



ST VINCENT'S
HOSPITAL
SYDNEY

CANCER PLAN 2015-2020

St Vincent's Campus



ST VINCENT'S
PRIVATE HOSPITAL
SYDNEY




St Vincent's Clinic



The
Kinghorn
Cancer
Centre



A photograph of a modern building with a glass and metal facade. The building has a large white callout box on the right side containing text. The building is illuminated from within, and the glass reflects the surrounding environment. A tree is visible in the foreground on the left, and a silver car is parked on the street in the foreground on the right.

*A blueprint for improved care,
better treatment outcomes and
support for people with cancer
and their families and friends.*





"I am ineffably grateful to each of you for the professionalism, care and quiet compassion you exhibited during this protracted and difficult process. I can genuinely say that I have never trusted a group of people as completely as I did the team at Kinghorn."

LETTER FROM A FORMER PATIENT 2014

FOREWORD



DIRECTLY, or through family, carers, friends or work colleagues everyone is affected by cancer. Being diagnosed with cancer is a life changing event.

For the patient, the priority is being able to access the best available treatment and support services. It is a time of emotional upheaval as they seek to come to grips with their diagnosis, what it means and what are the most optimal treatments available. For their family, carers and friends, it is a stressful time as they try to support their loved one both emotionally and by providing the practical assistance required to manage their illness. Trying to understand what cancer means, what treatment choices are available and what will happen after treatment can often prove a challenging and sometimes overwhelming time for patients and their loved ones.

As a mission and value driven health care network, St Vincent's is committed to ensuring that all patients and their families have access to the best available services to meet their clinical, emotional and spiritual needs. Central to St Vincent's mission is the improvement of access to cancer treatment for patients from rural areas and for patients who are disadvantaged or vulnerable.

Closing the Gap in health outcomes for Aboriginal and Torres Strait Islander people with cancer is a major priority for St Vincent's. The Hospital works closely with the Aboriginal Medical Service (AMS) to ensure that cancer services provided by the Hospital are culturally appropriate and that St Vincent's supports the AMS in the provision of cancer services locally.

St Vincent's has invested heavily in research, working collaboratively at a national and international level to support cancer research in order to fast-track these research findings to the patient's bedside. This has been facilitated by the creation of the Kinghorn Cancer Centre, a joint venture with the Garvan Institute.

St Vincent's recognises the importance of working closely with General Practitioners and community services to support people affected by cancer. These relationships will be built on and strengthened. The St Vincent's Campus Sydney Cancer Plan is a blueprint for improved care, better treatment outcomes and support for people with cancer and their families and friends.

Finally, I acknowledge the help of KPMG in developing this plan as well as the efforts of my Campus colleagues, particularly Professor Allan Spigelman and Gabrielle Prest.



A/Prof Richard Gallagher
Director of Cancer Services
St Vincent's Health Network



EXECUTIVE SUMMARY

The St Vincent's Campus Sydney Cancer Plan provides an outline of the strategic direction for cancer services for the next five years, identifying key areas of focus to further improve cancer prevention, diagnosis and treatment and to achieve the Plan's key objectives which are to:

- \ PROVIDE PATIENT-CENTRIC CARE WITH A FOCUS ON PERSONALISED MEDICINE
- \ IMPROVE CANCER SURVIVAL RATES
- \ IMPROVE QUALITY OF LIFE FOR PEOPLE WITH CANCER
- \ ENSURE EQUITABLE ACCESS FOR PATIENTS FROM DISADVANTAGED BACKGROUNDS
- \ ACHIEVE BREAKTHROUGHS IN TREATMENT WITH A VIEW TO FINDING A CURE FOR CANCER
- \ COLLABORATIVELY PROVIDE SPECIALISED CANCER SERVICES FROM ST VINCENT'S HOSPITAL, ST VINCENT'S PRIVATE HOSPITAL, THE KINGHORN CANCER CENTRE, SACRED HEART HEALTH SERVICE, ST VINCENT'S CLINIC AND ST VINCENT'S CENTRE FOR APPLIED MEDICAL RESEARCH, BRINGING AN INTEGRATED APPROACH TO SEAMLESS CANCER CARE.



The Plan identifies the factors that will support achieving these objectives. It is based on an integrated, high quality system-wide approach to cancer care which aligns world-class cancer research to improvements in patient outcomes, while also addressing the challenges brought about through increasing demand and an ageing population, as well as the recent ability to address each patient's unique genetic composition. The Plan is aimed at patients and their carers and families accessing services at The Kinghorn Cancer Centre (TKCC), St Vincent's Hospital (SVH), St Vincent's Private Hospital (SVPH), Sacred Heart Health Service (SHHS) and St Vincent's Clinic (SVC).

In developing this Plan, St Vincent's consulted widely with key clinicians from across the campus, consumers and primary care providers. The Plan aligns with international best practice as well as state-wide cancer service and health funding policy and objectives.

To achieve best practice within the funding framework we will:



- Streamline patient care to increase efficiency and improve patient outcomes
- Network with primary care and community services to better manage care outside of the Hospital.
- St Vincent's is introducing new models of care and other initiatives to ensure continuing excellence in cancer service delivery. This Plan outlines current developments in addition to future areas of focus, including:
 - Re-orientation of the position of Director of Cancer Services to provide strategic leadership and work collaboratively across all of the newly established Hospital clinical streams, ensuring the delivery of fully integrated cancer services
 - Form cross-campus, multi-disciplinary advisory groups, including consumers, to provide strategic advice with respect to the quality of care, research, reporting and community engagement
 - A strong focus on patient centred care
 - Strengthening the provision of cancer services to Aboriginal and Torres Strait Islander Australians living both locally and in rural communities
 - Strengthening rural partnerships
 - Strengthening partnerships for the delivery of cancer services to homeless and disadvantaged communities in the inner city
- Provision of holistic healthcare options and support services
- Strengthening translational research and its relationship with clinical decision making
- Development of genomics to fundamentally address the individual needs of each patient
- Expanding and improving bone marrow transplantation services
- Consolidating and improving radiation oncology and chemotherapy services
- Upgrading inpatient services to meet emerging demand and to ensure continued delivery of high quality care, with a focus on infection prevention and control
- Developing Emergency Department avoidance strategies and enhancing ambulatory services to provide care in the community and reduce the rate of avoidable admissions to hospital
- Medium and longer term initiatives to ensure improved efficiency and sustainability of cross Campus initiatives and models of care.

The St Vincent's Campus Sydney Cancer Plan is consistent with national and state cancer policies and reflects the Mission and Values of St Vincent's Health Australia. The compliance of this plan with national and state policy directions is summarised here.



ST VINCENT'S PRIORITIES (HIGH LEVEL SUMMARY)

Priority One: Provide patient centric care

- Director of Cancer Services appointment
- Development of Cancer Advisory Group and operational service advisory groups
- Development of clinical services plans for each tumour stream
- Develop care pathways for direct hospital admission or patient management within the community setting
- Implementation of written care plans
- Development of geriatric oncology
- Greater focus on the disadvantaged and ongoing cultural awareness training
- Building primary care networks and referral pathways

Priority Two: Improve cancer survival rates

- Implementation of standard protocols and reporting against quality benchmarks
- Routine quality reviews, clinical audits and practice reviews
- MOSAIQ and integration with PCEHR
- Expand participation in and patient access to clinical trials

Priority Three: Improve quality of life for cancer patients

- TKCC Wellness Centre
- Campus wide psychosocial support services
- Telehealth, video and internet based patient support

Priority Four: Ensure equitable access to cancer services

- Closer integration with homeless outreach services
- Enhanced partnership with Redfern Aboriginal Medical Service
- Establishment of Murrumbidgee Health Partnership
- Telehealth and rural partnerships
- Telehealth, video and internet based patient support
- Consolidate MDTs and expand to rural outreach

Priority Five : Realise breakthroughs in cancer treatment with a view to cure

- Further development of Bone Marrow Transplant service
- Strategy for translational research collaboration with Mater Hospital Sydney and other local private hospitals
- Build genomics service
- Campus research, academic and clinical recruitment strategy
- Increase nursing and allied health led translational research

CANCER AUSTRALIA STRATEGIC PLAN 2011-2014

Priority One:

- Improvements in national coordination of cancer control and advice to government

Priority Two:

- Improvements in cancer outcomes across the continuum of care

Priority Three:

- Improvements in the delivery of cancer care and the patient experience

Priority Four:

- Improvements in community knowledge that have the potential to impact on cancer outcomes



NSW CANCER PLAN 2011-2015

Objective One:

- To increase the survival rate for cancer patients

Objective Two:

- To reduce the incidence of cancer in the community



GLOSSARY

AMS	Aboriginal Medical Service
BMT	Bone Marrow Transplant
CAG	Cancer Advisory Group
DVA	Department of Veterans Affairs
ED	Emergency Department
ESML	Eastern Sydney Medicare Local
GIMR	Garvan Institute of Medical Research
IMRT	Intensity-modulated radiation therapy
MDT	Multi-disciplinary Team
PCEHR	Personally Controlled Electronic Health Record
SAHART	Sydney Alliance for Healthcare Research and Teaching
SEIFA	Socio Economic Index for Areas
SHHS	Sacred Heart Health Service
SVC	St Vincent's Clinic
SVAMR	St Vincent's Centre for Applied Medical Research
SVHS	St Vincent's Hospital Sydney (public)
SVPH	St Vincent's Private Hospital
TKCC	The Kinghorn Cancer Centre





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ST VINCENT'S HOSPITAL, SYDNEY

ST VINCENT'S MISSION

As a Catholic health and aged care service, our mission is to bring God's love to those in need through the healing ministry of Jesus. We are especially committed to people who are poor or vulnerable. We draw on the talents of our people and collaborate with others who share our vision and values to continue the pioneering spirit of Mary Aikenhead and the Sisters of Charity. We are committed to providing compassionate and innovative care, enabling hope for those we serve.

St Vincent's Hospital Sydney and its Campus partners have been a leader in healthcare delivery since 1857. The Hospital maintains a proud tradition of providing high quality, safe and effective care focussing on the needs of patients and their families.

Through continuous research, education and training, St Vincent's has been at the forefront of the delivery of cancer services. As a Catholic health service, the Hospital has long reached out to provide care to the most disadvantaged members of our community, both in Sydney and across NSW.

The establishment of TKCC in 2012 was a major achievement of the previous St Vincent's Health Sydney Cancer Plan and has been a milestone in the provision of cancer services. The co-location of teaching, research and ambulatory patient care in a single facility ensures that patients have access to leading treatment options. Purpose built, TKCC provides a welcoming environment where the patient is acutely aware of not just the high quality care but the ongoing cancer research being undertaken in the Centre.





INTRODUCTION

Cancer affects the health of Australians more than any other disease group.¹ By the age of 85, one in two men and one in three women will be diagnosed with cancer. Five main cancer types make up over 60 percent of the cancers diagnosed in Australia. These are: cancer of the prostate (20 percent of all cancers diagnosed), bowel (13 percent), breast (12 percent), melanoma (10 percent) and lung (10 percent).² Despite these statistics, on international comparisons, Australians diagnosed with cancer have higher than average survival rates. The five year survival rates for patients diagnosed with the above cancers are: melanoma (92 percent), breast (88 percent), prostate (85 percent), bowel (62 percent) and lung (12 percent).³

Cancer is a relatively high cost disease to treat. Related cancer diseases account for approximately 10 of all hospital separations in Australia.⁴ Between 2001-02 and 2011-12, the number of cancer hospitalisations increased by 36 percent and will continue to increase as the population ages. Patients with cancer may require high volumes of expensive imaging and pathology services, expensive drugs and complex multi-disciplinary care as well as high-cost end of life care.⁵

THE COST OF CANCER CARE REQUIRES:

- Strategies to streamline patient care to make care more efficient and improve patient outcomes
- Greater efficiency from high cost tertiary hospital facilities and equipment
- Closer networking with primary care and community services to better manage care outside of the hospital
- Improved ambulatory care to reduce the rate of presentations to ED and the number of avoidable admissions to hospital
- Improved partnerships with rural health services to provide treatment to patients closer to home
- Financial support from the community to bring new and effective treatments to the patients' bedside.

