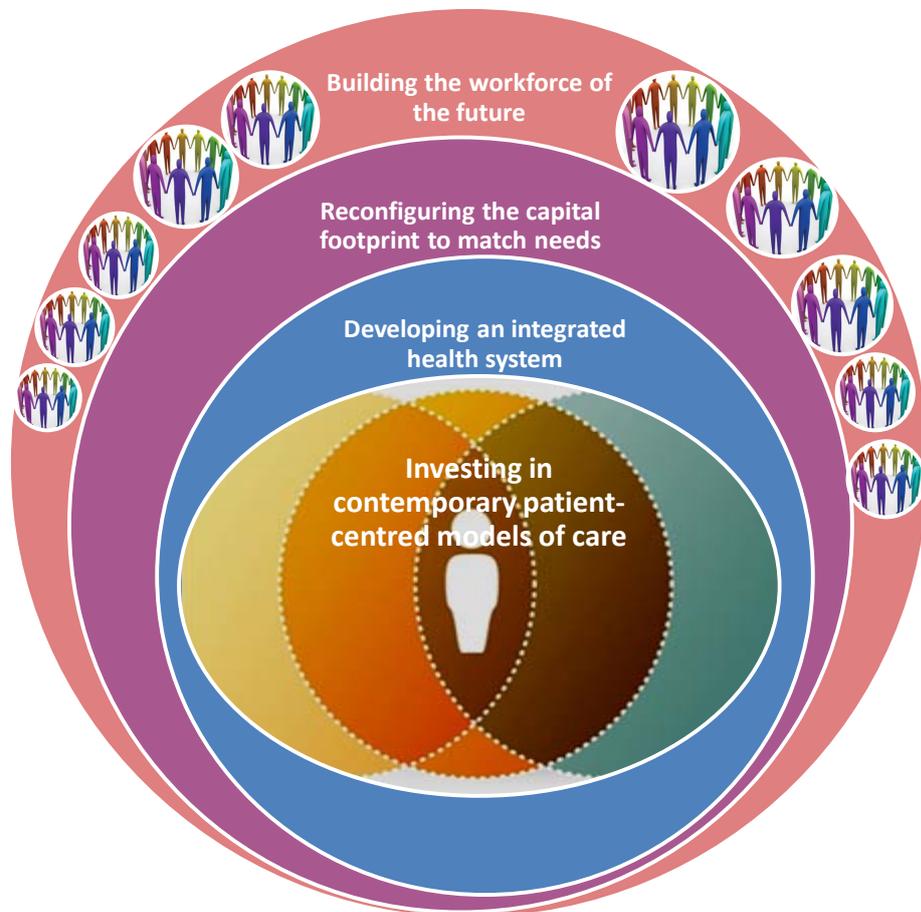


ILLAWARRA SHOALHAVEN LOCAL HEALTH DISTRICT

VISION

OUR STATEMENT OF STRATEGIC INTENT



FROM THE BOARD CHAIR AND CHIEF EXECUTIVE

Over the coming years the Illawarra Shoalhaven Local Health District will build a service system for the residents and communities of the Illawarra Shoalhaven which provides timely and equitable access to high quality care and services.

We are excited about the current changes and these next few years will be critical if we are to capitalise on their full potential.

Driven by our passion to have our residents, patients and their carers at the centre of our decision making we have set expectations of our management and staff that will instil an even higher level of energy and enthusiasm across the District.

A large organisation like ours must be agile and creative. A fresh perspective on the way we integrate health services in our District will require new ways of working and a change in our practices.

Our ability to invest in contemporary models of care whilst at the same time growing and enhancing our services has been a significant achievement in recent years. Further progress in this area is required and this vision clearly sets out our goals in this area.

An organisation like ours also needs to respond appropriately to the unique geography and demography of the Illawarra and Shoalhaven District, which is clearly separated from the State's main metropolis, and is characterised by distinct and varying population densities and profiles spread along one long coastal strip.

Our commitment to meeting our patients' and communities' needs is contingent on our ability of match the capital infrastructure underpinning the system design to the current and anticipated needs. As we seek new ways of working we will continue to review and evaluate the appropriateness of our building stock for these new opportunities.

Underpinning our commitment to timely and equitable access to high quality services is the need to build a sustainable workforce, with its distribution, roles and skill levels and mix matched to the requirements of our current and future residents and patients.

The **principles** that we will use to drive our decision making are:

- *Equitable access* to timely quality health care regardless of financial status, background or place of residence
- *The right of the individual to make choices* based on realistic expectations of the health system
- *Efficient and appropriate allocation of resources* where they can do most good; on the basis of models of best practice which deliver best health outcomes, with fair proportions going to medical research, health promotion, preventative health, chronic disease management, medical retrieval, acute hospital care and out-of-hospital care
- *Openness of governance and accountability of performance*
- *Greater patient involvement in decision making* about their health care to improve health outcomes, and devolving decision making for improving patient care closer to the patient
- *Greater community and clinician involvement in planning and delivery of efficient, world-class health services, supported by world-class facilities, equipment and technology*

We are pleased to present the Illawarra Shoalhaven Local Health District Vision and our statement of strategic intent:

Working together building healthy futures

Our next steps will be to actively engage with our patients, communities and clinicians in the development, delivery and evaluation of the District Strategic Plan.

Finally, we hope and envisage that this Vision will evolve and grow over time, as it is driven by further input from our patients and their carers, our workforce and the communities we serve.

Denis King OAM
Chair, Governing Council

Sue Browbank Chief Executive
Illawarra Shoalhaven Local Health District

OUR RESIDENTS and COMMUNITIES, SOME FACTS

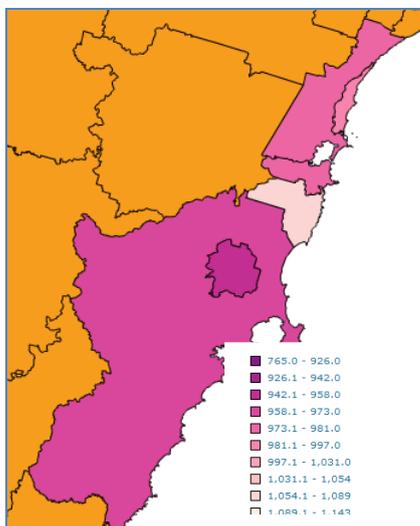
A snap shot of our community tells us that: The Illawarra Shoalhaven spans 5,620 square kilometres, with an average population density of 65.9 residents per km².

It extends about 250km along a narrow coastal strip from Helensburgh in the north of the Wollongong Local Government Area (LGA), through Shellharbour and Kiama LGAs, to North Durras in the most southern part of the Shoalhaven LGA.

Illawarra and Shoalhaven communities are concentrated along the one main arterial road, with limited connecting transport systems throughout, especially in rural areas with lower population densities such as the Shoalhaven.

The Illawarra Shoalhaven LHD population, on average, is less advantaged than the NSW population, based on the composite Socio Economic Index for Areas (SEIFA) (see Map 1).

Map 1: Index of Relative Socio Economic Disadvantage, by Statistical Local Area (SLA), ISLHD, 2006



Source: ABS Census, map adapted from A Social Atlas of Australia (2010) online. Accessed 30 November 2010.

In 2006, the ISLHD had a total population of 370,330 people which is projected to reach 406,873 by 2016 and 425,136 by 2021.

The population growth to 2021 will be shared between the LGAs as follows:

- Wollongong: 42% (22,971 additional residents)
- Shoalhaven: 37% (20,019)
- Shellharbour: 17% (9,489)

- Kiama: 4% (2,328)

Age

We know that older people and children utilise health services more than others.

- The ISLHD has a higher proportion of people aged 85 years and older (16%) when compared to the NSW average (14%).
- Shoalhaven (21%) and Kiama (18%) have the highest proportions of people 85 years and over.
- Children aged less than 5 years make up 6% of the ISLHD population, similar to the NSW average. The proportion in the Shellharbour LGA is higher (7%).
- The fastest growing age groups between 2006 and 2021, will be the 85 years and over age group (109% increase), and the 70-84 years age group (45% increase).
- Between 2006 and 2021, the ISLHD population aged less than 5 years is expected to grow by 14%, while numbers of children and young people aged 5-24 years will remain stable. The age group 40-54 years is expected to decrease slightly (-2%).

Specific population groups

We know that some groups in our community have greater and/ or distinct health care needs, when compared to the rest of the population, based on various factors:

- **Aboriginality:** In 2006, 8,051 ISLHD residents were Aboriginal and/ or Torres Strait Islanders, equating to 2.2% of the total population. More than half the ISLHD Aboriginal population live in the Illawarra (59%). However the Shoalhaven has a higher proportion of Aboriginal residents (3.6%).
- **Rurality:** In 2006, 92,346 people were living in the rural Shoalhaven LGA, representing 25% of the ISLHD population.
- **Socioeconomic:** Shoalhaven LGA residents are the most socioeconomically disadvantaged, followed by Shellharbour LGA and then Wollongong LGA residents (see Map 1).
- **Country of birth:** In 2006, an estimated 53,108 Illawarra and 11,161 Shoalhaven residents were born overseas. This equates to 19% of the Illawarra population and 12% of the Shoalhaven population. Of those born overseas, 56% were from non-English speaking countries.

Health status

The health of ISLHD residents is, on average, poorer than for other NSW residents, in terms of many indicators of current and expected future health status and system outcomes.

For example, ISLHD residents are more likely than the average NSW resident to be:

- risk drinkers, overweight or obese
- experiencing 'psychological distress'.
- hospitalised for an Ambulatory Care Sensitive Condition (ACSC, ie a potentially avoidable hospitalisation, and this gap is increasing)
- hospitalised for attempted suicide

In addition, there are unacceptable variations in health risk, status and outcomes between groups within the ISLHD community.

Compared with the NSW average, the risks of *potentially avoidable deaths* and *premature mortality* are:

- higher in Shellharbour LGA
- lower in Kiama LGA (see Map 2).

The risk of *cardiovascular disease death* is:

- higher in the Shellharbour LGA
- lower in the Wollongong LGA

The risk of *cancer death* is:

- higher in both the Wollongong and Shoalhaven LGAs
- lower in the Kiama LGA

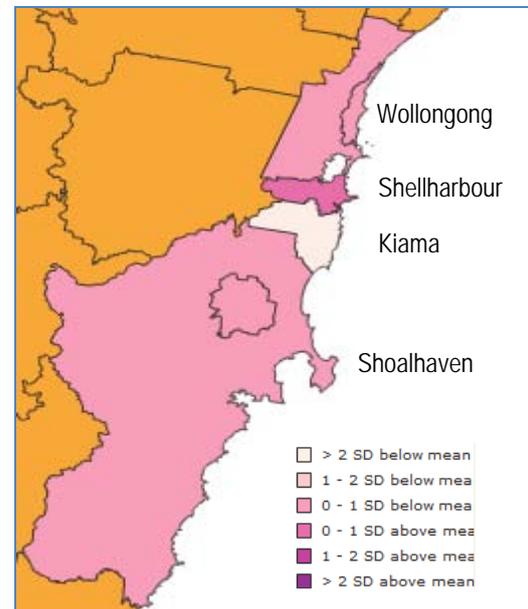
Compared to the NSW average, the risks of being hospitalised for an *Ambulatory Care Sensitive Condition (ACSC)* or *high Body Mass Index (BMI) attributable* condition are:

- higher in all ISLHD LGAs (except Kiama LGA, with the highest rates in Shellharbour LGA)
- lower in the Kiama LGA

Compared to NSW as a whole, the risks of hospitalisation due to *smoking attributable conditions* and *alcohol attributable conditions* are:

- high in Shellharbour and Shoalhaven LGAs (particularly Shellharbour for smoking)
- low in Kiama LGA for alcohol attributable conditions

Map 2: Potentially avoidable death (age standardised ratio), by Statistical Local Area, ISLHD, 2003-2007



Source: ABS Deaths, map adapted from A Social Atlas of Australia (Third Edition), New South Wales (2008) online. Accessed 10 November 2010. Note: SD = standard deviation

Map 3: Illawarra Shoalhaven Local Health Network



OUR REASON FOR BEING

WORKING TOGETHER BUILDING HEALTHY FUTURES

OUR CORE VALUES

Collaboration

We are all part of one team in one health system.

