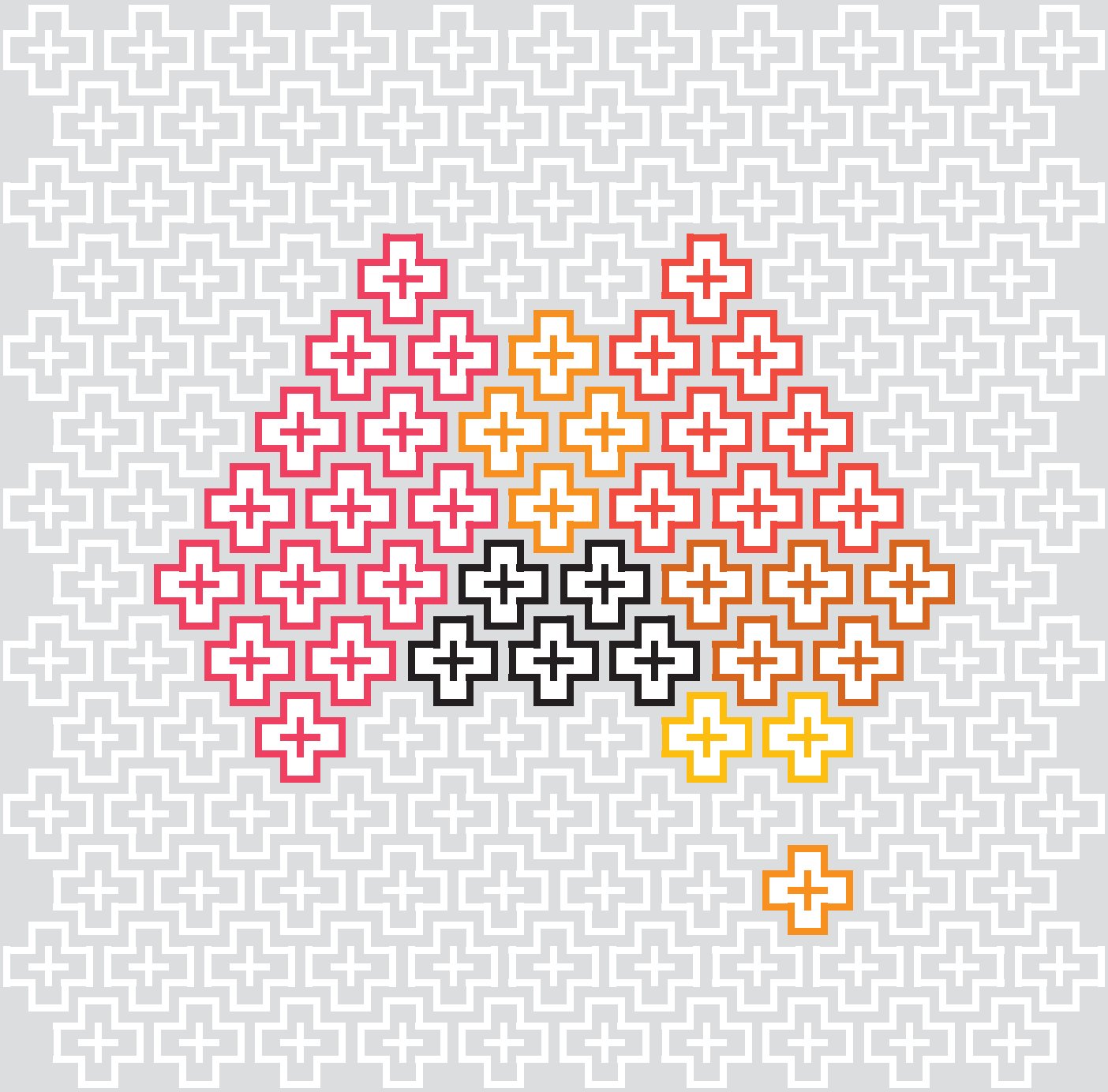
Health Matters

Social determinants of health in Australia



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Edition 2

Foreword

Welcome to the second edition of Health Matters, PwC's new publication on the leading issues in the Health sector in Australia and globally.

Our first issue of Health Matters focused on the Future of Health and related issues such as affordability, quality and workforce. In this issue, we explore the case for early intervention to improve health outcomes. PwC recently released a global paper on the Social Determinants of Health which has received a lot of interest here in Australia. So this edition has been dedicated to some of the factors discussed in this paper that most impact us here.

Articles in this edition cover the inequity with our Indigenous population and the importance of Indigenous housing, the value of investing much earlier in a child's life, and we introduce a view on how better connected data can support a different way of targeting funding for better life outcomes.

In addition, PwC has recently released a focused report with our response to the Aged Care Royal Commission Interim Report which can be read here.

Enjoy reading.

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Contents

1

Bold action needed on social determinants

To improve health outcomes

by Nathan Schlesinger and Sarah Phillips

We know that the social and environmental conditions in which we live can significantly affect our health. Yet, social determinants of health are rarely the focus in our initial contact with health and care systems about a health issue. These contacts often occur too late – when people are already sick and in crisis – and the focus is too often on treatment and triage rather than prevention.

We have achieved increased life expectancy and improved health outcomes globally, but appear to have reached a point of diminishing returns. Countries continue to spend more on healthcare every year[1] as a modern health crisis featuring chronic diseases escalates, fuelled by societal factors and individual behaviours[2]. Indeed, the impact of social determinants of health on healthcare costs is beginning to outweigh the impact of health factors alone.

Research suggests that clinical care can address only 20 per cent of a person's overall health and wellbeing; the greatest gains, especially for those at highest risk of poor health, come from action on their social determinants of health[3].

The time has come to focus on earlier prevention and address these influential factors.

Social determinants of health in Australia

Although in this series of articles we talk about the social determinants of 'health', we know that these same social determinants have an impact on many different aspects of life. Here, we are considering the health outcomes that are influenced and can be improved, likewise, we can also consider the housing outcomes, or the education outcomes of the people and their families.

Australia's efforts to address social determinants of health began decades ago[4] and have achieved critical outcomes in areas such as childhood vaccinations, compulsory seatbelts, screening for bowel and breast cancer, tobacco legislation and gun control. Some initiatives have had success; however, progress overall has been patchy and not implemented at the appropriate scale, often due to the challenges of Australia's federated governance and funding model, disconnected datasets, *short-term political focus and poor health literacy*.

Advocacy on social determinants of health has struggled to secure the broad policy changes envisaged in key documents by the World Health Organization's Commission on Social Determinants of Health[5].

