Joint submission to the

Strategic Review of Health and Medical Research in Australia

Clinical Oncological Society of Australia and Cancer Council Australia

Clinical Cancer Research

March 2012

The **Clinical Oncological Society of Australia** (COSA) is Australia's peak multidisciplinary society for health professionals working in cancer research, treatment, rehabilitation and palliative care with over 1600 members. COSA is an advocacy organisation whose views are valued in all aspects of cancer care. COSA provides high-level clinical advice to Cancer Council Australia.

Cancer Council Australia (CCA) is the nation's peak, non-government, cancer control organisation. Cancer Council Australia advises the Australian Government and other bodies on practices and policies to help prevent, detect and treat cancer and advocates for the rights of cancer patients for best treatment and supportive care.

Contents

Key Recommendations

The health of Australians is dependent on a sustainable and responsive health and medical research sector in Australia. Translating the results of health and medical research into clinical practice has substantially enhanced the health of Australians in recent decades. The incidence of cancer in Australia is increasing, partly due to improved treatment outcomes from communicable diseases and the subsequent ageing of the population. Cancer is currently the leading cause of the burden of disease in Australia, accounting for 19% of the burden.

The Strategic Review of Health and Medical Research in Australia is a significant opportunity to reduce the burden of cancer by increasing support for clinical cancer research, in particular clinical trials. Clinical research allows the scientific evaluation of prevention and screening tools, treatment interventions, methods to improve survivorship and assessment of the cost-effectiveness of these cancer-related programmes.

Fourteen national Cancer Cooperative Trials Groups (CCTGs) are the major organisations responsible for coordinating academic clinical cancer research in Australia. These groups have been highly successful in altering clinical practice by conducting high-quality clinical trials that address clinically relevant scientific questions. The CCTGs publish results in international peer-reviewed journals and are responsible for the outstanding reputation of clinical cancer research in Australia.

The unique opportunities these groups provide to improve cancer outcomes are at risk of being lost. The CCTGs rely on the voluntary time and expertise of their members and limited funding for infrastructure from a variety of sources. The important function of the CCTGs is not sustainable under the current levels of support.

COSA and CCA recommend that the Review Panel place emphasis on support for clinical research and clinical trials in the 10-year strategic health and medical research plan for the nation. This includes:

- A greater proportion of funds allocated to clinical research, clinical trials and comparative effectiveness research in the budget of competitive grant agencies such as the National Health and Medical Research Council (NHMRC).
- Increased funds from government health budgets for the infrastructure required for clinical trials, including databases, biobanks, quality assurance programs and administrative structures.
- Support for clinical research within health services and inclusion of enhanced research metrics (such as the number of clinical trials recruiting at the site) in the key performance indicators of hospitals.
- Improved research education for health service providers and increased support for clinician researchers.
- Facilitation of approval for clinical research projects by implementation of a streamlined process for ethical and local governance review, including the removal of the requirement for site-specific governance for clinical trials that compare approved standards of care.
- Support for consumer involvement in clinical research, especially clinical trials, by facilitating consumer consultation and reducing barriers to participation.

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

A viable and internationally competitive health and medical research sector within Australia is essential for the continued health of all Australians. Clinical research finds ways to improve currently accepted standards of care, enhance patient safety, increase productivity, reduce cost and foster innovation, and is the focus of this submission. Clinical research facilitates the practice of evidence-based health care and benefits the health outcomes of all Australians, while also contributing to the development of the Australian health workforce and growth of the Australian economy.

1.1 Improved health

The health of Australians is dependent on a sustainable and responsive health and medical research sector in Australia. The life expectancy of Australians is one of the highest in the world,[1] due in part to the translation of health and medical research into clinical practice. Australians diagnosed with cancer between 1998 and 2004 had a 61% chance of surviving for 5 years.[2] This high rate of cancer survival in Australia is most likely due to improved screening, diagnosis and treatment, a direct result of the integration of clinical cancer research within comprehensive cancer care. Despite this, cancer is the leading cause of the burden of disease in Australia today, accounting for 19% of the burden of disease, equating to over half a million years of healthy life, lost each year.1

Clinical cancer research in Australia includes both observational and interventional studies. Clinical trials are a specific type of interventional study involving the use of drugs, devices and protocols. The World Health Organisation defines clinical trials as

> *…any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes.*[3]

Decades of research have documented the success of cancer clinical trials in improving long-term patient outcomes. Properly supported clinical trial research will continue to reduce the burden of disease by improving treatments, enhancing care and developing ways to increase the quality of life for patients and survivors.