Openness:

We are transparent in our ways of working and believe that our residents and communities have a right to know:

- How decisions are made
- Why they are made
- Who is making them, and
- What things cost

Respect:

We believe everyone has a valued role to play; that there is no single source of wisdom or authority and listening is as important as talking. Everyone can make a contribution and everyone should be given the chance to. We look for every source of improvement.

We believe with a respectful system we are able to give real meaning to the concept of accountability.

Empowerment:

We believe patients must be empowered to take the greatest control of their own health care in collaboration with their carers and care providers. Their decisions should be based on clear information about what works best, how much can be afforded and where and when treatment is available.

We believe for empowerment to work there must be trust; decisions must be delegated closer to patients, to where they are best made.

We believe there must be empowerment and accountability at every level – responsible delegation of authority will be a hallmark of the management of our District.

OUR FUTURE LANDSCAPE

TOGETHER WE ARE STRIVING FOR A LOCAL HEALTH DISTRICT that:

Has a greater focus and investment in improving health and wellbeing of the community through prevention, early intervention, and treatment of illness paying particular attention to reducing the health gap for communities that experience multiple disadvantage.

Ensures clients and their carers are informed and involved in healthcare decisions and treated with respect.

Helps people to access most of the healthcare they need through an integrated network of primary and community health services across the public and private health systems.

Has a greater focus on healthy ageing strategies integrated across the different levels of government and the private sector.

Is alert and capable of readily adapting to changing needs and is quick to anticipate and respond to new issues as they emerge.

Engages more effectively with other government and non-government agencies, private providers, and the broader community, to provide a more integrated approach to planning, funding and delivering health services to local communities.

Makes the most effective use of the finite resources available and manages costs, services and infrastructure effectively to meet healthcare needs while maintaining financial sustainability.

Has a valued, skilled workforce that is well planned, trained, organised and deployed creatively to focus on changing needs.

Is person centred, focused on quality and safety, providing clients with appropriate and timely access to safe and satisfactory journeys through the health service system.

Uses knowledge, research and evidence about service delivery interventions, and models, and their cost-effectiveness to change the way in which services are provided and gives rise to new approaches.

OUR CHALLENGES

Addressing the rising levels of chronic and complex needs, particularly in relation to our significant Aboriginal population

Chronic disease accounts for almost 70 per cent of healthcare expenditure in Australia and 80 per cent of the total burden of disease. Diabetes, cardiovascular, respiratory and cancer are the key areas nationally, with renal disease and obesity as particular problems in our region.

This burden will increase substantially as the population ages. By 2021 our population aged 70-84 years will have increased by 45 per cent and the 85 years and over group will have more than doubled. As an acknowledged contributor to prevalence of chronic disease, the low socioeconomic status of our Shoalhaven, Shellharbour and Wollongong residents places them at greatest risk.

Aboriginal people have disproportionately high levels of chronic disease, and related risk factors.

Chronic diseases exert considerable pressure on the health system in both acute and primary health care settings. Currently, much of the care provided for people with chronic disease is episodic and involves reactive responses to acute exacerbations of associated illness. Chronic diseases require care throughout an individual's lifespan. For this goal to be achieved, disease management needs to be supported in and across all health care settings. Health services need to be equipped to manage the ongoing, multidisciplinary care needed for the increasing number of people living with a chronic disease.

Reversing the increase in 'potentially avoidable' hospitalisations, particularly for diabetes

One indicator of how well the health system is addressing the burden and impacts of 'avoidable illness', including chronic disease, is monitoring hospitalisation rates for 'Ambulatory Care Sensitive Conditions' (ACSC). Hospitalisations for ACSC are considered potentially avoidable through prevention and care, particularly in the primary and ambulatory health care settings (see Box 1).

As shown in Figure 1, over the last decade ACSC age-standardised hospitalisation rates have been steadily increasing among IS LHD residents (even after taking into account the growth and ageing of the population by age-standardisation). In contrast, rates appear to have stabilised in NSW as a whole.

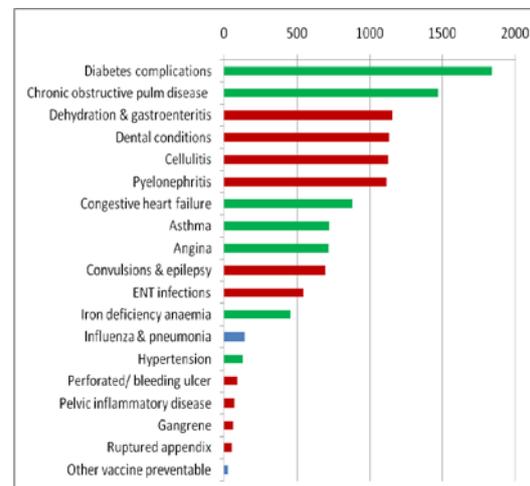
The most common cause of ACSC hospitalisations among ISLHD residents is Diabetes, which, alone, accounted for 15% of all ACSC hospitalisations in 2009/10 (see Figure 2).

Figure 1: Trends in hospitalisations (age-standardised rates) for Ambulatory Care Sensitive Conditions), ISLHD and NSW residents, 2000/01 to 2009/10



Source: NSW Inpatients Statistics Collection, ABS Estimated Resident populations, accessed from NSW Health's Health Outcomes Information & Statistical Toolkit (HOIST)
Notes: Age Std Rate = directly age-standardised rate per 100,000 using Australian 2001 population as reference

Figure 2: Principal diagnosis among hospitalisations for ACSC among ISLHD residents, 2009/10



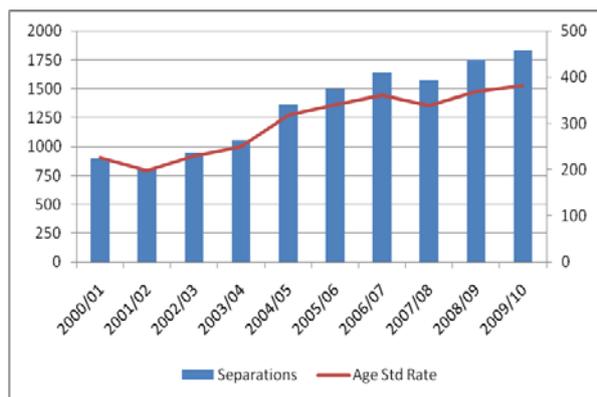
Source: NSW Inpatients Statistics Collection, accessed from HOIST. Note: Green bars are Chronic ACSC, Red bars are Acute ACSC (which may be consequences of poorly managed chronic disease), and Blue bars are Vaccine-preventable ACSC.

The increasing burden of Diabetes among ISLHD residents is alarming. As shown in Figure 3, over the last decade:

- Diabetes hospitalisations have increased by an average of over 18% each year (from 894 in 2000/01 to 1,838 in 2009/10).
- Age-standardised diabetes hospitalisation rates have increased by over 11% each year.

These data suggest that while about 40% of the increase in Diabetes hospitalisations over the last decade is related to changes in the population's age and size, at least 60% of the increase is due to other factors. The success of sustained efforts to influence these other factors is the challenge.

Figure 3: Trends in hospitalisations (separations and age-standardised rates per 100,000) for Diabetes (as Ambulatory Care Sensitive Condition), ISLHD and NSW residents, 2000/01 to 2009/10



Source: NSW Inpatients Statistics Collection, ABS Estimated Resident populations, accessed from HOIST
Notes: Age Std Rate = directly age-standardised rate per 100,000 using Australian 2001 population as reference

Responding to mental health needs

Mental illness accounts for about 13 per cent of the burden of disease.

Mental health problems can have a devastating impact on individuals, families, carers and friends as well as significant economic and social cost for the community. People with mental illness are at greater risk of homelessness, more likely to find themselves in trouble with the law and experience substance abuse. They also have a lower than average life expectancy.

It is well documented that factors such as socio-economic influences impact on an individual's mental health. This is intensified for those members of our community who have medical co-morbidities,

and, in particular, among people in our Aboriginal communities.

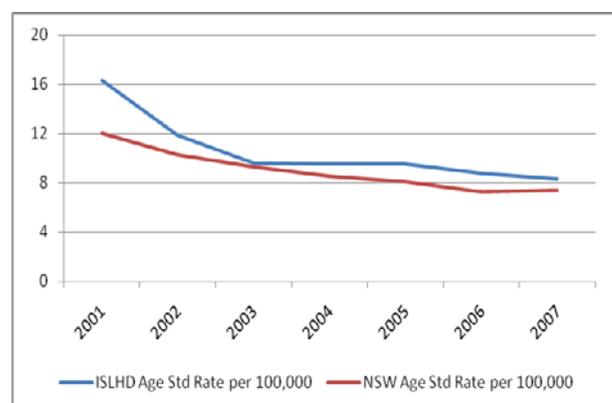
Suicide deaths and attempted suicide hospitalisation rates are indicators of the burden of ill health due to mental health problems. As shown in Figures 4 and 5, over the last decade, both of these measures have been consistently higher among ISLHD than other NSW residents. The difference is most marked for hospitalisation rates, which are now about 25% higher among ISLHD residents.

Figure 4: Trends in hospitalisations for attempted suicide/ self harm (age-standardised rates), ISLHD and NSW residents, all ages, 2000/01 to 2009/10



Source: NSW Inpatients Statistics Collection, ABS Estimated Resident populations, accessed from HOIST
Notes: Age Std Rate = directly age-standardised rate per 100,000 using Australian 2001 population as reference

Figure 5: Trends in deaths from suicide (age-standardised rates), ISLHD and NSW residents, all ages, 2000 to 2007



Source: ABS Death Registrations, ABS Estimated Resident populations, accessed from HOIST
Notes: Age Std Rate = directly age-standardised rate per 100,000 using Australian 2001 population as reference

Illawarra and Shoalhaven consumers have access to a broad range of specialist mental health services. Over the past five years there has been significant enhancements in mental health sub speciality areas including child and adolescent, youth and older persons' mental health services. Newly established facilities include a four bed Psychiatric Emergency Care Centre, fourteen bed Acute Unit for Older People and a twenty bed Mental Health Rehabilitation Unit. These enhancements have enabled the Mental Health Service to move towards self sufficiency, and to further develop its scope in mental health promotion, illness prevention, early intervention, continuing care and relapse prevention.

A future priority for the Mental Health Service is to enhance its relationships with valued partners in the provision of comprehensive mental health care for consumers. These partners include ISLHD clinical streams, general practitioners, private health providers, government and non-government agencies, families, carers and consumers. For example we have two *Headspace* services in partnership with local General Practitioners. These services provide early intervention and care for mental illness in the Illawarra and Shoalhaven, particularly among young people, ISLHD and its Mental Health Service proactively seek integration to ensure mental health consumers have access to appropriate physical health care, and all consumers' have appropriate access to mental health consultation / liaison provision.

Providing sustainable clinical services

It is predicted that the demand for aged care, medical, surgical and cancer services will continue to increase.

This will be driven by a range of factors, including our growing and aging population, who will have increased prevalence of several coexisting chronic and complex conditions.

This must be balanced with ensuring sufficient critical mass for specialised services for example intensive care, emergency, maternity and paediatrics, and avoiding unnecessary duplication of services.