The findings of a new global survey by PwC's Health Research Institute, outlined in *Action required: the urgency of addressing social determinants of health*, tell us that the social determinants of health have particular effects on Australians.[6] Relative to other nationalities surveyed, more Australians self-reported poor health (14 per cent vs 9 per cent) and reported visiting a healthcare provider in the last 12 months (90 per cent vs 83 per cent).[7] However, Australians interviewed for this research were likely to believe that individuals themselves are responsible for their own social determinants of health (52 per cent vs 41 per cent in other countries) and were less likely to discuss these determinants with their healthcare provider (44 per cent vs 36 per cent)[8].

More broadly, Australians surveyed were also less likely than other nationalities to use or access support from social services (28 per cent of Australians vs 41 per cent in other countries). Australians also identified mental health and a lack of sleep to be among the chief barriers to a healthy lifestyle.[9]

Health disparities between the better and less off are well documented. The contrast between Australia's Aboriginal and Torres Strait Islander peoples and their non-Indigenous counterparts on all health statistics remain stark,[10] with an estimated gap of approximately 17 years between Indigenous and non-Indigenous life expectancy.[11] In addition to this, socio-economic disadvantage, associated with chronic stress, increases vulnerability to high-risk health behaviour and chronic disease. For example, the 20 per cent of Australians residing in the lowest socio-economic areas are 1.6 times more likely than the 20 per cent in the highest socio-economic areas to have two or more chronic health conditions, such as heart disease and diabetes.[12]

These health inequalities demonstrate that social determinants of health have complicated feedback effects that can compound and entrench disadvantage. Advocates argue that a lack of education limits employment and life opportunities, leading to income constraints that often translate to hardship and reduced access to healthcare and nutritious food. Hardship induces stress and poor mental health, which in turn leads to dysfunctional coping patterns involving substance abuse and overconsumption of unhealthy foods.

Implications of inaction

Failure to address social determinants of health – and by extension chronic disease – will have enormous social and economic consequences. Today, a third of Australia's disease burden is caused by factors that are preventable, such as smoking, excessive alcohol consumption and insufficient exercise.[13] Clinical treatment alone is no longer sufficient for effective healthcare. Healthcare providers will prescribe drugs to patients, only to watch them grow more ill – not because of treatment failure – but because of the broader social factors of diet, sleep, mental health, work and exercise.

Take obesity as an example. Among Organisation for Economic Co-operation and Development (OECD) member countries in 2018, Australia had the eighth highest proportion of adult population who are overweight: roughly 63 per cent of our adults were either overweight or obese, accounting for seven per cent of Australia's total disease burden.[14] The prevalence of obesity in our country has nearly tripled since 1975; in a three-year period alone (2014–2017) there has been a 10 per cent increase.[15] Given its known links to a slew of chronic health problems (including high blood pressure, diabetes, high cholesterol, cancer and sleep disorders), obesity – if unaddressed – will eventually overwhelm our health system.

The broader economic implications of failing to address social determinants are significant. According to the Australian Institute of Health and Welfare, Australians with chronic disease took an average 0.48 days off work due to illness, compared with 0.25 days by those without chronic disease. The overall loss to the workforce associated with chronic diseases amounts to around half a million person-years.[16]

Conversely, taking action will lower costs for individuals and the public purse. A study cited in *Australia's Health* estimates that if action were taken on social determinants to close the health gap between the most and least disadvantaged Australians, half a million people could be spared chronic illness: this translates to $2.3 billion in annual hospital costs saved and 5.3 million pharmaceutical benefits scheme prescriptions reduced.[17] The OECD estimates that if there is a 10 per cent increase in healthier lifestyles, Australians will gain 2.6 months of life expectancy.[18]

The costs of inaction are inescapable. Much is at stake, and relies on us starting to think innovatively and more radically about how we may address those societal issues with tangible health impacts. All stakeholders (governments, health systems and users) have a role to play.

However, the solution lies not simply in spending more money. What is required is a multifaceted and nuanced approach, as shown in the case of Japan. Despite having the world's oldest population by country (26.7 per cent of its population are aged 65 and over),[19] Japan spends a similar proportion of its GDP on healthcare (10.9 per cent)[20] to that of Australia (10.3 per cent GDP),[21] possibly and partly explained by the fact that only 25 per cent of its population are obese (note that their per capita sugar consumption is 17.2 kg compared to Australia at 49.2 kg).[22] Therefore, the solution is not solely in more health funding; the social and behavioural factors at play require multi-pronged strategies.

Action now

What constitutes social determinants of health is widely acknowledged, as is the need for effective action.

Current initiatives, here and overseas, point the way. The US is employing technology such as *NowPow*,[23] which optimises analytics to screen patients for social determinants of health and connects them to relevant local resources to address those issues. This strategy employs a whole person care model across whole communities. According to the data in the global PwC report, Australians are less likely than other nationalities to use technology to support their health care, and are less likely to interact with or access social services. The potential for technology-based approaches to engage health consumers has yet to be fully explored.

As governments demand evidence-based outcomes for the money they are spending, forward-thinking leaders need to seize the opportunity to influence social determinants of health to produce better outcomes for all. Stakeholders in our health system need to build collective will, collaborate and establish a coherent framework that addresses social determinants of health. Non-traditional health partners, including those with expertise in data analytics and technology as well as those communities at higher risk, need to be brought into the fold to ensure that programs are grounded in the reality of people's lives and work.

Already, examples of the whole person care model to enact proactive change – not driven by governments but by other players – have achieved impressive results. For instance, UnitedHealthcare in the US invested US$400 million in affordable housing to mitigate health problems associated with homelessness. They built over 4,500 homes as of March 2019, with early success: in one state, UnitedHealthcare registered a 50 per cent drop in total cost of health care for members enrolled in its housing program.[24]

Our report, *Action required: the urgency of addressing social determinants of health,* suggests five bold steps that healthcare systems and governments can take to address social determinants of health and tackle health inequalities in Australia.

1. Build collective will

Effective change will only come from a combined cross-industry effort, led by a convener who can help bring partners across the system together to demonstrate the long-term benefits for each stakeholder of preventing – not just managing – illness.

Governments or community organisations could act as the convener, driving the communication and narrative to bring multiple organisations and actors together. From a government perspective, a key challenge is to maintain this effort through election cycles and changes of government – particularly important given the differing political cycles across Australia.

However, it is important that such an approach is not perceived as a 'nanny state' approach. Instead, collaboration within and across sectors is required (see Figure 1). Research to identify those champions in the communities and/or organisations who are respected by target groups should be undertaken, so that their buy-in may be secured.

