Section 4: The cutting edge: are we there?

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4. The cutting edge: are we there?

We aim to build upon our existing **Centres and Services of Excellence** to become a state, national and internationally recognised Local Health District. We will optimise learning, teaching and research expertise by attracting and collaborating with leading researchers and clinicians to remain at the cutting edge of health care.

About 14% of **High Cost Complex Casemix** (HCCC) activity in the NSW public hospital system occurs in SESLHD hospitals. This represents 4.4% of all SESLHD activity (as compared to 2.8% at other NSW hospitals). The average length of stay for HCCC separations is nearly three times that of non-HCCC separations.

Large declines in deaths among SESHD residents from a range of conditions point to successes across the continuum of prevention and care. Over the past decade, **cardiovascular disease** death rates among SESLHD residents have declined appreciably (15% lower than the NSW average), as has the risk of **cancer** death (lower than or on a par with the NSW average).

Investing in **information, communications and health technology** (such as the electronic medical record) and **infrastructure** (including state-of-the-art buildings and equipment) will help ensure our patients continue to receive world-class care and better health outcomes. Other benefits include the delivery of safer more cost-effective **procedures**.

Currently about 45% of surgical procedures at SESLHD facilities for which patients would be considered suitable for Day Only admission, using the **High Volume Short Stay Surgical model**, are done as Day Only. Given that up to 60% are considered suitable as Day Only, suggests room for improvement in terms of the management of selected planned surgical patients.

Heart, stroke death rates down

Cardiovascular disease death rates have fallen steadily in both NSW and SESLHD over the last decade. This is likely to be due to both: decreased incidence, associated with reductions in some risk factors including smoking and high blood pressure, and increased survival as a result of improvements in medical and surgical treatment and follow-up care.

Throughout the last decade, cardiovascular death rates for residents have been consistently about 15% lower than the NSW average.

The major preventable risk factors for heart, stroke and vascular diseases are tobacco smoking, insufficient physical activity, poor nutrition, alcohol consumption, high blood pressure, high blood cholesterol, overweight and diabetes.

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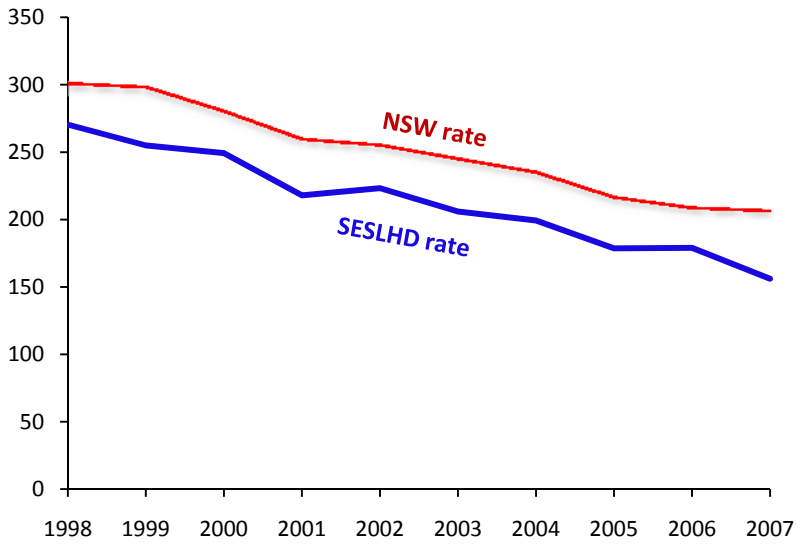
Trends in cardiovascular disease death rates per 100,000 resident population (age-standardised) (principal diagnosis)



Data source: ABS Deaths & Resident Population, accessed from HOIST

Impact of technology

A general trend in health care is that new technology increases demand by making new interventions and procedures possible.

A good example is interventions for coronary heart disease. In the 1990s percutaneous coronary interventions (PCI) (angioplasty and stenting) increased rapidly throughout Australia, and overtook numbers of coronary artery bypass grafts (CABG) by the end of the decade.

