

Critical Care Clinical Stream Service Development Priorities 2014 - 2018

Leading care, healthier communities



Health
South Western Sydney
Local Health District

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Foreword by Clinical Director

The Critical Care Stream is a vital part of the Districts clinical services, frequently providing care for our patients at their most vulnerable moments. This is seen across the spectrum of the stream from Emergency to Intensive Care, Anaesthetics and Pain services, Organ and Tissue Donation and the newly developed Toxicology Service. The Critical Care Stream plays an integral role in the management of the acutely unwell patient and is available to respond urgently around the clock, every day of the year. This is at the heart of our challenges to develop capacity and manage the interface with the rest of the hospital.

The need to develop capacity is reflected in the ability to provide timely care around the clock and respond to the inevitable surges in demand. Capacity is determined by a combination of physical treatment spaces, staffing and models of care that support efficiency. It has significant overlap with the rest of the hospital. Each unit needs to be able to meet its front door demand and needs to be able to network together to meet shared needs.

All of the Critical Care services are dependent on their interface with the rest of the hospital. One of the most significant challenges of this period of development is to eliminate any queuing to get access to, and exit from, our Critical Care services. This is influenced by the whole of hospital flows and the particular challenge of coordinating the 24/7 services in Critical Care to other hospital units which revert to skeleton staffing out of 'normal hours'. Delays to theatre, access block in Emergency, and access and exit block to and from ICU represent some of the most vexing issues our health service faces. This document outlines our development priorities to deal with these issues, of capacity and interface, over the next four years.

Introduction

The health services provided by South Western Sydney Local Health District (SWSLHD) are organized both vertically within an area of geography (hospitals and health centres serving defined population catchments) and horizontally across a service or process (clinical streams). Financial, workforce, activity and performance management is vertically integrated at the facility level. Clinical streams primarily focus on:

- Clinical services planning and the development of clinical networks
- Identifying service gaps and reviewing the appropriateness and configuration of services
- Innovation, research and best practice in models of care
- Maintaining and improving patient access to care
- Flexibility and robustness of clinical systems to respond quickly to changing environments
- Improving consistency and quality of care, safety and clinical governance
- Workforce planning, ensuring the right clinical teams in the right place at the right time
- Strengthening partnerships between facilities within a clinical specialty and between clinical services within a facility

Three strategic planning documents guide the future directions of SWSLHD:

- Strategic and Healthcare Services Plan- *Strategic Priorities in Health Care Delivery to 2021*
- Corporate Plan 2013 – 2017 *Directions to Better Health*
- Summary of Strategic Directions.

Together these Plans form the basis of aligning all SWSLHD services to achieving the Vision of **Leading Care, Healthier Communities**. SWSLHD facilities have prepared Operational Plans which outline local corporate strategies and actions. This includes the clinical streams with facility management responsibilities i.e. Mental Health, Oral Health, Community Health, Population Health and Drug Health. These Operational Plans outline how SWSLHD strategic and corporate priorities will be achieved within local vertically integrated facilities.

For those Clinical Streams that have not prepared an Operational Plan a high level *Service Development Priorities* plan outlines the priority actions that will be pursued horizontally in areas of Stream responsibility, to assist in achieving SWSLHD service development and corporate strategies. It outlines high priority actions for the Stream in the eight *Priority Strategic Directions in Service Development* from the Strategic & Healthcare Services Plan and for other core areas of Stream focus from the Corporate Plan i.e. providing high quality health services, community partnerships, developing our staff, supporting business and efficiency and sustainability.

The Strategic and Healthcare Services Plan outlined for each Clinical Stream in the timeframe to 2021, models of care for the future, service development directions and partners in service development. These are included at Attachment A, providing the framework for development of these Service Development Priorities.

Vision, mission, values and primary purpose

The Critical Care Clinical Stream is committed to achieving the **SWSLHD Vision** of

Leading care, healthier communities

It is also committed to the **SWSLHD Mission** which is to promote the health of the residents of the District and patients using our health services through the delivery of high quality healthcare.

