South Eastern Sydney
Local Health District

Cancer

Clinical Services Plan
2015 - 2018

South Eastern Sydney Local Health District

Produced by: Strategy and Planning Unit, South Eastern Sydney Local Health District http://www.seslhd.health.nsw.gov.au/

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Foreword

Cancer is a major cause of illness and premature death in the South Eastern Sydney Local Health District. Every year over 4,000 people are diagnosed with cancer. And every year around 2,000 people lose their lives to the disease. More than one in three local community members will develop cancer during their lifetime. The burden of cancer consumes a significant proportion of the District's budget. We have made cancer control one of our central priorities.

Cancer service development has been gaining momentum for some time. The Cancer Clinical Services Plan 2015-18 outlines the strategic directions for cancer services over the next three years and will help ensure long term sustainability in cancer care through focusing future activity on priority areas, particularly where there are opportunities for innovations in service delivery and technology.

The Plan, which places the patient at the centre of cancer care, builds on previous cancer service reviews and strategies. It will guide the development of clinical cancer services that are founded on the best available evidence and professional and community input and sets out a program of activities that support the delivery of improvements in our services, and helps us keep pace with new technologies and models of care. Ultimately, the Plan aims to improve the quality of life of our patients and continue our proven track record in providing comprehensive cancer care.

The significance of the expertise and input from our cancer services' staff and stakeholders in preparing this Plan cannot to be underestimated. Every effort has been made to identify solutions that best match local circumstances and resonate with our service providers and communities. A key challenge of the plan is to support services that are geographically separate to work together to enhance service delivery, while acknowledging local differences.

I share enthusiasm and pride with the hard working staff in our cancer services in how far we have come in recent years and appreciate what this progress has meant to the many people living in our community who receive a cancer diagnosis each year.

Associate Professor Winston Liauw
Director, Cancer Services
South Eastern Sydney Local Health District

Contents

Executive Summary

The South Eastern Sydney Local Health District *Cancer Clinical Services Plan 2015 – 2018* outlines the strategic directions for cancer services over the next three years. The Plan has been aligned with the relevant state and national policies and incorporated Local Health District wide and Sector specific actions in the plan. It focuses on further developing multidisciplinary and integrated approaches to care for people with cancer, which includes strengthening the links between services so that the patient journey is as integrated and easy to navigate as possible.

Through our consultation processes and identified actions, the plan recognises that there are some areas where we can do better and new initiatives that support best practice cancer service delivery. The Plan describes the extensive range of cancer services currently available in the Local Health District and identifies additional services/programs and activities that are likely to benefit cancer patient outcomes, such as:

- A survivorship program/follow up service at St George and Prince of Wales Hospitals
- Within funding models maximise utilisation of cancer outreach services to ensure reduced utilisation of inpatient and facility-based outpatient services where appropriate.
- In collaboration with local aged care services, determine the need for and the manner of delivery of comprehensive multidisciplinary geriatric oncology services in the Southern and Northern sectors (preliminary discussions suggest these are likely to differ between the sectors).
- A state wide youth cancer service though the Randwick campus
- A support service framework to ensure consistent, timely delivery of relevant allied health services, including linkages with primary and community service providers.
- Extended Haematology outpatient/day only services at Prince of Wales Hospital which includes a Sunday service
- A nurse led clinic for pre-chemotherapy for Thalassemia at Prince of Wales Hospital.

The Plan also describes currently implemented models of care and identifies additional care approaches that are likely to benefit cancer patient outcomes, including, but not limited to:

- Continue to work with clinical redesign team and the Cancer Institute NSW to develop models of care that maximize efficiency, are fundable under ABF and increase transition of care from inpatient to outpatient services and from outpatient to primary care settings
- Establish mechanisms to ensure access for cancer patients and their carers to information on support services available from not-for-profit cancer care sector. Where relevant this should be done in the manner of systematic referrals.
- Develop local coordinated cancer clinical pathways to improve access to and connectedness between cancer services and primary care, and cancer and aged care services to ensure the right care is delivered to cancer patients in the right place in the right timeframe.
- Develop models of care that consider issues of survivorship.
- Develop models of care that facilitate access to lymphoedema services in the District.

- Develop and implement evidence informed and locally suitable models of care to ensure all cancer patients are regularly assessed and managed with regard to adverse treatment responses through follow-up services/clinics and Cancer Outreach Teams.
- Enhance the LHD network model for cancer and palliative care clinical trials which promotes access to trials and ensures compliance with regulatory and ethics standards.
- Establish mechanisms that inform cancer patients of the availability and importance of clinical research, leading to increased participation in clinical research.

Overall, the impact of the changes proposed in this plan will be evident over the short, medium and long term. Collectively the actions are far-reaching with a number being complex, requiring considerable work and/or resources going forward.

The District's Cancer Services Clinical Stream Advisory Committee supported the development of this plan and over the course of several meetings it provided input and reviewed iterations of the plan. Going forward this group will provide implementation oversight and advice. The plan was also developed through comprehensive internal consultation with cancer services and other staff has informed the development of this plan including clinical streams, local clinical councils and cancer services business meetings, and other purpose convened forums, meetings and surveys. Consultation has also taken place with cancer consumers and key external stakeholders (such as the Cancer Institute NSW, Medicare Locals and others). This consultation process informed, among other things, the identification of appropriate implementation approaches and opportunities to collaborate to ensure the effective delivery of planned activity. The District's Ambulatory and Primary Health Care Directorate has provided advice and guidance to the Cancer Stream on how to effectively support carers, culturally and linguistically diverse communities, people subject to homelessness, children, women, Aboriginal people and other vulnerable population groups utilising cancer services. The consultation process has supported the identification of the most significant existing and potential future cancer service needs and gaps.

Section 1: Introduction

1.1 Purpose and Structure

In the South Eastern Sydney Local Health District, the importance of providing sustainable, high quality health care is paramount. This Plan identifies current and future activities of the District's Cancer Clinical Services and highlights the important contributions of these services towards improving health outcomes for our community. Three key elements underpin the development of this plan: cancer clinical service delivery systems designed in accordance with local need and best practice; evidence based models of care; and strong governance. By implementing the activities outlined in the Cancer Clinical Services Plan 2014-19 we hope to achieve the following outcomes:

- Meet the projected needs of community members into the future.
- People treated for cancer receive high quality care based on current best evidence and practice.
- Services are delivered in ways that care for and are appropriate to vulnerable groups, including Aboriginal and culturally and linguistically diverse groups.
- Approaches to cancer care and service delivery across the District build a solid foundation for future services.
- Improved efficiency of cancer service delivery.
- Relevant stakeholders support the effective implementation of cancer clinical service activities.

The plan is structured in two main parts:

- A contextual front end which describes the South Eastern Local Health District and its cancer services, and activities going forward.
- A separate technical paper which provides a range of data sets that support actions to be implemented over the coming five years.

1.2 Scope

The scope of the Cancer Clinical Services Plan covers adults accessing diagnostic, treatment and care, and other District services, relevant to cancer services. In addition, activity from other Clinical Streams is considered where this activity has an impact on the Cancer Stream (e.g. surgery, workforce, etc.).

The Cancer Services stream is responsible for Medical Oncology, Radiation Oncology, Palliative Care, Clinical Haematology (Malignant and non-malignant), BreastScreen and Cancer Genetics. The Cancer Clinical Services Plan will guide cancer and non-malignant haematology diagnostic, treatment and care service delivery across the District. This plan includes some recommendations relevant to breast cancer screening, women's health, palliative care and surgical oncology but separate plans will also be available to support these areas.

The Plan supports the development of solutions in cancer services that fit with local services and providers, and are appropriate both from a health system and users perspective. It specifically sought answers to the following questions:

- Can we produce better outcomes for our cancer patients?
- Can our staff, structures and processes be more effective?
- Can we deliver more value?

The plan will be implemented over the next five years and recognises that the change and efforts that are sought to implement these activities will evolve as new health needs emerge and change.

1.3 Building on Earlier Cancer Service System Reviews and Plans

The *South Eastern Sydney Illawarra Area Health Service Cancer Services Expert Review Committee Meetings December 2008 - February 2009 Background Information* document was released in early 2009. This work was a joint initiative between the former Area Health Service and the Cancer Institute NSW. It utilised existing internal and expert advice to inform an integrated model for cancer service delivery across the Area Health Service. *The Blueprint for Cancer Services* - April 2009 followed on from the background paper and was also developed as a joint exercise between The South Eastern Sydney and Illawarra Area Health Service and the Cancer Institute. The *Blueprint for Cancer Services* provided a number of key recommendations and possible configurations for sustainable cancer service delivery across the Area Health Service for the following 10 years and beyond. While the Blueprint had an Area Health Service focus and the current plan has a Local Health District focus, a number of the original recommendations remain relevant and have been progressed, including:

- A District wide governance structure for cancer services (Cancer Services Advisory Committee) is now in place. Stronger links across sectors and between key facilities (St George and Prince of Wales Hospitals) cancer services is planned including cross-credentialing of the general service providers in medical oncology, radiation oncology, haematology. There are a number of services which bridge specific patient needs across sectors e.g. genetics
- A District wide governance structure for cancer services (Cancer Services Advisory Committee) was established with representation from the South Eastern Sydney Illawarra Area Health service (St George/Sutherland; St Vincent's Hospital; Sydney Children's Hospital, Royal Hospital for Women, Wollongong/Shoalhaven and Prince of Wales Hospital). The administrative restructure of area health services into local health districts resulted in a change in the membership of the Advisory Committee so that only St George/Sutherland and Prince of Wales/Royal Hospitals are now represented. Only cancer genetics and adolescent and young adult cancer service retain a service role in the hospitals of the former SESIAHS.
- There is now reasonably clear delineation of the scope of cancer services to be undertaken by facilities and clear arrangements for onward referral of appropriate cases.
- Cancer services implement continuous improvement processes; included Cancer Institute NSW funded opportunities to support or increase Multidisciplinary Teams.
- Some sector specific cancer workforce planning is in progress including specialised cancer nurse training opportunities.

- There is ongoing review and refinement of local information technology systems and processes to facilitate improved performance and ensure adequate data is available to services to comply with ABF and Cancer Institute NSW reporting requirements.
- Further improvements in the coordination of a range of training opportunities for medical, nursing and allied health professionals supported by an appropriate infrastructure designed to meet future service needs is required. The medical oncology registrars advanced trainee network was established across the district, with the creation of Education Network Clinical Lead position established which provides networked education opportunities. Further consideration to this model to support other professional groups should be considered i.e. consultant needs not clearly addressed although they all participate in some training opportunities. There is an identified need for more interdisciplinary training.
- Established clinical trial units exist across the District. There is a need to encourage and foster current networks for basic research e.g. Translational Cancer Research Network and biobanking.
- Demand for cancer services across the District is outgrowing capacity and the physical infrastructure for cancer care delivery in South Eastern Sydney Local Health District continues to undergo development. Infrastructure development is underway at Prince of Wales Hospital where the opening of the Nelune Comprehensive Cancer Centre in 2016 will dramatically improve the environment for delivery of care for outpatients. Re-development of cancer outpatient services at St George Hospital is planned in the second stage of major hospital redevelopment.
- High volume standard treatments will soon be provided as close to home as appropriate using evidence based protocols. High complexity treatments will be limited to two centres with appropriate depth to provide high quality services in accordance with agreed best practice.
- There is no ambulatory cancer service available at Sutherland Hospital and existing ambulatory clinics at St George, RHW and Prince of Wales Hospitals are not networked to improve patient information, safety, standard operating procedures, training and continuing education.
- The Adolescent and Young Adult (AYA) cancer patient services was jointly developed by paediatric and adult cancers services based on the Randwick campus, the service provides the establishment of standard treatment protocols, agreed referral and care pathways administered by multidisciplinary teams of care providers to address AYA specific treatment and psychosocial needs. Further resources and the integration of referral pathways are required.
- The district wide cancer genetics service has been established with a Genetic Counselor clinical lead position established that supports service across SESLHD and to ISLHD. This service is networked with a fit-for-purpose IT system KinTrak. Cancer services in the former SESIAHS led the development and implementation of KinTrak as a state wide initiative. KinTrak has allowed all genetics units in the state to share a common database.

Section 2: Our Local Health District

The environment in which our cancer services function is influenced by many factors. Analysing key influences is critical to ensuring our services meet the current and future needs of our community, and helps determine existing and potential challenges and opportunities within an ever changing environment.

2.1 The South Eastern Sydney Local Health District

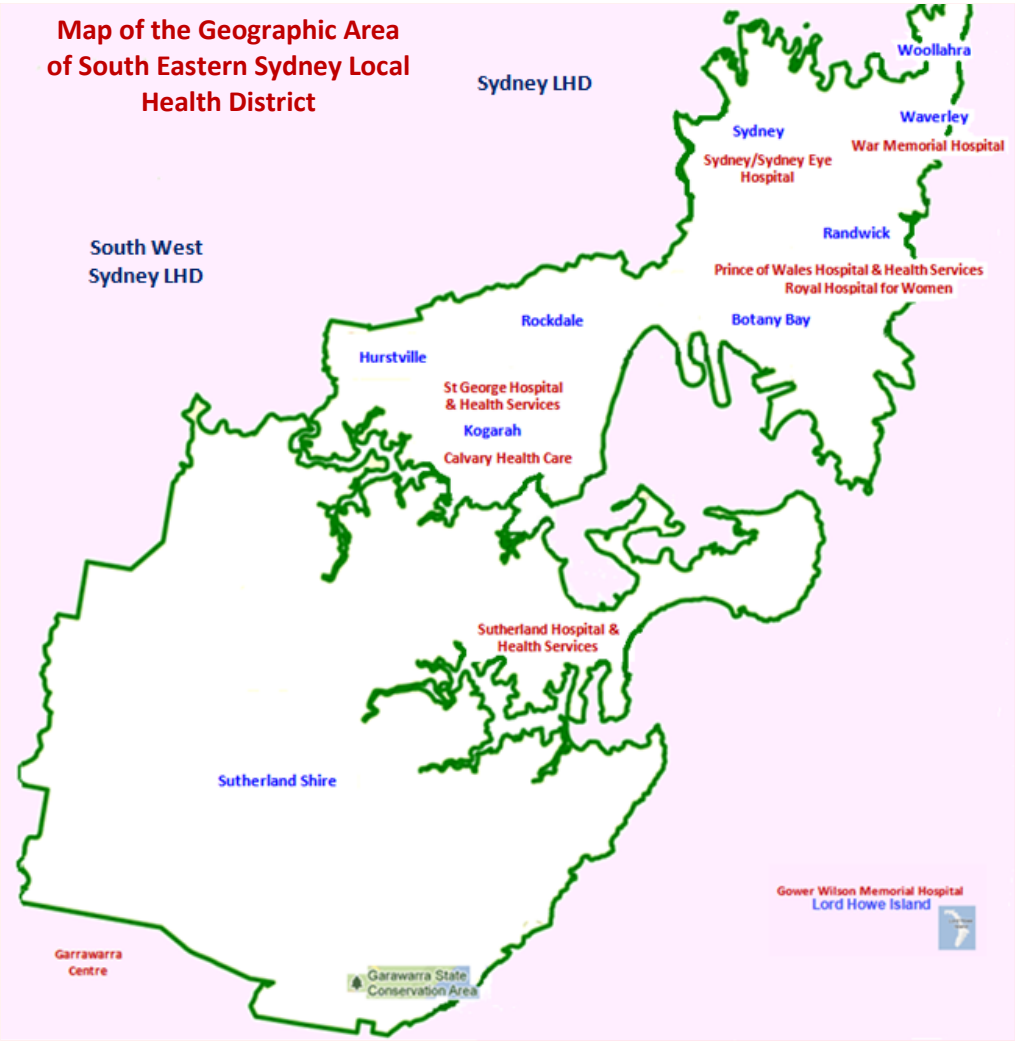
Vision

Working together to improve the health and wellbeing of our community

Purpose

The South Eastern Sydney Local Health District exists to:

- Promote, protect and maintain the health of its community.
- Provide safe, quality, timely and efficient care to all who need it.
- Address gaps in health service access and health status.



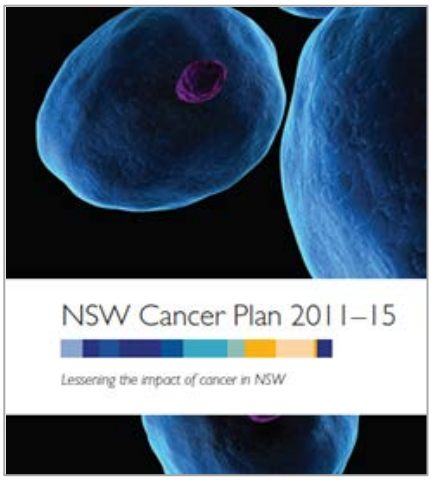
The South Eastern Sydney Local Health District covers nine NSW Local Government Areas from Sydney's Central Business District to the Royal National Park in the South. The District also provides a key role in assisting residents of Lord Howe Island and Norfolk Island with access to hospital and health services. The District has a complex mix of highly urbanised areas, industrialised areas and low density suburban development areas in the south. The services provided across the District include population health programs and services; ambulatory, primary health care and community services; hospital inpatient and outpatient services, and imaging and pathology, among others. Facilities include six public hospitals and associated health services: Prince of Wales; Royal Hospital for Women; St George; Sutherland; Sydney / Sydney Eye; and Gower Wilson Memorial on Lord Howe Island. The District also provides one public residential aged care facility (Garrawarra Centre), and oversees two third schedule health facilities: War Memorial Hospital (third schedule with Uniting Care) and Calvary Healthcare (third schedule with Little Company of Mary Health Care).

Other public health facilities located in the South Eastern Sydney region that are not part of the South Eastern Sydney Local Health District include Sydney Children's Hospital (Randwick), St Vincent's Hospital (Darlinghurst) and Sacred Heart Hospice. There are a growing number of private health care facilities and two Primary Health Care Organisations also located in the region (Eastern Sydney and South Eastern Sydney Medicare Local).

2.2 Cancer Plan Alignment

Cancer clinical services are a key part of South Eastern Sydney Local Health District operations.
A key influence on its development is the District's current Roadmap to Success, and other major District plans which inform and influence each other. The District's ***Asset Strategic Plan 2012-2017*** provides the long term approach for managing the District's land, buildings, infrastructure, plant and equipment to support the implementation of current and future health care priorities. This plan describes a number of asset developments that are relevant to the cancer system including progressing the development of the St George Prostate Cancer Institute, completing the Prince of Wales campus Nelune Comprehensive Cancer Centre and installing a Positron Emission Tomography scanner at St George. The Asset Strategic Plan reports that these infrastructures "*are required to ensure effective delivery of services over the next decade*".

The development of the current SESLHD Cancer Service Plan was also informed by a number of external policies and guidelines including the NSW Cancer Plan 2011–15[1] developed by the Cancer Institute NSW as the third statewide cancer plan for the people of NSW. The NSW Cancer Plan 2011–15 priorities for action are:



- To reduce the incidence of cancer
- To improve the quality of life for people with cancer and their carers
- To increase survival with cancer, including:
    - Reduce variations in cancer outcomes in NSW by providing quality information to drive systems

[1] www.cancerplan.cancerinstitute.org.au

improvement, including information on performance of the cancer system to health services, practitioners and the community.

- Reduce the gap between established best evidence, and the care actually provided by defining areas where reducing this gap will improve outcomes.
- Provide support for a sustainable high-performing workforce by developing and supporting life-long learning systems, and by research investment to facilitate evidence uptake into practice.
- Improve models of service delivery.
- Embedding health services research in cancer care.

The Australian Commission for Safety and Quality in Health Care, National Safety and Quality Health Service Standards also informed the current plan. There are ten Standards focusing on areas that are essential to drive the implementation of safety and quality in all health care service delivery:

Governance for Safety and Quality in Health Service Organisations
Partnering with Consumers
Preventing and Controlling Healthcare Associated Infections
Medication Safety
Patient Identification and Procedure Matching
Clinical Handover
Blood and Blood Products
Preventing and Managing Pressure Injuries
Recognising and Responding to Clinical Deterioration in Acute Health Care
Preventing Falls and Harm from Falls

http://www.safetyandquality.gov.au

Section 3: Our Community

3.1 Our Ageing Population

The South Eastern Sydney Local Health District supports a culturally and linguistically diverse population of over 847,000 people. The estimated residential population is projected to increase by around 6% or over 48,800 people by 2021 and reach one million by 2031. The fastest growing age groups will be the 85 years and over age group (over 52%), and the 70-84 years age group (over 30%). A key reason behind population ageing is increasing life expectancies with the average life expectancy projected to increase by up to 9 years by 2050. According to the Australian Bureau of Statistics, in 1901 only 4% of Australians were aged 65 years or older. By June 2010, this proportion had risen to 13.5%, and is projected to increase to between 21% and 23% by 2041.[2] Because cancer is a disease of ageing, such demographic trends hold particular significance for cancer care with increasing demand for clinical services.