1. Australian Institute of Health and Welfare (AIHW) & Australasian Association of Cancer Registries 2010. Cancer in Australia: an overview, 2010. Cancer series no. 60. Cat. no. CAN 56. Canberra: AIHW.

2. The Cancer Council published easy to understand profiles of cancer in Australia, this can be found online at <http://hope.cancercouncil.com.au/?gclid=COBsta8y78CFQitigodsCkANG>. The Cancer Institute of NSW and Australian Institute of Health and Welfare provide more detailed cancer reports. These can be found online at <http://www.cancerinstitute.org.au/data-and-statistics/cancer-statistics> or <http://www.aihw.gov.au/publication-detail/?id=6442472459>

3. Ibid.

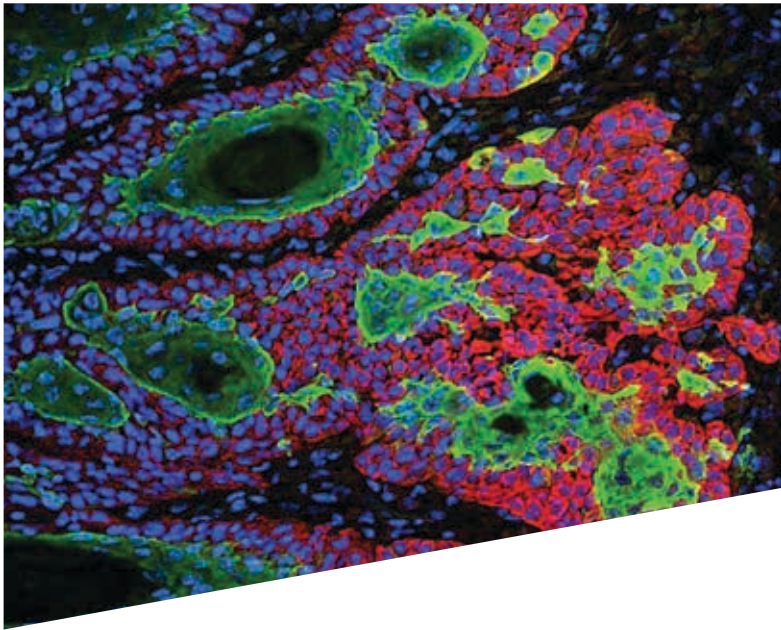
4. AIHW (2012) Cancer in Australia: an overview, 2012. See <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129542353> Professor James Bishop: Review of Cancer Services in the Northern Sydney Local Health District, March 2014

5. Professor James Bishop: Review of Cancer Services in the Northern Sydney Local Health District, March 2014

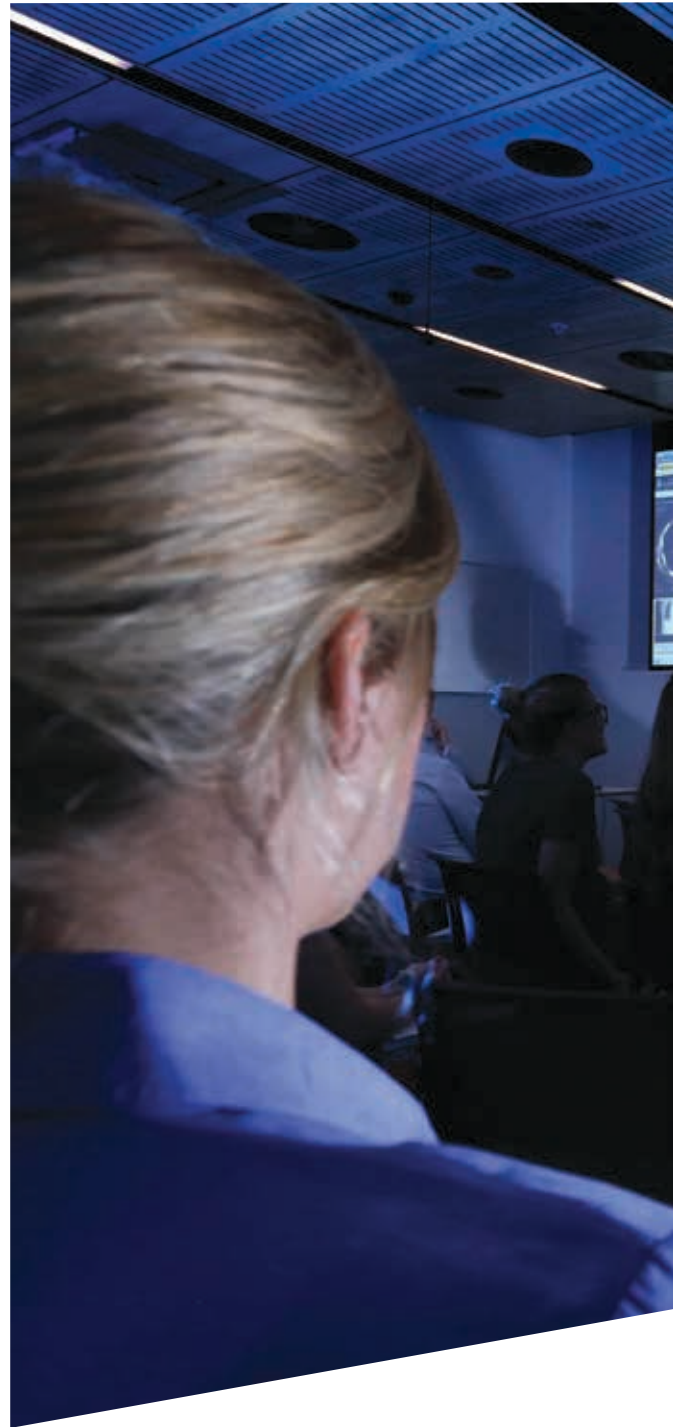
OVERVIEW OF CANCER

WHAT IS CANCER?

Cancer describes a diverse group of over 100 diseases in which some of the body's cells become abnormal and begin to multiply out of control as a result of genetic changes in the cell.



These abnormal cells can form an invasive (that is, malignant) tumour which can damage the area around it and spread to other parts of the body through the bloodstream or the lymphatic system. Nearly every part of the body can be the site of a cancerous tumour.⁶ If the spread of these tumours is not controlled, they can result in death. Not all tumours are invasive; some are benign tumours that do not spread to other parts of the body and are rarely life-threatening.



6. Description provided in Cancer Australia what is cancer
<http://canceraustralia.gov.au/affected-cancer/what-cancer>

7. International Agency for Research on Cancer, 2014



HOW CANCER IS CHANGING

Although the incidence of cancer is continuing to grow worldwide, Australia's response in tackling the disease is constantly improving, resulting in decreased mortality rates.⁷ As our knowledge of cancer improves, so do our treatments. Treatments are safer and increasingly effective, with a growing focus on holistically addressing the socio-psychological needs of both patients, carers and families.

GOVERNMENT APPROACHES TO CANCER

Both the Commonwealth and State Governments have invested heavily in tackling cancer and have cancer plans and policies in place to reduce the incidence of cancer in the community, improve cancer treatments, improve patient outcomes and reduce the impact of cancer on individuals and families.

The Cancer Australia Strategic Plan 2011-2014 outlines four key priority areas guiding national cancer policy and investment in cancer treatment and research:

- **Priority One:** Improvements in national coordination of cancer control and advice to government
- **Priority Two:** Improvements in cancer outcomes across the continuum of care

- **Priority Three:** Improvements in the delivery of cancer care and the patient experience
- **Priority Four:** Improvements in community knowledge that have the potential to impact on cancer outcomes. At a state level, the NSW Cancer Plan 2011-2015 presents two key objectives guiding NSW government investment in cancer treatment and prevention:
 - **Objective One:** To increase the survival rate for cancer patients
 - **Objective Two:** To reduce the incidence of cancer in the community

The St Vincent's Campus Sydney Cancer Plan 2015-2020 reflects the national and state cancer policy directions as well as the Hospitals' specific Mission and Values to:

1. Provide patient centric care.
2. Improve cancer survival rates.
3. Improve quality of life for cancer patients.
4. Ensure equitable access to cancer services.
5. Realise breakthroughs in cancer treatment with a view to cure.

THE LOCAL COMMUNITY

LOCATION

Providing high quality healthcare since 1857, St Vincent's Hospital is a Sydney landmark, centrally located to the city and eastern suburbs. St Vincent's is accessible by train from Kings Cross, bus from the city and eastern suburbs and motorway from the northern, western and southern suburbs of Sydney. Parking is available at SVHS, TKCC and SVC.

OUR PATIENTS



In 2012-13, 1,246 patients were treated at SVHS and 1,106 patients were treated at SVPH for cancer related conditions. Of the patients treated by SVHS, 59 percent elected to be treated as private patients.

Approximately one-third (34 percent) of cancer patients treated at St Vincent's live in the immediate area of Waverley, Woollahra and east/inner Sydney local government areas. Slightly less than one-third (28 percent) reside within seven kilometres of St Vincent's in Randwick, the remainder of Sydney City Council and the inner west. Others come from further metropolitan areas of Sydney (17 percent), rural NSW (20 percent) and interstate or international (1 percent). The distribution of patients treated at SVPH is similar.⁸

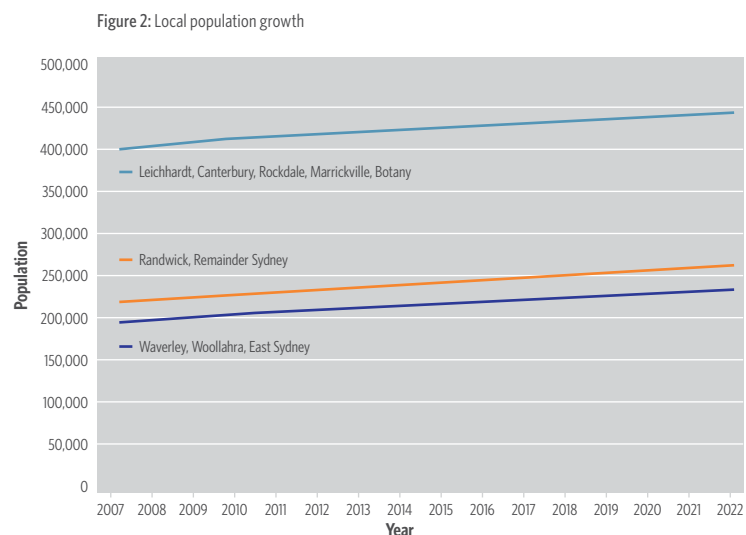
The local area includes areas of both socio-economic advantage and disadvantage. Overall, local residents have higher average income and levels of private health insurance than the NSW average. The Australian Bureau of Statistics Socio Economic Index for Areas (SEIFA)⁹ ranks Woollahra and Waverley as falling within the top 10 percent of the Australian population in terms of relative advantage. East Sydney residents are in the top 20 percent and inner Sydney is in the top 40 percent of SEIFA scores. Yet amongst this affluence,

there are significant pockets of extreme disadvantage, particularly in the areas of public housing, low income families paying high private rent and homeless people in inner Sydney.