Figure 1: Cross- and within-sectoral collaboration to address social determinants of health

Ingredients for successful collaboration

- Similar motivations to solve the problem at hand
- Complimentary capabilities, skill sets and resources
- Alignment on a central theory of change
- Shared vision of success and how it will be measured
- Solid foundation of trust-based relationships
- Clear roles and accountability

There are strong examples in Australia of working together to combine health and non-health initiatives to positively benefit communities. NSW Health's Housing for Health program assessed and repaired or replaced health hardware so that houses for Aboriginal communities are safe and can support healthy living. The program has been shown to significantly reduce rates of hospital activity for infectious diseases (the rates among those in the program were 40 per cent lower than for the rest of the rural NSW Indigenous population, where the program was not implemented).[25]

2. Develop standard but adaptable frameworks

Once coalitions are built, the partners in the coalition must harmonise the various workplaces with different missions, incentives and perspectives so that common goals can be achieved. Health consumers can rightly expect that their care is integrated and seamless. However, approximately one-third of the respondents in *PwC's global survey* indicated that there was scope for healthcare and social services to be better connected.

3. Generate data insights to inform decision-making

Predictive analytics can be used to consider both individual behaviour and population behavioural trends. While not ignoring those who are diagnosed with chronic illness, by identifying the early warning signs, people at risk of chronic disease can be assisted to avert the condition through behavioural science, machine learning and simulation modelling. Feasibility studies of such initiatives will enable us to identify those areas and communities to target so that less time and money are wasted chasing ineffective interventions.

New Zealand, for example, applied data analytics to develop a 'social investment' approach that identifies those groups to target with earlier interventions, to improve overall wellbeing and reduce the need for social welfare programs over their lifetime.[26] Similarly, the Australian Priority Investment Approach to Welfare uses actuarial analysis to estimate overall future lifetime welfare costs, leading to better investments earlier in a person's life to improve quality of life and employment prospects, while reducing government costs of future healthcare.[27]

4. Engage and reflect the community

Strategies that target social determinants of health must be grounded in the way people live and work. Retailers, technology providers, home health workers and educators could provide new pathways through which to engage consumers. Bringing others, particularly individuals who are the target of policy efforts on the journey is important: as outlined earlier, Australians surveyed in PwC's research are more inclined than their overseas counterparts to believe that they alone must manage their particular social determinants of health. Attention must be paid to the real-world situation of the community being targeted; for example, tackling obesity in Sydney's Inner West may require a very different approach to that in Perth with more cyclical economies and therefore more transient population. What works for one may not work for the other.

Some Australian community service providers are already applying this approach. For example, cohealth, a large community health service provider in Victoria, works with at-risk groups during extreme weather events. It recognises the need to address climate change as a health threat, conducting service checks on homeless people, public housing residents and people with mental illness during heatwaves to ensure they can take steps to stay safe.[28]

The success of any social determinant of health strategy ultimately depends on the response of the targeted community. Those carrying out the intervention must have local credibility and knowledge to work in the area so that trust among the target cohort can be built.

5. Measure and redeploy

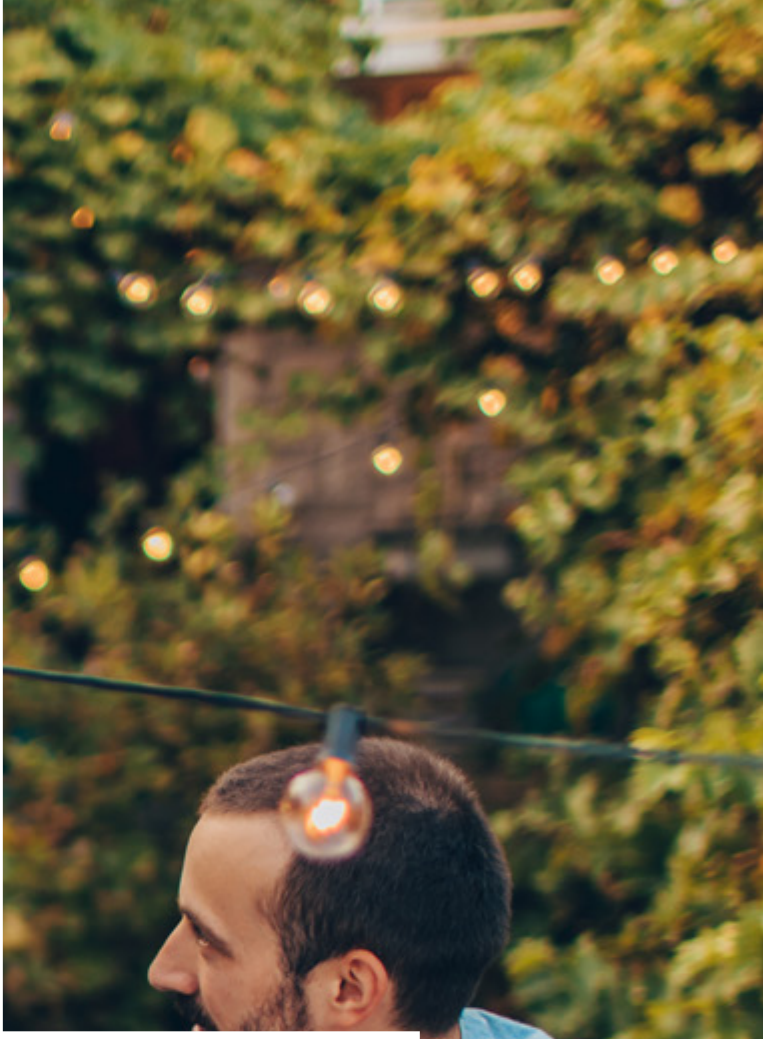
Successful intervention campaigns that target social determinants of health are exercises in continuous improvement in which experience, data and insights are gathered and fed back into the system. Feedback reveals where partners need to improve capabilities for identified social determinants of health or strengthen particular processes, and enables the refinement of strategies.

Technology can play a further role in the delivery of some of these initiatives, especially when combined with big data; for example, Lucina Health in the US employed artificial intelligence to reduce pre-term births by 13 per cent.[29] Our regular use of smart phones makes them ideal delivery points for sharing information that people can engage with, such as the self-management Gateway diabetes app developed by Western Sydney Diabetes to enable sufferers to self-educate, monitor and manage their illness.[30]

A sense of urgency

We are faced with a genuine crisis of chronic diseases, and it is no longer feasible to expect that clinical care alone can solve the challenge of our increasing healthcare burden. It is apparent that health services are disproportionately relied upon to manage health problems having social causes, against a backdrop of an 11 per cent year-on-year increase in emergency department activity.[31]

It is critical that leaders understand the serious consequences of not addressing social determinants of health. By investing earlier in strategies that target social determinants of health, such as helping people with housing, promoting exercise behaviour and providing mental health support and better access to affordable treatment, governments and health systems stand to save money in the long term and, more importantly, improve health outcomes for all.


2

It's not as simple as 'nature or nurture'

The impact of socioeconomic influences on children

by Dr Ronelle Hutchinson and Jen Vo-Phuoc

How is it that some children living in perennially economically poor situations are able to thrive with good health, development, learning and wellbeing? Similarly, as we are increasingly discovering among children of 'middle Australia', the fortune of being born into a wealthy family does not always guarantee a child good health outcomes.

