



Submission: Strategic Review of Health and Medical Research

Cancer Council Western Australia

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Introduction

Cancer Council Western Australia is committed to funding research into all aspects of cancer, including cancer prevention, detection and treatment, as well as understanding and improving the psychological and social impacts of cancer. We are the second largest funder to competitive cancer research projects in Western Australia, after the National Health and Medical Research Council (NHMRC), committing more than \$2 million each year for cancer research. Cancer research is part of the core business of the Cancer Council and it is an activity the community strongly supports. Thanks to advances in medical research, more people with cancer are being successfully treated, but with over 200 different types of cancer there is still much work to be done. It is critical we continue to better understand the causes of specific cancer types, so we develop strategies to more effectively prevent these cancers from developing, and if they do develop to identify ways to detect them early and treat them effectively.

Cancer in Australia

Cancer is responsible for about one-fifth of the total disease burden in Australia and costs the Australian community about \$3.8 billion in direct health system costs every year.^{1,2} Since 1982 the number of Australians diagnosed with cancer has almost doubled, from 47,350 to 108,368 in 2007, and the incidence rate has increased by 27% over the same period.³ This burden and financial cost to the community will further increase given Australia's increasing and aging population and it is estimated that there will be nearly 170,000 new cancers diagnosed in 2025.⁴

Summary of Recommendations:

Australian governments need to recognise the clear need for a strong health and medical research sector to confront Australia's health priorities, in particular its increasing cancer burden. Consequently, we recommend:

Funding and strategy:

Recommendation: Federal and state governments together commit to increasing expenditure on health and medical research funding to 5% or more of their health budgets.

Recommendation: Governments facilitate access to a greater funding base to cover the indirect costs of research, such as research infrastructure.

Recommendation: The Commonwealth government and Western Australian state government recognises the importance of health and medical research and increase investment in this sector (including infrastructure support) to ensure WA remains competitive for federal research funding.

Recommendation: State and federal governments ensure research funding appropriately addresses the full spectrum of health research need, specifically:

¹ AIHW. Cancer in Australia: an overview, 2010. Cancer series no. 60. Cat. no. CAN 56. Canberra: AIHW; 2010.

² AIHW. Health expenditure Australia 2007-08. Health and welfare expenditure series no. 37. Cat.no HWE 46. Canberra: AIHW; 2009.

³ Australian Institute of Health and Welfare (AIHW). ACIM (Australian Cancer Incidence and Mortality) Books. Canberra: AIHW; 2010.

⁴ Cancers preventable by diet and physical activity in Australia. Med J Aust. (Accepted 24th January 2012).

- *health research that is of a significant public health benefit that may not have an immediate return (eg cancer prevention research);*
- *clinical and quality of life research, which is in danger of neglect due to paucity of resources and clinical workforce shortages; and*
- *research that does not translate to a substantial commercial benefit (eg basic laboratory research that increases understanding of the disease process).*

Recommendation: The Review calls for policy and funding commitments at both state and federal levels that ensure that research activity aligns with Australia’s pressing health issues, particularly cancer and other chronic disease prevention, treatment and control.

Recommendation: Provide increased federal support to initiatives that aim to establish a comprehensive, national system of linked state and commonwealth health data in Australia.

Workforce:

Recommendation: State and federal governments commit to strengthening the research workforce through: funding dedicated teaching and research positions including in clinical settings, better support for early career researchers, and ensuring strategies to involve Indigenous Australians and retain women, for example providing support to maintain research track record during maternity leave, are in place.

Recommendation: Western Australian researchers face difficulties undertaking collaborative research within Australia due to geographical distance. There is a need for ongoing federal and state government support to ensure collaborative research is approached fairly.

Management:

Recommendation: Development of comprehensive, consistent ongoing national reporting against agreed national data frameworks in order to develop clear understanding of current research activity and impact of past investment.

Recommendation: Development of processes that allow researchers to focus on research, rather than administration. This will involve developing a coordinated, streamlined approach to grant application and review processes.

Recommendation: Allow other grant-giving bodies access to the NHMRC review system

Responses to Terms of Reference:

1. Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector?