We do this by providing health services that are population based, patient-centred and involve families and carers.

We use evidence to inform health practices; and consult, communicate, engage and collaborate with patients, local communities, agencies and care providers to improve the way we plan and provide health care services and programs.

We strive to deliver services that are respectful of personal dignity and autonomy; and sensitive to the needs of people from different cultures.

We emphasise learning and reflection and are committed to continuous quality improvement and innovation in delivering efficient and sustainable health care.

Our culture enables excellence and accountability, values our people and supports positive leadership and teamwork.

Staff in the Clinical Stream uphold the **core values** of

- Collaboration
- Openness
- Respect
- Empowerment

Specifically the prime purpose of the Critical Care Clinical Stream is to provide timely, high quality, comprehensive and compassionate care to people within the Local Health District who require emergent and / or critical medical or surgical care, and to those referred to our facilities and services for specialist care.”

Services provided by the Clinical Stream

The Critical Care Clinical Stream provides emergency, intensive care, anaesthetic and pain services across the SWSLHD facilities. The Critical Care Clinical Stream also supports the SWSLHD Organ and Tissue Donation Service and Sexual Assault Forensic Medical Service. The Critical Care Clinical Stream is also developing a Toxicology specialty in collaboration with Campbelltown and Liverpool hospitals, Mental Health Services and Drug Health. The service provides approximately 250,000 emergency visits, 43,000 anaesthetics and 5000 intensive care admissions annually.

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Specialty or Service	Service Type	Facility or Setting					
		Bankstown	Bowral	C'town	Camden	Fairfield	Liverpool
Emergency Medicine	Resuscitation	√	√	√	√	√	√
	Acute	√	√	√	√	√	√
	Paediatrics	√	√	√	√	√	√
	Subacute	√	√	√	√	√	√
	Emergency Inpatient	√		√*		√	√
	PECC			√			√
Intensive Care Unit	ICU	√		√			√
	HDU	√	√	√		√	√
	ECMO						√
	Renal Dialysis	√		√			√
Anaesthetics	Pre Admission Clinics	√	√	√		√	√
	Theatres	√	√	√		√	√
	Labour Analgesia	√		√			√
	Procedural Sedation out of Theatres	√		√			√
Toxicology	Inpatient			√**			√***

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OTDS	Eyes	√	√	√	√	√	√
	Bones	√				√	
	Solid Organ	√	√	√		√	√
	Heart Valves	√	√	√		√	√
	Pancreatic Islets	√	√	√		√	√
Forensic Medical	Sexual Assault						√
Pain Services	Chronic Out Patient						√
	Acute	√	√	√		√	√
	Outreach						√
	Group Therapy						√
	Procedural						√

* Due for commissioning late 2014

** Commencing 2015

*** Commencing 2014

Demographic and health profile of SWSLHD communities

Comprehensive demographic and health status profiles of SWSLHD communities are available at <http://www.swslhd.nsw.gov.au/planning/>. The population of SWSLHD is expected to grow significantly over the period covered by the *Service Development Priorities* plan, with Attachment B outlining the projected population by LGA and age category in 2011, 2016 and 2021.

Aspects of the demographic and health status profile and projected growth of SWSLHD communities of particular importance for the Clinical Stream include:

- Increased burden of chronic disease including heart disease, renal disease, respiratory diseases, diabetes and obesity across the population
- Increased prevalence of mental health, particularly drug induced psychosis and depression
- Population growth above the NSW average across SWSLHD
- Increased population under 16 years of age and over 70 years of age increasing demand for paediatric centered care as well as geriatric focused medicine.
- Significant predicted increase in demand for Emergency Department, Anaesthetic and Intensive Care services.
- National and state policy changes such as NDIS and the possibility of gap payments for GP services, as well as changes to aged care policies
- Focus on end of life and health care directives, ambulatory care and hospital in the home models of care
- Increasing complexity of surgical and medical interventions.
- Relatively low numbers of community based health care providers, eg GP's within the district.