Australian children's health and development is influenced by a complex set of 'social determinants' that impact health and development in early life, but can also have serious life-long implications. Some of these, such as housing and nutrition, are well known. Others, such as attachment to primary carers and participating in high quality early childhood education, are less well understood as critical factors that influence health, development and wellbeing outcomes not just in childhood, but throughout a person's life.

The PwC Health Research Institute's latest report, *Action Required: The Urgency of Solving for Social Determinants of Health*,[32] notes that 80 per cent of a person's health is related to a person's "health behaviours, the physical environment and socioeconomic conditions". There is strong evidence that poor health often has its genesis in the first few years of childhood – including the prenatal period – when a child's health and development is shaped by the interaction of their everyday environment, experiences and their genetics. In early childhood, the influence of 'nurture' on 'nature' is not so straightforward. Prenatal life, infancy and early childhood (or the first 1000 days of life) are times when environmental factors can actually change gene expression (epigenetics) and change the development of the brain's structure (neuroplasticity). This is a critical time in life where social, cultural and economic experiences can set the course for good health, development and wellbeing for the rest of life. It can also lay the foundations for poor health and wellbeing outcomes.

When considering 'social determinants of health' for young children, they impact more than just physical health – they influence the equally important social, emotional, language and cognitive domains of development. During this unique period of life, it is unhelpful to consider 'health' of children in isolation from normal childhood development and in isolation of the wellbeing of their families. A recent report led by the Murdoch Children's Research Institute (MCRI) – *The First Thousand Days*[33] – synthesised the evidence of how 'pathways' that develop in early childhood can contribute to significant challenges in adulthood – including mental health issues, obesity, heart disease, criminality, employment outcomes and poor literacy and numeracy.

It may be tempting to lapse into hopelessness, thinking that if a child is born into a poor socioeconomic situation then they are destined to a life of poor health, education and other outcomes. The reality is significantly more complex. Many social influences of health and wellbeing act as 'buffers' or protective factors against the impact of others. A child from an economically poor family but who has a strong attachment to parents; who had adequate nutrition; who was surrounded by a strong community; who was able to access our universal child health services; and who attended high quality kindergarten – could be buffered by all these environmental influences that collectively can act to 'protect' against the lack of financial resources of their family. Social determinants of health in early childhood set a trajectory for health and wellbeing outcomes, but there is always the possibility of a change of path.

A community responsibility

It might also be tempting to say that parents are responsible for the health and development of their children – and of course, they are the key influence. Although we live in one of the most socially progressive countries in the world, many of the influences on children's health and development are beyond the control of individual families. And this, combined with the vulnerability of the very young, provides a strong argument for community and society-level interventions that promote their welfare. All levels of Australian governments have responsibility for legislation, policy, investment and system-wide supports to promote positive early childhood health and development, and to prevent and intervene for children who are, or are at risk of, not thriving.

In Australia, the national policy conversation on child health, wellbeing and development is anchored in the Australian Institute of Health and Wellbeing's (AIHW) *Children's Headline Indicators program*[34] – a series of 19 indicators endorsed and agreed to by Australia's governments in 2008. These include the most obvious factors impacting young children's health, from immunisation and breastfeeding, to education and housing. Each state and territory government has agreed to report on how children in their jurisdiction are faring against these indicators every few years. Importantly, all the indicators are influenced by government policy and investment – providing a chance to change the life trajectories of children, and groups of children.

The other principal 'scoresheet' used by governments to monitor children's health and development is the *Australian Early Development Census (AEDC)*,[35] which measures children's development based on teacher checklists in the first year of school covering their physical health, social competence, emotional maturity, cognition, and communications skills. The AEDC describes the proportion of children in a community who are on track with their development, and those that are 'at risk' or 'vulnerable' to poorer outcomes. It is a national evidence base for policy makers to assess the 'health' of children's health and wellbeing at community levels and develop policy and interventions that are place-based and tailored to the needs of the community's young children and their families.

The challenge for ‘health’ planners

And herein lies the difficulty of applying what we know about social determinants to an average Australian family. There is no average Australian family. A child who grows up in poverty, lacking some or many of the social determinants of health and wellbeing, is not necessarily consigned to a lifetime of poor health. These are trajectories that can be changed – both positively and negatively. The challenge is to identify those determinants and influences that pose a specific risk to children’s health, development and wellbeing, and introduce targeted, multi-sectoral solutions to tackle that risk. However, many of the solutions are not within the remit of the health sector alone to solve. Collective and coordinated effort is needed across health, human services, education, justice and industry sectors to intervene early and support families with young children.

Key social, economic and cultural influences on children's health, development and wellbeing

1

Poverty and low economic resources

There is a strong body of evidence, both in Australia and internationally, linking household income and wealth with child health and wellbeing – including in those countries with well-established universal healthcare systems. Not only does 'growing up poor' limit opportunities for children (whether it be access to healthcare, education or social experiences) but is often (but not always) associated with family stressors such as unemployment, unsafe communities, insecure housing, unhealthy physical environments and inadequate access to nutrition. For more information see the World Health Organization's work on the impact of poverty (both absolute and relative) and what 'works' to intervene and ameliorate the impact of low economic resources on a child's life-course.[36]

2

Quality of relationship with the primary caregiver

The strong influence of the immediate social environment on our health and development in the earliest years of life points to the overriding importance of the people closest to us – our "primary caregivers" – whether that be a mother, father/partner or other caregiver. A young child's bond with their primary caregiver – and the sense of trust, calm and security this affords – has a lasting impact on their health, development and wellbeing. Many family programs and interventions focus on building strong attachment between child and primary caregiver and on strengthening parenting capacity.

3

Exposure to stress

Unfortunately, much of our understanding about the impact of the quality of primary caregiver relationships on children's long-term health and wellbeing comes from examining situations where children have been exposed to abuse, neglect or other trauma. The recent spotlight on the high prevalence of family violence in Australia has confirmed the damage that trauma, abuse and neglect can have on a young child's wellbeing. There is also evidence of the generational transmission of trauma in our Indigenous communities, children in statutory care and asylum seeking and refugee children.

4

Access to adequate and quality nutrition

If young children do not have good nutrition in their early years (including the prenatal period) it can severely impact their long-term health and development. Sufficient nutrition in childhood is strongly linked to a family's economic circumstances. We know that a high sugar diet, fast food and other 'ultra-processed' foods all significantly raise the risk of diabetes, obesity, high blood pressure and heart disease in later life.

5

Family social capital

'Social capital' refers to the resources a family can draw on to support and enrich their lives, particularly in times of crisis – and includes friends, neighbours and community organisations, as well as one's extended family. Social capital acts as a strong protective factor for children's health, development and wellbeing and can negate some of the influence of negative social determinants on a child's life trajectory.