Among our residents, numbers of PCI peaked in 2006/07 at 1,750, and have since declined; for the past 3-4 years PCI procedures have been fairly stable at about 1,600 p.a. The increase in demand following introduction of PCI appears to have levelled out, suggestive that the unmet population-based need has now been met. Meanwhile, CABG have constantly declined over the last decade, from about 800 to less than 400 each year.

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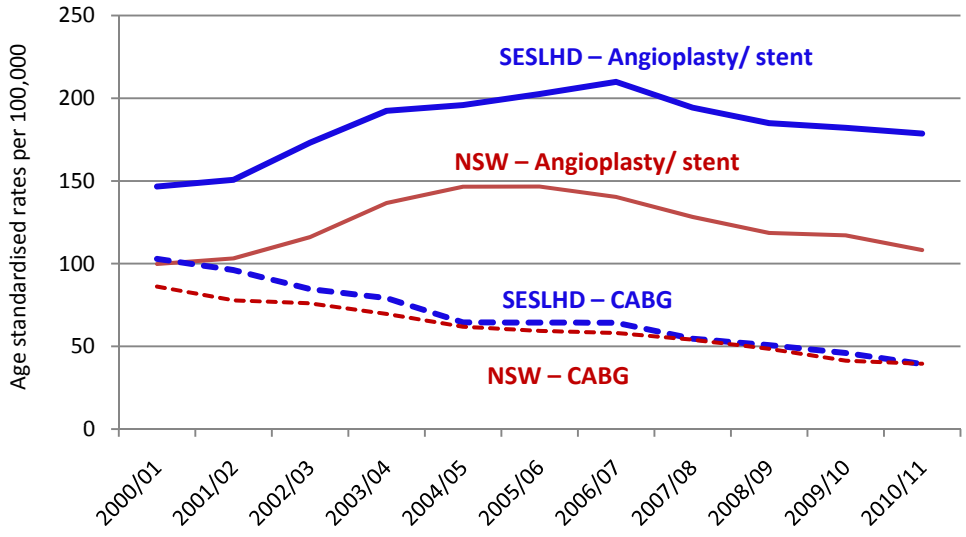
Trends in Revascularisation Procedure – Coronary Artery Bypass Grafts (CABG) and Coronary Angioplasty/Stents per 100,000 population, SESLHD and NSW residents, 2000/01 to 2010/11



Data source: NSW Inpatients Statistics Collection & ABS resident populations, accessed from HOIST

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Opportunities using High Volume Short Stay Surgical model

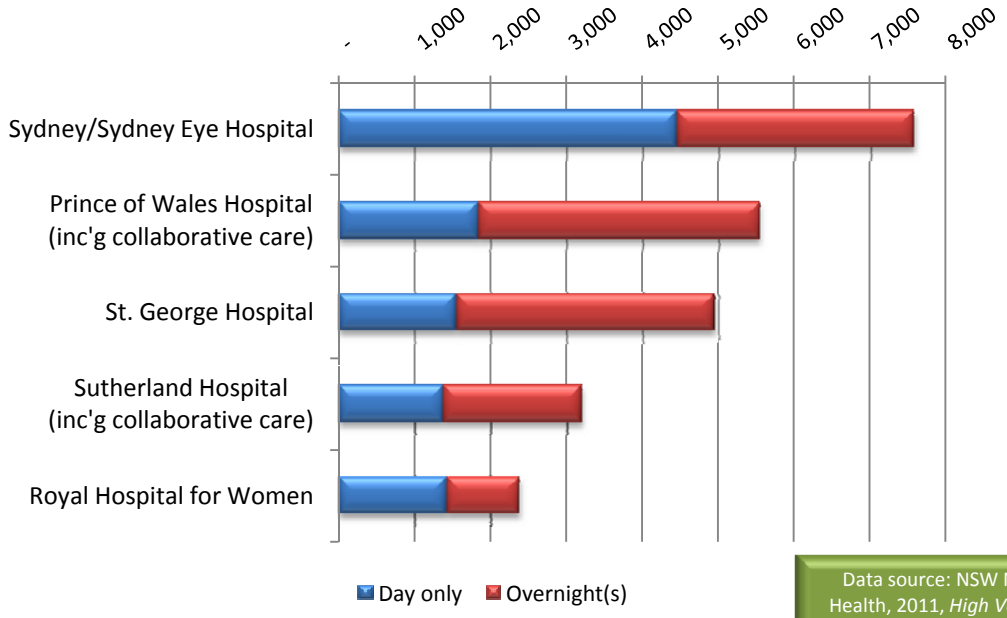
The High Volume Short Stay Surgical (HVSSS) model aims to concentrate suitable planned surgical cases in dedicated units. There is considerable evidence that this model has a number of benefits including improved access to planned surgical services and improved service efficiency in terms of both operating theatres and bed utilisation.