With population growth, demands on the clinical stream are expected to grow significantly. This will include demands for the provision of care as hospital inpatients, outpatients and care provided in the community. Attachment C illustrates the projected growth in demand from SWSLHD residents for inpatient hospital care by Service Related Group, a combination of DRGs that align with clinical specialties. Aspects of projected demand of particular importance for the Clinical Stream include:

- Increased demand for intensive care due to increased complexity in medical and surgical procedures and well as the increasing challenge of chronic illness and an aging population
- New models of care such as interventional suites requiring changes to the historic models of care provided by specialties such as Anaesthetics
- Increased demand on emergency medicine due to increased population, ageing and increased prevalence of chronic illness

Delivering on priority strategic directions in service development

The SWSLHD Strategic and Healthcare Services Plan- *Strategic Priorities in Health Care Delivery to 2021* identified eight priority strategic directions to underpin service development, enhancing the way health care is delivered and organizations partner for better health in local communities. The following identifies priority areas where the Clinical Stream will contribute to delivering on the eight strategic directions.

Build capacity to effectively service growing demands for health care

- Enhanced attention to patient centered care, meeting national patient safety, quality and performance indicators and implementing initiatives from the CEC and ACI
- Participate in the development of the SWSLHD Workforce Plan, to ensure a high quality workforce with an appropriate mix of generalist and specialist skills is available to provide contemporary models of care across all critical care services within SWSLHD.
- Support redevelopment at Campbelltown Hospital to increase capacity for the Emergency Department as well as plan for future capital works at Campbelltown and Bankstown Hospital
- Increase Intensive Care bed numbers and staffing across the SWSLHD to support the increasing complexity of medical and surgical patients requiring intensive care. Further develop networking of our ICU services.
- Expand anaesthetic services to support increased surgical demand at all facilities as well as the development of interventional procedure suites at Campbelltown and Bankstown hospitals. Develop anaesthetic capacity to meet the out of theatre demand.
- Increase Emergency department capacity and flows across the district in the face of the significant predicted increases in demand.

Redesign of services bringing them closer to people and their communities

- Restructure the SWSLHD Organ & Tissue Donation Service profile to introduce a Community Development Officer position into the team to promote organ and tissue donation through community engagement.
- Enhanced Intensive Care Network model of care across SWSLHD to ensure patients can receive care appropriate to their clinical needs closer to their home
- Support the development of interventional suites at Bankstown and Campbelltown hospitals
- Improve links and information transfer between Emergency Departments and community health care providers.

Integrated action with primary care providers and regional primary health organisations

- Enhanced collaboration with GP's and Medicare Local to improve the management of chronic pain in the community
- Improve discharge processes and transfer of care to communities and support services through SWSLHD III Hub.
- Increase the ECI developed Aged Care Emergency (ACE) model of care to improve access, communication, and transfer of care for patients residing in residential aged care facilities (RACF) across the district.
- Developing and promoting pathways of care into hospital based services not dependant solely on Emergency Departments.

Partnering with external providers to deliver public health care

- Partner with ACI by participating in the Electronic Persistent Pain Outcomes Collaboration focused on improving the outcomes of chronic pain programs.

- Implement a toxicology service with links to supporting government and non-government organisations such as Odyssey House to support early discharge and community based care.
- Partnering with Australian Organ and Tissue Authority through a service agreement with NSW Organ and Tissue Donation Service to promote organ and tissue donation within the community and increase consent rates for organ and tissue donation in SWSLHD.
- Strengthen partnerships with Ministry of Health Pillars such as ACI and CEC, and academic institutes

Enhancing service networks and growing centres of excellence

- Implement and evaluate the Community Development Officer position within the Organ & Tissue Donation Service
- Explore development of networked Anaesthetic services for collaborative education simulation training across the district
- Develop a toxicology service
- Increasing the profile of our tertiary services across the State and Nationally

Shared access to unified information for all the health care team

- Provide Telehealth and videoconferencing facilities within the clinical environment, connecting all sites to support services such as NETS and AMRS
- Implement new Firstnet modules in eMR including medical and nursing clinical documentation
- Install Intensive Care Clinical Information Service (ICCIS) across all SWSLHD intensive care units
- Improving electronic data sharing (eMR) with community providers, eg GP's