6

Adequate safe and quality housing

A safe, secure and adequate home, while often related to a family's economic circumstances, provides a vital foundation for a child's sense of safety, comfort and belonging. Conversely, overcrowding, transient housing or homelessness, and a polluted or unhealthy home can be seriously detrimental to a child's long-term health and wellbeing. Homelessness in Australia has grown by 14 per cent in the past five years and is a particular issue for Indigenous Australians, with 8x over-representation in specialist homelessness services. For more information on how this is being addressed see *The Constellation Project* and PwC's tackling homelessness approach.

7

Access to health services

Australian children are fortunate to have some of the best primary health care in the world, through our universal primary care system. Pregnant women can access prenatal healthcare through our public health systems. Children can usually see a GP at no cost to their family, can access a full immunisation schedule and receive infant and early childhood health and development checks from maternal child health nurses. Some are also able to access no-cost dental services. However, the availability of health services on its own does not guarantee access to, and use of, services and therefore good child health and wellbeing outcomes. Our health system has significant barriers to access for families with low health literacy, literacy or other life challenges. Tailored and targeted programs are available to support families who are experiencing disadvantage to access health services to support their family and children.

8

Participation in high quality early learning experiences

There is a rising weight of evidence that quality, play-based learning holds vital benefits from a very young age for a range of health, development and wellbeing outcomes. Participation in play groups, daycare, kindergarten and other stimulating learning environments are all beneficial for children's development and health – particularly those children who experience disadvantage. Australian children are fortunate to access universal four year old preschool. In some states and territories, children vulnerable to poorer outcomes may access an additional year of three year old kindergarten (for example, children of families holding Health Care Cards, children with a disability, Aboriginal and Torres Strait Islander children and those involved in the child protection system).

The case for early intervention in our children is clear - and is a social as well as an economic imperative to address. This requires collaboration across not just the health sector, but also engagement with families and communities, as well as collective action across human services, education, justice and industry sectors to intervene early and support families with young children. There are tangible areas of focus for action, such as housing, education and obesity - and Australia can lead the way in driving change.

Case study: obesity in our children

Obesity in children is a critical issue in Australia that will benefit from new approaches that draw on what we know about social determinants of health, development and wellbeing. 'Overweight' and 'obesity' refer to excess body fat that influences metabolism. Obesity can be described as a chronic relapsing disease condition. Describing it in this way recognises that there are metabolic and biological challenges which can make it difficult for people to keep the weight off after losing it.

In Australia, 25 per cent of children aged between two and seven years were overweight or obese in 2017-18, including eight per cent of children living with obesity.[37] The prevalence of obesity in boys in particular has risen, from five per cent in 1995 to 10 per cent in 2007-08.

Australia is not alone in grappling with the prevalence of obesity in its community. Obesity, including childhood obesity is a global issue in both developed and developing economies. Australia ranks fifth for girls and eighth for boys for obesity prevalence.[38]

Obesity is a critical issue because of the health risks it is linked to. People living with obesity are at higher risk of developing other chronic conditions such as diabetes and cardiovascular disease. We know that childhood obesity is a strong predictor of adult obesity - as it currently stands 31 per cent of Australian adults live with obesity compared to 19 percent in 1995. We also know that obesity is more common in low socioeconomic communities, which points to the fact that social determinants are playing an influential role. In particular, poverty and low economic resources as well as access to adequate and quality nutrition are critical issues in relation to obesity.

Future approaches to tackling the obesity issue should take into account these determinants, and how social, economic and cultural influences are impacting obesity in Australia. Though obesity is preventable, there are strong social, genetic, biological and environmental influences outside of a person's control when it comes to managing the condition. This means that placing the onus solely on individuals to change their own behaviour is both unhelpful and ineffective. Systematic investment both in and outside of the health system is what's needed at every step to provide the best chance of preventing further rises in obesity. Strategies need to consider how to address some of the inequities we see in in the prevalence of obesity across Australia. Examples of strategies could include:[39]

Targeting the food environment

Including food labelling, its marketing and availability to children

A focus on exercise-enabling community amenities

Such as green space, public transport and bike paths

Considering the education setting

Where children receive appropriate physical education and food, and are exposed to a broader curriculum that could play more of a role in nutrition, healthy habits and personal care

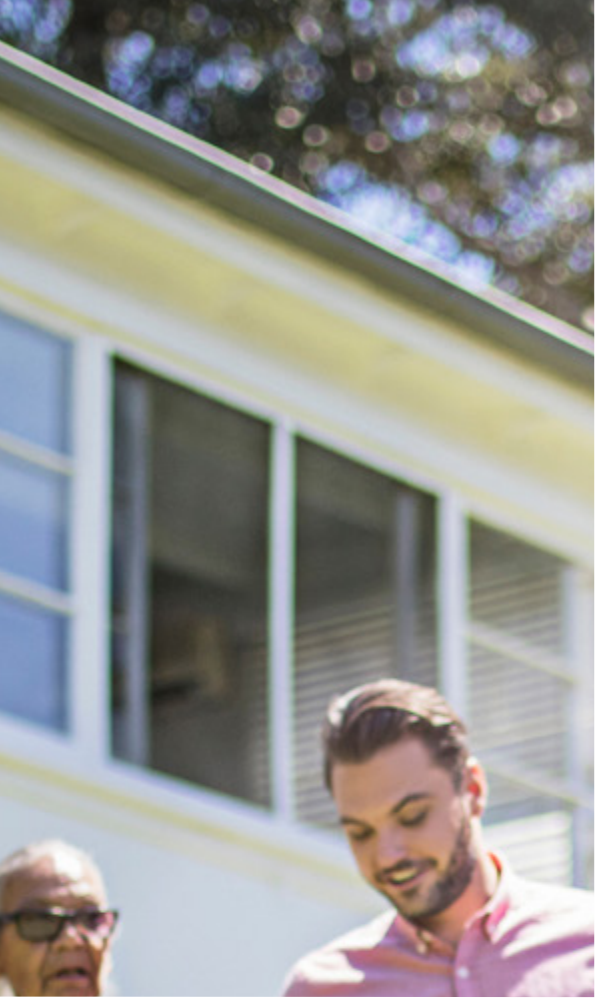
Changing the way that we engage parents

At the school or in the home in healthy lifestyles

Engaging in a "health in all policies" approach

Which means that government policies at all levels of government and in any sector are assessed for their likely health impact which can take obesity into account.

Because obesity is already so widespread across Australian society and because it presents health risks that are potentially lifelong, strategies to treat childhood obesity are needed to compliment strategies to prevent obesity. Like obesity prevention, any treatment strategies aimed at children living with obesity should also embed aspects related to an individual's social and cultural influences. For example, health professionals treating or managing obesity should consider an individual's cultural, economic and social factors that will influence the success of any intervention. For children, among other factors, this means involving their family and primary carers in a meaningful way.