> *"Arguably, all of the major advances in cancer treatment we've achieved over the last 50 years, whether they be in understanding the role of screening for breast or colon cancer, improvements in radiation, surgery and chemotherapy or in improved support for patients and survivors, are due to the translation of research into practice, based on the evidence generated via clinical trials. If clinical trials are the engine for change, the engine needs fuel and maintenance if it is going to continue to deliver improvement in care."*
>
> Professor John Zalcberg, OAM
>
> Chief Medical Officer & Executive Director, Cancer Medicine, Peter MacCallum Cancer Centre

Appendix 1 lists the 14 national CCTGs that coordinate the majority of cancer clinical trials in Australia. These groups encompass numerous disease sites, a range of age groups from paediatric to geriatric, specialists from different disciplines (most often acting in a voluntary capacity), consumers, data managers and biostatisticians, supported by a diverse group of administrators.

The substantial body of work coordinated by the CCTGs addresses clinically important questions related to improving the health of cancer patients in Australia. The following statistics demonstrate the support for this approach within the community:

- Over six thousand clinical trials registered with the Australian New Zealand Clinical Trials Registry since its inception in 2005.[4]
- More than 18 000 Australians participated in clinical trials in 2009.[5]
- In NSW, 70% of new enrolments to cancer clinical trials between 2004 and 2006 were to non-industry trials, initiated by single investigators or led by one of the CCTGs.[6]

To optimise patient outcomes and health system effectiveness in Australia, it is essential to maintain an independent clinical research capacity through investigator-driven research clinical trials, many of which the CCTGs coordinate. Commercially driven research may not focus on key clinical questions, particularly the role of non-drug interventions such as surgery and radiotherapy, optimal clinical practice protocols and psychosocial, supportive and palliative care. [7,8] This also includes research into the comparative effectiveness of approved products, services and technologies,[9] and pragmatic clinical trials to help with clinical decision-making.[10]

Achievements of the Australian CCTGs: some examples

- A study performed by the Australian Gastro-Intestinal Trials Group (AGITG) showed there is a better chance of survival if oesophageal cancer patients have chemotherapy and radiation therapy given together just before surgery and was the fourth most read article in Lancet Oncology in 2007.[11]
- Part of the BIG trial performed by the Australia New Zealand Breast Cancer Trials Group (ANZBCTG) found that cognitive function improved after cessation of endocrine treatment in postmenopausal breast cancer patients.[12]
- The AGITG collaborated with the Trans-Tasman Radiation Oncology Group (TROG) to perform a clinical trial involving patients with locally advanced cancer of the rectum. The treatment protocols developed for the trial are now accepted standards of care around the world.
- The ANZBCTG is taking part in the IBIS-II study, the only clinical trial worldwide to investigate if the drug anastrozole can prevent breast cancer in postmenopausal women who are at increased risk of the disease.
- A trial performed by the Australia New Zealand Melanoma Trials Group demonstrated that regular sunscreen use prevents melanoma in adults.[13]
- AGITG helped develop a new drug in Australia to treat patients with advanced Gastro-Intestinal Stromal Tumours (GIST), the first effective drug for this disease and as a result of this trial available to Australians several years before the Australian Pharmaceutical Benefits Scheme (PBS) listed the drug.
- AGITG contributed significantly to a large international clinical trial published in the New England Journal of Medicine, which showed that a targeted treatment approach involving a growth factor receptor inhibitor significantly prolongs the survival of people with advanced bowel cancer.[14]
- The ANZBCTG has involved more than 13,100 women from Australia and New Zealand in ANZBCTG research programs.
- The Primary Care Collaborative Cancer Clinical Trials Group (PC4) has established effective infrastructure and governance three years after formation, evidenced by the growth in their portfolio of high quality investigator-initiated research from 10 projects in 2009 to 31 projects currently supported.
- The PC4 was established with input from consumers on its initial funding application, and they continue to include consumer representation on all PC4 committees, including a Joint Consumer Advisory Group with Psycho-Oncology Co-operative Research Group (PoCoG) in 2011.