An integrated focus on primary prevention for patients and communities

- Ensure all emergency departments have in place processes to screen for children at risk of harm and domestic violence, supported by SWSLHD wide processes and networks to ensure appropriate transfer of care and community support for patients at risk.
- Implement a program such as the Self Training Educative Pain Session (STEPS) to identify people who would benefit from a multidiscipline pain program, equipping participant with skills and techniques to manage their chronic pain condition
- ACI pain program increasing resources and education for GP's to support early intervention and management for patients with actual or potential chronic pain conditions.
- Development of a toxicology service for the district which will work in collaboration with government and non government organisations to support management and rehabilitation services.

Embedding education and research within service delivery

- Promote research across the critical care specialties in the district.
- Establish joint university and SWSLHD medical and nursing positions to enhance links with tertiary education facilities
- Using new Clinical Skills and Simulation centres with effective IT links to develop clinical skills and translate research in to practice by enhancing multidisciplinary training with MET, Resuscitation and Trauma teams

Working with facilities on corporate enabling strategies

The SWSLHD Corporate Plan 2013 – 2017 *Directions to Better Health* identified eight areas of corporate action where organizational values and vision can be included in the day to day operation of health services. The corporate areas of action are underpinned by the eight priority strategic directions identified in the SWSLHD Strategic and Healthcare Services Plan. Implementation of the corporate actions is primarily the responsibility of facilities and the way this will be achieved is outlined in each facility's Operational Plan.

Clinical streams will work with facilities on corporate actions which have close alignment to the areas of focus of the Streams. The earlier identification of priority areas where the Clinical Stream will contribute to delivering on the eight strategic directions also identifies the Stream's contribution to three corporate action areas – seamless networks; research and innovation; and enhancing assets and resources. Clinical Streams will also contribute to delivering on the remaining five corporate areas of action – providing high quality health services; community partnerships; developing our staff; supporting business; and efficiency and sustainability. The following identifies priority areas where the Clinical Stream will contribute to delivering on these five areas of corporate action.

Providing high quality health services

- Maintain accreditation by meeting National Patient Safety and Quality Standards
- Ensure timeliness of care using strategies such as Sepsis and Chest Pain pathways and meet NEAT and NEST targets
- Safety and quality considerations in all models of care and efficiency strategies
- Interpersonal communication between staff and with patients and carers to minimise the risks associated with transfer of care and optimise consumer awareness and informed decision making associated with their care.

Community partnerships

- Ensure community participation in all levels of strategic and service planning
- Adopting new approaches to engage multicultural communities
- Increasing community participation in research projects
- Expanding and supporting the volunteer workforce

Developing our staff

- Providing models of education that foster inter and intra-disciplinary teamwork
- Ensuring performance management aligns with service goals and priorities
- Increasing workplace flexibility and addressing workload management
- Maintaining a comprehensive educational service with state of the art technology, facilities, flexible learning and study pathways
- Developing systems and processes to identify the skill mix for new models of care and managing job realignment
- Developing and using workforce information to inform decision making, planning and benchmarking

Supporting business

- Expanding teleconferencing, Telehealth, web based technologies and fibre optic initiatives to improve clinical care and service networks
- Extending and enhancing the patient-centred eMR functionality
- Participate in national and state wide technology developments
- Developing business planning capacity to identify the benefits, risks and financial implications of new proposals and service development directions

Efficiency and sustainability

- Implementing strategies to increase staff awareness of statutory reporting requirements
- Reviewing and further developing service agreements with NSW Health agencies such as HealthShare NSW and the Ambulance Service of NSW.
- Enhancing financial capability in managers and staff
- Developing a framework for managing risk, embedded in governance structures, with risk registers and risk management plans.

Attachment A Models of care, service development directions and partners

The Critical Care clinical stream provides care within four core medical disciplines and settings – emergency medicine, intensive and high dependency care, anaesthetics and pain services. The identification of future models of care and service development directions is provided under these four areas of activity.