The social mix of the local community provides both local challenges and opportunities. St Vincent's has been fortunate to have high levels of private support in the community, resulting in significant donations and capacity for fundraising. Philanthropic support is critical in allowing St Vincent's to offer services of the highest quality to all members of the local community and to develop specialist services targeting those in most need.

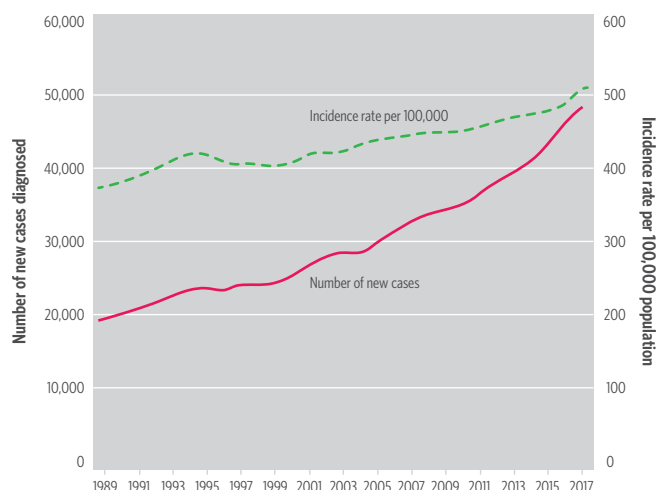
GROWING DEMAND

The incidence and prevalence of cancer, both within NSW and nationally, has been steadily increasing. This trend is world-wide.¹⁰ In 2014, approximately 45,000 new cases of cancer were diagnosed in NSW.



Growth is highest in the older population groups. The population aged 70 and older is projected to increase by 18.1 percent to 2020 (Table 1), 43 percent of diagnosed cancers occur in this age group.¹³

Figure 1: NSW Incidence of cancer, excluding skin cancer shows the incidence rate and number of new cancers diagnosed between 1989 and 2008, with forward projections to 2017.



There are several reasons for the increase in cancer cases, one reason being an ageing population.¹¹ Increasingly, individuals are living longer than before, resulting in more people reaching an age where cancer is common.

Population growth is a key determinant of demand. Urban consolidation and increasing numbers of people living in the eastern suburbs and inner city/inner west is increasing demand on inner Sydney based health services as a whole. The population of the eastern suburbs, inner Sydney and inner west (contributing to 60 percent of St Vincent's demand) is projected to increase by at least 8.2 percent over the next nine years.¹²

Table 1: Forecast population growth local catchment

Age Group	2013	2020	Growth	% growth	PA growth
00-15 years	138,265	149,005	10,741	7.8%	1.1%
16-44 years	434,720	438,300	3,580	0.8%	0.1%
45-69 years	227,287	244,217	16,930	7.4%	1.0%
70-84 years	61,969	73,815	11,846	19.1%	2.5%
85+ years	15,804	18,030	2,226	14.1%	1.9%
Grand Total	878,259	923,502	45,243	5.2%	0.7%
70+	77,773	91,846	14,072	18.1%	2.4%

On current cancer incidence trends, population growth will lead to a 1.4 percent increase in cancer related admissions to St Vincent's Sydney Campus each year, the equivalent of approximately 65 additional patients.

The age of patients with cancer will also increase significantly. The number of patients aged 70 and older will increase by approximately seven percent per year, a 50 percent increase. Older patients with cancer may experience multiple health problems affecting their response to treatment and functional impairments, limiting their capacity to self-care at home. The increase in the average age of patients treated at St Vincent's will have a significant impact on the level of nursing care required in hospital, post-acute and support to patients in the community.

There will be a greater number of patients treated for cancer on Campus stemming from expanded and improved models of cancer care being driven by TKCC, as well as a facility upgrade to provide a dedicated ward at SVHS and increased bed capacity at SVPH. As a result, the St Vincent's Campus expects to see a doubling of current growth, the equivalent of 25 to 30 additional hospital beds by 2020 and a greater number of patients being supported by St Vincent's in the community.

8. Best estimate for SVPH based on aggregated information provided.

9. Socio Economic Index for Areas uses Census data to provide an overall ranking of relative advantage and disadvantage across geographical areas. The national average score is 1000.

10. IARC, 2014.

11. Richard S, Beard J, Global Health and Ageing, World Health Organisation (WHO), October 2011 – see http://www.nia.nih.gov/sites/default/files/global_health_and_ageing.pdf.

12. NSW Health Acute Inpatient Model (AIM): NSW Planning population projections.

13. AIHW data, excludes all cases of basal cell carcinoma (BCC) of the skin and squamous cell carcinoma (SCC) of the skin.

CANCER SERVICES

The St Vincent's Sydney Campus operates as a joint facility, with a range of services and facilities working together with shared management and clinical governance structures to provide cancer care, teaching, education and research. Campus wide, St Vincent's provides a comprehensive range of cancer services across all of its facilities.

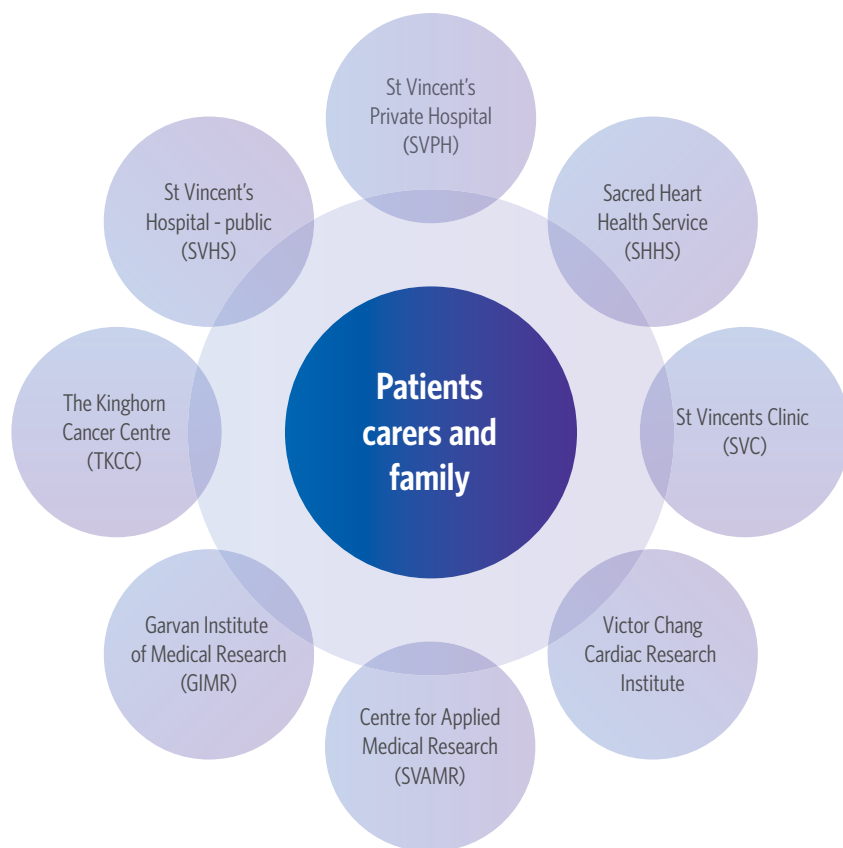


FIGURE 3: Facilities at St Vincents

TKCC provides the focal and coordinating point for cancer services at St Vincent's. Opened in 2012, the building was specifically designed not to look like a hospital research building but rather, to provide a welcoming and relaxing space for cancer patients, their families and friends.



Behind the welcoming entrance foyer, TKCC brings over 250 researchers and clinicians together into a single centre focussing on translational research and personalised cancer care. On average, 100 patients per day are currently treated at TKCC with additional patients seen on an outreach basis. The number of patients treated is growing rapidly and will continue to do so as new services commence and TKCC's reputation for excellence continues to grow.

The mission of TKCC is to align world-class cancer research with rapid translation to the clinic to improve outcomes for cancer patients by:

- Building world-class facilities and strategic collaborations to enhance advances in science that translate into improved cancer diagnosis, treatment and prevention
 - Developing integrated, person centric, multi-disciplinary, multi-institutional approaches to cancer research and patient care to reduce the impact of cancer in the community
 - Providing personalised medicine to ensure that every patient's treatment is tailored to address their unique needs
 - Providing a holistic, compassionate approach to cancer care throughout the entire cancer journey, from diagnosis to full recovery where cure is possible, and supportive care and information to all, with preservation of patient dignity
 - Establishing world-class educational and training programs to develop high quality researchers and clinicians to optimise translational outcomes
- The opening of TKCC has contributed to both improved patient services and increased demand for cancer services at SVHS.

In 2013, TKCC:

- Convened and coordinated over 280 Multi-disciplinary Team Meetings (MDT) reviewing almost 1,600 patients from across SVHS, SVPH, SVC and SHHS
- Provided 22,600 occasions of care, an increase of 8.5 percent when compared with pre TKCC activity at SVHS in 2012
- Provided over 700 medical oncology occasions of service per month, a 12 percent increase in the number of chemotherapy patients treated
- Increased attendances at the Cancer Genetics Clinic by 86 percent
- Hosted patient education, support and wellness groups.

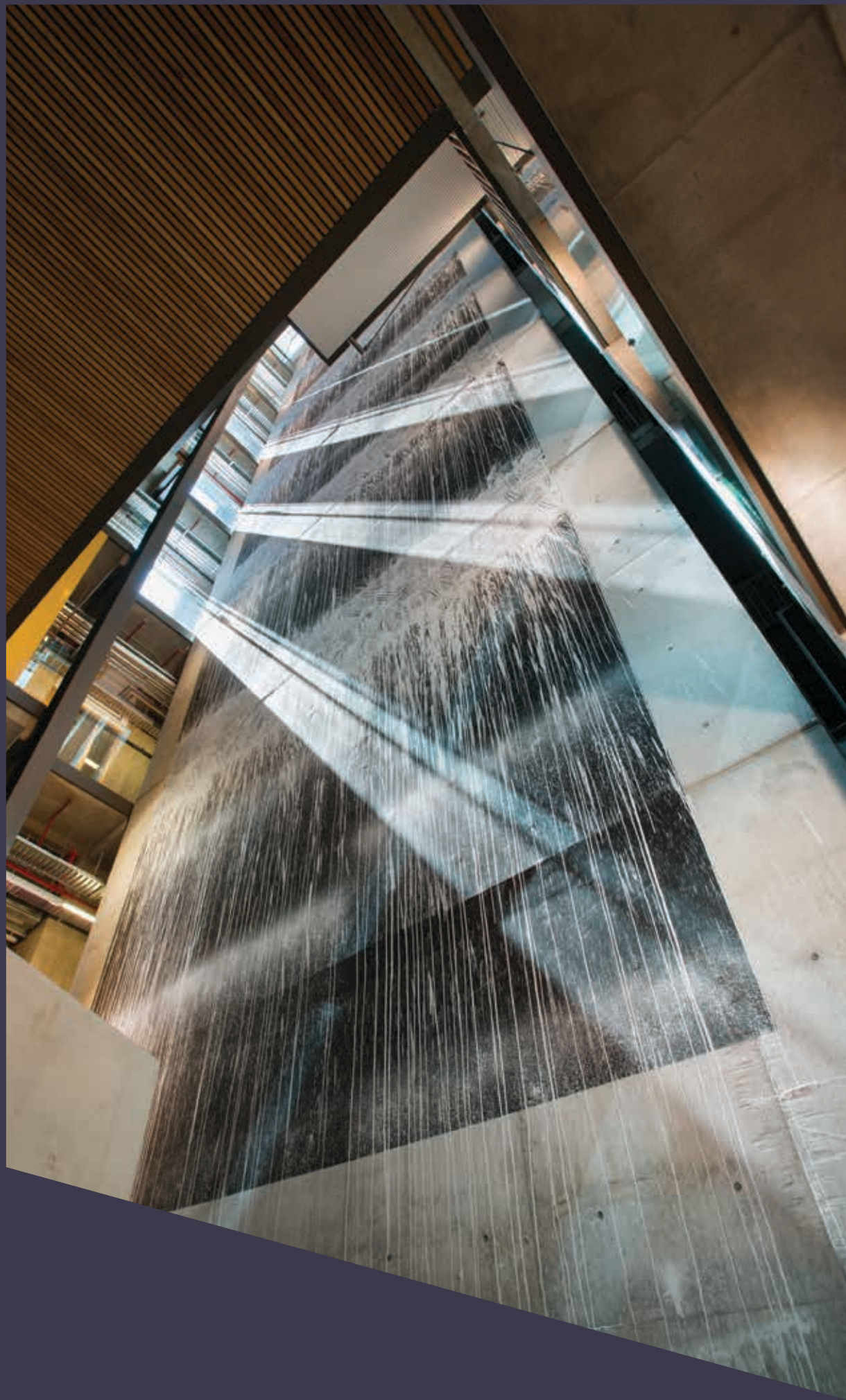
In 2014, TKCC has:

- Continued to consolidate and grow MDTs
- Commissioned a new linear accelerator for the provision of radiation oncology at SHHS
- Established a clinical genomics service
- Enrolled approximately 200 patients in clinical trials for new cancer treatments.

"I have to tell you what an impact the Kinghorn Cancer Centre made on me. I was left gaping at the immediate sense of vast space. My eye travelled up from one level to the next. I was reminded of the peace of being among tall trees as my eye searched up from "branch to branch". This impression of shapes floating, the play of light and shade, is inspiring and reassuring to a cancer patient who, in spite of outward bravery and professional medical support, cannot avoid an ever persistent fear. The architects, designers and the artist of the breathtaking mural have created a surprising, 'nonhospital' environment and invoked an uplifting sensation.

LETTER FROM PATIENT 2014





OVERVIEW OF CANCER SERVICES ON SITE

THE KINGHORN CANCER CENTRE

TKCC provides translational research and ambulatory cancer care, providing:

- Cross-campus cancer care coordination, for example, Multi-disciplinary Teams and Cancer Care Coordinators
- Bone Marrow Transplant Stem Cell research
- Integrated ambulatory cancer care – medical oncology, haematology, psycho-social, pharmacy, allied health, outpatient clinics
- Cancer genetic counselling
- Cancer genomics
- Translational research
- Clinical trials
- Wellness Centre.

ST VINCENT'S HOSPITAL SYDNEY

SVHS is a 326 bed tertiary public referral hospital, providing:

- Inpatient medical and surgical activity
- Bone Marrow Transplant (BMT)
- Ambulatory post-acute care (for example ambulatory post-operative clinic) and 'Hospital in the Home'
- Allied health services
- Public radiation oncology service.

ST VINCENT'S PRIVATE HOSPITAL

270 bed tertiary level private hospital:

- Inpatient medical and surgical activity
- BMT and Radiation Oncology.

SACRED HEART HEALTH SERVICE (palliative care)

SHHS provides inpatient and ambulatory palliative care. St Vincent's palliative care services are networked with Prince of Wales Hospital and South Eastern Sydney Local Health District, providing:

- Inpatient palliative care (70 beds)¹⁴
- Day centre (five days per week)
- Allied health services
- Community based palliative care
- 24 hour palliative care community consultative service.

VICTOR CHANG CARDIAC RESEARCH INSTITUTE

The Institute is one of Australia's most prominent centres for cardiac research and a major partner in the provision of heart/lung services on the SVHS Campus. Work in the area of stem cell research and molecular pathways contribute both to cardiovascular and anti-cancer therapies.

ST VINCENT'S CLINIC

St Vincent's Clinic provides a comprehensive range of investigative, diagnostic and therapeutic services for patients referred for health care:

- Doctors rooms – pre-admission, follow up
- Private radiation oncology service.

ST VINCENT'S CENTRE FOR APPLIED MEDICAL RESEARCH

One of the primary focuses of SVAMR is on discovering genes crucial to controlling the growth and survival of cancer stem cells in haematological malignancies (blood and bone marrow cancers) and how these genes differ from those in normal haematopoietic stem cells. Key cancer programs include:

- Cancer Council of NSW Bio banking of blood samples for research
- Blood Stem Cell and Cancer Program
- Key research areas including anal cancer, malignant haematology, gastro oesophageal cancer, cellular immunology, haematology and bone marrow transplantation research
- International research collaborations.

GARVAN INSTITUTE OF MEDICAL RESEARCH

Research at Garvan (GIMR) is focused upon understanding the role of genes and molecular and cellular processes in health and disease as the basis for developing future preventions, treatments and cures. Key areas of cancer research include:

- Molecular, cellular and genetic research
- Key cancer research clinical prostate cancer research, genomics, hormones and cancer, translational breast cancer research, and tumour development
- NSW Prostate Cancer Research Centre.

TREATMENT

Both SVHS and SVPH treat most forms of cancer, however neither hospitals treat children with cancer; instead, specialist paediatric cancer care is available from Sydney Children's Hospital and Westmead Children's Hospital. Similarly, the State AYA (Adolescent and Young Adult) Cancer Network is led from the Randwick site with combined paediatric and adult cancer input. Most cases of gynaecological cancer are referred to the nearby Royal Hospital for Women.

Both SVHS and SVPH provide high quality surgical and medical treatment for cancer. To complement this cancer care, state-of-the-art radiotherapy and chemotherapy services are offered to both public and private patients on an outpatient basis and more rarely on an inpatient basis.



CANCER TREATMENT

Where cancer is detected by a patient's GP, which is most common, patients may be referred, or ask for a referral to a cancer specialist at St Vincent's. Many doctors work across both SVHS and SVPH. Specialists may be seen at either TKCC or St Vincent's Clinic (SVC).

Where cancer is detected through attendance at the Emergency Department, there may be an immediate investigation (for some patients, this may mean diagnostic procedures such as specialist imaging or endoscopic procedures) or surgery where the condition is urgent. Diagnostics and treatment may be undertaken in SVHS or SVPH subject to patient preference. Less urgent cases will be referred to see a specialist on an outpatient basis.

Such consultations will involve the specialist and patient discussing the nature of their cancer, any tests and procedures that may be required and treatment options. In some cases, patients may be referred to other specialists for second opinions prior to deciding upon a treatment approach.

Depending on the type and progression, cancer may be treated using several different methods, often in combination. Some of the methods include:

Surgery

Used to surgically remove cancerous tumours when the cancer is able to be removed. There are often circumstances when the cancer is unable to be surgically removed because of a high risk of surgical complications or when the cancer has spread to too many parts of the body.

Chemotherapy

Involves the use of drugs, either injected intravenously or given orally in tablet form, to stop or slow the growth of cancer cells. Chemotherapy can also be administered directly into the body tissue, for example, the bladder, or the fluid surrounding the spinal cord. These drugs not only stop or slow the growth of cancer cells, but also interfere with some healthy cells, which can lead to side effects. Different chemotherapy drugs can produce different side-effects, however most are temporary and can be treated or managed.¹⁵ Genomics will provide a clearer understanding of the individual patient's response to specific drugs and provide an opportunity to use drugs with more precision in a more individually tailored way.

Radiotherapy

Is the use of radiation to kill cancer cells by effectively targeting electromagnetic waves, such as gamma or x-rays, into the cancer cell to kill it.¹⁶ There are two main types of radiotherapy; external beam radiotherapy and brachytherapy. External beam radiotherapy directs the radiation beam externally to treat the area of cancer, whilst brachytherapy uses a radioactive source that is placed inside the body via a needle or tube. The former may involve a short stay in hospital and a general anaesthetic. Side effects vary for each person and will depend on the part of the body that is being treated.

Immunotherapy

Is treatment which uses special drugs to manipulate the body's immune system to help fight the cancer.¹⁷ Immunotherapy includes treatments that work in different ways. Some boost the body's immune system in a very general way, while others help train the immune system to attack cancer cells specifically. The different types of Immunotherapy include monoclonal antibodies (man-made antibodies given to attack specific cancer cells), cancer vaccines (uniquely developed vaccines to stimulate the immune system to attack patients' cancer cells) and non-specific immunotherapies (boost the general immune system to help attack cancer cells). Immunotherapy is currently a very active area in cancer research. Many scientists are studying new ways to use these therapies in treating cancer.¹⁸

Complementary therapies

These include a range of evidence-based primary care and complementary health services designed to support patients through the cancer journey. These may include services providing psychological and emotional support, treatment for the effects of cancer and cancer treatments and practical assistance in managing the effects of cancer. These may be provided through the Hospital, TKCC Wellness Centre or referrals to primary and complementary care providers in the community.

15. Cancer Institute NSW 2014 <http://www.cancerinstitute.org.au/patient-support/what-i-need-to-know/cancer-treatment/what-is-chemotherapy-and-how-will-it-affect-me>

16. Cancer Council Victoria <http://www.cancervic.org.au/about-cancer/types-treatments-trials/radiotherapy>

17. Cancer Council Australia http://www.cancervic.org.au/glossary/default.asp?ContentID=definition_immunotherapy&Popup=True

18. American Cancer Society 2014 <http://www.cancer.org/treatment/treatmentsandsideeffects/treatmenttypes/immunotherapy/immunotherapy-what-is-immunotherapy>

CANCER CARE COORDINATORS

To assist patients through the cancer journey, SVHS has established a number of Cancer Care Coordinators who are introduced to the patient in the early stages of treatment, following diagnosis. These Care Coordinators are available to answer questions from the patient and their families and friends about what each stage of treatment may mean and the choices that are available. Cancer Care Coordinators are an important key point of contact, providing information, ongoing support and advice for patients having complex treatment. Patients requiring more complex psycho-social care and support are referred to specialist cancer psychologists who are based at TKCC. A range of allied health services are also available to support patients in hospital, with referrals to community health and primary care providers for patients discharged home.

Multi-disciplinary teams (MDTs)

Patients with complex cancers as well as patients referred for radiation oncology or medical oncology are reviewed by MDTs comprising treating doctors, radiologists, pathologists, cancer care coordinators, allied health staff, clinical trial coordinators and researchers. MDTs for each cancer type occur weekly or fortnightly and ensure the input of all expert clinicians are considered in treatment planning.

Genetic counselling

The SVHS Cancer Genetics Clinic is a consultant-led service providing risk assessment, surveillance advice and genetic testing for people with a personal or family history of cancer. Following risk assessment, surveillance recommendations may be made and genetic testing may be offered.

Public or Private admissions

It is during the initial discussions with the treating specialist, or in the case of patients admitted through the Emergency Department, early in the admission process, that patients are given the option of treatment in SVHS or SVPH.