Cancer research encompasses a broad range of studies from early drug development to the study of disease in animal models. The results of research projects often take more than 10 to 15 years to change clinical practice. In contrast, the involvement of clinicians in clinical trials allows the rapid translation of clinical trial results to the clinic, in some cases even before the trial has begun.

The benefit of conducting clinical trials in Australia is clear if we account for the time taken to implement clinical trial results from overseas. Figure one illustrates a hypothetical scenario demonstrating the timing of the outcomes of a trial performed in Australia, compared to another country (in this example the USA).

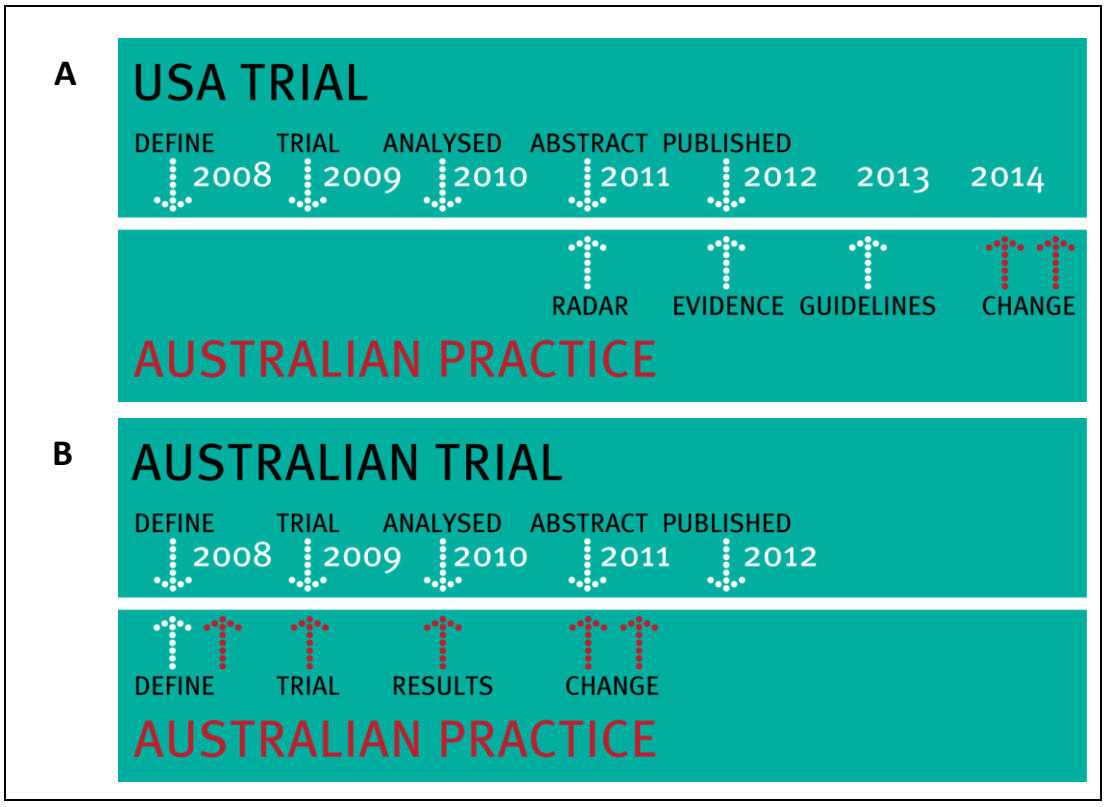

Figure 1: Hypothetical timelines for implementation of change in clinical practice in Australia due to clinical trials performed in the USA (panel A) and Australia (panel B).[15]

Clinicians in Australia become aware of the results of clinical trials performed overseas when a research conference publishes an abstract as part of the program. Complete results of the trial are available once an international scientific journal publishes the research. A systematic review by the Cochrane Collaboration found that the time from the date a clinical trial starts to the date of publication in a journal ranged from four to eight years.[16] Following publication of trial results, clinical guidelines may incorporate this new evidence and ultimately changes to practice will occur. This process may lead to implementation of change in Australia many years after the clinical question was defined (Figure 1, panel A).