3

Channelling Indigenous strengths

Self-determination and smarter policy for housing and living environments can improve the health of Indigenous Australians.

by Gavin Brown and Shane Hamilton

The importance of place has always been a source of strength for Aboriginal and Torres Strait Islander people. For thousands of years, our connection to Country and the land has been part of who we are, how we see the world, and how we live.

Right now, there is a huge opportunity to better understand these cultural strengths when making policy for housing and living environments. The result could dramatically improve the health and wellbeing of many Indigenous Australians.

To achieve this, policymakers and healthcare partners need to embrace new ways of working, where collaboration with Aboriginal and Torres Strait Islander communities becomes the norm. Meaningful change will happen when it is created by Indigenous people, not for Indigenous people.

There is much work to be done. Aboriginal and Torres Strait Islander people generally experience poorer health outcomes than non-Indigenous Australians, with a shorter life expectancy, a higher child mortality rate and a greater burden of chronic disease.[40]

Recently, June Oscar AO and Rod Little, co-chairs of the *Close the Gap* campaign, lamented that, "It is of great concern to us, the Close the Gap Campaign – as indeed it should be to the Australian nation – that the target to close the gap in life expectancy between Aboriginal and Torres Strait Islander people and non-Indigenous people by 2031 is, in 2019, widening rather than closing."[41]

The causes of poor health are of course multiple and complex. To date, efforts have centred on health, infancy and early childhood, education, employment and economic development. However, the potential impact of good housing and surrounding environments has often been underestimated.

Why focus on housing and surrounding environments?

A line can be clearly and firmly drawn between inadequate living conditions and poor health. Indeed, the World Health Organization suggests that the single most important determinant of peoples' health is the surroundings in which they are born, grow, live and work.[42]

Aboriginal and Torres Strait Islander people are as diverse as the lands we come from. But whether our people live in inner city suburbs, remote communities or elsewhere, we are more likely than non-Indigenous Australians to live in homes and surroundings that contribute to poor health outcomes.

In December 2017, the Australian Government's *My Life My Lead* report pointed out that, "A lack of adequate and functional housing and overcrowding is a significant impediment to improving all aspects of Aboriginal and Torres Strait Islander health."[43]

"Aboriginal and Torres Strait Islander people experience more than twice the burden of disease and injury of non-Indigenous Australians, and this burden of disease is highest in the most socio-economically disadvantaged areas."

My Life My Lead report, December 2017

My Life My Lead drew upon multiple sources to reveal the detrimental impact housing and surrounding areas have upon the health of many Aboriginal and Torres Strait Islander people:

Hospital admissions

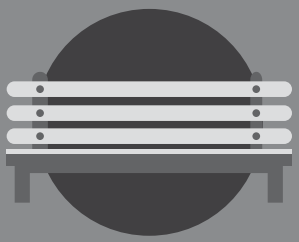
Admissions to hospital for conditions attributable to poor environmental conditions **increased between 2007 and 2014-15.**

During the same period, hospitalisations for infectious diseases for Aboriginal and Torres Strait Islander people were at least **1.5 times the rate** of non-Indigenous people in all geographical categories. Hospitalisations in remote and very remote areas **were four times higher.**

Dwellings

In 2014-15, around **one quarter of dwellings** in which Aboriginal and Torres Strait Islander people resided had major structural problems.

In remote areas, **one in six households** did not have working food preparation facilities and **15 per cent** did not have facilities for washing clothes and bedding – **double the rate of non-remote areas.**



Homelessness

In 2015-16, Aboriginal or Torres Strait Islander people only made up approximately **three per cent of the Australian population,** yet represented **one in four clients (24 per cent)** of specialist homelessness services. (For more information, see this article on a different way to address complex challenges like homelessness.)

The cycle

In addition, homelessness, inadequate housing and overcrowded housing have the potential to contribute to **higher rates of Aboriginal and Torres Strait Islander people in incarceration,** further exacerbating the cycle of disadvantage.

The size of the task in front of us cannot be underestimated – but meaningful and lasting change is within our grasp.

And it all starts with a change of perspective.

Because while unsuitable housing and challenging environments cause poor health, the reverse is also true: high-quality living environments can be a powerful way to improve peoples' health and wellbeing.

Vital pieces in the puzzle

Thanks to a range of recent research and real-life projects, the missing pieces of the puzzle involving health, housing and living environments are starting to become clearer. These are three of them:

1. Putting First Australians first

Meaningful housing and environmental policies must first put Aboriginal and Torres Strait Islander people at their centre. This needs to be more than just rhetoric. It requires a genuine and culturally competent co-design process so that when people are going to be affected by a decision, they have a real say in that decision first.

This approach has become known in some jurisdictions as 'local decision making' and it can take various forms. But fundamentally there needs to be Indigenous involvement from the beginning to design housing and community strategies with a clear focus on people's wellbeing. Governments should consider potential mechanisms for being able to talk more directly to communities. They should also consider processes that enable governments to genuinely take this input into account, and to reflect it in policies and programs. This will lead to more effective government spending, because money will be more accurately targeted.

2. Building upon cultural strengths

A remarkable strength lies at the heart of Aboriginal and Torres Strait Islander cultures. With the oldest living cultures in the world, they have demonstrated resilience and adaptability over thousands of years. Now a growing body of evidence suggests that channelling this culture could contribute to improved health and wellbeing.[44]

For Aboriginal and Torres Strait Islander people, cultural strengths can be enabled through traditional cultural practice, kinship ties, connection to land and country, art, song and ceremony, dance, healing, spirituality, empowerment, ancestry, belonging and self-determination.[45]

These factors can help form a strengths-based perspective for individuals, families and communities, because stronger connections to culture and country foster:

1. A sense of **self-esteem**
2. **Resilience**
3. **Stronger** individual and collective identities
4. **Improved** mental health
5. **Better physical health and wellbeing.**[46]

Of course, many of the Aboriginal and Torres Strait Islander people who live in metropolitan and regional areas are living off-Country and sometimes away from kin. But strong cultural determinants of health can still be enabled and maintained through languages, relationships, customs and community networks.[47]

3. Joining forces for change

The PwC global report on the *social determinants of health highlights* that 40 per cent of health outcomes are determined by socio-economic factors, 30 per cent by health behaviours and 10% by the physical environment. Many determinants of health therefore lie outside the direct responsibility of the health sector, so a collaborative approach is required across multiple sectors.[48]

Coalitions need to be formed including partners from the health sector, housing sector, Aboriginal and Torres Strait Islander community groups, government agencies, and universities. Thinking beyond traditional delivery structures and channels can also help identify how other partners (such as retailers, home health workers, educators, and technology providers) might contribute.

Each coalition partner's unique capabilities will create a stronger collective if they agree a shared purpose and framework. Clear expectations and a common language should be established, as terminology can vary between different individual organisations.