Services for rural patients

Approximately one-third of St Vincent's patients come from outside of Sydney. St Vincent's is committed to improving services to areas of need and, to support rural patients, the hospital provides accommodation support services. The St Vincent's Hospital Social Work Department and the Sisters of Charity Outreach provide accommodation (61 beds in local terrace houses), counselling and transportation services to rural patients and their families and carers.

SVHS has had a long history of outreach services to rural areas. Over the next year SVHS will be formalising a Partnership Agreement with Murrumbidgee Local Health District to partner across a range of services.





Services for homeless and disadvantaged patients

People from low socio-economic backgrounds tend to have poorer overall health than other Australians and have higher mortality rates from cancer than the general population.

Almost three percent (2.9 percent) of residents of inner Sydney are homeless. This is more than three times the NSW average (0.76 percent). St Vincent's works closely with outreach health services and local community providers to ensure that people who are homeless are able to access health services. As a component of this plan these partnerships will be developed to give homeless patients enhanced access to inpatient cancer services and subsequently develop targeted outreach services for this disadvantaged population. This will include joint strategies with homeless outreach programs and support services to improve compliance with outpatient treatments and support to patients undergoing radiotherapy and chemotherapy.

St Vincent's also provides assistance as requested for residents of the Solomon Islands who would otherwise not have access to available surgical and medical treatments. A similar service is currently being developed with the people of East Timor.

Closing the Gap in health outcomes for Aboriginal and Torres Strait Islander people

Aboriginal and Torres Strait Islander people have higher rates of new cancers and higher rates of death from cancer than non-Indigenous Australians.

Between 2004 and 2008, the rate of diagnosis for new cancers for Aboriginal and Torres Strait Islander people was 461 per 100,000 (age standardised) compared to 434 for non-Indigenous Australians. Between 2007 and 2011, the age standardised mortality rate for cancer for Aboriginal and Torres Strait Islander people was 252 per 100,000 compared to 172 for non-Indigenous Australians. Between 1997 and 2007, 40 percent of Aboriginal and Torres Strait Islander people diagnosed with cancer had a chance of surviving five years, compared to 52 percent for non-Indigenous Australians (AIHW).

Closing the Gap provides a shared Commonwealth and state initiative to improve access to health services and health outcomes for Aboriginal and Torres Strait Islander people. SVHS has a Partnership Arrangement in place with the Redfern AMS to achieve better health services for Aboriginal and Torres Strait Islander people in the metropolitan area, which includes Aboriginal and Torres Strait Islander patients from remote, rural and regional centres coming to St Vincent's. Through this partnership, St Vincent's will continue working to improve life expectancy by reducing and better managing chronic illnesses, improving access to health services and increasing participation in health programs.

Moreover, the new Partnership is another avenue to improve employment opportunities for Aboriginal and Torres Strait Islander people who wish to work in the field of health.

All staff of St Vincent's are mandated to undertake *Respecting the Difference Cultural Awareness Training*. This is to ensure that services provided by all staff from St Vincent's are accessible, welcoming and culturally appropriate to the needs of Aboriginal and Torres Strait Islander people.

SVHS employs Aboriginal Health Workers to support Aboriginal and Torres Strait Islander patients, families and carers and provides accommodation services to patients and families from rural areas being treated at SVHS.

New Horizons in Cancer Care

The Cancer Council NSW Annual Report 2012-13¹⁹ indicates that currently 30 percent more Australians are alive who would have otherwise died from cancer over 20 years ago. Cancer deaths have significantly decreased in NSW, having fallen by 12.9 percent in males and 6.4 percent in females over the past decade (Cancer Institute NSW, 2014). Through continuous investment in cancer research and development in NSW, improved prevention, screening and treatment have resulted in improved patient outcomes.

St Vincent's has played a major role in contributing to this effort by providing state-wide and national clinical leadership in cancer care. As a recognised world-class centre of excellence in service delivery, St Vincent's utilises innovative service models, and leading edge research and development to provide high quality care.

A key component of this Cancer Plan is to build on current clinical and research initiatives to:

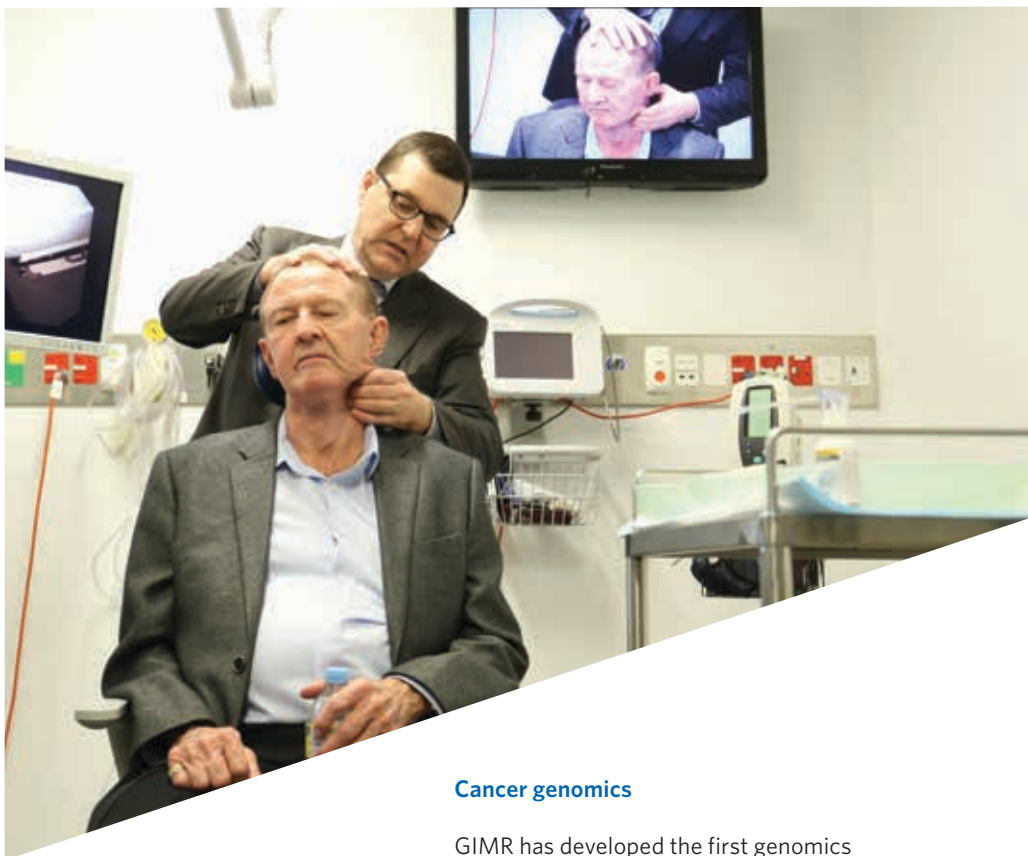
- Drive best practice patient centric care
- Deliver improved cancer survival rates
- Deliver improved quality of life for people with cancer
- Ensure equitable access for patients from disadvantaged backgrounds
- Achieve breakthroughs in treatment with a view to finding a cure for cancer.

19. Cancer Council of NSW, Annual Report 2012-13, 2013

CANCER CARE SUCCESSES AT ST VINCENT'S

The Kinghorn Cancer Centre: a purpose built facility focusing on translational research and personalised cancer care, aligning world-class cancer research with rapid translation to the clinic to improve outcomes for cancer patients through:

- World-class facilities and strategic collaborations to enhance advances in science that translate into improved cancer diagnosis, treatment and prevention
- Integrated, multi-disciplinary, multi-institutional approaches to cancer research and patient care to reduce the impact of cancer in the community
- An holistic, compassionate approach to cancer care throughout the entire cancer journey, from diagnosis to full recovery where cure is possible, as well as supportive and consultative care, with a focus on preservation of patient dignity and emphasis on quality of life
- World-class educational and training programs to develop high quality researchers and clinicians to optimise translational outcomes.



Multi-disciplinary care

The development of MDTs is a key success of TKCC. Multi-disciplinary care, with MDT meetings at its core, is an established enabler for high-quality, consistent and coordinated care. Cancer patients whose cases are discussed in an MDT meeting are more likely to be recruited into a clinical trial, have a shorter journey from diagnosis to treatment, are less likely to receive duplicated services and are more likely to be treated according to the current evidence base. Collectively, this equates to better health and survival outcomes. It also leads to increased work satisfaction for health professionals.

Haematology & Bone Marrow Transplantation (BMT)

St Vincent's is a statewide centre for complex allogeneic transplants and hosts the Australasian Bone Marrow Transplant Recipient Registry and the offices of the NSW BMT Network. A number of significant research programs are also being conducted within stem cell therapy research including a national pilot study on allogeneic bone marrow transplantation for HIV. St Vincent's is currently in discussion with the NSW Ministry of Health for funding to deliver an increase in bone marrow transplantations.

Cancer genomics

GIMR has developed the first genomics program in Australia. Established in 2014, the clinical genomics service provide St Vincent's with the capacity to incorporate genomics into the diagnostic process and treatment planning for cancer and auto immune system diseases, including multiple sclerosis.

Cancer genetics

Provided by a specialist doctor in cancer genetics and genetic counsellors who provide risk assessment for individuals and families, discuss risk reducing strategies and arrange genetic testing where indicated.



Clinical Research

Since its establishment in 1983, the Medical Oncology Department has been conducting clinical trials and, more recently, laboratory research developing and trialling new approaches and treatments for cancer care. With strong ties to academic institutions, St Vincent's is linked to a number of leading research programs.

Co-operation with the GIMR has also led to the creation of one of the largest tissue banks for prostate cancer in the world. St Vincent's hosts one of three Commonwealth funded Prostate Cancer Research Centres in Australia. Established in 2013, the research centre is leading research translating to surgical, radiation oncology and medical oncology treatments for prostate cancer.

Collaboration with the Victor Chang Cardiac Research Institute provides the opportunity to share research on cancer in heart/lung patients as well as molecular research aimed at developing cardio vascular and anti-cancer therapies.

Sydney Alliance for Healthcare, Research and Teaching (SAHRT)

All cancer and research services on the St Vincent's Campus are alliance partners in SAHRT with three other academic health science centres in Sydney, including Health Science Alliance Randwick, South Western Sydney and St George/Sutherland. SAHRT draws on the relevant expertise from St Vincent's Alliance partners as well as those of key external stakeholders to develop the infrastructure and systems supporting clinician and translational research, advanced training and education and development of key research capabilities.

Sydney Catalyst

TKCC and SVHS are members of Sydney Catalyst, a multi-disciplinary and multi-institutional research endeavour established with core funding from the Cancer Institute of NSW. Sydney Catalyst brings together clinicians and researchers from more than 20 member organisations from across NSW to facilitate the rapid translation of scientific discoveries into clinical policy and practice to improve patient outcomes.

Clinical trials

St Vincent's is also one of the largest clinical trial sites in Australia, with approximately five to eight percent of new cancer patients²⁰ having the opportunity to participate in clinically relevant trials. St Vincent's Centre for Applied Medical Research (SVAMR), established in 2008, coordinates much of the cancer research.

While St Vincent's is already endeavouring to increase participation in national and international trials, additionally the Hospital will seek to ensure that by 2020:

- 100 percent of patients eligible for clinical trials are offered the opportunity to participate
- at least 15 percent of new cancer patients will be enrolled in clinical trials.