Recommendation: State and federal governments ensure research funding appropriately addresses the full spectrum of health research need, specifically:

- ***health research that is of a significant public health benefit that may not have an immediate return (eg cancer prevention research);***
- ***clinical and quality of life research, which is in danger of neglect due to paucity of resources and clinical workforce shortages; and***
- ***research that does not translate to a substantial commercial benefit (eg basic laboratory research that increases understanding of the disease process).***

Health and medical research is essential to tackling the increasing burden cancer represents to the Australian health system, community and economy. Funding for cancer research plays a vital role in improving care for people diagnosed with cancer and their health outcomes. It supports the discovery of mechanisms that cause cancer, the development of behavioural interventions that reduce cancer risk, better diagnostic techniques and treatments, and improved services and support for cancer patients. Advances in research across the spectrum of cancer control have contributed to a 30% increase in the cancer survival rate in the past two decades in Australia.⁵ As the burden of cancer on society and healthcare budgets rises, investment in cancer research is a pressing priority. Australia's health and medical research sector has a strong track record and performs exceptionally well on a global scale, but it is essential to continue to build and maintain capacity across the sector in order for it to support Australia's health priorities, and to confront its cancer burden.

We observe that aspiring to achieve an 'internationally competitive' research sector may suggest a focus on funding research that leads to commercialisation of new medical interventions. While there is certainly a role for research with commercial potential, it is critical that research funding appropriately addresses the full spectrum of health research need, which includes health research that does not have an immediate or substantial commercial return. For example, public health research has little potential for commercialisation; it is concerned with promoting the public good: measuring disease incidence and prevalence, understanding disease causation, determining the factors that keep populations healthy and testing the impact of public health interventions. We request the Review takes full account of the Nutbeam Review of Public Health Research Funding⁶, and considers the need to appropriately prioritise funding and promoting public health research against research that has scope for commercialisation. It should be noted that although public health research often has little potential for commercialisation, it can significantly reduce health system costs.

⁵ Australian Institute of Health and Welfare and Australasian Association of Cancer Registries, Cancer survival and prevalence in Australia, Cancer Series no. 42. Cat. no. CAN 38. Canberra: 2008.

⁶ National Health and Medical Research Council. Report of the Review of Public Health Research Funding in Australia, Canberra, 2008.

In 2011, only 14% of the NHMRC research funding expenditure was allocated to public health research, and the overwhelming majority was spent on medical research.⁷ Public health research has a history of being underfunded in relation to medical research funding, despite its capacity to inform interventions and strategies that impact upon health on a population basis.

We recommend the Review calls for the NHMRC to:

- Allocate a greater proportion of its research funding expenditure to public health research
- Involve public health NGOs in research priority setting
- Better support for the implementation and evaluation of large-scale, longer-term public health interventions
- Recognise and reward applicants who show evidence of engagement with policy makers and public health practitioners

Similarly, clinical research underpins excellent medical care and is recognised as leading to better patient outcomes – this means not only using the results of research done elsewhere but actually undertaking research as part of best clinical practice. Strong clinical research models have been developed in many countries, for example the NHS Clinical Research schemes, and Academic Health Science Centres in the United States. Without an emphasis on developing and enabling good clinical research we will neither achieve best patient outcomes nor be able to attract the best clinicians to our state and country. Further,

“There are widespread shortages in the oncology workforce in WA. Numbers of medical oncologists, radiation oncologists and specialist nurses are too low to meet the current demand. There are difficulties in obtaining new posts and attracting staff. Training numbers are insufficient.”⁸

This problem remains unaddressed, and places even further barriers to clinical research when there is such a substantial clinical demand on an insufficient existing clinical workforce.

Recommendation: State and federal governments commit to strengthening the research workforce through: funding dedicated teaching and research positions including in clinical settings, better support for early career researchers, and ensuring strategies are in place to involve Indigenous Australians and retain women, for example providing support to maintain research track record during maternity leave.

Active research communities are vital in Australia’s major population centres, to enable the translation of research outcomes into policy, clinical practice and program and service delivery, which can significantly improve cancer prevention, care and control. Strong commitments from both state and federal governments are necessary to continue to support and strengthen these research communities and develop the research workforce.

Currently, research funding does not adequately support positions that focus solely on research – few researchers are sufficiently funded to conduct research only. Instead, they are forced to

⁷ National Health and Medical Research Council, Research Funding Facts Book 2011, NHMRC Publication reference: NH154: Canberra, 2011.

