## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive summary</td>
<td>3</td>
</tr>
<tr>
<td>Introduction</td>
<td>5</td>
</tr>
<tr>
<td>The case for cancer workforce change</td>
<td>11</td>
</tr>
<tr>
<td>The National Cancer Workforce Strategic Framework</td>
<td>15</td>
</tr>
<tr>
<td>Time for action – the National Cancer Workforce Strategic Framework domains</td>
<td>18</td>
</tr>
<tr>
<td>National Cancer Workforce Strategic Framework domain 1</td>
<td>20</td>
</tr>
<tr>
<td>National Cancer Workforce Strategic Framework domain 2</td>
<td>25</td>
</tr>
<tr>
<td>National Cancer Workforce Strategic Framework domain 3</td>
<td>30</td>
</tr>
<tr>
<td>National Cancer Workforce Strategic Framework domain 4</td>
<td>34</td>
</tr>
<tr>
<td>National Cancer Workforce Strategic Framework domain 5</td>
<td>39</td>
</tr>
<tr>
<td>Glossary</td>
<td>42</td>
</tr>
<tr>
<td>References</td>
<td>47</td>
</tr>
</tbody>
</table>
Executive summary

National Cancer Workforce Strategic Framework

Health Workforce Australia’s (HWA) role has been to develop a National Cancer Workforce Strategic Framework (NCWSF) that offers a course of action to address workforce issues for the cancer control sector, and also identify key innovations and reforms with potential national application.

The purpose of the NCWSF is to provide a set of strategic options for adoption at national, jurisdictional and cancer organisation level, to add value to what is already underway, and to facilitate shifts to a more effective way of working.

Health Workforce Australia believes the NCWSF should be incorporated into national cancer care initiatives and established cancer control service delivery planning, including the Regional Cancer Centres. Cancer experts consulted in the development of the NCWSF indicate it will add value to the considerable investment in cancer infrastructure by all governments.

NCWSF vision

A right-skilled cancer workforce delivering safe, effective, consumer-centred care in the most appropriate setting which:

• Operates to its full scope of practice.
• Is flexible to changing requirements.
• Uses expert clinical staff in the most efficient and effective manner.
• Eliminates unnecessary duplication of activities for consumers at all points of care.

What would achieving this vision look like?

• The cancer workforce is planned on the basis of consumer and community need.
• The skill and capacity of the whole cancer workforce is maximised to provide optimal care.
• All workforce innovation and reform activities add value to the successes and strengths of the current system of cancer control.
• Multi-disciplinary team care, clinical leadership, and an integrated team approach continue to be fundamental to cancer clinical care, service delivery and workforce planning.
• The importance of consumers, volunteers and unpaid carers is recognised in cancer workforce planning.
• The acknowledgement that cancer is largely a chronic disease.
• All workforce innovation and reform activities include ethical consideration regarding appropriateness of treatment and seamless transition to palliative care for the ageing population.
• Priority is given to Australia’s social and cultural diversity and the promotion of equity of access and outcomes across communities, geographic areas and age groups, especially Aboriginal and Torres Strait Islander people and those from rural, regional and remote areas.
• Reform of the cancer workforce integrates with the broader health and education reforms.
• Innovation and reform is supported by robust monitoring and evaluation processes.
NCWSF priority recommendations

1. Develop the cancer workforce in alignment with agreed national best practice pathways of cancer care and current health reform initiatives.
2. Build workforce capacity to respond and adapt to the rapid rate of change in cancer care, including the impact of emerging technologies.
3. Support leadership at all organisational levels to ensure sustainability of the health system and responsiveness to the health needs of people with or affected by cancer.
4. Plan for the optimal use of skills and adoption of workforce innovation and reform, by developing data and information based on the current gaps and perceived shortages in the cancer workforce.
5. Support work by governments, regulatory, funding and policy bodies to deliver cancer workforce reform.

NCWSF strategic actions

To support attainment of the priority recommendations, five strategic actions have been identified within each of the National Health Workforce Innovation and Reform Strategic Framework for Action (2011-2015) domains for action.

Implementation of the NCWSF

HWA will work in collaboration with key stakeholders to drive the adoption and implementation of the NCWSF. This will involve building the evidence, including planning, research and evaluation. Providing this information will assist governments and key decision makers in cancer control to deliver the changes required to meet the challenges facing this workforce.

If implemented, the NCWSF will prepare a sustainable, flexible, skilled workforce to support an integrated cancer control system delivering safe, effective, consumer-centred care.

Introduction

Setting the scene

HWA was established in 2010 as a national health workforce agency through the National Partnership Agreement on Hospital and Health Workforce Reform 2008. HWA drives a strategic, long-term program which addresses the future challenges of providing a skilled, flexible and innovative health workforce. The reforms are needed to address workforce shortages and to ensure Australia’s health workforce can meet increasing demands for services resulting from an ageing population, increasing levels of chronic disease and community expectations.

The following key policy foundations form the context for HWA’s work:

1. National Partnership Agreement on Hospital and Health Workforce Reform (2009/10-2012/13)

The National Partnership Agreement (NPA) outlines the workforce reform initiatives agreed by governments to improve health workforce capacity, efficiency and productivity. These include funding, planning and coordinating clinical training across all health disciplines; supporting health workforce research and planning; improving international recruitment efforts; and progressing new workforce models and reforms.

2. Health Workforce 2025: Doctors, Nurses and Midwives

Health Workforce 2025: Doctors, Nurses and Midwives (HW2025) (Volumes 1 and 2) provides long-term, national workforce projections and presents the best available planning information on Australia’s future health workforce. HW2025 finds that without nationally coordinated reform Australia is likely to experience limitations in the delivery of high quality health services. This is a consequence of workforce shortages and maldistribution, inefficiencies and insufficient capacity in the training system, and continued reliance on poorly coordinated skilled migration to meet essential workforce requirements.
HW2025 volume 3 examines individual medical specialties in Australia and is the final volume in this series. The key findings are:

- The number of medical specialists is increasing, but the workforce is not evenly distributed.
- There are not enough general practitioners and some other medical specialists in regional and rural Australia.
- Some medical specialties are more popular than others from a career perspective.
- A growing trend toward specialisation and sub-specialisation means there isn’t enough generalists.

HW2025 volume 3 identifies the issues and opportunities to build a medical workforce that is able to sustainably service the health needs of the Australian community. Next steps involve seeking national agreement on the actions identified, progressing outcomes through collaboration and consultation, and implementing the results across the health and higher education sectors.


The National Health Workforce Innovation and Reform Strategic Framework for Action 2011-2015 has been approved by Health Ministers and provides an overarching, national policy platform to guide health workforce reform. HWA aligns all its programs and initiatives with the five domains for action identified within this framework. The five domains are the essential areas for activity for the development of a sustainable health workforce for the future.

To deliver national reform for a future health workforce, all stakeholders need to work together to provide the changes needed to deliver and support sustainable reform. This requires work by governments, regulatory, funding and policy bodies, and is why the National Health Workforce Innovation and Reform Strategic Framework for Action 2011-2015 is a key policy guide for the health sector. This framework provides a national approach to guide all stakeholders in their actions to support the changes necessary to drive essential workforce reform.

Future directions

To build a health workforce that is able to meet the health needs of the Australian community in a sustainable way, the next steps will involve seeking national agreement on the actions identified, progressing outcomes through collaboration and consultation, and implementing the results across the health and higher education sectors.

HW2025 identifies a range of policy directions covering workforce reform, training, immigration and geographical distribution that can be adopted to deliver a more sustainable health workforce.

Health Ministers have identified that the main policy levers to address the shortfall in the health workforce identified in HW2025 are innovation and reform, immigration, training capacity and efficiency, and workforce distribution.

In November 2012, Australian Health Ministers agreed to the following comprehensive set of policy responses to the findings of HW2025:

- Responding to the projected nursing workforce imbalance.
- Progressing workforce redesign.
- Aligning training and workforce need.
- Establishing a National Medical Training Advisory Network.
- Driving efficient and effective training.
- Addressing industrial barriers and enablers to workforce reform.
- Addressing legislative barriers and enablers to workforce reform.
- Streamlining clinical training funding.
- Considerations for achieving national self-sufficiency.

HWA will lead and/or support the implementation of these policy responses, consistent with its approved work plan, budget and organisational principles of building evidence, providing leadership and working in collaboration.

This work will underpin and influence the future adoption and implementation of the National Cancer Workforce Strategic Framework.
National Cancer Workforce Strategic Framework

Outcomes for Australian cancer patients have improved dramatically over the past 20 years. Current survival rates are equivalent to the best in the world. In 2006–2010 in Australia, the five-year relative survival was 66 per cent for all cancers combined. This achievement reflects strong public awareness of prevention, screening and early detection messages, evidence-based clinical cancer guidelines and proven population screening programs. Fundamental to these improvements is the high-quality work of health professionals in diagnosing and managing cancer, involvement of consumers in cancer control, effective new therapeutics and treatments, a robust health system with universal access, and a history of significant investment in cancer control measures.

HWA’s task has been to develop a National Cancer Workforce Strategic Framework (NCWSF) that offers a course of action to address workforce issues for the cancer control sector, and also identify key innovations and reforms with potential national application.

The purpose of the NCWSF is to provide a set of strategic options for adoption at national, jurisdictional and cancer organisation level, to add value to what is already underway, and to facilitate shifts to a more effective way of working.

HWA considers the NCWSF should be included in national cancer care initiatives and established cancer control service delivery planning, including the developing Regional Cancer Centres and build on the considerable investment in cancer infrastructure by all governments.

This is the first time a National Cancer Workforce Strategic Framework has been developed and HWA has drawn on the limited, existing national information about whole of cancer workforce planning, innovation and reform, and national, jurisdictional and international experiences and evidence.

Development of the NCWSF

The NCWSF was informed by the following four documents, which are available on the HWA website:

- A cancer workforce planning data inventory across the cancer continuum.
- A literature review identifying key national and international directions of cancer care and cancer control workforce development.
- An environmental scan identifying the workforce impact of current and emerging programs, examples of innovation and change already underway, and lessons learned.
- A report, including 13 case studies, describing what successful innovation and reform looks like in Australia.

