

SA PRODUCTIVITY COMMISSION INQUIRY INTO HEALTH AND MEDICAL RESEARCH IN SOUTH AUSTRALIA

Submission by Southgate Institute for Health, Society and Equity, Flinders University

The Southgate Institute for Health, Society and Equity leads high quality scholarship on the social and economic determinants of health and health equity. It was established in 2009 building on its foundation Director's role as a Commissioner on the WHO Commission on the Social Determinants of Health. The Institute conducts highly relevant public health and policy research that informs practice and policy development in Australia and overseas, in relation to the promotion of population mental and physical health and health equity, and the reduction of social and economic exclusion. Good health is not only desirable for populations and a human right, but is also a crucial factor in economic development. The Southgate Institute's research focuses on what can be done about the underlying factors that determine the distribution of health and wellbeing outcomes. It produces research knowledge on why health inequities exist, what can be done about them and how population health and the economy overall can be improved. The applied nature of the Southgate Institute's work is shown by its initiative to develop a health equity policy hub which provides summaries of its research findings and the policy implications of the research to inform practice and policy in Australia and internationally (see <https://www.flinders.edu.au/healthequity-southgate>).

In 2020, the Southgate Institute has been designated a World Health Organization Collaborating Centre to foster global research and knowledge translation on the social, political and commercial determinants of health equity.

Below we survey the recent landscape of public health research in South Australia and end our submission with a series of recommendations for the Inquiry team to consider.

The need for recognition of and focus on public health research

The South Australian Productivity Commission (SAPC) is undertaking an inquiry into health and medical research in South Australia to assess the productivity and impact of health and medical research, the performance of publicly funded research organisations and SA's competitive advantages compared to other jurisdictions.

To support this inquiry, the SAPC has produced an issues paper providing an overview of health and medical research in SA and identifying areas where the SAPC is seeking further information. This issues paper adopts the NHMRC definition of the concept of research being: *'broad and includes the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies, inventions and understandings'*. While this definition is very general, the focus within the issues paper is predominantly on biomedical and clinical research.

A complementary balance between medical research and public health research in the SAPC's inquiry is essential to ensure it considers the full spectrum of health and medical research.

Public health research has an important role in developing innovative new means to keep the population healthy and reduce health inequalities. By doing that it contributes to reducing demands on acute health services and results in a community that is not only healthy but also productive and socially resilient. Public health research is fundamentally different to biomedical research. It is concerned with understanding the health of whole populations and the incidence and origins of disease. It can determine the social, behavioural and environmental factors that support good health or increase risk of disease, and through that understanding, design and evaluate measures to keep populations healthy. Public health research is based on the premise that access to health is a human right. It is centrally concerned with the overall health of the population with particular attention to the health of groups living in disadvantage and the structural drivers of that disadvantage. Public health expenditure has been shown to be cost effective when it reduces the demand for expensive acute medical services, supports people to work productively and reduces the demand for welfare services.

Evidence shows that average life expectancy can increase at the same time as the life expectancy of the poorest communities decreases. Research undertaken by the Southgate Institute in partnership with the South Australian Council of Social Service (SACOSS) has found that while overall life expectancy in South Australia has continued to increase over the last three decades, health inequities have increased. During the period from the late 1980s to the mid-2010s, health outcomes have generally improved: life expectancy has increased, and mortality has decreased. However, inequalities in health outcomes according to socioeconomic status have increased dramatically (see Figure 1).