In contrast, the performance of clinical trials in Australia may see the translation of results into practice earlier, in some cases immediately following design of the study (Figure1, panel B). This is a direct result of clinicians participating in clinical trials in Australia as they have early access to the

improved standard protocols developed for clinical trials and evidence for improved interventions well before the publishing of trial results.

Clinical trials invariably compare interventions (a drug, device or protocol) currently used in the clinic with new interventions aimed at improving patient outcome. This inherently involves determining the optimal standard of care currently used around the world, before making any comparisons to new methods. Clinicians must establish the evidence base supporting the current standard of care by methodical review of the medical and scientific literature. This improves their understanding of the evidence for good practice, resulting in higher standards and improvements in the quality of care.

As clinicians realise the benefits of the new standard of care they start to incorporate these changes in the clinic immediately. This benefits many more patients than the number of participants in a clinical trial, as clinicians implement the improved protocols regardless of whether or not patients are involved in the specific trial. Greater compliance and reduced variation in care protocols also occurs between sites participating in clinical trials. In fact, the effect of standardised, audited trial protocols on patient outcomes may be independent of the benefits of the intervention tested in the trial as demonstrated in the following case study.

Case Study

TROG 02.02 improves radiotherapy protocol compliance and patient outcomes.

A recent clinical trial designed by the Trans-Tasman Radiation Oncology Group to compare two treatment regimens for advanced head and neck cancer (TROG 02.02) gave the group some surprising results. The design of the trial required rigorous standardisation of protocols as it involved 89 sites in 16 countries.[17] A quality assurance review of the radiation delivery protocol at each site participating in the trial formed part of this process.

All radiotherapy plans and radiotherapy documentation underwent review for compliance with the trial protocol. Radiation oncologists received feedback on compliance to treatment protocol and could amend the radiotherapy accordingly. Despite this, the trial demonstrated a 20% decrease in the overall survival of patients 2 years after receiving treatment at sites where radiotherapy protocols were not compliant with the trial.[18]

While the trial found no benefit to patients for the chemotherapy drug tested,[18] the group has seen the radiotherapy protocol from the trial implemented around the world due to the unexpected results from the quality assurance review.

1.2 Economic benefits

Health and medical research is essential to ensuring that all Australians have optimal health outcomes by contributing to the management of health service costs, enabling productivity, promoting a high standard of care and maintaining quality of life. Clinical research encourages the leveraging of existing health resources to improve efficiency in the Australian health care system. Clinical trials in particular allow us to understand disease better, leading to better selection of treatments for patients and improved screening tools.

Cancer clinical trials performed in Australia often involve the investigation of the most appropriate introduction and use of therapies and services for cancer care. Health system expenditure on neoplasms amounted to $3.8 billion in 2004/05,[19] a significant cost to Australians. Implementation

of evidence-based treatments and protocols that are demonstrated by cancer clinical trials to improve health outcomes results in the best use of new and existing treatments and resources. Cancer clinical trials also identify which patients are most likely to benefit from new therapies and new combinations of therapies, improving the productivity of Australia's health system. Furthermore, it is possible to measure economic outcomes alongside clinical outcomes in a clinical trial.[20]

1.3 Workforce development

The performance of internationally competitive clinical research in Australia retains clinicians and scientists within Australian clinical and research institutes. Retention of this highly skilled work force enables Australia to continue to build a reputation of innovation and excellence in health and medical research that in turn attracts clinicians, scientists and funding from overseas. This pool of research expertise within Australia is then available to mentor and foster young researchers.

Traditionally the clinical community is slow to implement new treatments and protocols developed internationally due to relative inexperience with the procedure and practice in question, safety concerns and fear of unexpected side effects. Research performed in the clinic in Australia drives a culture of innovation and excellence in the provision of health care. Participation of Australian health care providers in clinical research establishes local expertise in evidence based practice as well as promoting the understanding of the benefits and risks associated with change.

Research training is a key component of education for health students at academic institutions around the world. If Australia is to deliver internationally recognised health and medical education, we must support and develop the health and medical research sector. Support for clinical research in Australia leads to improved training opportunities for clinician researchers and delivery of quality clinical education of an international standard. Moreover, support for clinical trials develops a culture of clinical investigation in the next generation of clinicians, ensuring the continuous use of previously generated evidence as the basis for new knowledge and hence improved health outcomes.