HWA appointed an expert reference group, a consultancy and a clinical advisor. Consultations were held with clinical, jurisdictional and non-government representatives in each state and territory. Specific advice was sought from consumers and their carers. A full day review of an early version of the NCWSF was held with consumers and experts in cancer care, policy, planning and research. A later version of the strategy was reviewed through a six-week consultation process with representatives from jurisdictions, the Commonwealth Government, Cancer Australia and cancer expert groups. This process was complemented with a series of discussions held with the cancer workforce community. This comprehensive consultation and resulting advice has contributed to the development of the NCWSF.
Scope of NCWSF

The focus of the strategic framework is the workforce, whose primary role involves early intervention, referral, treatment, care or support of people with or affected by cancer, in a cancer service or other health service environment, including non-government, community and private health services. The NCWSF broadly follows the World Health Organisation (WHO) definition of cancer control: the continuum from research, primary prevention, secondary prevention and screening, early detection, diagnosis, treatment, survivorship and palliation. However, it was agreed the NCWSF would specifically reflect the scope of the developing Council of Australian Government (COAG) National Cancer Work Plan, which spans the continuum of care from diagnosis through treatment and support, to management of follow up care and survivorship.

Many people with a wide array of skills and competencies participate in the cancer control workforce. It is recognised that while some of these occupations are specifically devoted to cancer care in one phase of this continuum, most of the occupations contribute to multiple phases of the cancer control continuum and also to the broader general health workforce.

Policy levers

The NCWSF is aligned with the National Health Workforce Innovation and Reform Strategic Framework for Action. This framework, which has been approved by Ministers, forms the policy platform for all HWA program and strategy initiatives. The NCWSF identifies a set of workforce actions arising from the development of the strategic framework and complementary to the WIR framework. The five domains for action in the WIR framework are:

1. Health workforce reform for more effective, efficient and accessible service delivery.
2. Health workforce capacity and skills development.
3. Leadership for the sustainability of the health system.
4. Health workforce planning.
5. Health workforce policy, funding and regulation.
Consumers who were consulted during the development of the NCWSF used the analogy of a “train trip across Australia” to describe their cancer experience, emphasising that patients were the only ones to complete the whole cancer journey. They also spoke of the disjunction between the “stations” (cancer care services) and the people delivering those services. Consumers, in the main, perceive services to be provider-centred and call for a shift in focus to patient-centered care and for future workforce design and planning to be based on consumer and population needs. The development of the NCWSF was influenced by the established National Framework for Consumer Involvement in Cancer Control, produced by Cancer Australia and Cancer Voices Australia, which is designed to strengthen consumer involvement to achieve better care, beneficial policy and research to improve the lives of people affected by cancer.

In April 2010, the Council of Australian Governments (COAG) agreed that “Victoria and the Commonwealth would lead work under the auspices of Health Ministers, to report back to COAG in 2011, on the most effective cancer diagnosis, treatment and referral protocols, to be developed with expert clinical input”. The National Cancer Work Plan is a suite of initiatives, focused on providing appropriate, efficient and well-coordinated care for people affected by cancer and their families, from diagnosis through treatment and support to the management of follow up care and survivorship. Effort in these areas fits with jurisdictional cancer plans and builds on the recent investments of all governments in cancer control. The specific initiatives within the National Cancer Work Plan are: pathways of cancer care; efficient and effective cancer services; and evidence-based cancer treatment.

Both the NCWSF and the National Cancer Work Plan leverage off the existing work of the jurisdictional cancer plans and Commonwealth investments in cancer infrastructure and programs. There is broad alignment of the NCWSF with the initiatives of the National Cancer Work Plan with particular reference to the second initiative which focuses on efficient and effective cancer services and the innovative use of the cancer workforce. This also encompasses the development of agreed cancer service capability frameworks and best practice referral pathways.

The National Service Improvement Framework (NSIF) for Cancer (2006) describes what is known about high quality cancer care. This framework outlines what all Australians with, or at risk of, cancer should expect to receive though the healthcare system. The NCWSF draws on the description of optimal pathways of care in the NSIF, acknowledging the critical points for opportunity for cancer workforce innovation and reform. As services are organised and resourced very differently in different parts of Australia, the NSIF focuses on what should be expected to happen for all people with or affected by cancer, based on optimal pathways of care. This framework indicates that people and services range across a continuum from well people in their communities, through detection and diagnosis to treatment, to people living with cancer.

The five critical points of cancer control follow:
1. Reduce risk.
2. Find the condition early.
3. Have the best treatment and support during active treatment.
4. Have the best treatment and support between and after active treatment.
5. Have the best care at the end of life.

In collaboration with the cancer community, five priority recommendations were developed in alignment with the five domains of the National Health Workforce Innovation and Reform Strategic Framework for Action.

The NCWSF also reflects the continuum of cancer care outlined in the NSIF for Cancer in each of the five domains of the National Health Workforce Innovation and Reform Strategic Framework for Action, acknowledging the critical points for opportunity for cancer workforce innovation and reform.

These frameworks, HWA policy foundation documents, the four background NCWSF development reports, and advice from stakeholders have guided the development of the specific workforce innovation and reform strategic actions in each domain.
The NCWSF provides advice on what is needed to address the immediate, medium and long-term challenges facing the health system in the cancer control sector. The advice is provided for:

- Commonwealth, state, territory and local governments.
- Health service providers.
- Employers, private and non-government sector.
- Higher education.
- Training sector.
- Health professional registration and accreditation agencies.
- National agencies focused on health reform, information, efficiency, equity, quality and safety.
- Peak bodies.
- Health advocacy bodies.
- Consumers.
- Professional bodies.
- Unions.
- Student and trainee workforce.

The NCWSF addresses national cancer workforce innovation and reform strategic actions rather than operational cancer workforce issues, organisational key performance indicators or cancer control service delivery.

The cancer workforce is not immune from these challenges. Cancer is a complex disease requiring many separate treatments in different places by various health professionals. The continuing growth in the number of newly diagnosed cancer patients – combined with an increasing number of long-term cancer survivors (many with additional chronic health problems) – is likely to overwhelm Australia’s available cancer workforce. The cancer workforce will need to continue to adapt as the pace of scientific knowledge and emerging new technologies increases.

Overall, developing technology and science knowledge are moving much more rapidly than the training and education sector, such as in the area of gene research or genomics. The risk is that the gap between research and practice will open up further and faster, and existing inequalities in access and outcomes could widen. It is critical that these challenges are addressed to ensure the sustainable delivery of health services that support the health and wellbeing of Australia’s population.

Outcomes for Australian cancer patients have improved dramatically over the past 20 years. Current survival rates are equivalent to the best in the world. In 2006–2010, the five-year relative survival in Australia was 66 per cent for all cancers combined.

Despite this progress, unacceptable variation in cancer rates and outcomes remains for certain communities, including Aboriginal and Torres Strait Islanders, people in rural, regional and remote areas, low socioeconomic groups and those with poor health literacy.

Improved outcomes, measured by a reduction in cancer incidence and mortality, will be achieved when cancer is prevented, detected earlier and treated in a timely manner with the most cost effective therapy. Improvements in data collection, continued investment in basic cancer research and the development of a sustainable workforce are also critical factors to improving cancer outcomes.

Increasing cancer incidence alongside improving cancer detection and treatments may mean there is opportunity to safely change the settings in which treatments are delivered. Increasingly, primary care, community-based centres and or homes will be safe alternatives to the acute hospital setting. There is also a need for a much greater focus on survivorship and consumer self-management, with health professionals skilled in, and comfortable with, a facilitator and enabler role.

The case for cancer workforce change

Australia’s health workforce is facing significant challenges. Such challenges are well documented and include: an ageing population; increased demand for health services and increasing expectations for service delivery; a changing burden of disease plus broader labour market issues. In addition, health expenditure as a percentage of gross domestic products is rising and is projected to increase significantly in the coming decades.
All governments and many non-government organisations have made a sustained effort and considerable investment in promoting prevention programs and interventions to reduce preventable chronic diseases, including cancer. Among other measures, the National Partnership Agreement on Preventative Health provides for interventions in schools, workplaces and communities to support physical activity, improved diets, healthy weight and increased quit smoking programs. While much successful work has been done in cancer prevention, continued effort is needed.

Cancer service capabilities in Australia are constrained by many features including diverse geography and the inherent challenge of attracting and retaining a sufficient skilled workforce. Cancer treatments require highly technical and specialised health professionals. Rural and regional areas have had particular difficulty in attracting and retaining sufficient specialist cancer health professionals. HWA is undertaking work around the rural and remote workforce; developing a strategy containing 23 recommendations.

HW2025’s position is that the development and implementation of a plan to close any gaps is the key to the creation of a sustainable workforce. There are three primary levers through which this can occur:

• Reform: this may include changes to scopes of practice, increased use of assistants, the introduction of new workforce or workforce models, and broader application of technologies such as e-Health and telehealth.

• Training: this may involve reforms to the education pathway, interventions to ensure particular skills are developed for the future or training new types of workforce.

• Immigration: this is often used as a short-term demand-management strategy. Over a longer planning horizon, better management of migration pathways for international health professionals can occur in combination with training and reform.

Australia’s health system is highly reliant on international health professionals (IHPs) to provide health services to the community. The proportion of international medical graduates is significantly higher in rural, regional and remote areas, where 41 per cent of all doctors have trained overseas (up to 70 per cent in some communities). HW2025 highlights the likely ongoing demand for employment of international health professionals, at least in the short to medium term, as part of a comprehensive strategy to meet projected health demands.

Encouraging and supporting participation in the health workforce by the Aboriginal and Torres Strait Islander population and focusing strongly in its development and retention must be a priority in future health workforce reform. HWA has recently undertaken work to strengthen and sustain the Aboriginal and Torres Strait Islander health workforce to deliver care in response to the known burden of disease in Aboriginal and Torres Strait Islander communities. The final report on the HWA project makes 27 recommendations and HWA is facilitating an implementation plan based on these recommendations.