The model identifies Diagnosis Related Groups (DRGs) suitable for HVSSS and, as a guide, assumes that 60% of these patients can be discharged the same day as admission (`Day Only').

In 2010/11 more than 23,500 separations from SESLHD hospitals were for DRGs considered suitable for HVSSS. Of these separations, 45% were Day Only, and 55% were Overnight. Given the NSW guideline that 60% of separations for these DRGs can be Day Only, there appears to be an opportunity to improve the management of selected planned surgical patients.

Notably, Sydney/Sydney Eye Hospital and Royal Hospital for Women both achieved treatment of approximately 60% of these separations as Day Only.

Separations for Diagnosis Related Groups considered suitable for High Volume Short Stay Surgical model, by hospital and length of stay (day only or overnight), 2010/11



Data source: NSW Ministry of Health, 2011, *High Volume Short Stay Surgical Model Toolkit*; FlowInfo v11.1

Electronic Medical Record

SESLHD was the first NSW Local Health District (LHD) to complete the first phase of implementation of the Electronic Medical Record (eMR) within acute, subacute and outpatient settings.

The eMR is a computer based (online/ electronic) patient clinical record which will eventually replace paper-based records. Patient's clinical records captured through **four key applications**, which are integrated into and can be viewed in a single database. This eliminates duplication of documentation and tests, and provides timely integrated information about patient records to clinicians.

Authorised clinicians can access a patient's records from any location within emergency departments, operating theatres, inpatient wards and outpatient clinics. Integration with other key systems such as Laboratory and Radiology provides greater access to relevant information within the patient chart. This allows for rapid assessments and coordination of care, which improves the quality, safety and efficiency of care provided to the patient.

A State based approach (State Baseline Build) to implementation has been used to ensure that core clinical and non-clinical components of all eMR applications are consistent across hospitals and LHDs. Each LHD is still able to tailor certain eMR components to meet local needs.

In addition, SESLHD is working with the Commonwealth to support the establishment a system of personally controlled electronic health records that will provide secure access for patients and health care providers to summaries of patients' health information via the internet irrespective of their physical location.

