2017 – 2022
Clinical Services Plan
Central Coast Local Health District
Clinical Services Plan 2017-2022

This document can be downloaded from the CCLHD website:

or the intranet:

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<td>28/08/2017</td>
<td>Endorsement by CCLHD Board</td>
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<tr>
<td>V04 (final)</td>
<td>16/10/2017</td>
<td>Final version for release – intranet, internet and hard copy</td>
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Central Coast Local Health District respectfully acknowledges the traditional custodians of the land on which we provide health services.

We also acknowledge and pay respects to Aboriginal Elders both past and present.
Our commitment to **Caring for the Coast – every patient every time** remains strong and our vision of **Healthy people - Vibrant community** continues to drive how we plan for and deliver our services.

To achieve our vision of a healthy and vibrant community, Central Coast Local Health District (CCLHD) will play a leading role in making the Central Coast a place where the health of people in our community is maximised through quality health services, accessible when and where people need them.

These are exciting times for the Central Coast, the redevelopment of Gosford Hospital is well underway and due for completion in 2019. Confirmation of funding for the Wyong Hospital redevelopment will mean full steam ahead toward an expanded range of services and facilities to meet the growing demand from the local community. These will be complemented by the development of the Central Coast Medical School and Research Institute in partnership with the University of Newcastle located on the Gosford Hospital campus.

It is five years since the planning for the first Central Coast Local Health District Clinical Services Plan 2012-2022 (CSP) was undertaken and many changes have occurred since that time. These include completion of a number of capital projects: the Central Coast Cancer Centre (2013), the Rehabilitation Unit at Woy Woy Hospital (2013) and a satellite renal dialysis centre located onsite at the Long Jetty Health Facility (2015).

CCLHD is one of three demonstrator sites across the state as part of the NSW Health Integrated Care Program developing greater integration in how and where care is provided including building strong partnerships with other providers. There have also been changes to how CCLHD does business and delivers services to ensure that the services and models of care we provide are contemporary and reflect best practice.

The planning for this CSP has provided opportunities to evaluate the progress made since 2012 and review our strategic direction and initiatives against the changes which have occurred at both national and state levels as well as locally in the Central Coast Local Health District. The CSP aligns with the priorities and policy directions identified in the NSW Plan, the Premier’s Priorities, the NSW State Health Plan and other key documents.

The CSP looks to the future, laying the foundation for future service developments. It sets out a broad range of strategies that will be progressively implemented over the life of the plan and will guide CCLHD in the development of contemporary, evidence-based clinical services. It is a live document that will be subject to regular review; where required strategies may be revised in response to changed circumstances over time or as a result of changes in treatments, technology and clinical care.

The CCLHD Board, executive team and staff look forward to the roll out of this plan as we achieve or vision of “Caring for the Coast – healthy people – vibrant community”.

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Dr Andrew Montague
Chief Executive
Central Coast Local Health District

Paul Tonkin
Board Chair
Coast Local Health District
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Strategic Vision

Central Coast Local Health – Caring for the Coast

CCLHD, in partnership with the community and other health care providers, will provide appropriate high quality health care:
- In the right place
- At the right time
- By the right person
- For the right cost

Our Vision - Healthy People – vibrant community

The Central Coast, a place where:
- People will be able to access the majority of their health needs locally
- CCLHD will be the main provider, coordinator and purchaser of secondary and tertiary services
- The community will have an integrated primary care sector
- People will live in an area that is a leader in the provision of health promotion and public health services
- The community will have accepted the joint responsibility of ‘healthy people – vibrant community’ and will play a key role in better managing the determinants of health.

Our Mission – Promote and enhance the health and wellbeing of our community

This will be achieved through ensuring zero harm and providing safe and quality integrated care.

Our Values

In addition to the NSW Health C.O.R.E values of Collaboration, Openness, Respect, Empowerment, CCLHD promotes the following values:
- Respect and Dignity
- Teamwork
- Safety
- Fairness and Equity
- Care and Compassion
- Honesty and Accountability
- Professionalism and Learning

Our Strategic Priorities

Caring for our patients – provide best practice care to ensure patient safety and satisfaction:
Provide health care that is:
- Respectful of, and responsive to, the preferences, needs and values of patients and consumers
- High quality, safe, effective, timely, efficient, accessible and evidence based
- Underpinned by a culture of service and person-centred care, embodying - respect, emotional support, physical comfort, information and communication, continuity, care coordination, and supports the involvement of family and carers.

Caring for our staff – support and develop our most important resource and provide a safe and rewarding workplace:
Support and develop our people and systems to achieve:
- A positive organisational culture of mutual respect and trust
- An environment which promotes high performance, service excellence and innovation
- An organisational structure and culture to promote and support ongoing staff education and development
- An engaged and empowered workforce.

Caring for our resources – use resources effectively and efficiently
In the face of increasing pressures of an ageing population, technological developments, increasing patient expectations and rising health care costs:
- Manage our services as efficiently and effectively as possible
Service and development priorities are based on current and projected population health needs
Decision making is supported by sound evidence with attention on affordability, value for money, efficiency and sustainability
Transparent approach to support decision making around the introduction of new technologies, new procedures and changes in models of care
Engagement with our community and service delivery partners in regard to service development decisions to achieve a balance between community need and expectation
A culture of financial accountability permeates all levels of staff across the LHD.

**Caring for our community – Invest in better health by promoting a healthy lifestyle and available health resources**
Improving health and health literacy of the Central Coast community through:
- Making available education for the community about health to better equip them to make decisions about their lifestyle and health needs
- Health promotion and early intervention programs targeting chronic disease and lifestyle risk factors
- Specific programs targeting higher risk or vulnerable populations (including Aboriginal and Torres Strait Islander people)
- Making information on services readily available to residents.

**Caring for our future – develop strong and effective partnerships to meet the community’s health needs**
Proactively develop sustainable, high quality services which will best meet the future health demands:
- Keep people healthy to reduce future dependence on health services
- Build strong partnerships with the Primary Health Network and other service providers to support and deliver comprehensive integrated services
- Increasing focus on the management of chronic health conditions and diseases through longer term partnerships between the patient and care providers to support self-care and care in the community setting
- Improve the fabric and functionality of our existing buildings and ensure adequate physical capacity to appropriately manage the anticipated demand for inpatient, ambulatory, and community based services and to enable flexibility to respond to future changes in health service delivery models.
Executive Summary

The Central Coast Local Health District has responsibility for the planning of services over the short and long term to enable service delivery that is responsive to the health needs of its population. It is also responsible for ensuring that relevant government health policy goals are achieved through the range of health services which best meet the needs of the community, whether those services are provided locally, by other local health districts, specialty networks or other service providers.

It is five years since the planning for the Clinical Services Plan 2012-2022 was undertaken and there have been many changes that have occurred since that time. These include (but are not limited to) the commencement of the Gosford Hospital redevelopment, completion of a number of capital redevelopments (Cancer Centre, Rehabilitation Unit at Woy Woy Hospital, satellite dialysis service at Long Jetty, as well as a number of others), commencement of the Integrated Care Project as well as various service reviews and new models of care. In addition there have been changes in: the policy environment; funding models and a shift to activity based funding; a shift from national to state based performance targets for emergency departments and elective surgery; introduction of the National Disability Insurance Scheme; aged care reforms including the introduction of my Aged Care; and mental health reforms.

This Clinical Services Plan (CSP) updates and replaces the 2012-2022 CSP. It has been undertaken as a mid-point review of progress and achievements against the recommendations in the 2012-2022 CSP. Included in the CSP are policy changes, service initiatives, and trends in activity since 2010/11. It outlines the future challenges and clinical issues facing Central Coast Local Health District (CCLHD) and recommends actions to resolve these issues and to support the current and proposed role of facilities and role delineation of services.

The purpose of the review has been to:

- Evaluate progress toward implementation of the recommendations in the 2012-2022 CSP and confirm the continued relevance of outstanding recommendations
- Reflect changes that have occurred since the previous planning in 2012 including changes in the policy environment, the Central Coast community as well as the impact of new capital developments such as the Central Coast Cancer Centre (2013), Rehabilitation Unit at Woy Woy Hospital (2014), Emergency Department Short Stay Units at Gosford and Wyong hospitals (2014), the Satellite Renal Dialysis Centre at Long Jetty Health Centre (2015) as well as other service changes which have occurred
- Review activity since 2010/11 to determine whether these align with the previous forecasts and projections
- Inform the revised business case for capital development at Wyong Hospital.

The scope of the review and planning has included current and future clinical service models, the location and configuration of services, service development requirements and priorities, and infrastructure requirements at Gosford and Wyong hospitals to 2027. A key consideration has been the future role and service profile of Wyong Hospital. Revised activity projections and modelling have not been included due to delays in the release of a new activity projection tool. Once available the revised activity projections and associated service modelling will be released in a companion document to this CSP.

Due to the timeframe for completion the CSP does not include detailed review or planning of outpatient and ambulatory services, sub-acute and community based services, these will be undertaken subsequent to this Plan. There are significant changes occurring in mental health services at both a national and state level and further work will need to occur subsequent to this Plan to determine how best the District can respond to these changes and what will need to occur.

Consultation throughout the planning process has built on the extensive consultation undertaken during the development of the 2012-2022 CSP. Consultation has been undertaken with Divisional Executives for each of the five divisions, other senior and departmental managers as well as clinical heads of department. Two workshops were held which were attended by the executive team and senior managers to present, discuss and agree on the key strategic directions as well as the future configuration of clinical services. Decisions were guided by an agreed set of planning principles. Draft documentation has been disseminated to individual services and key individuals and committees for review and comment.
This Plan and the planning process is underpinned by *Caring for the Coast* and the five strategic priorities:

- Caring for our patients – providing best practice care to ensure patient safety and satisfaction
- Caring for our staff – supporting and developing our most important resource and provide a safe and rewarding workplace
- Caring for our resources – using resources efficiently and effectively
- Caring for our community – investing in better health by promoting healthy lifestyles and available health services
- Caring for our future – developing strong and effective partnerships to meet the community’s health needs.

### Service Drivers

There are a number of service drivers which will influence and impact future service requirements. Following are key drivers which will influence the strategic directions for service development:

- Population growth and ageing – over the next 10 years the population of the Central Coast is projected to grow by 10.4% to 374,850 persons. Much of this growth will occur in the Wyong area and it is likely that Wyong will overtake Gosford in terms of total population by 2026.
- Changing models of care – there is a shift toward greater integration between different levels of care (acute to sub-and non-acute), types of care (inpatient, outpatient, community based and primary care); and between care providers (health and non-health, government and non-government). These changes will impact how, where and by whom care is provided in the future.
- Workforce - the workforce is one of the most important and valuable assets of the LHD. Maintaining an adequate supply of qualified staff to meet the increasing demand for health services is one of the most important issues affecting sustainability of the health system. The workforce is facing a number of challenges as the population (including the health workforce) ages. Growth in services, changes in models of care, increasing demand for services and the future workforce requirements are interrelated and will impact on future service provision.
- Changing Technology - health services and systems are continuing to evolve as a result of new technologies and therapies, developments in fields such as genomics, better diagnostic capabilities, new clinical techniques and ongoing improvement in the way services are provided. These changes will have an ongoing influence on service delivery including the range of services provided by CCLHD, how and where they will be provided, the cost of service delivery, and will inform future service development.

### Key Strategic Directions

The key strategic directions for CCLHD are focussed on how best to meet the current and future population demand for acute and sub-acute hospital and non-inpatient services including community based services. In addition, as the population increases and ages and as clinical services mature there will be demand for new and additional clinical services to be available locally.

The current and proposed capital redevelopments while providing expanded physical capacity also provide opportunities to further develop how services are delivered and to ensure that models of care reflect contemporary best practice.

The completion of the new clinical services tower at Gosford Hospital is due in 2018 with the full redevelopment due for completion by late 2019. This will provide additional physical capacity for service expansion required to 2022 and also facilities for the introduction of new and additional services such as cardiac electrophysiology studies, endovascular procedures, nuclear medicine and an inpatient rehabilitation service.

The redevelopment at Wyong Hospital is still to occur however in the interim it essential that the LHD develops and implements a range of non-capital service strategies which will maximise the effective use of existing infrastructure to meet both the current and projected growth in demand and also enable development and commencement of identified priority services prior to completion of the redevelopment.

Service enhancement at Wyong Hospital will not only respond to the health needs of the growing population in the Wyong area but will also afford the opportunity to move secondary level services for this same population from...
Executive Summary

Gosford Hospital; in turn this will release capacity at Gosford Hospital and allow it to further develop tertiary level services for the whole of CCLHD.

Similarly, better and more integrated and coordinated use of community health services and the sub-acute capacity at Woy Woy and Long Jetty health facilities will influence the efficiency of acute services at Gosford and Wyong hospitals.

It is also essential that services which provide alternatives to hospitalisation, such as outpatient and ambulatory care, hospital in the home (HITH), chronic disease management and community based services continue to be developed and integrated with other services to reflect their increasing role in service provision and also the opportunity for more efficient use of inpatient resources.

Following is a summary of the overarching strategic directions for CCLHD; individual service related strategies can be found in the relevant chapters and sections throughout the Plan:

- **Increased self-sufficiency** – there will be continued development of clinical services toward access to a full range of clinical services on the Central Coast so that residents can access services locally (with the exception of quaternary and some highly specialised low volume services which will continue to be accessed through specialist centres).
  - Services identified for consideration for future development include: clinical genetics; rheumatology; immunology; dermatology; clinical pharmacology/toxicology; infectious diseases; thoracic surgery; and obesity management (including bariatric surgery).

- **Integration of services and providers across the care continuum** - through ongoing development of service integration with primary care providers, as well as other health and social care providers offers an opportunity to develop alternatives to inpatient management.

- **Development of effective partnerships with other providers** – including health, other government agencies, non-government providers and private providers. These partnerships will support improved service integration.

- **Workforce** – embedding a positive culture which promotes quality and innovation across all disciplines and roles, with staff supported through education and professional development opportunities.

Service specific strategic directions:

- **Complex care and tertiary level services** will be concentrated at Gosford Hospital. There will be ongoing service development including development of new services as well as increasing service complexity toward tertiary level to meet the population demand for these services.

- **Wyong Hospital** will provide an increased range and complexity of medical services and surgical procedures providing sub-specialty services for cardiology, respiratory, neurology and gastroenterology (with provision of after-hours emergency procedures), as well as increased endocrinology and diabetes services onsite. There will be an increased range of surgical services which will include the provision of orthopaedic trauma surgery as well as expanded urology, gynaecology and general surgery.

- **Maternity services** - will be developed at Wyong Hospital with capability to manage low to moderate risk pregnancies and delivery including emergency caesarean deliveries

- **Paediatric services** - there will be a continuation of the paediatric ambulatory service model. In conjunction with this there will be development of capacity for short stay management (less than 48 hours) of some medical and selected planned and unplanned surgical procedures.

- **Ambulatory and outpatients** – it is proposed that further planning is undertaken to identify the future service requirements to ensure that the previously planned provisions will be adequate to accommodate the future volume of services as well as the proposed service models. This is of particular relevance for Wyong Hospital redevelopment where there will be significant service expansion.

- **Community based services** – are an integral part of the care continuum and future service delivery and provide opportunities to reduce unnecessary inpatient episodes and length of stay, and also to support people to remain well in the community. Detailed service and facility planning is to be undertaken to develop the vision for the services, and highlight areas for further development this is required to inform infrastructure requirements and future capital planning.
Executive Summary

Sub-acute services - it is proposed that a review of the sub-acute services is undertaken including development of a plan which reflects changing service demand and articulates:

- An agreed LHD-wide model for sub-acute services (including general and aged care rehabilitation, maintenance and palliative care) including integration with acute and community based services and providers both health and non-health
- The future configuration and location of services across inpatient, ambulatory, community and home based services
- The future role for Woy Woy and Long Jetty facilities
- Service development and future infrastructure requirements while making best use of current infrastructure.