Cancer care is most effectively delivered by a skilled cancer workforce able to deliver multi-disciplinary team care in a range of settings, with effective role delineation and coordinated treatment. Effective use of the whole spectrum of required health professionals across the various stages of the cancer journey is essential for optimal outcomes, good support for people affected by cancer and their families as well as the efficient use of a sparse workforce. It is widely recognised that the best workforce approach is health professionals working in a structured team environment that enables appropriate delegation of clinical activities and formalised communication of treatment plans and decisions. In this way, patients and people affected by cancer can access the care they need in a timely manner without necessarily having to see multiple health professionals working in discrete and demarcated roles and settings.

The establishment of Regional Cancer Centres is one mechanism which will help to address the poorer outcomes experienced by some cancer patients, provide better support for people affected by cancer and their families living in rural, regional and remote communities. Services will align with state and territory cancer plans and focus on identified patient treatment gaps through a collaborative network of linked private and public services, both locally and nationally, to provide quality multidisciplinary care for patients.
Links between Regional Cancer Centres, primary care and designated specialised metropolitan care, and clearly defined standards of care will ensure that cancer treatment is given at the most appropriate location, depending on the type and complexity of the tumour, the available specialty skills and specific circumstances. Strong links with regional and metropolitan cancer services and timely discharge summaries will help health professionals provide support and information to aid cancer patients, their families and carers.

Managing efficient follow-up care and effective survivorship will be a major future workforce challenge to achieve optimal cancer outcomes. It is now recognised that some cancers can be managed as a chronic disease. In the future, much of the responsibility for effective follow-up care will be with primary healthcare professionals as cancer is increasingly managed in the community setting. Effective quality care will demand better vertical integration of services and more coordinated care across sectors.

Survivorship is now recognised as a distinct phase of cancer control. In recognition of cancer survivors’ ongoing physical and psychosocial needs, new models of care are evolving to improve follow-up and coordination of care and reduce demand on oncologists. It has been suggested some needs could be addressed by transitioning care of most cancer survivors to primary care or community-based health professionals following treatment. Ensuring a smooth transition and meeting survivors’ complex care needs requires better communication and coordination of care between all health professionals involved in post-treatment care, particularly cancer specialists and primary care providers.

It is also recognised that demand for palliative care is growing rapidly. This is due to various factors, including an ageing population, an increase in the awareness of the benefits of palliative care, and an increase in non-cancer referrals to palliative care.

Stakeholders consulted during the development of the NCWSF identified consumer expectations around survivorship, follow-up and palliative care as factors in workforce planning. The increasing role of the consumer and carer as partners in the cancer care team with regard to their overall health choices needs to be fully acknowledged and accommodated. One of the case study sites took a population-based approach in the development of its community palliative care model to design a workforce with skills and capabilities to meet community expectations of safe and quality end-of-life care.

Many jurisdictions have workforce plans and innovative strategies to meet the growing needs for cancer services and the NCWSF takes account of these plans. At a national level, HW2025 examined cancer workforce modelling, limited to radiation oncology, medical oncology and diagnostic radiology, concluding the workforce supply of these specialities is perceived to be in shortage. It highlighted the importance of service and reform scenarios in best addressing the gap between supply and expressed demand. HWA also undertook a study on medical physicists, which indicated this workforce is vulnerable. Although the modelling for nursing is relevant, it is not able to be separated into what is directly devoted to providing cancer services from more general nursing care.

HW2025 volume 3 identifies geographic maldistribution of the total medical workforce, also present for general practice and a number of other medical specialties. Under current policy settings, the future projected growth of medical graduates is unlikely to make significant inroads into relative geographic equity. While maldistribution usually refers to potential shortages in rural and regional areas, it also includes potential oversupply in major metropolitan centres. Until there is better coordination and matching of vocational training positions to health system requirements, these imbalances will continue and likely worsen with the increasing supply of graduates from Australian medical schools.
It is timely, therefore, to develop a National Cancer Workforce Strategic Framework that aligns with increasing cancer incidence, new technology, a stretched workforce and increasing consumer expectations. However, effective workforce strategies have a long lead time and require considerable planning and investment. These strategies will need to address aggregated workforce numbers as well as appropriate investigation of the workforce composition, new models of care and role delineation.

What would successful cancer workforce change look like?

- All workforce innovation and reform activities add value to the successes and strengths of the current system of cancer control.
- The cancer workforce is planned on the basis of consumer and community need.
- The skill and capacity of the whole cancer workforce is maximised to provide optimal care.
- Multi-disciplinary team care, clinical leadership, and an integrated team approach continue to be fundamental to cancer clinical care, service delivery and workforce planning.
- The importance of consumers, volunteers and unpaid carers is recognised in cancer workforce planning.
- Priority is given to Australia’s social and cultural diversity and the promotion of equity of access and outcomes across communities, geographic areas and age groups, especially Aboriginal and Torres Strait Islanders and those from rural, regional and remote areas.
- The recognition and importance of appropriate cancer follow-up care and the seamless integration of palliative care services.
- Reform of the cancer workforce integrates with the broader health and education reforms.
- Innovation and reform is supported by robust monitoring and evaluation processes.

Implementation of the NCWSF: Next steps

HWA will work in collaboration with key stakeholders, such as jurisdictions, the National Cancer Expert Reference Group, key cancer experts, and people with or affected by cancer to drive the adoption and implementation of the NCWSF. This will involve building the evidence, including planning, research and evaluation. Providing this information will assist governments and key decision makers in cancer control to deliver the changes required to meet the challenges facing this workforce.

Addressing the challenges facing the cancer workforce cannot be achieved in isolation. It will require national coordination across levels of government, higher education, regulatory bodies, employers, industry, the professions, the private and the not-for-profit sector.

HW2025 identifies a range of policy directions covering workforce reform, training, immigration and geographical distribution that can be adopted to deliver a more sustainable health workforce.

Health Ministers have identified that the main policy levers to address the shortfall in the health workforce identified in HW2025 are innovation and reform, immigration, training capacity and efficiency, and workforce distribution.

Almost all health systems are dealing with costs growing at unsustainable rates which are not being matched by a rise in revenue. Adoption and implementation of the NCWSF will support increased capacity through productivity gains, workforce redesign and, where identified, increased workforce numbers. HWA recommends current and emerging cancer workforce and workplaces adopt the NCWSF.

If implemented, the NCWSF will prepare a sustainable, flexible, skilled workforce to support an integrated cancer control system delivering safe effective consumer-centred care.
National Cancer Workforce Strategic Framework vision

The vision for the NCWSF is a right-skilled cancer workforce delivering safe, effective, consumer-centred care in the most appropriate setting which:

• Operates to its full scope of practice.
• Is flexible to changing requirements.
• Uses expert clinical staff in the most efficient and effective manner.
• Eliminates unnecessary duplication of activities for consumers at all points of care.

The enablers to achieving the NCWSF vision include:

• Sustaining the productive change that is already occurring in the cancer workforce across jurisdictions and cancer organisations.
• Developing the cancer community’s understanding of the current status of the cancer workforce, of where it needs to move to, and promoting an appreciation of why change is necessary.
• Supporting change in health workforce policy, regulation and funding.
• Implementing the National Cancer Work Plan initiatives to develop efficient and effective cancer services.

Figure 2: Required shift in the cancer workforce

<table>
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<th>Current status</th>
<th>Future workforce</th>
</tr>
</thead>
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<tr>
<td>Roles-based</td>
<td>Skills-based</td>
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<tr>
<td>Vertical and hierarchical professional decision making</td>
<td>System-wide, multi-disciplinary, consumer-focused care</td>
</tr>
<tr>
<td>Discretionary use of information and communication technology</td>
<td>Universal uptake of information and communication technology</td>
</tr>
<tr>
<td>Individualistic practice based on interest and skills</td>
<td>System-wide, evidence-based practice subject to benchmarking</td>
</tr>
<tr>
<td>Change is optional</td>
<td>Change is embedded in a flexible, adaptive workforce</td>
</tr>
<tr>
<td>Health professionals as experts</td>
<td>Health professionals as facilitators of self-care</td>
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The cancer workforce –
two scenarios

There is a clear alternative facing Australia’s cancer control workforce:

If we do nothing

At the macro level, the NCWSF exists in an environment where, without nationally coordinated reform, Australia is likely to experience limitations in the delivery of high-quality health services as a consequence of:

• Workforce shortages – highly significant in the case of nurses and less so for doctors.
• Maldistribution of the medical workforce resulting in less accessible services in rural, remote and outer metropolitan regions.
• Bottlenecks, inefficiency and insufficient capacity in the training system, especially for doctors.
• Continued reliance on poorly coordinated skilled migration to meet essential workforce requirements – with Australia having a high level of dependence on internationally recruited health professionals, relative to most other OECD countries.

If we act now

The vision embodied in the NCWSF addresses the challenges facing the cancer control sector. The rationale for implementing the NCWSF strategic actions includes:

• Increasing the capacity to retain the existing workforce.
• Easing pressure on acute care services.
• Improving productivity and efficiency of services.
• Matching the needs of consumers to the mix of health professional skills available and the setting in which treatment is provided.
• Implementing more broadly successful local innovations, with the potential to improve capacity and quality of care.
• Supporting the supervision capacity needed to develop the next generation of the cancer workforce.
• Reaping the benefits of new science and technology.
• Meeting the needs of people from culturally and linguistically diverse backgrounds.
• Improving the coordination and integration of service delivery.
• Increasing equitable access to health services for vulnerable communities.

Time for action –
introduction to the National Cancer Workforce Strategic Framework domains

HWA has developed a National Cancer Workforce Strategic Framework (NCWSF) that offers a course of action to address workforce issues for the cancer control sector, and also identifies key innovations and reforms with potential national application.

The purpose of the NCWSF is to provide a set of options for adoption at national, jurisdictional and cancer organisational level, to add value to what is already underway, and to facilitate shifts to a more effective way of working in the future. The NCWSF, if adopted and implemented, will prepare a sustainable, flexible, skilled workforce to support an integrated cancer control system delivering high quality services.

The NCWSF draws on the description of optimal pathways of care in the National Services Improvement Framework (NSIF) for Cancer, acknowledging the critical points for opportunity for cancer workforce innovation and reform.

The NCWSF is aligned with the National Health Workforce Innovation and Reform Strategic Framework for Action 2011-2015. This framework forms the policy base for all HWA program and strategy initiatives.