Radiation Oncology

Radiation Oncology Services provide comprehensive state-of-the-art radiotherapy treatments, including both brachytherapy and external beam treatment options. The service is internationally recognised as a leader in the field of prostate brachytherapy with the same treatment team providing services for both public and private patients. SVHS and SVPH have commissioned new linear accelerators offering Intensity-modulated radiation therapy (IMRT) which allows more precise radiation targeting, minimising dosage to healthy tissues surrounding the tumour.

St Vincent's has partnered with GenesisCare, the largest provider of radiation oncology services in Australia, for the provision of both public and private radiation oncology services. GenesisCare has a commitment to leading edge treatment and research and has a strategic partnership with the Trans-Tasman Radiation Oncology Group (TROG), a global leader in radiotherapy research.

Chemotherapy

TKCC offers a purpose built, state of the art chemotherapy service, co-located with the outpatient clinic and research centre. A Wellness Centre is being developed to provide complementary cancer treatment services.

Wellness Centre

Opening in 2015, TKCC Wellness Centre will provide a retreat that patients may choose to utilise at an additional cost which is integrated with their conventional cancer care. The Wellness Centre's design provides a comfortable environment in which cancer patients can access the latest information and advice and evidence-based complementary healthcare to help alleviate stress, relieve symptoms and reduce pain and anxiety, in order to promote general physical and mental well-being. The Wellness Centre provides information, education and access to accredited professionals on therapies such as: exercise (yoga, tai chi and others), acupuncture, nutrition and diet, massage, mind/body therapies (such as psychology and meditation). These specific complementary therapies are recognised internationally as best practice, are non-invasive, low risk and whose efficacy are supported by robust evidence. The Centre will also help contribute to ongoing research efforts in this area.

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20. Most patients enrolled in clinical trials are ambulatory patients from SVH and SVPH referred through MDTs. Accurate estimates of new patients within the ambulatory patient cohort are not available. The estimate is based on an average of 200 patients enrolled in clinical trials each year against a denominator of approximately 2,300 cancer patients admitted to SVH or SVPH. It is a best estimate.

OUTSTANDING MODELS OF CARE

INTEGRATED & COORDINATED CARE

Close engagement with patients, the community and staff is central to building and maintaining excellence in cancer service delivery. To achieve this, St Vincent's is re-orientating the Director of Cancer Services role and developing a single campus-wide Cancer Advisory Group (CAG) to provide strategic advice.

The Director of Cancer Services will work across all of the newly established service streams to provide strategic direction to cancer services across the patient's journey and the campus.

The focus of the CAG is to provide professional advice in respect to cross-campus quality of care, protocol development, reporting and performance indicators, translational research, education and community and primary care engagement. The CAG includes senior representatives of all cancer service streams, including consumers and primary care, TKCC, SVHS, SVPH, Sacred Heart Health Service (SHHS) (palliative care), St Vincent's Clinic, SVAMR, GIMR.

Enabling the CAG is an operational advisory group bringing together consumers and key partners engaged in cancer care, including medicine, surgery, radiation oncology, medical oncology, diagnostic imaging, pathology, outpatient and ambulatory clinics and community care.

Each tumour stream will develop clinical service plans detailing the model of care to be provided, campus integration model and research/teaching agenda.

Future focus areas are:

- Development of a cross-campus Cancer Advisory Group
- Development of clinical service plans for each tumour stream
- Development of cross-campus operational services advisory groups
- Development and implementation of evidenced based treatment protocols, models of care and reporting against agreed quality benchmarks
- Routinely undertake and report cross-campus quality reviews, including clinical audits and practice reviews.

STRATEGIC PRIORITIES

Integrated and coordinated care:

- Establishment of Cancer Advisory Group
- Establishment of cross-campus operational services advisory groups
- Policy and timeframe for protocol development and implementation
- Cross quality reviews and clinical audits undertaken annually
- Annual reporting of outcomes against agreed indicators.

PROVISION OF PERSON CENTRED CARE

St Vincent's is committed to the provision of patient centred care where patients are placed at the centre of treatment decisions and the building of service models that support patients throughout their cancer journey.

St Vincent's seeks to provide public and private healthcare services designed to support the patient, both in hospital and in the community. This means:

- Developing new models of care that recognise the changing nature of cancer patients, including proactively responding to changing cultural or demographic profiles of the community
- Working closely with local community services to ensure that St Vincent's staff are sensitive to the cultural needs of different population groups
- Working with Aboriginal and Torres Strait Islander representatives to ensure St Vincent's services are accessible and reach out to people in the community
- Working with services in the community supporting homeless people and disadvantaged communities to improve access to cancer services and support patients receiving outpatient treatment
- Changing the nature of services to meet the needs of older cancer patients and older carers
- Working with aged and community care providers to support people living with cancer in their home or residential aged care facility
- Working with rural health services to build local capacity and provide high quality cancer services closer to where patients live. This will reduce the requirement to travel to Sydney for cancer treatment and follow-up that can be provided safely and effectively locally.

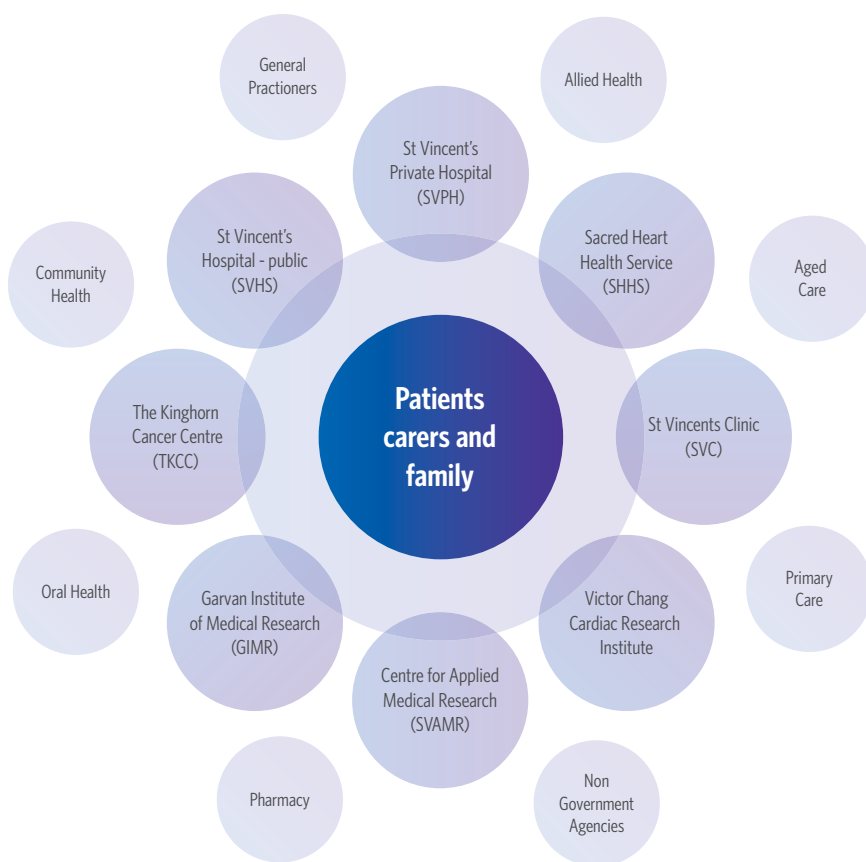


FIGURE 4: A focus on patient-centred care.

Future focus areas are:

Increased consumer engagement:
Central to the provision of patient centred care is close engagement with patients, families and carers and local primary care services. While recognising that patients are the central focus of services provided on Campus, it also notes the importance to build relationships and work closely with services supporting patients in the community.



Increased partnership with primary care

St Vincent's is building greater engagement with primary care providers to expand service options for patients in the community, including GP shared care, Hospital in the Home, improved access to primary care and better coordinated care.

Primary care referral network

Initially focussing on the immediate local community, this service for cancer patients and their carers and families will expand in tandem with other cancer services to a metropolitan and state-wide basis.

ED avoidance and ambulatory care strategies

This includes improved primary and ambulatory care programs to reduce unplanned presentations to SVHS Emergency Department, develop early discharge programs, expand ambulatory infusion programs and increase the proportion of day procedure and surgery to increase hospital throughput and reduce pressure on ED.

Strategies to improve access by disadvantaged communities

This includes maintaining cultural awareness training for staff; ensuring services are welcoming, accessible and appropriate to the needs of patients and their families; and working closely with services in the community to improve access to services provided by St Vincent's.

Cancer Partnership with Murrumbidgee Local Health District

Formalising existing relationships to grow local cancer surgery capacity through two-way rotational training programs, remote MDTs and tele-health clinical consultation and training.

Written care plans

Clear patient care plans are central to achieving person centred care and optimal patient outcomes. Written care plans outline diagnostic and treatment details and provide the pathway and roadmap for ongoing treatment. Care plans should involve patients, carers and providers together in deciding the best course of individualised treatment and should include:

- Treatment summary, including treatments received, medications prescribed, radiation dosage
- Individual follow-up plan
- Referral recommendations for follow-up.

SVHS, in conjunction with Eastern Sydney Medicare Local (ESML), has served as a pilot site for integrating discharge summaries into the Personally Controlled Electronic Health Record (PCEHR). The implementation of MOSAIQ® which provides the framework for the electronic storage and transfer of patient data (including appointment scheduling, test results, medical images, radiation oncology treatments and dosage, patient notes) will enhance the capacity for the electronic storage and retrieval of patient information. Integrated with the PCEHR and/or electronic or hard copies to patients and other clinical providers, this will streamline patient care.



Development of geriatric oncology

With an expected increase in the number of older cancer patients being treated in hospital and the community, St Vincent's will work in collaboration with geriatric medicine services and through MDTs and Cancer Care Coordinators, to ensure that cancer services are appropriate to the needs of older patients.

Improved accountability and performance reporting

Engaging consumers as active partners in the cancer journey requires the provision of information on cancer and treatment options. To this end, St Vincent's will provide overall performance reporting which includes:

- Information on cancer and cancer treatment
- Admissions to St Vincent's by cancer type
- Age of new cancer patients offered access to clinical trials
- Quarterly reporting of patient satisfaction
- Current research and new service offerings.

STRATEGIC PRIORITIES

Integrated and coordinated care:

- Ongoing cultural awareness training
- Building primary care networks and referral pathways
- ED avoidance and enhanced ambulatory cancer care and day procedures
- Implementation of written care plans and integration with PCEHR
- Development of older cancer patient strategy.

PROVIDING HOLISTIC HEALTHCARE

Tailored psychosocial support and complementary health care provide an important adjunct to hospital inpatient care. Such holistic care can be provided to both patients and their families.

Through TKCC, a range of psychosocial and other support services have been developed for people living with cancer. These include:

Cancer Care Coordinators

Working across inpatient services and ambulatory care services, the Cancer Care Coordinators provide a key point of information and support for patients during their treatment and facilitate referral to community services after discharge.

Psychological support

Delivered by psychologists and social workers working with patients and their families to better manage the psychological impact of cancer on their lives.

Dealing with the functional impact of cancer

Through a range of allied health professionals (physiotherapists, occupational therapists, dieticians, speech pathologists) working with patients to overcome some of the physical effects of cancer and cancer treatment.



Psychosocial support

Groups are run through TKCC, bringing patients together to provide in-house support and links with key community support groups to assist in the physical and emotional recovery process. This includes services providing wigs, prostheses, cosmetics and resources to assist the patient after treatment. A key objective of TKCC is to secure long-term funding to enable these services to continue to grow and explore other models of service provision.