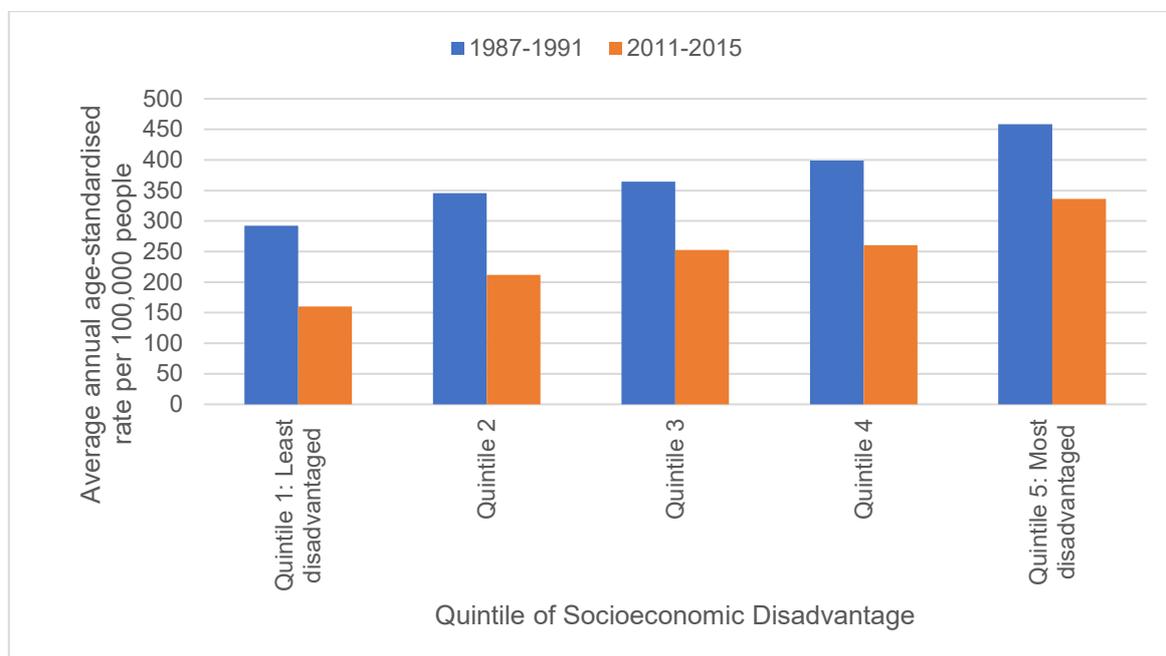


Figure 1: Rates of Premature Mortality in South Australia, ages 0 to 74, by quintile of socioeconomic disadvantage, 1987-1991, and 2011 to 2015 (Data source: Social Health Atlas, PHIDU, 2018 <http://phidu.torrens.edu.au/>)

Figure 1 demonstrates a gradient in health whereby mortality differs according to socio-economic status. A flat gradient suggests a more equal society, where a steep gradient suggests great inequalities. The gradient of health inequalities in South Australia has been getting steeper over the past decades. This is reflected in a higher inequality ratio, rising from 1.55 in 1987-1991, to 2.10 in 2011-2015, meaning that the rate of premature deaths in the most socioeconomically disadvantaged areas of South Australia is over twice the rate of premature mortality in the most socioeconomically advantaged areas of South Australia.

Inequalities have increased in all states and territories but at different rates (see Table 1). South Australia ranks second worst in terms of the greatest increase in the inequality ratio. While South Australia was the fourth most equal state/territory in 1997-2001, with an inequality ratio below the national average, this dropped to a ranking of 6th in 2011-2015, with an inequality ratio above the national average.

State	Health inequalities ratio 1997-2001	Health inequalities ratio 2011-2015	Increase in inequality ratio
New South Wales	1.59	2.11	0.52
Victoria	1.32	1.85	0.53
Queensland	1.58	1.89	0.31
South Australia	1.52	2.18	0.66
Western Australia	1.64	2.26	0.62
Tasmania	1.4	2.03	0.63
Northern Territory	3.5	4.23	0.73
Australian Capital Territory	1.39	1.87	0.48
Australia	1.55	2.06	0.51

Table 1: Changes in the Health Inequality Ratio from 1997-2000 to 2011-2015 for Deaths from all Avoidable Causes (Data source: Social Health Atlas, PHIDU, 2018, <http://phidu.torrens.edu.au/>)¹

Public health research is required as a cost effective way to monitor and investigate the causes of these inequities. If this is not done then South Australia could face a future in which overall life expectancy stalls or declines as it has among certain groups in the US and UK². Some of the essential research of this kind is done for example by the Public Health Information Development Unit (PHIDU) at Torrens University which has been acknowledged internationally by agencies such as the World Health Organization. However PHIDU is funded on a shoestring compared to the funds devoted to clinical and biomedical research.

¹ For further information on the findings of this project see: <https://www.flinders.edu.au/southgate-institute-health-society-equity/punching-above-weight-network>

² Marmot, M. 2018. Social causes of the slowdown in health improvement. *Journal of Epidemiology & Community Health*. doi: 10.1136/jech-2018-210580.