Our clinical divisions will provide a mechanism to ensure equitable, safe, clinically effective patient care is delivered across our District.

Increasingly, we are delivering our services in partnerships with other agencies, service providers and the community. This requires an increased focus on developing and maintaining relationships, engaging stakeholders and monitoring performance.

It also requires a focus on workforce needs across the broader health system, professional development, job redesign and maximising shared care potential between public and private providers.

Workforce sustainability

A major challenge for all health systems, but particularly for those servicing populations at a distance from major Sydney hospitals is to ensure the right people with the right skills can provide services at the right time in the right place.

A particular challenge for us is enhancing our clinical workforce so as to build Wollongong Hospital into a major teaching and referral hospital and to further develop the role of Shellharbour and Shoalhaven hospitals. At present the medical workforce is characterised by relatively low proportions of Staff Specialists and Registrars, particularly Seniors. This places additional pressures on these staff, including on their supervisory, research and training roles, and is at odds with the needs of a teaching hospital, and a high quality, patient-centred, and integrated service system.

Redesigning systems and processes for the more effective management of chronic disease will require changes in the structure, roles, skills and composition of health service staff. For example, some staff will need to be re-skilled and to develop greater capacity to work effectively in multidisciplinary teams across the continuum of care to provide the best care for patients with chronic diseases.

Achieving financial sustainability

The health budget in NSW is significant. Pressures on health costs are expected to continue. While health is seen as a funding priority, it is recognised that resources are finite.

The District will need to undertake continual reform and create efficiencies to meet this challenge. We have a responsibility to set priorities, ensure high quality safe services and control costs.

Box 1: The challenge: Reversing the increase in 'potentially avoidable' hospitalisations, particularly for diabetes

Ambulatory care sensitive conditions are those for which **hospitalisation** is considered **potentially avoidable** through preventive care and early disease management, usually delivered through primary health care (eg by GPs or in community health centres). Hospitalisation rates for ambulatory care sensitive conditions (ACSC) are used as an indicator of access to, and quality of, primary care.

ACSC hospitalisations have a standard definition used internationally, based on a group of diagnosis codes, which is used to define avoidable hospitalisation in District Performance Agreements and in this document. Some NSW programs use an alternative definition based on Diagnosis Related Groups (DRG): Cellulitis, Community-acquired Pneumonia, Chronic Obstructive Pulmonary Disease (COPD), Bronchitis and Asthma, Red Blood Cell Disorders and Transfusions, Deep Venous Thrombosis, Urinary Tract Infections, Acute Non-Surgical Pain (musculotendinous disorders).

The three ACSC categories are:

- Chronic, eg Diabetes with complications, Congestive Heart Failure, Asthma, Angina.
- Acute, eg Dehydration and Gastroenteritis, Pyelonephritis (kidney infection), Cellulitis (ie Acute ACSC may be consequences of poorly managed chronic disease.)
- Vaccine-preventable eg influenza, pertussis.

Fast facts:

ACSC hospitalisation rates among ISLHD residents are higher than the NSW average, with the **gap increasing** in recent years. **ACSC hospitalisations** are **increasing** among ISLHD residents, by an average of 3.3% each year over the last decade (see Figures 1, 6 & 7).

- **Diabetes** is the most common cause of ACSC hospitalisation among ISLHD residents, accounting for 15% of all ACSC hospitalisations in 2009/10. The rate of increase of Diabetes hospitalisations among ISLHD residents over the last decade has been huge, 18% each year. Consequently, diabetes hospitalisations have more than doubled since 2000/01 (see Figures 2 & 3).
- **Chronic Obstructive Pulmonary Disease (COPD)** is the second most common ACSC hospitalisation, accounting for 12% of all ACSC hospitalisations in 2009/10. The overall trend for COPD hospitalisations over the last decade has been stable.
- The next commonest causes, all Acute ACSC, are (in order): **Dehydration & Gastroenteritis**, **Dental Conditions**, **Cellulitis** and **Pyelonephritis**. Acute ACSC have been increasing at a rate of over 5% each year over the last decade.
- The next commonest causes are **Congestive Heart Failure** and **Asthma** (which have been fairly stable), followed by **Angina** (which has been steadily decreasing).
- Nearly two thirds of the increase in ACSC over the last decade can be attributed to the changing population; an estimated 34% is due to **population growth** and a further 29% due to the population's **changing age profile** (see Figure 8).
- More than one third of the increase in ACSC over the last decade is due to **other factors** ie other than population growth and ageing. Some of these factors include hospital admission and coding practices, and personal choices about seeking health care. However, many are related to the quality and effectiveness of prevention and care, particularly in the primary and ambulatory care setting.
- The success of sustained efforts to influence these other factors, particularly via enhanced prevention, early detection and management in the primary care setting, is the challenge.

Figure 6: Trends in hospitalisations (numbers and age-standardised rates) for Ambulatory Care Sensitive Conditions among ISLHD residents, 2000/01 to 2009/10

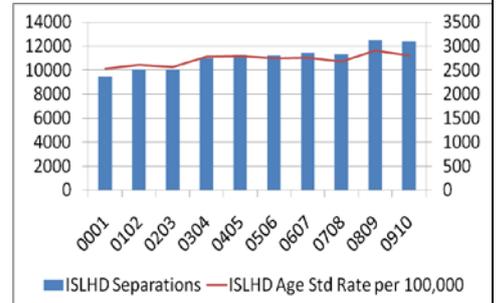


Figure 7: Trends in hospitalisations (age-standardised rates) for ACSC, by category, residents, 2000/01 to 2009/10

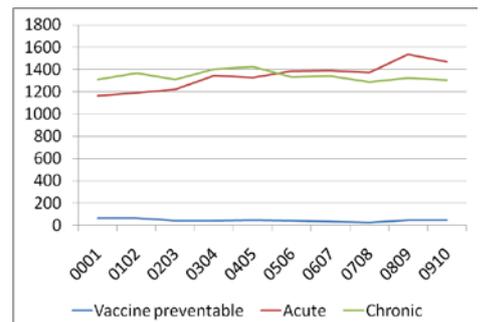
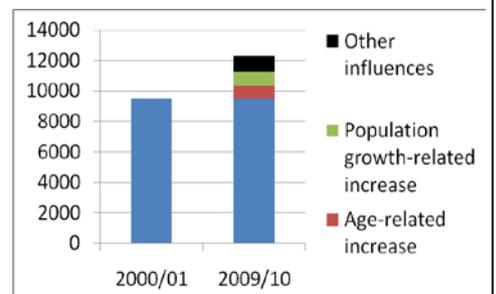


Figure 8: Demographic and other influences on increases in hospitalisations for ACSC among ISLHD residents between 2000/01 and 2009/10



Source: NSW Inpatients Statistics Collection, ABS Estimated Resident populations, accessed from HOIST
 Notes: Age Std Rate = directly age-standardised rate per 100,000 using Australian 2001 population as reference

WHAT IS A REASONABLE LEVEL OF SELF-SUFFICIENCY FOR OUR SERVICES?

During the development of this Vision for the Illawarra Shoalhaven Local Health District, Clinical Department Heads were asked about their visions, in terms of: *What services should the LHD be able to provide to our local residents in the next 5-10 years?* and *What services should continue to be accessed elsewhere?*

Based on their responses, the following table has been collated as a preliminary overview, rather than a definitive list, addressing the fundamental question for the Illawarra Health Local Health District: *What would be a reasonable level of self-sufficiency for services in the Illawarra Shoalhaven?*

The Clinicians were also asked about enablers for their visions – they made it clear that many of their visions are only realisable if the required infrastructure (eg appropriately configured space, buildings, equipment) and workforce (medical, nursing, allied health, eg numbers, skills, skill mix) are put in place. In broad terms, issues related to Infrastructure and Workforce, are discussed in this document under *Key Reform Areas 3 and 4*.

Much more detailed planning and consultation will be required to look at the need for, feasibility of, and

resource requirements for, enhancing self-sufficiency in various specialty- and sub-specialty areas.

Figure 9 provides a 'wide angle' snap shot of where ISLHD residents currently access the main sub-specialty services – from ISLHD facilities, private facilities, or public facilities in other Districts. In 2009/10 88% of public hospital episodes among ISLHD residents were at ISLHD facilities, ie an overall level of 88% self-sufficiency. That means, 1 in 8 public hospital episodes among ISLHD residents are currently outflows to other Districts. Sub-specialties with the highest numbers of outflows are currently: Orthopaedics, General Medicine, GIT Endoscopy, and Ophthalmology.

The most consistent theme in the clinician responses was that the ISLHD should work towards providing most services locally – excluding selected highly specialised services which are always best provided by one or very few already established centres in the state. The levels of specialist service provided by ISLHD – with Wollongong Hospital as the flagship - should achieve comparability, and keep pace with, those provided in other tertiary teaching and referral hospitals in NSW.

Services that our clinicians expect to provide in the future

Ambulatory and Primary Care

- Consolidate services into facilities which are 'fit for purpose', with appropriate staffing levels and mix, to reduce inefficiencies associated with working across multiple acute and sub acute sites
- Develop ambulatory and primary health care resources, with strong links between ambulatory and inpatient care
- Develop strong links with Medical Locals, GPs, primary and community health care, including telemedicine consults
- Develop **Aged Care** and **Rehabilitation** services, especially in Shoalhaven; develop acute rehabilitation team (Shoalhaven) sustain specialised clinics eg amputee, spinal, brain injury, spasticity
- Improve **Pain Management** services

Services that our patients should continue accessing elsewhere:

- *Specialist pain services eg pump insertions, spinal stimulators)*
- *Specialist statewide services, eg acute traumatic spinal cord and brain injury*

Medicine/ Emergency

Acute/ General Medicine

- Further develop **Acute/ General Medicine**: in tandem with development of Geriatric Medicine and Neurology as sub-specialties, in Illawarra and especially Shoalhaven
- Ensure the three large well-established sub-specialty Departments - **Cardiology, Gastroenterology and Renal** –keep pace with developments in, and service levels provided by, other teaching hospitals
- Develop smaller Departments – in particular **Neurology, Endocrinology/ Diabetes, Respiratory, Infectious Disease** - as sub-specialties, with 24/7 admitting rosters

Geriatric Medicine/ Acute Aged Care

- Develop Geriatric Medicine (and Acute Aged Care): as own service and sub-specialty, with 24/7 admitting service
- Enhanced ambulatory care (outpatient, ambulatory/ domiciliary, day hospital)

Services that our clinicians expect to provide in the future

- Shared care geriatric & psychogeriatric service (based in Illawarra)
- Dementia early diagnosis & management service in and outpatient especially delirium avoidance (Illawarra and Shoalhaven)
- Links with mental health, general practice, residential aged care
- Specialist services for assessing causes of falls and syncope (Illawarra and Shoalhaven)
- Links with mental health, general practice, residential aged care, telemedicine and admission avoidance strategies

Neurology

- Develop Neurology as sub-specialty, with 24/7 admitting service (rather than have after hours services provided by St George and Prince of Wales Hospitals)
- Enhance **Stroke Services** including 24/7 thrombolysis

Cardiology

- Further develop Cardiology (& Interventional Cardiology)
- Develop second cardiac catheter laboratory
- Introduce electrophysiological studies (EPS) and implantation of defibrillators and bi-ventricular pacemakers

Services that our patients should continue accessing elsewhere:

- *Quaternary interventions eg cardiac transplant, complex EPS & ablations, grown up congenital heart disease, percutaneous valvular interventions, complex heart failure management*

Gastroenterology

- Further develop Gastroenterology

Renal Medicine

- Further develop Renal Medicine
- Develop satellite dialysis in southern Shoalhaven