Table 1: Estimated Residential Population South Eastern Sydney LHD 65 years+ 2011 [3]

Statistical Area Name	Persons, 65 years and over	Persons, 85 years and over	Total persons
Botany Bay	5,885	679	41,674
Sydney - Inner	1,635	155	25,981
Sydney - East	4,855	711	52,338
Randwick	17,894	2,863	137,757
Waverley	8,113	1,402	68,567
Woollahra	9,039	1,589	56,324
Hurstville	12,514	2,133	82,569
Kogarah	8,221	1,269	58,938
Rockdale	15,278	2,512	102,843
Sutherland Shire - East	18,214	2,866	105,697
Sutherland Shire - West	14,071	1,765	114,054
South Eastern Sydney LHD	115,788	17,948	847,115

Despite the great improvements in average life expectancy achieved in recent decades, health gains have not been equally shared across the population of South Eastern Sydney. One of the District's key priorities is to reduce inequities in health service access and health outcomes. Those most at risk of experiencing health inequities are our most vulnerable population groups. Vulnerable populations are those at greater risk for poor health status and healthcare access. Vulnerable populations in South Eastern Sydney include Aboriginal populations; culturally and linguistically diverse; the economically disadvantaged; the homeless; people with disabilities; people with low English proficiency; refugees and many elderly with chronic health conditions; including severe mental illness. The vulnerability of these individuals is enhanced by ethnicity, English proficiency, culture, age, sex, and factors such as poor access to health care. Their health and healthcare problems can also intersect with social factors, including poor

[2] Life expectancy trends — Australia. www.abs.gov.au/socialtrends

[3] Estimated Residential Populations South Eastern Sydney, *Public Health Information Development Unit 2012*

housing and social capital, and inadequate education. South Eastern Sydney Local Health District aims to provide high quality appropriate prevention and care to all people, including those from vulnerable population groups.

Table 2: Numbers of various vulnerable population groups 2011[4]

Local Government Area	Households in dwellings receiving rent assistance from Centrelink	People born overseas who speak English not well or not at all	SEIFA Index* 2011 (based on Aust score = 1000)	People with a profound or severe disability living in the community (all ages)	People with a profound or severe disability living in the community, 65 years +
Woollahra	1,537	337	1130	1,085	777
Waverley	2,279	861	1101	1,400	930
Sydney	8,527	3,229	1043	1,457	644
Randwick	4,919	4,022	1063	3,961	2,341
Botany Bay	1,598	2,357	985	1,717	996
Hurstville	3,152	6,624	1018	2,984	1,744
Kogarah	2,451	4,014	1051	1,963	1,225
Rockdale	4,716	6,857	1001	4,008	2,404
Sutherland	5,380	1,842	1083	5,953	3,204
SES LHD	34,599	30,143	Average 1052.8	24,528	14,265

SEIFA Index* or Socio-Economic Indexes for Areas is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage.

Aboriginal people are often diagnosed with cancer at a later stage, are less likely to receive adequate treatment and are more likely to die from cancers than any other Australians.[5] Currently around 6,500 District residents identify as Aboriginal or Torres Strait Islander. The Local Health District also has over 30,000 community members that were born overseas and who either speak English not well or not at all. Of significance to cancer care is that there are currently over 35,800 people from a culturally and linguistically diverse background that are aged 65 years and over. Investigations highlight areas of concern in relation to health care generally for CALD community members including:

- They are often given less time discussing cancer related issues, information needs and treatment options with their oncologists, in comparison to Anglo-Australians.[6]
- Cultural isolation, alienation and identification was felt by many who described the experience of feeling alone and misunderstood in the health care setting. [7]
- Language and communication difficulties often resulted in patients being unable to communicate questions, concerns and needs to health professionals.[18]

[4] Public Health Information Development Unit. Accessed May 2013 http://www.publichealth.gov.au/

[5] Australian Institute of Health and Welfare (2008) *The health and welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2008*. Canberra: Australian Bureau of Statistics and Australian Institute of Health and Welfare

[6] Butow, P., et al (2011). Grappling with cultural differences; Communication between oncologists and immigrant cancer patients with and without interpreters. *Patient Education and Counseling, 84*(3), 398-405

[7] Butow, P. N., Sze, M., Dugal-Beri, P., Mikhail, M., Eisenbruch, M., Jefford, M. (2011). From inside the bubble: migrants' perceptions of communication with the cancer team. *Supportive Care in Cancer, 19*(2), 281-290.

- Advice from health professionals often did not take into account cultural sensitivity.[18]
- Challenges with interpreters, including whether the family or a professional was carrying out the interpreter role, as well as the lack of consistency and continuity with interpreters.[18]

3.2 Burden of Cancer on the South Eastern Sydney Community

The number of cancer cases continues to grow as a result of population growth, as well as the ageing population. The current lifetime risk of being diagnosed with cancer in NSW is one in two for men, and one in three for women. [8] It is the largest single cause of disease in the South Eastern Sydney Local Health District. Based on the current trends, there is projected to be over 30% more cases of cancer over the next ten years than there were in the last ten years. The rates of lung cancer deaths in women are projected to increase from 17 % of cancer deaths in 2006 to 23% in 2021. By contrast, breast cancer death rates in women are expected to decline from 16% of deaths in 2008 to 13% of total cancer deaths in women in 2021.[9]

Table 5: Incidence all Cancers by Local Government Area, South Eastern Sydney 2004-08 [10]

Local Government Area	Persons	Age Standardised Rate (per 100,000)
Botany Bay	929	452.1
Hurstville	2,098	471.5
Kogarah	1,472	471.2
Randwick	3,226	500.3
Rockdale	2,529	456.9
Sutherland	5,911	517.7
Sydney Inner/East SLA	1,466	523.0
Waverley	1,583	483.9
Woollahra	1,700	524.8
South Eastern Sydney LHD	20,914	489.0

3.3 Cancer Incidence Projections

Increases in the numbers of new cases of cancer in the South Eastern Sydney Local Health District are due to a combination of factors that have been considered in the Cancer Institute NSW, *Cancer Incidence Projections*.[11] These include increases in the incidence of individual cancers reflected in increasing age specific rates and increase in the population, in particular for those over 65 years. The number of new (notifiable) cancers across the District will rise from 4,590 in 2011 to over 5,420 in 2021. **This represents an 18% total increase.**

[8] Cancer Institute NSW. NSW Cancer Plan 2007 – 2010. Cancer Institute NSW, Sydney 2006.
[9] *Cancer incidence and mortality: projections 2011 to 2021* Cancer Institute NSW, Sydney: May 2011.
[10] Cancer Statistics On-Line. Cancer Institute NSW. Accessed July 2013
[11] Source: Tracey E, Central Cancer Registry 2008 data, 2009 version 2 Health Related Population projections, March 2011

Table 6: Projected new cancers South Eastern Sydney Local Health District 2011 to 2020 [12]

Cancer Type	2011	2016	2020
Head and Neck	107	109	108
Upper GI	337	365	394
Colon	353	380	413
Rectum	206	225	242
Lung	357	379	406
Melanoma	464	542	590
Breast	541	567	587
Cervix	34	31	32
Ovarian	55	56	58
Prostate	803	927	1037
Brain	63	65	69
Thyroid /Other endocrine	133	160	186
Non Hodgkins lymphoma	185	202	217
Leukaemia	114	121	129
Unknown primary	170	173	175
Myelodysplasia	96	100	110
Other	660	711	763
All cancers	**4590**	**5005**	**5423**

3.4 Cancer Survival

Cancer survival is a key indicator of cancer prognosis, control and treatment. There is now a far greater incidence of cancer than a subsequent death rate. Across Australia the cancer death rate has fallen by 16% over the last two decades.[13] When deaths from other causes are excluded, the chances of surviving at least five years after a cancer diagnosis with any type of notifiable cancer improved considerably from 47% in the period 1982–1987 to 66% in 2006–2010.[18] The cancers found to have the largest survival gains over this time were prostate cancer, kidney cancer and non-Hodgkin lymphoma. Survival rates for lung and pancreatic cancer and cancer of unknown primary were found to have not changed significantly and people affected by these cancers continue to have poor relative survival. Cancer types that did not show any significant changes over time were found to be lip, larynx and brain cancer and chronic lymphocytic leukaemia. At the end of 2007, there were more than 100,000 people in Australia with a history of breast and/or prostate and/or bowel cancer and/or melanoma of the skin, largely because these cancers were common and had relatively high survival.[18] Aboriginal and Torres Strait Islander peoples who were diagnosed with cancer between 1999 and 2007 were found to have a 40% of surviving for at least five years, compared with 52 per cent for non-Aboriginal Australians.[14]

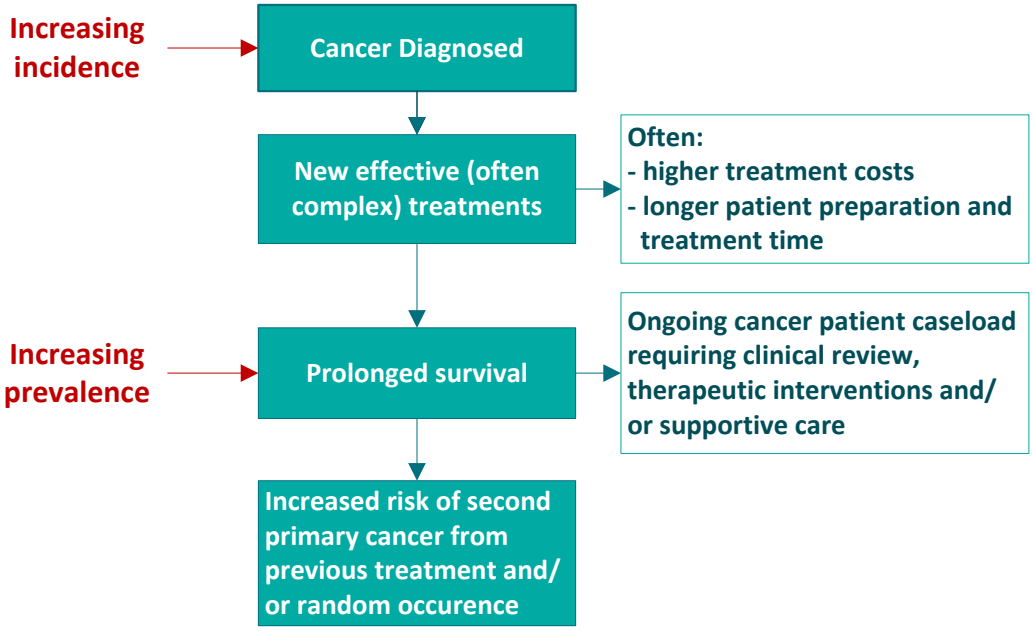
[12] Cancer incidence and mortality: projections 2011 to 2021 Cancer Institute NSW, Sydney: May 2011.
[13] Australian Institute of Health and Welfare 2012. Cancer survival and prevalence in Australia: period estimates from 1982 to 2010. Cancer Series no. 69. Cat. no. CAN 65. Canberra: AIHW.
[14] Cancer in Aboriginal and Torres Strait Islander peoples of Australia: an overview AIHW and Cancer Australia. 3 Oct 2013

Section 4: Context

4.1 Key Influences on Cancer Services Demand

The growing and aging South Eastern Sydney population and available advances in cancer treatments and models of care are driving the impetus for change in cancer service delivery, and will continue to influence cancer services over the life of this plan.

Figure 2: Influences on Cancer Services Demand



Offsetting the increasing demand for cancer services, to some extent (the degree and timeframe of which is difficult to predict), are a number of emerging treatment technologies, models of care and improved information systems allowing better communication between cancer care professionals:[15, 16, 17]

- The rise of pharmacogenomics which will enable a personalised approach to diagnosis and management thus improving treatment efficacy and reducing treatment toxicity in the future.
- An increase, over time, in oral anti-cancer agents, thereby diminishing hospital service need in some patients.
- The advent of radiation techniques that may significantly reduce overall treatment time.

[15] Bunnell, C. et al. Will We Be Able To Care For Cancer Patients In The Future? Oncology Vol. 24 No. 14 January 10, 2011
[16] Warren J. et al. Current and future utilization of services from medical oncologists. J Clin Oncol. 2008;26:3242-7.
[17] Barton, M et al. Review of Optimal Radiotherapy Utilisation Rates March 2013. Australian Government

4.2 Planning

Cancer services planning is complex and requires knowledge of several important parameters including the proportion of cases with an indication for treatment, the incidence of new cancers and knowledge of the capacity of treatment and other services. The best possible cancer care, including optimal chemotherapy and radiotherapy utilisation rates, has been variously determined in a range of studies for over a decade. The first Australian study to estimate, from clinical practice guidelines and published evidence, an ideal proportion of new cases of registered cancer that should receive chemotherapy at least once during the course of their illness for breast, upper gastrointestinal tract, gynaecological tract, head and neck, thyroid, genitourinary system (excluding prostate and testicular), thyroid and unknown primary cancers, found that it is indicated at least once in 50% of all new cancer patients.[18] The same study found existing chemotherapy utilisation rate to be substantially lower than the optimal rate in most tumour sites suggesting that chemotherapy may be underutilised in cancer treatment. A further Australian study investigated the optimal proportion of new cancers that would benefit from radiotherapy as part of their treatment plan and found the optimal radiotherapy, chemoradiotherapy and brachytherapy utilisation rates were 48.3%, 8.9% and 3.3%, respectively.[26] Factors that affect existing chemotherapy and radiotherapy utilisation can be grouped into health system, patient and provider factors. Health system factors include distance from a treatment centre, treatment centre characteristics, and waiting times. Patient factors include socio-demographic factors, age, co-morbidity, cultural beliefs, and life expectancy. Provider factors include referral practices and provider awareness of the benefits of radiotherapy.[26]

4.3 Implementation Risk

The Cancer Clinical Stream is responsible for the development, and maintenance of a district -wide, stream specific, clinical risk register, and the development and implementation of strategies to reduce identified clinical risks, in collaboration with the Clinical Governance Directorate and facilities. A number of key risks have been identified during the planning process that may impact the delivery of the Cancer Clinical Service Plan 2015-2018, including:

- Continued demographic pressures and the increasing demand for cancer services, particularly while awaiting the redevelopment of cancer outpatient services at St George and Prince of Wales Hospitals.
- The ability to accurately identify, record and measure consistently across cancer services any: service event relevant to ABF (including cancer care in the home); wait for cancer services; and patient outcome.
- Impact of ABF on comprehensive cancer service delivery is not yet quantified.
- Uncertainty as to the direction being set by Cancer Institute NSW with respect to the role, function and funding of care coordinators
- Uncertainty as to long term funding of Cancer Institute programs
- Potential difficulty in recruiting to key specialist clinical roles if required with existing shortages of professionals in some clinical cancer areas, including specialist oncology nurses.

[18] Ng, WL. Estimating the optimal chemotherapy utilisation rate as an evidence based benchmark in cancers of the breast, upper gastrointestinal tract, gynaecological tract, head and neck, kidney, bladder, thyroid and unknown primary. Doctoral Thesis. UNSW. Sydney, Australia 2010

- Capacity within current funding, infrastructure and resources to manage rising numbers of aged cancer patients with complex needs, including dementia. This includes the growing need to expand cancer in the home services to reduce the burden on hospitals.
- Difficulty in establishing sustainable shared care models to ensure continuity of care between hospitals and primary health care doctors and nurses, who maintain a responsibility for aspects of the patients' health care beyond specialist cancer care, with inadequate levels and availability of primary care practitioners.

4.4 Governance

The South Eastern Sydney Local Health District Cancer Services System governance structure aligns with and reports through the District's overall governance structure which comprises the Board, Clinical and Quality Council and Executive Group which set the overall direction for the organisation and its services. The Cancer Clinical Stream is one of six existing District clinical streams which support and advise the development of relevant evidence-based District-wide models of care in collaboration with networks/ facilities; establish clearly defined KPIs for the Clinical Stream and provide clinical mentorship and professional advice to ensure clinician compliance with clinical policies, procedures and guidelines, among other functions. The Cancer Clinical Stream has a clinical director who is a current District Medical Cancer Specialist. Cancer services governance is well defined with distributed leadership and an accountability model across a range of discipline specific areas and administration. The majority of patient care activity occurs via multi-disciplinary teams which have their own local structures. There is an integrated service across campuses (St George and Sutherland) and (Prince of Wales, Royal Hospital for Women & Sydney Children's' Hospital). High level governance of the system is coordinated through the monthly Cancer Services Advisory meetings with responsibility for specific functions distributed to a number of Clinical Directors. The cancer centres report through the respective hospitals to the Director of Operations and then to the District's overall governance structure. Local operational issues are dealt with via the Directors of cancer services and/or the Directors of Operation for each District Sector.

4.6 Funding

It is acknowledged that the Plan has been developed in the context of what will be one of the most financially challenging periods yet faced by the District's Cancer Services. Specific financial considerations are required to ensure that the impact of budgetary challenges on cancer services is kept to a minimum. The NSW Activity Based Funding (ABF) Policy provides the mechanism for allocating resources to public hospitals on the basis of the services delivered.[19] From 1 July 2012, South Eastern Sydney Local Health District facilities have been allocated funding using a combination of block funding grants and funding based on patient activity. Activity against targets and budget is monitored to better manage the performance of the hospital, in terms of the volume and complexity of the services provided and the cost of providing those services.

A key implication of ABF for cancer services is that for inpatient, outpatient and cancer outreach services, funding will be allocated according to the volume, type and complexity of patients. Each patient is classified according to their diagnoses, surgical procedures and other routinely collected data. It will be

[19] Neville Onley. ABF/EF SUMMARY Presentation. February 2012. NSW Health

critical for services to define, classify and count each service event in a consistent manner.[20] Provision of ABF data is a mandatory requirement for publically funded facilities. If this opportunity is missed, cancer care may be underfunded for the occasions of service delivered.

Priority Actions to support effective implementation of ABF across our District

Goal: Successful implementation of ABF relevant to cancer services

Actions:

- All relevant staff receive competency based training in administrative and business practices that support data collection for ABF
- All clinical staff receive training in relation to data requirements of ABF that relate to clinical practice
- Models of care are developed on the basis of activities remunerated under ABF and with efficiencies that minimize unfunded activity
- Use OMIS and other electronic systems to capture data relevant to both quality of care and revenue generation

[20] What is ABF? ABF Information Series No1. March 2010 Professor Kathy Eagar Centre for Health Service Development University of Wollongong

Section 5: Sites

5.1 Facilities

Prince of Wales Hospital Cancer Services

The Prince of Wales Hospital Cancer and Blood Disorders Services are managed by an executive group which includes the director of the cancer centre, the nursing and operations manager, and heads of the departments of radiation oncology, medical oncology, palliative care, hereditary cancer and clinical haematology.
The hospital's cancer services have a major teaching role in the training of oncologists, radiation therapists, physicists, cancer genetics health professionals and nurses throughout NSW. They also provide regional services to cancer patients from Port Macquarie, Tamworth and Canberra.

Artist's impression of the new facility that will house the Prince of Wales Hospital Nelune Comprehensive Cancer Centre (due for completion 2016)

The development of the Nelune Comprehensive Cancer Centre is a major capital project which will provide outpatient facilities for cancer patients at the Randwick Hospitals Campus (Prince of Wales Hospital, the Royal Hospital for Women and the Sydney Children's Hospital). The Nelune Centre will bring ambulatory, outpatient clinics and radiotherapy services that are currently provided across eight sites on the Randwick Hospitals Campus, into one facility. Ambulatory care, outpatient clinics and radiotherapy services will be provided as part of one comprehensive cancer centre, enabling patients to receive continuous care in one central location. It is expected that once fully operational, the centre will provide services for up to 30,000 occasions of service each year.
The Centre will also play a major teaching role in the training of oncologists, radiation therapists, physicists and nurses across the Campus. The Nelune Comprehensive Cancer Centre will be part of The Bright Alliance, collaboration between cancer services, research and teaching on the Randwick Hospital campus with the Lowy Cancer Centre at UNSW.

The Randwick campus has the District's only Positron Emission Tomography (PET) scanner which is available to patients from across the state that are referred to the three hospitals of the Campus – Prince of Wales Hospital, Royal Hospital for Women and Sydney Children's Hospital.

The Royal Hospital for Women

The Royal Hospital for Women is the only stand-alone women's teaching hospital in New South Wales. It is co-located with the Prince of Wales Hospital and Sydney Children's Hospital on the Randwick campus. The hospital utilises a number of specialist services of Prince of Wales Hospital including medical and radiation oncology, and genetic cancer services. It also supports Prince of Wales Hospital in the provision of specialist services including Breast Care Nurse Services. The hospital provides outpatient facilities and accommodation for the Breast Screen NSW Service for the South Eastern Sydney Local Health District.

Gynaecological Cancer Centre

The Royal Hospital for Women provides specialist cancer services from its cancer care centre which has 24 inpatient beds for gynae-oncology and oncology. The Cancer Centre provides weekly outreach clinics and surgery in Canberra and fortnightly clinics in Wollongong. In addition, it has good collaboration in terms of the provision of chemotherapy (and radiation therapy where available) with Cancer Services in Dubbo, Orange, Wagga Wagga, Griffith, Bathurst, Moruya, Nowra, Gosford and Coffs Harbour. Overall the Centre treats 350 new invasive cancers, performs 330 major operations and undertakes over 1000 cycles of chemotherapy per year.[21]

The Centre is actively involved in clinical trials and other research including investigating nursing issues, supportive care, psychosocial issues and palliative care. Lymphoedema, fertility and genetic counsellor services are available on site. The Centre hosts weekly Tumour Board meetings on Mondays at 5pm where all new and recurrent cases are discussed, and weekly multidisciplinary team meetings on Thursdays, where all inpatients are discussed. The Gynaecological Oncology Multidisciplinary Team (which includes specialists from Prince of Wales Hospital Cancer Services) involves gynaecological medical, and radiation oncologists, a palliative medicine physician, a medical consultant, and hereditary cancer physicians, as well as oncology nurses, a clinical psychologist, and other personnel. The Clinical Nurse Consultant coordinates care by being the patient's primary point of contact, as well as helping with any concerns and queries that may arise. The team meets weekly to discuss new patients, and weekly to discuss all inpatients.