⁸ Barton, M. Gabriel, G and Shafiq, J. Overview of Cancer Treatment Services in Western Australia. Cancer Council Western Australia, 2008.

supplement their work by teaching and administration, which diverts resources and time away from important research. Although the Future Fund will be used to partially address the shortfall, it is vital that this issue is comprehensively addressed. Consideration should be given to funding both dedicated research and teaching positions to enable researchers who choose to focus solely on research to do so. We note, however, that there is certainly a need to maintain a strong relationship between research and teaching, to allow researchers to attract and engage new students in their work.

Further, there is a strong need for conditions that better support early career researchers to establish independent research careers. Although we have an excellent education system that produces highly skilled early career researchers that are recognised worldwide, Australia is increasingly losing talented early career researchers overseas and to other career paths because support for young researchers is lacking. The definition of 'Early Career Researcher', which currently generally only includes researchers awarded a PhD less than 5 years previously, needs to be expanded in order to reflect the time taken to establish an independent, self-directed research career, and better support should be provided for them to do so. It is also important that the same definition of Early Career Researcher be used by all grant-giving bodies.

Finally, equity must be a priority in research workforce development. Building a stronger research workforce must involve strategies to retain women, for example providing support to maintain research track record during maternity leave, and to encourage the involvement of Indigenous Australians.

2. How might health and medical research be best managed and funded in Australia?

Recommendation: Federal and state governments together commit to increasing expenditure on health and medical research funding to 5% or more of their health budgets.

Health costs are rapidly outpacing GDP growth, a trend that is set to continue as the Australian population ages.⁹ Health and medical research spending currently only represents 3.4% of the total Australian Government spending on health.¹⁰ By contrast, funding for health and medical research in the United States comprised 5.6% of the health budget (\$139 billion or \$2.47 trillion) in 2009.¹¹ There is a strong need for a greater investment in research in Australia, at both federal and state levels.

We call for the percentage of the health budget spent on health and medical research to be increased to 5% or more. This would provide certainty and sustainability to the sector and ensure it is appropriately supported to face an increasingly competitive international environment. The proposed increase to federal and state health and medical research funding would also encourage investment from industry and philanthropic sources.

⁹ Research Australia. Shaping Up: Trends and Statistics in Funding Health and Medical Research, Occasional Paper Series, Two: Melbourne, 2011.

¹⁰ Ibid.

¹¹ Research!America. 2009 Investment in US Health Research, Virginia, 2009. Available at: <http://www.researchamerica.org/uploads/healthdollar09.pdf> (March 2012)

Recommendation: The Commonwealth government and Western Australian state government recognises the importance of health and medical research and increase investment in this sector (including infrastructure support) to ensure WA remains competitive for federal research funding

Currently, federal and state research funding arrangements are not co-ordinated. A national policy that promotes co-funding arrangements will help the research community to thrive.

Some State governments have legacies of ongoing infrastructure and research program support, particularly for cancer research. This infrastructure support has contributed to their increased capacity to produce quality research which serves to improve their track record and increases their ability to attract further funding. Important state government commitments are summarised below:

New South Wales: The New South Wales state government established the Cancer Institute NSW in 2003. Since 2005, the NSW Government has spent \$137.5 million on new cancer research activity in NSW, with a further \$120.8 million committed between 2011 and 2014.¹²

Victoria: The Victorian state government established the Victorian Cancer Agency in 2007. The Agency received \$15 million between 2006 and 2008, and the state government committed an additional \$78.8 million between 2009 and 2012.¹³ The state government is also involved in supporting the billion-dollar Victorian Comprehensive Cancer Centre, due for completion in 2015.

Queensland: The Queensland state government extended the cancer research capacity of the Queensland Institute of Medical Research with specialist cancer research centres in 1990 and again in 2001.¹⁴ Since 1998, the state government has been involved in establishing 36 new Queensland research institutes, such as the Institute for Molecular Bioscience and the Institute for Health and Biomedical Innovation.¹⁵ The 2008-2012 'Smart State' strategy created a \$25 million Health and Medical Research Program and established a dedicated Office of Health and Medical Research and Development.¹⁶

South Australia: South Australia's multi-million dollar flagship new research facility, the South Australian Health and Medical Research Institute, is currently being built. It will be managed and supported by the state government in collaboration with South Australian universities. The South Australian state government has also agreed to commit equally with Cancer Council SA to \$20 million in funding for the South Australian Cancer Research Collaborative.¹⁷

¹² Cancer Institute NSW: NSW Cancer Research Achievements Report 2010: NSW, 2010.