Models of Care for the future

In the **emergency departments**, the models of care in the future will be characterised by:

- A tripartite networking arrangement, whereby the staff and other resources of the 3 main EDs (Liverpool, Campbelltown and Bankstown hospitals) support the 3 smaller departments (Fairfield, Camden and Bowral hospitals)
- Increasing demand pressures, including that of meeting the NEAT targets will require improved patient flow through the ED, to be supported through full investment in enhancing ED capacity to benchmark levels, with significant enhancement to ward Short Stay capacity.
- ED will continue to provide resuscitation, assessment and procedural interventions to the acute presentations
- The procedural work within the ED will be facilitated by enhancement in procedural room availability, separate to the resuscitation rooms but with the same level of functionality
- Co-location and integration of imaging services with the ED needs to be enhanced
- Significant projected increased demand at Campbelltown Hospital and Bankstown Hospital will require increased physical capacity, redesign of operational structures and staffing enhancement to meet needs
- To meet increased demands from population growth (50% of SWGC development will be within Camden LGA), the emergency department at Camden Hospital will need to develop models of care to provide a definitive response to walk-in patients of all ages during all hours of operation, treating a "broad-spectrum" of acute episodic illnesses and injuries, with the ability to perform minor procedures and access to on-site diagnostic services
- The introduction of team based care, addressing implications for the JMO workforce
- Development and/or enhancement of the crossover into specialty specific short stay/assessment units in Paediatrics, Medicine and Surgery
- Development of a toxicology service at Liverpool and Campbelltown hospitals in collaboration with Drug and Mental Health Services

In **intensive and high dependency care**, the models of care in the future will be characterised by:

- Enhancement of intensive care resources (noting that a new *NSW Intensive Care Services Plan – Adult Services* is under development by the NSW Ministry Of Health) subject to endorsement through the Critical Care Taskforce (CCT) which advises the NSW Ministry of Health
- Some redistribution of services will be needed to allow guaranteed access to tertiary ICU facilities for tertiary services
- Expansion of some ward based specialty specific higher acuity step down areas e.g. Respiratory Non-Invasive Ventilation Unit; assisting in ICU to ward discharges
- Redevelopment at Bowral Hospital to create a Critical Care "Hub" with HDU and ED. This enhancement would allow for higher acuity admissions to the HDU with ED medical support close by.
- Realigned workforce for Organ and Tissue Donation Service to improve capacity to inreach multicultural populations

In **anaesthetics**, the models of care in the future will be characterised by:

- Recognition of the increase in out of theatre workload, properly measured and appropriately staffed

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- An increase in day only and sedational procedures
- Potential for a different staffing model with increased Staff Specialist appointments reducing complete reliance on VMOs
- A comprehensive asset enhancement and replacement plan

In **pain services**, there is recognition that effective pain management is a moral imperative, a professional responsibility and an ethical issue for the community. Models of care in the future will be characterised by:

- Continued implementation of the NSW Government Pain Management Plan introduced in 2012. The Plan aims to improve the delivery of pain services to the community, recognising that chronic pain is a specific disease entity requiring appropriate clinical support
- Further development of acute pain services at all facilities in recognition of increasing demands arising from increased emergency and elective patient activity, increasing number and complexity of surgical procedures and an increase in oncological referrals for acute pain management
- At Liverpool Hospital, enhancement of chronic pain management services to improve the current ten day wait for priority patients (cancer pain, medically urgent cases such as complex regional pain syndrome or herpes zoster, those with uncontrolled pain) and six month waiting time for non-urgent patients. Increasing demand for chronic pain management is also being driven by third party insurers incorporating pain management/procedures into care plans to facilitate return to work
- As pain procedures are safely performed under regional anaesthetic and sedation with the majority under local anaesthetic alone requiring minimal recovery time, they can be appropriately provided in an ambulatory care setting such as Day Surgery Unit at Liverpool Hospital
- Enhanced interaction with third party insurers such as Workcover to maximise revenue opportunities through negotiation of individualised fee schedules. Third party insurers have identified pain as a significant barrier to injured worker rehabilitation and return to functional work
- Continued collaboration between the Tier 3 Pain Department at Liverpool Hospital and the SWSML to improve education in pain management of both health professionals and the community, to facilitate both direct and electronic consultations, and to accelerate referral to the required level of care.