Public health research which encompasses a social determinants of health approach recognises that social, economic, physical and natural environments shape both health outcomes and health behaviours such as productive employment, smoking, diet and exercise, and use of alcohol. Public health research is multi-disciplinary, including epidemiology, health economics, health services research, and the full range of social sciences, and employs both qualitative and quantitative methodologies. It includes aetiological research as well as evaluation of policies and programs, so as to determine what works in improving population health and its social distribution.

The current coronavirus crisis illustrates well the important role of public health research and the impact it can have on public policy and action to support and deal with emerging threats to population health. Put simply, the pandemic has illustrated dramatically how medicine saves lives one at a time and public health saves millions at a time. Public health research is essential to informing how SA reconstructs its economy as we move from the first phase of the pandemic.

Research policy environment

Public health research has a history of underfunding in Australia relative to the quantum of funding available for medical research. Notably, there has been a significant decline in funding and support for public health research during the last decade both at the national level through NHMRC, and at the South Australian state level.

Until 2008 SA Health held a \$2.5m per annum grant program, the Strategic Health Research Program (SHRP) which had evolved over time. In its final years SHRP was the Department's pool of funding for strategic health research to strengthen the evidence base in key priority areas and to inform the Department's decision-making processes in relation to health policy, planning and practice. Public health research was the major recipient of SHRP grant funding. A list of projects funded in the final 2007-08 funding round is attached to demonstrate the strong public health focus of this grants program (see Attachment 1). The funding from SHRP was allocated in its entirety to SAHMRI on its establishment.

SA Health's Strategic Research Branch administered the SHRP program and other earlier grants programs and provided a contact point within the Department to negotiate funding for matched contributions to ARC linkage and other grants. The branch had a strong orientation towards public health research. It was restructured in 2015 resulting in only the research ethics and governance roles remaining. The loss of this branch resulted in a loss of a contact point for public health research within SA Health and has reduced SA's competitiveness in relation to Category 1 public health grants.

From 2013 SA Health also de-funded public health research units and reduced its internal public health research capacity. This included defunding of the South Australian Community Health Research Unit (SACHRU), which was previously co-located with the Southgate Institute and Discipline of Public Health at Flinders University. This funding was also provided to SAHMRI. The following explanation was given in correspondence to SACHRU at the time:

With the significant investment made by the South Australian Government into the South Australian Health and Medical Research Institute (SAHMRI), SAHMRI is now

recognised as the main research arm of SA Health. All research activities will eventually become part of the research framework promoted by SAHMRI.

Clinical Epidemiology Units within The Queen Elizabeth Hospital, RAH and Women’s and Children’s Hospital were also defunded.

Government policy at this time was to centralise South Australia’s research capacity within SAHMRI. However, while SAHMRI includes areas of public health/population health research activity (e.g. in relation to Aboriginal health and tobacco control), this is not SAHMRI’s core business or principal focus.

Research priorities

Key drivers for the Australian and South Australian strategic environment for health research are the unsustainable growth in costs of medical care and chronic illness (see Figure 2), the growth in incidence of preventable conditions such as obesity and type 2 diabetes, and increasing health inequities. Improving the health of Aboriginal people remains a key priority.