Services that our patients should continue accessing elsewhere:

- *Renal transplant*

Respiratory

- Develop Respiratory Medicine as sub-specialty, with 24/7 admitting service

Endocrinology/ Diabetes

- Develop Endocrinology/ Diabetes services: as sub-specialty, with 24/7 admitting service
- Ensure effective links across medical and surgical sub-specialties, including Renal, Infectious Disease, Vascular Surgery

Infectious Diseases/ HIV/ Sexually Transmissible Infections

- Develop Infectious Diseases: as sub-specialty with 24/7 admitting service
- Public reporting of infection rates; implementation of new antimicrobial stewardship program
- Enhance HIV ambulatory care services, plus 95% self-sufficiency for HIV inpatient care
- Improve management of common sexually transmissible infections

Surgery/ Cancer/ Critical Care

Cancer Services

- Further develop Cancer Services: as 'hub and spoke' model, with focus on multidisciplinary care
- Further develop Illawarra Cancer Care Centre
- Develop Cancer Services Clinical Trial Unit
- Establish Shoalhaven Cancer Care Centre (Note: Full Shoalhaven service would require nuclear medicine, MRI, junior medical staff, on-site radiologist)

Medical Oncology

- Further develop oncology services, so that self sufficient in most oncology including cardiothoracic
- Develop chemotherapy annex for inpatient chemotherapy at Wollongong Hospital

Services that our clinicians expect to provide in the future

Services that our patients should continue accessing elsewhere:

- *General Brachytherapy, sarcoma treatment, paediatric oncology*

Radiation Oncology

- Further develop Radiation Oncology – as comprehensive/ state of the art external beam service covering all adult tumour sites - including via enhancements: Stereotactic irradiation techniques; Brachytherapy for prostate cancer; Gated radiation techniques (to spare critical tissues)

Services that our patients should continue accessing elsewhere:

- *Paediatric radiation oncology*

Haematology

- Maintain current services and self-sufficiency ie breadth of treatment for all haematological disorders – benign and malignant, except for paediatric and allogeneic stem cell transplantation

Services that our patients should continue accessing elsewhere:

- *Highly specialised services, including: Allogeneic transplantation & stem cell cryopreservation; Extracorporeal photophoresis; Paediatric haematological malignancies (Paed Unit); Adolescent & young adult cancer patients (shared care within AYA program); Highly specialised lab tests*

Palliative care

- Enhance and expand Palliative Care services, especially in Shoalhaven

Surgery

- Maintain all **General/ Colorectal** Surgery

Ophthalmology

- Work toward self sufficiency in Retinal Surgery – requires Retinal Surgeon, equipment, suitably trained theatre staff

Services that our patients should continue accessing elsewhere:

- *Major orbital surgery; Specialised paediatric surgery eg cataracts, orbital cancers, retinal cancers; Specialised glaucoma surgery eg insertion of shunts; Corneal graft surgery (probably)*

Urology

- Return Urology to the public system (elective urology for ISLHD patients currently undertaken in local private hospital), eg so that public system has adequate access to senior urology support

Orthopaedics

- Increase self sufficiency esp Shoalhaven
- All general orthopaedics (except hand injuries) should be done at Wollongong

Services that our patients should continue accessing elsewhere:

- *Hand injuries (Sydney Hospital)*

Plastic Surgery

- Return Plastic and Maxillary Surgery to ISLHD (no Plastic Surgeon now)

ENT/ Head and Neck/ Plastics Surgery

- Enhance current services with addition of: All Head and Neck, Airway reconstruction for OSA, Hearing reconstruction, Basic facial plastics
- Return Plastics Surgery to ISLHD, eg so ISLHD patients (eg severe renal patients with skin cancers) do not need to travel to Sydney

Vascular

- Upgrade Vascular instrumentation suite
- Establish Vascular outpatients, for patient care & teaching
- Enhance Vascular Surgery, to enable timely, close-to-home vascular access for dialysis patients in the Illawarra and Shoalhaven
- Establish Podiatry at Wollongong, ie co-located with Vascular Surgery, High Risk patients
- Commence limited Thoracic Surgery: appoint Thoracic Surgeon (part-time) for procedures such as mediastinoscopy, aortic arch

Services that our patients should continue accessing elsewhere:

- *Cardiac Surgery - but consider for Wollongong when clinically appropriate*
- *Aortic arch, luminal, open surgery (only possible locally with appointment of Thoracic Surgeon)*

Services that our clinicians expect to provide in the future

Paediatric Surgery

- Maintain current Paediatric General Surgery but continue to negotiate the level of service with NSW Kids.

Services that our patients should continue accessing elsewhere:

- *Paediatric Tertiary Surgery eg cardiac and neuro surgery; Paediatric ICU; Tertiary neonatology*

Anaesthetics

- Focus on sustainability
- Independent anaesthetic training scheme
- Expand neuro HDU
- Anaesthesia for Imaging Services

Services that our patients should continue accessing elsewhere:

- *Cardiac by-pass and high risk paediatric anaesthesia*

Women and children

- Develop Paediatric Medical Imaging and Paediatric Interventional Radiology
- Develop Community and Ambulatory Paediatrics
- Develop Transition service for younger people with disabilities
- Develop Obstetrics & Gynaecology: including Urogynaecology and advanced laparoscopic surgery
- Improve Reproductive Health management
- Develop Sexual Assault services: enhance/ improve timeliness of sexual assault forensic examination for adults and children; establish sexual assault medical service (in addition to current forensic service)
- Introduce Medical Termination of Pregnancy services

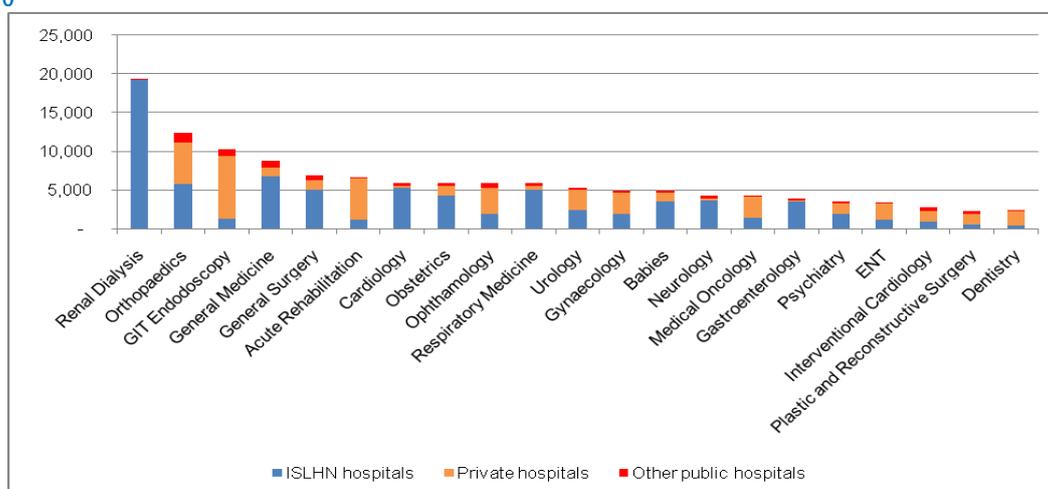
Services that our patients should continue accessing elsewhere:

- *Surgical treatment of gynaecological malignancy; In Vitro Fertilisation; Care of women in premature labour at less than 34 weeks gestation*

Mental Health/ Drug & Alcohol

- Enhance Child and Adolescent Psychiatry
- Establish Inpatient Mental Health Service in Shoalhaven
- Develop Drug & Alcohol Services: Addiction Medicine Specialist; establish inpatient access to Medical Detoxification for Illawarra residents (similar to Shoalhaven system)

Figure 9: Where ISLHD residents are hospitalised, by high volume Service Related Groups (over 2,000 episodes), 2009/10



Source: FlowInfo. Note: The red part of columns indicate current outflows of ISLHD residents to public facilities outside ISLHD

**WORKING TOGETHER WE WILL
BUILD HEALTHY FUTURES FOR OUR
CLIENTS AND RESIDENTS BY:**

- 1. Investing in contemporary patient-centred models of care
- 2. Developing an integrated health system
- 3. Reconfiguring the capital footprint to match needs
- 4. Building the workforce of the future

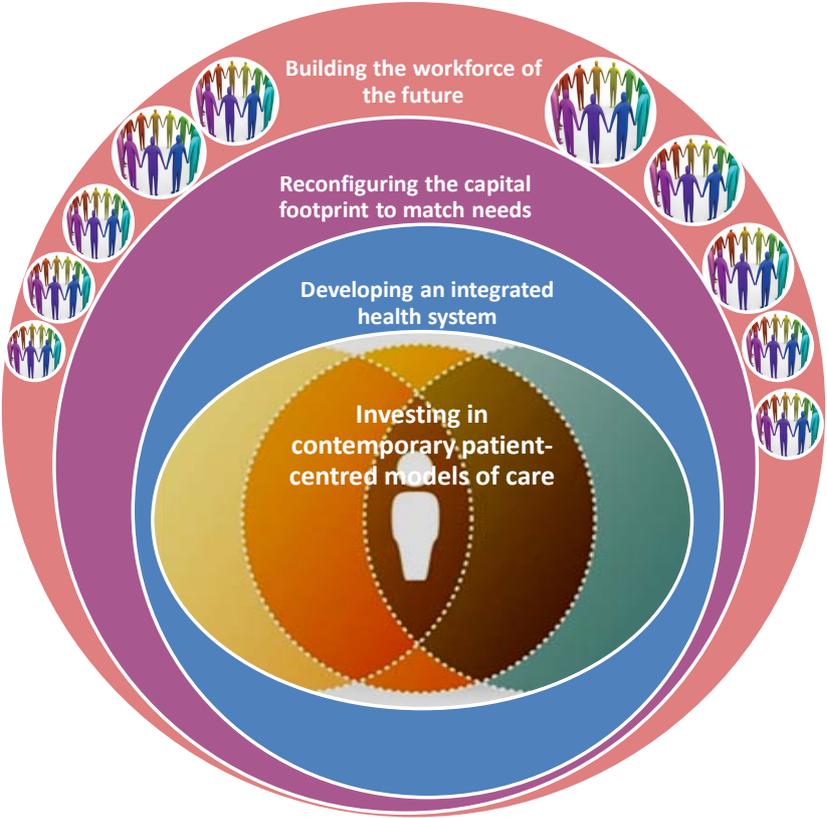
Our strategic intents and these four key reforms are aimed at meeting the needs of our residents, enhancing patient care and putting the patient at the centre of the care we deliver.

They are also aimed at addressing our unique geography, the historical maldistribution of services and workforce, our aging capital infrastructure and ensuring that we maximise the available budget.

The achievement of each of these reforms is interdependent. To achieve a genuinely patient-centred Local Health District, we need to invest in contemporary models of care which are centred around the patient and their carers, and which are linked together as part of a truly integrated service system. Achievement of these intents will hinge on significant reconfiguration of our service's capital footprint, and, most importantly, on building the workforce of the future.

We will strive to achieve these strategic intents by **working to ensure** the following outcomes **through** implementing a range of initiatives. Annually these outcomes and initiatives will be broken into priority activities and anticipated outputs to guide us on our journey.

Figure 10: Our Vision – Four Key Reforms for the Illawarra Shoalhaven Local Health District



KEY REFORM 1: INVESTING IN CONTEMPORARY PATIENT CENTRED MODELS OF CARE

Health systems have often focussed on “supply side strategies”, with a particular focus on investment in hospitals and care delivery for highly acute patients. Efforts are often reactive, with investment commonly targeting sudden areas of performance pressure, including emergency department performance. Such strategies may enable the health system to cope with immediate and short-term demand but sometimes fail to adequately address care needs from a patient’s perspective, as well as future needs.