In collaboration with the cancer workforce community, five priority recommendations were developed to align with the five domains of the WIR framework. Each chapter of the following section of the NCWSF is introduced through the five domains of the WIR framework and the five NCWSF priority recommendations.

In each of the chapters, five specific NCWSF strategic actions are identified for adoption and implementation. HWA will work in collaboration with key stakeholders to drive the adoption and implementation of the NCWSF.
Domain 1

### National Workforce Innovation and Reform Framework domains

- **Health workforce reform for more effective, efficient and accessible service delivery.**
- **Health workforce capacity and skills development.**
- **Leadership for the sustainability of the health system.**
- **Health workforce planning.**
- **Health workforce policy, funding and regulation.**

### National Cancer Workforce Strategic Framework priority recommendations

- **Develop the cancer workforce in alignment with agreed national best practice pathways of cancer care and current health reform initiatives.**
- **Build workforce capacity to respond and adapt to the rapid rate of change in cancer care, including the impact of emerging technologies.**
- **Support leadership at all organisational levels to ensure sustainability of the health system and responsiveness to the health needs of people with or affected by cancer.**
- **Plan for the optimal use of skills and adoption of workforce innovation and reform, by developing data and information based on the current gaps and perceived shortages in the cancer workforce.**
- **Support work by governments, regulatory, funding and policy bodies to deliver cancer workforce reform.**
Reform cancer workforce roles to improve productivity and support more effective, efficient and accessible service delivery models that better address population health needs.

Emerging evidence indicates there are four broad areas where workforce reform and innovation are needed to support improvements in productivity and to support effective, efficient and accessible services for consumers:

1. Changing roles and scopes of practice of the existing workforce, while ensuring the existing cancer workforce is working to its full scope.
2. Taking into account the setting where treatment is delivered in line with best-practice.
3. Changing models of care in response to advances in research and technology.
4. Transforming the service delivery model using enablers such as eHealth.

The NCWSF expert cancer workshop held in Melbourne in 2012 resolved an optimal future cancer workforce needs to allow for flexibility as a key workforce principle within the multi-disciplinary team model. While acknowledging the specialised nature of much of cancer care, many stakeholders consulted during the development of the NCWSF advocated for the development of more generalist allied health and cancer nursing roles for outpatient settings, Regional Cancer Centres and community settings. Describing the need for functions or skill sets within teams creates the opportunity to apply new ways of thinking about workforce composition.

HW2025 identifies significant geographic maldistribution of the medical workforce, including specialists. Current policy settings are unlikely to make significant inroads into this geographical inequity. The expanded scope of practice nurse endoscopist project is a workforce model that complements the medical workforce and will give safe, quality options to regional patients who might otherwise have to travel long distances for the service.

Stakeholders consulted during the development of the NCWSF identified some inefficient practices such as extended follow-up in the specialist acute care setting and unnecessary duplication of tests. This highlights the need for improved information flow, best practice referral pathways and implementation of shared models of cancer care between hospital and community settings. Stakeholders recommended the development of expanded scopes of practice, support or assistant roles to address challenges in meeting demand in acute care settings, and increasing the capacity of the primary healthcare sector.

Optimal use of health workforce occurs when all health workers are enabled to work at the top of their scope, as this boosts overall productivity and maximises retention. A range of skills are required, including advanced practice for health professionals, such as nurses, technicians, radiation therapists, social workers and Aboriginal and Torres Strait Islander practitioners. There is also capacity for assistant level workers (diploma and certificate level IV) to support health professionals, such as medical oncologists, radiation oncologists and medical physicists, to work to their full scope, and in many cases, this can also be supported by technology. HWA reports have identified the workforce supply of medical oncologists, radiation oncologists and medical physicists as in perceived shortage or vulnerable, and highlighted the importance of service and reform scenarios in best addressing the gap between supply and expressed demand. The Commonwealth is supporting a program addressing the workforce pressures in radiation oncology through a review of advanced practice for radiation therapists.

Current health reform initiatives emphasise a refocus on wellness, prevention, screening and primary healthcare. The National Primary Healthcare Strategy provides a roadmap for the establishment of Medicare Locals. Medicare Locals are a key component of the Australian Government’s health reform agenda, and have been established as regional primary healthcare planners to drive improvements in primary health care. Medicare Locals are working collaboratively with general practitioners, other primary healthcare providers, Local Health Networks, and communities to better integrate and coordinate the delivery of healthcare services. This aligns with change in cancer services and workforce models, including an increased focus on coordinated patient-centred care, interdisciplinary practice and multi-disciplinary teams, a shift to ambulatory and community care settings, and an increased emphasis on psychosocial support needs and palliative care.
In addition, the nature and place of post-acute follow-up is changing. In consultations relevant to the development of NCWSF, there was widespread support for a greater role for primary care, particularly in prevention, follow-up, survivorship and palliative care. However, it was also observed that further work is needed to formalise the role of GPs, pharmacists, nurses, psychologists and other health professionals across the continuum of cancer care.

People affected by cancer have diverse survivorship needs and stakeholders report that they require flexible models of follow-up care across acute and primary healthcare settings. For example, the Australian Cancer Survivorship Centre (ACSC), based at the Peter MacCallum Cancer Centre, aims to improve survivorship outcomes for people affected by cancer. Using the perspective that survivorship begins at diagnosis, the ACSC aims to develop a range of resources to support professionals and consumers to improve survivorship experiences and outcomes9.

Population screening programs perform a vital role in early detection of cancer. At present, national population screening programs exist for cervical, breast and bowel cancers and there is international research underway into the feasibility of screening for other cancers such as prostate and lung cancer10. Any additional programs would require assessing workforce capacity.

Most cancers, however, are detected by people presenting to health professionals with suspicious symptoms of cancer. Improved pathways of care from initial suspicious symptoms of cancer through to assessment and accurate diagnosis would assist both health professionals and patients. Practical navigational aids and better psychosocial support are much needed for people affected by cancer.

Stakeholders identified several effective cancer workforce innovations, such as extending the scope of the general pharmacy workforce to deliver oncology pharmacy services. Stakeholders also highlighted that inefficiencies can flow from fee-for-service funding models, and that the current restructuring of primary care through Medicare Locals could provide opportunities to consider different funding models to support revised models of cancer care.

As the National Broadband Network (NBN) is implemented, technologies such as telehealth and telemedicine should facilitate improved communication and support for both health professionals and people with cancer. The National E-Health Transition Authority (NEHTA) is developing national eHealth infrastructure. Meanwhile stakeholders highlight the need and support for interim eHealth initiatives ahead of the implementation of the fully operational Personally Controlled Electronic Health Record (PCEHR).

Advances in cancer detection and treatment technologies, such as stereotactic radiosurgery, genetic and genome testing and oral chemotherapy agents, may necessitate an increased focus on survivorship, rehabilitation and the management of long-term side effects within the community. Such advances may also require additional workforce skills such as ensuring health professionals are suitably equipped to refer people to genomic services that will provide appropriate testing in a quality assured, ethical and clinically supported environment.

HW2025 consultation identified an increased expressed demand for anatomical pathology beyond that expected through an ageing population. Contributing factors to this demand include the incidence of cancer combined with the increased complexity per case, and genetic technology. HW2025 reported some perceived difficulty in filling positions, either through maldistribution or insufficient workforce. HW2025 indicates the service and workforce reform scenario has the greatest impact on reducing the existing gap, and minimising a potential future gap between supply and demand. This aligns with NCWSF stakeholder feedback.

The NCWSF uses the critical intervention points outlined in the National Service Improvement Framework for Cancer. The following table acknowledges, within this domain, the critical points for opportunity for cancer workforce innovation and reform.

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8. In addition, the nature and place of post-acute follow-up is changing. In consultations relevant to the development of NCWSF, there was widespread support for a greater role for primary care, particularly in prevention, follow-up, survivorship and palliative care. However, it was also observed that further work is needed to formalise the role of GPs, pharmacists, nurses, psychologists and other health professionals across the continuum of cancer care.

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### Domain 1 strategic actions

<table>
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<tr>
<th>1.1 Adopt national service capability frameworks, referral protocols and cancer care pathways that will:</th>
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</thead>
<tbody>
<tr>
<td>a) Promote shared care between specialists and primary care sectors.</td>
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<tr>
<td>b) Ensure efficient use of the time and skills of all service providers.</td>
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<tr>
<td>c) Increase the use of specialist nurse practitioners and advanced practice nurses.</td>
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<tr>
<td>d) Develop patient navigator functions within a team to help people with or affected by cancer with continuity of care, reduced duplication, and improved access and treatment completion.</td>
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<tr>
<td>e) Progress the assignment of non-clinical tasks to the non-clinical workforce to optimise productivity in patient care.</td>
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<tr>
<td>1.2 Support the primary healthcare workforce to enable the safe transfer of appropriate services from specialist and hospital based services.</td>
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<tr>
<td>1.3 Build workforce capacity and capability to deliver cancer care, through supporting the effective implementation of a national roll-out of shared care follow-up care in specific cancers, initially in early-stage breast and bowel cancer.</td>
<td></td>
</tr>
<tr>
<td>1.4 Review the medical laboratory workforce to better match tasks undertaken and skills required to address the workforce pressures generated by increasing demands and adaption to new technologies.</td>
<td></td>
</tr>
<tr>
<td>1.5 Address the perceived gap in access to specialist pharmacy, psychosocial, follow-up, survivorship and rehabilitation services through role redesign.</td>
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</table>
### Domain 2

#### National Workforce Innovation and Reform Framework domains

- Health workforce reform for more effective, efficient and accessible service delivery.
- Health workforce capacity and skills development.
- Leadership for the sustainability of the health system.
- Health workforce planning.
- Health workforce policy, funding and regulation.

#### National Cancer Workforce Strategic Framework priority recommendations

- Develop the cancer workforce in alignment with agreed national best practice pathways of cancer care and current health reform initiatives.
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- Plan for the optimal use of skills and adoption of workforce innovation and reform, by developing data and information based on the current gaps and perceived shortages in the cancer workforce.
- Support work by governments, regulatory, funding and policy bodies to deliver cancer workforce reform.
Develop an adaptable cancer workforce equipped with the requisite competencies and support that provide team-based, inter-professional and collaborative models of care.