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

We would like to comment on the funding and management of clinical research within the health and medical research sector in Australia.

2.1 Allocation of funds for clinical research

Clinical research in Australia currently competes for funding with every other health and medical research sector through the peer review systems of government agencies and not-for-profit organisations. While we support the independent review and accountability measures developed by these institutions, clinical research is inherently different to basic research. Clinical research and clinical trials in particular, may take a much longer time; have fewer immediate measurable outputs, higher costs and greater regulation than non-clinical research. Funding agencies should consider the evaluation of clinical research projects using a more relevant and broader range of criteria, some of which may overlap with those used for more fundamental (or basic) research.

The bias in the current peer review system towards basic research is clear when we consider the number of applications and success rate for clinical medicine, health services and public health research (Table 1). The NHMRC awards fewer grants to clinical research compared to basic research, despite the evidence that clinical research results in improved clinical outcomes. In addition, only a small proportion of the clinical research projects that receive NHMRC funding are for clinical trials. The reduced support for clinical research in the current system is not in alignment with demands made by the community for the rapid translation of research into improved clinical outcomes.[21]

Table1 NHMRC Project Grants success rate by Broad Research Area, 2011[22]

Broad Research Area (BRA)	Total Number of Applications	Number of Applications Funded	Proportion funded by BRA
Basic Science	1721	437	25.4%
Clinical Medicine and Science	1173	232	19.8%
Health Services	132	22	16.7%
Public Health	343	80	23.3%
2011 Total	3369	771	22.9%

2.2 Support for Cancer Cooperative Trials Groups (CCTGs)

Australia has 14 national CCTGs, with a record of investigator-driven research of an international standard. In 2005, COSA and the CCTGs received an NHMRC Enabling Grant of $1.84 million over five years. This funding promoted harmonisation and efficiency in cancer clinical trials in Australia by streamlining processes and procedures to ensure the optimal use of available resources.

During the five years of funding the CCTGs achieved considerable improvements in the standardisation of practices for cancer clinical trials across Australia, including the:

- development of online registration, randomisation and drug management modules
- development and distribution of indexes for standard operating procedures
- coordination of educational programs for clinical trial staff, including the Good Clinical Practice education learning modules
- establishment of an umbrella clinical trials insurance scheme
- formation and continuation of the CCTG Executive Officers' Network
- formation and continuation of the Cancer Trials Consumer Network (with representation invited from the CCTGs)
- development of standardised Clinical Trial Research Agreements

This collaboration has highlighted the benefits of large-scale clinical research groups working together to achieve greater efficiency in processes and stakeholder engagement through the development of tools for protocol development, governance and enhancement of existing electronic data capture systems.

The CCTGs rely on the voluntary time and expertise of their members and supporters. A variety of *ad hoc* funding sources support a proportion of administrative and infrastructure costs. This currently

inadequate level of support will not sustain the unique role performed by these Groups. If the critical research performed by these Groups is to continue, Australia must allocate additional funds to clinical trials research within government health budgets and the budgets of research funding agencies such as the NHMRC.

2.3 Support for clinical trials within the healthcare system

To improve the effectiveness of clinical research in Australia it must become a core part of health care institutions. Impediments to patient access to participation in clinical trials include the current lack of support for research within health care institutions and the reduced capacity of health care providers to participate in clinical research. This unsupportive culture is a major threat to the viability of clinical research in Australia.

Health services benefit from the conduct of clinical trials by:

- Improving and standardising care protocols, minimising variation in care.
- Subsidising care through the provision of novel treatments and devices to patients at no cost.
- Fulfilling the research education component of teaching hospitals.

We recommend that participation in clinical trials becomes part of the accreditation system for Australian health services including regional and rural hospitals, general practices, and private practice and community clinics. Hospital participation in clinical research should be a key performance indicator for accreditation and key performance data should be publicly available through the MyHospitals website.[23] Performance metrics such as research based key performance indicators for hospital executive officers, senior managers and area health services (as suggested in Victoria[24]) will also encourage a culture of support for research within institutions.