Contemporary approaches to managing demand seek to develop clear strategies for shaping demand and cost effectively aligning public expenditure. Effective demand management involves integrated strategies that influence both demand and supply forces.

Greater attention is paid to the patient’s perspective, their journeys – and hence links - between acute and primary care, and ensuring delivery of the right care, by the right people, in the most appropriate and cost effective locations.

Chronic disorders will increasingly dominate health care delivery in the medium to long term.

Potentially avoidable hospitalisations – for Ambulatory Care Sensitive Conditions - are increasing among ISLHD residents, at a faster rate than for NSW as a whole. In fact, while age-standardised hospitalisation rates for these conditions have nearly stabilised in NSW as a whole, they are continuing to climb among our residents (see Figure 1).

The Illawarra Shoalhaven Local Health District must address these trends, as a matter of urgency.

The increasing burden of chronic diseases requires, not only renewed emphasis on primary prevention and care but, also the *integration of systems* within and across all care levels, so as to improve *coordination and continuity of care* between and within primary health care, hospitals, chronic care, rehabilitation, and other services (see Figure 11).

The unique geography and demography of the Illawarra and Shoalhaven District, while representing a challenge for the equitable delivery of high quality patient-centred services, also

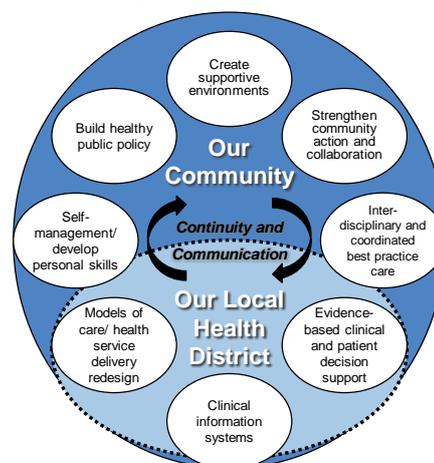
represents an opportunity to become a national and even international leader in the development, implementation and evaluation of patient-centred models of care, which:

- integrate and smooth patient journeys between primary, secondary and tertiary health care settings; and
- underpin a world class Ambulatory and Primary Health Care service system.

The ISLHD community is essentially a microcosm within the nation and state, similar to other Australian populations but with lower socio-economic advantage and higher health care needs. As such, the ISLHD is ideally placed for population based research which investigates determinants of and natural history of health and disease, relationships between service use and models of care and health outcomes, and then tests new and innovative patient-centred models of health care.

This is the the subject of an attached proposal for an Illawarra Population Health Information Platform (IPHIP) and an associated research and information partnership between the ISLHD, University of Wollongong, the Australian Health Services Research Institute and Illawarra Medical Health & Research Institute.

Figure 11: Chronic Care Model for managing established disease in the community



Source: Adapted from Barr et. al.2002. *The Expanded Chronic Care Model: An Integration of Concepts and Strategies from Population Health Promotion and the Chronic Care Model, Healthcare Quarterly, 7(1) : 73-82 .*

Reasons to change	Example evidence
Demands on the hospital system have increased rapidly in recent years.	Since 2006/07, acute separations at ISLHD facilities have increased by 1.0% p.a., and bed days by 1.2% p.a.
Increasing demand on the health system is inevitable, given that the population is growing and ageing, and chronic disease burden is increasing.	Between now and 2022, acute separations at ISLHD facilities are projected to increase by 1.7% p.a., and bed days by 1.2% p.a. In 2009/10 patients aged 70 years and over accounted for 37% of all ISLHD separations and 51% of bed days. By 2022 this age group will account for 46% of all acute separations and 62% of all bed days. Their Average cost weight is expected to increase from 1.81 to 1.93.
However, the hospital is not always the answer. And hospital can often be avoided.	In 2009/10 over 8% of hospitalisations among ISLHD residents were due to Ambulatory Care Sensitive Conditions (ACSC), and hence are considered potentially avoidable through improved prevention and care, particularly in primary care. ACSC hospitalisations are increasing among ISLHD residents, particularly for diabetes. (See Box 1, Figures 1-3,6-8).
The ISLHD has a relative undersupply of medical practitioners in the primary care setting. Working closely with our GPs is imperative.	In 2008/09 the Illawarra had 1 GP for every 1,123 residents, as compared to the NSW average of 1 GP for every 911 NSW residents
The experiences of ISLHD Day Only patients, in particular, appear to be getting worse. This is particularly concerning given the anticipated and required increase in day only admissions and the focus on related models of care.	Recent trends show that ISLHD patient experiences have been fairly stable, or even shown slight improvement, for most patient categories. However the main exception is Day Only inpatients; the proportion reporting 'excellent/ very good' experiences declined from 78% in 2007 to 67% in 2010 (see Figure 13). (Meanwhile, in NSW as a whole, this proportion has stayed fairly stable at approx 74%). This deterioration is evident in terms of all aspects of care for Day Only patients: courtesy of nurses, availability of nurses, doctors & nurses working well together, well organised hospital/ department, advocacy, and courtesy of admissions staff.
The demographic centre of the ISLHD is moving south and the health need is greatest in the south, while the concentration of services remains in Wollongong. There are unacceptable variations in service access, and health status and outcomes between groups within the ISLHD community, highlighting opportunities for improvement.	Compared to the general population, ISLHD Aboriginal residents have a higher prevalence of diabetes, renal disease, cardiac disease, and hypertension. However this is not accurately reflected in the available hospitalisation and mortality data, due largely to the poor recording of Aboriginality. Aboriginal ISLHD residents also are at higher risk of both intentional and unintentional injury. In terms of socioeconomic ranking, which correlates strongly with health status and needs, the Shoalhaven is the most disadvantaged, followed by Shellharbour and then Wollongong (see Map 1). For most health indicators, Shellharbour or Shoalhaven are generally the most disadvantaged, followed by Wollongong: <ul style="list-style-type: none"> ▪ The risk of potentially avoidable death ranges between 36% higher than the NSW average in Shellharbour and 11% lower than the NSW average in Kiama (see Map 2). ▪ Shellharbour and/ or Shoalhaven LGA residents are also at higher risk of hospitalisations for ACSC, 'high body mass attributable' conditions, and smoking and alcohol attributable conditions.
There are unacceptable variations in use of health system interventions by ISLHD residents, which also highlight opportunities to better align care for our patients with evidence-based best practice, guidelines and care pathways.	Relative to other NSW residents, ISLHD residents have, for example: <ul style="list-style-type: none"> ▪ low rates of thrombolysis for acute stroke ▪ high rates of tonsillectomy/ adenoidectomy & hysterectomy

Working to ensure	Through
<p>We develop and deliver our services based on the best available evidence about health needs and service outcomes.</p>	<ul style="list-style-type: none"> ▪ Developing the Illawarra Shoalhaven as an ideal location for population based research that develops and tests models of health care, and uses linked data to research determinants of and natural history of health and disease, and the relationship between service use and models of care and health outcomes, including the effectiveness of programs, services and models of care. ▪ Continuous “horizon scanning” process for new evidence related to health technologies, models of care and procedures. ▪ Increasing engagement of clinicians and GPs through improved information sharing and collaborative research and evaluation. ▪ Developing a research agenda including research into action. ▪ Investigating and addressing variation of aspects of care (eg access, quality, appropriateness, outcomes) as indicators of potential opportunities for improvement. ▪ Building capacity for new and emerging issues. ▪ Enhancing systems to monitor health risks and community concerns. ▪ Developing telemedicine to ensure specialist assessments ‘outreach’ to residents and patients throughout the District, and, in particular, support primary health care providers. ▪ Reviewing Radiology Service, with a view to identifying and implementing best model of service, to meet with needs of clinicians and patients throughout Illawarra and Shoalhaven.
<p>A world class Ambulatory and Primary Health Care service system.</p>	<ul style="list-style-type: none"> ▪ Positioning the District at the forefront of the National & State reform agenda in community based care. ▪ Building strategic partnerships and collaborative working relationships with GPs, Medicare Locals, Aboriginal services and human service agencies. ▪ Developing telemedicine in areas where demographics and geography make specialist care and assessment impractical.
<p>A sustained, and coordinated approach to chronic disease and associated co-morbidities, to reverse the increasing trend in avoidable admissions, particularly for diabetes.</p>	<ul style="list-style-type: none"> ▪ Establishing programs for the improved management of chronic disease, particularly diabetes, which support self management and care arrangements for patients. ▪ Embedding consistent mechanisms to establish a population approach in managing chronic disease within community based planning catchments. ▪ Using a comprehensive assessment framework, supported by information sharing, to reduce duplication and support integration across service providers involved in patient care. ▪ Adopting a consistent approach to case management and care coordination, with diabetes as the highest priority. ▪ Establishing and sustaining practical links and protocols with general practice . ▪ Integration of evidence-based best practice into care pathways for prevention and management of chronic diseases, particularly diabetes, and their complications/ co-morbidities, including coronary heart disease, stroke, infections (eg cellulitis, pyelonephritis, pneumonia).
<p>A One Stop Shop.</p>	<ul style="list-style-type: none"> ▪ Establishing a District Access and Referral Unit, as a system navigator for patients, the community and providers.
<p>A sustained and coordinated approach to aged care and rehabilitation.</p>	<ul style="list-style-type: none"> ▪ Enhancing Geriatric Medicine, Aged Care and Rehabilitation services, including ambulatory care and community resources, and links between inpatient and ambulatory care (outpatient, domiciliary, day hospital). ▪ Improving links with and integration between Geriatric Medicine/ Aged Care with mental health, general practice, residential aged care.
<p>People with mental illness can access services appropriate to their needs.</p>	<ul style="list-style-type: none"> ▪ Establishing and investing in robust mental health service system. ▪ Facilitating effective coordination and continuity of care between primary care and hospital based services. ▪ Building the capacity of mainstream service providers in mental health. ▪ Supporting General Practice and Aboriginal Medical Services to manage their clients. ▪ Enhancing the capacity of the mental health workforce to operate transculturally.

<p>Aboriginal people have outcomes equal to the broader community.</p>	<ul style="list-style-type: none"> ▪ Developing sustainable, culturally appropriate service system for Aboriginal people. ▪ Building our partnerships with Aboriginal Community Controlled Health Organisations ▪ Improving the recording of Aboriginality in our health data collections, as a prerequisite for producing regular valid monitoring reports on the health, health service access and utilisation, and outcomes, of Aboriginal people in the Illawarra and Shoalhaven. ▪ Promoting better use of our services among Aboriginal people. ▪ Continuing to build on the successes of the National Strategic Framework for Aboriginal and Torres Strait Islander people.
<p>Our consumers are key partners in service planning, delivery and evaluation.</p>	<ul style="list-style-type: none"> ▪ Developing and implementing our clinical governance frameworks. ▪ Providing better more accessible data. ▪ Better using consumer feedback to improve services. ▪ Developing leadership capacity for consumers working with our services.

KEY REFORM 2: DEVELOPING AN INTEGRATED HEALTH SYSTEM

Integrated health systems, from a patient's perspective, mean that:

"care comes from a network of organisations. These organisations share formal linkages for information, common clinical protocols for the treatment of disease and consistent patient education materials. While patients may have to travel as they work through a continuum of care, the transitions should be seamless"

University Health Network 2003

Service integration and connectivity initiatives provide a foundation for cost effective management. The benefits include improved patient flow at a macro level, accelerated patient journeys, and reduced duplication and variation in service provision, all of which are critical in area with the geographical and resource constraints of the Illawarra.

The Illawarra Shoalhaven LHD's unique geography and demography creates a unique challenge – and opportunity for innovative health system design and evaluation – to ensure timely and equitable access for our patients and communities to quality health care.