Stakeholders identified the following key shifts needed to underpin changes to the way the cancer workforce is educated and trained:

- A shift from traditional professions and hierarchies to considering roles and skills that align with the cancer care pathway, matching the level and type of skills to consumer need.
- A recognition that developing new treatments means more people can be managed safely in the sub-acute and primary care settings by a range of health professions outside the acute hospital or specialist setting.
- A recognition that cancer education and clinical training (which often occurs in hospitals and other clinical settings) requires the support of the clinical education workforce.
- Support for healthcare providers who assist people with cancer to better self-manage.
- A recognition that appropriate and sensitive delivery of complex cancer information requires skilled communicators.

A long-term strategy to develop cancer workforce capacity and skills requires effective collaboration and strong, transparent links between the education and health sectors. One approach to facilitate this could be to map the skills needed to support best consumer outcomes at all stages of the patient journey (including prevention and early intervention), as the basis for redevelopment of approaches to education, training, CPD and role redesign.

Stakeholders consulted during the development of the NCWSF reported growth in the number of people in the cancer workforce who are trained social workers and provide psychosocial support to the patient during their journey and also the growth in cancer care coordinators who are nursing trained. Cancer patients require psychosocial support and care coordination. Nurses and social workers are highly qualified to deliver this support and care. However, there is a need to make better use of this workforce. There is a need to support and recognise the value of retaining the generalist roles to free capacity within these two professions to provide highly specialised care.

Improvements in some treatments and reduced side effects offer the opportunity to safely change the settings in which treatments are delivered. Increasingly, primary care, community-based centres and or homes will be safe alternatives to the acute hospital setting. If managed well, these opportunities will allow for a reduction in the pressure on hospitals and specialist outpatient clinics. The flow-on effect could mean significant increases in the availability of specialist care in the acute phases of the patient journey and throughout the patient journey for the most complex cases. Online, point-of-care, evidence-based treatment resources and needs assessment tools can support primary care practitioners to take up broader roles, help to identify consumer needs and complexities, and increase efficiencies in coordinated care.

Significant innovation already exists in Australia. An example is the development of Comprehensive Cancer Centres and Regional Cancer Centres to integrate multi-disciplinary research, education, clinical teaching and care. In Australia this could lead to cost-effective multi-disciplinary models of care and education, with large volumes of patients receiving quality acute care services, handled efficiently in co-located services in an integrated service. Where appropriate, people with cancer can then be transitioned into the primary care setting for follow-up care.
Workforce capacity to support the delivery of palliative care services in ways that align with consumer choice requires attention. The palliative care workforce needs to be able to work seamlessly from the home to the hospice and in and out of the acute care sector if necessary. Organisational barriers to the provision of responsive and seamless care need to be removed and the skills necessary to meet consumer needs need to be identified.

Access to education, training and support is limited for health professionals working with rural, regional and remote populations and with communities such as the Aboriginal and Torres Strait Islanders. Information and communication technologies, such as telehealth, play a key role in increasing productivity and efficiency when used as a means of providing treatment and advice, networking between providers and continuing professional development and mentoring. A Clinical Oncological Society of Australia workshop\textsuperscript{11} stressed the importance of functional networks for attracting and retaining workforce in regional and rural areas. Similarly, a mentoring network based in regional and rural areas would draw on local experience outside of metropolitan centres. The participants saw the ability of networks to reach across service and jurisdictional boundaries as important, especially for the delivery of integrated care services in regional rural areas.

The Aboriginal and Torres Strait Islander health workforce plays a pivotal role in increasing the awareness of Aboriginal and Torres Strait Islander people about cancer and addressing the cultural barriers that impede their access to cancer services. A positive step in building the capacity of this workforce is the introduction of an accredited Certificate IV education course in cancer care for Aboriginal and Torres Strait Islander health workers.

However, all cancer health professionals require a national suite of education, CPD and support materials, improving their cultural competencies when working with Aboriginal and Torres Strait Islander people.

Coordinated planning needs to involve all relevant groups (including universities, medical colleges, professional bodies, cancer peak bodies) and settings where clinical training at the bedside or in the clinic or in the home occurs (such as hospitals, Regional Cancer Centres, primary care settings).

With the growing incidence of cancer and increasing survival rates, health professionals across all disciplines and sectors increasingly interact with people affected by cancer. This means that cancer care needs to be a part of all health professional education.

Self-management by cancer patients has the potential to reduce the demand on the health system by providing effective care that consumers are satisfied with, at a low cost. The Australian Safety and Quality Goals for Healthcare include effective partnerships between consumers and healthcare providers. They outline the principles of consumer-centred care. Partnerships with consumers are embedded in health reform and underpin the safety and quality of all healthcare in Australia\textsuperscript{12}. A major focus needs to be the associated workforce requirements to facilitate the capacity of consumers to be better self-mangers, (as clinically appropriate and desired). An example of tools to meet that goal is through the use of Stanford and Flinders Programs for management of chronic conditions\textsuperscript{13}14.

Following the NCWSF expert cancer workshop in April 2102, a review of literature on the role of genomics in cancer care highlighted that research tools of today will become commonplace diagnostic tools in the future. Internationally, there have been a number of think tanks and government inquiries that have noted the need for a timely and strategic response to advances in genomic medicine at the system level\textsuperscript{15}16. This will require consideration of the role delineation required, including discussing and describing the functions or skill sets required within teams, such as genetic counselling. Any new roles would require consideration of the need for regulation.
The need for education and training programs for volunteers, carers and consumers will increase too, as the potential offered by improving treatments allows for and requires more treatment outside the acute care setting and a greater emphasis on self-management and self-care.

Better consumer health literacy about cancer is also needed, especially in relation to cancer symptoms that require early and appropriate assessment. Consumer advice and involvement in developing information and educational tools is essential for improved outcomes. The Cancer Councils and other non-government organisations have long been engaged in producing effective and well received consumer resources and educational Information. Cancer Australia has also produced evidence-based advice and resources for consumers.

Stakeholders consulted during the development of the NCWSF reported the value of enabling the current cancer workforce to have capacity to participate in research. This may positively affect cancer workforce recruitment and retention. It may also influence clinician capacity to develop and manage clinical trials and to disseminate examples of initiatives which successfully build research capacity. One such example is the Translational Cancer Research Program, which aims to encourage collaboration between academic and clinical leaders. Another example is the provision of fellowship positions in research in radiation oncology.

More generally, the rapidly developing knowledge in cancer control requires the continual update of education, training and CPD programs to support the cancer workforce.

New ways of delivering education and CPD can help address this gap as demonstrated by projects such as EdCan, eviQ, eviQEd, Cancer Australia’s online education modules and the Program of Experience in the Palliative Approach (PEPA).

The details are:
- EdCan is a national competency-based framework and learning model for nurses.
- eviQ provides online evidence-based cancer treatment education and information for health professionals, consumers and carers.
- eviQEd provides point of care CPD practice.
- PEPA includes supervised clinical placements in specialist palliative care services (community and in-patient), post-placement support and other learning resources.

There is emerging evidence that supports inter-professional education, training, and an increasing role for primary care and generalist workers. A move in this direction would require the development of core competencies for the cancer workforce such as the core competencies for nursing developed by Cancer Australia. In line with the management of cancer as a chronic disease, this is likely to include training in areas such as palliative care, psycho-social and prevention, as well as communication, decision-making and cultural competence. There is opportunity to implement appropriate role substitution and delegation subject to competency-based credentialing across the cancer control workforce.

The NCWSF draws on the National Service Improvement Framework for Cancer. The following table acknowledges, within this domain, the critical points for opportunity for cancer workforce innovation and reform.
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<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Develop governance arrangements to strengthen relationships, mentorships and partnership across sectors/networks or boundaries, an example of which is two-way clinical rotations for staff from rural, regional and remote and metropolitan locations.</td>
</tr>
<tr>
<td>2.2</td>
<td>Support the development of competencies to prepare the cancer workforce for current and emerging technologies, such as genomics.</td>
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<tr>
<td>2.3</td>
<td>Upskill the cancer control workforce to assess and respond to consumers’ supportive care needs and offer point of care interventions and or referral.</td>
</tr>
<tr>
<td>2.4</td>
<td>Equip and support Aboriginal and Torres Strait Islander people who work in the health system and in cancer control teams with a national suite of education, CPD and support materials, such as the accredited Certificate IV education course in cancer care.</td>
</tr>
<tr>
<td>2.5</td>
<td>Develop national standards and support structures for the recruitment, training, recognition and retention of volunteers.</td>
</tr>
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</table>
Domain 3

National Workforce Innovation and Reform Framework domains

- Health workforce reform for more effective, efficient and accessible service delivery.
- Health workforce capacity and skills development.
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National Cancer Workforce Strategic Framework priority recommendations

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- Support work by governments, regulatory, funding and policy bodies to deliver cancer workforce reform.
National Cancer Workforce Strategic Framework: preamble for domain 3

**Develop leadership capacity at all organisational levels to support and lead cancer workforce innovation and reform.**

Effective leadership is a critical factor for successful workforce innovation and reform. Leadership is needed to:

- Drive change and mobilise the workforce towards a common goal.
- Address the everyday challenges in providing quality care for people with or affected by cancer.
- Support work satisfaction and commitment and promote trust in management.
- Build a positive workplace culture, and lift individual and collective performance.

The cancer control sector has a strong national leadership base that is supported by a number of well-established peak and lead agencies at state and territory levels. These professional, consumer and interdisciplinary groups (cancer community) need to be centrally positioned in implementation efforts.

Throughout the case study sites visited for informing the NCWSF, examples of excellence in leadership and innovation were evident. It was clear that leadership was needed to initiate and achieve innovation, particularly in a rural or remote context. Looking more broadly, people with and affected by cancer are increasingly encouraged and supported to lead, advocate for, and represent their peers. For example, in Aboriginal and Torres Strait Islander communities, different concepts of leadership may exist that must be acknowledged and supported by joint decision making, priority setting, and constant learning and reflection.

The weight of evidence for what works in leadership development, in line with findings about effective adult learning, training and development, suggests that workplace-based programs strongly linked to practice have the greatest chance of effecting real change, which requires engagement with health service executive and managers. Health service executives and managers of cancer care services play an important role in identifying clinicians with leadership potential, and equipping them with the time, space, resources and information required to make change happen. Other ways to support leaders include recognition and reward systems, offering business and administration mentoring programs, and fostering an organisational culture that encourages clinical leadership for change and improvement.