Several steps in the right direction

The good news is that the above three approaches are eminently achievable. The even better news is that we're already seeing some of these being employed in a number of projects in Australia. Following are three prime examples:

1. More than a landlord household pilot study

Aboriginal people are six times more likely than non-Indigenous Australians to live in social housing. In Victoria, there are approximately 4,280 Aboriginal social housing tenancies with tenants housed in Aboriginal Housing Victoria (AHV) properties, community-owned Aboriginal housing, community housing and public housing combined. A 2015 survey of AHV's tenants found that 60 per cent of households have one person with a long-term illness or disability (40 per cent have two or more) while 30 per cent reported mental health issues.[49]

Recognising that safe, stable and affordable housing is a first step towards improving people's health and wellbeing, AHV developed the More than a Landlord (MTAL) project with its tenants. One of the key aims of the MTAL project was to better understand the health and wellbeing needs and aspirations of Aboriginal social housing tenants and their families in a pilot area, the City of Whittlesea. However, a major obstacle to improving health outcomes for Victorian Aboriginal people is delivering services that are based on best practice.[50]

To overcome this, peer researchers were employed to survey households in the City of Whittlesea. As tenants of AHV, the researchers all lived with, or had connections to, the community participating in the survey. This helped the MTAL survey achieve higher-than-expected engagement with respondents, which in turn helped paint a much more complete picture of the health circumstances and aspirations within the community. This also helped inform recommendations to better support AHV tenants through a range of strengths-based services and activities in the City of Whittlesea. More broadly, the survey approach has since been adopted by communities in other parts of Australia.

2. Rangers Program

The Australian Government's Indigenous Rangers Working on Country Program provides a great example of empowering Aboriginal and Torres Strait Islander people through our connection to country. More than 100 Ranger groups across Australia work to protect and maintain Indigenous Protected Areas in national parks, on privately-held land, and on sea.

Each Ranger group enters into an agreement with the government to define their environmental and cultural goals (local voices are highly valued here, because nobody knows the land better than the people who live there). Each group's work is tailored to their locality, and can include activities such as protecting native plants and animals, controlling feral animals and invasive weeds, reducing dangerous wildfires, maintaining tourism and cultural sites, and more.

It's not only the flora and fauna of Australia that is benefitting from these projects. Aboriginal and Torres Strait Islander communities have reported flow-on benefits including better mental and physical health and strengthening of culture, not to mention an increase in local role models and women's empowerment.

3. Deadly Ears

Aboriginal and Torres Strait Islander children have one of the highest rates of otitis media (known as middle ear disease) in the world.[51] The disease profoundly impacts how children interact, understand and communicate with the world around them.[52]

The Deadly Ears Program aims to reduce the rates and impacts of middle ear disease and hearing loss in Aboriginal and Torres Strait Islander children.

In 11 locations in Queensland, the program delivers frontline clinical services and builds local capacity. Together, a coalition of partners has adopted a common 10-year framework to clear obstacles and fast-track efforts.

An important element of the Deadly Ears Program is supporting individuals, families and communities to increase control over their own health and reduce the risks of middle ear disease. Several Aboriginal and Torres Strait Islander community-controlled health services play a part in this, which helps put self-determination at the heart of the Deadly Ears Program.[53]

Furthermore, Deadly Ears recently kicked off a Healthy Housing project to explore the potential to improve homes and support healthy living for families. Children living in homes with poorly functioning taps, toilets, laundries and other 'health hardware' are more likely to suffer from infectious diseases including middle ear disease.[54]

The Deadly Ears Program remains a work-in-progress but its achievements are many and varied. The rate of children in the critical 0-4 age group who have attended clinic and accessed audiology has increased from 53 per cent in 2014 to 94 per cent in 2018. The rate of children able to access a hearing diagnosis in the early years age group increased from 49 per cent to 65 per cent over the same period. And more than 89 per cent of referrals made by the program in 2017 were actioned or accepted by local allied health services.[55]

Step beyond the comfort zone

The three projects we have highlighted in this article provide examples for others to follow. For government and healthcare leaders, the task of reinventing systems and alliances can appear daunting. However, policy relating to housing and living environments will have to become a pillar in future efforts to improve the health and wellbeing of Aboriginal and Torres Strait Islander peoples. This will require new coalitions to be formed involving partners from health, housing and many other sectors.

It will also require leaders to step outside their comfort zones and genuinely bring Indigenous Australians into decision-making processes. Health issues in our Indigenous communities can only be effectively addressed if we are consulted, empowered, resourced and supported to be part of strengths-based solutions. If we work together in this way, meaningful change is absolutely possible.

Read more about PwC's Indigenous Consulting firm.

4

Applying a health investment approach

To give Australians better life outcomes

by Emily Prior, Christa Marjoribanks, Rosi Winn and Roland Fan

If Australia is to improve the lives and economic participation of our citizens by supporting them to have better health outcomes, we need to spend smarter and invest more into the determinants of poor health earlier in people's lives. By applying an investment approach to health spending, it's possible to deliver both better economic and social outcomes through more targeted, earlier and prevention-oriented interventions based on data-driven insights and evidence.

Health expenditure makes up one of the largest portions of federal and state government budgets. In NSW, health accounts for 26.6 per cent of the annual budget[56], while as a nation Australia spent $185.4 billion on health in 2017-18 – more than $7400 per person[57].

That in and of itself is not necessarily a bad thing – after all, our health is one of, if not the most important things in our lives. When a person is not healthy, everything else suffers, but most particularly their quality of life. It can seriously affect their capacity to work, to socialise and to engage with their community and creates flow on impacts to their families and friends. Poor health, if not addressed, can in turn lead to ongoing disability.

The proportion of Australians who report being unable to work due to a health condition or an ongoing disability is growing. This is particularly true for mental health conditions, where the share of people receiving Disability Support Pension due to mental illness grew from 23% to 34% between 2001 and 2014, with an overall growth in the working age population from 1.1% to 1.7%[58].

There have been significant advancements in medical treatment over recent decades, and while these are welcomed, they have resulted in escalating healthcare costs. We have reached a point where no matter what efficiencies we introduce or technologies we implement, we are not going to bend the long-term cost curve for health spending unless we invest in prevention and intervene at an earlier point to help people to avoid more significant, more invasive and, ultimately, more costly healthcare treatments.

Investing early to create better futures

What is an "investment approach"?
At its simplest, an investment approach means targeting integrated services at those individuals, families and communities where a combination of risk factors suggests a high risk of long-term health, social and economic costs.

We know from work done in other countries that an investment approach to healthcare can lead to better life outcomes for citizens - not just in improved quality of life, but in the knock-on effect across all life domains, including financial wellbeing. While cause and effect are always difficult to establish, we can see many correlations between poor health outcomes and poor social outcomes, due to the intersection of a range of complex risk factors that require rigorous longitudinal analysis to unpick. Recent work in New Zealand has shown that people who are reliant on welfare, or who have lower earnings, a lower level of education attainment, or more interactions with justice and community services, are also more likely to have both more frequent and more severe interactions with health services.