¹³ Victorian Cancer Agency, 'Frequently Asked Questions'. Available at: <http://www.victoriancanceragency.org.au/Aboutus/FAQs/tabid/96/language/en-US/Default.aspx> (March 2012)

¹⁴ Queensland Institute of Medical Research, 'About Us'. Available at: http://www.qimr.edu.au/page/About_Us/History/ (March 2012)

¹⁵ Queensland Government, 'Smart State Strategy: Queensland's Smart Future, 2008-2012. Available at: <http://203.210.126.185/dsdweb/v4/apps/web/secure/docs/4171.pdf> (March 2012)

¹⁶ Ibid.

¹⁷ Cancer Council SA, Strategic Plan 2012-2015. Available at: http://www.cancersa.org.au/cms_resources/documents/2012_15%20strategic%20plan%20complete%20191211.pdf (March 2102)

Recently, Western Australia has not done as well as some of the other states in NHMRC grants and this is attributable to lack of state government support for research. Cancer research funding information is a case in point; the report 'Cancer Research and Funding in WA: 2008-2010' reveals that the majority of cancer research funding in Western Australia was provided by the NHMRC and the Cancer Council WA, with only a 3% contribution from the state government.¹⁸

All State governments should be required to provide matched funding for national competitive grants coming into the state. State government investment into research will create dynamic, localised synergies between researchers and care providers which translate into long-term health benefits and considerable investment returns. Investment into specialised research agencies attracts and helps retain leading researchers, invites federal and international investment and research collaboratives, and contributes to the ongoing training and advancement of the local clinical and research workforces. Most importantly, dedicated research centres accelerate the rate at which research advances and discoveries are made; which translates into benefits for patients and provides hope for them, their families and the community.

Recommendation: Governments facilitate access to a greater funding base to cover the indirect costs of research, such as research infrastructure.

Australian researchers have less access to sources of funding to cover the indirect costs of research than competitors in Europe and America.¹⁹ Indirect funding sources are not consistent across jurisdictions, and the levels of funding for indirect costs vary depending on funding source and research site (university or institute). A more consistent funding base for indirect research costs would facilitate a better pan-Australian approach to knowledge development, by avoiding duplication of assessments and allocations and avoiding risks associated with competition impeding collaboration.²⁰

For example, infrastructure costs associated with both government and externally funded research projects are currently not met. A mechanism to address this issue could involve infrastructure awards that are linked to grants from any grant-giving body.

Recommendation: Development of processes that allow researchers to focus on research, rather than administration. This will involve developing a coordinated, streamlined approach to grant application and review processes.

The Australian Research Council and National Health and Medical Research Council grant application systems are time-consuming, complex and inefficient. Unification of the two systems would reduce duplication of applications and allow researchers more time to devote to doing research.

In addition, the reviewing system requires streamlining. Current wait times for grant announcements are untenable. In the United States, the NIH has 3 rounds of grant funding a year, and research can commence just six months after the date of submission of grant applications. By contrast, there is a single funding round in Australia through NHMRC and ARC, which has a ten month wait before research can commence. Grants are only announced in October, when most

¹⁸ Nicole Shirazee, Toni Musiello, Claire Johnson and Christobel Saunders, Cancer research and funding in Western Australia: An overview from 2008 to 2010. *Cancer Forum*, November 2011.

¹⁹ Research Australia, op cit.

²⁰ Ibid.

research staff are employed under contracts that expire in December. Uncertainty impacts upon confidence in job security, and can result in loss of research staff.

A coordinated approach to grant submission and review processes will reduce the burdens upon researchers and reviewers, and shorten time frames for review and announcement of awards.

Recommendation: Allow other grant-giving bodies access to the NHMRC review system

Non-government organisations and charities such as Cancer Council Western Australia have considerable proportions of their budgets devoted to research; for example, Cancer Council Western Australia funds 15% of the cancer research in Western Australia. Cancer Council Western Australia uses the NHMRC system to peer-review its project grants. There are significant advantages to using the NHMRC system as it helps to avoid funding overlap, reduces the need for researchers to apply to multiple organisations for funding (allowing more time to be spent on research), ensures that more grants are subject to a high standard of peer review, and allows more grants to be funded and be seen to be funded. The NHMRC system should be used by more grant-giving organisations.