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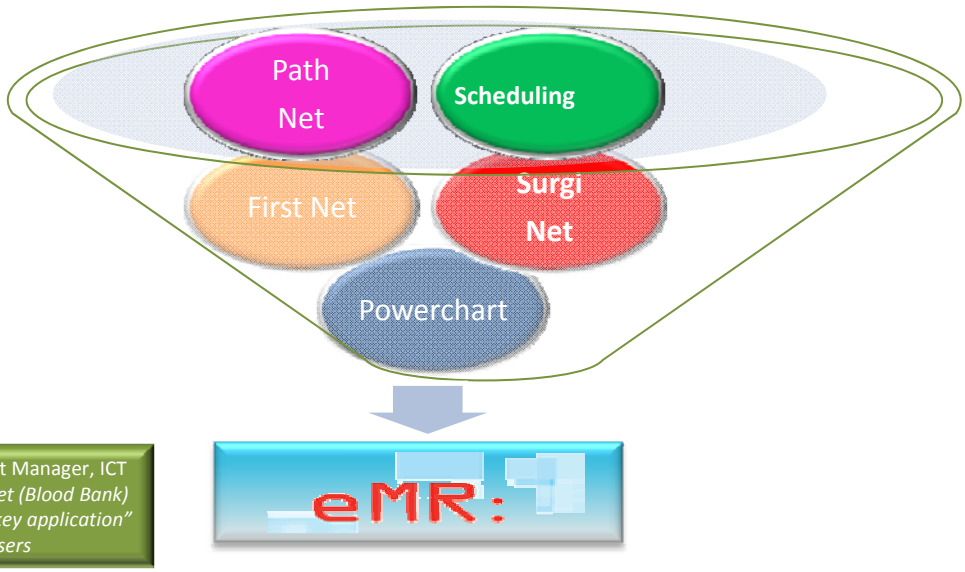
Modules which form eMR



Source: eMR Support Manager, ICT SESLHD *Note: PathNet (Blood Bank) is not considered a "key application" for end-users*

The good news: surviving cancer

Cancer is the leading cause of disease burden in Australia, accounting for about 20% of years of healthy life lost due to premature death, disease, and injury.

In SESLHD and NSW cancer incidence and death rates are as low as, and cancer survival rates are as high as, anywhere else in the world.

In each of the SESLHD Local Government Areas, the risk of cancer death (all sites combined) in 2004-2008 was lower than or on a par with the NSW average.

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SESLHD residents are **more likely to be diagnosed with prostate cancer** than other NSW men. This is likely to reflect higher screening rates (i.e. rather than higher risk of disease). SESLHD men are **no more likely to die from prostate cancer** than other NSW men. Prostate cancer registrations have more than doubled among SESLHD residents over the last 20 years. Prostate cancer has a very high survival rate.

SESLHD residents are less likely to be diagnosed with, and to die from, colorectal and respiratory cancer than other NSW residents.

Cancer site	Local Government Area with **higher** incidence rates than NSW average	Local Government Area with lower incidence rates than NSW average
Colorectal		Waverley, Hurstville
Respiratory	**Sydney**	Kogarah, Sutherland
Breast	**Woollahra**	
Skin	**Sutherland**	Sydney, Botany, Rockdale, Kogarah, Hurstville
Prostate	**Sutherland**	Botany, Rockdale

However, in some Local Government Areas (LGA), the incidence of cancer at specific sites is higher than the NSW average, e.g. **respiratory cancer in Sydney LGA** (SESLHD part) and **skin cancer in Sutherland LGA.**

Data source: NSW Cancer Registrations, ABS Resident Populations, accessed from Cancer Statistics Module online, NSW Cancer Institute website

The tobacco control success story

Over the last decade, the prevalence of smoking has declined by about a third among SESLHD residents aged 16 years and over, from about 20% to 13%.

This decline is great news as tobacco has huge impacts on our patients and carers, and on the health system. Tobacco affects almost every organ in the body, greatly increases the risk of many cancers, and is a major cause of Chronic Obstructive Pulmonary Disease (COPD) and Coronary Heart Disease (CHD).

However, in some of our communities the decline in smoking has been much slower, and there are large, and even increasing gaps, between population groups in smoking prevalence.

Aboriginal people, those who are socially disadvantaged, homeless people, and those suffering from mental illness and alcohol and illicit drug use, are much more likely to smoke than the general population.