Stakeholders consulted during the development of the NCWSF highlighted the need for leadership skills in promoting collegiality within and across professions, and a required commitment to multi-disciplinary team care and consumer engagement. Cancer care is most effectively delivered by a skilled cancer workforce able to deliver multi-disciplinary team care in a range of settings, with effective role delineation and coordinated treatment. Effective use of the whole spectrum of required health professionals across the various stages of the cancer journey is essential for optimal outcomes, good support for people affected by cancer and their families as well as the effective use of a sparse workforce.

A growing body of literature affirms the importance of clinical leadership for effective change in the health sector. A recent HWA literature review around leadership stated there is specific need for frontline clinical leaders, who will be well placed to influence best practice at the service level, as well as indirectly at the organisational level. In the cancer sector, a recent evaluation of Cancer Australia’s Cancer Service Networks National Demonstration Program (CanNET) found that effective clinical leadership was a critical success factor for cancer service network development. The evaluation also concluded that CanNET illustrated the power of a guiding coalition of respected and emotionally intelligent clinicians who could create a vision, promote the network to their peers, and facilitate change. Stakeholders consulted during the development of the NCWSF identified some barriers to effective clinical leadership were workloads including a lack of requisite leadership skills among clinicians, and inadequate support for clinicians in leadership roles.
HWA is developing Health LEADS Australia; an Australian health leadership framework that will define the leadership capabilities required of health leaders, create a common language around health leadership and embed an agreed approach to health leadership in early career training and education and in accredited continuing development. There is substantial literature on leadership skills that can be used in developing new leadership programs for the cancer workforce. Many leadership programs, though not specific to cancer, also offer principles that apply to this workforce. Some cancer-specific leadership programs do exist for clinicians (such as the UK’s Clinical Leadership in Cancer Care program) and for carers and consumers (such as the Cancer Councils). Evidence is increasing about the link between consumer-centred care and clinical outcomes. Consumer-centred care and partnerships with consumers have been associated with decreased readmission rates, decreased healthcare acquired infection rates, reduced length of stay, and improved adherence to treatment regimens. These kinds of outcomes provide benefits across the healthcare system, including benefits for primary, acute and aged care services.12

People with cancer require better coordination of their care. The coordination function must be driven by the consumer’s need. It is essential to use multi-disciplinary team care with effective and timely communication between all members, so that services across the patient journey are seamlessly integrated. This is particularly important when considering the different boundaries of profession, geography, jurisdiction and the setting of care. The NCWSF draws on the National Service Improvement Framework for Cancer. The following table acknowledges, within this domain, the critical points for opportunity for cancer workforce innovation and reform.

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### Domain 3 strategic actions

| 3.1 | Strengthen the cancer workforce capability to lead the shift in culture to team-based contemporary cancer care such as ensuring all disciplines are involved in leadership development opportunities related to role redesign and working in multidisciplinary teams. |
| 3.2 | Develop a national recognition program to showcase achievements in leadership for innovation and reform in the cancer control workforce. |
| 3.3 | Support health service managers to mentor and support emerging clinical leaders. |
| 3.4 | Equip leaders to promote oncology as a career, such as in medical oncology, radiation oncology, cancer nursing, allied health and supportive care. |
| 3.5 | Support programs to develop leadership skills for consumer and carer representatives, with a focus on groups that are currently under-represented such as rural, regional and remote consumers, Aboriginal and Torres Strait Islander people, and adolescents and young adults. |
Domain 4

National Workforce Innovation and Reform Framework domains

Health workforce reform for more effective, efficient and accessible service delivery.

Health workforce capacity and skills development.

Leadership for the sustainability of the health system.

Health workforce planning.

Health workforce policy, funding and regulation.

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Support leadership at all organisational levels to ensure sustainability of the health system and responsiveness to the health needs of people with or affected by cancer.

Plan for the optimal use of skills and adoption of workforce innovation and reform, by developing data and information based on the current gaps and perceived shortages in the cancer workforce.

Support work by governments, regulatory, funding and policy bodies to deliver cancer workforce reform.
National Cancer Workforce Strategic Framework: preamble for domain 4

Enhance cancer workforce planning capacity, taking account of current and emerging health needs and changes to health workforce configuration, technology and competencies.

Systems-based workforce planning is facilitated through an understanding of:

- The models of care or care pathway.
- How the related professions work together to create the service system.
- Existing cancer workforce planning activities; an example is the HWA National Cancer Workforce Strategy Framework planning data inventory.

Workforce planning can inform innovation and reform by identifying pressure points in the system and areas for priority attention. Equally, scenario planning can be used as a way of modelling the national outcomes of implementing innovation and reform strategies.

HWA’s Health Workforce 2025: Doctors, Nurses and Midwives found that the medical profession overall looks sustainable into the future. However there are a few pressure areas in the distribution across specialties, and there is likely to be a chronic shortage of nurses in the medium to long term. This will have implications for the cancer workforce.

HWA, in collaboration with key stakeholders, is undertaking work to address the predicted nursing shortfall. HWA’s policy response to HW2025, will involve developing the evidence to inform a comprehensive national approach to respond to the projected imbalance in the nursing supply, with a particular focus on factors known to influence workforce supply, such as retention, productivity, skill mix and the training system.

HW2025 - Medical Specialties (HW2025 volume 3) is the first iteration of medical specialty workforce supply and demand projections. HWA recognises there is an ongoing need to improve forecast estimates through the identification and improvement of shortcomings in available data and current methodology through engagement with stakeholders.

To assess the existing workforce position when developing HW2025 volume 3, HWA consulted with stakeholders and used vacancy rate and waiting time data (where relevant and available) to determine whether the workforce is perceived to be in balance or not.

HW2025 volume 3 confirms the supply of medical specialists is increasing, with the total medical specialty workforce moving towards a balance of supply and demand by 2025 relative to the current state. Despite this increase in supply, significant inequity in service access – to specialties and in geographical regions – is likely to persist. Imbalances within the medical specialty workforce that need to be addressed are:

- Geographic maldistribution of the total medical workforce, also present for general practice and a number of other medical specialties, particularly psychiatry, obstetrics and gynaecology, and surgery. This does not only refer to shortages in rural and regional areas, it also includes major metropolitan centres.

- Maldistribution across medical specialties, with specialties most likely to be in undersupply including obstetrics and gynecology, ophthalmology, anatomical pathology, psychiatry, diagnostic radiology, and radiation oncology.

- Imbalances between generalists, specialists and sub-specialists. The specialties most affected include general practice, general medicine and general surgery. This imbalance is also exacerbated across the projection period for some specialties.

The analysis in HW2025 is the first step and further work will be undertaken on:

- Geographic health workforce planning. This will take into account the service-level planning that is required to determine an appropriately skilled health workforce for regional, rural and remote Australia.

- ‘Health Workforce 2025 - Selected Health Professions’ project. This will bring together available information to describe the existing size and characteristics of 41 professions. Activity measures that can be used to estimate demand for services will also be examined for each profession.
Consumers who were consulted during the development of the NCWSF used the analogy of a “train trip across Australia” to describe their cancer experience, emphasising that patients were the only ones to complete the whole cancer journey. They also spoke of the disjunction between the “stations” (cancer care services) and the people delivering those services. Consumers, in the main, perceive services to be provider-centred and call for a shift in focus to patient-centred care and for workforce design and planning to be based on consumer and population needs.

HW2025 volume 3 confirms there is no national coordinating mechanism linking vocational training availability for each specialty with the workforce needs of the community. Consequently, supply of each specialty group is driven by factors not directly related to the community’s requirement for health services, including:

- Trainee career preferences.
- The service requirement for trainees, that is, the reliance on trainees rather than specialists to provide services within parts of the health system.
- The remuneration opportunities of different specialties.

In November 2012, Health Ministers agreed with the need for a nationally consistent approach to improve medical training efficiency through the establishment of a National Medical Training Advisory Network (NMTAN). The NMTAN will produce five year rolling medical training plans across the whole medical training pipeline from university medical training through vocational medical training. A consultation on the principles and functions of the NMTAN recently closed and an implementation plan will be developed by the end of 2013.

An understanding of the model of care or care pathway provides a basis for understanding how the related professions work together to create the desired service system. This is vital for systems-based workforce planning. The HWA NCWSF planning data inventory of existing cancer workforce planning activities and data reveals a diverse set of approaches and a paucity of data in key areas (such as the specific percentage of surgeons’ and nurses’ jobs dedicated solely to cancer care). Where data and modelling exist, inconsistencies in methodologies and scope limit comparability and promotion of an integrated approach.

Previous experience suggests that a single best approach to workforce planning is unlikely. Rather, a range of indicators, modelling approaches and data could be used. The engagement of consumers and carers in the planning process will ensure consumer needs are central to reforms. Planning models and frameworks need to be made available to local planners to inform the development of service-level initiatives.

HWA acknowledges that for jurisdictions, industry and employers generate their own health workforce plans to ensure their service delivery responsibilities are met. HWA will continue to work with all these key stakeholders jurisdictions, industry and employers to ensure national health workforce planning and sectorial health workforce planning is well-aligned.

HWA has developed a National Statistical Resource, which brings together health-related workforce, training and activity data, which is used for HWA’s workforce planning and projections and can be used by jurisdictional workforce planners.

The resource has two components:

1. The health workforce data tool which contains accurate data about supply and demand in Australia’s health workforce. Users can access the National Health Workforce Dataset and Clinical Training Dataset and create their own tables, maps and graphs.
2. The health workforce planning tool which projects the health workforce needed to meet the nation’s healthcare requirements.

The health workforce planning tool can be used to undertake health workforce supply and demand projections by each state and territory to identify potential gaps and oversupply in Australia’s health workforce at local and national levels. The planning tool will help all levels of government and health service organisations carry out detailed workforce planning. The tool uses shared methodologies and datasets to achieve greater data quality and integrity.
The postgraduate medical pipeline tool focuses on the clinical health workforce and can be used to undertake workforce supply and demand projections by each state and territory to identify potential gaps and oversupply. The tool aims to help ensure Australia has the best mix of doctors, from interns through to consultants at both a local and national level.