3. What are the health and medical research strategic directions and priorities and how might we meet

Recommendation: The Review calls for policy and funding commitments at both state and federal levels that ensure that research activity aligns with Australia's pressing health issues, particularly cancer and other chronic disease prevention, treatment and control.

The cancer burden in Australia is steadily increasing and it is absolutely essential that cancer research remains a priority. Cancer research priorities should cover the full spectrum of cancer prevention, care and control, including but not limited to research into the areas of prevention, early detection, treatment, supportive and palliative care, and translation of research into practice.

More generally, funding for research should reflect the serious threat chronic, lifestyle-related diseases pose to Australians and the critical need for a strong, cohesive approach to chronic disease prevention. It follows that Australia's national health priorities, particularly those identified by the National Preventive Health Taskforce, should directly inform Australia's research activities. Policy and funding commitments at both state and federal levels should ensure that research activity aligns with Australia's pressing health issues.

Recommendation: Development of comprehensive, consistent ongoing national reporting against agreed national data frameworks in order to develop clear understanding of current research activity and impact of past investment.

It is important that health and medical research activities are appropriately and transparently reported upon. A comprehensive, consistent national reporting system would assist the development of a clear understanding of current research activity and the impact of past investments.²¹

²¹ Research Australia, op cit.

Recommendation: Provide increased federal support to initiatives that aim to establish a comprehensive, national system of linked state and commonwealth health data in Australia.

Unlike Canada, where the population-based research data needed for the planning and evaluation of health services are concentrated at the provincial level as a single tier of government, in Australia the same major health data sets are distributed across the state and Commonwealth jurisdictions. The states and territories collect population data on cancer incidence, hospital separations and deaths, whereas the Commonwealth collects data sets dealing with primary and specialist medical care, community pharmaceutical prescriptions and residential care for the frail aged and disabled. To obtain a complete picture of many aspects of health system performance in a single state, it is necessary to link together the data from that state with data from the Commonwealth, which is difficult and time consuming for researchers. A comprehensive national system of linked state and commonwealth health data is essential for the advancement of health and medical research.

4. How can we optimize translation of health and medical research into better health and wellbeing?

Recommendation: Western Australian researchers face difficulties undertaking collaborative research within Australia due to geographical distance. There is a need for ongoing federal and state government support to ensure collaborative research is approached fairly.

Although Cancer Council WA supports the need for a national approach to Australia's research priorities, national research policies are likely to encourage larger projects and increased collaboration, which create difficulties for Western Australian researchers due to the geographical barriers they face. For example, the fixed value of many travel bursaries offered by national research societies disadvantages Western Australian researchers, in particular early career researchers. It can be easier for Western Australian researchers to collaborate internationally, such as with researchers in Asian countries, than with colleagues within Australia.

In order for the Australian medical research community to move forward together, it is important that researchers based in Western Australia are offered opportunities and support from both state and federal governments that ensure a fair and inclusive approach to collaborative research projects, and are on a par with researchers who work in Australia's larger population centres.

Conclusion

Cancer Council WA strongly advocates that Australia's increasing burden of chronic disease, particularly cancer, needs to remain a key driver for research and development activity of health and medical research in Australia. Health and medical research is currently underfunded in relation to GDP growth and growing health system costs. Therefore, we call for the federal government to commit 5% of Australia's health budget to health and medical research, and states to match this commitment, to ensure the certainty and sustainability of the sector. It is crucial that the Federal Government sustains and strengthens its involvement in health and medical research, or important

research work that advances public health or the scientific discovery process but may not have scope for commercial benefit will be abandoned.

Important workforce issues, including the futures of early career researchers, equity issues and system inefficiencies, need to be addressed to ensure the sustainability and growth of the sector. Researchers require greater support in order to participate in collaborative research, and there is a critical need for state governments to prioritise research infrastructure for the country to remain competitive in the sector.

The McKeon Review recognises the host of benefits associated with a flourishing health and medical research sector in Australia. It is vital to safeguard the investments Australian governments have made into research in the past by committing to building capacity and overcoming barriers to efficient, effective, and appropriately targeted research into the future.