Service Development Directions

The core service development directions for **emergency departments** include ensuring:

- All EDs have the physical capacity for the patient load
- All EDs all have access to ESSU and PECC beds/services
- All EDs are represented on the facility Clinical Council and other peak representative bodies
- Enhancements to address the senior staffing shortfall that exists in all the satellite EDs
- Development of a research focus across the District
- Consideration of the development of academic units in Emergency Medicine at Liverpool and Campbelltown hospitals in conjunction with UNSW and UWS, supported by academic chairs
- Further development of an integrated education program for all levels of staff, including consideration of a hub and spoke approach to medical staff education in emergency medicine with Liverpool Hospital as the hub for Registrar education and Campbelltown Hospital as the hub for CMO education

The core service development directions for **intensive and high dependency care** include:

- Enabling ICU ACCESS nurses continuous presence within the unit to support clinical care and access

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- Enhancing ICU/HDU bed capacity to ensure a manageable and safe 85-90 % occupancy (note that the Ministry of Health's August 2011 guideline recommends a 70 - 80% occupancy rate be used as benchmark for planning purposes) and ability to promptly admit critically ill patients from wards, ED, OT and other metropolitan hospitals, who require ICU management
- All ICU/HDU's are represented on the facility Clinical Council and other peak representative bodies
- Enhanced ICU quality and research activities
- Providing 24 hour coverage in peripheral units such as at Fairfield and Bowral hospitals
- Improved models for MET and critical support external to ICU such as Critical Care Access Teams
- Enhanced networking of policies, procedures and education across all units in SWSLHD

The core service development directions in **anaesthetics** include:

- Moving to a mixed VMO and Staff Specialist appointment model of care
- Enhanced data collection
- Development of a research branch in association with UNSW/UWS and Ingham Medical Research Centre
- Improved models of care to manage the out of theatre workload, particularly the load associated with interventional suites and radiology.

The core service development directions in **pain services** include:

- Enhancement of the Liverpool Hospital service to fully provide Tier 3 tertiary level acute and chronic pain services through the day surgery unit, including equipment and staffing enhancements
- Enhancement to acute pain services provided across all facilities in association with the Departments of Anaesthetics
- Development of multidisciplinary chronic pain services at Bankstown-Lidcombe and Campbelltown hospitals
- Enhanced access for paediatric patients to pain management services
- Enhanced access for drug health clients to pain management services

Partners in Service Development

To facilitate the service developments in the **emergency departments**, close partnerships need to be forged and sustained with, in particular:

- Ambulatory Care (Adult and Paediatric)
- Imaging services (needs enhancement, in particular a faster service and access to ultrasound)
- Acute ambulatory clinics
- Community nursing
- General practice
- Rapid access to various inpatient units, particularly ICU/CCU/Cath lab; operating theatres; Acute short stay units (MAU/SAU)

In addition there will need to be maintenance of core partnerships which have developed at individual facilities over time:

- Liverpool Hospital – ESSU; Radiology/Pathology; ICU/Theatres/Cath Lab; After Hours GP Clinic; PECC and D&A; MAU (needs enhancement to reach full potential)
- Campbelltown hospital - Paediatrics/Paediatric Ambulatory Care; MACS; Cardiology
- Fairfield Hospital – Paediatrics; Ambulatory Care; Medicine; GP services

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- Bankstown Hospital - Ambulatory Care services (antibiotics, transfusions, cellulitis, PE, DVT etc.), in-patient services, community mental health services; MAU; Rapid Response Team

Some partnerships which need enhancement across SWSLHD to optimise services include:

- Mental Health
- Drug & Alcohol Services
- Community nursing
- Allied health
- Ambulatory care
- Aged Care facilities