Mental Health – at both the State and National level there has been a shift toward an increased provision of mental health services in the community with greater involvement of NGOs and other providers in the delivery of services. To respond to these significant changes CCLHD will develop a comprehensive strategy for how services should be developed to meet the needs of the population and also align with the State and National direction for mental health services. This strategy will inform:

- What services are required on the Central Coast covering inpatient and community based, prevention & early intervention, sub- and non-acute
- How services will be delivered
- Where these services should be located
- Who would be best providers and the role of various service providers
- The future service configuration and requirements for the LHD based services
- Feasible process and timeframe for achieving changes.

Clinical and non-clinical support services – expansion and further development of services will be required to support the identified clinical service changes and enhancements as well as the growing service demand. These will include:

- An expansion of the range, complexity and volume of interventional radiology (IR) procedures available at Gosford Hospital and provision of a limited range of IR procedures at Wyong Hospital
- Increased expertise and range of ultrasonography services available at both Gosford and Wyong hospitals
- Development of advanced diagnostics at Wyong Hospital for both inpatients and outpatients to reduce the need for patients to either be transferred or travel to Gosford to access these services – include trans-oesophageal echocardiogram (TOE); increased range of respiratory investigations and cardiac stress testing
- Nuclear Medicine at Gosford Hospital will reduce the need to transfer patients offsite to access these services
- Changes to the pharmacy service structure to minimise pharmaceutical costs, improve engagement with clinical and financial stakeholders, and provide a more robust framework for contract and inventory management. Introduction of an electronic medications management system
- Pathology services will continue to be provided through Pathology North and strategic directions include introduction of digital pathology; expanded microbiology PCR (polymerase chain reaction); optimisation of electronic ordering and decision support software; and implementation of access to pathology results and ordering through mobile devices.
- Implementation of integrated information and communication systems for clinical and corporate services; improved data capture systems for continued performance analysis and reporting; development of telehealth and video conferencing facilities and real-time access to online images and clinical data in both outpatient and inpatient settings and development of longer-term capacity to accommodate emerging technologies and models of care.

As part of the planning process a number of additional capital requirements for the LHD have been identified which will need to be considered within the life of this Plan and for which a source of funding will need to be identified, these include:
Executive Summary

- Major Refurbishment of inpatient units, Gosford Hospital - required to create the additional capacity to accommodate the projected acute inpatient bed requirements to 2027
- Diabetes and Metabolism Centre - to accommodate the diabetes service and the proposed obesity management service. This would be the hub for specialist diabetes services for the LHD.
- Satellite Dialysis – Gosford - replacement of the existing facility due to the age of building and its capacity to meet the Australian Health Facility Guideline standards
- Oral Health Services – refurbishment and expansion of the of the oral health clinics is required at both Gosford and Wyong Hospitals
- Education and Training Facilities - the staff education and training facilities were relocated offsite to accommodate the redevelopment on Gosford Hospital site. Replacement facilities will be required.
- Replacement or major refurbishment of inpatient unit at Woy Woy Hospital - the existing inpatient unit was built in 1971, and while it has been refurbished over the years, now requires significant refurbishment to maintain its suitability for inpatient accommodation or replacement, due to the age of the building.
- Relocation of services in leased premises - there are currently a number of services located in leased premises within the Gosford area. Consideration will be given to whether relocation into CCLHD owned facilities is feasible and the most appropriate location for each service.

Next Steps

As the Clinical Services Plan identifies the strategic directions for clinical service development the next stage following completion of the Plan is development of a process to support the staged implementation of the strategic directions over the next five years. This process will include:

- Development of a governance process for implementation which is linked with the annual operational plan
- Identification of clear priorities for implementation
- Identification of priority services for Wyong Hospital which can be developed prior to the redevelopment
- Identification of priority services to be commissioned at Gosford Hospital
- A monitoring and reporting tool to track implementation and also the outcomes of the strategies.
2 Introduction

2.1 Purpose, Scope and Structure

This Clinical Services Plan (CSP) provides a mid-point review of progress and achievements against the recommendations in the 2012-2022 CSP. It reviews policy changes, service initiatives, and trends in activity. This CSP also reviews and updates the service directions that informed the 2014 business cases for the redevelopment of both Gosford and Wyong hospitals.

This Clinical Services Plan updates and replaces the 2012-2022 CSP. It outlines the future challenges and clinical issues facing Central Coast Local Health District (CCLHD) and recommends actions to resolve these issues and to support the current and proposed role delineation of services and facilities. It sets out:

- clinical service models – confirming existing models and anticipating changes resulting from new policy directions, evolving technologies and therapeutic advances, and new insights on best practice
- location and configuration of services – identifying services required for a growing Wyong Hospital, evaluating the impact on Gosford Hospital of moving activity to Wyong Hospital, and confirming specific services that require a critical mass for clinical or financial sustainability and which should remain or be developed at Gosford Hospital
- service development requirements and priorities - across acute, sub-acute, ambulatory and community services as well as Child and Family Health, Mental Health, and Drug and Alcohol services
- infrastructure requirements - at Gosford and Wyong hospitals to 2022 and 2027.

The CSP does not include:

- revised activity projections and modelling due to delays in the release of a new activity projection tool. Once available the revised activity projections and associated service modelling will be released in a companion document to the CSP
- a detailed review of community based health services other than where they interface with acute services; a service plan for the future development of community health services and infrastructure will be developed subsequent to this CSP
- research and education other than some reference as part of the proposed Central Coast Medical School and Research Institute to be developed in partnership with the University of Newcastle.

In addition to guiding the development of clinical services across CCLHD over the next 5 years the CSP will underpin the Asset Strategic Plan and will inform the redevelopment of Wyong Hospital, further capital redevelopment at Gosford Hospital as well as future redevelopments across the Local Health District (LHD).

The CSP is presented in two distinct sections:

- Chapters 2 - 7 include information on: the planning process and context; functions, organisation and governance of CCLHD services; partnerships and relationships with other health care providers; and a snapshot of the CCLHD population, demographic characteristics and health status. Also included is discussion of key service drivers and the strategic directions for service development across the LHD.
- Chapters 8 - 18 describe current services, future service configuration, and strategic directions for individual clinical services under nine broad groupings including population health services, community health, ambulatory and outpatient services, clinical support, medicine, surgery, child and family health, aged and sub-acute care, mental health and drug and alcohol services.

The strategic directions pay specific attention to shifting services to match the growing needs of the Wyong population and the planned expansion of Wyong Hospital, as well as the development or maintenance of sustainable services at Gosford Hospital.
2.2 Planning Process

Project Milestones

This Clinical Services Plan has been developed over a six month period with completion in mid-2017. Building on the extensive consultation undertaken during the development of the 2012-2022 CSP, the planning process included a number of parallel activities:

- Audit of progress against 2012-2022 CSP recommendations – identifying recommendations that have been implemented, and testing the continued relevance of outstanding recommendations in light of more recent service reviews, policy and best practice changes, and proposed capital developments
- Qualitative analysis of activity, performance, service and demographic trends since 2010/11 – focusing on services which have changed significantly since the 2012-2022 CSP, those which are likely to change as a result of proposed capital developments, or where activity appears to exceed capacity and/or where performance varies from established benchmarks or service level agreements (pressure points)
- Consideration of assumptions about Wyong Hospital’s future role and service profile which will inform the service requirements for the redevelopment
- Review of role delineation of services against the new (2016) NSW Health Guide to the Role Delineation of Health Services
- Articulation of future service models and strategies to deliver them. It was intended to include modelling of infrastructure requirements to 2026/27 however this has been delayed pending release of new activity projections by the Ministry of Health. Once this is available the modelling will be undertaken and will be released as a companion document to this CSP.

Project Governance

Where possible existing organisational committees and structures have been used to support the development of the CSP. This approach has promoted and supported clinician engagement throughout the planning process with strategic directions, service models, and critical decisions made in consultation with:

- Clinical Operations Directorate (bringing together all clinical divisions)
- Division of Medicine Executive and Medical Heads of Department
- Division of Surgery, Anaesthetics & ICU Executive and Surgical Heads of Department
- Mental Health Executive
- Central Coast Kids and Families Executive
- Aged, Sub-Acute and Complex Care Executive
- Allied Health Director
- Senior Nurse Managers
- Directors and Managers of other relevant services.

Two workshops, attended by the executive team and senior managers, were held in April and May 2017 to present, discuss and refine strategic directions for inclusion in the CSP and, where relevant, to inform the proposed future role of Wyong Hospital.

The Executive Director Strategy and Innovation, supported by the Health Services Planning Unit, sponsored the project while the CCLHD executive team provided overall guidance and endorsement of strategic directions. Proposed strategic directions were also reviewed and endorsed by Clinical Council and the Medical Advisory Committee and have been presented to the Consumer and Community Engagement Committee. The draft version of the CSP was widely circulated for review and comment.

Planning principles

The following service planning principles were identified and endorsed at the start of the planning process and have been applied when considering future service development:

1. Reflect population health needs including the identified needs of Aboriginal, culturally and linguistically diverse, and other high risk population groups
2. Locally accessible services (admitted and non-admitted):
Residents should be able to access non-tertiary healthcare services at their nearest acute hospital
More complex care and tertiary level services will be concentrated at Gosford Hospital
A full range of clinical services should be available on the Central Coast with the exception of quaternary and highly specialised low volume services.

3. Patients are managed in the most appropriate environment (hospital - acute and sub-acute, non-inpatient, community or home) for their care needs, with an emphasis on:
   ◆ Effective patient flow through the hospital and back to the community with consideration of the continuum from prevention to palliation and the most appropriate care setting with better management and support for consumers to remain healthy in the community
   ◆ Responding to the unmet and increasing demand for acute, sub- and non-acute hospital services by improving functional relationships, integration of services and introducing new and innovative service models to maximise patient outcomes, reduce inpatient length of stay and effective use of health resources
   ◆ Truly integrated care and partnerships both within the LHD between services (acute, sub-acute, community, across sub-specialties and disciplines) and through a commitment to working in partnership with other health, social care and non-health organisations including government, non-government, voluntary and private sectors. To support a seamless transition between services across the care continuum as well as supporting people to remain healthy in the community.

4. Locations, scope and number of services are matched to:
   ◆ Population demand – volume (current and projected) and location
   ◆ Changing technologies and treatments
   ◆ Availability of:
     - Current services
     - Capacity – inpatient, outpatient, management of planned & unplanned activity
     - Workforce – appropriately skilled and adequate number
     - Infrastructure – built and equipment
     - Required support services.

5. Service sustainability – current & proposed services:
   ◆ Adequate volume/ critical mass
   ◆ Workforce availability – current, capacity to recruit, retention.

6. Models of care reflect contemporary best practice along the continuum of care including:
   ◆ Patient and consumer focus incorporating ongoing engagement with model development
   ◆ The most appropriate setting – inpatient, outpatient/ambulatory and/or community based
   ◆ Integration between services and providers – LHD and non-LHD, health and social providers
   ◆ Underpinned by principles of quality and safety including measurement and reporting on key performance indicators (KPIs) and outcomes.

7. Optimising outcomes for our patients which is measured by KPIs and benchmarks – including emergency treatment performance (ETP), elective surgery access performance (ESAP), readmission rates, avoidable admissions, patient experience, CCLHD goals, Service Agreement with NSW Ministry of Health, Leading for Better Value Care, etc.

8. Both clinical and corporate risk are part of the decision-making process – when considering the current situation against changes in service scope, level and configuration

9. Efficient and effective use of resources including opportunities for creation of additional capacity or alternatively reduction in capacity requirements through improvements in service provision

10. Alignment with strategic directions for health service delivery at local health district (LHD), state and national levels.
2.3 Planning Contexts

Central Coast

Central Coast Local Health District is responsible for the planning of services over the short and long term to enable service delivery that is responsive to the health needs of its population. It is also responsible for ensuring that relevant government health policy goals are achieved through the range of health services which best meet the needs of the community, whether those services are provided locally, by other local health districts, specialty networks or other service providers.

Under the Health Services Act 1997 and the NSW Health Corporate Governance And Accountability Compendium, the CCLHD Board must ensure that appropriate plans to guide the delivery of services are developed including a Strategic Plan, Clinical Services Plan, and Asset Strategic Plan. Other plans may be required from time to time, and include local service, workforce and financial plans and plans for particular health needs or issues. Boards must ensure that the views of providers and consumers of health services, and other members of the public served by the LHD, are sought in relation to the organisation’s policies and plans. A hierarchy and framework plans is presented in Appendix 3.

CCLHD Strategic Directions

The document Caring for the Coast: Preparing for the Future, in addition to providing an overview of the key themes in the 2012-2022 CSP, includes an overarching strategy map which sets out CCLHD’s vision, purpose, values and strategic directions and how these align with state priorities and NSW Health’s strategic directions. CCLHD’s five strategic directions or focus areas include:

- Caring for our patients – providing best practice care to ensure patient safety and satisfaction
- Caring for our staff – supporting and developing our most important resource and provide a safe and rewarding workplace
- Caring for our resources – using resources efficiently and effectively
- Caring for our community – investing in better health by promoting healthy lifestyles and available health services
- Caring for our future – developing strong and effective partnerships to meet the community’s health needs.

CCLHD Service Agreement with NSW Health

The annual service agreement between the CCLHD Board and the Secretary of NSW Health sets out the service delivery and performance expectations for the funding and other support provided to the LHD. The agreement outlines the budget, service volumes and levels, performance measures and governance requirements, and the LHD’s responsibilities for service planning and provision.

The service agreement identifies the strategic priorities for NSW Health to be reflected in CCLHD planning in particular:

- Deliver optimal and efficient frontline services
- Identify strategies to drive efficiency and sustainability in services
- Implement and deliver key NSW Health system priorities
- Deliver the relevant Premier’s and State Priorities
- Achieve the key goals, directions and strategies articulated in the NSW State Health Plan.

NSW Health

The NSW Ministry of Health is responsible for coordinating and planning system-wide services, workforce, population health and asset planning at a state level. The Ministry also provides advice and feedback to LHDs on local planning exercises as required, and reviews local planning in respect of achieving whole of system goals and objectives.

The CSP is informed by the NSW Plan and Premier’s Priorities, the NSW State Health Plan, and by the policy directions of statutory organisations such as the Agency for Clinical Innovation (ACI) and Clinical Excellence Commission.
**NSW Plan and Premier’s Priorities**

The State Plan [NSW 2021: A Plan to Make NSW Number One](#) and the [Premier’s Priorities](#), provide goals and targets for the health sector within NSW. There are 30 key state priorities being actioned by the NSW government; 12 have been identified as Premier’s Priorities, of which three have immediate relevance to CCLHD in the development of the new Clinical Services Plan:

- **Improving service levels in hospital:** 81% of patients through emergency departments within four hours – expansion of the Whole of Hospital and Integrated Care Programs to ensure that more people receive appropriate treatment within four hours of presenting to hospital, while maintaining the safety of patients and staff.
- **Tackling childhood obesity:** reduce overweight and obesity rates of children by 5% over 10 years – health is part of the whole of government, systematic approach to supporting children and families to be healthy and active.
- **Building infrastructure:** key infrastructure projects to be delivered on time and on budget.

Other Premier’s Priorities with relevance to CCLHD include:

- **Driving public sector diversity:** double the number of Aboriginal and Torres Strait Islander peoples in senior leadership roles and increase the proportion of women in senior leadership roles to 50% in the government sector in the next 10 years.
- **Improving government services:** improve customer satisfaction with key government services every year, this term of government.

Other State Priorities with relevance to CCLHD include:

- **Better services:** cutting waiting times for planned surgeries – increase on-time admission for planned surgery in accordance with medical advice by improving the management of all aspects of the patient journey.
- **Protecting the vulnerable:** Transitioning to the National Disability Insurance Scheme (NDIS) – working with government agencies and the Commonwealth to ensure delivery of this reform.

**State Health Plan**

The [NSW State Health Plan Towards 2021](#) was released in 2014. Key processes and priority areas are identified within:

- **three directions:**
  - keeping people healthy
  - providing world-class clinical care
  - delivering truly integrated care
- **and four strategies:**
  - supporting and developing our workforce
  - supporting and harnessing research and innovation
  - enabling e-health
  - designing and building future-focused infrastructure
- **to achieve the two state health goals:**
  - keeping people healthy and out of hospital
  - providing world class clinical services with timely access and effective infrastructure.