To achieve this, we need to continue to work closely with our General Practitioners throughout the Illawarra and Shoalhaven, particularly given that we have an undersupply of GPs relative to the rest of NSW, particularly major metropolitan areas. We also need to work more closely with other primary care providers, particularly those targeting groups at highest risk, eg Aboriginal Medical Services.

Our three major sites - Wollongong, Shellharbour and Shoalhaven - provide a platform to develop an integrated hub and spoke model of service delivery for the Illawarra Shoalhaven. The "hubs" will be centres of critical mass, expertise and technology - providing high acuity services connected to "spokes" which will provide lower acuity care closer to where people live.

The hub and spoke model – which embraces the principle of *'decentralise where possible, centralise where necessary'* – recognises that:

- Most interventions can and should be provided near to where people live, whether it be by a hospital, through ambulatory care services, by the GP or in the home, eg routine diagnostics and surgery, urgent care for minor injuries and health problems.
- Some health interventions are best provided by centralised services with the critical mass of expertise and volume of services.

The Wollongong Hospital, while being one of three 'hubs', will function as the only 'hub' within the ISLHD for some 'hub and spoke' specialist services best provided by a tertiary teaching and referral hospital.

The key feature of this patient-centred approach is that specialist care is available in a timely manner, from appropriately trained people, in the right setting with the right support services. Highly skilled specialists can be better utilised, not 'diluted'. Appropriate diagnostic and other equipment, and most services, are required in local settings, even if specialised assessments need to be delivered by telemedicine.

Quality and safety are poorer and costs are higher if 'high cost' and/ or complex care is provided in multiple 'low volume' locations.

By design, an integrated hub and spoke model – has the potential to:

- make better use of available resources,
- improve equity of access
- ensure the safety and quality of services for our patients.

Realising that potential is the challenge, and requires matching capital and workforce infrastructure to the system design (see *Key Reforms 3 & 4*).

Reasons to change	Example evidence
<p>Many ISLHD residents travel long distances to access services.</p>	<p>In 2009/10, 1 in 8 (12%) ISLHD residents being hospitalised in a NSW public facility were hospitalised outside the ISLHD.</p> <p>Specialties with the highest numbers of outflows are: Orthopaedics, General Medicine, GIT Endoscopy, and Ophthalmology (see Figure 9).</p>
<p>Patients accessing ISLHD services expect better, particularly Mental Health and Emergency patients.</p> <p>Experiences among Day Only patients, in particular, seem to be getting worse.</p>	<p>Based on the most recent results of the NSW Patient Experience Survey, many ISLHD patients rate their care as 'fair' or 'poor', approximately:</p> <ul style="list-style-type: none"> ▪ 1 in 4 Mental Health patients ▪ 1 in 5 non-admitted Emergency patients ▪ 1 in 8 Overnight patients and Paediatrics patients ▪ 1 in 10 Adult Inpatient Rehabilitation patients, and Outpatients ▪ 1 in 12 Day Only patients ▪ 1 in 20 Community Health patients (see Figure 12) <p>While dissatisfaction among ISLHD hospital patients is lowest for Day Only patients, the experience of ISLHD Day Only patients may be deteriorating (while trends for the other categories are stable or improving slightly) (see Figure 13).</p>
<p>We have finite resources; we need to make the best use of them.</p> <p>Many of the current service configurations within the ISLHD do not make best use of our available finite resources.</p> <p>Specific services - be they 'low cost' or 'high cost', secondary or tertiary - need specific infrastructure in order to be functional in their own right, and to function as part of a system.</p>	<p>The current bed base for acute general medical admissions is 47 beds at Wollongong Hospital (TWH) and 65 beds at Shellharbour Hospital (SHH). However SHH does not have the required infrastructure, to serve this bed base, eg in terms of diagnostics, allied health, ICU/ HDU, surgery.</p> <p>Hence patients are frequently transferred between SHH and TWH, unnecessarily, with multiple impacts, including:</p> <ul style="list-style-type: none"> ▪ negative patient and carer experiences ▪ inefficiencies ▪ negative workforce satisfaction and attractiveness to prospective new recruits

Figure 12: Proportion of patients rating overall care as fair or poor, by patient category, ISLHD and NSW residents, 2010 (%)

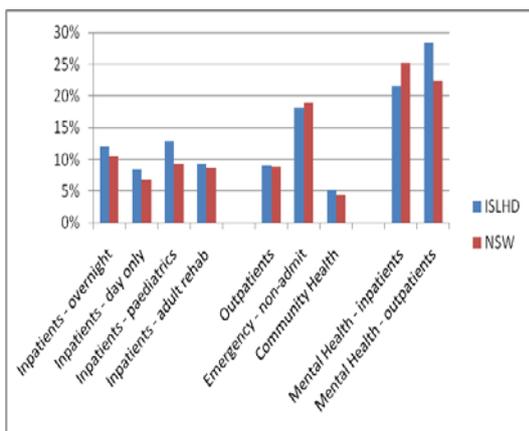
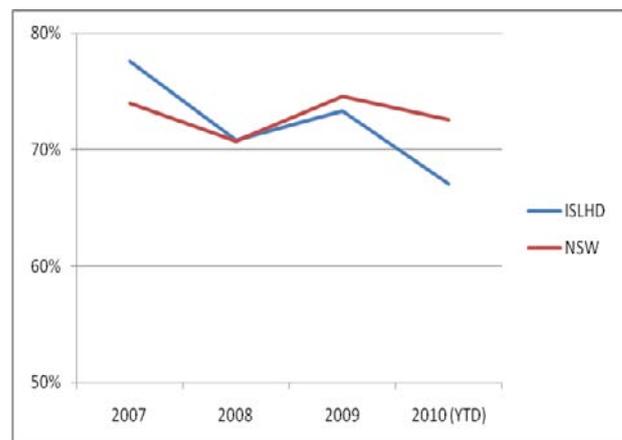


Figure 13: Proportion of Day Only inpatients rating overall care as excellent or very good, ISLHD and NSW residents, 2010 (%)



Source: NSW Patient Experience Survey (2010). Note: 2009 results are presented for Emergency, as 2010 data are not yet available

Working to	Through
The Wollongong Hospital is the provider of tertiary referral clinical services, research and teaching for the District.	<ul style="list-style-type: none"> ▪ Partnering with the University of Wollongong to increase the capacity of to undertake teaching and research. ▪ Reversing appropriate outflows. ▪ Workforce strategies (see Key Reform 4).
The Wollongong Hospital is established as the northern hub.	<ul style="list-style-type: none"> ▪ Redefining of the role of Bulli Hospital as the hub of aged care services in the Illawarra and reconfiguration of its Emergency Departments to become an Urgent Care Centre as part of an Integrated Primary and Community Health Centre. ▪ Confirming the role of Coledale Hospital in aged care and rehabilitation services ▪ Developing networked cancer care services between Wollongong and Shoalhaven 'hubs'.
Shellharbour Hospital is redeveloped into a major metropolitan hospital, and established as the central hub.	<ul style="list-style-type: none"> ▪ Increasing the capacity of Shellharbour to manage most secondary services. ▪ Resolving the roles of Port Kembla and Kiama Hospitals by realigning the current inpatient and community based rehabilitation services and palliative care service to the Shellharbour campus. ▪ Establishing new integrated primary and community health centres in Warrawong and West Dapto. ▪ Facilitating the development of the Kiama Hospital site into an aged care facility, with the District providing community health services in partnership with private primary health care providers.
Shoalhaven District Memorial Hospital is established as the southern hub, and its role is strengthened as an associated teaching hospital.	<ul style="list-style-type: none"> ▪ Increasing the acuity of services provided. ▪ Resolving the role of David Berry Hospital by realigning the current sub-acute services to the Shoalhaven campus. ▪ Developing telemedicine. ▪ Maintaining the role of Milton Ulladulla Hospital as an acute community hospital providing emergency, medical, minor surgery and medical oncology networked with Shoalhaven, Shellharbour and Wollongong Hospitals. ▪ Establishing a new integrated primary and community health centre in Ulladulla.
We increase our self sufficiency so that patients have timely and equitable access to a comprehensive range of services locally.	<ul style="list-style-type: none"> ▪ Prioritising service and workforce strategies to increase self sufficiency in a range of services, identified through consultation with clinicians and critical review of the available data.
Our service processes match the needs of the 21 st century.	<ul style="list-style-type: none"> ▪ Actively embracing a team based approach to clinical care. ▪ Establishing a standalone integrated elective surgical centre at Wollongong. ▪ Embracing process redesign and continuous improvement methodologies ▪ Improving patient journeys, in particular, for older people, people with chronic and complex illnesses, Aboriginal people, people with a disability and people from non-English speaking backgrounds.
We are financially responsible.	<ul style="list-style-type: none"> ▪ Making smart choices about the costs and benefits of health services. ▪ Improve overall efficiency so benefits can be reinvested in frontline services. ▪ Embracing Activity Based Funding as a model for funding health services.

The web holding all of this together would be an **integrated primary health care infrastructure** developed in partnership with the two General Practice Divisions (developing Medical Local), the Aboriginal Medical Services and the University of Wollongong.

KEY REFORM 3: RECONFIGURING THE CAPITAL FOOTPRINT TO MATCH NEEDS

Reconfiguring some of our existing capital to meet current standards is imperative if we are to deliver on our other strategic intents.

A proportion of the capital infrastructure in the Illawarra and Shoalhaven is aged and no longer aligns with the needs of the community and contemporary health care standards.

The demographic centre of the ISLHD is moving south and health need is greatest in the south, while the geographic concentration of services and capital infrastructure has been relatively static.

Much of the ISLHD's current infrastructure is currently operating beyond capacity. In addition to the direct impacts this has on patient experiences and outcomes, it severely limits our ability to implement best practice and contemporary models of care. 'Seamless' patient journeys, supported by evidence-based clinical pathways, can reduce lengths of stay and improve patient outcomes.

In recent years, changes in technology, practice and hence models of care have affected both the volume and mix of many health care interventions – including for surgery and other procedures – and hence impacted on the need for alternate

configurations and 'fit outs' of, and functional links between, both inpatient and outpatient space.

In many clinical areas, the provision of fit-for-purpose and state of the art facilities is a prerequisite to provision of evidence-based patient-centred care. It can also help attract and retain the appropriate clinical workforce.

A major review of the long term future of the Wollongong Hospital site and capital infrastructure is long overdue. At the Wollongong Hospital site a series of minor enhancements, reconfigurations and refurbishments have been undertaken in recent years, in an attempt to keep pace with patient demand, and embrace contemporary models of care. While part of the capital infrastructure at Wollongong Hospital is relatively new, its functionality related to layout is poor. The actual site has significant constraints, which severely limits the scope of any future service developments. This is of particular concern, given that the Wollongong Hospital is currently operating at, and even beyond, capacity, while attempting to transition into a genuine tertiary teaching and referral hospital.