To optimise service developments in **intensive and high dependency care**, sustained partnerships will need to be maintained with, in particular:

- The ED for patient flow and Trauma
- Anaesthetics for services outside of theatres and Recovery for patient flow
- Bed managers for patient flow
- Functional MET systems
- Retrieval services
- Private Hospitals (particularly at Bowral)

To optimise service developments in **anaesthetics**, sustained partnerships will need to be maintained with, in particular:

- Procedural centres which may develop outside the acute hospital setting, including potential community based "Eye Centre"(s).
- Other SWSLHD hospitals to support anaesthetic network arrangements
- A range of in-hospital clinical services, particularly Pain Services, Cardiology, Radiology, Nuclear Medicine and Cancer Services

To optimise service developments in **pain management**, sustained partnerships will need to be maintained with, in particular:

- SWSLHD interhospital relationships for seamless access to the Tier 3 pain services at Liverpool Hospital
- Anaesthetic Departments
- Cardiology
- Radiology
- Cancer Services
- Drug Health Services
- Paediatric Services
- SWSML

Attachment B Projected population of SWSLHD communities 2016 and 2021

Population projections	SWSLHD			Bankstown		
	2011	2016	2021	2011	2016	2021
0 - 4 yrs	63,172	73,317	80,383	14,291	15,979	16,546
5 - 14 yrs	125,198	133,606	149,714	26,276	27,861	30,526
15 - 44 yrs	371,889	400,104	428,701	79,512	81,425	84,949
45 - 69 yrs	246,607	274,788	298,218	51,713	55,762	59,348
70 - 84 yrs	57,062	68,380	87,866	15,071	15,663	18,409
85+ yrs	11,835	15,942	19,065	3,988	4,834	4,971
All ages	875,763	966,137	1,063,947	190,851	201,523	214,749

Population projections	Camden			Campbelltown		
	2011	2016	2021	2011	2016	2021
0 - 4 yrs	4,678	6,110	8,585	11,118	13,499	15,095
5 - 14 yrs	9,326	12,974	15,932	21,558	22,983	26,739
15 - 44 yrs	25,499	38,139	47,235	65,809	71,687	77,402
45 - 69 yrs	15,115	21,298	27,282	44,008	47,798	50,674
70 - 84 yrs	3,045	4,685	7,030	7,307	10,037	14,549
85+ yrs	776	1,204	1,614	1,373	1,830	2,310
All ages	58,439	84,409	107,680	151,173	167,834	186,768

Population projections	Fairfield			Liverpool		
	2011	2016	2021	2011	2016	2021
0 - 4 yrs	12,736	14,680	15,085	14,407	17,017	18,882
5 - 14 yrs	26,337	26,318	28,653	28,611	30,359	34,330
15 - 44 yrs	84,114	84,237	86,146	84,603	92,302	100,482
45 - 69 yrs	56,978	61,545	64,396	49,085	56,654	63,815
70 - 84 yrs	13,826	15,627	19,228	9,809	12,367	16,091
85+ yrs	2,488	3,527	4,367	1,573	2,512	3,353
All ages	196,479	205,933	217,875	188,088	211,212	236,953

Population projections	Wingecarribee			Wollondilly		
	2011	2016	2021	2011	2016	2021
0 - 4 yrs	2,696	2,482	2,510	3,246	3,551	3,680
5 - 14 yrs	6,171	5,997	5,864	6,919	7,114	7,669
15 - 44 yrs	14,361	14,211	13,966	17,991	18,103	18,522
45 - 69 yrs	16,229	16,928	16,997	13,479	14,803	15,706
70 - 84 yrs	5,490	6,690	8,123	2,514	3,311	4,436
85+ yrs	1,179	1,433	1,675	458	603	776
All ages	46,126	47,741	49,134	44,607	47,485	50,789

Source: NSW Department Planning and Infrastructure, New South Wales State and Local Government Area Population Projections: 2014 Final