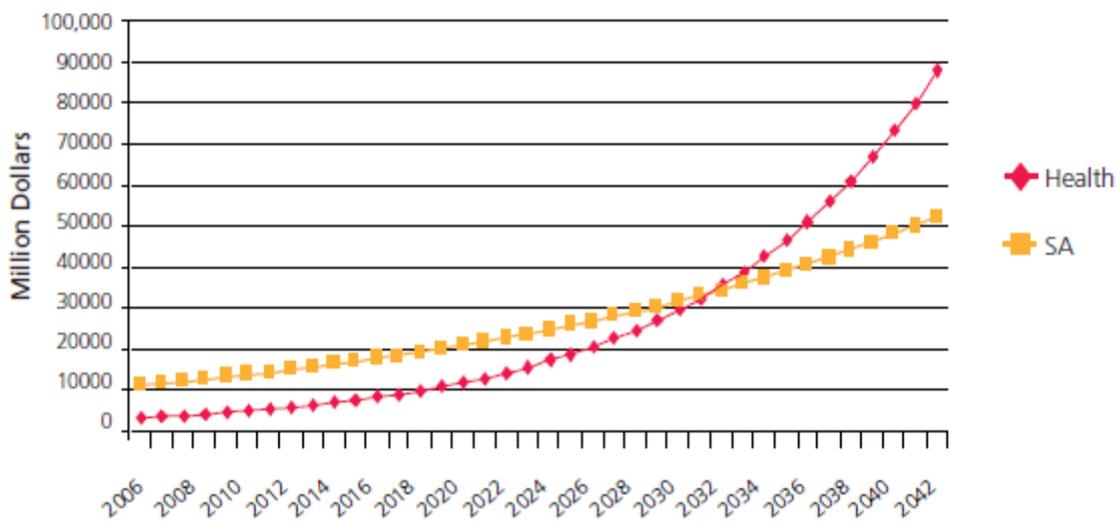


Figure 2: State budget vs health expenditure – Department of Health, 2007³

There is an urgent need for research to inform effective public health interventions, and policies in all sectors of government to promote better health, prevent disease and reduce inequities, including through actions on the social determinants of health. Disease prevention and health promotion research translated into policy and practice have significant untapped potential to reduce demand on expensive acute care services, the criminal justice system, and contribute to reversing declining education achievement of South Australian students relative to other Australian jurisdiction and countries.

Research on the present and future health effects of climate change must also be accorded high priority, as should the response to and impact of a pandemic. The emerging evidence

³ SA Health. 2011. Health in All Policies: The South Australian Approach. Government of South Australia.

from the current COVID-19 crisis is underlining the importance of not just addressing the virus but also the social and economic impacts of containing the virus and the differential impacts on population groups. From a public health perspective, these issues continue to be priorities for research.

The Southgate Institute has strong track record of research on primary health care (PHC) including a long history of collaborative research with Aboriginal Community Controlled Health Services and migrants and refugees. Effective PHC is essential to support policy goals of promoting population health, preventing disease, reducing health inequities and preventing avoidable hospitalisations. Continued research is needed to understand how the PHC sector in Australia can be supported to further strengthen its role in population health, and ensure equitable access to services.

South Australia's competitive advantage

South Australia has led the way in Australia and globally in adopting a Health in All Policies (HiAP) approach to policy development. The HiAP model has been embedded in SA with the passage of the South Australian Public Health Act 2011 and the resulting development of Public Health Partner Authorities and local government regional public health planning, as well as the establishment of Wellbeing SA. This competitive advantage was initiated and developed through strong partnerships between policy makers and public health researchers. The Southgate Institute has been prominent in working closely with the HiAP team and with Wellbeing SA, including in a collaborative 5 year NHMRC grant to evaluate South Australia's HiAP initiative.

A key success of HiAP in South Australia has been the development of health-literate policy in urban planning, which again is leading the way in Australian public policy. However, significant further research is required to ensure future urban planning and development of Adelaide as a global city is also meeting its potential to support public health. The Southgate Institute has recently undertaken research funded by the Medical Research Future Fund, to develop a 'Healthy Urban Neighbourhood Transition Tool' (HUNTT). Wellbeing SA is supporting further trialling of the HUNTT in suburbs across the Adelaide metropolitan regions to enable comparative analysis of the extent to which suburbs are liveable and likely to support healthy lifestyle choices including walking, cycling and health diets.

South Australia is leading in Australia and globally in utilisation of renewable energy. Through the application of HiAP, current SA environment sector policies are also cutting edge in recognising the major health benefits that are achievable through contact with and care for the environment and responsible, preventive action on climate change. Aboriginal and Torres Strait Islander people have a central and leading role to play, drawing on traditional knowledges and practices of how to care for country. The South Australian environment sector is again leading the way in building relationships with Indigenous communities to recognise this role. Public health research has a key role to play in improved understanding and extending the potential health benefits of care for country, and contact with nature in urban settings.

South Australia can secure its economic future by continuing to lead the world on becoming a genuinely sustainable, low carbon economy and a society; and reaping the associated benefits for public health and wellbeing, and public health research has a role to play in achieving this.

Translation of research

The role of public health research is primarily to promote the public good. While research that is likely to contribute to improved population health typically gives no or very little scope for commercialisation, it does improve community health. A narrow focus on commercialisation of new biomedical interventions as the means for research translation may contribute to increased health and medical costs, while doing little to prevent disease and promote health at a population level. It is important to recognise that in terms of ‘commercial’ returns from research, societal or public commercial benefits (such as dividends from cost savings due to more efficient health care or prevention) are equally as real and valid as commercial returns from commercialisation.