Key system priorities in 2016/17 included:

- **Embedding models of integrated care and care in the community**
- **Introducing end of life care programs**
- **Transitioning to the National Disability Insurance Scheme (NDIS)**
- **Implementing new business investment models and strategic commissioning for relevant clinical services.**

Other state-level priorities and plans that need to be taken into account in local health district planning include the [NSW Health Workplace Culture Framework](#), the [NSW Health Professionals Workforce Plan 2012-22](#), and a range
of plans relevant to Aboriginal Health, including Closing the Gap, the Aboriginal Health Impact Statement and Guidelines and Keep Them Safe.

**Leading better value care**

In 2017/18 the NSW Health system will refocus - away from the traditional approach of measuring value in terms of volume/output in relation to costs, to measuring value in terms of the [USA] Institute for Healthcare Improvement Triple Aim of health outcomes, experience of care, and cost efficient and effective care. In this context, health outcomes are defined as the outcomes that matter to patients. A key goal is to improve value for patients and in doing so, unite the interest of all health care system stakeholders (e.g. patients and their families, NSW residents, clinicians, LHD/SHN, Pillars and the Ministry of Health).

**Leading Better Value Care** (LBVC) seeks to identify and implement opportunities for delivering value based care to the people of NSW. Fifteen immediate priorities, grouped into three categories, have been selected:

- **Better Value Healthcare (BVH)**, supported by a Pillar organisation (Agency for Clinical Innovation (ACI) or the Clinical Excellence Commission (CEC)), introduce new or improved models of care for:
  - Management of Osteoarthritis (ACI)
  - Osteoporotic Refracture Prevention (ACI)
  - Local musculoskeletal service (ACI)
  - Inpatient Management of Diabetes Mellitus (ACI)
  - Diabetes High Risk Foot Services (ACI)
  - Management of Chronic Heart Failure (ACI)
  - Management of Chronic Obstructive Pulmonary Disease (ACI)
  - Adverse Events: Falls in Hospitals (CEC)
  - Renal Supportive Care (End Stage Kidney Disease (ACI)

- **Commissioning and Contestability**, supported by HealthShare and NSW Health Pathology, engage the private sector to increase efficiencies and savings in:
  - Modified Sourcing (HealthShare NSW)
  - Warehousing (HealthShare NSW)
  - Courier Services (NSW Health Pathology)
  - Point of Care Testing (NSW Health Pathology)

- **Workforce Capability**, supported by MoH workforce branch or NSW Ambulance, seek to ensure a more appropriate allocation of the highest quality employees:
  - Enrolled Nurse (EN) Workforce Supply (Ministry of Health – Workforce Branch)
  - Rostering Reform (NSW Ambulance)

Using the Rigorous Program Management (RPM) approach, lead agencies and LHDs will develop roadmaps for each priority to support standardised information input, effective information management, progress tracking, and forward visibility over upcoming key project requirements.

Monitoring and performance reporting will be a sub-set of evaluation, using a common dataset, reported through Service Agreements between Local Health Districts and the MoH. Monitoring measures will be based on financial reporting and implementation milestones. Financial impacts will be reported to NSW Health Ministry, Treasury and Cabinet through RPM across NSW Government entities.

Rigorous evaluation will assess the quantum of benefits achieved for each program enabling informed decision making around investment, reinvestment and disinvestment. Evaluation of BVH programs on the triple aim will take into account:

- getting clinical processes right resulting in efficient care
- enhancing capacity and avoiding costs, accelerating key strategies that have demonstrated benefit for patients and the system, identifying the appropriate sites for scale up
- consolidating projects that are shown to improve patient experience and health outcomes enabling effective and efficient care.
Local Government

The Central Coast Council provides an informed decision-making body that aims to develop the local community and its resources in a responsible way. It ensures that local public services and facilities respond effectively to community needs.

Central Coast Regional Plan

The Central Coast Regional Plan, developed by NSW Government Department of Planning and Environment and the Central Coast Local Council, sets planning priorities and provides a framework for regional and local planning decisions to manage the growth and change anticipated over the next 20 years to 2036. It provides an overarching framework to guide the preparation of detailed land use plans, the determination of development proposals, and inform infrastructure funding decisions. The LHD (principally the Health Promotion and Public Health Units) was involved during development of the Plan through workshops as well as providing commentary and feedback on the draft Plan.

The Plan notes that the redevelopment of Gosford Hospital and the addition of the Central Coast Medical School and Research Institute will drive further investment both in Gosford and elsewhere in the region. The Plan highlights two key actions of direct relevance to CCLHD:

- Enhance the growth potential of the health precinct around the Gosford Hospital and allied health facilities in Gosford City Centre to drive the growth of services and specialisation in the region
- Plan for the development of a health precinct surrounding the redeveloped Wyong Hospital.

The Plan also aims to support the region’s urban areas with more open space, recreation, walking, cycling and public transport opportunities to encourage more active, healthy lifestyles.

Other Planning Contexts

Disability Inclusion

Almost one in five people in NSW live with disability. People with disability often experience poorer health outcomes unrelated to their disability, and are often in hospital longer with a higher rate of re-admission.

The NSW Health Disability Inclusion Action Plan (DIAP) 2016-2019 is a system wide plan which sets the direction for health services to develop their own disability inclusion plan to suit local contexts and community needs. The primary objective of the DIAP is to ensure that our health system provides equitable and dignified access to services and employment for people regardless of disability. This includes a commitment to reducing, and where possible, eliminating discriminatory barriers for people with disability whether they are in employment, seeking employment or using health services provided by NSW Health.

In CCLHD this will be achieved through the strategic planning, implementation, monitoring and evaluation of all relevant services for readiness and compliance with applicable disability related frameworks including: the National Disability Strategy 2010-2020, the NSW Disability Inclusion Act 2014 and subsequent NSW Disability Inclusion Plan, and the National Disability Insurance Scheme, as well as the NSW State Health Plan and DIAP.

The four focus areas and their specific relevance to NSW Health and CCLHD are:

- promoting positive community attitudes and behaviours - improving awareness of the diversity of disability and what can be done to better support service users
- creating more liveable communities – providing equitable and dignified access for people with disability, their carers and families to health services, facilities and transport that are better integrated and welcoming
- supporting access to meaningful employment opportunities – improving not only the proportion of employees with disability but also supporting the progression of these employees with NSW Health
- providing more equitable access to mainstream services for people with disability through better systems and processes.

Role Delineation of Clinical Services

Role delineation is a planning tool used in service and capital developments. It describes the minimum support services, workforce and other requirements for the safe delivery of clinical services. It delineates the level of clinical services, not hospitals or health facilities as a whole.
Since the mid-1980s role delineation has been applied in NSW to inform strategic service, clinical and capital planning at the local and State level. In 2016 the Ministry of Health released a revised *Guide to the Role Delineation of Clinical Services*. The aim of the Guide is to provide a consistent language across NSW for describing clinical services. The Guide applies to public hospitals and health services.

When developing plans such as Clinical Services Plans, Business cases for capital projects and other service plans, LHDs and Specialty Health Networks (SHNs) use the Guide as a tool to describe the size, service profile and roles of the facilities for which they are responsible. Each clinical service is assessed against the Guide and is then planned and developed to the level appropriate to meet the needs of the relevant catchment population as determined by the LHD/SHN, ensuring efficiency in the health system as a whole, while improving local access.

Role delineation levels apply to individual clinical services. Each service standard has up to six levels of service in ascending order of complexity. Not all services start at Level 1 and not all levels follow consecutively.

Each LHD is required to enter their current role levels for each service and facility directly into the Role Delineation Application. This Application is part of the Clinical Services Planning Application Portal (CaSPA) which is maintained by the NSW Ministry of Health, Health System Planning and Investment Branch (HSPIB). It is the responsibility of the LHD to ensure that this information remains current and is correct.
Strategic Directions

Health services and systems are continuing to evolve as a result of new technologies and therapies, developments in fields such as genomics, better diagnostic capabilities, new clinical techniques and ongoing improvement in the way services are provided. These changes will have an ongoing influence on service delivery including the range of services provided by CCLHD, how and where they will be provided and will inform future service development.

The key strategic directions for CCLHD are focussed on how best to meet the current and future population demand for acute and sub-acute hospital and non-inpatient services including community based services. In addition, as the population increases and ages and as clinical services mature there will be demand for new and additional clinical services to be available locally.

The current and proposed capital redevelopments while providing expanded physical capacity also provide opportunities to further develop how services are delivered and ensuring that models of care reflect contemporary best practice.

The completion of the new clinical services tower at Gosford Hospital is due in 2018 with the full redevelopment due for completion by late 2019. This will provide additional physical capacity for service expansion required to 2022 and also facilities for the introduction of new and additional services such as cardiac electrophysiology studies, endovascular procedures, nuclear medicine and an inpatient rehabilitation service. It is important to ensure that the models of care which are implemented are consistent with best practice and also support the efficient use of the additional resources.

The redevelopment at Wyong Hospital is still to occur however in the interim it essential that the LHD develops and implements a range of non-capital service strategies which will maximise the effective use of existing infrastructure to meet both the current and projected growth in demand and also enable development and commencement of identified priority services prior to completion of the redevelopment.

Service enhancement at Wyong Hospital will not only respond to the health needs of the growing population in the Wyong area but will also afford the opportunity to move secondary level services for this same population from Gosford Hospital; in turn this will release capacity at Gosford Hospital and allow it to further develop tertiary level services for the whole of CCLHD.

Similarly, better and more integrated and coordinated use of community health services and the sub-acute capacity at Woy Woy and Long Jetty health facilities will influence the efficiency of acute services at Gosford and Wyong hospitals.

It is also essential that services which provide alternatives to hospitalisation, such as outpatient and ambulatory care, hospital in the home (HITH), chronic disease management and community based services continue to be developed and integrated with other services to reflect their increasing role in service provision and also the opportunity for more efficient use of inpatient resources.

Through ongoing development of service integration with primary care providers, as well as other health and social care providers offers an opportunity to develop alternatives to inpatient management.

The following overarching strategic directions are aligned with the LHD strategic priorities and will influence future development across all services provided by CCLHD:

- Caring for our patients – providing best practice care to ensure patient safety and satisfaction:
  - Service provision is patient and consumer centred with a focus on patient satisfaction
  - Consumer engagement and involvement including co-design are an integral part of service development
  - The use of evidence based models of care and service frameworks to reduce inappropriate clinical variation, support better utilisation of hospitals, ensure care is delivered in the most appropriate setting and improve the patient journey.
  - All service provision is supported by a robust quality and performance management framework – with ongoing measuring, monitoring and feedback processes. This will include qualitative and quantitative evaluation, KPIs, benchmarks and regular evaluation and reporting processes.
Caring for our staff – supporting and developing our most important resource and providing a safe and rewarding workplace, through:

- Fostering a positive and supportive workforce culture
- Cultivation of a quality focussed culture across the LHD involving all staff and all services
- Workforce planning to respond to immediate needs and ongoing strategies to recruit, grow, support and develop the clinical workforce ensuring the right skills and competencies are available to meet increasing demand for current services as well as the requirements for future proposed services
- Enhancement of teaching and research capacity including investment in continuing workforce education and development as well as building on the relationship with the University of Newcastle to maximise teaching capabilities and capacity to supervise an increasing number of students and junior clinical staff.

Caring for our resources – using resources efficiently and effectively:

- Services are designed to maximise the effective use of resources including different ways of doing things; reduction in duplication; evaluating what is the LHD responsibility and what should and could be done better by other providers (NGOs other agencies, private providers etc.) and ensuring that LHD core business/service is done well
- Enhanced clinical information systems to ensure functionality across sites (including the community health services); reduce duplication of processes; and improve business information systems to support services and service delivery as well as financial and other business processes.

Caring for our community – investing in better health by promoting healthy lifestyles and available health services, through:

- A regional integrated approach to service development (through engagement with other providers) and a whole of life approach from health promotion and illness prevention, management in primary care environment, interface with specialist services provided through the LHD acute, sub- and non-acute (inpatient, outpatient/ambulatory and community based) as well as community and social service providers.

Caring for our future – developing strong and effective partnerships to meet the community’s health needs:

- Increasing self-sufficiency for the Central Coast where most clinical services are available and can be accessed within CCLHD with the exception of quaternary and highly specialised low volume services which will continue to be accessed through specialist centres
- Service integration along the care continuum, through the development of partnerships (health and non-health) and built into models of care and service development
- Development of robust relationships and partnerships with a range of partners including the Hunter New England Central Coast Primary Health Network (HNECC PHN), GPs, the Ambulance Service of NSW, local government, NGOs, RACFs, private providers, NSW Health Education and Training Institute (HETI), universities, other educational and research organisations, and other government agencies.

### 3.1 Service Development

Following is an overview of the high level strategic directions for each service stream. More detailed strategies for individual services can be found in each of the relevant chapters, an overview of future services by facility can be found in section 3.3.

**Population Health Services**

The population health services include Aboriginal health, multicultural health, health promotion and public health. There will be ongoing development of the Aboriginal Health Service known as Nunyara toward an increased onsite presence at Gosford Hospital as well as capacity for patient liaison across all four hospital sites within the LHD as well as a presence in both Emergency Departments.

A key focus will be the expansion of programs targeting identified health priority areas for the Aboriginal and Torres Strait Islander population in particular diabetes, cancer and chronic diseases. A key component will be
health promotion and early intervention to reduce the development and progression of chronic diseases. Strong partnerships with other providers in particular Yerin Aboriginal Health Service Inc. through the Aboriginal Health Partnership Agreement will be crucial in the development and implementation of these and other programs targeting the health and wellbeing of the Aboriginal and Torres Strait Islander community.

The Health Promotion and Public Health services will continue to have an important role in monitoring and improving the health of the Central Coast community both through addressing health related behaviours and environmental issues such as infectious disease risks and urban development which impact on the health of the community.

As part of the regional population health approach to service planning and development there are opportunities for improved collaboration and alignment with health promotion, population health and illness prevention programs which target high risk behaviours within the Central Coast community to improve health, reduce the incidence of chronic diseases, and as an integral part of the care continuum.

**Acute Hospital Services**

There will be continued development of clinical services toward access to a full range of clinical services on the Central Coast with the exception of quaternary services (such as severe burn injury, major trauma, spinal cord injury and organ transplantation) and some highly specialised low volume services. This will increase the self-sufficiency of CCLHD and will reduce the need for residents to travel to another LHD to access secondary and most tertiary services. Service development will be prioritised according to population demand including the volume of outflows.

Gosford Hospital will continue to provide a comprehensive range of clinical services to meet the health needs of the Central Coast population. More complex care and tertiary level services will be concentrated at Gosford Hospital. There will be ongoing service development including development of new services as well as increasing service complexity toward tertiary level to meet the population demand for these services.

In response to increasing demand a number of services have been identified for expansion and further development these include: pain management; ENT/head and neck; and plastic and reconstructive surgery. On completion of the redevelopment there will be expanded facilities to support provision of endovascular procedures and an increased range of interventional procedures (cardiology and radiology).

Wyong Hospital will provide an increased range and complexity of medical services and surgical procedures providing sub-specialty services for cardiology, respiratory, neurology and gastroenterology (with provision of after-hours emergency procedures), as well as increased endocrinology and diabetes services onsite. There will be an increased range of surgical services which will include the provision of orthopaedic trauma surgery and expanded urology, gynaecology and general surgery.

Cancer inpatient facilities and cancer surgery will continue to be concentrated at Gosford Hospital. There will be an expansion of the non-inpatient services at Wyong Hospital for medical oncology and radiation oncology as well as the potential for future inpatient consultation. There will be future expansion of chemotherapy and ambulatory treatment capacity at both Gosford and Wyong hospitals. A third linear Accelerator (LINAC) at Gosford Hospital will be commissioned.

As an outcome of the redevelopment a number of new models of care will be implemented initially at Gosford and then at Wyong Hospital these include: Acute Medicine Unit (AMU); Surgical Acute Rapid Assessment (SARA); Extended Recovery; and Close Observation Unit.