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

It is the expectation of the Australian community that health and medical research will improve the health and well-being of the community. When formulating the strategic directions and priorities for health and medical research in Australia we recommend the panel consider the following points:

- A greater proportion of funds allocated to clinical research, clinical trials and comparative effectiveness research in the budget of competitive grant agencies such as the National Health and Medical Research Council (NHMRC).
- Increased funds from government health budgets for the infrastructure required for clinical trials, including databases, biobanks, quality assurance programs and administrative structures.
- Support for clinical research within health services and inclusion of enhanced research metrics (such as the number of clinical trials recruiting at the site) in the key performance indicators of hospitals.
- Improved research education for health service providers and increased support for clinician researchers.
- Facilitation of prompt approval for clinical research projects by implementation of a streamlined process for ethical and local governance review, including the removal of the

requirement for site-specific governance for clinical trials that compare approved standards of care.

- Support for consumer involvement in clinical research, especially clinical trials, by facilitating consumer consultation and reducing barriers to participation.

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

4.1 Clinical Research

While we recognise that basic research is critical to understanding disease, clinical research is the only way to facilitate translation of this knowledge into better health outcomes for Australians. We discuss the rationale behind this logic and the methods to achieve this in points 1 to 3 of this submission.

4.2 Data and Infrastructure

There are currently two census points where cancer data collection is mandatory in Australia, at diagnosis (incidence) and at death (mortality). This means data regarding treatment outcomes, quality of life and survivorship issues are seldom collected outside the context of a clinical trial.[25] This further highlights the importance of cancer clinical trials. Electronic health systems offer enormous potential to streamline data management for clinical research, to enhance patient recruitment and enable the long-term tracking of research participants.

We support the facilitation of systems and regulatory guidelines to enable remote monitoring of patient records and verification of source data for clinical trial participants. In addition, the recently developed patient-controlled e-health records (PCEHR) could enhance clinical research provided we overcome some of the privacy barriers that prevent linkages between the large health databases in Australia (e.g. the PBS and MBS). This will have major cost-saving, efficiency and data accuracy advantages for the CCTGs as well as the sector as a whole.

The establishment of tumour biobanks in Australia reflects their important role in supporting cancer clinical trials and cancer research in Australia. Seven of these biobanks work cooperatively through the Australasian Biospecimen Network.[26] The recently ceased NHMRC Enabling grant scheme funded some of these biobanks and they are struggling to find replacement funds. Biobanks are a vital resource for clinical cancer research now and in the future and must be a key component of a national strategy for health and medical research in Australia. Importantly, the funding of biobanks in the context of clinical trials allows the connection between tissue for future studies and clinical outcomes unknown at the time of collection.

Systematic biobanking of tumour samples from patients on clinical trials is a critical enabler of the development of a more personalised therapeutic approach for cancer patients. This is particularly important for trials of drugs that target specific molecules. Many of these trials aim to predict which patients are most likely to benefit from the drug, through correlation of the molecular changes in the patient's tumour to the patient's outcome. Biobanking of tumours, blood and other biological material, matched with clinical data, is essential for the success of these trials and forms a sustainable resource that will help answer the research questions of the future.

4.3 Research education and training and support for research clinicians

The delivery of quality research education and training in medical and health science faculties of Australian universities will help reduce the current gap between research and clinical practice. Embedding clinicians in laboratories and researchers in clinics will enable the transfer of knowledge and understanding between disciplines and enable better planning when establishing research projects. Ensuring the translation of research outcomes into practice also requires investment in research clinicians in acute and community health services.

4.4 Streamlined ethics approval for multi-site clinical research projects

The majority of cancer clinical trials in Australia involve a number of sites to facilitate the recruitment of the required number of participants. Each site must obtain ethical and governance approval to participate in the project. The NHMRC established the Harmonisation of Multi-centre Ethical Review (HoMER) program to streamline this process. Despite its introduction around Australia, a number of factors continue to hamper the implementation of this system, including:

- Different interpretations of the legislation and guidelines by Human Research Ethics Committees (HRECs)
- The requirement for site-specific governance even when the trial is comparing approved standards of care
- Failure of Australian State and Territory HRECs to accept ethical review by any HREC in any jurisdiction

These issues continue to delay access to new approaches to treatment for Australians with cancer.