NSW Women's Breast Centre

The Royal for Women hospital also provides specialist breast cancer services. The NSW Women's Breast Centre provides assessment, diagnosis and treatment of malignant and non-malignant breast conditions as well as follow-up of women who have had breast conditions or are at higher than average risk of developing breast cancer. The Centre currently operates three days per week and cares for more than 1500 women a year and is one of only a few facilities in NSW that offer specialised prone table procedures such as mammotome core biopsies. Breast cancer patients regardless of where they are operated (RHW or POWH) are recovered and provided with post op care at The Royal Hospital for Women. An expansion of the service to five days per week is planned over the next eighteen months. The clinical team at the NSW Women's Breast Centre is made up of consultant breast surgeons, breast physicians, radiologists, radiographers, clerical personnel, breast care nurses and a nursing unit manager. The breast care nurses provide information and support to women diagnosed with breast cancer and their families before and after surgery and during ongoing treatment should this be necessary. Their role ensures that women and their families understand the treatment options available so that they are able to participate in treatment decisions. A comprehensive review of breast services was conducted in 2012 with an agreement reached between Prince of Wales and the Royal Hospital for Women that the Royal Women for Women assume responsibility for all components of the NSW Breast Centre other than surgery performed at Prince of

[21] Royal Hospital for Women, Clinical Services and Specialties. Gynaecological Oncology South Eastern Sydney Local Health District website.

Wales. A subsequent plan has been developed to inform and guide cancer services provision from the Royal for Women to 2020.[22]

St George Hospital Cancer Care Centre

St George Hospital Cancer and Blood Disorders Services are managed by an executive who includes the director of the cancer centre, the nursing and operations manager, and heads of the departments of radiation oncology, medical oncology, palliative care and clinical haematology. The Prostate Cancer Institute is located within the St George Hospital Cancer Care Centre and provides a comprehensive and holistic management and service for men with newly diagnosed prostate cancer. The Centre is the only public facility to offer low dose rate Brachytherapy treatment in NSW.

The St George Cancer Care Centre is actively involved in the provision of continuing education for oncologists, registrars and other clinical staff. The Cancer Care Centre Foundation, through ongoing fundraising efforts, continues to provide crucial resources to the hospital's Cancer Care Centre.

St George Hospital is one of only a few hospitals in NSW to have stand-alone cancer patient accommodation. Bezzina House, a purpose built lodge within easy walking distance of St. George Hospital, was built through the generous support of the community. It provides comfortable, low cost, home-away-from-home accommodation for cancer patients and their immediate carer undergoing treatment at the St. George Hospital and is reported to have an average occupancy rate of around 95%.

Sutherland Hospital Cancer Services

The Sutherland hospital oncology day clinic provides chemotherapy services in particular for breast, colorectal cancer, lung and some haematology patients. As there is no ambulatory care facility, blood transfusions may be arranged if seating is available otherwise patients may need to be admitted. A social worker, dietician and psychologist are available on request within this clinic. The Sutherland hospital Oncology Day Clinic provided over 10,400 occasions of outpatient service between July 2010 and June 2011.[23] Of all local government areas in the South Eastern Sydney Local Health District, the Sutherland Shire has the greatest proportion of aged community members, many of which are required to travel to Kogarah to access specialist cancer services, including radiation oncology services which are not currently available in Sutherland Hospital.

5.2 Summary of Services

Cancer services of the South Eastern Sydney Local Health District offer a comprehensive range of general and specialist cancer diagnostic, interventional and therapeutic services, which are summarised in the tables below.

[22] The Royal for Women - 2014- 2020 Strategic Plan

[23] MyHospitals website http://www.myhospitals.gov.au/ Accessed July 10 2013

Table 7: Cancer Services by Facility

Service	Prince of Wales	St George	Sutherland
Adolescent And Young Adult Cancer	✓	---	---
Breast Cancer Care	✓	✓	---
Cancer Genetics	✓	✓	---
Cancer Outreach	✓	✓	✓
Cancer Clinical Trials	✓	✓	✓
Diagnostic and Interventional Imaging	✓	✓	✓
Ambulatory Care	✓	✓	---
Haematology	✓	✓	✓ (limited)
Radiotherapy	✓	✓	---
Medical physics	✓	✓	---
Surgical Oncology	✓	✓	✓
Medical Oncology	✓	✓	✓
Inpatient	✓	✓	✓
Bone Marrow Transplant	✓	✓	---
Patient and Carer Support	✓	✓	✓
Palliative Care	✓	✓	✓
Wig Library	✓	---	---

Note: See section on page 32 for services provided from the Royal Hospital for Women

Table 8: Cancer Services provided to other Districts and Health Services

Service	Service Recipient
Radiology	Illawarra Shoalhaven LHD
Gynaecology Oncology	Illawarra Shoalhaven LHD , ACT
Clinical Support Services e.g. theatres, recovery, radiology and radiotherapy	Sydney Children's Hospitals Network
BreastScreen service provision	Illawarra Shoalhaven LHD
Palliative Care	Sydney Children's Hospitals Network
Cancer Genetics	Illawarra Shoalhaven LHD, Sydney Children's Hospitals Network, ACT Health Service

Source: Service Agreement between: Director General NSW Ministry of Health and South Eastern Sydney Local Health District for the period 1 July 2013 – 30 June 2014

5.3 Role Delineation[24]

Clinical services can be classified under broad categories such as emergency, inpatients, surgery, and intensive care etc. Each of these has a particular level or standard of service known as a role delineation level. Role delineations are often numbered from 1 through to 6, with levels 1 through 3 representing health facilities offering care that is relatively simple.

[24] The Guide to the Role Delineation of Health Services. NSW Health Department 3rd ed 2002 outlines the requirements for each role delineation level for each category of service. A self assessment process was undertaken across SESLHD in the development of the current Health Care Services Plan which is endorsed by NSW Health.

Level 6 represents the provision of complex specialist services and hospitals. Role delineation recognises that for each level of clinical service provision, a corresponding level of clinical support services and staff profile are required to ensure services are delivered in a safe, efficient and appropriate manner. For example surgery at level 5 will require intensive care services and more expertise and support services.

Table 9: Role Delineations of Speciality Cancer Services by Facility

Specialty	Prince of Wales		Royal Hospital for Women		St George		Sutherland	
	Current	Future	Current	Future	Current	Future	Current	Future
Medical Oncology	6	6	5	5	6	6	5	5
Haematology	6	6	0	0	6	6	4	5
Radiation Oncology	6	6	4	4	6	6	4	4
Genetics	6	6	6	6	4	4	0	0
Palliative Care	6	6	4	4	6	6	3	3

A number of South Eastern Sydney Local Health District cancer services maintain and support effective statewide speciality clinical services to which all residents of NSW have access. Other cross health district specialty clinical services provide timely and clinically appropriate access for patients in these locales. The range and level of services provided by the District aligns with the NSW Ministry of Health approved Role Delineation levels.

Table 10: Role Delineations of other Cancer Relevant Services by Facility

Specialty	Prince of Wales		Royal Hospital for Women		St George		Sutherland	
	Current	Future	Current	Future	Current	Future	Current	Future
Pathology	6	6	6	6	6	6	6	6
Pharmacy	6	6	4	4	6	6	4	4
Diagnostic Imaging	6	6	6	6	5	6[25]	6	6
Nuclear Medicine	6	6	5	5	5	6	4	4
Geriatrics	6	6	0	0	6	6	6	6
Rehabilitation	6	6	0	0	6	6	5	5

[25] The high need for a PET scan has been reported by St George Hospital and Health Services

Section 6: Services

6.1 Medical Oncology and Haematology

In the South Eastern Sydney Local Health District, medical oncology and haematology services are provided by St George, Prince of Wales, Sutherland Hospitals and the Royal Hospital for Women. Level 6 services are provided in St George and Prince of Wales Hospitals. Medical oncology services are supported by other specialist staff that provide scientific, clinical and supportive care based on their particular discipline. Apart from clinical service provision, medical oncology services across South Eastern Sydney Local Health District contribute to a range of vital cancer research and provide health education and clinical teaching to trainee health professionals.

Cancer outpatient activity is complex and is often difficult to quantify as it can be counted in a variety of ways ranging from numbers of patients receiving treatment to types of service provided to different treatment regimens, treatment courses administered, chemotherapy protocols etc. **There is known variation (and deficits) in the capture and recording of service occasions and service types across the South Eastern Sydney LHD facilities providing cancer outpatient care.**

The level 6 services in St George and Prince of Wales Hospitals provide high dose therapy, apheresis services (including stem cell collections, red cell exchanges and plasma exchanges for malignant and non-malignant disorders), autologous stem cell transplantation, blood and blood products and deliver the large majority of haematological diagnostic, clinical, research and teaching activities of the District.
Sutherland Hospital provides a more limited scope of haematology care to the local population, including less intensive chemotherapy protocols. The Royal Hospital for Women provides the pre-arranged services of a visiting haematologist.

The demand for cancer outpatient services is expected to increase in and beyond the life of this plan based on projected population growth rates. Capacity will thus need to increase to be responsive to the increased demand with both short and longer term strategies likely to be required. Current trends impacting on the demand of cancer outpatient services include:

- Increased workload due to continued shift from inpatient to outpatient chemotherapy.
- Increasing complexity of chemotherapy treatments.
- Increasing number of new cancer cases as a large proportion of the population reaches 65 years and over.
- More treatments now available for second and subsequent line management including for advanced disease.

Offsetting this to some extent are new oral chemotherapeutics and improved management of side-effects which enable some patients to self-manage chemotherapy treatment at home.

Calculating Treatment Space (Chair) Demand

Building on the *Service Planning Guideline for Intravenous Chemotherapy, 2005*, the Cancer Institute NSW produced *Ambulatory / Outpatient Chemotherapy and Haematology Services in New South Wales, 2009.* This document provides a new measurement tool, the **Patient Chemotherapy Visit (PCV)** which supports the measurement of chemotherapy activity apart from other procedures conducted at ambulatory care units, such as central venous access care, bone marrow biopsies and the administration of antibiotics, antifungals and antivirals etc. The PCV attempts to account for and measure the variation in the complexity of chemotherapy delivery, the duration of the visit has been used as a proxy for complexity. The model assumes there is an average of 10 PCVs (occasions of service) per patient for each course of treatment; an 85% capacity of oncology outpatient units; an average chemotherapy utilisation rate of 42% and 240 operating days each year (five days per week for 48 weeks). An average of 1.2 PCVs per chair per day is provided as a standard rate.

The PCV model also provides for a 25% retreatment rate however a recent plan developed by another NSW Local Health District reports "due to current and expected future developments in general chemotherapy prescribing the retreatment rate is likely to increase further. Our clinicians recommend that a retreatment rate of 36% to 40% ought to be used in calculations for 2016 and 2021**".**[26] In addition to this, the optimal chemotherapy utilisation rate has recently been established as 50% of all new cancer cases require chemotherapy.[27]

It will be important to ensure the District has adequate future capacity to provide medical/ haematology services to all who can potentially benefit from them. The Institutes report states "In planning for chemotherapy services, additional chair capacity for non-chemotherapy procedures needs to be taken into account. In addition, existing infrastructure and other resources need to be considered".

Table 11: Existing Cancer Services Outpatient Resources (Medical Oncology/Haematology)[28]

Facility	Resources (2013) Treatment Chairs/Beds
Public (South Eastern Sydney Local Health District)	
Sutherland Hospital Oncology Day Clinic	8 chairs / 2 beds (5 days per week)
St George Cancer Centre	11 chairs /3 beds (5 days per week)
Prince of Wales Hospital Oncology Day Clinic	8 chairs / 2 beds (five days per week)
Prince of Wales Hospital Haematology Short Stay Unit	2 Chairs/4 beds (6 days per week)
Royal Hospital for Women Chemotherapy Unit	12 chairs (2 days per week)
Total SESLHD	**41 chairs / 11 beds**
Other Local Health Districts	
St Vincent's Kinghorn Cancer Centre (also supports Mater Hospital)	19 chairs
Sydney Children's Randwick, Kids Cancer Centre	Nil chairs / 12 beds

[26] Service Plan, Eurobodalla Cancer Care Services 2012. Southern NSW Local Health District.
[27] Ng WL, Jacob S, Delaney G, et al. Optimal chemotherapy utilization rate in cancer care: setting an evidence-based benchmark for quality improvement. *J Clin Oncol* 2010; 28
[28] Nurse Unit Managers Cancer Services Sutherland, St George, Prince of Wales, St George Private, Prince of Wales Private Hospitals and The Royal for Women

Private*	
St George Private Hospital Oncology Day Centre	9 chairs / 2 beds
Prince of Wales Private Oncology Day Unit	5 chairs / 1 bed
St Vincent's Private (utilises Kinghorn Centre for medical oncology – see number of chairs above)	--
Total private and Other LHDs	**33 chairs / 15 beds**
Grand total	**74 chairs / 26 beds**

Note: A number of facilities in Hurstville, Caringbah and Miranda are currently in development but further details are not publically available at the time of development of this plan.

The following table provides current and projected demand for medical oncology/haematology outpatient chairs based on the assumptions and calculations in the Cancer Institute NSW 2009 Ambulatory/Outpatient Chemotherapy and Haematology Services in New South Wales.

Table 12: Projected Demand Medical Oncology/Haematology Outpatient Treatment Space (Chairs)*

Facility	Existing chairs (2013)	2011 (based on PVC calculations)	2017 (Projection)	2022 (Projection)
POW Hospital / Royal Hospital for Women	22 (12 spaces are available for only two days per week)	20	21	25.5
St George Hospital	11	13	15	16
Sutherland Hospital	8	13	14	15
South Eastern Sydney LHD	**41**	**46**	**50**	**54**

*** Projections do not take into account:**

- **Residents outside SESLHD boundaries who access South Eastern Sydney Local Health District Cancer Services or South Eastern Sydney residents accessing cancer services in other Local Health District or private facilities.**
- **Non-malignant haematology requirements.**

Chair numbers are based on Cancer Institute PVC Model provided in *Ambulatory/Outpatient Chemotherapy and Haematology Services in New South Wales* Cancer Institute NSW *2009* and *Cancer Institute NSW 2011, Cancer incidence and mortality: projections 2011 to 2021.* Cancer Institute NSW, Sydney: May 2011. (Detailed calculations can be found in the Technical Paper which accompanies this plan).

All assumptions of the model have been used in spite of our outpatient services reporting that they are currently operating at full or near full capacity in relation to available chairs and staff numbers. After the PCV rates were calculated, reductions were made to take into account private hospitals and reported to provide around 45% of chemotherapy nationally.[29] It should be noted that the District's Southern sector is currently undersupplied in private chemotherapy chairs. Based on PVC projections, which takes into account private facilities, the District requires additional cancer outpatient treatment space, which is aligned to feedback reported by staff during the consultation process in the development of this plan.

[29] Provision of Services in Private Hospitals. Australian Private Hospitals Association. http://www.apha.org.au/industry-resources/services-in-private-hospitals/

Key Issues Identified from the Planning Process

Overall, the key challenges identified as barriers to cancer service improvement are: overburdened and limited infrastructure and resources, particularly in terms of existing physical space constraints; specialist cancer workforce shortages across disciplines and increasing patient workload and complexity of diagnosis and treatment, leaving very little time to give to service analysis and improvement.

Treatment Space

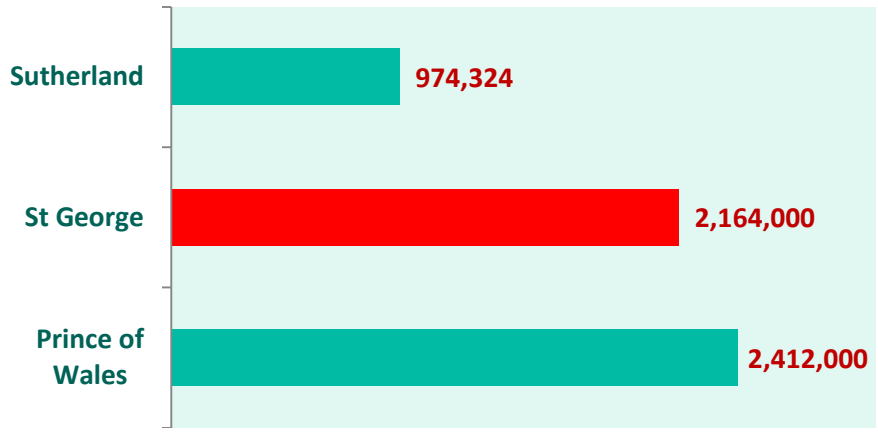
Space constraints were a dominant issue identified through the planning process in both the Southern and Northern sectors. Of most concern to staff was the need for cancer patients to be admitted for chemotherapy if no outpatient space was available which can place cancer patients at unnecessary risk of infection. It was reported that often cancer patients admitted for chemotherapy stayed longer in hospital than required. Feedback was also provided on the need to not only consider the projected outpatient chemotherapy treatment space (chair) as per table 14, but also additional space to provide non-chemotherapy treatments and care for patients accessing medical oncology and haematology services who are not residents of the local geographical area.

The St George Hospital Cancer Care Centre is reported to have reached a ceiling in terms of available service development options within the existing environment. This means that even a small a spike in referrals on top of an increasing need for complex treatments (such as apheresis, which requires dedicated staff over a prolonged treatment period) causes an immediate increase in wait times that can go beyond the recommended waiting period between cancer diagnosis and chemotherapy treatment. St George ambulatory care services have been identified as a priority infrastructure development need in the District's Asset Strategic Plan. A number of temporary space and staff options have been proposed to address this situation including extending operating hours. Similarly, the Prince of Wales Haematology Short Stay Unit reports that the demand for Unit has reached capacity and it now has to provide a six day a week service. When the service cannot meet demand, patients are admitted to hospital.

Other issues raised during the planning process include:

- A formal review of the St George and Sutherland Hospitals Haematology Department in July 2013 described the need for more medical staff and cancer workforce planning across a range of disciplines.
- The increasing number of new high cost haematology drugs (up to $100,000 per patient).
- Rising haematology treatment complexity and the increasing demand for haematology services at Sutherland Hospital.
- At St George Hospital the future care of haematology patients without malignant disease was highlighted by a number of Haematologists as a growing need. Non-malignant haematology is reported to account for around 30% of the services provided.
- Consultation clinics in cancer outpatient services are experiencing an increased demand.
- The need for additional staff training opportunities particularly for nursing staff entering cancer care areas was identified.
- The need for a PET scanner at St George Hospital was identified to facilitate cancer diagnosis.
- As Medical Oncology patients interact with many other services within hospitals, it was noted that the demand is increasing for other services such as palliative care and rehabilitation.
- Parking was viewed as a challenge for many people who typically need to attend appointments up to five days per week for six or eight weeks at a time.

Figure 4: High Cost Oncology Drugs by Health Facilities 2012/2013[30]



Priority Actions to improve our Medical Oncology and Haematology Services

Goal: To have adequate infrastructure and models of care to meet the cancer services needs of the community

Actions: (District)

- Continue to work with clinical redesign team and CINSW to develop models of care that maximize efficiency, are fundable under ABF and increase transition of care from inpatient to outpatient services and from outpatient to primary care settings
- Implement survivorship program/follow up at St George and POWH.

Actions: Prince of Wales Hospital and Health Services

- Determine and implement strategies to ensure cancer service continuity is maintained during the transition phase from existing cancer services on the Randwick campus to the Nelune Comprehensive Cancer Centre
- Extend Haematology outpatient/day only services at Prince of Wales Hospital to include a Sunday service
- Successfully merge with Oncology unit at Prince of Wales Hospital into a fully re-furbished unit, which can support the Agency of Clinical Innovations Bone Marrow Transplant Network Acute Myeloid Leukaemia model of care guidelines, and ensure best practice principles are achieved.
- Appoint a permanent pharmacist for Haematology at Prince of Wales Hospital.
- POWH Haematology continue to achieve NATA accreditation for haemopoetic stem cell collections
- Implement a successful transition program for transition of adolescent and young adults with a haematological malignancy from Sydney Children's Hospital to Prince of Wales, as per NSW Blood and Marrow Transplantation Statewide service plans.
- Develop nurse led clinics for pre-chemotherapy for Thalassemia at Prince of Wales Hospital.
- Prince of Wales to continue to provide ongoing development of knowledge and skills to ensure skill mix of the nursing staff reflects the complexity of treatments, and ensures that staff can meet the demands safely.

[30] Business Intelligence Unit, South Eastern Sydney Local Health District 4 September 2013

- Due to increasing numbers of transplants and harvests, the NSW Blood and Marrow Transplantation Statewide service plans indicates that BMT coordinators are necessary to meet workload demands, aim to source funding for such a position at Prince of Wales Hospital.