Attachment C Growth in demand for inpatient care SWSLHD residents to 2016 and 2021**Projected separations of SWSLHD residents at all hospitals by Service Related Group**

Service Related Group	2010-11	2016-17	% Δ to 10-11	2021-22	% Δ to 10-11
Acute Care					
11 Cardiology	10,655	11,897	11.66%	13,769	29.23%
12 Interventional Cardiology	4,346	5,219	20.09%	6,176	42.11%
13 Dermatology	783	820	4.70%	915	16.89%
14 Endocrinology	1,154	1,376	19.27%	1,586	37.43%
15 Gastroenterology	18,573	21,836	17.57%	25,079	35.03%
16 Diagnostic GI Endoscopy	14,184	16,345	15.24%	19,089	34.58%
17 Haematology	1,645	1,958	19.02%	2,199	33.66%
18 Immunology and Infections	2,067	2,252	8.96%	2,537	22.73%
19 Oncology	1,573	2,155	37.02%	2,565	63.04%
20 Chemotherapy	2,396	3,200	33.55%	4,021	67.80%
21 Neurology	6,695	7,536	12.57%	8,634	28.97%
22 Renal Medicine	2,383	2,666	11.87%	3,201	34.34%
23 Renal Dialysis	42,543	53,799	26.46%	64,444	51.48%
24 Respiratory Medicine	12,471	13,878	11.28%	15,769	26.45%
25 Rheumatology	1,032	1,368	32.57%	1,587	53.81%
26 Pain Management	1,380	1,362	-1.27%	1,559	12.98%
27 Non Subspecialty Medicine	10,686	12,256	14.69%	14,257	33.41%
41 Breast Surgery	1,615	1,833	13.47%	2,047	26.77%
42 Cardiothoracic Surgery	936	981	4.76%	1,094	16.89%
43 Colorectal Surgery	4,585	5,209	13.60%	5,823	27.00%
44 Upper GIT Surgery	4,486	4,862	8.39%	5,433	21.11%
46 Neurosurgery	4,129	4,617	11.82%	5,299	28.35%
47 Dentistry	3,098	3,607	16.45%	4,150	33.94%
48 ENT & Head and Neck	8,485	9,511	12.10%	10,676	25.82%
49 Orthopaedics	18,859	21,466	13.82%	24,743	31.20%
50 Ophthalmology	9,314	12,210	31.10%	15,496	66.37%
51 Plastic and Reconstructive Surgery	5,446	6,101	12.02%	7,023	28.95%
52 Urology	9,662	11,015	14.00%	12,665	31.08%
53 Vascular Surgery	2,669	2,781	4.20%	3,245	21.59%
54 Non Subspecialty Surgery	14,553	15,876	9.09%	17,819	22.44%
61 Transplantation	56	49	-12.73%	53	-4.86%
62 Extensive Burns	52	68	31.06%	75	44.15%
63 Tracheostomy	342	444	29.71%	519	51.81%
71 Gynaecology	10,690	11,634	8.83%	12,771	19.47%
72 Obstetrics	17,434	19,566	12.23%	21,132	21.21%
73 Qualified Neonate	2,739	2,981	8.83%	3,342	22.01%
74 Unqualified Neonate	10,623	12,145	14.33%	13,300	25.20%
75 Perinatology	617	578	-6.33%	657	6.47%
81 Drug and Alcohol	1,828	1,975	8.04%	2,126	16.31%
99 Unallocated	413	413	0.00%	413	0.00%
Total Acute all Hospitals	267,197	309,846	15.96%	357,288	33.72%
Sub and Non Acute Care					
84 Rehabilitation	12,153	17,395	43.14%	22,580	85.80%
85 Psychogeriatric Care	142	133	-6.46%	160	13.00%
86 Palliative Care	1,477	1,835	24.26%	2,095	41.87%
87 Maintenance	583	888	52.35%	1,106	89.77%
Total Sub and Non Acute all Hospitals	14,355	20,252	41.08%	25,943	80.72%
Grand Total all Hospitals	281,552	330,097	17.24%	383,231	36.11%



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