Services identified for consideration for future development include: clinical genetics (familial and cancer); rheumatology; immunology; dermatology; clinical pharmacology/toxicology, infectious diseases; thoracic surgery; obesity management (including bariatric surgery); and eating disorders (in relation to inpatient management if required).
Maternity and Paediatric Services

Maternity
Gosford Hospital will remain a Level 5 maternity service managing demand from the Gosford area as well as women with high risk pregnancies and deliveries from across the LHD. The service is supported by the Special Care Nursery (Level 4 nursery).

A Level 4 maternity service will be developed at Wyong Hospital with capability to manage low to moderate risk pregnancies and delivery including emergency caesarean deliveries. The service will be supported by a level 3 nursery. There will be increased maternity outpatient clinics provided onsite including clinics for high risk pregnancies and Gestational Diabetes Mellitus (GDM). Enhancement of the maternity service will support an expanded gynaecology service and increased procedures conducted onsite. Women and neonates requiring a higher level of care will be referred to Gosford Hospital.

Women and neonates requiring a higher level of care will continue to be transferred out of the LHD to a specialist maternity and neonatal service.

Paediatric services
There will be a continuation of the paediatric ambulatory service model at Wyong Hospital. In conjunction with this there will be development of capacity for short stay management (less than 48 hours) of some medical and selected planned and unplanned/emergency surgical procedures. Potential procedures include: closed reduction of fractures, minor surgical procedures as well as some time critical procedures such as torsion of testes and appendicectomy (age 12 years and older), plus future possibility of selected same day ENT procedures.

Children requiring a higher level of inpatient management will continue to be transferred Gosford Hospital or to one of the children’s hospitals if specialist care is required.

Ambulatory and Outpatient Services
It is expected that the trend toward providing services in non-inpatient settings will continue to increase in response to technological advances enabling an increased range of minimally and non-invasive procedures which can be undertaken in an outpatient setting as well as an increasing range of drug and infusion therapies which can be provided on an ambulatory basis.

An Ambulatory Precinct is being developed at Gosford Hospital as part of the current redevelopment. The precinct will enable the majority of outpatient and ambulatory based services to be located in a single location to streamline service provision and improve access for patients.

As part of the redevelopment planning for Wyong Hospital an Ambulatory Services Precinct is included. Given the proposed service changes including the increased range and volume of services which will be provided at Wyong Hospital in the future it is proposed that further planning is undertaken to identify the future service requirements to ensure that the previously planned provisions will be adequate to accommodate the future volume of services as well as the proposed service models.

Sub-acute Services
Sub-acute services incorporate rehabilitation, maintenance care (non-acute) and palliative care. An inpatient rehabilitation unit is included as part of the Gosford Hospital redevelopment, once this is commissioned there will be sub-acute inpatient services located at all four health facilities. There are currently no further sub-acute inpatient bed and/or infrastructure increases identified for the future.

It is proposed that a review of the sub-acute services is undertaken including development of a plan which reflects changing service demand and articulates:

- An agreed LHD-wide model for sub-acute services (including general and aged care rehabilitation, maintenance and palliative care) including integration with acute and community based services and providers both health and non-health
- Future configuration and location of inpatient, ambulatory, community and home based services
- Future role for Woy Woy and Long Jetty facilities
Service development and future infrastructure requirements while making best use of current infrastructure.

**Mental Health**

At both the State and National level there is a shift toward an increased provision of mental health services in the community with greater involvement of NGOs and other providers in the delivery of services. The goal is toward supporting people to remain well in the community reducing the need for inpatient management. This will be achieved through better support for clients including early intervention for deterioration as well as an increased range of services available in the community. Community based options include residential options, step-up/down services, rehabilitation and long term care most of which will be provided in partnership with other providers predominantly NGOs.

To respond to these significant changes the LHD will develop a comprehensive strategy for how services should be developed to meet the needs of the population and also align with the State and National direction for mental health services. This strategy will inform:

- What services are required on the Central Coast covering inpatient and community based, prevention & early intervention, sub- and non-acute
- How services will be delivered
- Where these services should be located
- The future service configuration and requirements for the LHD based services
- Feasible process and timeframe for achieving changes.

The review and strategies will address services across all streams – child & adolescent, adult, older persons and would also need to consider people with intellectual disability.

**Community Health Services**

Community based health services are an integral part of the care continuum and future service delivery and provide opportunities to reduce unnecessary inpatient episodes and length of stay and also to support people to remain well in the community. Within CCLHD many of the community health services are operating at or close to capacity in addition much of the infrastructure is operating at capacity, is old and requires repair and refurbishment, is poorly located (in relation to population location and growth), and the design does not support contemporary practice.

To address this, a comprehensive planning process will need to be undertaken to inform future service development opportunities and requirements for community health services across the spectrum of clinical and non-clinical services and providers. Outcomes of this process will inform future infrastructure requirements.

To enable the LHD to make informed decisions around future infrastructure requirements development of a community health facility infrastructure plan will be required which will detail infrastructure requirements including new infrastructure; refurbishment and repair options; timeframes; and strategies for capital acquisition.

**Clinical Support Services**

Growth in direct patient services in acute, ambulatory and community health settings requires commensurate growth in clinical support services including medical imaging, pathology, pharmacy, clinical technology services, sterilising services, venous access team and the infection prevention and control services. For all these services as well as the other clinical support services this would include ensuring the service is accommodated in appropriate facilities which support the service provided and are of flexible design to accommodate equipment changes. The development of new techniques and equipment provides opportunity to improve and streamline services.

In relation to specific services:

- There will be an expansion of the range, complexity and volume of interventional radiology (IR) procedures available at Gosford Hospital reducing the need to transfer patients elsewhere to access these services
- Provision of a limited range of IR procedures at Wyong Hospital
- Increased expertise and range of ultrasonography services available at both Gosford and Wyong hospitals
Strategic Directions

- Development of advanced diagnostics at Wyong Hospital for both inpatients and outpatients to reduce the need for patients to either be transferred or travel to Gosford to access these services – include trans-oesophageal echocardiogram (TOE); increased range of respiratory investigations and cardiac stress testing
- Nuclear Medicine at Gosford Hospital will reduce the need to transfer patients offsite to access these services
- Changes to the pharmacy service structure to minimise pharmaceutical costs, improve engagement with clinical and financial stakeholders, and provide a more robust framework for contract and inventory management
- Introduction of an electronic medications management system
- Pathology services will continue to be provided through Pathology North and strategic directions include introduction of digital pathology; expanded microbiology PCR (polymerase chain reaction); optimisation of electronic ordering and decision support software; and implementation of access to pathology results and ordering through mobile devices.

Other Support Services

Non-clinical and other support services that are critical to the safe, efficient and effective provision of services include patient transport, carer support, information and communication technology, health information services, environmental services (laundry, cleaning, waste management etc.), food services, engineering and security. Car parking for patients, visitors and staff is also critical to the delivery of health services. While these services are not specifically addressed in this clinical services planning document they will require ongoing enhancement and development to keep pace with increasing activity and changing technology.

In relation to information and communication technology (ICT) over the next ten years demand for technological solutions will continue to grow, requiring substantial investment in both equipment and staffing. The District will continue to:

- Implement integrated information and communication systems for clinical and corporate services
- Develop and improve appropriate data capture systems for continued performance analysis and reporting
- Develop telehealth and video conferencing facilities and real-time access to online images and clinical data in both outpatient and inpatient settings
- Develop longer-term capacity to accommodate emerging technologies and models of care.

Education, Teaching and Research

CCLHD is committed to ensuring that care is safe, effective, appropriate, and accessible. Research and education are vital pillars that underpin excellence in clinical service delivery. Research (including health technology assessment) informs what care to provide and education informs how to provide that care.

Education and teaching are integral to the training and development of the workforce and the provision of high quality services. The LHD has established partnerships with universities and other training facilities and supports both undergraduate and postgraduate students and clinical placements. There are simulation centres located onsite at Gosford and Wyong hospitals which support clinical teaching. A range of education and training courses are offered either as face to face teaching or online across all disciplines and staff.

To support the current and future workforce ongoing investment in the continuing education and development of the workforce will be required. In addition continuing development of relationships with the NSW Health Education and Training Institute (HETI), universities and other training/education bodies will be required to enhance CCLHD teaching and research competence and capacity.

Research is an increasingly important and recognised area. The CCLHD Research Plan 2017-2021 sets out a vision for the LHD that is mindful of the significant changes occurring in the research landscape, locally and at State and National levels. The Health and Wellbeing Precinct including the Central Coast Medical School and Research Institute will provide future opportunities for the LHD.
3.2 Capital Development

The LHD is required to prepare and submit an Asset Strategic Plan (ASP) to the Ministry of Health (MoH) annually. This is then considered by the MoH for inclusion in the annual statewide Total Asset Management Plan (TAM) and the state 10-year Capital Investment Strategic Plan.

The ASP includes physical infrastructure requirements (building, equipment, information and communication technology (ICT)) to support service provision. The top five priorities for the LHD are identified and included in the ASP for submission to the Ministry. Also included in the ASP is the LHD asset management of existing physical assets (built assets, infrastructure, plant, equipment, ICT and fleet).

The ASP is revised annually and priorities (and order of priorities) are reviewed to ensure they reflect the capital requirements for the LHD. The CCLHD top five priorities in the 2017/18 ASP in order of priority are:

- Expansion and redevelopment of Wyong Hospital (phase 1)
- Major refurbishment of inpatient units, Gosford Hospital
- Expansion and redevelopment of Wyong Hospital (phase 2)
- Community health facilities development planning
- Replacement or major refurbishment of inpatient unit, Woy Woy Hospital.

There is currently a major redevelopment of clinical services occurring at Gosford Hospital which is due for completion in 2019. Also in planning for the Gosford Hospital precinct is a proposal for a Health and Wellbeing Precinct and the Central Coast Medical School and Research Institute which is being undertaken in a funding partnership between the State and Commonwealth governments and the University of Newcastle.

The planning horizon for both the Gosford and Wyong hospital redevelopments is 2026/27.

The opportunities presented through the redevelopment of existing and development of new infrastructure is balanced by a number of challenges, including ensuring care is delivered in ways that optimise the use of these new facilities, and ensuring facilities are commissioned in a way that efficiently uses the additional capacity without generating unnecessary demand. Specific issues around current and proposed models of care are explored in the clinical streams and services chapters of this Clinical Services Plan.

Gosford Hospital

The Gosford Hospital redevelopment is due for completion by late 2019. The new clinical services tower will be completed in 2018 following which an extensive refurbishment program will be undertaken to deliver the remaining services which are due for completion in late 2019.

The redevelopment will provide additional inpatient bed capacity to meet the projected demand for adult acute inpatient beds to 2022 (additional 70 beds). A further 37 beds will be required to support the projected growth in demand to 2027. These inpatient bed estimates are predicated on redevelopment and expansion of the inpatient bed capacity and available services at Wyong Hospital resulting in a reduction of flows to Gosford Hospital for Wyong residents to access secondary level services.

The redevelopment includes:

- Expansion of the Emergency Department including additional treatment and resuscitation spaces, short stay unit, secure paediatric treatment area, improved waiting area and parking facilities, and a flexible design to accommodate current and changing models of care for example, quick triage, patient streaming, an early treatment zone, and an urgent care/fast track area
- A 6 bed Psychiatric Emergency Care Centre (PECC) co-located with the ED
- Expansion of ICU to 24 beds as well as a 9 bed Close Observation Unit to be located in proximity to ICU
- Two additional operating theatres including one equipped for endovascular procedures. There will be additional anaesthetic bays and recovery beds, including a stand-alone Day Surgery and/or High Volume Short Stay (HVSS) centre.
- Development of an endoscopy suite with two labs, separate to the operating suite, with pre-procedure preparation and post-procedure recovery areas
Strategic Directions

An interventional suite which will include two Interventional Cardiology Labs to enable 24 hour primary percutaneous coronary interventions (PPCI) as well as an expanded range of interventional procedures. A third interventional lab will be used for interventional radiology procedures but will be able to accommodate additional interventional cardiology procedures if required. There will also be space for pre-procedure preparation and recovery for non-inpatients.

- An additional 70 acute adult inpatient beds
- Expansion of respiratory and sleep investigation and other diagnostic services
- A 30 bed inpatient rehabilitation unit equipped with a gymnasium and outdoor exercise facility
- An outpatient and ambulatory treatment precinct with expanded outpatient clinic space as well as non-inpatient procedures (including urodynamic studies) and medical day therapy unit.
- A women’s health precinct encompassing: clinic space and day assessment facility for high risk pregnancies, early pregnancy assessment service (EPAS) antenatal, postnatal, gynaecology and women’s health services
- Expansion of chemotherapy and other cancer related ambulatory therapies located in proximity to the Cancer Care Centre
- Expanded maternity services with a new birthing and delivery suite with additional capacity; expanded and reconfigured maternity unit with high dependency beds, and a room suitable for women and partners experiencing stillbirth or neonatal death. A new and expanded Special Care Nursery with built capacity for 20 cots, a large resuscitation bay and a mother stay unit.
- Redevelopment of part of the existing children’s ward to accommodate a Paediatric Ambulatory Care Unit including acute review, outpatient, and shared care clinics, short stay and home based care services
- Additional medical imaging capacity including ultrasonography and an additional MRI
- Nuclear Medicine facilities which will include a gamma camera, SPECT CT and built space (cold shell) for a future PET scanner.

Wyong Hospital

In March 2015 the NSW Government announced that $200 million would be made available for the Wyong Hospital Redevelopment. Initial planning and design work including development and submission of a Business Case was completed in early 2015. The project was proposed to occur in two phases, the first phase would deliver necessary increase in built capacity required by 2022 and the second phase would complete the additional services and capacity required by 2027.

In July 2017 the NSW Government confirmed that $200 million would be made available for the redevelopment of Wyong Hospital. Further planning work will need to be undertaken to confirm the overall scope of works required and that the identified service priorities are included and how this aligns with the available funding.

The following infrastructure will be required to meet the projected service demand at Wyong Hospital by 2027:

Clinical Infrastructure

- 115 additional acute adult inpatient beds will be required by 2027 of these 87 will be required by 2022 and a further 28 by 2027. Within this increase in built bed capacity:
  - 12 bed ICU (increase from 8 built beds)
  - 9 bed Close Observation Unit
  - 14 bed ED Short Stay Unit
- Expansion of the Emergency Department to 56 treatment spaces this will include an additional resuscitation space, fast track area and secure paediatric treatment area. Additional requirements include improved waiting area and parking facilities and a flexible design to accommodate current and changing models of care for example, quick triage, patient streaming, an early treatment zone, and an urgent care/fast track area. An ED Short Stay Unit is also required.
- Expansion of Surgical and Procedural services to:
  - 6 operating rooms with corresponding increase in anaesthetic bays and recovery beds
  - 2 procedure rooms
  - 2 endoscopy rooms
Configuration of surgical beds and spaces to support:
- Day Surgery and/or High Volume Short Stay (HVSS) model
- Surgical Acute Rapid Assessment (SARA) and Acute Surgical Unit (ASU) models.

Maternity – increased inpatient beds, bassinets, birthing room capacity and nursery

Expansion of the paediatric assessment unit with capacity for consultation, treatment chairs, 8 bed spaces and 2 procedure rooms which could be used in the future for short stay inpatient management. The unit will need to be located in proximity to the ED.

Refurbishment of the rehabilitation units (general and aged care units) to support a rehabilitation model of care as well as future expansion to accommodate additional demand and bed requirements. Requirements include a gymnasium, outdoor exercise facility, dining and activity areas and facilities which support the model of care.

Expansion of the outpatient and ambulatory treatment area to accommodate the expected growth in outpatient services as well as the types of clinics to be provided (e.g., multidisciplinary clinics, rapid review clinics) and ambulatory treatments. This would include expansion of the Medical Day Treatment Unit as well as clinic space, capacity for minor non-inpatient procedures and treatment space for Allied Health Clinics and diabetes education.

Expansion of the cancer centre with increased consultation space and chemotherapy chairs (16 additional chairs will be required by 2022). Consultation space will need to include facilities for Radiation Therapy planning.