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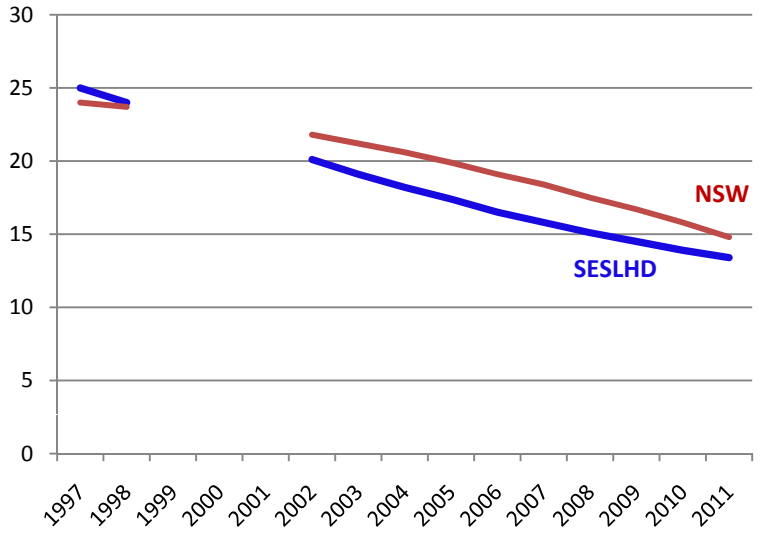
Trends in proportion of SESLHD and NSW residents who smoke, 1997-2011 (% residents aged 16 years and over)



Data source: NSW Population Health Survey & ABS Resident Populations, accessed from Health Statistics NSW website

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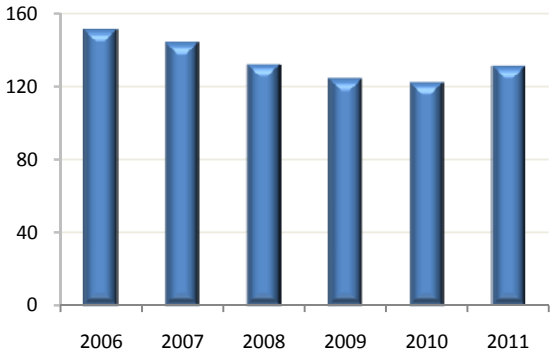
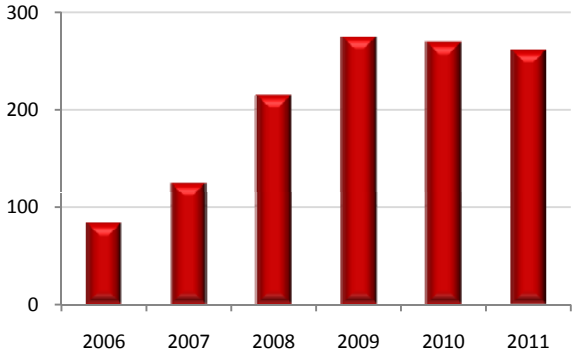
New HIV infections and people living with HIV

HIV notifications, SESLHD residents, 2006-2011



A major priority for the next year is provision of rapid HIV testing programs for priority populations in the community setting. Early initiation of people with HIV into Anti-Retroviral Therapy (ART) to reduce HIV infection rates at a population level.

People Living with HIV who are experiencing complex health issues, SESLHD residents, 2006-2011



Data source: SESHLD HIV notifications and SESLHD complex health issues: SESLHD HARP Unit.

SESLHD has a high HIV-positive population. Almost half of the total NSW population of people living with HIV (PLHIV) and about a quarter of Australia's HIV positive population lives within SESLHD.

Between 2006 and 2011 HIV notifications (an indication of new cases of HIV) among SESLHD residents decreased by 13%; however an increase in 2011 relative to 2009 and 2010 signals a reversal in this favourable trend.

Sex between men continues to account for approximately 76% of annual HIV notifications in NSW, and in comparison, infection via injecting drug use has been less common. This low HIV infection rate among injecting drug users has been one of the great successes of the Needle & Syringe Program (NSP). It is estimated that over the last decade, NSPs have directly averted 32,050 new HIV infections in NSW.

People with HIV are living longer. The arrival of highly active antiretroviral therapy (HAART) in 1996 changed HIV/AIDS from a progressive, terminal disease to a chronic, manageable condition. PLHIV are now living longer, with many surviving to older age.