4.5 Consumer participation

Investment in the development of an informed and engaged national consumer research body is essential for translation of health and medical research into improved health outcomes.[27] Public surveys show widespread support for the concept of clinical trials as an important means of developing superior medical care.[28,29] However, only a small proportion (2% to 3%) of eligible patients enrol in cancer clinical trials.[30,31]

At present, there is no centralised, automated system for patients to register their interest in participating in clinical trials in Australia. Army of Women[32] in the US and Register4[33] in Australia are pioneering the way by developing online communities of women interested in participating in breast cancer research projects. The development of Australia's electronic health system has enormous potential to increase participation in clinical trials and disease prevention programs by linking clinical trials recruiting participants to consumers interested in participating in research projects.

Consumer participation in research means more than being participants in research studies. Consumers are now involved in the development, review, oversight and communication of research. The terms consumer engagement, consumer involvement and consumer participation are used interchangeable in this regard. Consumer participation in research will vary relative to an individual's knowledge, interests and experiences. Best practice is the inclusion of informed consumers at all levels of decision-making as suggested by the National Framework for Consumer Involvement in Cancer Control.[34] There is sound evidence that involving consumers at all levels will lead to improved research outcomes for the benefit of all people affected by cancer.[35]

4.6 Communication

It is important that the Australian public understands the essential nature of health and medical research by communication of research outcomes to researchers, clinicians, consumers and the general community. This is likely to lead to the uptake and application of research findings, and better engagement of and support by the community for clinical research.[36]

5 Acknowledgements

COSA and CCA thank the review panel for the opportunity to make this submission to the Strategic Review of Health and Medical Research in Australia.

We would like to thank the Chairs of the Cancer Cooperative Trials Groups in Australia for contributing their time and expertise to the development of this submission.

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7 Appendix One – Cancer Cooperative Trial Groups in Australia

Cancer Cooperative Trials Groups (CCTGs)

Australia has 14 national cancer cooperative trials groups, with a record of world-class research. COSA and the Cancer Council have welcomed Commonwealth support for these groups through Cancer Australia and continue to advocate for increased and ongoing government funding for independent cancer clinical trials as we prepare for the increase in cancer incidence and prevalence.

Australasian Sarcoma Study Group (ASSG) aims to improve outcomes for sarcoma and related tumours in the Australian community by undertaking outstanding research.

Australasian Gastro Intestinal Trials Group (AGITG) is Australia's largest independent non-profit organisation conducting clinical trials into gastrointestinal cancers.

Australasian Leukaemia & Lymphoma Group (ALLG) is the only not for profit organisation designing and delivering investigator initiated clinical trial research into blood cancers.

Australasian Lung Trials Group (ALTG) is a multi-disciplinary organisation dedicated to reducing the incidence, morbidity and mortality of lung and thoracic cancer in Australia and New Zealand.

Australian New Zealand Breast Cancer Trials Group (ANZBCTG) conducts an independent, collaborative breast cancer clinical trials research program to save lives from breast cancer.

Australian and New Zealand Children's Haematology and Oncology Group (ANZCHOG) are the leading body representing the interests of children and adolescents with blood diseases and cancer.

Australia New Zealand Gynaecology Oncology Group (ANZGOG) supports collaborative research to improve outcomes of women with gynaecological malignancies through randomised clinical trials.

Australia New Zealand Melanoma Trials Group (ANZMTG) coordinates and conducts quality research for melanoma control.

Australian and New Zealand Urogenital and Prostate Cancer Trials Group (ANZUP) develops and conducts cancer research in urogenital and prostate cancers.

Cooperative Trials Group for Neuro-Oncology (COGNO) aims to conduct investigator initiated and collaborative group trials addressing important clinical questions in patients with brain tumours.

Palliative Care Clinical Studies Collaborative (PaCCSC) is a national multicentre research network to support clinical studies in palliative care.

Primary Care Collaborative Cancer Clinical Trials Group (PC4) develops and conducts cancer research in primary care.

Psycho-oncology Cooperative Research Group (PoCoG) aims to develop capacity and collaboration to conduct large-scale, multi-centre psycho-oncology and supportive care research.

Trans-Tasman Radiation Oncology Group (TROG) is a cooperative multidisciplinary organisation dedicated to the control of cancer through quality multicentre research into radiotherapy.

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