Reasons to change	Example evidence
<p>Much of the ISLHD's current infrastructure is currently operating beyond capacity.</p>	<p>Overnight bed occupancy rate at ISLHD facilities is 109% (vs planning target of 85%).</p> <p>Flow-on effects of these dysfunctional occupancy levels include:</p> <ul style="list-style-type: none"> ▪ access block ▪ planned theatre lists cancelled due to bed unavailability, waiting lists increase ▪ specialty services are physically dislocated, compromising safety, efficiency, workforce morale and possibly retention <p>As a broad indication of additional building space required to meet anticipated service demands, it was estimated in 2007 that an additional 70,000m² will be required across the ISLHD within the next 10-15 years (assuming that the extra space required is proportional to projected activity).</p>
<p>Much of the ISLHD's capital infrastructure is aged and/ or 'outgrown' (eg with significant space constraints), and no longer aligns with community needs and contemporary health care standards.</p>	<p>Kiama Hospital is located 1km from by road from the Kiama shopping centre. The buildings were constructed over the period 1887-1960. An asset assessment concluded that the buildings have reached the end of their practical life.</p> <p>The David Berry Hospital is accessible only by car and the road is subject to flood. The buildings are unduly expensive to maintain. It has reached the end of its practical life for the delivery of health care. It is a heritage listed building built on a flood plain with some of the few 'Nightingale wards' left in the state.</p> <p>Port Kembla Hospital is located in Warrawong on an elevated site, and pedestrian access is difficult for frail, elderly or unwell patients because of the gradient of the council footpaths. Most of the building stock is more than 40 years old and is at the end of its ability to house clinical services, particularly inpatient services.</p> <p>Bulli Hospital currently supports Wollongong and Shellharbour Hospital through the provision of specialist aged care. However this site was previously a medical and surgical unit, with nightingale wards and the capital infrastructure is inappropriate for the delivery of current services.</p> <p>Wollongong Hospital is the major referral hospital of the District; for many years the vision has been its development into a genuine tertiary teaching and referral hospital. The hospital complex comprises three main adjoining blocks, plus a number of low rise buildings of variable age and condition.</p> <p>A series of minor enhancements, reconfigurations and refurbishments have been undertaken in recent years, mainly in an attempt to keep pace with patient demand. While part of the capital infrastructure at Wollongong Hospital is relatively new (or at least refurbished within the last 10-15 years), its functionality related to layout is poor. The actual site is now 'densely' developed and has significant constraints, which severely limits the scope of any future service developments, and further implementation of contemporary patient-centred models of care.</p>

Working to	Through
<p>Enhance infrastructure in areas of greatest population growth and need.</p>	<p>Developing the capital footprint at Shoalhaven Hospital to enable:</p> <ul style="list-style-type: none"> ▪ development of Shoalhaven Hospital as one of three ISLHD `hubs`, and the `hub` for the Shoalhaven, functionally integrated with `spokes` within in the southern Shoalhaven and the primary health care system throughout the Shoalhaven ▪ transfer of services from David Berry Hospital ▪ improved self-sufficiency ie better access for local residents, to a range of inpatient and ambulatory care services
	<p>Developing the capital and related infrastructure at Shellharbour Hospital campus to enable:</p> <ul style="list-style-type: none"> ▪ development of Shellharbour Hospital as the central ISLHD `hub`, integrated with `spokes` within the local primary health care system ▪ improved self-sufficiency ie better access for local residents, to a range of inpatient and ambulatory care services, including so that all secondary level services can be provided locally to Shellharbour and Kiama residents, without the need to travel to or transfer to Wollongong or Shellharbour ▪ transfer of services from Port Kembla Hospital to the central hub on the Shellharbour Hospital campus (10 Kms or 10 minutes travel from Port Kembla in peak hour)
<p>Redefine the roles of services where infrastructure no longer meets standards, and where the demographics of the local population would support the development of special services.</p>	<p>Redeveloping the Bulli Hospital site to enable:</p> <ul style="list-style-type: none"> ▪ consolidation of specialist aged care and rehabilitation services (inpatient, outpatient, ambulatory) including those currently based at Coledale Hospital ▪ development of Bulli Hospital into a Centre of Excellence in Aged Care ▪ reconfiguration of Bulli Hospital's Emergency Department into an Urgent Care Centre ▪ functional integration of Bulli Hospital's sub acute and urgent care `spokes` with Wollongong Hospital, as well as other primary health care and ambulatory care service `spokes` for residents of the northern Illawarra
	<p>Developing the Kiama Hospital site, in partnership with an aged care provider, to enable:</p> <ul style="list-style-type: none"> ▪ provision of enhanced aged care services to the local ageing population ▪ enhancement of primary health care services
<p>Develop the capital infrastructure to enable to transition of Wollongong Hospital into a tertiary teaching and referral hospital.</p>	<p>Undertaking a major review of the long term future of the Wollongong Hospital site and capital infrastructure, which takes into consideration the need to:</p> <ul style="list-style-type: none"> ▪ meet current and future patient care demand, in terms of both inpatient and ambulatory care, while meeting benchmarks for functional occupancy levels ▪ provide adequate space, functionality and flexibility to support implementation of best practice patient-centred models of patient care ▪ provide state-of-the-art, purpose-built facilities, appropriate to the role of a tertiary teaching and referral hospital, and which can help attract a high quality and sustainable workforce <p>Developing an elective surgery centre at the Wollongong Hospital, aimed at providing:</p> <ul style="list-style-type: none"> ▪ adequate space and functionality for `best practice` ambulatory (including pre and post-operative) and inpatient care (including functional separation of elective surgical patients) ▪ additional operating theatres, outpatient clinics, inpatient beds, intensive care spaces

KEY REFORM 4: BUILDING THE WORKFORCE OF THE FUTURE

Designing, training and maintaining a workforce to meet the health service provision needs of the coming years is one of the biggest challenges.

Despite the increased demand for health services throughout NSW and Australia, the labour market is shrinking, and the workforce is ageing.

The challenges associated with attracting and retaining workforce will be, and are being, felt more acutely within the ISLHD than many other parts of NSW and Australia.

Our local workforce faces the additional challenge of addressing the historical geographic maldistribution of its workforce (ie workforce distribution not matching local community need).

Workforce challenges include ensuring adequate 'hands on' clinical training and supervision; and generalist and on call cover.

The ISLHD medical workforce is characterised by a relatively high proportion of junior doctors (Interns, Residents), and low proportion of Registrars, Specialists and Senior Specialists. A relatively 'junior' profile of medical staff is at odds with our vision of building Wollongong Hospital into a tertiary teaching and referral hospital within an integrated 'hub and spoke' service system.

The increases in medical graduates from the University of Wollongong should help address ISLHD workforce shortages – and shift the ISLHD medical workforce profile to a more senior one - in the long term. However, in the short term pressures placed on senior medical staff in their supervisor roles - and on our staff and services as a whole in terms of our aims of ensuring safe, high quality patient-centred care - will increase.

We need to work closely with the Clinical Education and Training Institute to ensure that ISLHD is appropriately represented in terms of Registrar, particularly Senior Registrar, numbers and rotations.

We need to ensure our future workforce – medical, nursing and allied health practitioners - 'fits' with contemporary and evolving work practices and patient needs, as we:

- become more flexible and responsive in the way care is delivered,
- embrace, operationalise and evaluate contemporary patient-centred models of care,
- move toward a truly integrated health care system.

Redesigning systems and processes for the more effective management of chronic diseases will require changes in the structure, skill mix, roles and composition of health service staff.

Much of the current senior workforce is nearing retirement. Succession planning is a priority.

Addressing these workforce challenges is critical to ensuring we have a 'patient-centred' health service, which can achieve timely and equitable access to quality care.

It is also essential for the successful development of the ISLHD's 'integrated health system', including development of Wollongong Hospital into a tertiary referral and teaching hospital.

We are creating the platform for change through the development of the Clinical Divisions' and our preparations for the Quinquennium appointments.

In a region such as the Illawarra Shoalhaven, the development of a highly specialised 'hub' - Wollongong Hospital as the envisaged tertiary referral and teaching hospital – will also serve to attract and retain an appropriate and adequate specialist workforce.

Reasons to change	Example evidence
<p>The problem of attracting and retaining workforce increases with distance from Sydney.</p> <p>Attracting and retaining senior medical officers, particularly Senior Registrars and Staff Specialists, is essential to the development of Wollongong Hospital into a tertiary referral and teaching hospital.</p> <p>Adequate numbers and appropriate rostering and distribution of senior medical staff are critical to ensuring the safety and quality of our health services, eg:</p> <ul style="list-style-type: none"> ▪ Specialists responsible for the teaching, training and mentoring of Registrars ▪ Registrars (particularly Senior Registrars) supervising and mentoring Interns and Residents 	<p>Compared to other pre-vocational training networks, the Network encompassing Wollongong, Shellharbour and Shoalhaven Hospitals, is characterised by a relatively:</p> <ul style="list-style-type: none"> ▪ High proportion of Interns, Residents ▪ Low proportion of Registrars, particularly Senior Registrars ▪ Low proportion of Specialists and Senior Specialists. ▪ Lower proportion of University appointees <p>Wollongong Hospital medical workforce has a relatively:</p> <ul style="list-style-type: none"> ▪ High ratio of VMOs to staff specialists (> 2:1) (VMOs may be required where positions are unable to be filled by Staff Specialists on a permanent or ongoing basis.) ▪ Low proportion of Senior Specialists ▪ High proportion of Interns ▪ Low ratio of Interns to Supervisors ▪ Low retention of Medical Officers following their 1st and 2nd postgraduate years ▪ Lower staff establishments, and staff numbers, ie relative to activity <p>Shellharbour Hospital medical workforce has a relatively:</p> <ul style="list-style-type: none"> ▪ High ratio of VMOs to staff specialists) (VMOs may be required where positions are unable to be filled by Staff Specialists on a permanent or ongoing basis.) ▪ Low proportions of Registrars, particularly Senior Registrars, and Senior Staff Specialists ▪ Low retention of Medical Officers following their 1st and 2nd postgraduate years <p>Senior medical positions across ISLHD often remain vacant (or only temporarily filled) for prolonged periods. Vacancies are highest in:</p> <ul style="list-style-type: none"> ▪ Critical Care ▪ Medicine/ Emergency Medicine ▪ Mental Health/ Drug & Alcohol ▪ Aged & Chronic Care