Mental Health – an expansion and increase in built capacity in the Acute Older Persons Mental Health Unit by 11 beds
- Increased Psychiatric Emergency Care Centre (PECC) to 6 beds co-located with the ED

Expansion of the Pharmacy area

Additional capacity to accommodate advanced diagnostics including minor interventional radiology procedures (selected Tier A procedures), trans-oesophageal echocardiogram (TOE), stress testing and respiratory investigations

Expansion to Medical Imaging – MRI scanner, additional CT (capable of perfusion scanning and cardiac CT), radiology rooms, screening rooms and ultrasound rooms. Additional space and bed bays for pre-procedure and post-procedure recovery and reporting rooms.

Additional Infrastructure
As part of any service expansion or development there are additional capital requirements to accommodate additional staff, patients and visitors. Many of the following areas are currently inadequate and require expansion to accommodate current demand and will be essential to accommodate any additional demand. They include:

- Adequate ancillary accommodation for staff supporting inpatient services
- Available onsite car parking is inadequate to meet current demand by patients, visitors and staff. Additional car parking is required to address the current shortfall and to expand car parking capacity to accommodate the expected increase in patients, visitors and staff.

Space requirements will need to be reviewed with allowance made for expected additional demand for the following services which will be impacted by any further growth in activity or services including capital expansion:

- Pathology Services
- Sterilising Services Department
- Health Information Services (including Medical Records)
- Clinical Technology Services (including Biomedical Engineering)
- Patient transport and fleet services with secure parking to accommodate increases in community based services and mobile workforce
- Storage – sterile stores and other consumables, and receiving dock
- Food Services
- Environmental services - laundry, cleaning, engineering, plant and waste services
Strategic Directions

- Staff education facilities.

Health and Wellbeing Precinct
In parallel with the redevelopment of Gosford Hospital a Health and Wellbeing Precinct (HWP) has been proposed to create a new front door for the hospital and opening the way for future expansion to follow across Holden Street and to the east. The HWP will establish a network hub which integrates healthcare, research and innovation, education and operational services with a strong emphasis on promoting community wellbeing.

A core component of the HWP is a new entry hub and pedestrian plaza for the Gosford health campus. A combined public and private vehicle drop-off and car park entry will provide a single, visible and identifiable entrance for the hospital precinct. The plaza level will provide a covered, accessible walkway from the HWP up to the main hospital entrance. The closure of Holden Street to public vehicles will allow the existing hospital precinct to be properly integrated with the HWP.

A multi-storey car park with approximately 800 car spaces over 6 levels is proposed to deal with current and future demand, while two new buildings, 5 and 4 storeys respectively, are proposed for health-related use and government administration.

One of the buildings (Building A) will be developed as the Central Coast Medical School and Research Institute (CCMSRI) with funding contributions by the Australian Government, NSW Government and University of Newcastle (UoN).

Central Coast Local Health District (CCLHD) has identified an opportunity to develop a second building (Building B) with the primary use as the Gosford Community Health Centre. The balance of the floor space in Building B will be mixed use including office spaces for designated CCLHD functional units, retail and use by non-government tenants who can demonstrate a health-facing agenda.

The Gosford Community Health Centre is expected to achieve service benefits through consolidation, co-location and enhancement to provide an integrated network of community health services to meet the needs of the local catchment population. It will also serve to support and promote research undertaken by the Institute particularly in the area of integrated care.

Central Coast Medical School and Research Institute (CCMSRI)
CCLHD recognises that education, training and research are the pillars which will enable high quality and efficient health service delivery while providing evidence for continuous improvement.

As partners, the District and the University of Newcastle (UoN) propose to develop new health education and research programs and facilities.

The development of the new CCMSRI facility (the Facility) within the HWP on the Gosford campus will provide:

- A Central Coast Medical School as a branch of the UoN’s Medical School with medical students studying a new five-year medical doctor degree tailored to the needs of the Central Coast. The first intake of new medical students is anticipated in 2020. Additional health related courses will be progressively introduced including courses for nursing, allied health and other health disciplines. The aim is to build the future medical and health workforce with the CCLHD.

- A Central Coast Research Institute (CCRI) which will focus on integrated care across primary care and acute hospital care and engagement with non-government organisations (NGOs) and the aged care sector. These new facilities will also be a catalyst for enhanced development and evaluation of highly integrated models of care and provide new opportunities for the whole region. CCLHD has an existing research plan (Central Coast Local Health District Research Plan 2017-2021) which will work in harmony with the CCRI once established.

- Co-located CCLHD associated activities that will serve to promote the CCMS and CCRI agendas in a complimentary and strategically orchestrated way. These services include CCLHD Education & Training, Research Governance, Integrated Care, Health Promotion, and Public Health.

Additional Capital Requirements
There are a number of additional capital requirements for CCLHD which will need to be considered within the life of this Plan and for which a source of funding will need to be identified, these include:
Major Refurbishment of inpatient units, Gosford Hospital
This is identified as the second priority in the ASP and is required to create the additional capacity to accommodate the projected acute inpatient bed requirements to 2027 as well as accommodation for other services. The scope of works will include refurbishment of three inpatient units built in the 1970s and three inpatient units built in the 1990s. These units require refurbishment to bring them to the current inpatient accommodation standards.

Diabetes and Metabolism Centre
To accommodate the diabetes service and the proposed obesity management service. This would be the hub for specialist diabetes services for the LHD. The Centre would include clinical space for specialist consultation, multidisciplinary clinics, rapid review clinics, podiatry services and possibly exercise facilities. Facilities would support group education for patients and staff (including sessions for staff external to the LHD) as well as technology to support remote patient consultation with GPs or to the patient’s home or RACF.

Satellite Dialysis – Gosford
The current satellite dialysis unit located onsite at Gosford Hospital will require replacement due to the age of building and its capacity to meet current Health Facility Guideline standards. As a satellite renal dialysis service it does not need to be located on a hospital site so could be moved offsite if a suitable alternative is identified. Ideally the service should be located in the Gosford area so that it is centrally located for patient access for residents of the Gosford area.

Oral Health Services – Gosford & Wyong
Refurbishment and expansion of the oral health clinics is required at both Gosford and Wyong Hospitals to meet sterilisation standards, replace ageing infrastructure in particular dental chairs and accommodate future demand for services.

Education and Training Facilities
The staff education and training facilities were relocated offsite to accommodate the redevelopment on Gosford Hospital site. There is currently no provision to relocate these services and develop the supporting infrastructure back on the Gosford Hospital campus. Relocation back on the campus would facilitate staff access to the education and training services.

Community Health
Much of the existing infrastructure is operating at capacity; is old and requires repair and refurbishment; is poorly located (in relation to population location and future growth); and the design do not support contemporary practice. Decisions around infrastructure requirements will be informed by a community health facility infrastructure plan which will detail infrastructure requirements including new infrastructure; refurbishment and repair options; timeframes and strategies for capital acquisition.

Replacement or major refurbishment of inpatient unit at Woy Woy Hospital
Woy Woy Hospital will continue to provide sub-acute inpatient and outpatient services as well as a range of Community Health Services. The existing inpatient unit was built in 1971, and while it has been refurbished over the years, now requires significant refurbishment to maintain its suitability for inpatient accommodation or replacement, due to the age of the building. The scope would include the 23 bed inpatient unit, associated office and meeting space, as well as the hospital main reception and waiting room. Further additional capital requirements may be identified as an outcome of the proposed review of sub-acute services.

Relocation of services in leased premises
There are currently a number of services located in leased premises within the Gosford area these include: Health Promotion; Public Health; Integrated Care; Corporate Services; Child and Family services, Young Peoples Mental Health (Gateway); and services located at Citigate. Consideration will be given to whether relocation into LHD owned facilities is feasible and the most appropriate location for each service.
3.3 Service and Facility Profiles

Gosford Hospital

Gosford Hospital is a principal referral hospital providing a comprehensive range of secondary level services, including maternity, paediatrics, mental health and an increasing range of complex and tertiary level services including trauma, interventional cardiology and cancer. By 2022 there is a vision that the following services will be available:

For Emergency Department services:
As a level 5 ED Gosford Hospital will provide a full range of services and models of care. The expanded ED will accommodate:
- Quick Triage and Patient Registration and a patient streaming zone
- Early treatment zone close to triage, the acute treatment areas and the waiting room
- Additional treatment spaces including additional resuscitation rooms to meet the increasing numbers of presentations
- Fast Track area
- Secure paediatric treatment area
- PECC (6 beds) and ED SSU (16 beds).

For ambulatory & outpatient services:
An expanded ambulatory and outpatient precinct to support the increased provision of care and treatments in an ambulatory setting. The precinct will include facilities for rapid review clinics, specialist and multidisciplinary clinics, ambulatory treatments and minor procedures.

For critically ill patients:
Gosford Hospital will continue to provide level 5 ICU services and support Wyong Hospital. Capacity will be increased to accommodate up to 24 beds. Located in proximity to the ICU will be a 9 bed Close Observation Unit for the management of patients requiring close observation and higher intensity nursing care.

For medical patients:
Gosford Hospital as the principal referral hospital provides a comprehensive range of sub-specialty medical services and an increasing range of tertiary services.

An Acute Medicine Unit (AMU) for rapid assessment, diagnosis and commencement of treatment for acute medical patients with a length of stay up to 48 hours. Patient access via direct referral or via ED.

Chest Pain Assessment service for prompt assessment and decision making for patients presenting to ED.

Two co-located cardiac interventional suites that will accommodate 24/7 primary percutaneous coronary intervention (PPCI) and a range of other interventional procedures including pacemaker insertion, implantable devices and electrophysiology studies and procedures.

Better integration of acute and community health services to improve the management of patients with chronic disease and patients with ongoing care needs.

Expanded endocrinology service including a metabolic bone service. Expanded diabetes services both inpatient and outpatient including development of a Diabetes and Metabolic Centre to accommodate diabetes and obesity management services.

Development of an obesity management service including a multidisciplinary weight management program and consideration of options for bariatric surgery.

Expansion of ambulatory services and outpatient clinics for gastroenterology, inflammatory bowel disease, and chronic liver disease.

Provision of acute stroke service including 24/7 thrombolysis; and development of outpatient/ambulatory clinics for neurovascular, neuroimmunology, neuromuscular disorders and epilepsy.

Further development of tertiary respiratory services including a pleural service for patient requiring intercostal catheters; expansion of non-invasive ventilation; and non-ventilation sleep clinic. An increased range of bronchoscopic procedures.

There will be further development of models of care for an expanded acute geriatric inpatient service including shared care models.
For cancer patients:
Additional chemotherapy and ambulatory care capacity and 3 commissioned linear accelerators (LINACs).

For surgical patients:
Gosford Hospital will provide an increasing range of tertiary or complex surgical services for all residents of CCLHD in addition to meeting local secondary level needs.
The peri-operative suite will have 2 additional operating theatres (10 in total) with one equipped for endovascular procedures; 2 procedure rooms and additional recovery space.
An endoscopy suite with 2 labs (one negative pressure lab) with pre-procedure and post procedure recovery areas.

Comprehensive models of care will include:
- Integrated Booking Unit
- High Volume Short Stay Surgical Centre
- Surgical Acute Rapid Assessment/Acute Surgical units (SARA/ASU)
- Expanded inpatient units focusing on complex or longer length of stay caseloads.
Additional or expanded surgical specialty services will include (non-bypass) thoracic surgery, ENT/Head and Neck and Plastic and Reconstructive Surgery.
There will be an expanded pain management service encompassing both an acute pain service and the Central Coast Integrated Pain Service (CCIPS) for management of chronic pain.

For women & babies:
There will be a Women’s Health Precinct accommodating ambulatory services and clinics for early pregnancy assessment service; antenatal and post natal care; antenatal day assessment unit; high risk pregnancies; gynaecology; and women’s health services.
Maintenance of the level 5 maternity service to support women and babies with complex needs during pregnancy and at birth.

Birth suite to accommodate 10 multifunctional birthing rooms designed to accommodate all levels and models of delivery. A 36 bed maternity ward.
An expanded Special Care Nursery with expanded capacity to accommodate up to 20 cots.

For children & families:
A paediatric assessment and review clinic (PARC) incorporating acute review clinics, outpatient clinics, shared care clinics, short stay and home based care.
Inpatient paediatric services will continue to be concentrated on the Gosford Hospital site where paediatrician expertise is available 24/7 to support sub-specialist surgeons in the management of children in the post-operative period.

For mental health patients:
A 6 bed PECC will be co-located with the ED.
There will be more community based services improving access to assessment, treatment and early intervention of mental health issues.
Access to specialist Child and Adolescent Mental Health Service (CAMHS) inpatient beds will continue to be through the regional service located at Hornsby Hospital. Adolescents acute mental health presentations requiring short stay (<72 hours) management will continue to be managed locally.

For sub-acute patients:
There will be a rehabilitation unit onsite with 30 beds equipped with a gymnasium, and outdoor exercise facility.

For palliative care patients:
There will be enhanced inpatient consultation service with capacity to provide extended hours of coverage including on-call; direct care admissions; outpatient clinics and ambulatory services for symptom management, advanced care planning, and access to minor procedures and treatment on an ambulatory basis.

For clinical support services:
Additional medical imaging and ultrasonography facilities and services and an additional MRI.
Expansion of the interventional radiology service with an increased range of Tier B procedures available and extended hours of coverage.
Expanded respiratory and sleep investigation facilities and other diagnostic services.

On-site nuclear medicine services encompassing diagnostic and therapeutic capabilities, a two camera system (gamma camera and SPECT-CT), hot laboratory, and facilities to accommodate a PET scanner in the future.
Wyong Hospital

Wyong Hospital will function as a major metropolitan hospital with expansion and enhancement of inpatient services and ambulatory capacity to meet the clinical demands and projected growth of the local population, and to support new models of care. Most ‘core’ clinical services will be provided at role delineation level 4. Patients requiring more complex and tertiary level services will be transferred to Gosford Hospital or the appropriate tertiary care facility. By 2022 it is envisaged that there will be progress toward developing the following services a number of which will be dependent on progress of the proposed redevelopment:

For Emergency Department services:
As a Level 4 ED there will be a full range of ED services and models of care. The ED will be expanded to accommodate:
- Quick Triage and Patient Registration and a patient streaming zone
- Early treatment zone in proximity to triage, the acute treatment areas and the waiting room
- Additional treatment spaces including an additional resuscitation room to meet the increasing numbers of presentations
- Fast Track/Urgent care area
- Secure paediatric treatment area
- PECC (6 beds) and EDSSU.

For ambulatory & outpatient services:
An expanded ambulatory and outpatient precinct will support the increased provision of care and treatments in an ambulatory setting as well as additional demand for outpatient facilities which will be generated due to the increased volume and range of services which will be provided.

The precinct will include facilities for rapid review clinics, specialist and multidisciplinary clinics, allied health clinics, ambulatory treatments and minor procedures.

For critically ill patients:
The ICU will support the expanded acute medical and surgical services with continuing development of its capabilities and increasing capacity to 12 beds.

Located in proximity to the ICU will be a 9 bed Close Observation Unit for the management of patients requiring close observation and higher intensity nursing care.

For medical patients:
Sub-specialty medical services will be available on-site including: Cardiology, Neurology (acute stroke unit), Respiratory, Diabetes and Endocrinology, and Gastroenterology.

An Acute Medicine Unit (AMU) for rapid assessment, diagnosis and commencement of treatment for acute medical patients with a length of stay up to 48 hours. Patient access via direct referral or via ED.

Chest Pain Assessment Service for prompt assessment and decision making for patients presenting to ED.

Cardiology and respiratory services will be supported by onsite cardiac stress testing and an expanded respiratory investigation service. There will be an expansion in the range and number of sub-specialty outpatient clinics provided.

Better integration of acute and community health services to improve the management of patients with chronic disease and patients with ongoing care needs.

There will be further development of models of care for an expanded acute geriatric inpatient service including shared care models and orthopaedic geriatric services.

For cancer patients:
Additional chemotherapy and ambulatory care capacity will be provided in an expanded cancer care centre along with inpatient consultation and a range of outpatient medical and radiation oncology services.