Actions: St George and Sutherland Hospital and Health Services

- Continue renovation of the St George Cancer Care Centre
- In collaboration with the St George Nuclear medicine department complete the business case for a PET scanner at St George and implement the installation
- Establish business case to support haematology services at Sutherland Hospital

6.2 Radiotherapy

Radiotherapy plays an important part of the treatment of a large number of cancer types and stages. Radiotherapy services need to have an appropriate level of clinical support services, such as diagnostic imaging, medical physicist, nuclear medicine, pathology, and a skilled workforce to support the delivery of high quality sustainable care.[31]

Two public Radiation Oncology Treatment Centres operate within the South Eastern Sydney Local Health District (Prince of Wales and St George Hospital). The St George Centre supports oncology patients from Sutherland and other local health districts. The Prince of Wales Hospital radiation oncology treatment centre supports Sydney Children's Hospital, Royal Hospital for Women and operates a weekly outreach clinic to Tamworth in North West of NSW and supports other Local Health Districts. The Prince of Wales Hospital Radiation Oncology Service provides medical consultations, planning, simulation and radiation treatment delivery with external beam radiotherapy or high dose or low dose rate brachytherapy. High dose rate brachytherapy is most commonly used to treat gynaecological malignancies such as vaginal, cervical and uterine cancer. Low dose rate brachytherapy is used in this service to treat eye plaques. The service also provides a number of other complex radiotherapy treatments including stereotactic radiosurgery, total body irradiation for bone marrow transplants and total body electrons for the treatment of cutaneous lymphomas. There is particular interest and expertise in specialised radiation procedures including intensity modulated radiation therapy. The Stereotactic Radiosurgery Unit was the first site in Australia to offer Intensity Modulated Radiation Therapy. As the treatment of children with radiotherapy poses special challenges for the radiation therapy team, it is NSW Health policy that radiotherapy treatment for the majority of paediatric patients be undertaken at selected sites. The Prince of Wales Hospital is co-located on the Randwick Health Campus with Sydney Children's Hospitals and the radiation oncology service provides treatment for paediatric patients including the provision of treatment under general anaesthesia should it be required.

Approximately 1,200 new patients per year are seen at the Prince of Wales Radiation Oncology Service and 1050 courses of radiotherapy are given (non-notifiable cancers and benign diseases are also treated). The service has three linear accelerators, two of which have Intensity-Modulated Radiation Therapy capabilities, and an orthovoltage X-ray machine for superficial tumours. The service also provides a dedicated outreach clinic to Tamworth Hospital and undertakes a range of research including research in collaboration with organisations such as the Trans-Tasman Radiation Oncology Group. In 2012, over one third of new radiotherapy courses provided by the Prince of Wales Hospital Radiation Oncology Service were delivered to people living outside the District's boundaries.

[31] NSW Health Radiotherapy Services in NSW, Strategic Plan to 2016

Table 13: All Radiation Oncology Activity Summary 2012 (.i.e. All Occasions of Service)[32,33]

	Jul 2011-Jun 2012	Jul 2012-Jun 2013
Prince of Wales	31,611	29,454
St George	26,198	26,758
Total	57,809	56,212

Table 14: Radiotherapy Treatment Activity Summary 2012[34]

	Attendances (Total Treatment Activity)	Total New and Retreatment Courses (no adjustment for complex patient activity equivalent ratio*)	New and Retreatment Courses using IMRT	Brachytherapy Courses
Prince of Wales	15,001	1,046	92 (9%)	34 (High Dose Rate) 30 (Low Dose Rate)
St George	23,920	1,373	155 (11%)	65 (High Dose Rate) 50 (Low Dose Rate)
Total	**37,216**	**2,419**	**232** (9% average)	**179**

The St George Hospital Radiation Oncology Service provides medical consultations, planning, simulation and radiation treatment delivery with external beam radiotherapy or high dose or low dose rate brachytherapy. The service is the only public facility to offer low dose rate Brachytherapy treatment to treat prostate cancer in NSW. Long term results from various studies[35,36] have shown the effectiveness of low dose rate prostate brachytherapy for low risk prostate cancer including comparisons of the effectiveness of various radical treatment modalities for low risk prostate cancer demonstrating that low dose rate prostate brachytherapy achieves similar survival benefits to that achieved with external beam radiotherapy and radical prostatectomy. A dedicated Brachytherapy treatment and theatre suite is available on site.

The St George Radiation Oncology Service has three linear accelerators, all of which have Intensity-Modulated Radiation Therapy (IMRT) capabilities. The IMRT program currently treats head and neck, cervical, oesophagus, and prostate cancers and offers a hybrid breast technique.

The service treats approximately 1,300 courses per year, with an average of 100 patients per day. In 2012, sixteen percent (16%) of new radiotherapy courses provided by the St George Hospital Radiation Oncology Service were delivered to people living outside the District's boundaries.

[32] Data Manager, Radiation Oncology Prince of Wales Cancer Care Centre, 26 July 2013

[33] Data Manager, Cancer Services St George Hospital 29 August 2013

[34] Radiotherapy Management System Reports Prince of Wales Hospital and St George Cancer Care Centre

[35] Frank SJ, et al. An assessment of quality of life following radical prostatectomy, high dose external beam radiation therapy and brachytherapy iodine implantation as monotherapies for localized prostate cancer. Journal of Urology 2007;177:2151–2156

[36] Buron C, et al. Brachytherapy versus prostatectomy in localized prostate cancer: Results of a French multicenter prospective medico-economic study. International Journal of Radiation Onc Biology Physics 2007;67:812–822

Complexity of treatment is an important factor in radiotherapy services planning. The additional time required to deliver more complex radiotherapy treatments need to be factored into service planning and demand analysis. For example, our services report that the use of Intensity Modulated Radiation Therapy has increased significantly over the past three years, from 8% in 2011 to around 45% currently.[37] Table 18 highlights the average machine utilisation time for a range of complex radiation oncology procedures provided at the Prince of Wales and St George services in 2012.

Table 15: Complex Radiotherapy Treatments South Eastern Sydney LHD 2012

Treatment	Number of Patients		Average machine utilisation time per attendance (minutes)		Average Number of Attendances per Patient	
	Prince of Wales	St George	Prince of Wales	St George	Prince of Wales	St George
Stereotactic Radiosurgery (Single Dose)	106	0	75	0	1	0
Stereotactic Radiosurgery (Fractionated)	70	0	30	0	28	0
Stereotactic Body Radiotherapy	12	6	70	60	7	4
Children With sedation Without sedation	 23 21	0	 75 45	0	13	0
Total Body Adult Children	 2 9	0	 90 90	0	 2 6	0

Notes: Average patient equivalent, on the basis of machine utilisation time, for the various complex procedures is commonly calculated by dividing the machine utilisation time by 15 minutes to derive the number of average patients equal to a complex patient.[38]

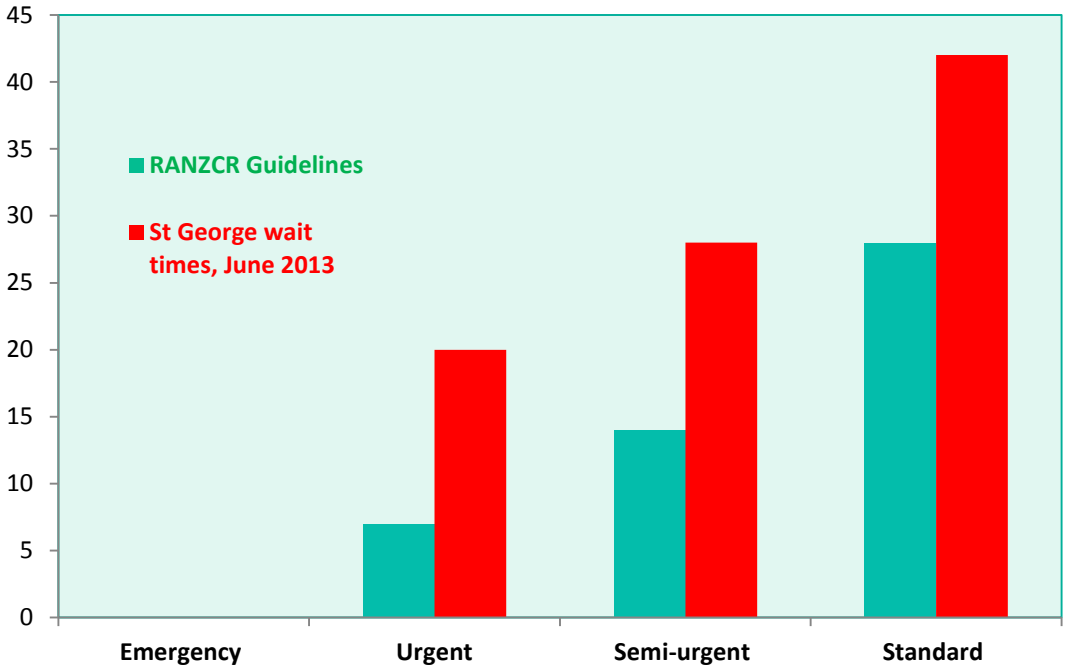
A number of new technologies may be incorporated into radiotherapy practice over the next decade. These are broadly classifiable into those technologies that improve the delivery of external beam radiotherapy such as stereotactic body radiotherapy, and those that may provide an alternative to radiotherapy such as hadron therapy and intra-operative partial breast irradiation.

There is variability in access to timely radiotherapy treatments across District facilities with patients attending St George Hospital currently experiencing longer wait times than those attending Prince of Wales service. The average wait time for radiotherapy at the Prince of Wales service is 13 days while the average wait time for radiotherapy at St George service is 22.5 days.[39, 40] Inadequate radiotherapy capacity compromises cancer care. Careful management of waiting times is crucial to ensure that there is no unnecessary delay in patients accessing treatment. Once radiation treatment has commenced it must be provided on an ongoing timely basis as per each cancer patient's individual treatment protocol if it is to offer the greatest success. The Royal Australian and New Zealand College of Radiologists (RANZCR)

[37] Peter Treacy, Chief Radiation Therapist, St George Cancer Care Centre
[38] Radiotherapy Management Information System Report 2010. Statewide and rural Health Services and Capital Planning, Strategy and Resources Division. NSW Health
[39] Department of Radiation Oncology, POW/Randwick Cancer Care Centre, July to December 2012
[40] Self-Initiated Briefing *Cancer Services* – St George Hospital Radiation Oncology, June 2013

provides evidence based guidelines in relation to acceptable delay in the time between cancer diagnosis and the receipt of radiotherapy.

Figure 5: RANZCR Guidelines and Radiotherapy Wait Times (days) St George Hospital [36]



The impact of projected increases in radiotherapy demand need to be considered alongside increases in wider District clinical services e.g. surgery, medical, pathology as well as other aspects of oncology care etc. so that the potential contribution made by radiotherapy services to improve cancer outcomes are not compromised by capacity constraints in other District services essential to patient care.

Radiotherapy is a NSW Health statewide and selected specialty service. These services are usually high cost and/or highly specialised services and provided in limited locations. There are currently 24 Radiation Oncology Treatment Centres in NSW, eighteen (18) of which are public. As at June 2013, there were 46 Linear Accelerators in public radiation oncology treatment centres. There is currently one private facility, St Vincent's Private Hospital, within the South Eastern Sydney region that provides radiation oncology services. This facility has one Linear Accelerator. The two private facilities in the South Eastern Sydney region that were expected to provide radiation oncology services have failed to deliver these services to date. This means that licences for an additional two linear accelerators are available in the South Eastern Sydney region which are not currently utilised. In light of this situation, the District's radiation oncology service reports the need for NSW Health to revise their plans for Linear Accelerators[41] in the South Eastern Sydney region and allow the procurement of additional machines to service the Sutherland and St George geographical areas where the shortfall will most likely impact. In terms of Local Health District boundaries and the availability of Linacs in public sector facilities, there are seven existing units of which four machines are located in the District's northern sector (one is found in St Vincent's Hospital which is not part of the District). The Southern sector (St George and Sutherland geographic areas) has a shortfall based on current demand/wait times and the target optimal utilisation rate of 48.3%.

[41] NSW Health Radiotherapy Services in NSW, Strategic Plan to 2016

Table 16: Linear Accelerator Requirements for South Eastern Sydney Population 2010-2022*

(*Does not include residents outside the SESLHD boundaries who access SESLHD cancer services)

	2011 (based on population requiring treatment)	2017 (Projection)	2022 (Projection)
District's Northern LGAs			
New cancer cases	1,955	2,132	2,310
Patients requiring treatment	944	1,030	1,111
Linear accelerators required	2.85 (5 existing priv/pub)	3.1	3.4
St George LGAs			
New cancer cases	1,337	1,458	1,580
Patients requiring treatment	646	704	763
Linear accelerators required	1.95 (3 existing public)	2.1	2.3
Sutherland LGA			
New cancer cases	1,298	1,415	1,533
Patients requiring treatment	626	683	740
Linear accelerators required	**1.9 (nil existing)**	2.0	2.2
South Eastern Sydney LHD			
New cancer cases	4,590	5,005	5,423
Patients requiring treatment	2,216	2,417	2,619
Linear accelerators required	7 (8 existing priv/pub)	7.3	8.0

Source: 1. NSW Central Cancer Registry Reporting Module, 2004 – 2008. Cancer Institute NSW. **2**. Radiotherapy Services in NSW Strategic Plan to 2016, Selected Specialty and Statewide Service Plans (No.7), NSW Health

Assumptions: Projected need for linear accelerators used NSW Health Radiotherapy Strategic Plan to 2016 which assumes that 48.3% of new cancer cases are treated with radiotherapy, 25% of those treated will require retreatment, and works on 331 new courses of treatment (excluding re treatments) per linear accelerator per year.

Note: Current demand and projections relate to resident populations (not facilities). Current supply for linear accelerators includes: 6 in SESLHD facilities (POWH 3, STGH 3); other public facilities within SESLHD geographic area (1 STVH), Private facilities within SESLHD geographic area (1 STVH private). There is proposed commissioning of an additional 2 Linacs at Hurstville's Medica Centre.

Key Issues Identified in the Planning Process

- There is a shortfall of Linacs based on current activity levels and wait times, particularly in the Southern Sector.
- A need to centralise the small number of patients from peripheral centres (rural) requiring uncommon gynaecological radiation oncology procedures to POWH to reduce the risk of complications with complex radiotherapy procedures such as extended field radiation, and vulvar, groin and pelvic radiation (Director, Gynaecological Cancer Centre Royal Hospital for Women).
- Prince of Wales radiation oncology service provides complex services to paediatric patients from Sydney Children's Hospital. Paediatric cases are invariably urgent with over half of the paediatric cases requiring a general anaesthetic resulting in each session, taking considerable machine time. Resources are required to maintain a safe patient care such as accredited paediatric anaesthetic nurses.

Priority Actions to improve our Radiotherapy Services

Goal: Provide sufficient capacity for radiotherapy services to meet current and projected demand

Actions:

- Consolidate the brachytherapy suite at the St George Hospital, with the Surgery and Cancer Clinical Streams working with relevant groups to develop effective referral pathways to improve access to the St George Hospital specialist low dose rate Brachytherapy treatment to treat prostate cancer.
- Ensure access to adequate radiotherapy services, including brachytherapy, for women attending the gynaecological oncology service at RHW
- Provide relevant parties including the SESLHD Board, the Clinical and Quality Council the MoH, and CINSW with accurate information about access to radiation (i.e. linear accelerator licence numbers, waiting time KPI, etc)
- Develop a business care for establishing a treatment-only radiation facility with 2 linear accelerators) located on the Sutherland Hospital campus. This should consider public-private partnerships.
- Reinstate the service level agreement between Prince of Wales Hospital Radiation Oncology Service and Sydney Children's Hospital regarding staff, training and resource needs to support the care of children.

6.3 Inpatient Services

The majority of cancer inpatient services in the South Eastern Sydney Local Health District are provided by St George, Prince of Wales and The Royal for Women Hospitals. These facilities have dedicated cancer inpatient beds/wards. The Sutherland Hospital provides limited cancer inpatient treatment services compared to these facilities. Other than the need to undergo surgery and other relevant complex procedures and treatments that require admission, the need for inpatient cancer management is partly attributable to the success of improved cancer treatments and care models which enable increasing numbers of people affected by cancer to live to older ages. Inevitably this means that older, frailer cancer patients will get acutely ill and require admission to hospitals. Haematology Peripheral Blood Stem Cell Transplants are undertaken at Prince of Wales Hospital. The number of these procedures has been steadily increasing in recent years from 13 in 2011 to 21 procedures in 2013.

Cancer Surgery

Surgery is one of the most common treatments for cancer. It may be undertaken for a number of reasons including confirming a diagnosis (biopsy), removing a tumour, staging, reconstructing a part of the body and for the relief of symptoms. Detailed information and data on cancer surgery across the District can be found in the South Eastern Sydney Local Health District ***Surgical, Perioperative and Anaesthetics Services Clinical Services Plan 2013-2018.*** This plan provides the following advice:

- The surgical bed occupancy rates at all District hospitals are high resulting in shortages of surgical beds at peak times and difficulty accessing surgical beds which may be compounded by medical and sub-acute patients being accommodated in surgical beds.
- That the District's surgical capacity is, to some extent, constrained by a lack of surgical beds and a need for hybrid operating theatres, workforce shortages and fiscal constraints.
- Meeting the increasing demand for surgical services requires significant capital development, which is dependent on substantial investment and requires a lengthy timeframe.

- There is a need to concentrate suitable planned surgical cases in dedicated high-volume short stay surgical units. In 2011/12 the District had the opportunity to channel nearly 15,000 planned surgical patients through high volume short stay units if they had been available.
- There is a level of low volume high complexity interventions (relatively rare procedures which can be unusually costly and/or require lengthy hospitalisations) e.g. peritonectomy, which requires further investigation and analysis to develop workable cost effective solutions.

Centralising Complex Cancer Surgery

International research including a number of systematic reviews[42, 43] has shown that increased hospital and surgeon procedure volume are frequently associated with lower inpatient mortality rates. The nature and strength of the relationship varies according to the procedure.[44] The results of these studies have led to recommendations for the consolidation of complex surgery for relatively rare cancers. The main reason for changing the way rare cancer surgical services are provided is to sustain and improve the quality of care provided by increasing the critical mass of these services in fewer health care facilities. Specific arguments include: clinicians who perform more surgeries gain experience which leads to improved future outcomes; more experienced surgeons may achieve shorter operating times and repeated experience may enable hospitals to develop routines for preventing or treating life threatening complications after complex surgery; hospitals performing more complex surgeries may have a broader range of resources. Improvements in care may also result from the development of new surgical and patient management techniques.

A recent NSW Cancer Institute study[45] which linked Central Cancer Registry data with Admitted Patient Data over an eight year period for complex pancreatic and oesophageal cancer procedures found a 2 fold difference in 30 and 90 day mortality and a 5% absolute difference in 1 year conditional survival. That a positive link was found between volume and health outcome in NSW led the Institute to closely examine the variation in volumes of these procedures across the State's hospitals. They found that around 93 oesophagectomies were performed annually by 24 hospitals with only three public hospitals performing over 6 procedures annually. With regard to pancreatectomies, around 132 were found to be performed annually by 28 NSW hospitals with only three facilities performing over 10 procedures annually. The Cancer Institute NSW states that *"the analysis reflects the magnitude and direction of volume-outcome relationships internationally"* and go on to propose that this situation creates a clinical governance imperative for Local Health Districts to put in place local policy that reflects the reforms necessary to ensure a team is doing a procedure frequently enough to optimise outcomes or refer patients to a facility that can offer this benefit.[20]

[42] Halm, E.A., C. Lee and M.R. Chassin. 2002. "Is Volume Related to Outcome in Health Care? A Systematic Review and Methodologic Critique of the Literature." Annals of Internal Medicine 137(6): 511–20.
[43] Urbach, D.R., T.A. Stukel, et al. 2004. "Analysis of Current Research Related to the Impact of Low-Volume Procedures/Surgery on Outcomes of Care." Review Commissioned by the Canadian Inst for Health Information. CIHI.
[44] Tracey J and Zelmer. J. Volumes and Outcomes for Surgical Services in Canada. Healthcare Quarterly, 8(4) Oct 05: 28-30.
[45] Aranda, S. Managing meaningful measurement: how should we use measurement to drive clinician learning? NSW Cancer Institute. http://ahha.asn.au/sites/default/files/sanchia_aranda.pdf

Cancer Surgery Waiting Times

Cancer surgery can be provided on an emergency basis or on an elective or planned basis. When the surgery is elective or planned, patients are first placed on a waiting list. The information in the following table refers to the median time spent on a waiting list by people with cancer who received elective surgery for selected cancer types between 1 July 2010 and 30 June 2011.[46] The findings and activities outlined in the District's surgical plan (summarised above) provide advice on the potential causes and actions to be implemented to support improvement in elective cancer surgery wait times.