Future focus areas are:

Complementary Therapies via Wellness Centre

A purpose designed Wellness Centre, comprising treatment and consulting rooms within TKCC, will provide a range of evidence-based complementary therapies for patients and their families. These will be developed with local primary care providers and may include services, such as acupuncture, massage, physiotherapy, speech pathology, social work and psychologists. Linked with GP services, patients referred would be able to access Medicare payments for a limited number of treatments thereby increasing accessibility for the local community.

Campus wide psychosocial support services

Leveraging from the TKCC Wellness Centre and improved linkages with primary care providers in the community, develop referral options for all patients, irrespective of the treatment facility.

Video and online networking of patients and families

Patients and their families are linked through TKCC with St Vincent's staff and community resources to provide outreach psychosocial support and practical assistance to rural and regional services and home bound patients through video, telehealth and internet based resources.

STRATEGIC PRIORITIES

Providing holistic cancer care:

- Complementary Wellness Centre
- Development of Campus wide Cancer Care Coordinators
- Campus wide psychosocial support for patients, families and carers
- Video, telehealth and internet outreach support.

STRENGTHENING TRANSLATIONAL RESEARCH

Adjacent to the GIMR and purpose built to co-locate clinical services and research, TKCC brings patients to the centre of our research agenda. Working through the SVAMR, there is a ready process for initiating research and enlisting patients into clinical trials. Research ethics is an important focus of SVHS, and the St Vincent's Hospital Ethics Committee oversees and approves all research directly involving patients (clinical tests and trials) and indirectly (including the use of patient information such as pathology samples and results, imaging).

Researchers at the GIMR undertake medical research to better understand cancer and mechanisms to prevent and better treat active cancers. Participating in MDTs, education and training with clinicians of St Vincent's Hospital, the latest research findings inform patient level treatment decisions.

The development of MDTs has been one of the key successes of TKCC. With the exception of common single treatment skin cancers,²¹ cancer patients are reviewed by MDTs comprising surgeons, medical oncologists, pathologists, radiologists, radiation oncologists, nursing, allied health and cancer researchers. Having all disciplines present in the one room allows each to contribute their specialist knowledge to the unique needs of the individual patient. The patient's condition is reviewed and a treatment plan is collaboratively determined. It also facilitates the identification and access to clinical trials and/or alternative clinical and complementary treatment approaches.

Further collaboration with the CINSW funded group Sydney Catalyst will assist in more collaborative ventures and in bringing research findings more quickly into clinical practice.



Future focus areas are:

Expanded MDT outreach capacity

TKCC will explore further MDT support to outreach cancer clinics and rural hospitals.

Primary care collaboration

Through partnerships with local GPs and primary care providers, TKCC will expand primary care research, training and educational opportunities to improve care delivered in the patient's home and the community.

Private sector collaboration

TKCC and SVAMR will ensure 'bench to bedside' translational research for patients of SVHS and SVPH. St Vincent's will work to expand this process to include Mater Hospital Sydney (which is also part of St Vincent's Health Australia) and local private hospitals to increase the quality of cancer treatments across the St Vincent's Health Network and across the local area.

Targeted research and recruitment strategy

Working across TKCC, SVHS, SVPH and GIMR, a research and recruitment strategy will be developed that identifies priority areas for research and invests in clinical and academic appointments that are capable of driving research, attracting research funding and improving patient care.

Development of Professor of Cancer Nursing position

To foster cancer specific nurse training and grow translational research activities in nursing and allied health.

Growth and reporting of clinical trials:

The implementation of MOSAIQ® will automatically flag patients who may be eligible for a clinical trial at the time of admission. Combined with regular reporting of patients enrolled against patients eligible for clinical trials, the clinical trial participation rate is expected to increase to 10 to 15 percent of new cancer patients.

STRATEGIC PRIORITIES

Strengthening translational research:

- Telehealth strategy and strengthening rural partnerships
- Rural MDT outreach strategy
- Translational cancer research collaboration with Mater Hospital and local private hospitals
- Campus research, academic and clinical recruitment strategy
- Professor of Cancer Nursing
- Increasing participation in and access to clinical trials.

²¹ Patients with skin cancer where the cancer is removed and no further treatment is required.

BUILDING CANCER GENOMICS SERVICE

The human genome is the name given to the complete set of DNA molecules within each cell in the human body that determine how the cell grows and reproduces. The slight variation in these genes is what makes each human unique and may affect behaviour, learning, health and response to medical treatments. Though there are 20,000 to 25,000 genes in the human cell, each person has a single genome.²²

With respect to cancer, genomics provides four key areas of opportunity:

Prognostic information and health optimisation

Genetic tests can help predict or give an early diagnosis of a wide variety of common diseases including some cancers. This provides the opportunity for medicine to change from being responsive, to offering preventative treatment or early intervention strategies to individuals at high risk.

Cancer management

Identification of mutations driving cancer development can inform planning, guide prognosis, diagnosis of relapses and early detection of residual disease.

Diagnosing genetic disease

Developing affordable genetic testing can allow accurate and early detection, diagnosis and treatment planning. It also allows screening of relatives for cancer.

Personalised medicines

Genetic factors determine a large proportion of the responses to treatment drugs and likelihood of toxicity. Better understanding of these relationships will lead to more accurate and effective prescribing and reduction in adverse drug events.

- Though still in its early stages, GIMR and St Vincent's have planned for the development of the first comprehensive genomics service in Australia. This service will lead collaborative basic and translational research across universities, hospitals and cancer research centres to further our collective understanding of cancer and improve patient outcomes.
- Co-located with St Vincent's and integrated with St Vincent's pathology (SydPath) and diagnostic imaging services, the genomics service will provide immediate benefit to many cancer patients through non-invasive tumour detection, monitoring response to treatment, and more customised prescribing of treatments and genetic testing to identify people at risk of developing cancer. It will be the hub for a collaborative genomic service across NSW and a focal point for national and international genomic research partnerships.
- Genomic medicine assists clinicians in deciding treatment strategies through the classification of a tumour by its genetic mutations and corresponding drug sensitivities. Some medications require genetic testing to screen patients susceptible to side effects, and in some cases, patients may be spared costly and complex procedures based on molecular diagnosis.
- Genomics is based on the capacity to compare and analyse the genetic profile of people and tumours with disease type and response to treatment. This requires the genomic, health and treatment profile of thousands, if not hundreds of thousands of patients. To realise these numbers, international genomic services collaborate to share and exchange information. As this information base expands, the scope of genomics and the range of diseases that it can be used to identify and treat will also expand.

Future focus areas are:

Cancer genomics within the care pathway

As a routine component of care, patients with cancer or rare diseases will be offered the opportunity to participate in cancer genomics with results used to inform treatment decisions or contribute to cancer research.

Genetics workforce integration and transition

The need to develop a transition plan to up-skill the existing workforce for genomic reporting.

Build genomics research and service profile

Building on the existing service base, GIMR and TKCC plan to become the national leader in cancer genomics and a hub for genomic research in Australia.

STRATEGIC PRIORITIES

Cancer genomics:

- Genomics integrated into routine cancer care
- Genetics workforce integration and transition
- National hub for genomic research.

²². National Human Genome Research Institute, see <http://www.genome.gov/18016863>

LEADING BONE MARROW TRANSPLANTATION

Bone marrow transplants are used to treat a number of different types of blood cancers (leukaemias, lymphomas and myeloma) as well as some other conditions.

Autologous bone marrow transplants use the patient's own stem cells that are collected in advance to replace stem cells damaged by high doses of chemotherapy.²³

Allogenic transplants use stem cells donated by another person. Two types of allogenic transplants can be undertaken:

- Myeloablative or full allogenic BMT: The aim of this treatment is to destroy the patient's bone marrow and kill the cancer cells
- Non-myeloablative or mini allogenic BMT: The aim of this treatment is to suppress the patient's bone marrow and allow the donor cells to grow and attach to the cancer cells.

For some patients who would benefit from a bone marrow transplant and there is no matched donor, stem cells from an umbilical cord taken immediately after birth may be used.

Leukaemias are a relatively rare cancer, accounting for less than three percent of total cancers diagnosed.²⁴ St Vincent's Haematology and Bone Marrow Transplantation Department is a national leader in bone marrow transplantation. It is a designated centre for complex allogenic transplants and hosts the Australasian Bone Marrow Transplant Recipient Registry. The Department also has a strong research focus on normal and malignant blood cells and a clinical trials unit for testing new treatments for leukaemia and lymphoma and improvements in bone marrow transplantation.

In 2012-13, St Vincent's undertook 30 autologous and 42 allogenic bone marrow transplants. Bone marrow transplants are high cost procedures, both for the direct patient care and also due to the associated laboratory and pharmaceutical costs involved. NSW Health has allocated funding for an additional 40 transplants per year, increasing both access to transplantation for patients and research. This will see an increase of approximately five beds allocated for this activity and an upgrade of the oncology inpatient ward to better meet the specific needs of immune suppressed patients.

Future focus areas are:

- *Expanded bone marrow transplant capacity:* Continuing to lead bone marrow transplantation research and expansion in number of transplants and associated bed capacity
- *Upgrade of inpatient ward:* Funding campaign (target \$5 million) to upgrade and provide a dedicated ward for BMT and immune suppressed patients.

STRATEGIC PRIORITIES

Bone marrow transplantation:

- Further development of services for expanded BMT indications, principally auto-immune disorders such as Multiple Sclerosis
- SVHS inpatient ward upgrade for BMT and immune suppressed patients
- Support for the development of haematology services in other communities.



²³. Leukaemia Foundation Australia see www.leukaemia.org.au accessed 27.07.14

²⁴. AIHW cancer data 2009, comprising multiple myeloma and other plasma cell cancers, lymphoid leukaemias, myeloid leukaemias, monocytic leukaemias, other leukaemias of specified cell type, leukaemias of unspecified cell type and other and unspecified cancers of lymphoid, haematopoietic and related tissue

CONSOLIDATING RADIATION ONCOLOGY

Radiation oncology is an integral component of a comprehensive cancer service. Radiation therapy aims to kill cancer cells but limit damage to surrounding healthy tissue. Approximately 52 percent of cancer patients need radiation therapy as an optimal part of their treatment.²⁵ Radiation therapy is provided by multi-disciplinary teams including radiation oncologists, medical physicists, radiation therapists, nurses and allied health professionals. Decisions regarding referral for radiation therapy are usually made through the MDT.

Radiation therapy on the St Vincent's Campus and at Mater Hospital is delivered in collaboration with GenesisCare, the largest provider of radiation oncology services in Australia. St Vincent's treats all adult malignancies and is internationally recognised as a leader in the field of prostate brachytherapy. Brachytherapy uses radioactive seeds placed in or near the tumour to deliver a localised, high radiation dose to the tumour. On average, each active course of treatment involves 19-21 daily treatments provided over a four to five week period.

St Vincent's has recently commissioned two state-of-the-art Intensity Modulated Radiation Therapy (IMRT) linear accelerators. Using three dimensional imaging, these shape the radiation beams to approximately the shape of the tumour. This allows the intensity of the radiation to be changed during treatment to maximise dosage to the tumour while limiting radiation exposure to surrounding tissue.

Currently, one linear accelerator and CT simulation planning device is located in SVC, the other linear accelerator is located in the SHHS. Located within 200 metres of each other, and with shared staff, these two services work collaboratively to provide high quality care, across a full range of cancers to both public and private patients from across Sydney and rural and regional NSW.