For surgical patients:
A broad range of unplanned/emergency and planned/elective surgery will be provided to meet most non-tertiary surgical demand for the catchment. This will include expanded surgical services both in terms of volume and complexity, supported by increased anaesthetic and sub-specialty surgical coverage. After-hours emergency endoscopies will be undertaken.

There will be additional operating theatres (6 theatres in total), endoscopy and procedure rooms and additional recovery space.
Comprehensive models of care will include:

- Integrated Booking Unit
- High Volume Short Stay Surgical Centre
- Surgical Acute Rapid Assessment/Acute Surgical units (SARA/ASU)
- Expanded inpatient units focusing on complex or longer length of stay caseloads.

High volume short stay services will encompass ophthalmology, gynaecology, urology and endoscopy.

Additional or expanded surgical specialties will include orthopaedic trauma, gastrointestinal surgery, urology, endoscopy and general surgery.

Paediatric Surgery will operate under a short stay model and selected minor paediatric surgical procedures (unplanned and planned) will be provided for non-complex cases.

There will be an expanded pain management service encompassing both an acute pain service and the CC Integrated Pain Service (CCIPS) for management of chronic pain.

**For women & babies:**
A Level 4 maternity service which is capable of managing low to moderate risk pregnancies and deliveries including emergency caesarean deliveries.

This will be supported by a Level 3 nursery.

There will be additional antenatal and postnatal clinics as well as clinics for high risk pregnancies and gestational diabetes.

There will be an expanded gynaecology service and increased volume of gynaecology procedures undertaken.

**For children & families:**
The Wyong Paediatric Ambulatory Care Unit will be expanded and further developed to accommodate short stay management (less than 48 hours) of some medical conditions and selected unplanned and planned surgical procedures.

**For mental health patients:**
A 6 bed PECC co-located with the ED

There will be more community based services improving access to assessment, treatment and early intervention of mental health issues.

The existing acute inpatient unit consisting of 35 adult beds will remain unchanged.

Access to specialist Child and Adolescent Mental Health Service (CAMHS) inpatient beds will continue to be through the regional service located at Hornsby Hospital. Adolescents acute mental health presentations requiring short stay (<72 hours) management will continue to be managed locally.

The acute aged mental health inpatient unit (Miri Miri) will increase capacity by 11 Specialist Mental Health Services for Older People (SMHSOP) beds.

**For drug & alcohol patients:**
The community detoxification team will be re-established to complement the inpatient detoxification unit and enable detoxification in inpatient or community settings.

There will be improved access to acute inpatient beds for drug and alcohol patients who are clinically unwell and require acute inpatient management.

**For sub-acute or aged care patients:**
There will be onsite inpatient general and aged care rehabilitation with onsite access to a gymnasium, hydrotherapy pool and outdoor exercise area.

An increased number of psycho-geriatricians to assess and either manage or provide consultancy service for behaviourally challenged patients in inpatient and outpatient/community settings.

**For palliative care patients:**
There will be enhanced inpatient consultation service with capacity to provide extended hours of coverage including on-call; direct care admissions; outpatient clinics and ambulatory services for symptom management, advanced care planning, and access to minor procedures and treatment on an ambulatory basis.

**For clinical support services:**
Expanded medical imaging and ultrasonography facilities and services including an MRI and additional CT scanner (with cardiac and perfusion scanning capabilities).

Onsite access to some advanced diagnostics including trans-oesophageal echo (TOE), respiratory investigation and stress testing (both inpatient and outpatient).

Increased provision of selected Tier A interventional radiological procedures.

Expanded pre-procedure preparation and post-procedure recovery areas.

Expanded pharmacy area and electronic medications management system.
Community Health

Community health services will grow as strategies to move care from acute inpatient to community settings increase.

Primary and community health services will provide crucial support to the continuum of care for patients of CCLHD. This will be undertaken through:

- Active in-reach into inpatient settings to identify patients suitable for earlier discharge and follow up in community settings
- Effective communication and strong links with General Practice to support hospital avoidance and management of patients in the community
- Integration between the wide range of Community health services to enable shared care and efficient referral to meet patient needs.

The infrastructure required to support the future provision of community health services will be informed by the outcomes of community health service planning which is to be undertaken. This planning will also inform:

- Service models and configuration of services e.g., hub and spoke model
- Additional services which could be provided in a community setting e.g., ambulatory rehabilitation
- Impact and role of mobile technologies on service delivery and facility requirements
- Future role of existing community health centres (CHCs) with reference to building age, suitability for purpose and geographic location
- The type of infrastructure which should be developed to meet demand, maximise utilisation including flexible design to provide services for a diverse range of patients including child and family, antenatal and postnatal clinics, mental health, allied health, ongoing and complex care services, aged care, rehabilitation, community nursing, youth health, drug and alcohol and needle syringe program.

Slow stream rehabilitation/maintenance unit providing multidisciplinary maintenance or restorative care for patients requiring a longer hospital stay.

There is a 20 bed Transitional Care Unit onsite. Patients may remain in transitional care for a maximum of 12 weeks, under the medical care of a general practitioner.

The future role, service configuration and infrastructure requirements will be informed by more detailed planning to be undertaken for sub-acute services across the LHD.

Long Jetty Health Facility

Limited sub-acute inpatient services will continue to be provided through 12 sub-acute beds for Maintenance Care (slow stream, step-down or restorative care) for patients awaiting placement, guardianship and patients who are non-weight bearing and awaiting fractures to heal prior to rehabilitation and also non-specialist palliative care (end of life) beds.

A satellite renal dialysis unit with home dialysis training facilities is located on site with a built capacity of 20 chairs 12 of which are currently commissioned with others to be commissioned as demand requires.

A range of community and outpatient services are provided on site and it is proposed that a new building will absorb many of the existing services currently located in various small cottages on site.

A 12 bed Transitional Care Unit located onsite with patients under the care of a GP.

The future role, service configuration and infrastructure requirements will be informed by more detailed planning to be undertaken for sub-acute services across the LHD.

Woy Woy Hospital

Woy Woy Hospital will continue to provide sub-acute inpatient and outpatient services and a range of community health services:

- 30 bed sub-acute unit providing general and aged care rehabilitation and non-specialist palliative (end of life) care.
### Table 1: Proposed future clinical specialty service profile at Gosford and Wyong Hospitals

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Gosford</th>
<th>Wyong</th>
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</thead>
<tbody>
<tr>
<td><strong>Emergency</strong></td>
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<td>Operating Theatres</td>
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<td>Procedure Rooms</td>
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<td>Endoscopy Rooms</td>
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<tr>
<td>Complex Surgery</td>
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<tr>
<td><strong>Sub-Specialty Surgical Services</strong></td>
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<td>Pain Management Services</td>
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<tr>
<td>Orthopaedics</td>
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<td>Chest Pain Assessment Service</td>
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<td>Endocrinology &amp; Diabetes</td>
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<td>Paediatric Short Stay Unit</td>
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<td>Paediatric Surgery</td>
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<td>Adult Acute Inpatient Unit</td>
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<td>PECC</td>
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<td>SMHSOP - Acute</td>
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<td><strong>Other clinical services</strong></td>
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<td>Palliative Care</td>
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<td>Drug &amp; Alcohol Inpatient Detoxification</td>
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<tr>
<td>Ambulatory / Outpatient Services</td>
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<td>Interventional Radiology</td>
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<td>PET</td>
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<td>New service</td>
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<tr>
<td>No service on-site</td>
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</table>

↑ Future increase in service proposed
# Development of service to be considered in future
4 Population and Health Status Profile

4.1 A Snapshot of CCLHD

Central Coast Local Health District (CCLHD) is one of 15 geographic Local Health Districts in NSW (Figure 1). It is located to the north of metropolitan Sydney and covers an area of approximately 1,680 square kilometres. The area extends from the Hawkesbury River to the southern shoreline of Lake Macquarie and from the eastern NSW coastline to the Great Northern Road in the west, and encompasses what were the local government areas of Gosford and Wyong. The LHD includes extensive areas of national parks and state forests in the west and burgeoning new residential areas in the east.

In 2016 the local government areas of Gosford and Wyong were amalgamated into a single Central Coast Council. This Plan will continue to present information separately for Gosford and Wyong as the demographic and activity datasets are structured around the old local government areas.

Figure 1: Central Coast Local Health District map

On average CCLHD residents have

- low socioeconomic status (with the exception of Gosford East) with low levels of educational attainment, in low paid employment and relatively high percentage receiving rental assistance
- higher rates of health risk factors with low levels of physical activity, lower levels of fruit and vegetable consumption (among adults), higher rates of obesity and smoking than the NSW average
- slightly higher hospitalisation rates for potentially preventable conditions, alcohol-related admissions and chronic obstructive pulmonary disease (COPD)
- higher rates of melanoma than the Australian rates and higher rates of lung and colorectal cancers in the Wyong area
- lower life expectancy for males and females than the NSW average
- higher total death rates, suicide rates and potentially avoidable deaths for people aged less than 75 years
- low rates private health insurance
- difficulty accessing public health services due to poor public and private transport options
- poor access to general practitioners in Wyong area.
4.2 Population Profile

In 2016 the estimated resident population (ERP) of Central Coast was 339,550 persons, split across the two local government areas (LGA) of Gosford with 174,400 persons and Wyong with 165,150 persons (Figure 2). Significant numbers of people also travel to the Central Coast for holidays particularly during the summer months.

Figure 2: Central Coast projected population by LGA and age group 2016-2036

Over the next 20 years the population of the Central Coast is projected to grow by 22% to 415,060, an increase of 75,510 persons. Growth will be stronger in Wyong (30%) than in Gosford (15%), and it is likely that Wyong will overtake Gosford in terms of total population by 2026.

The greatest numerical growth is projected to occur in the Wyong LGA for people in the fertile years of 15 to 44 and in the older years of 70 to 84. Between 2026 and 2036 the population in the oldest age group of 85 and over will increase by an estimated 57%. The proportion of the population aged 70 and over will increase from 14.5% in 2016 to 21% by 2036. The lowest growth will be in Gosford for people aged 45 to 69.

Aboriginal and Torres Strait Islander Population

The Aboriginal and Torres Strait Islander population of the Central Coast was estimated in the 2011 Census at 10,928 (3.4% of CCLHD population compared to an average of 2.9% of NSW population), with 60% of this population residing in Wyong LGA. This represented an increase of 23.5% over the 2006 Census population of 8,486; a further increase of 14.6% is noted between 2011 and 2016 with the current population estimated at 12,524 persons (Table 2). Part of this increase is likely to have resulted from improved data capture and an increase in self-reporting by Indigenous residents.

The Aboriginal and Torres Strait Islander population of the Central Coast is much younger than the total CCLHD population, with a lower proportion in the older age groups (Figure 3 and Figure 4). In NSW the Aboriginal population has a life expectancy 9.3 years below that of the non-Aboriginal population for males, and 8.5 years below for females.

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Table 2: Central Coast population 2006 – 2016: Aboriginal and non-Aboriginal persons

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</thead>
<tbody>
<tr>
<td>Aboriginal</td>
<td>8,846</td>
<td>10,928</td>
<td>11,227</td>
<td>11,528</td>
<td>11,850</td>
<td>12,182</td>
<td>12,524</td>
<td>23.5%</td>
<td>14.6%</td>
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<tr>
<td>Non-Aboriginal</td>
<td>294,205</td>
<td>311,729</td>
<td>314,191</td>
<td>316,437</td>
<td>318,953</td>
<td>320,937</td>
<td>327,026</td>
<td>6.0%</td>
<td>4.9%</td>
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<tr>
<td>All CCLHD</td>
<td>303,051</td>
<td>322,657</td>
<td>325,418</td>
<td>327,965</td>
<td>330,803</td>
<td>333,119</td>
<td>339,550</td>
<td>6.5%</td>
<td>5.2%</td>
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</tbody>
</table>


* Census data is available for 2006 and 2011; 2012-2016 are population estimates only.

Figure 3: Central Coast Aboriginal population: age distribution and growth 2006 – 2016

Central Coast Aboriginal Population Change by Year and Age Group


Figure 4: Central Coast population: age pyramid by Aboriginality 2016

The rate of growth in the Aboriginal population between 2006 and 2016 was highest for the ages 64 to 74 (58.0% growth) and ages 50 to 64 (82.7% growth), while the numerical increase was greatest for ages 15 to 34 (an increase of 3,141 persons). Table 2 shows the change in the Aboriginal population by age between the 2006 and 2011 Censuses and to 2015.

### Other Cultural Backgrounds

Approximately 20% of the population were born overseas and about 5.3% were born in non-English speaking countries (NSW 18.6%). Only 4.7% of the population speak a language other than English at home, and approximately 0.4% report poor proficiency in English.

The major non-English languages spoken were Italian (1,213), Spanish (1,118), German (860), Tagalog (773) and Cantonese (746).

### 4.3 Socioeconomic Profile

Compared with NSW as a whole, Central Coast residents:
- are older
- are slightly more likely to live in lone person households or be one parent families with children
- are much less likely to speak a language other than English at home
- are less likely to have post school qualifications.

Figure 5 identifies a number of demographic indicators from the Australian Bureau of Statistics (ABS) 2011 Census for the Central Coast with NSW as a comparison.

**Figure 5: Key Demographic Indicators Central Coast vs NSW, 2011 Census**

Source: Australian Bureau of Statistics, 2011 Census of Population and Housing
On most socioeconomic indicators the Central Coast shows higher levels of need than NSW, and Wyong shows more disadvantage than Gosford. Wyong has a higher proportion of children, Aboriginal residents and single parent families than Gosford, with lower rates of post-school qualifications and fewer homes with broadband internet.

Across the demographic profile there are quite marked differences between Gosford and Wyong LGAs:

- **CCLHD** has a higher proportion of the population who are **unemployed** (6.7% vs. NSW 5.7%) and a lower proportion who participate in the labour force (59.8% vs. NSW 63.6%) (at September 2014).
- **Jobless families** with children aged less than 15 years make up 15.9% (12.7% in Gosford LGA 19.2% in Wyong LGA). These are both higher than the NSW average of 21.2% and 14.1%.
- For young people aged 15 to 19 years, 77.3% were **learning or earning** in 2011 (79.8% Gosford LGA, 74.8% Wyong LGA) compared to 81.4% for NSW.
- The prevalence of **sole person households** increases with age peaking in the 85 years and older age group. In 2014 the NSW Department of Planning and Environment estimated the number and percentage of sole person households. The percentage of sole person households in CCLHD was estimated to be 26.9% (27.6% in Gosford LGA, 26.1% in Wyong LGA) this is higher than the estimate for NSW of 24.1%. It is projected that this will increase in CCLHD by 35.5% by 2031.
- In 2014, 30.9% of households in Wyong LGA and 21.3% in Gosford LGA were receiving **rental assistance** from the Australian Government. This is higher than the NSW rate of 18.9%.
- **Public housing** rates are lower in the CCLHD (3.2%) than across NSW (4.4%). This low figure may reflect the availability of public housing on the Central Coast.
- Approximately 20% of the population reports having a disability with about 5.8% reporting a profound or severe disability.
- CCLHD has relatively low rates of **private health insurance**. By September 2016 the proportion of the population in NSW and the ACT with basic cover was 47.7%. Private health insurance rates on the Central Coast in 2001 (the latest year’s data available) were lower than the NSW average at 45.6%, but distributed as 51.9% in Gosford and 38.2% in the Wyong LGA.
- There were 389 **general practitioners** across CCLHD (212 in Gosford and 177 in Wyong), a rate of 114.6 GPs/100,000 population which is comparable to the NSW rate of 113/100,000 population. There is variation in the number of GPs per 100,000 residents between Gosford (121.6) and Wyong LGAs (107.2) with Wyong LGA below the NSW rate.

### Social Indicators of Health

The relationship between social disadvantage and higher demand for health services is widely recognised. Socioeconomic conditions can be compared using the [Socio-Economic Index for Areas (SEIFA)](https://www.abs.gov.au/), developed by the Australian Bureau of Statistics.