The Southgate Institute has a well-documented history of engagement with governments and a range of organisations to translate evidence into policy and practice. Public policy actions informed by public health research in areas such as environmental health, immunisation, tobacco control, nutrition, child health, mental health, social planning and health promotion have contributed to major gains in population health over the last several decades, with the role of public health research in understanding and responding to the coronavirus pandemic being a current example of this action. Such public policy actions have greatly reduced the demand on, and public costs of, expensive health care treatments for disease which would otherwise have been required. Commercialisation is simply one pathway and the evidence suggests that it comes with increased health care costs and diminishing returns for population health.

Public health research is particularly effective in delivering improved health outcomes and productivity as it puts significant effort into research translation and knowledge transfer that assist in achieving these outcomes.

Because many public policy opportunities to reduce the incidence of chronic disease, promote wellbeing and reduce health inequalities lie outside the health care sector, optimising the translation of research into better health and wellbeing requires a research program that places the value of public health research on an equal footing with biomedical research, and aims to support a mix of complementary policies and strategies to promote health, within and outside the health sector.

Recommendations

Our recommendation to the SAPC Inquiry are:

1. The SA Government re-establishes a health and wellbeing research arm to coordinate and collaborate with public health research and training across the state.
2. The SA Government re-establishes a pool of resources for shared funding for NHMRC Partnership and ARC Linkage Grants for public health research.
3. A separate public health research institute is established using a collaborative process designed to determine its form. For instance, a dispersed Institute which has hubs in areas of disadvantage is one possible model. The consultation should involve the universities, peak bodies including SACOSS, the SA branch of the Public Health Association of Australia, the Health Promotion Association, the Health Consumers

Alliance, local groups with an interest in public health such as Healthy Cities Onkaparinga, the Aboriginal Health Council of SA, and funders such as Health Translation SA.

4. Public health research receives protected funding at a level sufficient to support large programs of research which are designed to produce healthy environments. These environments include neighbourhoods, schools, universities, hospitals, workplaces, prisons, canteens, restaurants and local government regions. The Health in All Policies initiative of the SA Government is an ideal approach to drive this research.
5. The current excellence in Aboriginal and Torres Strait Islander research conducted at SAHMRI and the three Universities is continued and strengthened.
6. A centralised public health and equity policy hub is established to combine intelligence and policy recommendations from South Australian research.
7. Public health research should place a high priority on advancing skills in knowledge translation and exchange, and all projects should have a translation objective.

SA Health Strategic Health Research Program final funding round in 2007-08

Healthy Life Expectancy

1. 'Equity of bowel screening: an epidemiological and qualitative study', Chief Investigator: Associate Professor Paul Ward, Flinders University
2. 'Psychological, demographic and program variables associated with bowel cancer screening', Chief Investigator: Dr Stephen Cole, Flinders University

Health Systems Research

3. 'Health, economic, psychological and social benefits of educating carers', Chief Investigator: Professor Paddy Phillips, Flinders University
4. 'Assessing equitable and efficient solutions to reduce hospital demand', Chief Investigator: Associate Professor Jonathan Karnon, Adelaide University
5. 'Managing system and patient sequelae to the National Bowel Screening Program', Chief Investigator: Professor Graeme Young, Flinders University
6. 'Developing an evidence based health workforce planning model for primary care', Chief Investigator: Professor Leonie Segal, UniSA

Healthy Weight

7. 'Food and beverage marketing to children using non-broadcast media', Chief Investigator: Professor John Coveney, Flinders University

Psychological Wellbeing

8. 'Unpacking the mechanisms of Aboriginal wellbeing interventions for children and youth', (Research Synthesis), Chief Investigator: Dr Margaret Cargo, UniSA

Early Childhood

9. 'Does nurse home visiting improve the health and wellbeing of mothers and infants', Chief Investigator: Professor Michael Sawyer, University of Adelaide and CYWHS

Aboriginal Health and Wellbeing

10. 'Stepping Up: Mainstream Care for Aboriginal People', Chief Investigator: Professor Judith Dwyer, Flinders University
11. 'Smoking: Aboriginal Health Workers', Chief Investigator: Professor Mark Daniel, UniSA