There has been a strong national focus on policy and planning for radiation oncology and related workforce. However, within the overall approach to national modelling, there is a need to consider specific population groups and the role of the volunteer cancer workforce and the role of unpaid carers. HWA is exploring emerging approaches to planning an equitable geographical distribution of the workforce, including clarification of how the approaches fit with jurisdictional and rural, regional and remote service planning responsibilities.

Many of the more specific workforce elements, for example, cancer-related surgery, psycho-oncologists, allied health – require robust data sets that often do not exist on a consistent national basis, are partial collections only or are not available in a form that can be aggregated to provide a consistent national perspective. The available data are summarised in detail in the NCWSF planning data inventory. The inventory provides an illustrative snapshot of the cancer workforce data available in the public domain to inform the NCWSF.

Another challenge is that there are often no data available to separately identify those providing cancer-related services (and this is the case with cancer nurses). It is therefore difficult to quantify whether the projected shortage in the nursing workforce (in particular) will fall more or less heavily on the cancer workforce than the workforce more generally.

The NCWSF draws on the National Service Improvement Framework for Cancer. The following table acknowledges, within this domain, the critical points for opportunity for cancer workforce innovation and reform.

| Critical points for cancer control – National Service Improvement Framework for Cancer |
|----------------------------------------|---------------------------------|
| People will be able to: | Domain 4 |
| Reduce risk | ✓ |
| Find the condition early | ✓ |
| Have the best treatment and support during active treatment | ✓ |
| Have the best treatment and support between and after active treatment | ✓ |
| Have the best care at the end of life | ✓ |

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<th>Domain 4 strategic actions</th>
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Domain 5

National Workforce Innovation and Reform Framework domains

- Health workforce reform for more effective, efficient and accessible service delivery.
- Health workforce capacity and skills development.
- Leadership for the sustainability of the health system.
- Health workforce planning.
- Health workforce policy, funding and regulation.

National Cancer Workforce Strategic Framework priority recommendations

- Develop the cancer workforce in alignment with agreed national best practice pathways of cancer care and current health reform initiatives.
- Build workforce capacity to respond and adapt to the rapid rate of change in cancer care, including the impact of emerging technologies.
- Support leadership at all organisational levels to ensure sustainability of the health system and responsiveness to the health needs of people with or affected by cancer.
- Plan for the optimal use of skills and adoption of workforce innovation and reform, by developing data and information based on the current gaps and perceived shortages in the cancer workforce.
- Support work by governments, regulatory, funding and policy bodies to deliver cancer workforce reform.
National Cancer Workforce Strategic Framework: preamble for domain 5

Develop policy, regulation, funding and employment arrangements that support cancer workforce reform.

In addition to challenges that arise for the health workforce as a whole, the cancer workforce and those who advise on workforce policy, funding and regulation face challenges specific to the sector. These include:

- Complexities inherent in funding, regulation and setting policy in a federated system and across public, private and not-for-profit sectors.
- The pace of change in the therapeutics and technologies used in cancer control means such that policy, funding and regulation must remain flexible and be able to respond in a timely way.
- The impact of changing settings of care and responsibility for delivering care on the regulation of the workforce, the credentialing of health professionals, and the accreditation of training programs and services.

Stakeholders interviewed during the case study sites assessed for the NCWSF highlighted the importance of managing change in supporting cancer workforce reform. Sites able to successfully work across boundaries - public, private or jurisdictional - provide examples of effective governance frameworks that included systematic, authoritative and recognised ways of implementing innovation, reform and change. At these sites, it was evident that change management requires appropriate effort, time and expertise.

Stakeholders consulted in the development of the NCWSF advised that greater shifts in policy, regulation and funding are required to drive the spread of change into the future. However, any changes in these arrangements which promote flexibility need to be balanced with safety and quality considerations, including appropriate skills, competencies, accreditation processes and performance agreements.

A further level of complexity in cancer care systems is added by the extent and nature of the public–private sector interface. Many patients receive some aspects of their care in the private sector (e.g. surgery) and other aspects in the public sector (e.g. radiotherapy). In maximising the use of the existing workforce to improve access and consumer focus, the best use of the workforce across these boundaries and the impact of current industrial arrangements and remuneration models will need to be considered.

Health Ministers have identified that the main policy levers to address the shortfall in the health workforce identified in HW2025 are innovation and reform, immigration, training capacity and efficiency, and workforce distribution. As part of HWA’s policy response to HW2025, it will work with key stakeholders to agree a co-ordinated process of review of relevant Commonwealth, state and territory legislation to identify barriers and enablers to flexible use of the workforce. This will identify where there may be opportunities to nationally harmonise relevant legislation where such changes would make a material contribution to workforce productivity and distribution. HWA proposes the initial focus of this work will be on state and territory drugs and poisons and radiation safety legislation which have been identified through recent workforce reform initiatives as limiting opportunities for reform.
HWA will also analyse state and territory health workforce industrial arrangements (government and non-government employers) to identify barriers and enablers to workforce reform. This will enable the development of a set of common goals, principles and conditions that reflect the current and future requirements of the health workforce and workplace, with the overarching aim of boosting productivity, supporting the generalist workforce, retention and job satisfaction. This could provide jurisdictions and employers with reform options for incorporation, on a voluntary basis, into their enterprise agreement development processes. Considering the size and importance of the nursing workforce, HWA proposes to highlight, as priorities, specific issues relating to the nursing workforce when providing advice and recommendations to Ministers.

The cancer control workforce is affected in the same way as other parts of the health workforce by a range of policy, funding, industrial relations, regulatory and accreditation processes and agreements. For example, funding models influence the way services are delivered. Stakeholders consulted during the development to the NCWSF point to remuneration and funding systems, the way services are remunerated or funded as barriers to the provision of multi-disciplinary care, telehealth and outreach services. Stakeholders suggest that funding models need to be flexible in order to follow the patient across the system. This needs to include, primary healthcare, community, outpatients, non-government organisations and the private sector. Development of funding models that have a broader focus than acute treatment, and include elements of cancer care, will ultimately enable greater workforce capacity across the system. This capacity itself will not only be within the identified areas but also within the acute sector itself. Ultimately, this will impact positively on changing patient needs.

The regulation of roles in the health workforce is variable. Different processes have developed for the registration of health professionals and practitioners. Some professions are regulated by external bodies, others are self-regulated and many supporting or assistant roles are unregulated. The new Australian Health Practitioner Regulation Agency (AHPRA) supports the National Boards of 14 health professions in their primary role of protecting the public. AHPRA also manages the registration processes for health practitioners and students around Australia. This national scheme is delivering a more flexible workforce, with registered health professions now able to work in different states more easily.

While there is a cancer specific accreditation program underway in BreastScreen Australia, it is recognised the development of an accreditation system for cancer services in Australia is complex, given the mixed model of care for patients with cancer involving both public and private health sectors. Australia’s geography and its mix of Commonwealth and state/territory governance further complicate the development of accreditation systems. Any future cancer specific accreditation programs need to include consideration of the impact on workforce reform.

The NCWSF draws on the National Service Improvement Framework for Cancer. The following table acknowledges, within this domain, the critical points for opportunity for cancer workforce innovation and reform.
### Critical points for cancer control – National Service Improvement Framework for Cancer

<table>
<thead>
<tr>
<th>People will be able to:</th>
<th>Domain 5</th>
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<tbody>
<tr>
<td>Reduce risk</td>
<td>✓</td>
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<tr>
<td>Find the condition early</td>
<td>✓</td>
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<tr>
<td>Have the best treatment and support during active treatment</td>
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<tr>
<td>Have the best care at the end of life</td>
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### Domain 5 strategic actions

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<td>5.1</td>
<td>Review and update industrial relations practices, instruments and agreements to improve workforce flexibility such as the appropriate provision of oncology pharmacy.</td>
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<tr>
<td>5.2</td>
<td>Monitor and review state and territory legislation for their relevance to contemporary cancer care, with an initial focus on Drugs and Poison Acts and Radiation Safety Acts.</td>
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<tr>
<td>5.3</td>
<td>Assess the effectiveness of re-entry requirements for the professions, and the financial and non-financial barriers to returning to work in contemporary cancer care.</td>
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<tr>
<td>5.4</td>
<td>Assess the effectiveness of funding models to support rehabilitation, follow-up, survivorship, psychosocial and palliative care in the primary care setting.</td>
</tr>
<tr>
<td>5.5</td>
<td>Review cancer service accreditation models to assess their impact on workforce reform.</td>
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</tbody>
</table>
Aboriginal and Torres Strait Islander Community Controlled Health Services (ACCHS): Aboriginal communities operate more than 130 ACCHSs (sometimes called Aboriginal Medical Services or AMSs) across Australia. They range from large multi-functional services employing several health professionals and providing a wide range of services, to small services which rely on Aboriginal health workers and/or nurses to provide the bulk of primary care services, often with a preventative, health education focus. The services form a network, but each service is autonomous and independent of one another and of government.


Accreditation: is public recognition by a healthcare accreditation body of the achievement of accreditation standards by a healthcare organisation, demonstrated through an independent external peer assessment of that organisation’s level of performance in relation to the standards.

AHPRA: Australian Health Practitioner Regulation Agency. The term AHPRA is used throughout the document to denote the activities of the national health professions boards and the national health professions councils.

AIHW: Australian Institute of Health and Welfare.

Allied health: an umbrella term that refers to a broad range of health professions other than medical practitioners and nurses. Allied Health Professions Australia (AHPA), the national peak body, includes members of the following professions: audiologists, chiropractors, diabetes educators, dietitians, exercise physiologists, occupational therapists, orthoptists, orthotics and prosthetics, osteopaths, pharmacists, podiatrists, psychologists, radiographers and radiation scientists, social workers, sonographers and speech pathologists.

Assistant: an assistant works to and under the supervision of a health practitioner, takes on less complex treatment or care tasks, and/or performs administrative or other tasks that would otherwise reduce the time available for more complex direct care by more highly trained practitioners.