PLHIV are at increased risk of developing cardiovascular disease, cancer, diabetes and osteopenia (lower bone mineral density), and tend to develop them earlier in life than their HIV-negative counterparts. Older PLHIV also experience high rates of HIV-associated dementia and neuropathy.

Large share of State's High Cost Complex Casemix activity

High Cost Complex Casemix (HCCC) activity recognises teaching and referral hospitals have a more complex workload providing more specialised acute care services.

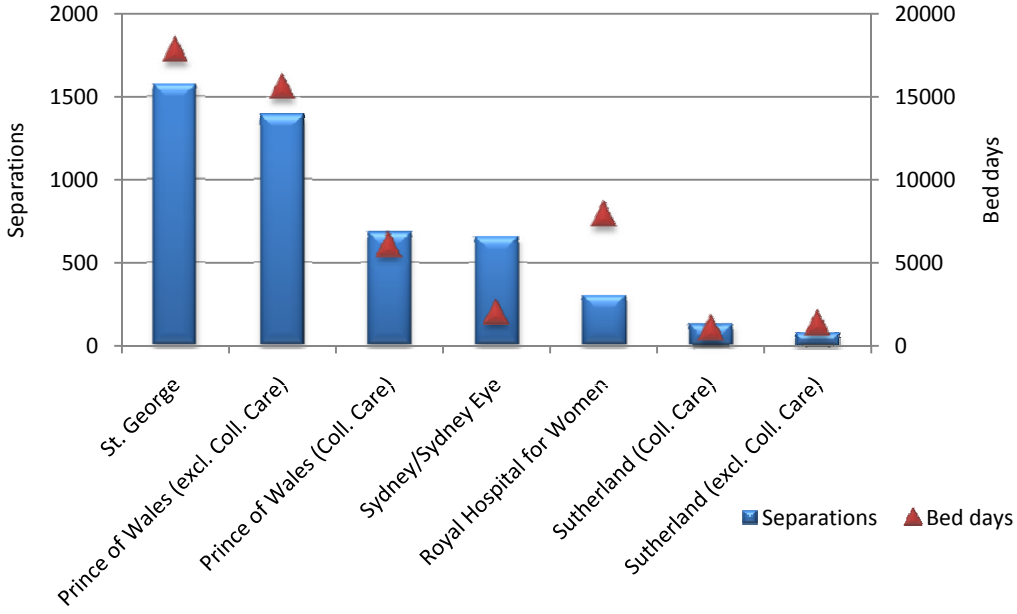
About 14% of HCCC activity in NSW public hospitals is provided by SESLHD hospitals.

This HCCC activity equates to nearly 5,000 separations and 4.4% of the District's activity (compared to 2.8% at other NSW hospitals). The average length of stay for HCCC patients is longer (10.6 days compared to 3.9 for non-HCCC patients) and, not surprisingly, the average cost weight is significantly higher (6.07 compared to 0.94 for non–HCCC activity).

Most of HCCC activity is provided by St George and Prince of Wales Hospitals (each account for about a third HCCC separations).

In addition just over 5,000 HCCC separations of residents occur in non-SESLHD hospitals, predominantly private hospitals, (approximately 3,500 separations), St Vincent's Hospital (650 separations) and Sydney Children's Hospital (380 separations).

High Cost Complex Casemix separations and bed days at SESLHD facilities, 2010/11



Data source: FlowInfo V11.1

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Caring for local and other NSW residents

In 2010/11, 22% of separations from SESLHD hospitals (more than 25,000 separations) were of residents of other LHDs, who travel to a SESLHD hospital to receive their care (known as Inflows). About 60% of inflows were among residents of other metropolitan LHDs, and a third came from the Illawarra Shoalhaven LHD and other rural areas or interstate.