Table 17: Median wait times, elective surgery, selected cancer types July 2010 - 30 June 2011

	St George Hospital	Prince of Wales Hospital	Sutherland Hospital	Royal Hospital for Women
Bladder cancer	25 days	21 days	21 days	-
Bowel cancer	14 days	13 days	19 days	-
Breast cancer	13 days	13 days	Fewer than 10 surgeries	15 days
Gynaecological cancer	26 days	-	57 days	11 days
Kidney cancer	15 days	23 days	-	-
Lung cancer	18 days	Fewer than 10 surgeries	-	-
Melanoma	11 days	14 days	Fewer than 10 surgeries	-
Prostate cancer	38 days	30 days	33 days	-

Cancer Inpatient Service Utilisation

Overall, total cancer inpatient separations, bed days and average length of stay have remained relatively stable over the past four years (2008-12) in spite of increasing cancer incidence which is expected and aligned with a concurrent rise in demand for cancer outpatient services. There are however inter-facility differences that are worth noting. For example, compared with northern sector facilities (Prince of Wales and The Royal for Women), southern sector facilities (St George and Sutherland) have had an increase in overall overnight separations and bed days since 2010, with bed day increases totalling around 3,000 days between 2010 and 2012 across the two facilities for overnight patients. The greatest increases are for cancer procedures in the 65 years and over age group.

Key Issue Identified from the Planning Process

A key issues raised by a large number of stakeholders in consultation process was that existing cancer service infrastructure was no longer fit for purpose, including the inability to comply recommended models of care that require the ready availability of isolation rooms and dedicated bathrooms/toilets for patients with particular cancers.

[46] MyHospitals website http://www.myhospitals.gov.au/ Accessed July 10 2013

Priority Actions to improve Inpatient Services across our District

Goal: Achieve best practice in delivery of cancer surgery across SESLD

Actions:

- In consultation with the NSW Agency for Clinical Innovation and NSW Cancer Institute, the Surgical and Cancer Streams will work with the local clinical councils to rationalise delivery of complex cancer surgery including ensuring multidisciplinary care
- Increased use of available data sources to inform practice improvement in surgery for cancer patients
- Further develop specialist cancer services at the Prince of Wales Hospital.
- Cease complex cancer surgery at Sutherland Hospital.

6.4 Cancer Genetic Services

The District provides cancer genetic services from Prince of Wales and St George Hospitals. Cancer genetic service types include cancer risk assessment, genetic counselling, genetic testing, medical advice and management, as well as psychological support to individuals and their family who have concerns about their personal and/or family history of hereditary cancer. Cancer genetics services now utilise counsellor led triage and initial consultations. Cancer genetics services are experiencing increases in workload, driven by the major changes over the past 15 years due to the number of genes identified and able to be clinically tested, and impact of that knowledge of management of individuals. In the six months to end June 2013 South Eastern Sydney Local Health District cancer genetics services provided over 4,000 occasions of services.

The Hereditary Cancer Clinic

The Hereditary Cancer Clinic based at Prince of Wales Hospital is an integral part of a state wide cancer genetics service and provides services to the South Eastern Sydney Local Health District, Illawarra-Shoalhaven Local Health District (Wollongong Hospital) and the ACT (Canberra Hospital via Telehealth), covering a population of around 1.5 million. The Clinic offers admission to the High Risk Breast Clinic for women identified with a mutation in BRCA1, BRCA2, TP53, PTEN and STK11 genes. The Clinic also works with the endocrine department to provide a combined Hereditary Endocrine Clinic. This clinic, in collaboration with the South Eastern Area Laboratory Services (SEALS) Molecular Genetics and Genomics teams, adopts new technological advances and provides clinical interpretation of results. Between 2000 and 2012, the number of occasions of service delivered by the Clinic across all sites was 17,214 for 8,406 patients. There were 1,988 occasions of service across all sites in 2011 alone compared to 450 occasions of service across all sites in 2000. In 2012, 1,875 occasions of service were provided despite key staff absences, with more than 600 of these having genetic tests performed. Tele-consultation has been a key part of the service given the small workforce and lack of regional clinical geneticists or cancer genetic specialists.

From the introduction of telehealth to the end of 2012, there were 1,537 YTD Telehealth occasions of service. It is anticipated the workload of the Hereditary Cancer Clinic will significantly increase with the advent of new genomic technology in 2013/14 and the impact of testing patients with specific histopathology in addition to those with a relevant family history. Considering the small size of the clinical workforce and lack of research infrastructure, the Hereditary Cancer Clinic's research output is considerable with 17 grants as Chief Investigator, 16 grants as Associate Investigator and 130 publications in peer

reviewed journals. The Hereditary Cancer Clinic has been integral to the establishment of the Psycho-social Research Group, which is now recognised internationally as a leader in the field of psychosocial research in cancer genetics. It has also been involved in health service research. This service was one of the first services to adopt teleconsultation as part of usual outreach service provision.

Emerging Need to Expand Genetic Cancer Services

The need to expand Genetic Cancer Services is caused by the following:

- The advent of new technologies in genetics and genomics,
- Personalised cancer treatments becoming increasingly available for those with specific genetic mutations.
- Clinical trials are requiring stratification by mutation status.

These factors will continue to result in increasing demands on genetic testing services. The following example highlights the need for greater resourcing: *More women can now be tested for ovarian and breast cancer risk regardless of their family history, after revised Australian guidelines. The revision means women aged 70 or under diagnosed with ovarian cancer are now recommended to have BRCA1 and BRCA2 genetic testing to help clarify their prognosis and family risk of the disease. The new guidance is based on research carried out at Melbourne's Peter MacCallum Cancer Centre last year, which showed that BRCA testing can benefit all women diagnosed with the disease, regardless of their family history. Genetic Testing for Heritable Mutations in the BRCA1 and BRCA2 Genes. eviQ Cancer Treatments Online, Cancer Institute NSW accessed July 17th 2013.*

Priority Actions to improve Cancer Genetic Services

Goal: Provide greater access to cancer genetic services for SESLHD as part of a statewide plan

Actions:

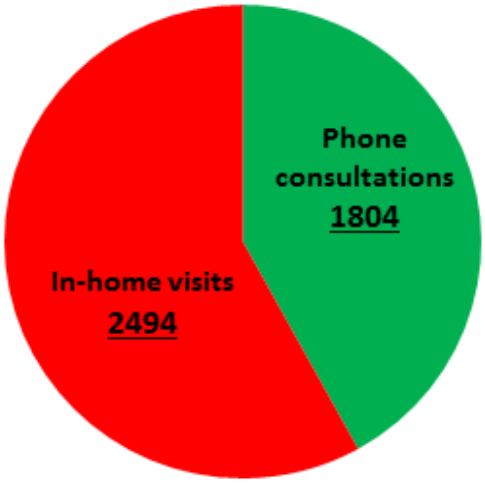
- Participation in the statewide cancer genetics service including contribution to the collection and analyses of data from KinTrak
- Increasing capacity to deliver outreach services.
- Support the Cancer Institute NSW to develop a Statewide Genetic Cancer Services Plan which informs effective models for cancer genetics service delivery in New South Wales.
- Establish a Next Generation DNA Sequencing service to support identification of genetic markers impacting treatment selection and prognosis for cancer
- Support clinical genetic services to train healthcare professionals in primary and secondary care to improve patient access to appropriate assessment, genetic testing and surveillance.
- Engage with the Directorates Primary and Ambulatory Care to inform vulnerable groups of the availability of cancer genetic testing and surveillance.
- Improve the involvement of consumers in the development and implementation of genetic services to improve design, delivery and sustainability of services.
- Improve equity in access to cancer genetic services through planning and community promotion of services, including the demographic profile of local populations across all ethnic groups.
- Enhance teaching and supervision of students in such fields as genetic counselling, medicine and public health.

6.5 Cancer Outreach Services

Currently the majority of intravenous chemotherapy is delivered in South Eastern Sydney in ambulatory care or inpatient settings, however, cancer outreach services are evolving in response to ongoing advances in cancer treatment. The increased availability of oral chemotherapy, while offering clear advantages for both patients and services, also poses real challenges and requires different selection and monitoring considerations along with additional surveillance, education and support requirements, such as proactive telephone surveillance. A key purpose of the District's Cancer Outreach Services is to provide needed nursing care in the cancer patient's home. These services have improved and developed the delivery of treatment and care by looking at alternative and innovative ways of providing out of hospital services. Research on home versus hospital medical oncology and Haematology delivery supports the safety and effectiveness of this kind of service and high levels of patient satisfaction.[47,48]

Cancer outreach services are available from the St George and Prince of Wales Hospitals. The services aim to prevent emergency presentations and unnecessary hospital admissions; reduce length of inpatient stay; decrease cancer outpatient occasions of service; increase continuity of care and improve quality of life for patients and their carers. All eligible adult patients who live within the District boundaries are currently offered cancer outreach services which may include one or more of:

Cancer Outreach Occasions of Service July 2011 - June 2012 (3.5 FTE staff)



- Administration of cytotoxics in the community, including intravenous.
- Clinical Management of intrapleural catheters for reoccurring malignant pleural effusions.
- Advanced Cancer symptom management including CVAD, intravenous hydration, antiemetic therapy, anaphylaxis management, oral complications and bowel management.
- Post Autologous Peripheral Blood Stem Cell Transplant management facilitating early discharge from haematology inpatient unit.
- Care coordination (Hospital and Community Allied Health, Nursing and Medical teams i.e. GP's/Registrars etc)

Patients of the outreach services report a number of 'convenience factors' in terms of:

- Eliminating the need to travel to, and park in or near hospital grounds where parking is often limited and/or costly.
- Time off work to travel and wait in outpatient areas to be treated
- Being able to stay at home when not feeling well and/ or fatigued
- Reassurance and support especially for anxious and socially isolated patients

[47] Borras, J.M. et al (2001) Compliance, satisfaction, and quality of life of patients with colorectal cancer receiving home chemotherapy or outpatient treatment: a randomized controlled trial. British Medical Journal; 322: 826–828.

[48] Joo EH, Rha SY, Ahn JB, Kang HY. Economic and patient-reported outcomes of outpatient home-based versus inpatient hospital-based chemotherapy for patients with colorectal cancer. Support Care Cancer. 2011 Jul;19(7):971-8.

- Patients who are reluctant to attend hospital having an “alterative” care pathway.

Collectively there are two fulltime equivalent Clinical Nurse Consultants based at St George and one fulltime equivalent Clinical Nurse Consultant and one half-time Clinical Nurse Specialist based at Prince of Wales hospital providing Cancer Outreach Services. The planning process identified the growing demand for outreach services and for strengthening collaborations with primary care providers. Key challenges reported by cancer outreach services were the need to:

- Improve care coordination between cancer services and private primary care practitioners to reduce duplications regarding pathology tests and imaging
- Provide patient information in a timely manner between the General Practitioner and the cancer consultant.
- Improve health professionals and consumers and carers understanding of their role and functions within the cancer care continuum
- Limited capacity of the existing cancer outreach services to care for patients who reside outside the Local Heath District boundaries.

Priority Actions to improve our Cancer Outreach Services

Goal: Increase use of cancer outreach services as a component of new models of care under outpatient activity based funding.

Actions:

- Establish and record a minimum dataset to support the reporting of outcomes achieved by the cancer outreach services outreach services.
- Within funding models maximise utilisation of cancer outreach services to ensure reduced utilisation (where appropriate) of inpatient and facility-based outpatient services
- Work with the Medicare Locals to establish sustainable approaches to better coordinate care through improved mutual understanding and communication between primary care and cancer care providers, and where possible develop formal shared care models.
- Provide ongoing training and implement succession planning strategies for Cancer Outreach Teams.

6.6 Specialised Allied Health Cancer Services

Specialised Allied Health Cancer Services (Dietetics, Occupational Therapy, Physiotherapy, Social Work and Speech Pathology) are available within or near major cancer centres across the District. Oncology services at The Sutherland Hospital are covered by the hospital allied health staff. Complex or specialist oncology allied health services are generally provided at St George Hospital or in consultation with the specialist allied health staff at St George. This workforce provides inpatient and outpatient services to medical oncology, haematology, palliative care and radiation oncology patients. Like all other cancer disciplines, specialised allied health services ensure that the unique skills of each clinician are used to provide the best care for the cancer patient as their needs dictate and collaborate with other specialists to ensure that each cancer patient's care is coordinated. Examples of the key services provided by specialised Allied Health Oncology Services offered in the District include:

- Dietetics services provide weekly post-treatment clinic for head and neck cancer in conjunction with speech pathology;
- Social Work services provide psychosocial support to patients in close liaison with both Psychology and Psychiatry clinicians;
- Speech Pathology services provide weekly post-treatment clinic for head and neck cancer in conjunction with dietetics and a specialised "swallow clinic" in conjunction with a gastroenterologist providing assessment and management to late treatment related dysphagia for patients across NSW. Speech Pathology services are also currently managing a National Health and Medical Research Council funded research project investigating long term swallowing outcomes following head and neck cancer;
- Occupational therapy and physiotherapy co-facilitate outpatient lymphoedema services with senior fulltime physiotherapist and occupational therapist providing specialised skills in education, treatment and management of lymphoedema. They also provide custom compression garment prescription for lymphoedema patients.

Specialised allied health oncology services as a whole report the need to strengthen the role of rehabilitation, lifestyle and fitness education programs for post cancer treatment patients.

Lymphoedema Services

Lymphoedema services are available onsite at the Royal Hospital for Women and St George Hospitals. In the 6 months from July-Dec 2012 the St George Lymphoedema specialist physiotherapist provided over 700 occasions of service to cancer patients for the treatment of Lymphoedema which included over 180 new patients. This specialist reports a lack of appropriate treatment space for the St George lymphoedema service and no access to bioimpedance assessment equipment to facilitate tailored approaches to treatment based on level/urgency of need. The Prince of Wales Hospital does not currently provide a Lymphoedema service.

Psychosocial Oncology Services

People with cancer and their families often suffer considerable emotional distress that can lead to major psychological morbidity if undetected or not addressed adequately. Psychosocial oncology services address the emotional, psychological and practical issues that accompany a diagnosis of cancer. Psychosocial services work not only with inpatients but also the many outpatients who spend time on site for treatment. Staff providing psychosocial oncology care includes professionals specialising in oncology social work, psychiatry, psychology, palliative care, pastoral care, occupational therapy and education. Consultation liaison psychiatry services are currently very limited at Sutherland Hospital and almost non-existent at St George Hospital, representing underservicing. The St George clinical psychology service has 1 full time equivalent staff member, which is funded annually by the Cancer Institute. The service is supplemented (+ 0.4FTE) by providing six monthly placements (2 days/week) to intern psychologists, who are enrolled in Masters/Doctorate of Psychology Post Graduate programs. Due to the current lack of consulting rooms in the cancer care centre, ongoing placements may not be offered in 2014. This will add extra pressure to an already busy service. Clinical burnout continues to be a challenge in acute services, such as cancer.

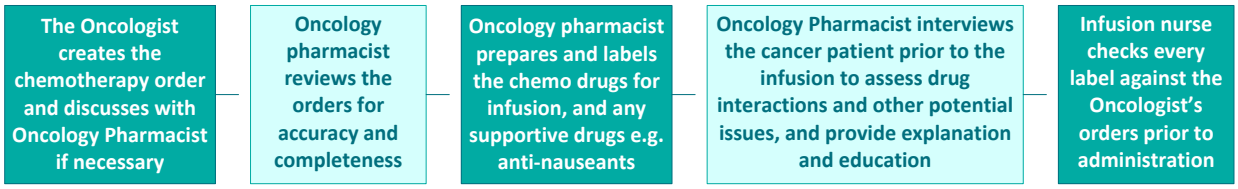
Cancer Pharmacy Services

Prince of Wales, St George and Sutherland Hospitals all provide pharmacy services with dedicated chemotherapy pharmacy staff and use off site providers. It is widely acknowledged that specialised

oncology pharmacists are critical to optimal chemotherapy outcomes. They provide a wide range of services, including:

- Coordinates the supply of cytotoxic medications.
- Dispenses cancer medications and cancer associated therapies.
- Collaborates with other health care professionals to pursue optimal medication therapy for patients with cancer, specifically reviewing the appropriateness of cancer treatment in conjunction with patients' existing drug therapies.
- Identifies medication related problems and interactions.
- Provides advice to optimise medication administration.
- Counsels patients to improve medication compliance and outcomes.
- Participates in and supports clinical trials and research associated with cancer treatment.
- Trains and supervisors practising pharmacists in oncology specific pharmacology.
- Compounds cytotoxic and biomedical medications for cancer therapy.

Figure 6: Steps Involved in the Pharmaceutical Care of Cancer Patients



Oncology pharmacy services are available in Sutherland, St George and Prince of Wales Hospitals, and Royal Hospital for Women. St George Hospital also has an oncology clinical trials pharmacist which is funded by trust funds. Oncology pharmacists across the District are currently supporting the roll out of e-prescribing.

All District pharmacy services report steadily increasing levels of demand. One of the consequent risks of this has been flagged as pharmacists not trained in oncology pharmacy being required to deliver complex pharmaceutical services and care to cancer patients, which may place them at unnecessary risk. Specific oncology pharmacist staffing ratios are available for inpatient radiation and medical oncology treatment but there is a gap in information regarding outpatient treatment services and ratios that capture the wide range of Oncology Pharmacy activity overall.[49]

Pharmacy services across the District report:

- A future shortfall of oncology pharmacists based on increasing trend in demand.
- Concern about the time needed to train and supervise other pharmacists in oncology specific pharmacology.
- Ongoing challenge and frustration in accessing non-PBS subsidised drugs.

St George Hospital has flagged a rebuild of its cytotoxic compounding room over the life of this plan through fundraising ventures.

[49] SHPA Standards of Practice for Clinical Pharmacy Services. Journal Of Pharmacy Practice And Research. Volume 43, No. 2, June 2013 – Supplement

Priority Actions to improve our Specialised Allied Health Cancer Services

Goal: Allied health services are enhanced and recognised as an integral component of cancer care
Actions:

- Identify opportunities and resources to support rehabilitation, lifestyle and fitness education programs in the context of a survivorship plan for post cancer treatment patients.
- Develop models of care that facilitate access to lymphoedema services in SESLHD
- Develop processes that promote identification of the psychosocial needs of patients and their carers, and ensure access through appropriate referral pathways to psycho-oncology services
- Increase opportunities for training of oncology pharmacists

6.7 Geriatric Oncology

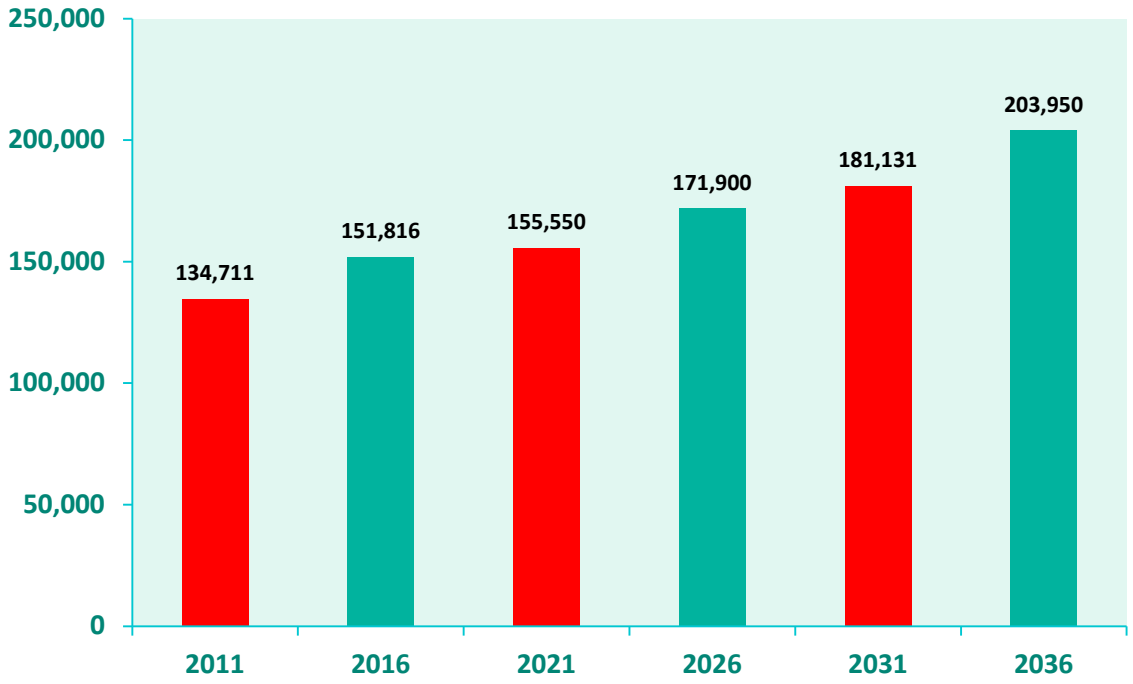
Older people make up the largest segment of the cancer population because overall age represents the single most important risk factor for developing cancer. Approximately 60% of all newly diagnosed cancers occur in persons 65 years or older.[50] Cancer compromises the life expectancy of older individuals, and cancer and cancer treatment are major causes of disability for this group. Moreover, older patients with cancer often carry a high comorbidity and existing polypharmacy burden. The elderly with cancer and their families often have different care needs than younger adults and children. They are also more likely to have a number of social considerations including access to transport social support, financial resources, and others affecting their care and recovery from cancer.