The SEIFA is comprised of a suite of four summary measures created from census information:

- **Index of Relative Socio-economic Advantage and Disadvantage (IRSAD)**
- **Index of Relative Socio-economic Disadvantage (IRSD)**
- **Index of Economic Resources (IER)**
- **Index of Education and Occupation (IEO)**

Each index measures a different weighting of socioeconomic variables and is designed for a different purpose. Detailed information is available on the [ABS website](https://www.abs.gov.au/).

The SEIFA quantifies the relative level of advantage/disadvantage within a specific area of Australia, where the average score is 1000. Using the Index of Socio-Economic Disadvantage (IRSD) scores for 2011 Central Coast is relatively disadvantaged (score 980).

Socioeconomic disadvantage is unevenly distributed on the Central Coast with pockets that may be classified as advantaged; West Gosford, Wyong South and West statistical local areas (SLAs) are comparatively disadvantaged with Wyong North-East SLA the most disadvantaged (Table 3). Disadvantaged areas are noted around Ettalong, Wyong Central and towards Lake Macquarie, with rural disadvantage around Spencer on the Hawkesbury River.
4.4 Health Status Profile

Life Expectancy

Life expectancy has been growing but not as much as NSW as a whole. Life expectancy at birth was at the State average for the Central Coast in 1992, but by 2012 has fallen below the average for NSW for both males and females (Figure 6). Over the twenty year period male life expectancy on the Central Coast has increased by 5.5 years (cf. NSW 6.5 years) and female by 3.7 years (cf. NSW 4.6 years).

Figure 6: Life expectancy at birth – Central Coast vs. NSW

Health Related Behaviours

Health-related behaviours play a role in the development of many health conditions that account for a large amount of morbidity and mortality, including cardiovascular and respiratory disease, diabetes and some cancers. Smoking, alcohol consumption, obesity and physical inactivity have all been identified as having negative effects on overall health status.
On most indicators the Central Coast has poorer health than NSW as a whole (Figure 7). The greatest disparities can be seen in relation to physical activity, obesity and smoking, with Central Coast residents showing higher health risk levels. Of interest is the contrast between levels of overweight (almost identical with NSW) and obesity (where the Central Coast levels are over 60% higher than total NSW rates). The only areas where Central Coast rates are slightly less risky than State levels are for high psychological distress and diabetes.

CCLHD has the highest tobacco smoking rate of any local health district. The 2015 estimated level of 21.4% was an increase from 16.2% in 2014. Among men 17.5% smoke daily, while 14.1% of women are daily smokers. Smoking rates are higher in Wyong than in Gosford. Across NSW 9.3% of women smoked during pregnancy in 2014. On the Central Coast the rate was 12.7%, and for Aboriginal women on the Central Coast it was 37.8% (which was still below the State average for Aboriginal women).³

Figure 7: Health related behaviours: selected indicators – Central Coast vs. NSW

Health Care Utilisation Indicators

Hospitalisation rates were slightly higher on the Central Coast than NSW for potentially preventable conditions, alcohol-related admissions and chronic obstructive pulmonary disease (COPD), but not for circulatory diseases. The total death rate and the death rate for potentially avoidable deaths for patients aged less than 75 was also higher on the Central Coast (Figure 8).

When considered by LGA, Wyong had higher rates than Gosford for all variables except alcohol-attributable hospitalisations, and higher rates than NSW for all variables.

Central Coast Aboriginal people are admitted to hospital at a higher rate than Central Coast non-Aboriginal residents, but at a lower rate than Aboriginal people for the whole of NSW (Table 4). On the Central Coast the highest rate was for renal dialysis, followed by digestive system diseases and injuries and poisoning.

³ NSW Population Health Survey, 2014.
Figure 8: Health status and utilisation rates – Central Coast vs. NSW

Table 4: Hospitalisation rates per 100 population by cause and Aboriginality 2014/15

<table>
<thead>
<tr>
<th>Rate/100 population</th>
<th>Cause of hospitalisation</th>
<th>CCLHD</th>
<th>NSW</th>
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<tbody>
<tr>
<td></td>
<td>Aboriginal</td>
<td>Non-Aboriginal</td>
<td>Aboriginal</td>
</tr>
<tr>
<td>Dialysis</td>
<td>10.9</td>
<td>3.9</td>
<td>20.3</td>
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<tr>
<td>Digestive system diseases</td>
<td>3.7</td>
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<td>3.8</td>
</tr>
<tr>
<td>Injury &amp; poisoning</td>
<td>3.6</td>
<td>2.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>3.3</td>
<td>1.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>3.3</td>
<td>1.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Circulatory diseases</td>
<td>2.3</td>
<td>1.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Endocrine diseases</td>
<td>0.7</td>
<td>0.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>48.4</td>
<td>36.2</td>
<td>59.7</td>
</tr>
</tbody>
</table>


Note: ratios are not age adjusted.

Cancer

The Australian Cancer Database is maintained by the Australian Institute for Health and Welfare (AIHW) and provides information on cancer incidence and mortality. Figure 9 shows how Gosford and Wyong compare with Australia as a whole for age-adjusted cancer incidence and mortality. The unit of measurement is the “rate ratio” which describes how cancer incidence or mortality in Gosford and Wyong compare with the rates across the nation. A rate of 1.00 means that the measure is the same as that for Australia when age distribution is taken into account, while a rate of 1.10 means that the local area has a 10% higher incidence or mortality rate for that cancer than the national average.

For cancer incidence (number of new cases per year) both Gosford and Wyong had slightly lower rates of prostate cancer than the national average, while rates for melanoma were 22% higher in Gosford and 31% higher in Wyong. Wyong also had relatively high rates for cancer of the lung and colorectal cancer. For mortality Wyong had very high relative rates for melanoma (45% higher than the national rate) and quite high lung cancer rates. All cancer rates are marginally higher than the national average for Gosford, but Wyong residents experienced an 11% higher incidence and 19% higher mortality than the national average.
### Dementia

The incidence of dementia is estimated to double every five years beyond the age of 60. Estimates of future dementia prevalence on the Central Coast were determined by applying age-adjusted prevalence rates from the Australian Institute of Health and Welfare to population projections. Figure 10 shows the impact to 2036.

The number of residents with dementia is projected to grow at an increased rate over time as the population ages, from 6,678 Central Coast residents in 2016 to 11,694 residents by 2036. (75%) These projections assume that age-related incidence will continue at current rates. Generational change in exposure to risk factors may, however, have a significant impact on these rates, potentially moderating future incidence.

**Figure 10: Dementia projections by age group 2011-2036**
Disability

Levels of disability and care for someone with a disability were higher on the Central Coast than for NSW as a total for all categories apart from persons aged 65 and over with a profound or severe disability (Figure 11). Values for Wyong exceeded Gosford in all categories. Of particular note is the higher proportion (3.7%) in Wyong of younger persons with a disability than for NSW (2.6%).

The number of Central Coast residents with a profound or severe disability has risen from 14,770 in the 2006 Census (4.8% of the population) to 17,808 (5.8% of the population) in the 2011 Census.

Figure 11: Persons with a disability as a proportion of total population

<table>
<thead>
<tr>
<th></th>
<th>Gosford</th>
<th>Wyong</th>
<th>Central Coast</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide assistance to person with disability</td>
<td>11.8</td>
<td>12.3</td>
<td>12.1</td>
<td>11.4</td>
</tr>
<tr>
<td>Persons with profound or severe disability</td>
<td>5.2</td>
<td>6.4</td>
<td>5.8</td>
<td>4.9</td>
</tr>
<tr>
<td>Persons with profound or severe disability and living in community</td>
<td>4.3</td>
<td>5.4</td>
<td>4.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Persons with profound or severe disability age 0-64</td>
<td>2.6</td>
<td>3.7</td>
<td>3.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Persons with profound or severe disability age 65+</td>
<td>16.2</td>
<td>18.5</td>
<td>17.3</td>
<td>18.3</td>
</tr>
</tbody>
</table>

Source: Public Health Information Development Unit (PHIDU) [http://phidu.torrens.edu.au/] Accessed 02/02/20
## 5 Organisation and Services

### 5.1 LHD structure

#### Board

The Central Coast Local Health District Board is comprised of twelve Board Members who bring a wealth of experience and local knowledge to the management of the CCLHD.

The Health District Board and Chief Executive are responsible for:

- Improving local patient outcomes and responding to issues that arise throughout CCLHD
- Monitoring performance against the measures in the LHD Service Agreement
- Delivering services and performance standards within an agreed budget, based on annual strategic and operating plans
- Ensuring services are provided efficiently and accountably and the production of Annual Reports that are subject to state financial accountability and audit frameworks
- Maintaining effective communication with local and state public health stakeholders.

#### Executive Leadership Team

The Executive Leadership Team comprises:

- **Chief Executive** - overall responsibility of ensuring District services and performance meet the requirements of the annual Service Agreement between the District and NSW Health for the population of the Central Coast
- **Executive Director Clinical Operations** - responsible for the operational management of all clinical services across Gosford, Wyong, Woy Woy hospitals, Long Jetty Health Facility, community based services and mental health services. The role ensures delivery of high quality and safe services within resources that meet the requirements defined in the Service Agreement with NSW Health.
- **Executive Director Medical Services** - provides leadership in the development of clinical services and models of care, and profession specific leadership of the medical workforce. The role also manages the deployment of medical staff, and oversees medical workforce education, medical credentialing and scope of practice.
- **Executive Director Nursing and Midwifery** – provides executive leadership to the nursing and midwifery professions across CCLHD, ensuring that staff provide quality care to patients and community. The role also ensures that workforce planning and effective people management strategies are in place, and that continuous improvement and excellent clinical care is encouraged at all times.
- **Executive Director Clinical Governance** – provides leadership and accountability for the quality of patient care and standards of care delivery
- **Executive Director Finance and Corporate Services** - responsible for managing the financial performance of CCLHD in addition to the corporate functions (such as cleaning, patient transport, security, purchasing and clinical equipment maintenance) that ensure clinicians are able to focus on delivering patient care. The role is also responsible for capital works, maintenance and asset management.
- **Executive Director Workforce and Culture** - provides high level, expert advice to CCLHD on human resources and workforce strategy, services and support. The directorate leads the development and implementation of a range of workforce strategies including workforce planning, culture change, industrial relations, and employee health, wellness and safety.
- **Executive Director Strategy and Innovation** - leads, coordinates and manages the strategic development functions of CCLHD, driving the delivery of key initiatives concerning strategic and operational plans and imperatives by developing innovative ways to deliver high quality patient care, for the best possible value. The role also provides high level advice regarding strategy, innovation, efficiency and effectiveness in areas like planning, performance and casemix, redevelopment, integrated care. The priority programs of Multicultural Health and Disability Inclusion also form part of this Directorate.
- **Executive Director Information, Communications and Technology (ICT)** - leads, plans and manages ICT service delivery at both the Central Coast and Northern Sydney Local Health Districts. This includes implementing the
NSW Health ICT strategy and related priorities, as well as building and maintaining effective strategic relationships across the NSW Health system and ICT industry.

**Divisions and Directorates**

The Executive Director Clinical Operations, supported by Divisional and Clinical Directors, leads the operational management of clinical services across five divisions, oversees the provision of allied health, medical imaging and pharmacy services and undertakes a liaison role with NSW Health Pathology.

Gosford and Wyong Hospitals each have a Director of Nursing and Midwifery and a Director Medical Services/Director Clinical Services (this position is currently being trialled) with responsibility for inpatient, outpatient and ambulatory care, after-hours nurse management, and, together with the District Patient Flow Unit, manage the day to day provision of clinical services.

Health Promotion, Public Health and Aboriginal Health services are provided under the guidance of the Chief Executive.

Executive and support services are managed by the relevant portfolio executive director.

*Figure 12: CCLHD Organisation Chart for Clinical, Support and Executive Functions*
5.2 CCLHD facilities and services

With an annual expenditure budget of $799 million in 2017/18, CCLHD provides health services in:

- two acute hospitals in Gosford and Wyong
- two sub-acute facilities at Woy Woy and Long Jetty
- 11 sites where community and early childhood health services are provided across the geographic region.

**Gosford Hospital**

Gosford Hospital is a principal referral hospital providing a comprehensive range of secondary level services including medical and surgical specialties, maternity, paediatrics, mental health, and some complex and tertiary level services including trauma, interventional cardiology and cancer. Services are provided in admitted, ambulatory and outpatient settings.

The site also accommodates teaching and education services, staff accommodation, community services as well as clinical and non-clinical support services.

Inpatient clinical services are predominantly provided at role delineation level 5. As part of the clinical services planning, it was identified that by 2022 there will be an increase in the number of complex and tertiary level services provided.

The current built bed capacity at Gosford Hospital is 532 beds:

- 368 adult acute inpatient beds which is inclusive of:
  - 16 Intensive Care Unit (ICU) /High Dependency Unit (HDU) beds
  - 8 CCU beds
  - 12 ED short stay beds
- 33 ED treatment spaces
- 32 maternity beds and 32 nursery/basinets cots co-located with 8 birthing rooms
- 10 special care nursery cots
- 38 paediatric beds
- 30 acute adult mental health beds
- 22 renal dialysis chairs (in-centre and satellite).

There are also: 8 operating theatres, 1 procedure and 1 endoscopy room and 1 interventional cardiology lab.

**Wyong Hospital**

Wyong Hospital is a major metropolitan hospital providing a comprehensive range of secondary level services including emergency, surgery, stroke, acute medical, aged care, rehabilitation and mental health inpatient services as well as outpatient and ambulatory services.

The site also accommodates teaching and education services, staff accommodation, community services as well as clinical and non-clinical support services.

Inpatient clinical services are predominantly provided at role delineation level 3 or 4, all ‘core’ clinical services are provided at level 4 as well as a number of specialty services. As part of the 2012-22 CSP it was identified that by 2022 there would be expansion and enhancement of inpatient and ambulatory capacity to meet the increasing clinical demands and projected growth of the local population. Patients requiring more complex and tertiary level services will continue to be transferred to Gosford Hospital or the appropriate tertiary care facility.

The current built bed capacity at Wyong Hospital is 341 beds, this is comprised of:

- 182 adult acute inpatient beds inclusive of:
  - 8 ICU/HDU beds
  - 6 CCU beds
  - 12 ED short stay beds
- 28 ED treatment spaces along with 8 Urgent Care Centre spaces
10 maternity beds and 10 nursery/basinets cots (these are currently not in use as inpatient beds) co-located with 3 birthing rooms

- 4 bed PECC, 35 bed acute adult, and 15 Older Persons acute mental health beds
- 15 bed drug and alcohol detoxification unit
- 58 rehabilitation beds - 30 general rehabilitation beds and 28 aged care rehabilitation beds (under the COAG geriatric evaluation & management (GEM) model)
- 12 renal dialysis chairs (located at Lake Haven Community Health Centre)
- 4 operating theatres, 1 procedure and 2 endoscopy rooms.

**Woy Woy Hospital**

Woy Woy Hospital provides sub-acute inpatient and outpatient services with a range of community health services located onsite. Inpatient services are provided as part of the clinical stream of aged care, sub-acute and complex care services. Located on the Woy Woy Hospital site is the following built capacity and services:

- 30 rehabilitation beds – 10 general rehabilitation beds and 20 beds used for aged care rehabilitation with aged care patients under the care of the geriatric medicine team.
- 23 bed sub-acute slow stream rehabilitation/maintenance unit providing multidisciplinary step-down or restorative care for patients requiring a longer hospital stay prior to rehabilitation as well as patients awaiting placement or guardianship
- 20 bed Transitional Care Unit - patients may remain in transitional care for a maximum of 12 weeks, under the medical care of a general practitioner
- Community Health
- Community Dental Health
- Gymnasium and hydrotherapy pool.

**Long Jetty Health Facility**

Long Jetty Health Facility provides sub-acute inpatient services and a range of community health services. Located on the site is the following built capacity and services:

- 12 bed sub-acute slow stream rehabilitation/maintenance unit providing step-down or restorative care for patients requiring a longer hospital stay prior to rehabilitation as well as patients awaiting placement or guardianship
- 12 bed Transitional Care Unit co-located with the inpatient unit where patients may remain in transitional care for a maximum of 12 weeks, under the medical care of a general practitioner
- Satellite renal dialysis unit with home dialysis training facilities with a built capacity of 20 chairs 12 of which are currently commissioned with additional chairs commissioned as demand requires
- The base for the specialist palliative care service is located onsite
- A range of community and outpatient services are provided from a range of buildings on site.