On average, each linac will provide 400-420 courses of treatment per year. Volumes will be influenced by the complexity of treatment provided and the mix of patients undertaking active treatments, which require more attendances and palliative treatments which require fewer attendances.

The commissioning of two IMRT linear accelerators and development of a more integrated service across the two sites will lead to increased volumes through the existing service. As demand continues to increase, St Vincent's will assess the requirement for a third linear accelerator.

Future areas of focus include:

- *Expanded role in radiation oncology research:* TKCC and GIMR will work collaboratively with GenesisCare to leverage their strategic partnerships with TROG to increase participation in radiotherapy research and trials
- *Planning for single site provision:* The current location of linear accelerators across two sites is not optimal for service efficiency. Concurrent with planning for a potential third linear accelerator and replacement schedule for the existing machines, the opportunity to relocate to a single site closer to TKCC will be explored. This will both yield an efficiency dividend for the service and consolidate outpatient cancer services to a single site offering improved access and amenities.



STRATEGIC PRIORITIES

Radiation oncology:

- Expanded radiation oncology capacity
- Expanded role in radiation oncology research
- Consolidation of radiation oncology to a single site.

²⁵. Radiation Oncology Tripartite Committee, Planning for the Best: Tripartite National Strategic Plan for Radiation Oncology 2012-2022, version 1, June 2012

ENHANCING CHEMOTHERAPY

Chemotherapy uses anti-cancer drugs to treat both tissue cancers (medical oncology) and cancers of the blood (haematology). TKCC has a purpose built outpatient chemotherapy facility and provides most chemotherapy services at St Vincent's. A small volume of chemotherapy is provided to inpatients within SVHS and SVPH.

Future areas of focus areas include:

Working together, chemotherapy services will:

Improve amenities and capacity

Enhancement of the patient experience and access to service through the provision of extended hours services and exploration of home based chemotherapy

Develop personalised prescribing

Foster greater collaboration with cancer genomics in research and development of evidence based personalised prescribing for medical oncology

Enhance medical oncology research

Development of increased subspecialisation of medical staff, enhancing the teaching and research capability across St Vincent's.

STRATEGIC PRIORITIES

Chemotherapy:

- Extend operating hours and amenity
- Development of personalised prescribing
- Enhance medical oncology research.

UPGRADING INPATIENT SERVICES

An upgrade of inpatient services at SVH and SVPH is planned to provide higher quality services and meet emerging demand.

Many patients with cancer have a suppressed immune system, either as part of their treatment or as a side effect of treatment, making them highly susceptible to infection. The cancer ward within SVHS is to be upgraded to provide increased single isolation rooms for immune suppressed patients and lamina flow air-conditioning to further improve patient safety. This will be particularly important to meet the increased volume of bone marrow transplantation patients.

Redevelopment of SVPH is planned to provide an additional 36 medical and surgical beds. Though not cancer specific, the increase in surgical capacity will, as a by-product, increase the volume of cancer surgery performed and have flow-on demand to chemotherapy, radiation therapy and outpatient follow-up.

The Private Hospital redevelopment will see a major increase in the proportion of single rooms, including the establishment of four positive pressure rooms.

Future focus areas are:

Dedicated cancer ward

Commissioning of a dedicated ward for immune suppressed patients

Increased surgical and bed capacity

Redevelopment of SVPH to provide additional beds and increase capacity for cancer surgery.

STRATEGIC PRIORITIES

Upgrading inpatient facilities:

- SVHS inpatient ward upgrade for BMT and immune suppressed patients
- SVPH upgrade.



EFFICIENCY & SUSTAINABILITY

VALUING OUR SUPPORTERS

Donations and fundraising are a critical source of funds. Philanthropic support has long enabled St Vincent's to provide enhanced services to public and private patients, beyond that available through government funding, private health insurance and patient fees. Whether it is for building, equipment or specialist services, it is important to be able to demonstrate that funding received is utilised efficiently and highlight the impact that it makes on patients and their families.

Increasingly, it is important to be able to quantify the impact of funding on individuals and the community so that philanthropic investors can make informed decisions as to where their donation or bequest will make the greatest impact.

Future areas of focus include:

- Maintain a strong philanthropy engagement and recognition strategy.

Ahead on Activity Based Funding (ABF)

Operational efficiency requires both efficient streamlined clinical service delivery and effective management of revenue and cost.

Clinical pathways to ensure smooth patient pathways across diagnostic services, surgery, inpatient recovery and medical care, outpatient and ambulatory care as well as home based self-managed care should be reviewed.

Implementation of ABF requires a clear understanding of funding differentials for public patients, private patients, outpatients and how to best manage these to realise the best value to St Vincent's on a campus-wide basis.

Future areas of focus include:

- Maintaining administrative efficiency
- High cost infrastructure review: Cross-campus review of opportunities to realise efficiency through shared high cost diagnostics and clinical infrastructure
- Ongoing clinical service redesign: Review key cancer treatment protocols, pathways and implement redesign processes to streamline patient pathways
- Improved management capability: Education and training for middle managers and development of MOSAIQ® based real-time activity, revenue and cost reporting tools to improve performance.

Collaborative recruitment strategy

Conjoint appointment of clinical staff across SVHS and SVPH provides access to a larger cohort of patients to develop and maintain specialist medical, nursing and allied health skills. This is particularly important in low volume and highly complex procedures such as bone marrow transplantation or laryngectomy surgery.

It is therefore important that TKCC, SVHS, SVPH and GIMR work together to develop a recruitment strategy that addresses clinical, teaching and research priorities across the campus.

Future areas of focus include:

- Cancer workforce review and recruitment strategy: Review of the cancer academic and clinical workforce.



INVESTING IN TECHNOLOGY

Efficient service delivery is underwritten by effective information technology. This entails seamless transfer of patient information across services, across facilities and with primary care services.

St Vincent's currently utilises internet based medical transcription services to produce electronic patient reports within 24 hours post consultation. Patient reports can be accessed by all treating clinicians. St Vincent's is finalising preparations for the rollout of MOSAIQ^{®26} as a facility-wide single patient record for oncology treatment. SVPH radiation oncology services currently operate a paperless office with all patient information recorded in MOSAIQ.[®] This includes patient records, treatment details, test results and electronic images.

Already working in collaboration with Eastern Sydney Medicare Local, St Vincent's is one of the few hospitals in Australia able to exchange clinical documents with the PCEHR.²⁷ This provides the basis for GPs, private specialists and other primary care providers (with PCEHR software) to exchange information with the national PCEHR. Common information sharing will improve continuity of patient care and patient outcomes while also minimising duplication of medical tests and contributing to efficiency.

GIMR is leading national initiatives in big data storage, retrieval and management systems underlying genomics. This and the associated analytic capacity is a valuable campus-wide resource.



Future areas of focus include:

- *Implementation of MOSAIQ:* A single, campus-wide cancer patient record, booking and reporting system
- *PCEHR readiness:* Providing capacity to deliver electronic diagnostic reporting and discharge summaries to PCEHR for all patients treated at SVHS, SVPH, TKCC and SHH.

STRATEGIC PRIORITIES

Efficiency and sustainability:

- Maintaining strong philanthropic engagement and recognition
- Improved middle management capability
- Collaborative senior clinical staff recruitment strategy
- Implementation of MOSAIQ and integration with PCEHR.

26. MOSAIQ[®] Oncology Information Management System

27. <http://www.nehta.gov.au/our-work/implementation-and-adoption/ehealth-sites/ehealth-maps/st-vincent-s-and-mater-health-sydney-working-with-eastern-sydney-and-murrumbidgee-medicare-locals>

MOVING FORWARD

The establishment of the Cancer Advisory Group and creating opportunities to work more closely with patients, patients' families, carers and friends, GPs and other primary care providers in the community will be a pivotal step in ensuring that services provided in St Vincent's continue to put the patient at the centre of all care decisions.

If you would like to know more about the cancer services provided by St Vincent's or would like to become involved in working with us to improve treatment options for people with cancer, please contact:

Phone 02 9355 5601
stvincents.com.au

Working together with the community, St Vincent's will continue to provide outstanding levels of care, intensifying our efforts to prevent and cure cancer.





As I imagine was glaringly apparent, the episode was the most stressful of my life to date; but I derived real strength from your support and the prospect that, if the result was otherwise, that support would, in some way, continue.

I would like to do something to express my gratitude in a tangible way, which contributes to your work. I would like to make an annual donation of \$10,000 to progressing genetic research at Kinghorn."

LETTER FROM PATIENT 2014



KEY STRATEGIES & TIMEFRAME

Key focus area	2015	2016	2017	2018	2019	2020
Integrated and Coordinated Care						
▪ Appoint Director of Cancer Services						
▪ Development of Cancer Advisory Group						
▪ Development of Cross - Campus Operational Services Advisory Groups						
▪ Development of Clinical Service Plans for each tumour stream						
▪ Implementation of standard protocols and models of care against quality benchmarks						
▪ ED Avoidance and Ambulatory Cancer Care Strategy						
▪ Routine quality reviews, clinical audits and practice reviews						
▪ Annual reporting of outcomes against agreed indicators						
Provision of patient centric care						
▪ Building primary care network and referral pathways						
▪ Cancer Homelessness Strategy						
▪ Cancer Strategy for Aboriginal Australians						
▪ Strategies to improve access across disadvantaged communities						
▪ Implementation of written care plans						
▪ Integration of care plans with PCEHR						
▪ Development of older cancer patient strategy						
▪ Routine performance reporting						
▪ Establishment of Wellness Centre						
Providing holistic healthcare						
▪ Campus wide psychosocial support						
▪ Video, telehealth and internet outreach patient support						
Strengthening translational research						
▪ Telehealth strategy and strengthening rural partnerships						
▪ Rural MDT outreach strategy						
▪ Cancer Partnership with Murrumbidgee Local Health District						
▪ Translational cancer research collaboration with the Mater Hospital and local private hospitals						

Key focus area	2015	2016	2017	2018	2019	2020
▪ Campus research, academic and clinical recruitment strategy						
▪ Appoint Professor Cancer Nursing						
▪ Fifteen percent of new cancer patients enrolled in clinical trials						
Development of genomics						
▪ Genomics integrated into routine cancer care						
▪ Genetics workforce integration and transition						
▪ National hub for genomic research						
Expanding Bone Marrow Transplantation						
▪ Upgrade of BMT ward						
▪ One hundred percent increase in BMT						
Consolidating radiation oncology						
▪ New linacs operational						
▪ Radiation oncology translational research strategy						
▪ Review and planning for radiation oncology						
Enhancing chemotherapy services						
▪ Extended operating hours in place						
▪ Genomic translational research strategy for medical oncology and haematology						
Upgrading inpatient services						
▪ SVPH upgrade						
Efficiency and sustainability						
▪ Maintaining strong philanthropic engagement and recognition						
▪ Management capability development strategy						
Investing in technology						



St Vincent's acknowledges the help of KPMG in developing this Cancer Plan.

Committed to its Environmental Stewardship Strategy and Policy, St Vincent's Health Australia aims to continually improve its environmental performance. This publication is printed on 100% recycled paper which is Forest Stewardship Council recycled certified and is certified carbon neutral. The pulp is processed chlorine free, is manufactured by an ISO 14001 certified mill and the publication is printed using an alcohol-free print process and vegetable based inks. © 2015 St Vincent's Health Australia. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, internet, or otherwise, without prior permission of the publishers.

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