Many studies show that people with cancer over age 65 are significantly under-represented in cancer clinical trials and more research is needed to establish the relative efficacy of cancer treatment in the elderly, given standard treatment strategies have been mostly validated in younger adults. More research is also needed to provide information related to the short and long term complications of treatment including decline in function. Additional clinical research will help inform improvements in quality of life with aging and reduce morbidity in this group.[51]

In spite of the high prevalence of cancer among the elderly, geriatric oncology is still a relatively new cancer subspecialty in Australia.52 It is however becoming a growing area of interest for cancer services here and internationally with large cancer centres developing integrated geriatric oncology programs, some hiring geriatricians or dual trained geriatric oncologists and others harnessing the multidisciplinary environment with close collaborations with geriatric teams.[53] It is generally accepted that geriatric oncology will increasingly become a major component of oncology and geriatric practice in the future.[54]

[50] Australian Institute Health and Welfare. Cancer: key facts. http://www.aihw.gov.au/cancer/
[51] Terret C, Albrand G, Jeanton M, et al. What's new in geriatric oncology? Bull Cancer. 2006 Jan;93(1):119-23.
[52] T.H.M. To, M. Okera, J. Prouse et al Infancy of an Australian geriatric oncology program—characteristics of the first 200 patients. Journal of Geriatric Oncology. Volume 1, Issue 2, October 2010, Pages 81–86
[53] Martine Extermann. Geriatric Oncology: An Overview of Progresses and Challenges. Cancer Res Treat. 2010;42(2):61-68
[54] Puts MT, Girre V, Monette J, et al. Clinical experience of cancer specialists and geriatricians involved in cancer care of older patients: A qualitative study. Crit Rev Oncol Hematol. 2010 May;74(2):87-96.

Figure 7: Projected Population 65 Years and Older, Persons, South Eastern Sydney LHD, 2011-2036[55]



Existing research on the field of geriatric oncology provides some advice on potential improvements that can be further investigated (for local acceptance and implementation requirements) by South Eastern Sydney Local Health District Cancer Services to better meet the needs of our older community members that are impacted by cancer, including:

- A stepped approach to the initial evaluation of older cancer patients which includes a short screening tool applied in the oncology practice, followed by a more comprehensive geriatric assessment and an integrated approach by a multidisciplinary team as required.[56]
- The integration of geriatric assessment and cancer management tools and guidelines to support cancer treatment decisions.[57]
- Educational programs for all medical oncology fellows about general and specific care requirements of elderly patients, including known risks for drug interactions, implications of co-morbidities, treatment response and tolerance etc.[58]
- Undertake clinical research that tests current accepted practice and treatments on older patients to increase awareness of the need for specific approaches to treatment of cancer in the elderly and provide more successfully translatable results.[75]

[55] *New South Wales Local Government Area Population Projections: 2010 interim revision. * Population projections are not precise predictions of the demographic future.*

[56] Extermann M, Boler I, Reich R, Lyman GH, Brown RH, DeFelice J, et al. The CRASH score (Chemotherapy Risk Assessment Scale for High-Age Patients): Design and validation. Proc Annual Meeting Am Soc Clin Oncol. Chicago: IL; 2010. p. 636s.

[57] Overcash J. Geriatric oncology nursing: beyond standard care. Interdiscip Top Gerontol. 2013;38:139-45.

[58] Lichtman SM, Balducci L, Aapro M (2007) Geriatric oncology: A field coming of age. J Clin Oncol 25:1821–1823

- Take regular advantage of professional organisations and groups such as the Clinical Oncological Society in Australia to keep abreast of opportunities and information to support better care of older people with cancer.[59]

Priority Actions to improve the Care of Elderly People with Cancer

Goal: To provide cancer care tailored to the needs of an ageing population

Actions:

- Collaborate with local aged care services to determine the need for and the manner of delivery of comprehensive multidisciplinary geriatric oncology services in the Southern and Northern sectors (preliminary discussions suggest these are likely to differ between the sectors)
- If geriatric specific oncology services are established, collect relevant data and analyse the outcomes and activities generated by the introduction of a dedicated geriatric assessment; including referrals to allied health and other services.

6.8 Adolescent and Young Adult Cancer Services

In NSW, cancer is diagnosed in 130 youths each year. The overall survival is good but there is room for better coordination, ensuring every person with a cancer diagnosis is seen by an appropriate multidisciplinary team, and at the same time ensure that other critical needs are adequately assessed and supported (educational, psychological, sexual, financial etc). Increasingly, the academic literature is now also giving some focus to cancer survivorship among this age group since the Children's Cancer Survivorship Study[60] revealed an unexpected burden of morbidity for young adult survivors of childhood cancer.

In Australia, CanTeen[61] has established youth cancer services in NSW and the ACT to provide age appropriate care for cancer patients aged 15 – 24 years. Youth Cancer Services provide:

- Multidisciplinary and coordinated care across the patient journey
- Psychosocial assessment and referral to appropriate supportive care services
- Access to clinical trials where available
- Information and resources for patients, families and health professionals

The Sydney Youth Cancer Service is a dedicated service for young adults with cancer (and their families). This is a collaborative service between children and adult cancer specialists at Sydney Children's Hospital and the Prince of Wales Hospital. The Adolescent and Young Adult (AYA) Cancer Service provides age appropriate medical, nursing, psychological and social care for young people with cancer, specifically:

- Primary medical consultation and management
- Children and adult collaborative consultations on diagnosis and treatment options
- Consultation on clinical trials
- Nursing expertise in the management of young adults with cancer
- Care navigation through treatment by clinical nurse consultants

[59] Monfardini S, Aapro MS, Bennett JM, et al Organization of the clinical activity of geriatric oncology: report of a SIOG (International Society of Geriatric Oncology) task force. Crit Rev Oncol Hematol. 2007 Apr;62(1):62-73. Epub 2007 Feb 14.

[60] The Childhood Cancer Survivor Study http://ccss.stjude.org

[61] Youth Cancer Services. Canteen. http://www.canteen.org.au/

- Psychosocial assessment and support throughout treatment by the psychosocial team
- Information from medical consultants and the fertility preservation team at the Royal Hospital for Women
- Educational support and school, university and vocational visits
- Age appropriate inpatient and outpatient treatment spaces

The service includes a psychosocial team made up of a clinical nurse consultant, a social worker and a clinical psychologist who provide assessment and support for young adult patient undergoing treatment in the South Eastern Sydney and Illawarra Shoalhaven Local Health Districts. The service attends a number of weekly multidisciplinary meetings where young adult diagnosis, staging and reassessment scans are reviewed by paediatric and adult clinicians. The Department of Reproductive Medicine at the Royal Hospital for Women provides assistance with fertility preservation in young adults with cancer. The Prince of Wales/Sydney Children's Hospital state-wide hub has established an effective model for working within adult and paediatric settings and across hospitals.

Priority Actions to improve our Adolescent and Young Adult Cancer Services

Goal: Provide seamless care of AYA patients as they transition between settings of care
Actions:

- Develop care pathways in partnership with Sydney Children's Hospital for the transition of care of cancer patients from the Children's hospital to South Eastern Sydney LHD hospitals to support the effective care and management of adolescents and young adults with cancer.
- Work with the Cancer Institute NSW and CanTeen to support funding and other resources for a state wide youth cancer service though the Randwick campus which will help:
    - Ensure local patients continue to benefit from AYA specific and more general cancer medical and psychosocial expertise while also having care delivered closer to home.
    - Provide expert leadership, governance and professional development so that AYA cancer services can be developed consistently across NSW.
    - Provide accountability for meeting key performance indicators.
    - Provide greater equity in allocation of care for all AYA patients.
    - Demonstrate the positive medical and psychosocial outcomes of having designated youth cancer services.
    - Support change in health care policy and funding for this cohort.
    - Increase the number of AYA patients who are either referred by clinicians or self-referred and will slowly create a critical mass of patients making it financially more viable to open clinical trials to support a much needed increase in evidence on the treatment and management of this group.

6.9 Palliative Care Services

Calvary Health Care Sydney (CHCS) Palliative Care Service is a Level 3 specialist service. It comprises a 39 inpatient beds including a Day Hospital with one bed and two chairs, a multidisciplinary Community Palliative Care Team, the Bereavement Counselling Service for all bereaved clients in the St George District and Sutherland Shires, Pastoral Care Services, a large volunteer service and the Palliative Care Academic Research Unit and Palliative Care Clinical Trials. Specialist palliative care is provided by experienced medical, nursing and allied health staff who address the needs of patients and families, however there is no speech pathologist

or dietician funded to meet the needs of palliative care patients. For 2012-13, the total number of inpatient admissions was 754 which is a slight increase on the mean number of admissions since 2008/09 of 732. The number of deaths was 464 and the occupied bed days was 12, 622 beds. In 2012, the CPCT mean number of patients/month was 260, with the range varying between 235-300 patients/month. There has been an 18% increase in monthly average number of referrals from 68.5 in 2011 to 80.5 in 2012.

The Community Palliative Care Team have formally established shared care models with community nursing services at Sutherland Hospital and St George Hospital to share the management of appropriate community palliative care patients. The Team also provides a consultancy service to Residential Aged Care Facilities in the District's Southern Sector when requested and has established a capacity building program in Residential Aged Care Facilities to enhance end-of-life care and the implementation of a palliative approach by increasing the knowledge base of nursing staff and care workers. The team is also closely linked with primary care providers including generalist nurses in the District. A consultative palliative care outreach service is provided at Coffs Harbour – Mid North Coast (by CHCS palliative care specialist) and a monthly teleconference is convened at CHCS to discuss clinical cases and provide clinical education to staff on the Mid North Coast.

St George Hospital and Sutherland Hospitals have no designated Palliative Care Beds. Patients may be admitted under the care of the Palliative Care specialist if there is a specific need. The Palliative Care Service provides consultative advice for cancer patients and those with end stage disease requiring pain and symptom management, emotional and psychosocial support and terminal care, review for placement or transfer to CHCS, Community Palliative Care Team or other service providers. The Palliative Care Team is a medical and nursing assessment and consult service, with intake meetings for all new referrals, and participation in major tumour group and other non-malignant MDT meetings to provide input to patient management plans. The consultative service has well established links with Calvary Health Care Sydney and cross accreditation of some palliative care specialists.

Key Issues Identified in the Planning Process

Cancer services report:

- A current high and increasing need for palliative care services across the District. A primary barrier to accessing palliative care is the limited number of hospice beds available relative to need. This often necessitates acute hospital admission even though specialist palliative care consultation is most often available. Because of the limited number of palliative care beds, patients requiring longer term care often die in the acute hospital setting while waiting for a palliative care bed or are transferred to nursing home beds - although younger patients experience difficulties accessing this type of accommodation, and for most of this cohort, this accommodation is unsuitable. Community medical palliative care is available, with a proportion of deaths (as a result of cancer) occurring at home. However, the growing level of older people living alone restricts the number of cancer patients able to benefit from end of life care at home.
- Consultation is not provided routinely to primary care services; however the palliative care specialists participate in an on-call roster after hours which primary care services can access for advice by telephone.
- The STGH CNC has provided education to Residential Aged Care Facilities and GPs in the implementation and use of the End-of-Life Care Pathway in Aged Facilities. This has reduced the number of presentations to St George and from RACFs for end of life care.

Priority Actions to Improve Access to Quality Palliative Care Services

Goal: Palliative and supportive care is integrated into the culture of cancer services

Actions:

- Develop a District wide comprehensive palliative care plan
- Facilitate interdisciplinary learning through access to medical and radiation oncology terms for palliative care advanced trainees
- Implement training and processes around advanced care planning and directives consistent with current district and state policy
- Enhance the LHD network model for cancer and palliative care trials which promotes access to trials and ensures compliance with regulatory and ethics standards.
- Review and adapt the process of referral to palliative care to improve the time to referral.

6.10 Community Partnerships in Cancer Care and Support

South Eastern Sydney Local Health District Cancer Services work closely with a range of not-for-profit organisations to support the needs of patients, carers and families. Often the services and support provided by these entities are delivered by volunteers and are crucial influences for patients in sustaining their treatment regimen and compliance with therapies. Many of the services are free or have a nominal charge.

The resources provided by not-for-profit organisations across the District's cancer services are wide ranging and include cancer prevention programs and information, research into new cancer treatments and cures, the provision of clinical and emotional support to those affected by cancer and to carers, among many other valuable activities. Their efforts decrease the cost of cancer to health services and provide much needed comfort, knowledge and understanding to cancer patients and their families. Importantly many not-for-profit organisations seek and attract volunteers and staff who have been personally impacted by cancer and who can offer experiential understanding and support to others affected by the disease. A close professional relationship between clinicians and these organisations helps to ensure cancer patients gain all the support they need across clinical, psychosocial and practical domains.

Current examples of not-for-profit organisations and groups directly supporting South Eastern Sydney Local Health District Cancer Services are:

- St George Hospital cancer services fundraising committee - at the commencement of 2011, this committee had raised in excess of $3 million for the Cancer Care Centre.
- Cancer Council NSW provides an information booth at St George and Prince of Wales Hospitals and offers a range of cancer patient support groups. Cancer Council NSW also provides financial and legal experts to assist patients with their finances free of charge.
- Bezzina Lodge accommodation at St George Hospital for rural/regional patients/carers
- Nelune Foundation provides patient transport to cancer treatment and appointments at Prince of Wales Hospital.
- The Prince of Wales Foundation raises funds for health care equipment and nurse education.
- The Prostate Cancer Institute raises funds for prostate cancer services and research.
- The Leukaemia Foundation provides patient transport and rural and regional patient and carer accommodation, financial and other practical and psychosocial support services.

- CanAssist provides patient transport, rural and regional patient and carer accommodation and financial assistance.
  The Look Good... Feel Better program is designed to support women undergoing cancer treatment. The program runs regular skin care, make up and wigs workshops and is dedicated to teaching women cosmetic and related techniques to help with their appearance and self-image during chemotherapy and radiotherapy. Workshops are held every 6-8 weeks at Prince of Wales Hospital, St Vincent's Hospital and at Calvary Hospital for patients at St George Hospital.
- St George Cancer Support Group provides support and information to all who have experienced cancer, their families and carers (mainly from, but not limited to, the St George area).
- St George Hospital Breast Cancer Support Group.

Priority Actions to Support Community Partnerships in Cancer Services

Goal: Patients, carers and staff have access to all available non-hospital based resources to support cancer care

Actions

- Establish mechanisms to ensure access for cancer patients and their carers to information on support services available from not-for-profit (and profit) cancer sector. Where relevant this should be done in the manner of systematic referrals.
- Support additional community fundraising for District cancer services and facilities e.g. investigate the feasibility of establishing an on-line donation portal (e.g. My Hero)
- Ensure cancer care is well represented on Medicare Locals' annual primary care providers continuing professional development calendar.

6.11 Cancer Information Systems

Cancer patients treated in South Eastern Sydney Local Health District facilities are managed in a range of settings including ambulatory care, outpatient, inpatient and the patient's home. Wherever patients are treated within local health district facilities or at home, adequate capability to share and collect cancer patient information securely and monitor and report service performance, in a timely manner, needs to be available.

Disparities have been identified in data collections in South Eastern Sydney. For example, an outpatient occasion of service may be recorded as chemotherapy, when in fact a number of additional services may have been provided including medical or nursing review, and other interventions. These other components of treatment e.g. diagnostic, supportive care, allied health interventions, etc are not always recognised and collected which acts as a barrier to funding, reporting and planning processes. Additionally, at some sites across the district services are not accurately recording their data or the data cannot be extracted from standalone databases.

Major Information Systems - Oncology Service Delivery

(Independent of ISD and District Operating Systems)

Pathology (SEALS)	Mosaiq (POWH)	Varian Aria (St George, Sutherland)	Radiology Information System	Pharmacy Information System	KinTrak Cancer Genetics

Key Issues Identified in the Planning Process

- There is currently no avenue to easily track all the treatments a patient may have received across the District's cancer services.[62]
- There is currently no standardised data collection system for cancer service provision for outpatient chemotherapy and haematology activity.[63] While each facility cancer service collects service provision information it is often not done in a uniform way which affects its validity for comparison and collation, and may adversely impact services in relation to ABF funding and planning.
- Different coding and systems are used across the District and between Districts for procedures treated in inpatient and outpatient settings.
- Different systems capture information on one or most often more, of the following: appointments, utilisation, workload, waiting times and finance.
- Cancer inpatient services largely comprise cancer related procedures and cancer surgery activity. Cancer related procedure data is difficult to quantify using the currently available NSW Health planning tools.
- The two major cancer services information systems (Varian Aria and MOSAIQ) and a number of existing cancer specific databases are not yet fully integrated into the Electronic Medical Record.
- Clinical decision-support systems such as eviQ are not yet integrated into our major cancer services information systems.
- There is limited capacity for cancer services to develop and implement information improvement projects due to staffing and resource issues.

Work is now underway to manage chemotherapy data across NSW. The Cancer Institute NSW is working with vendors of the Oncology Management Information Systems to lay the foundation for standardised reporting by linking the evidence-based eviQ chemotherapy protocols to individual patient's treatment information. All existing eviQ protocols will be directly accessible from the Oncology Management Information Systems which will complement clinical trial data to provide a realistic view of the use and effectiveness of treatments within the general population.[64]

The Enterprise Data Warehouse for Analysis, Reporting and Decision Support (EDWARD or EDW) program, managed by the NSW Ministry of Health, will replace the existing Health Information Exchange (HIE) in

[62] An Australian first in chemotherapy protocols. Cancer Institute NSW. http://www.cancerinstitute.org.au/incite/issue-7/an-australian-first-in-chemotherapy-protocols

[63] Adams P, Pearse J, Sinclair S, Bishop J. *Ambulatory/Outpatient Chemotherapy and Haematology Services in New South Wales.* Sydney: Cancer Institute NSW, April 2009.

[64] An Australian first in chemotherapy protocols. Cancer Institute NSW. http://www.cancerinstitute.org.au/incite/issue-7/an-australian-first-in-chemotherapy-protocols

several releases over the next few years. The new warehouse will deliver users a one stop data shop by housing data on Inpatient, Outpatients, Community, Emergency Department, and Human Resources. As a centralised linkage repository, the warehouse will address a number of limitations with the current environment including broadening the scope of information and providing better access for end users at all levels.

Priority Actions to improve Cancer Service Information Systems across our District

Goal: Complete the transition to electronic cancer information systems and other digital resources to support quality cancer care across the district

Actions:

- Continued cooperation with the Cancer Institute NSW and NSW Ministry of Health to design, implement and maintain new cancer and other information management systems.
- Implement quality improvement activities to increase quality of data collection
- Establish internal reporting channels to provide feedback on quality of data
- Support processes to improve electronic communication between providers and with consumers/patients, for example, though engagement with the Personally Controlled Electronic Health Record
- Promote utilisation of data from existing sources such as the Clinical Cancer Registry and reporting from the cancer Medical Information Systems and Radiation Information Systems to inform quality improvement interventions.
- Develop a fit for purpose IT system to better support cancer genetics service delivery (see genetics actions)
- Establish the use of Telehealth technology for relevant services e.g. genetics
- Build sustainable business case for support of in-house IT expertise to maintain cancer information systems
- Complete transition to full e-prescribing across the District.
- Develop training activities to ensure best practice use of electronic systems
- Ensure a sustainable IT maintenance strategy

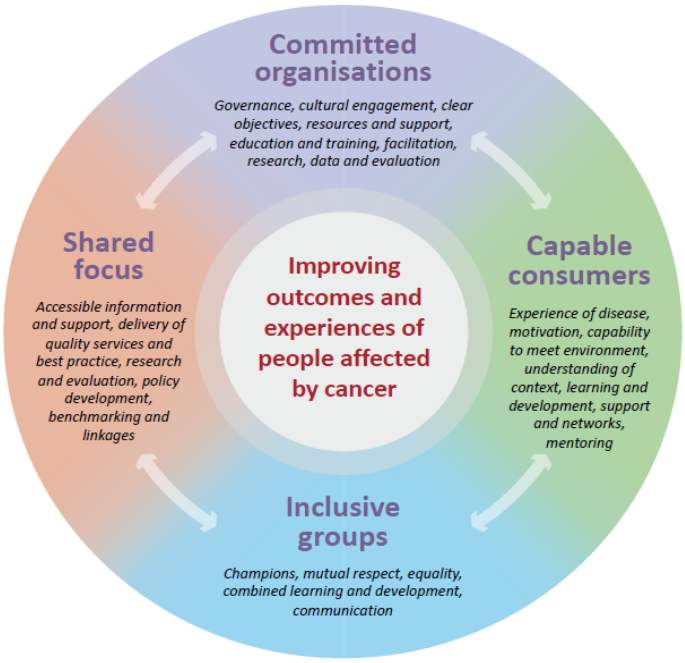
Section 7: Clinical Best Practice

7.1 Overview

Supporting and promoting best practice in cancer treatment and care is vital to improving the outcomes and quality of life for people with cancer. Essential elements that underpin the delivery of high quality cancer care include[65]:

a) A person-centred approach to care
b) Mechanisms to coordinate services
c) All cancer patients have an agreed multidisciplinary care plan
d) Quality and safe service delivery
e) Treatment by experienced professionals
f) An appropriate care environment
g) Access to clinical trials
h) A system to measure and monitor the quality of cancer care

Figure 8: Elements for effective consumer involvement in cancer control



7.2 Cancer Consumer Involvement

A person centred approach to cancer care has to be regularly informed by cancer consumers. A National Framework for Consumer Involvement in Cancer Control[66] has recently been developed to enhance meaningful consumer involvement to improve outcomes and experiences for people affected by cancer. The Framework (see figure 8) identifies four key elements to help guide organisations to engage consumers in cancer control more effectively to achieve better care, beneficial policy and more targeted research
Our Aboriginal populations have unique needs with respect to cancer care for the following reasons:

- Different patterns of cancer incidence compared to non-Aboriginal Australians.
- Later diagnosis and lower survival.
- Continued disadvantage in accessing treatments.
- Cultural considerations.
- Limited data and research on Aboriginal cancer care, particularly in metropolitan settings.