CALD: Culturally and linguistically diverse refers to the wide range of cultural groups that make up the Australian population and Australian communities. The term acknowledges that groups and individuals differ according to religion and spirituality, racial backgrounds and ethnicity, as well as language. The term ‘culturally and linguistically diverse background’ is used to reflect intergenerational and contextual issues, not only the migrant experience.

Cancer control: is the organised approach to reducing cancer incidence, morbidity and mortality. Cancer control consists of six basic principles: leadership, involvement of stakeholders, creation of partnerships, responding to the needs of people, decision-making, and the application of a systemic approach.

Carer: someone who has a caring role for a person with a health problem or illness. Carers could be family, friends or staff of an organisation who are paid or unpaid. The role of the carer is not necessarily static or permanent, and may vary over time according to the needs of the consumer and the circumstances of the carer.

Case study site: in this document the term ‘case study’ refers to a study of a particular health service site during the development of the NCWSF.

Chronic disease: a disease that has one or more of the following characteristics: permanent, leaves residual disability, is caused by non-reversible pathological alteration, requires special training of the patient for rehabilitation, or may be expected to require a long period of supervision, observation or care.

Clinical: related to the diagnosis and treatment of health conditions within established healthcare guidelines and therefore primarily describing healthcare workers.

Clinical leadership: formal and informal leadership within a service to improve service quality and approach and to set direction.

COAG: the Council of Australian Governments is the peak intergovernmental forum in Australia, comprising the Prime Minister, state premiers, territory chief ministers and the President of the Australian Local Government Association.
**Colleges:** postgraduate education, training and professional development bodies in the health sector. These include nursing colleges, specialist medical colleges and similar bodies for other health professions. Colleges may or may not have a role in setting standards and accrediting education programs.

**Commonwealth:** Australia is a federated system, consisting of states, territories and federal government. The term Commonwealth denotes federal/national-level departments or legislation.

**Competencies:** the specific elements of knowledge, skills and attitudes needed by graduates.

**Consumer:** a person who uses or has used a cancer health service.

**Cultural competence:** a set of congruent behaviors, attitudes and policies that come together in a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross-cultural situations.

**Discipline:** a body of knowledge and approach to assessment, treatment and support.

**eHealth:** health services or information delivered or enhanced through the internet and related technologies. eHealth platforms can also facilitate professional training for the health workforce and secondary consultations between health professionals.

**General practitioner:** general practitioners diagnose, refer and treat the health problems of individuals and families in the community. Also commonly referred to as family doctors.

**Follow-up care:** clinical care to monitor the outcomes of acute treatment.

**Generalist:** a health professional whose practice is not oriented to a specific specialty, specific disease or specific part of the body, but instead covers a variety of health problems.

**Genome:** the unique genetic code or hereditary material of an organism, carried by a set of chromosomes in the nucleus of each cell.

**Genomic medicine:** the use of genetic information and genomic tools to determine disease risk and predisposition, diagnosis, prognosis, and the selection and prioritisation of therapeutic options.

**Health promotion and prevention:** the process of enabling people to increase control over and improve their health. Prevention covers measures not only to prevent the occurrence of illness, but also to arrest its progress and reduce its consequences once established.

**Holistic:** considering the whole person and all aspects of a person’s health and wellbeing: physical, mental, environmental and social.

**Informant:** in this document the term ‘informant’ refers to an individual who participated in a case study interview or a stakeholder consultation during the development of the NCWSF.

**Interprofessional learning, training, practice or collaboration:** where two or more professionals practice and learn with, from and about one another to improve collaboration and the quality of care.

**Jurisdiction:** technically, an area with a set of laws under the control of a system of courts which are different to neighboring areas. In these documents, ‘jurisdictions’ refers to the Commonwealth, state and territory governments of Australia.

**Medical oncologist:** a doctor who specialises in diagnosing and treating cancer using chemotherapy, hormonal therapy, and biological therapy. A medical oncologist often is the main healthcare provider for someone who has cancer. A medical oncologist also gives supportive care and may coordinate treatment given by other specialists.

**Medical physicist:** scientific specialist who establishes implements and monitors processes that allow optimal screening, diagnosis and treatment using radiation, taking account of radiation protection of patients and others.

**Multi-disciplinary teams (MDTs):** an integrated team approach to healthcare in which professionals from different disciplines consider all relevant treatment options and collaboratively develop an individual treatment plan for each consumer, based on the body of knowledge, approach and contribution of their respective professional /discipline groups.
**Multi-disciplinary care**: an integrated team approach to cancer care. This happens when medical, nursing and allied health professionals involved in a patient’s treatment together consider all treatment options and personal preferences of the patient, and collaboratively develop an individual care plan that best meets the needs of that patient. The principles of multi-disciplinary care relate to:

- Patient-centred approach with active involvement of patients in decisions about their care.
- A team approach, involving the core disciplines integral to the provision of good cancer care.
- Communication among team members about treatment planning, goal setting, psychosocial issues and problem solving.
- Access to a range of treatment options for all patients, wherever their care commences, through strong service links between facilities and clear referral pathways.
- Provision of care in accordance with agreed standards and processes.

**NEHTA**: National E-Health Transition Authority established by the Australian, state and territory governments to develop better ways of electronically collecting and securely exchanging health information.

**Non-clinical**: healthcare-related work other than that described in clinical (above). Non-clinical work may include, but is not limited to, assistance with daily living and rehabilitation, health education, laboratory or research roles, logistical and administrative roles.

**Nurse practitioner**: registered nurse educated to function autonomously and collaboratively in an advanced and extended clinical role. The scope of practice may include, but is not limited to, the direct referral of patients to other healthcare professionals, prescribing medications and ordering diagnostic investigations.

**OECD**: the Organisation for Economic Co-operation and Development, which was established in 1961 and has a mission to promote policies that will improve the economic and social wellbeing of people around the world. It has a membership of 34 countries, including Australia.

**Palliative care**: an approach that improves the quality of life of patients and their families facing problems associated with a life-threatening illness. Prevention and relief of suffering is provided through early identification and impeccable assessment and treatment of pain and other problems (physical, psychosocial or spiritual, for example).

**Pathologist**: a person who studies diseases to understand their nature and cause. Pathologists examine biopsies under a microscope to diagnose cancer and other diseases.

**Patient**: a person who is currently receiving cancer care.

**Physician assistant**: one who has been trained in an accredited program and certified by an appropriate board to perform certain of a physician’s duties, including history taking, physical examination, diagnostic tests, treatment, and certain minor surgical procedures, all under the responsible supervision of a licensed physician.

**Peak bodies**: representative bodies for a number of organisations or groups with common interests or scopes of activity.

**Primary healthcare**: essential healthcare made accessible at a cost a country and community can afford, with methods that are practical, scientifically sound and socially acceptable. Primary healthcare services often constitute the first point of contact for people experiencing a health problem, and their families. Primary care services include general practitioners, emergency departments and community health centres.

**Private**: non-government enterprises, small businesses or private practices that deliver health services on a commercial or fee-for-service basis, with or without subsidisation from the public health system.

**Psycho-oncology**: the subspecialty of cancer dealing with two psychological dimensions: 1) the psychological reactions of patients with cancer and their families - at all stages of disease - and the stresses on staff; and 2) the psychological, social, and behavioral factors that contribute to cancer cause and survival.
Psychosocial care: treatment that is intended to address psychological, social and some spiritual needs.

Radiation oncologist: a doctor who specialises in treating cancer with radiotherapy.

Radiation therapist: a health professional (not a medical doctor) who administers radiotherapy.

Regulatory bodies: bodies responsible for exercising authority over individual or institutional activity in the provision of health services, for example in permitting health professionals to register for practice, determining the scope of practice of professions, or determining requirements for staff numbers in service settings.

Rehabilitation: programs that help restore people to independence and a full, productive life after illness and injury. Rehabilitation may involve physical restoration such as the use of prostheses, physiotherapy, occupational therapy programs and/or speech pathology, counseling and emotional support, and employment retraining.

Retention: keeping health professionals working in a health service or, more broadly, in the health system, for as long as possible.

Role redesign: is a workforce improvement tool which can help you improve patient services, tackle staff shortages and increase job satisfaction through the development of new and amended roles.

Scope of practice: the range of activities that a practitioner in an occupation or discipline may practice. Scope of practice is usually limited to what legislation will allow, based on specific education and experience, and specific demonstrated competencies.

Self-regulated professionals: professions where the assessment of an individual’s suitability to practice is conducted by peers, rather than by an independent agency or government. In such cases, regulation processes may be conducted by a professional association or similar body.

Specialist: a health professional who, within a discipline, focuses on specific health problems, conditions or parts of the body.

Stakeholder: in this document the term ‘stakeholder’ refers to an individual who participated in stakeholder consultations, including case studies, during the development of the NCWSF.

State and territory health departments: each Australian state and territory has a department responsible for health. Titles of departments may vary between jurisdictions.

Student: for ease of reference, this framework uses the term student to refer to the person undertaking education or training in a clinical placement within the health sector. Across the spectrum of those being supervised in a clinical placement, the term is intended to encompass anyone undertaking education or training – that is, people in the Vocational Education and Training sector, postgraduate students in entry level positions, and vocational trainees in medicine, nursing and midwifery, dentistry and the allied health professions.

Survivorship: is generally understood to refer to a person who has undergone cancer treatment and is deemed to be free of cancer, usually for a suggested timeframe such as five years. Survivorship, however, is a dynamic process as there is no clear ‘end’ to the cancer illness and it is artificial to consider survivorship as a sequential stage in a cancer journey.

Surgical oncologist: a doctor who specialises in the surgical treatment of cancer.

Technologies: devices, therapeutics, imaging, simulation and communication technologies and other supports that complement the work of health professionals in providing care and learning, or training and supervising others.

Telehealth: the delivery of health-related services and information via telecommunications technologies.

Therapeutics: that part of medical science which deals with the discovery and application of remedies for diseases.

Unregulated: those working in unregulated healthcare professions do not require registration in order to be employed in a particular role or to practice.

Volunteer: a person who offers to undertake a service of their own free will, unpaid.
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8. Walsh J, Harrison JD, Young JM, Butow PN, Solomon MJ & Masya L (2010). What are the current barriers to effective cancer care coordination? A qualitative study. BMC Health Services Research, 10(132).