Many jurisdictions in Australia and globally are starting to develop an investment approach to various government services such as welfare, education and health to generate better outcomes as well as provide better targeting of spending. Money invested in education can lead to higher earning potential, making beneficiaries less likely to become reliant on welfare or end up in the justice system, all of which results in better health outcomes as well as better quality of life overall. Similarly, investing money to help someone with a chronic health condition such as diabetes to stay in their home and in the workforce can not only reduce the number and duration of hospital admissions, it means they can retain their financial independence and contribute to the economy, reduce the burden on carers and enjoy the other benefits that this brings.

Case study:
Western Sydney Diabetes Program

Diabetes is the world's fastest growing chronic condition and is the largest burden of disease in Australia. 7 per cent of Australian's have diabetes and it is currently costing Australia $14 billion per year. 85 per cent of all diabetes is type 2 diabetes – which is largely preventable.

Western Sydney is a 'hotspot' for diabetes in Australia. Approximately 20 per cent of patients admitted to Blacktown Hospital have diabetes and this rate is growing at 1 per cent per year. In addition, more than 60 per cent of the Western Sydney population is overweight and at risk of developing type 2 diabetes.[59]

A third of people with diabetes do not know they have it. The health consequences of diabetes are devastating. Diabetes can affect the eyes, kidneys, lower limbs and can impact on cardiovascular and mental health.

The Western Sydney Diabetes primary prevention program aims to reduce the development of type 2 diabetes in the community and limit the progression of people at 'high risk' or with pre-diabetes to a formal diagnosis of type 2 diabetes.

The evidence shows that type 2 diabetes can be prevented through lifestyle intervention, weight reduction and changes to diet and exercise. Robust economic modelling demonstrates a net economic benefit of $4.65 for every $1 invested in diabetes prevention.[60]

You can read more on the Western Sydney Diabetes report here.

Having access to the right data

The key to implementing a successful investment approach is having comprehensive, reliable data for the population. From this it is possible to then build the analytical models that reflect the experience of every individual and capture the interrelated factors that influence their lives - for example, when they go to school, get married, have children and various other life events, including health events. These models can be used to simulate life scenarios and generate outcomes based on averages across cohorts. It's then possible to test different interventions to find which ones provide the biggest economic and social return on the investment and the greatest positive outcome.

In Australia, there is data available to build the sophisticated statistical models needed to implement an effective investment approach, but the data is not as comprehensive as in some other jurisdictions. Notably, in New Zealand the government has supported significant advances through the establishment of the Integrated Data Infrastructure (IDI) which integrates data collected from across a number of government agencies to support evidence-based investment in social services. All data in the IDI is de-identified and available for researchers, academics and government agencies to use to develop new initiatives and formulate policy.[61]

As yet, Australia has not managed to coordinate the same level of integration between agencies and across state and commonwealth jurisdictions to create a dataset as comprehensive as the IDI, which has implications for the level of sophistication possible for the statistical models that we can produce.

The importance of measuring 'wellbeing'

The central tenet for applying an investment approach should be to measure meaningful outcomes, both economic and social, as these are key to understanding return. In a health context, quality and length of life are important, but the challenge is finding metrics that can readily measure these. In fact, collecting more meaningful and higher quality data, and making better connections between data, is a critical enabler of not only an investment approach, but gaining a deeper understanding of the broader *social determinants of health.*

This concept essentially assumes that the investment will have a benefit for both the Australian community and for the individual (or at the very least no negative impact). For example, for cohorts at risk of developing diabetes, an investment in nutrition programs could prevent the development of the disease and associated comorbidities. As well as a reduction in direct healthcare costs, this could have flow on benefits such as the wellbeing that comes from maintaining employment, increased economic productivity for the individual and carers, and improved social interactions.

Wellbeing measurement is important in the context of an investment approach firstly to test the underlying assumption that the individual is better off, and secondly to more formally measure and factor in the return to the individual in the equation. This concept can be extended to consider broader economic and social returns to family and community in a more data-driven way than traditional cost–benefit analyses, though these still have a complimentary role to play. Given the pressures on health and social services budgets to deliver services today, having a solid data-driven foundation to investment choices to improve wellbeing in the longer-term is critical.

Initially, this should be built upon understanding and modelling future lifetime pathways for people; which factors influence these pathways; and the expected interactions of each individual with services, programs and benefits. If a detailed and comprehensive picture of a person's likely need of services and benefits can be estimated it allows the 'lifetime cost' of these future investments in interventions to be quantified and prioritised.

Investing in a healthy and productive population

Advances in medical technology is one of the key reasons that Australians are living longer lives. But this is not always matched by an improvement in the quality of life that people are experiencing. Health costs continue to rise in tandem with life expectancy, as we see more people developing chronic health conditions that require regular and ongoing healthcare interventions. With only so much money available, we need to make sure it goes as far as possible for the best possible outcome. Investing in prevention and early intervention is one way to reduce the impact of these chronic health conditions and ensure people are living quality lives and not just longer ones.

While it is never just about the economics, the very nature of an investment approach is that it involves productive spending for a net positive result. Investing in people's health means they are more active and more productive, staying in the workforce for longer and having greater quality of life in retirement to contribute in other ways, such as through volunteering. Of course, this has more than just an economic benefit – people living more active and productive lives are also living happier lives.

So where to next?

There is no shortage of complex areas within health where an investment approach could support longer term strategy and policy, for example, reducing the prevalence of chronic disease, investing in the first 1,000 days of life, early intervention in mental health and wellness, just to name a few.

Developing and embedding an investment approach to support decision making involves four interconnected programs of work:

1

A consultation exercise to agree how individuals, communities, and the sector as a whole should measure "wellbeing" and the cost that ill-health places on society. What will we measure and how will we know if various investments are reducing this cost?

2

Building the underlying statistical and actuarial models that identify who is at most risk of future poor health outcomes.

3

Evidence gathering to understand the interventions that work in improving health outcomes. This means using the statistical model to evaluate which services, or which combinations of services, are likely to deliver the highest return on investment, and for whom.

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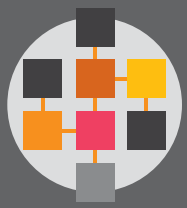

Connecting the insights from the steps above with decision-makers across the system to inform their future decisions, so that they can expand or better-target services that work, and stop services that don't.

Due to the federated nature of Australia's health system, implementing an investment approach will require a coordinated effort from commonwealth and state and territory governments. Learnings from investment approach work in other sectors in Australia and New Zealand provide some useful learnings, insights and a roadmap for the way forward.

5

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6

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