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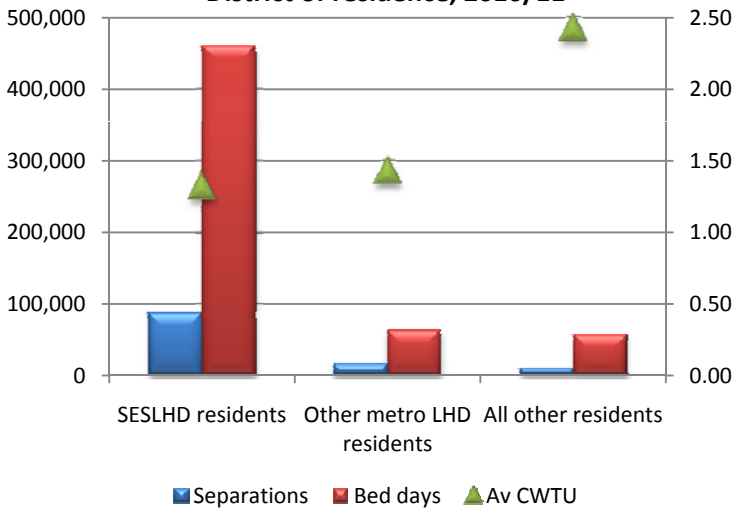
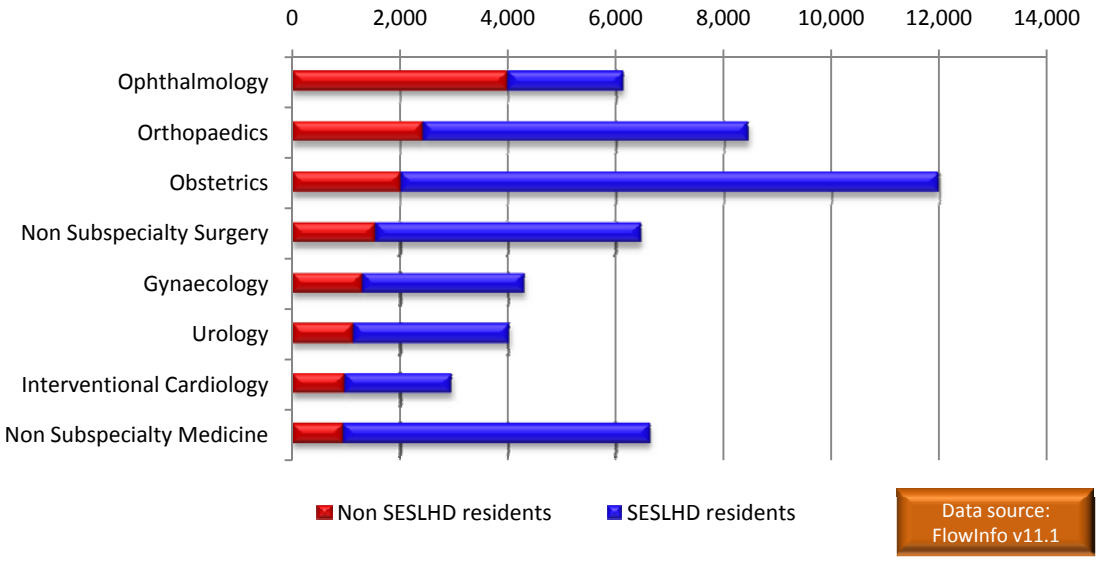
Patients attending SESLHD hospitals from outside our borders have a higher average cost weight, reflecting their higher average complexity. This reflects their need to `inflow' to a District like the SESLHD where a higher number and level of specialty services are offered. For example, 65% of all ophthalmology separations from SESLHD hospitals were for inflow patients.

