIRO PRECISION HEALTH FUTURE SCIENCE PLATFORM

Our goal is to build a healthier Australia through preventive, personalised, biomedical and digital health products, programs and services. We aspire to empower individuals to improve their lifelong quality of life through: Enhanced knowledge, Customised health insights, Optimised lifestyle choices, and Personalised health management plans providing them with choices to act earlier. Precision Health. Your future, your health.

FOR FURTHER INFORMATION

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- 1 The Organisation for Economic Co-operation and Development (OECD) 2017, *Health at a Glance 2017: OECD Indicators*, viewed 5 June 2018, <http://www.oecd.org/health/health-systems/health-at-a-glance-19991312.htm>
- 2 The Commonwealth Fund 2017, *Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care*, viewed 19 April 2018, http://www.commonwealthfund.org/~media/files/publications/fund-report/2017/jul/schneider_mirror_mirror_2017.pdf
- 3 Lu, W & DelGiudice, V 2017, *Italy's Struggling Economy Has World's Healthiest People*, *Bloomberg Markets*, viewed 22 March 2018, <https://www.bloomberg.com/news/articles/2017-03-20/italy-s-struggling-economy-has-world-s-healthiest-people>
- 4 Productivity Commission (PC) 2017, *Shifting the Dial: 5 Year Productivity Review*, Inquiry Report No. 84, Canberra
- 5 Australian Bureau of Statistics (ABS) 2015, *2014-15 National Health Survey*, viewed 5 June 2018, <http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4364.0.55.001>
- 6 Australian Institute of Health and Welfare (AIHW) 2015, *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2015*, Cat.no. IHW 147.Canberra: AIHW.
- 7 ABS 2006, *Health Literacy*, Australia, 2006, 4233.0. ABS, Canberra. The ABS define health literacy as the knowledge and skills needed to understand and use information relating to health issues such as drugs and alcohol, disease prevention and treatment, safety and accident prevention, first aid, emergencies and staying healthy.
- 8 AIHW 2018, *Australia's health 2018*. Australia's health series no. 16. AUS 221. Canberra: AIHW.