[65] Spinks T, Albright HW, Feeley TW, Walters R, Burke TW, Aloia T, Bruera E, Buzdar A, Foxhall L, Hui D, Summers B, Rodriguez A, Dubois R, Shine KI. Ensuring quality cancer care: a follow-up review of the Institute of Medicine's 10 recommendations for improving the quality of cancer care in America. Cancer. 2012 May 15;118(10):2571-82.
[66] Cancer Australia and Cancer Voices Australia, 2011. *National Framework for Consumer Involvement in Cancer Control*. Cancer Australia, Canberra, ACT. http://consumerinvolvement.canceraustralia.gov.au/

Our Priority Actions to Improve Person Centred Cancer Care and Involvement

Goal: To promote a patient centred model of cancer care delivery and to foster community engagement with cancer services

Actions

- Incorporate patient and carer participation into processes related to the development/improvement of cancer services.
- Provide training for the cancer workforce in shared decision making.
- Regularly assess patient satisfaction with cancer care.
- Identify specific cancer service needs of vulnerable groups, including Aboriginal, culturally and linguistically diverse groups, people living with HIV, among others.
- Improve access to and understanding of cancer care information by culturally and linguistically diverse groups by ensuring the ready availability of translated cancer care relevant information and the increased 55tilization of interpreters and carers.
- Establish processes to ensure appropriate support and information is provided to vulnerable groups with cancer, such as patient/carer awareness of service availability/wait, how to navigate, provider locations, and accessing procedures.
- Work with the Ambulatory and Primary Health Care Stream to ensure preadmission, admission and discharge planning processes/cancer pathways adequately identify and address the needs of vulnerable populations with cancer.
- Work with the District's Aboriginal Health Unit and Aboriginal Hospital Liaison Officers to implement the CINSW funded collaborative project with the Redfern Aboriginal Medical Service to improve capacity the knowledge and skills of Aboriginal Health Workers to improve Aboriginal participation in cancer screening programs and in navigating and completing complex cancer treatments.
- Identify best practice and implement mechanisms to improve data collection on Aboriginal people's access to oncology services.
- Explore the use of a transit lounge and/or special provisions for children and frail patients for the duration of treatment.
- Develop an education program/resources/navigation tools for patients accessing District cancer services

7.3 Cancer Care Coordination

Cancer management is becoming increasingly multifaceted in an effort to get the greatest benefit, with minimal adverse effects, through an appropriate mix of surgery, chemotherapy, radiotherapy and other therapies over prolonged periods of time. Whether a role and responsibility of cancer services and/or multidisciplinary teams and/or an individual care coordinator, cancer care coordination seeks to ensure that care is delivered in a connected and timely manner so that the care needs of the patient are met.[67] National cancer policies have identified care coordination as a priority to improve the delivery of health services for people with cancer for over a decade.[68] A lack of coordinated care can lead to fragmented care,

[67] McDonald KM, Sundaram V, Bravata DM, *et al*.: Technical Review 9. In *Care coordination*. *Volume 7*. Agency for Healthcare Research and Quality; 2007.
[68] National Health Priority Action Council: *National Service Improvement Framework for Cancer*. Canberra: National Health Priority Action Council; 2004.

patients getting lost in the health system and failing to access appropriate services. Inadequate care coordination is a common problem experienced by patients.[69]

The Cancer Institute NSW has provided funding for cancer nurse coordinator positions since 2004–2005 and is flagging a cessation of funding for this group after June 2014 raising considerable concern among our cancer services staff who report that these roles are essential to patient care and would leave our cancer patients highly vulnerable if they were not continued. The coordinator's key roles are:

- Coordinate patient care and provide access to appropriate services
- Support the integration of multidisciplinary patient focused care and the development of collaborative approaches to health service improvement
- Develop linkages and networks with services operating in private and community settings
- Develop linkages and networks with relevant clinical services and cancer health care professionals in other Districts
- Acting as an information and education resource

In a 2011 evaluation of the role of the Cancer Care Coordinator, the Cancer Institute NSW found that cancer care coordinator positions made an important contribution to improving the quality and capacity of cancer services in NSW. These positions were found to be particularly effective (compared to other health professionals) in ensuring appropriate and timely referrals to psychosocial and other support services, and in consistently delivering timely education and information. Patients, clinicians and service managers expressed high levels of appreciation of the cancer care coordinator role.[70]

Our Priority Actions to Improve Cancer Care Coordination

Goal: Establish cancer care coordination across all tumour streams
Actions:

- Develop, in collaboration with CINSW, models of cancer care coordination that are consistent with the funding principles of outpatient ABF
- Develop local coordinated cancer clinical pathways to improve access to and connectedness between cancer services and primary care, and cancer and aged care services to ensure the right care is delivered to cancer patients in the right place in the right timeframe.
- Develop tools that enable patient directed navigation of cancer care and services
- Develop models of care that consider issues of survivorship.
- Extend existing care coordination model to other cancer types.

7.4 Multidisciplinary Cancer Care

The large majority of cancer service delivery across the District is provided by multidisciplinary teams. Multidisciplinary cancer care, in which a range of health care professionals together consider all treatment options and develop an individual comprehensive treatment plan for each patient, has been repeatedly shown to reduce mortality and improve quality of life for patients. Each member of the multidisciplinary

[69]Young JM, Walsh J, Butow PN, et al. Measuring cancer care coordination: development and validation of a questionnaire for patients. BMC Cancer. 2011 Jul 15;11:298
[70] Evaluation of the role of the Cancer Care Coordinator. Cancer Institute NSW 2011

cancer care team plays a vital role. As patient needs may change with time, the composition of the team may also change to meet these needs.[71] Multidisciplinary cancer care teams have been shown to improve cancer outcomes for patients. Clinicians (most often including medical specialists, nurses and allied health services) come together to consider treatment options (including the potential benefits and disadvantages of treatment decisions), the preferences of the person affected by cancer, and collaboratively develop a care pathway that best meets the individual's needs.[72] Multidisciplinary cancer care teams currently operate within a range of different tumour streams at Prince of Wales, St George and Sutherland Hospitals. Multidisciplinary teams ensure better care and support for people affected by cancer through an integrated team approach to cancer care.

Table 18: Available Multidisciplinary Care Teams by Facility [73]

Prince of Wales Hospital	St George Hospital
Breast Cancer	Breast Cancer
Head and Neck Cancer	Head and Neck Cancer
Lung Cancer	Lung Cancer
Lymphoma	Lymphoma
Gastrointestinal Tract	Colorectal Cancer
Neurological	Gynaecological Cancer
Sarcoma	Prostate Brachytherapy
Skin Cancer	Liver Cancer
Urological Cancer	Upper GI
Endocrine	Neuroendocrine
Adolescent and Young Adult	Surgical Oncology
Gynaeoncology (with RHW)	

The planning consultation identified that multidisciplinary cancer care would be advanced by:

- Enhancing the consistency of referral processes and communication of multidisciplinary teams
- Improve the links of multidisciplinary team members
- Improved availability to patients of a full range of multidisciplinary team members

Our Priority Actions to Improve Multidisciplinary Care

Goal: Establish multidisciplinary care across all tumour streams

Actions:

- Identify education and training needs and opportunities in providing effective multidisciplinary cancer care.

[71] Mitchell GK, Tieman JJ, Shelby-James TM. Multidisciplinary care planning and teamwork in primary care. Med J Aust 2008;188(8 Suppl):S61–4.

[72] Cancer Australia http://canceraustralia.gov.au/clinical-best-practice/service-delivery/key-elements-cannet/multidisciplinary-care

[73] See section on page 32 for MDT services provided from the Royal Hospital for Women

- Process map and explore implementation and standardisation recommendations across cancer services with respect to:
    - Referral and communication pathways to/via Multidisciplinary cancer teams
    - Improving the consistency of data collection
    - Enhanced communication
    - Enhanced documentation (including consents, disagreements with proposed management plans etc.)
    - Integration of the Multidisciplinary cancer teams documentation/template within facility oncology information systems.
- Strengthen and support existing multidisciplinary teams through administrative, finance and other identified support including care coordinator funding mechanism
- Invite clinicians and organisations working in the private sector to engage in shared cancer care and multidisciplinary team processes.
- Develop and promote interdisciplinary education opportunities to support improvements in the levels of collaborative, multidisciplinary patient centred care.

7.5 Safe, High Quality Cancer Clinical Service Delivery

The treatment and care of cancer patients represents a significant proportion of all the health care delivered in the South Eastern Sydney Local Health District. An efficient and effective cancer service system that meets the health care needs of patients is an imperative. Measuring, monitoring and improving cancer services are important challenges given the complexity of cancer care and the range of services delivered by the District. Improvement activity needs a clear focus and often an integrated approach if there are to be visible benefits for patients.

Our Priority Actions to Improve Cancer Clinical Service Delivery

Goal: Optimise use of data sources to inform quality care and service planning
Actions:

- Improve data collection, reporting and dissemination to support a planned and coordinated approach to quality cancer care monitoring and improvement that links with District performance reporting to eliminate duplication of effort
- Participate in relevant quality improvement activities implemented by CINSW, such as RBCO, and provide feedback to the local facilities and clinicians
- Develop and implement evidence informed and locally suitable models of care to ensure all cancer patients are regularly assessed and managed with regard to adverse treatment responses through follow-up services/clinics and Cancer Outreach Teams.
- Develop strategies for improved communication within cancer disciplines across facilities e.g. a District coordinated haematology collaborative educational activities.

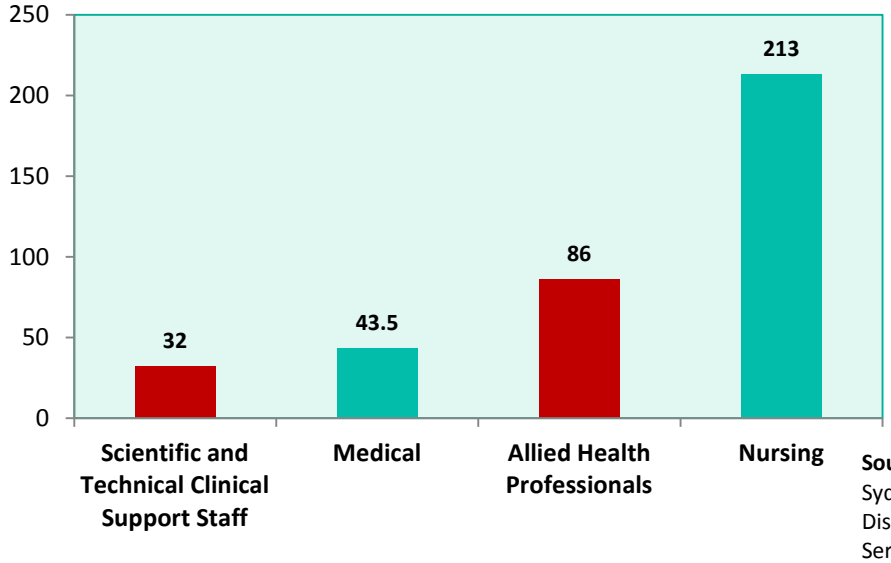
7.6 Cancer Workforce

Many of the roles within the cancer workforce require specialised skills and cancer workforce ratios are important, however determining appropriate staffing is a challenge as there is little evidence to support specific ratios based on the comprehensive workloads of each of the professional groups involved in cancer

service delivery. Overall staffing levels, rather than discipline specific ratios and the skill mix of the oncology team are also important considerations. The literature suggests that careful consideration must be paid to variations in patient needs and local clinical contexts. In support of this, four categories of questions that can be used to guide staff allocation decisions in cancer services have been identified.[74] The questions focus on: patients and intensity; staff availability; expertise of staff and infrastructure/resource availability (e.g. electronic documentation system). A number of recent Australian studies have flagged a current national shortage of Medical Oncologists and suggest that this shortage is expected to persist into the future along with the growing incidence of cancer and the increases in life expectancy and cancer survivorship in the elderly.[75, 76, 77] Cancer nursing staff ratios have been shown to be dependent on the overall levels of patient acuity determined by total time of treatment, with consideration of extra time with patient and/or family, level of experience and relevant procedures.[78]

The current workforce that is designated cancer specific in the District's workforce database comprises almost 375 full time equivalent staff with nursing and allied health professionals representing the greatest proportion of the cancer services workforce, 57% and 23% respectively. As demand grows so too will the need for additional workforce to adequately address need. The average full time equivalent workforce of the South Eastern Sydney Local Health District is almost 9,270.[79] The cancer specific workforce makes up around 4.5% of the District's current workforce overall. The large majority of the cancer workforce is found in the two main cancer centres in the St George and Prince of Wales Hospitals. Other staff, across a wide range of enabling services, are fundamental to the delivery of effective cancer care across our District. These include but are not limited to finance, information and communications, clinical and corporate governance, planning, human resources and evaluation and facility maintenance.

Figure 3: Cancer Workforce (Full Time Equivalents) by Professional Group



Source: South Eastern Sydney Local Health District Workforce Services, August 2013

[74] Gaits, V.A. Nurse Resource Allocation in Ambulatory Cancer Centers. Oncology Issues Sept/Oct 2005.
[75] Blinman PL, Grimison P, Barton MB, et al The shortage of medical oncologists: the Australian Medical Oncologist Workforce Study. Med J Aust. 2012 Jan 16;196(1):58-61.
[76] Koczwara, B, Barton, MB, Walpole, E, Grimison, PS, Blinman , P, Crossing, S & Francis, K, 2012, 'Workforce shortages in medical oncology: A looming threat to quality cancer care', *Medical Journal of Australia*, vol. 196, no. 1
[77] Hortobagyi GN. A shortage of oncologists? US Society of Oncology workforce study. *J Clin Oncol.* 2007;25:1468–1469.
[78] Erika Hawley. An Acuity Rating System for Infusion Center Nurse Staffing. Oncology Issues November/December 2009
[79] South Eastern Sydney Local Health District Workforce Services, workforce statistics Mar 13, Workforce Services May 2013.

In its latest strategy, Health Workforce Australia suggests that the cancer workforce must continually adapt to the increasing pace of scientific knowledge, and emerging new technologies and models of care delivery. Particularly, as it has found that developing technology and science knowledge are currently moving much more rapidly than the training and education sector, such as in the area of gene research or genomics.[80]

A number of different types of professionals involved in cancer clinical services are experiencing significant workforce shortages. This is because of the rapidly growing population of Australians requiring cancer services, an oncology workforce expected to retire, the need for highly skilled nurses and other professionals to provide complex care, and inadequate numbers of newly trained professionals.

The mismatch between supply and demand for cancer care threatens patient care, safety, and quality. In response to the projected need in cancer service workforce services,

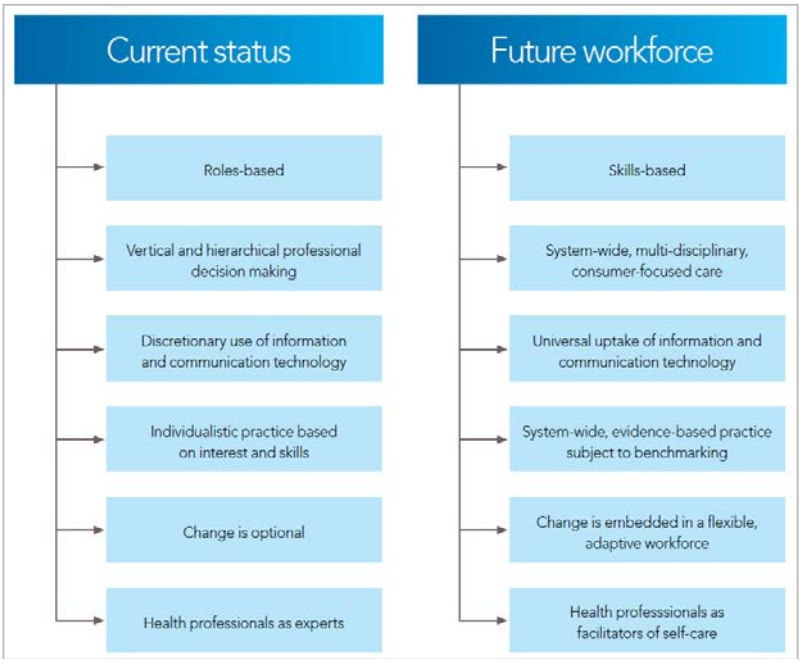


Figure 8 Health Workforce Australia's recommendations on the shift required in the cancer workforce

Health Workforce Australia has developed the **National Cancer Workforce Strategic Framework.**[8] The Framework states that, among other factors, successful cancer workforce change would include:

- A cancer workforce that 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.
- The importance of consumers, volunteers and unpaid carers recognised in cancer workforce planning.

The District's Cancer Services have staff in all the major disciplines including medical, nursing, allied health, research, pathology, data management and technical support. A range of enabling services such as IT and corporate services are also important to cancer care. Poor access to any critical workforce services can have a devastating effect on cancer patient outcomes. Ensuring adequate levels of cancer specific expertise is available for effective cancer care is a challenge that, if not addressed, will impact on the ability to provide expert cancer care.

[80] Health Workforce Australia. National Cancer Workforce Strategic Framework May 2013 http://www.hwa.gov.au/sites/uploads/HWA-National-Cancer-Workforce-Strategy-Framework.pdf

Cancer nurses have an extensive input into the care of cancer patients both in hospital and in the community and are central to the current movement to improve and streamline cancer services. Internationally there has been a move to employ highly skilled nurse practitioners in cancer care.[81]
The oncology medical specialist workforce relies on a relatively small number of specialists for continuity and many of these have high levels of outstanding entitlements such as annual and long service leave, and a number are ageing and expected to retire within the next five years. Attracting and retaining a specialist workforce which is sufficiently large to reduce the risk of service interruptions is an area requiring more focus across cancer services.

Our Priority Actions to support our Cancer Workforce

Goal: Ensure the cancer workforce meets the demands of service delivery whilst maintaining an environment for continued professional development

Actions:

- Identify a range of income streams to support and expand the cancer services wprkforce.
- Coordinate a current and future cancer workforce gap analysis (across clinician type, skill mix and number), based on and informed by evidence and the policies and strategies of peak groups such as NSW HETI, HWA, etc., and develop a cancer workforce plan on the basis of the analysis of workforce supply and future demand across the District.
- Develop a support service framework to ensure consistent, timely delivery of relevant allied health services, including linkages with primary and community service providers.
- Identify and act on opportunities to improve the availability, development and redesign of the cancer workforce to maximise patient outcomes and create efficiencies/cost savings e.g. new models of care delivery such as nurse led clinics, nurse practitioner services, etc.).
- Promote and support life-long learning among cancer clinicians across all disciplines.
- Support clinicians to provide input and advice into key State and National agencies (National Health Workforce Taskforce, Health Workforce Australia and the NSW Ministry of Health) on medical workforce policies, plans, issues and potential solutions.
- Ensure a high level of quality of clinical care by encouraging cancer nursing knowledge and skills development, including identifying and acting on opportunities to increase the number of cancer nurses who undertake the NSW Health sponsored graduate certificate in cancer nursing as a minimum strategy.
- Develop a plan and case for implementation of advanced nursing and allied health practice roles (such as cancer nurse practitioners, specialist lymphoedema physiotherapists, oncology pharmacists etc.) in areas of need and workforce/workload stress.
- Explore opportunities to increase the availability of multidisciplinary psycho-oncology care across the District.
- Address succession planning for senior staff especially in areas such as Paediatric radiotherapy where it is difficult to recruit and a prolonged period of local and/or overseas training maybe required.

[81] McKenna H, McCann S, McCaughan E, Keeney S. The role of an outreach oncology nurse practitioner: a case study evaluation. Eur J Oncol Nurs. 2004 Mar;8(1):66-77.

7.7 Cancer Care Environment

The longer a cancer treatment centre has been open, the greater the likelihood of newer equipment and processes conflicting with the original design. This can impede staff from working efficiently and can prohibit compliance with best practice cancer care management guidelines. A number of papers and professional guidelines provide valuable input into the optimal design of cancer services[82, 83, 84] Important considerations include the need for adequate and appropriate:

- Space for sensitive discussions and consultations (clinical and supportive care) to facilitate communication and decision making.
- Space for multidisciplinary team meetings.
- Isolation rooms with ensuite for immunocompromised cancer patients.
- Single rooms for the provision of Palliative Care.
- Isolation for in outpatients and inpatient facilities for the care of patients with MRO.
- Radiotherapy facilities which are able to respond to changes in the clinical service, enable equipment servicing and replacement, and to accommodate new emerging technologies.

- IT infrastructure which allows high-speed links capable of transferring large data files between the different pieces of equipment in the radiotherapy department. Access to secure data storage facilities is also essential.
- Outpatient waiting areas to accommodate inpatients arriving for treatment on beds and in wheelchairs.
- Storage areas for cytotoxic and other cancer medications and bulky equipment such as radiation body shells.