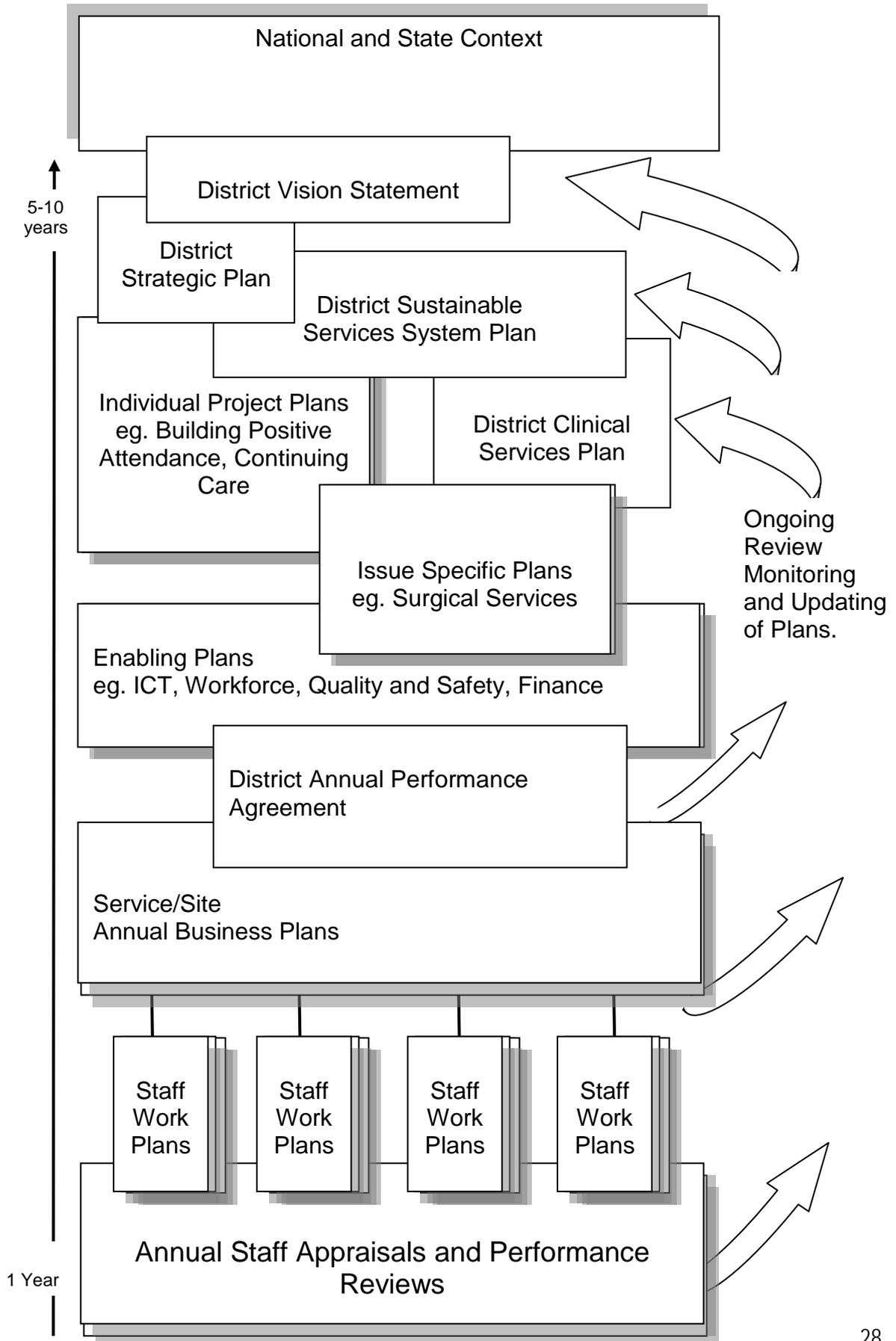
Working to ensure	Through
We have effective governance systems, which ensure engagement of our workforce in local decision-making.	<ul style="list-style-type: none"> ▪ Continually assessing the capacity of the organisational structure to deliver organisational outcomes, support staff, and be genuinely committed to local decision-making ▪ Building leadership capacity ▪ Implementing performance management systems, which support organisational accountability and transparency, and embrace a continuous improvement approach ▪ Ensuring effective and efficient business systems ▪ Implementing integrated clinical and corporate risk management processes
We have a sustainable, highly trained and competent workforce.	<ul style="list-style-type: none"> ▪ Establishing a Postgraduate School of Clinical Training, reflective of full teaching status, including three Divisions (Medical, Nursing, Allied Health) ▪ Developing appropriately resourced Academic Departments of Medicine, with clinical academics to share education, clinical services and research portfolios ▪ Working closely with the Clinical Education and Training Institute to ensure that ISLHD is appropriately represented in terms of Registrar, particularly Senior Registrar, numbers and rotations ▪ Developing a workforce recruitment, development and retention plan ▪ Embedding 'Our Core Values' into workforce orientation and development programs ▪ Implementing Code of Conduct ▪ Organising and deploying staff creatively to meet the changing needs of communities ▪ Improving management and leadership skills and capacity to drive a healthy, safe and satisfied workforce culture ▪ Recognising 'hub' EDs as training centres ▪ Enhancing registrar training and rotation, and ensuring adequate junior staff supervision and development ▪ Workforce planning and development initiatives to support the implementation of contemporary models of care ▪ Continuing expansion of academic positions to facilitate education, training, recruitment and retention
We have a workforce profile which closely aligns with the needs of our patients and communities.	<ul style="list-style-type: none"> ▪ Reviewing workforce distribution across all Clinical Streams and facilities in terms of current and projected needs, and developing strategies to create balanced workforce models ▪ Enhancing the workforce in a number of specialty and sub-specialty areas, with the aim of achieving a balanced and sustainable workforce configured to the projected needs of our ISLHD residents, eg Geriatric Medicine and Aged Care ▪ Enhancing the Mental Health workforce ▪ Strengthening rural medicine at Shoalhaven including Academic Department of Rural Medicine ▪ Succession planning for the medical, nursing and allied health workforces
Our staff have a safe and healthy work environment.	<ul style="list-style-type: none"> ▪ Eliminating bullying and harassment ▪ Responding to known problems and risks, and anticipating and preventing others ▪ Developing and operationalising a positive workplace culture which promotes the health and safety of our workforce

How we will track our progress

The District has developed an Integrated Map of Plans to provide a consistent approach to planning and service delivery priorities across all teams of the District. The Map establishes an aligned set of planning documents. It links strategic, tactical and operational planning at District and staff levels to State wide and District Health Board priorities.

This Statement of Strategic Intent forms the basis for annual District, Divisional, Team and staff planning. Progress is regularly monitored with annual review results forming the Districts annual report to the community.

ISLHD Planning Map



Attachment:

Proposal for an Illawarra Population Health Information Platform

The Illawarra is an ideal health services research environment. The population of approximately 350,000 is relatively stable and most of the health care that residents receive is provided within the region. Key challenges for the region include the need for significant improvements in chronic disease management, better integration of primary, secondary and tertiary health care and more effective hospital demand management.

A prerequisite to meeting these challenges is better use of health information, which is the subject of this proposal for an Illawarra Population Health Information Platform (IPHIP) and an associated research and information partnership.

It is proposed that the NSW government provide a one off establishment grant of \$10m to establish the IPHIP and support it during its formative years. From that point, the IPHIP will be self-funded by the parties to this proposal and through competitive research funding from various sources.

The IPHIP will develop and maintain a system connecting data for health and medical research in the Illawarra. This information will be available for use in ethically approved research and for planning and evaluation projects which aim to improve the health of the population of the Illawarra and beyond. The goal is to develop the Illawarra as a base for population health research that develops and tests new models of health care and that uses linked data to undertake research into the causes of disease, the relationship between health status and health care utilisation and research into predictors of health outcomes.

Because the population profile of the Illawarra reflects the profile of NSW and Australia as a whole, the research undertaken using IPHIP data will be of state and national significance.

The IPHIP will be a partnership between:

- The Illawarra Shoalhaven Local Health District (ISLHD)
- The University of Wollongong
- The Illawarra Health and Medical Research Institute (IHMRI)

The NSW Bureau of Health Information, Medicare Australia (the national custodian of Medicare Benefits Schedule and Pharmaceutical Benefits Schedule data), the Australian Bureau of Statistics and the proposed Illawarra Shoalhaven Medicare Local will also be invited to join the partnership.

IPHIP will depend on gaining access to personal identifying information from each of the contributing data sources, as represented by the partners. However, actual health details will be stored and managed separately, with linkages created and maintained using rigorous protocols.

Senior representatives from the partner organisations will provide strategic advice through a Data Linkage Advisory Board. The day to day management of the IPHIP will be undertaken by the Australian Health Services Research Institute (AHSRI), a research institute of the University of Wollongong. AHSRI has significant experience and expertise in health services research and in data linkage. All uses of the data will be subject to the approval of the relevant Human Research Ethics Committee.

Advantages

IPHIP will:

- Improve the capacity to undertake population health research that is of state and national significance
- Give clinicians and researchers in the Illawarra region a strategic advantage in bidding for nationally competitive research funding because of their access to the unique data set that IPHIP will hold
- Because Illawarra clinicians and researchers will have access to this unique data set, IPHIP will attract new clinicians and researchers to the region which in turn will contribute to regional development as well as to development of the partner organisations.

An example - breast cancer

Working with researchers at the University of Wollongong, clinicians at the Wollongong Cancer Centre want to test whether there is a relationship between the onset age for breast cancer and use of hormonal supplements and a range of other medications. IPHIP creates a linked data set on 200 women with breast cancer who have been treated at the centre. The linked data set contains information on every drug each women has been prescribed in the previous decade. The team are successful in their NHMRC application to undertake research using this data set.

An example - chronic disease

The ISLHD is concerned about the growing number of patients with chronic disease who have multiple hospital admissions each year. IPHIP creates a data set on all Illawarra residents who have had two or more unplanned hospital admissions in the last two years. It links data on their visits to GPs and medical specialists, their use of diagnostic tests and medicines and their use of community health programs. It creates a matched data set on patients with the same diseases who have not been to hospital at all during that period. The goal is to test whether there are any differences in the services that the two groups have used in the two year period.

Existing information systems and linkages

The (then) Illawarra Area Health Service (IAHS) established an Area-wide medical records system in 1986. A unique patient identifier and medical record exists for all patients treated in hospitals in the Illawarra since that time. Regional medical record patient identifiers now link hospital inpatient, hospital outpatient, emergency department, community health and mental health service utilisation data, as well as a range of socio-demographic data. Attachment One illustrates examples of the data systems in the Illawarra that already use the Area common identifier.

The Illawarra and Shoalhaven Local Health District (ISLHD) now has more than 500,000 unique identifiers. This includes identifiers for patients who have died or moved in the 25 years since the system was established. It will also inevitably include alias and related. Nevertheless, it is thought that the significant majority of the Illawarra population have a unique patient identifier in the ISLHD system.

At the same time, Medicare Australia holds records on the use of medical and diagnostic services (Medicare Benefits Schedule) and pharmaceuticals (Pharmaceutical Benefits Schedule) by Illawarra residents. However, these records cannot currently be linked to those held by the local health service. Equally, the NSW Bureau of Health Information holds records on the use of private hospitals as well as public hospitals outside the local region and the Australian Bureau of Statistics holds a range of social and demographic data. Again, these records cannot currently be linked to those held by the local health service.

The IPHIP will access and link these existing data sets for research and service development purposes.

Funding requirements

The funding required to establish the IPHIP and support it during its first five years is shown below. This funding model assumes that, from Year 3, IPHIP begins to receive funding from peer reviewed research grants and other sources. For this reason, the funding required both for core staff and operating expenses tappers off between years 3 to 5.

Year	Item	Cost
Year 1	Stakeholder engagement strategy	\$150,000
	IT - hardware and software	\$1,000,000
	Core IPHIP staff (Director, Clinical Epidemiologist, Statistician, Database Manager, Administrator)	\$750,000
	Operating expenses (25%)	\$475,000
	Total Year 1	\$2,375,000
Year 2	IT software and maintenance	\$200,000
	IPHIP staff (Director, 2 Clinical Epidemiologists, 2 Statisticians, Database Manager, Database Technician, 2 Administrators)	\$1,300,000
	Operating expenses (25%)	\$375,000
	Total Year 2	\$1,875,000
Year 3	IT software and maintenance	\$210,000
	IPHIP staff (Director, 2 Clinical Epidemiologists, 2 Statisticians, Database Manager, Database Technician, 2 Administrators)	\$1,365,000
	Operating expenses (20%)	\$315,000
	Total Year 3	\$1,890,000
Year 4	Replace IT hardware	\$1,100,000
	IPHIP staff (Director, 2 Clinical Epidemiologists, Statistician, Database Manager, Database Technician, Administrator)	\$1,183,250
	Operating expenses (15%)	\$342,488
	Total Year 4	\$2,625,738
Year 5	IT software and maintenance	\$231,000
	Core IPHIP staff (Director, Clinical Epidemiologist, Statistician, Database Manager, Administrator)	\$900,000
	Operating expenses (10%)	\$113,100
	Total Year 5	\$1,244,100
Total		\$10,009,838

Attachment 1 Illustration of data sets that can be linked in an Illawarra health information platform

Information system	Approximate establishment year
Patient admission	1986
Laboratories	1986
Imaging	1986
Interpreters	1989
Diabetes	1990
Community health	1990
Social work	1990
Other allied health	Progressively from 1990
Cancer care	1991
Emergency department	1991
Transit (discharge destination and movements)	1991
Operating theatres	1992
ACAT	1992
Anaesthetics	1993
Chest clinic	1996
Pharmacy	1996
Midwives	1996
Mental health	1997
Intensive Care	1997
Dental	1999