Separations from SESLHD facilities by District of residence, 2010/11



Top Eight Service Related Groups for inflows – Separations from SESLHD facilities, by place of residence (SESLHD or non-SESLHD residence), 2010/11



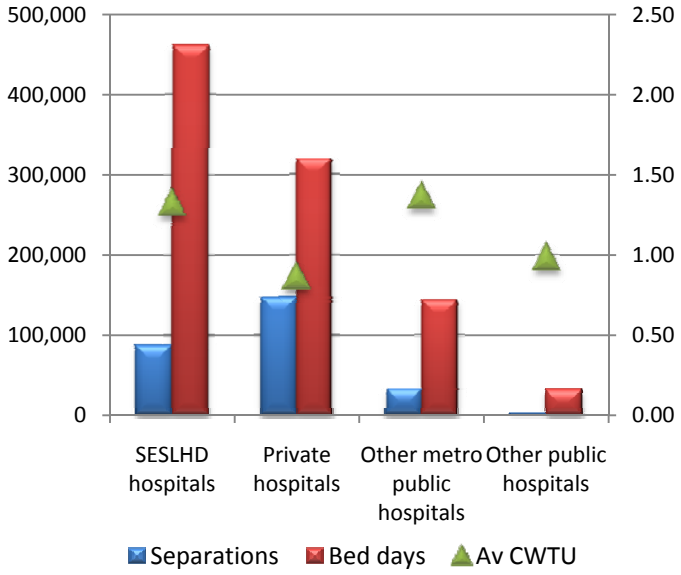
Residents treated elsewhere

In 2010/11, 55% hospital separations among our residents were from private hospitals or day procedure centres (nearly 150,000 separations) and a further 13% were from other public hospitals (34,000 separations). The remaining third were from SESLHD hospitals.

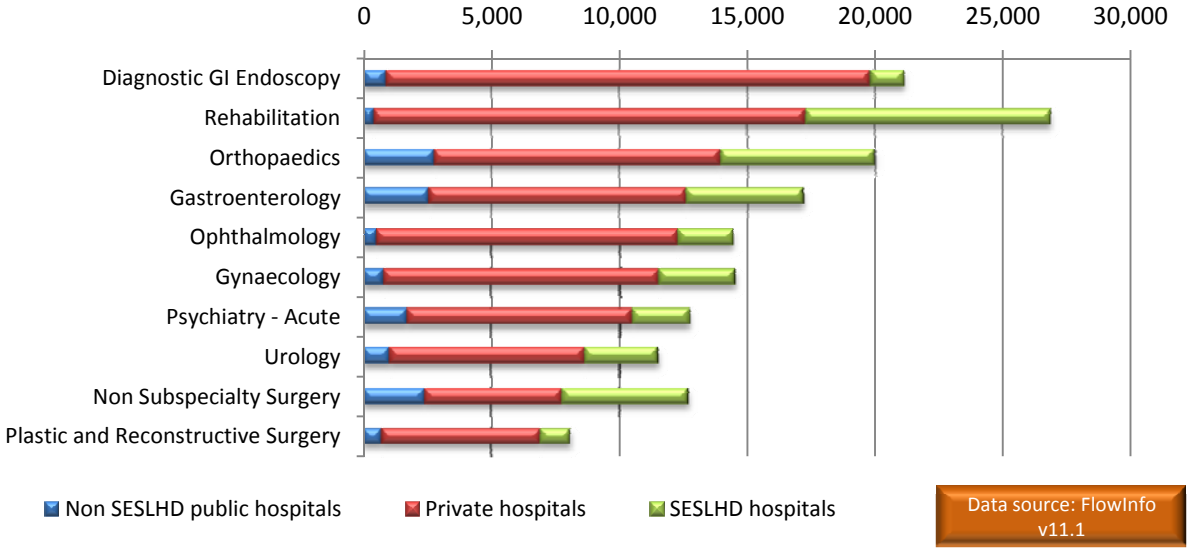
While a large number of residents were treated in private hospitals, these patients tended to have a shorter length of stay and a lower average cost weight than those treated in public hospitals.

This pattern of hospitalisation indicates a relatively low level of complexity for many private hospital admissions. For example, in contrast to private hospitals, public facilities generally do endoscopies in outpatient departments.

Separations of SESLHD residents by place of hospitalisation, 2010/11



Top Ten Service Related Groups for outflows – Separations among SESLHD residents, by place of hospitalisation (SESLHD or non-SESLHD public hospitals or private), 2010/11



Data source: FlowInfo v11.1