Our Priority Actions to Improve the Cancer Care Environment

Goal: To provide physical facility that meets best practice for care delivery

Action:

- Ensure future planning for cancer services includes considerations regarding capacity to allow expansion and service continuity, and new technologies and approaches to care delivery.
- Where possible create multi-purpose, flexible use facilities by changing existing single user/single purpose cancer clinical consultation rooms to become multi-user/multi-purpose rooms to ensure a high level of utilisation.
- Continue to implement national and state policy with regard to the care environment to assist the prevention of and harm from falls and the consequent morbidity and mortality for older cancer patients.

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[82] Providing optimal cancer care. Supportive care policy for Victoria. Department of Human Services, Vic. 2009

[83] Ulrich RS, Zimring C. The role of the physical environment in the hospital of the 21st century: A once-in-a lifetime opportunity. The Center for Health Design; 2004.

[84] Melanie Redman, Ritu Bajaj, Caroline Kelly et al. Environments for cancer care. Healthcare Design 05.08

7.8 Cancer Research

Cancer research ranges from epidemiology, molecular bioscience to clinical trials and other health services research to evaluate and compare treatments, systems and approaches to cancer care. The significant advances in cancer control over the past two decades, including those we have seen in recent years would not have been possible without cancer research. Facilities and organisations based within the South Eastern Sydney Local Health District boundaries which undertake cancer or cancer related research include:

- St George & Sutherland Research Foundation
- St George & Sutherland Academic Health Centre
- Royal Hospital for Women Perinatal Research Centre
- Royal Hospital for Women Midwifery & Women's Health Nursing Research Unit
- Health Science Alliance based at Randwick
- Australian Centre for Perinatal Science UNSW
- Cunningham Centre for Palliative Care, Sacred Heart Hospice
- National Centre for HIV and Social Research (UNSW)
- Children's Cancer Institute Australia
- Neuroscience Research Australia
- GlaxoSmith Kline Research Laboratory at Prince of Wales Hospital
- Lowy Cancer Research Centre (UNSW)

In South Eastern Sydney Local Health District, cancer research is undertaken by multiple medical specialties and disciplines including medical, nursing, scientific and allied health groups, with some research being facility specific, others District wide and yet others as collaborations with external centres including universities and other hospitals both here and overseas.

Cancer Clinical Trials

South Eastern Sydney Local Health District cancer services are involved in the coordination and management of cancer clinical trials encompassing a wide range of investigations including exploring the clinical relevance of new biologic findings, supportive care interventions, young adult and familial cancer research, among other clinical research areas. Cancer clinical trials are governed by quality standards and comply with a range of relevant regulations, hospital policy and current best practice. Clinical trials units offer investigator-initiated trials, national cooperative group trials, and pharmaceutical industry–supported trials. A number of clinical trials across the Local Health District been supported by grants for clinical research nurses through the Cancer Council NSW and the Cancer Institute NSW. Ongoing professional development is provided to clinical trials staff including training in NHMRC requirements. Patients who are able to access clinical trials locally often gain access to highly specialised drugs. **Clinical trials research remains a priority area across the District's cancer services and is a key funding/performance requirement of the Cancer Institute NSW** (see Cancer Institute NSW Performance and Funding Agreement, Section 6). Radiotherapy research includes clinical trials as well as more technical area such as machine development, radiation dosimetry and new physical approaches such as hyperthermia. SESLHD have close collaborations with several external bodies including the UNSW, University of Sydney and University of Wollongong. The oncology clinical trials manager at Prince of Wales Hospital reports that clinical trials are becoming more targeted and complex in that facility which means that individual trials are recruiting smaller numbers of participants and more staff training is required.

Selected Cancer Research Centres in South Eastern Sydney LHD

Gynaecological Cancer Centre Research

The Royal Hospital for Women Gynaecological Cancer Centre maintains a database of information on each patient's condition and treatment. This data is used by the doctors of the unit for clinical research and review. Clinical research covers surgical management of vulvar, cervical and ovarian cancer, nutrition, lymphoedema. In addition to the clinical research relating to treatment of all gynaecological cancers, the centre has collaborations with the Garvan Institute for Medical Research and with the Lowy Cancer Research Centre at the University of New South Wales. Both laboratories are conducting research, aimed primarily at developing a blood test that can be used to screen healthy women for ovarian cancer.

Australian Advanced Treatment Centre

The Australian Advanced Treatment Centre is a joint venture of UNSW and the NSW Department of Health. It will be located at the Randwick Hospital UNSW campus in a building that will also accommodate the Nelune Comprehensive Cancer Centre and the Comprehensive Cancer and Blood Disorder Centre. The centre will be a purpose-built environment for clinical trial activities and will provide a venue and the associated services to support the clinical trials of commercial operators such as pharmaceutical, biotechnology and medical devices companies as well as principal researchers from the Health - Science Alliance.

Translational Cancer Research Network

In recent years, there has been a growing recognition of the importance of rapid translation of evidence from high-quality research into clinical practice and population health programs, so that more people can enjoy the benefits of such breakthroughs. The Translational Cancer Research Network (TCRN) is a virtual network formed to create an innovative and supportive environment for the translation of research findings into improvements in patient care and outcomes. Its members include UNSW, comprehensive cancer centres at Prince of Wales Hospital and ST George and Sutherland Hospitals, cancer services at Royal Hospital for Women, Border Medical Oncology Unit and the University of Technology, Sydney. As well as facilitating research and research training opportunities, the TCRN also supports research projects via its Cancer Challenge of the Year grant that investigate the clinical research led improvements to clinicians for improved patient treatment, care and service delivery. Three different projects are currently underway:

- Spaced Education: a tool to translate pain assessment and management evidence into practice – addresses the important clinical issue of sub-optimal pain management. By instituting the routine use of a validated online case-based learning application, the project intends to improve cancer pain assessment and reassessment practices across the TCRN, with the ultimate aim of improving cancer patients' reported pain outcomes.
- Family matters! Dissemination of genetic information about breast and ovarian cancer genes within families to prevent cancers - Genetic testing allows targeting of interventions to mutation carriers and avoids unnecessary costs incurred by screening non-carriers. This benefit can only be realised if there is communication between the carrier and their at-risk relatives. Our pilot showed that this tool actually increased the number of relatives notified. The increase in the number of relatives notified will enable better targeting of prevention strategies to mutation carriers. The tool is likely to improve both patient satisfaction and staff morale. The tool will lead to practice change and implementation of a new standard operating procedure for patient follow up. This process of

mutation carrier follow up is translatable both to other cancer predisposing gene carriers (e.g. inherited bowel cancer) and to other non-cancer genetic conditions where interventions are successful such as inherited cardiomyopathies.

- Screening for Lynch Syndrome (hereditary bowel cancer) using antibodies alone - the project will show that BRAF antibodies are an effective way of identifying cases of Lynch Syndrome based solely on immunohistochemical testing by pathologists. More importantly, this study would actually result in a practice change in pathology services relevant to the TCRN, and would provide a template for more widespread adoption. This would mean that high likelihood cases of Lynch Syndrome are identified quickly, allowing for appropriate treatment and screening of the patient and their relatives. At the same time, cases that did not need referral to Family Cancer Clinics would be triaged appropriately.

In addition, the TCRN is undertaking an ambitious set of information management projects with the overall goal of developing an institutionally shared system that has the potential to link individual patient data from routine care with clinical and translational research datasets. Ultimately, the creation of a system of this kind offers a unique and incredibly rich resource allowing both clinicians and researchers to:

- Rapidly identify and address prevalent gaps in patient care.
- Determine new and important clinical research questions based on current practices and patient outcomes.
- Ensure continued development and translation of current best evidence into care.

Biobanking

Biobanking is one of the TCRN's major initiatives. A core component of this has been establishing the TCRN's biobank, known as the HSA Biobank, hosted by the Lowy Biorepository at UNSW.
The aims of the HSA Biobank are to 1) provide a streamlined process for the universal collection of biospecimens with linked clinical data from consenting cancer patients undergoing treatment and diagnosis, and 2) design processes for consenting and collection that are embedded in routine hospital procedures, and that have minimal impact on clinical, surgical or diagnostics services.
An integral part of the HSA Biobank project is establishing a system of universal consent that effectively embeds a patient's consent to research into routine hospital pre-admission processes. With the support of a grant from the Cancer Institute NSW Biobanking Stakeholder Network, the TCRN is engaging stakeholders and analysing systems at our current HSA-collaborating institutions – Prince of Wales Hospital, Prince of Wales Private and Royal Hospital for Women – in order to document a model for the effective implementation of the universal consent approach within other NSW hospitals. To date 1000 patients have consented to the donation of tissue to the Biobank. The TCRN is a translational cancer research centre program funded by the Cancer Institute NSW.

St George and Sutherland Hospitals' Haematology Department

The Haematology Department at St George and Sutherland Hospitals has an extensive record of research over the last 10 years with research encompassing basic science, cardiovascular disorders and translational research through to the clinical research unit. The Basic and Translational Research Laboratory in the St George Clinical School has a long history of publishing original research in high impact international science/medical journals such as Science Translational Medicine, Blood, Molecular and Cellular Biology, New England Medical Journal, Lancet, and Cancer Research. It has been funded by Category 1 national and International grants. The Haematology Clinical Trials Unit has been operating since July 1993 and grown

considerably over the last 10 years, from 1 part-time staff member running one study, to 7 co-ordinators, administration staff, and a portfolio of over 30 active studies.

The Centre for Thrombotic and Bleeding Disorders Research

The Centre for Thrombotic and Bleeding Disorders Research was established in 2007 and is located at St George Hospital, is linked to the University of New South Wales. Its clinical research is undertaken from three District teaching hospitals: St George Hospital, Prince of Wales Hospital and Sutherland Hospitals. The Centre offers investigator-led research primarily into Venous Thrombosis and Immune Thrombocytopenia (ITP). In 2011, an International ITP registry was set up with St George Hospital as the co-ordinating centre for potentially hundreds of research sites worldwide.

Priority Actions to improve our Clinical Cancer Research

Goal: Cancer research is embedded into all aspects of patient care

Actions:

- Enhance the LHD network model for cancer and palliative care clinical trials which promotes access to trials and ensures compliance with regulatory and ethics standards.
- Promote the reach and engagement of the Translational Cancer Research Network (the CINSW funded project between hospitals in the District and the UNSW to bring faster solutions to cancer issues into practice).
- Support the establishment of a District-wide biobanking of all cancers through the Translational Cancer Research Network.
- Participate in the development of statewide initiatives to improve collaboration and translation which will include: NSW Strategy for Health and Medical Research Hubs; Framework for NSW Biobanking; NSW Bioinformatics and Data Linkage Strategy.
- Establish mechanisms that inform cancer patients of the availability and importance of clinical research, leading to increased participation in clinical research.
- Attract funding for additional translational research capacity to enable faster identification and adoption of new techniques and technologies that improve cancer service efficiency and patient outcomes.
- Strengthen links between departments and services involved in cancer research across the District, through the Translational Cancer Research Network, Health Science Alliances and other groups/mechanisms.
- Train all staff about the importance of clinical trials, and encourage them to promote participation to patients.

Section 8: Performance Monitoring

The best measure of a health system's performance is its impact on health outcomes. Various policies and funding agreements at the national, state and local levels establish a robust performance monitoring framework for public health services in Australia. The key priorities of NSW Health include those under the NSW 2021: A Plan to Make NSW Number One, NSW Health plans, and the recommendations and findings of a number of key State and Commonwealth initiatives. The Ministry's key priorities are reflected in SESLHD's Strategy and health Services Plans. The District's Business Intelligence and Efficiency Unit will review and collate relevant data and information on an annual (or more frequent basis as required by the Board and CE), to assist health services to identify underperformance based on these reviews, and provide an annual report to the District Clinical and Quality Council and Board.

The Cancer Institute NSW's Reporting for Better Cancer Outcomes program

Under the Reporting for Better Cancer Outcomes program, the Cancer Institute NSW provides funding to Local Health Districts underpinned by a set of performance indicators aligned to the NSW Cancer Plan 2011–15. This reporting tool provides the mechanism through which services provide data related to the indicators and review reports outlining their performance.

Table 19: Cancer Institute NSW Performance and Funding Agreement

Reporting for Better Cancer Outcomes Key Performance Indicators RBCO Cycle 3: July 2013 - June 2014	
Area	**Key Performance Indicator**
Surgical	• Average annual volume of resections with curative intent by LHD, Public, Private and All Metro or All Rural o Breast Cancer o Lung Cancer o Oesophageal Cancer o Gastric Cancer o Pancreatic Cancer o Colon Cancer o Rectal Cancer o Gynaecological Cancer * o Liver Cancer * • Public Hospital above and below the minimum recommended caseload o Breast Cancer o Lung Cancer o Oesophageal Cancer o Gastric Cancer o Pancreatic Cancer o Colon Cancer o Rectal Cancer o Gynaecological Cancer * o Liver Cancer * • Public and Private hospital inflows and outflows in the LHD

	○ Breast Cancer ○ Lung Cancer ○ Oesophageal Cancer ○ Gastric Cancer ○ Pancreatic Cancer ○ Colon Cancer ○ Rectal Cancer ○ Gynaecological Cancer * ○ Liver Cancer * • Sentinel node biopsy rates for Breast Cancer * • Completeness of ASA on hospital surgical record * • Place of death in the following locations within the LHD * ○ At home ○ Hospice ○ Public Hospital ○ Private Hospital ○ Nursing home ○ Unknown or not available
Cancer Services & Information	• Proportion of cases with an ECOG status recorded for ○ Colorectal ○ Lung ○ Lymphoma ○ Upper GI • Proportion of Stage IV cases with referral to palliative care recorded • Proportion of patients treated on an eviQ protocol • Radiotherapy toxicity admissions in people with cancer as a proportion of all those treated with a first course of radiotherapy in public facilities (preliminary) * • Radiotherapy waiting times by priority code from the patient 'ready for care' date *
Strategic Research Investment	• Number of recruiting clinical trials by tumour stream ○ All cancers ○ Breast cancer ○ Colorectal cancer ○ Gynaecological cancer ○ Haematological cancer ○ Head and Neck cancer ○ Neurological cancer ○ Respiratory cancer ○ Skin cancer ○ Upper Gastrointestinal cancer ○ Urogenital cancer ○ Other • Number of patients enrolled on clinical trials by tumour stream ○ All cancers ○ Breast cancer ○ Colorectal cancer ○ Gynaecological cancer ○ Haematological cancer ○ Head and Neck cancer ○ Neurological cancer ○ Respiratory cancer ○ Skin cancer ○ Upper Gastrointestinal cancer ○ Urogenital cancer

	○ Other • Number of recruiting cancer clinical trials, total and by tumour stream, with nil patient enrolment in 12 month reporting period * ○ All cancers ○ Breast cancer ○ Colorectal cancer ○ Gynaecological cancer ○ Haematological cancer ○ Head and Neck cancer ○ Neurological cancer ○ Respiratory cancer ○ Skin cancer ○ Upper Gastrointestinal cancer ○ Urogenital cancer ○ Other

* New Key Performance Indicators for Cycle 3.

Aboriginal Health Impact Statement

Introduction

This Aboriginal Health Impact Statement has been produced to accompany the South Eastern Sydney LHD Cancer Clinical Services Plan 2014-2019.

This Impact Statement is based on the NSW Aboriginal Health Impact Statement and Guidelines and aims to document the health needs and interests of Aboriginal people have been imbedded into the development, implementation and evaluation of the Plan.

Declaration

Title of Initiative

The South Eastern Sydney LHD Cancer Clinical Services Plan 2014-2019

☑ The health needs and interests of Aboriginal people have been considered and appropriately addressed in the development of this initiative.

☑ Appropriate engagement and collaboration with Aboriginal people has occurred in the development and implementation of this initiative

☐ Complete checklist is attached.

Name of Manager: Gail Daylight
Title: Manager
Unit Name: Aboriginal Health
Local Health District: South Eastern Sydney

Signature:  Date: 25/7/14

Checklist

DEVELOPMENT OF THE POLICY, PROGRAM OR STRATEGY

1. Has there been appropriate representation of Aboriginal stakeholders in the development of the policy, program or strategy? ***Yes***

At both the service and management levels.

2. Have Aboriginal stakeholders been involved from the early stages of policy, program or strategy development? Please provide a brief description ***Yes***

During the planning process for the Cancer Clinical Services Plan discussions were held with Manager, Aboriginal Health Unit to identify key issues for Aboriginal and/or Torres Strait Islander people in relation to cancer services. Since then advice has been sought from the Aboriginal Health Unit as required. Numerous statistics and information have been included in the plan regarding the current outcomes, issues and critical needs of the Aboriginal population with respect to cancer and cancer service delivery.

3. Have consultation/negotiation processes occurred with Aboriginal stakeholders? ***Yes***

4. Have these processes been effective? Explain ***Yes***

These processes have been effective and the input from the Manager, Aboriginal Health has been invaluable. The Manager has given a broader perspective to the Plan in terms of access to cancer services, identification of Aboriginal people, demonstratable differences in health outcomes and the cancer service improvements needs of Aboriginal peoples.

5. Have links been made with relevant existing mainstream and/or Aboriginal-specific policies, programs and/or strategies? Explain ***Yes***

An evidence review was undertaken during the development of the Cancer Plan and the findings provided in the plan to highlight key needs of Aboriginal peoples with regards to cancer care i.e.

Our Aboriginal populations have unique needs with respect to cancer care for the following reasons:

- Different patterns of cancer incidence compared to non-Aboriginal Australians.
- Later diagnosis and lower survival.
- Continued disadvantage in accessing treatments.
- Cultural considerations.
- Limited data and research on Aboriginal cancer care, particularly in metropolitan settings.

CONTENTS OF THE POLICY, PROGRAM OR STRATEGY

6. Does the policy, program or strategy clearly identify the effects it will have on Aboriginal health outcomes and health services? Comments ***Yes***

Issues, data, evidence and areas of need for Aborginal peoples with regard to cancer and cancer care have been included in the plan, the intent of which is to raise awareness and support action to address gaps and insufficiencies in cancer care for this population, for example:

- A table which provides data on the number of Aboriginal Persons by Local Government Area, 2011
- Advice regarding the evidence findings that Aboriginal people are often diagnosed with cancer at a later stage, are less likely to receive adequate treatment and are more likely to die from cancers than any other Australians
- A range of other Aboriginal specific information relevant to each section of the cancer clinical services plan (please refer to the plan and other sections of this checklist for further details)

7. Have these effects been adequately addressed in the policy, program or strategy? Explain ***Yes***

Specific priority actions included in the plan to address the cancer care needs of Aboriginal peoples are:

- Identify specific cancer service needs of vulnerable groups, including Aboriginal, culturally and linguistically diverse groups, people living with HIV, among others.
- Establish processes to ensure appropriate support and information is provided to vulnerable groups with cancer, such as patient/carer awareness of service availability/wait, how to navigate, provider locations, and accessing procedures.
- Work with the Ambulatory and Primary Health Care Stream to ensure preadmission, admission and discharge planning processes/cancer pathways adequately identify and address the needs of vulnerable populations with cancer.
- Work with the District's Aboriginal Health Unit and Aboriginal Hospital Liaison Officers to implement the CINSW funded collaborative project with the Redfern Aboriginal Medical Service to improve capacity the knowledge and skills of Aboriginal Health Workers to improve Aboriginal participation in cancer screening programs and in navigating and completing complex cancer treatments.
- Identify best practice and implement mechanisms to improve data collection on Aboriginal people's access to oncology services.

8. Are the identified effects on Aboriginal health outcomes and health services sufficiently different for Aboriginal people (compared to the general population) to warrant the development of a separate policy, program or strategy? Explain ***Yes***

In the development of the Cancer Clinical Services Plan it became apparent

that Aboriginal peoples have both specific and general issues and needs with regard to cancer care and service set-up and delivery which could warrant the development of a separate plan. A negative consequence of this however is the potential reduced visibility of the issues for Aboriginal poeples if they are taken out of the main working plan which will be the central reference point for cancer clinicians and other service providers.	
IMPLEMENTATION AND EVALUATION OF THE POLICY, PROGRAM OR STRATEGY	
9. Will implementation of the policy, program or strategy be supported by an adequate allocation of resources specifically for its Aboriginal health aspects? Describe Yes, the cancer stream has committed to delivering the patient care improvements outlined in section 7 above. Resources to deliver these improvements include staff time, and provision of capacity building and staff development opportunities.	*Yes*
10. Will the initiative build the capacity of Aboriginal people/organisations through participation? In what way will capacity be built? A key action within the plan is to “Incorporate patient and carer participation into processes related to the development/improvement of cancer services”	***Yes***
11. Will the policy, program or strategy be implemented in partnership with Aboriginal stakeholders? Briefly describe the intended implementation process The implementation of the Cancer Clinical Services Plan will be dependent on a range of partnerships including Aboriginal Health. Central to this will be the ongoing monitoring of improvements in the identification rate, patient involvement and cancer specific procedure rates for Aboriginal people	***Yes***
12. Does an evaluation plan exist for this policy, program or strategy?	***Yes***
13. Has it been developed in conjunction with Aboriginal stakeholders? Briefly describe Aboriginal stakeholder involvement in the evaluation plan The evaluation of the Cancer Clinical Services Plan will occur throughout the Plan’s life (i.e. 2014 – 2019). This evaluation will include evaluation of improvements in the cancer care and outcomes for Aboriginal poeples and the identification of Aboriginal people throughout our facilities.	