**Community Health**

Community Health Centres provide a range of services to the people of the Central Coast. The mix of services available at each Community Health Centre varies and can include antenatal services, child and family health, youth health, community nursing, ongoing and complex care, sexual health, mental health, drug and alcohol, and allied health services including physiotherapy, occupational therapy, speech pathology, audiology, podiatry, nutrition.

Community health services are provided from a large number of buildings in 14 separate locations (including nine Community Health Centres):

- Gosford Hospital campus
- Citigate
- Erina Community Health Centre
- Kincumber Community Health Centre
- Woy Woy Community Health Centre (co-located on sub-acute hospital site)
Organisation and Services

- Mangrove Mountain Community Health Centre
- Wyong Community Health Centre and Family Care Cottage (co-located on Wyong Hospital site)
- Wyong Central Community Health Centre
- Long Jetty Community Health Centre (co-located on sub-acute health facility site)
- Lake Haven Community Health Centre
- Child and Family Health Gosford Gateway Centre
- Children and Young People’s Mental Health Gosford Gateway Centre
- Toukley Mental Health Centre
- Kariong community centre

Selected community health services are also provided in partnership with headspace in the Gosford Gateway Centre and at Lake Haven, and with the Yerin Aboriginal Health Service in Wyong.

Satellite dialysis

There are three satellite dialysis centres located at Lake Haven Community Health Centre, Long Jetty (co-located on sub-acute health facility site) and onsite at Gosford Hospital.

Dental Health Clinics

There are three dental clinics located onsite at Gosford Hospital (4 chairs), Wyong Hospital (11 chairs) and Woy Woy Hospital (5 chairs).

Recent Capital Developments

Since 2012 there have been a number of capital developments which have been completed. These include:

- Central Coast Cancer Centre – opened March 2013 - provides public radiotherapy services with initial installation of two linear accelerators (LINAC), with built facilities for a third LINAC when required. The Centre includes consultation space for patients. Additional chemotherapy chairs at both Gosford and Wyong hospitals were also a part of this project.
- 30-bed sub-acute care and rehabilitation unit on the grounds of Woy Woy Hospital – opened in June 2013. This facility accommodates elderly patients requiring multidisciplinary rehabilitation care following a range of injuries, surgery or illness. The unit includes a gymnasium and therapy courtyard.
- ED Urgent Care Centre (8 spaces) at Wyong Hospital – opened September 2014 – the project also included remodelling of ED Triage and waiting area.
- Emergency Department Short Stay Units – Gosford opened in late 2014 and Wyong opened in February 2015
- Satellite Renal Dialysis Unit located onsite at Long Jetty Health Facility – opened November 2015 – has capacity for 20 dialysis chairs and facilities for home training, 10 chairs were initially commissioned with additional chairs to be commissioned when required in response to increasing demand.
- Integrated Education Centre at Wyong Hospital - provides expanded training facilities for clinicians. The Centre includes a variety of teaching rooms, a library, computer and a simulation room and has enabled the development of multidisciplinary clinical team teaching programs.

Consumer and Community Engagement

CCLHD recognises that consumers are members of the public who use, have used or are potential users, of healthcare services. They can be individuals representing themselves or their family, carers, members of community groups, representatives of disease-based advocacy groups or interested members of the community.

Consumer representatives can provide key insights and a voice for their community. The purpose of consumer engagement is to inform the development of health services so they reflect the needs of the community.

CCLHD respects and values the diversity of the population and the contributions made by all consumers and the community in improving the quality and safety of our services and are committed to involving consumers as partners in the design, planning, delivery, monitoring and evaluation of the safety and quality of healthcare.

The Guiding Principles of Consumer and Community Engagement for the LHD are:

- Embedding shared decision making as a core concept across clinical and non-clinical services within CCLHD
Fostering collaborative partnerships with consumers, carers/family members of the community and healthcare providers in the planning, design, delivery and evaluation of CCLHD services

Delivering services and care across CCLHD underpinned by respect, dignity, openness and honesty.

**Consumer and Community Engagement Committee (CCEC)**

The LHD Consumer and Community Engagement Committee is comprised of health consumers, as well as representatives from the community, the mental health community network, the Aboriginal community as well as members of the LHD Executive, Carer Support, and relevant staff. The role of the Committee is to:

- Identify issues, options and make recommendations in relation to effective consumer, carer and community participation within the LHD
- Drive consumer engagement and partnership across CCLHD at all levels
- Raise issues related to the needs of health consumers, carers and the community on the Central Coast
- Provide links for active participation between the LHD and the Central Coast community and health consumers
- Provide guidance incorporating the views of consumers to the Chief Executive and to the Board in order to improve the quality of health and healthcare for the local community.

The LHD is committed to fostering and supporting the continued activities of the CCEC.

**Consumer Engagement Framework**

A CCLHD Consumer and Community Engagement Framework has been developed and released in 2017. The Framework has been developed to guide the LHD in the development of consumer and community engagement strategies, and provide a shared and collaborative approach to engagement across health services. The Framework is intended to empower consumers to work actively as partners in their healthcare and to guide CCLHD staff to effectively and meaningfully engage with consumers with intention to deliver the right healthcare at the right time to the right people. To facilitate this process it identifies the key components of consumer engagement, provides a governance framework and implementation toolkit.

**Next Steps:**

**Development of a CCLHD Consumer Network.**

This will provide a range of ways that consumers can be partners in the design, delivery and evaluation of healthcare. This will enable the District to match the skills, experience and preferences of the consumer to the various roles within the organisation. It will represent and respect the diverse demography and developing health needs of our community.

**Carer Support**

Carers are key partners in healthcare supporting those they care for in a range of ways as well as delivering care outside the hospital setting. In 2014 the Australian Bureau of Statistics (ABS) reported that 12% of the NSW population and 13% of Aboriginal people identified that they had an unpaid caring role for a person with a disability, long term illness or problems related to aged care.

The numbers of carers in the Central Coast community can be expected to increase over the next 10 years due to an ageing population and an increasing incidence of chronic disease.

Carers themselves are ageing, with a high proportion aged over 55 years. It is also considered that a large number of carers remain hidden within the Central Coast population, creating challenges for the healthcare system to identify and support this group.

It is generally recognised that carers themselves are a vulnerable group in the population given the uniqueness of their role and that often carers remain invisible. They may not receive or prioritise appropriate medical treatment for themselves as their time is generally devoted to meeting the needs of others. Carer stress and wellbeing can impact on the health status of the person they support. Failure to identify, engage and support carers will compromise the health and wellbeing of both carer and patient potentially leading to increased demand on local health services.

With an increase in strategies that support hospital avoidance and early discharge of patients the role of carers becomes increasingly important as people traditionally cared for in the hospital setting are moved into the
community earlier or remain at home for their treatment. This has the potential to increase the stress on carers. A consistent assessment of carer capacity to provide this increased level of care, prior to transfer of care, is essential. It is important for CCLHD to be aware of the needs of both the patient and the carer and work to identify, support and enhance carer health and wellbeing at all points in the healthcare system.

Local Health Districts are required to show evidence of compliance with the NSW Carers (Recognition) Act 2010 and the NSW Carers Strategy 2014-2019.

Future Requirements:
- Clinical services, education and support undertaken at the Gosford Hospital Carer Retreat provides clear evidence of the Districts capacity to adhere to the requirements of these acts and the NSQHS Standards, the equivalent service is required on the Wyong Hospital campus.
- Significant benefits to clinical services are achieved when carers are supported and engaged as partners in the health care experience of patients. Incorporating appropriate design features according to best practice principles into inpatient facilities will facilitate and enable carer engagement and is a priority for any future hospital redevelopment within the LHD.

5.3 Other Health Care Providers and Partners

CCLHD does not provide healthcare in isolation; it is part of a larger health and social care landscape that encompasses primary care, private health, aged care, non-government organisations (NGOs), and local state and federal government alongside the population and public health, health promotion, and acute, sub-acute, mental health and primary and community health services provided by CCLHD.

Private Health Care Providers

Private health services are provided in:

Two day surgery centres:
- Central Coast Endoscopy:
- Central Coast Day Hospital: located in Erina, is a purpose-built ophthalmic centre, specialising in all types of eye surgery. The hospital is owned and operated by PresMed Australia.

Three private hospitals:
- Gosford Private Hospital: located in North Gosford, is the largest private hospital on the Central Coast offering a wide range of clinical specialties including medical, surgical, maternity, paediatrics, endoscopy, interventional cardiology, cardiothoracic and neurosurgery. It has a dedicated Day Surgery Unit and on-site rehabilitation unit. It also has two co-located major medical centres, a radiology practice and pathology laboratory. The hospital is owned and operated by Healthe Care Australia Pty Ltd since 2006.
- Brisbane Waters Private Hospital: located in Woy Woy, the hospital has 89 beds providing surgical, medical and rehabilitation services. A co-located private mental health facility, known as The Central Coast Clinic, has 34 beds offering inpatient and an array of outpatient programs for postnatal, mood and addiction disorders as well as services for older persons. It is owned and operated by Healthe Care Australia Pty Ltd.
- Berkley Vale Private Hospital: located south-west of Tuggerah Lake, has 50 beds and provides services for rehabilitation, surgical, day surgical, medical and mental health patients. It is owned and operated by Ramsay Health Care Ltd since 2001.

Private Hospitals also work collaboratively with CCLHD as part of planned winter bed management strategies.

GP Collaboration Unit

CCLHD has a successful track record of collaboration with general practice (GP) and primary care services. A GP Collaboration Unit was established between CCLHD and the Central Coast Division of General Practice in 2000 to support and enhance engagement with GPs. This collaboration continues today with the Hunter New England and Central Coast Primary Health Network (PHN) co-funding the Unit. The GP Collaboration Unit provides a focal point of contact for collaboration and integration activities between the CCLHD and PHN.
In 2012 the GP Collaboration Unit changed to a new structure, resulting in a consultation panel comprised of seven GPs working with the program manager allowing a broader GP view. The GP panel meets bimonthly, and is supported by executive from both CCLHD and PHN.

The panel works to provide a range of GP input into the Unit and to utilise the expertise and special interest capacity of a group of consultant GPs. Service providers consult with the Unit to access GP input into service planning &/or development. The panel is part of and contributes to many committees at CCLHD.

GP Collaboration Unit goals and objectives are:
- Promote communication on all levels between CCLHD, General Practice and PHN
- Assist in the establishment of collaborative models of care between General Practice and CCLHD
- Implement partnership and collaboration between CCLHD and PHN
- Contribute to CCLHD and PHN strategic planning and policy development.

Objectives
- **Health Pathways**: Continue to support the development and implementation of the Health Pathways Project
- **Integrated Care**: Support the implementation of the Integrated Care Program activities including providing a sounding board for new models of care and strategies to achieve integrated care across primary and secondary health care
- **Mental Health and preventable hospital admissions**: Provide advice on strategies to reduce preventable hospitalisations and increase mental health treatment rates in line with PHN / CCLHD key performance indicators
- **Facilitate communication**: between the PHN, GPs and CCLHD, and be a point of contact for all parties. This includes responding to requests for information or issues identified by all parties as they arise
- **Service Planning**: Contribute to organisational planning processes within these entities, including models of care and service plans
- **GP membership**: promote wider understanding in the GP population of GP Collaboration Unit role, and develop a wider membership base for the panel as required
- **Data to meet local needs**: facilitate data sharing between parties to assist in meeting the above priorities and key performance indicators
- **Ongoing influence / accountability**: clarify escalation process for issues that cannot be resolved in the GP panel meetings. Clarify expectations of attendees to panel meetings, and of panel members.

Workforce

Based on Health Workforce 2017 data the PHN estimate that there are 389 GPs (212 in Gosford and 177 in Wyong) and 32 GP registrars (22 in Gosford and 10 in Wyong) working in 105 practices in Gosford and Wyong. This equates to 114.6 GPs/100,000 population (121.6/100,000 in Gosford and 107.2/100,000 in Wyong) compared to 112.8/100,000 population for NSW. The Australian Institute of Health and Welfare (AIHW) suggests that the rate of supply of general practitioners in Australia has remained relatively steady between 2005 and 2015, ranging from 109 GPs/100,000 population in 2008 to 114 in 2009, 2012 and 2015 (AIHW Medical Practitioner Workforce, 2016).

While GPs are often considered to be the cornerstone of health care in the primary care setting, there are a large number and range of other health professionals providing services to local populations. Private Allied Health services available across CCLHD include audiology, chiropractic, dentistry, dietetics, exercise physiology, occupational therapy, optometry, osteopathy, pharmacy, physiotherapy, podiatry, psychology, social work, speech pathology as well as nursing.

**Primary Health Network**

The **Hunter New England and Central Coast Primary Health Network** (HNECC PHN) was established in 2015 by the Commonwealth government to improve the efficiency and effectiveness of the primary health care system. The PHN works with CCLHD, local primary health care providers and NGOs to meet local health care needs through commissioning programs to support greater coordination, better systems, and improved access to care.
The PHN offers a range of programs and services to support general practice and other health professionals, and delivers a range of programs to build capacity and enhance the quality and timeliness of care provided to patients. Specifically, it:

- Commissions and manages healthcare services and support programs for people in the community including:
  - After Hours Services
  - Mental Health Services
  - Drug and Alcohol services
  - Allied Health Services
  - Primary Health Care Nursing
  - Services for Aboriginal and Torres Strait Islander people (including Integrated Team Care and Indigenous Mental Health services)

- Supports health care professionals with a dedicated Practice Support and Development Team that is able to offer assistance in:
  - Practice Management
  - Education / Professional Development
  - Digital Health advice and support
  - Quality Improvement / Accreditation
  - Chronic Disease Management
  - Preventative Health
  - Workforce Support
  - Immunisation
  - Practice data extraction and analysis.

- Champions the HealthPathways approach that provides local clinicians with an opportunity to collaborate across the ‘whole of system’ to develop and document local solutions and enables an integrated approach to health care service delivery. The care pathways developed using this approach are hosted on the Central Coast HealthPathways site, an online portal for GPs and other primary health clinicians to access at the point of care. HealthPathways provides information on how to assess and manage medical conditions, and how to refer patients to local specialists and services in the most-timely way.

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**Yerin Aboriginal Health Service**

**Yerin Aboriginal Health Services Inc.** is a community controlled integrated primary health care service located at Wyong on the NSW Central Coast. Incorporated in February 1996, Yerin provides services that are responsive to the medical, social and emotional needs of Aboriginal and Torres Strait Islander people. The service is located in Wyong and services are delivered across the Central Coast in a culturally safe and proficient manner.

Yerin works with a range of community providers including key local Aboriginal organisations that provide transport, housing, and training and education opportunities for the community. Yerin also advocates for and works with a range of other government agencies, including Family and Community Services (child protection, out-of-home care, housing, aged and disability), local government, police and education services to ensure that pathways and services meet the needs of people experiencing mental health and chronic disease, or experiencing domestic violence and other family issues.

Yerin is a member of the NSW Aboriginal Health and Medical Research Council (AH&MRC) and the national Aboriginal Controlled Health Organisation (NACCHO).

Yerin has a tripartite collaborative partnership agreement with CCLHD and the Hunter New England and Central Coast Primary Health Network to improve access to priority health services for the Aboriginal community. The partnership agreement is underpinned by the jointly developed Aboriginal Health Services Plan which focuses on the priority issues of maternal and child health, chronic disease, mental health, child and family safety and well-being, and drug and alcohol, as well as organisational and cultural change. Both the partnership agreement and Aboriginal Health Services Plan are currently in the process of being reviewed and updated.
Non-government Organisations

CCLHD has a number of partnerships, collaborations and other significant relationships with non-government organisations across a broad range of clinical and support services including in mental health, drug and alcohol, women’s health and counselling, aged care, integrated care, and community transport.

- Benevolent Society Community Services
- Central Coast Primary Care
- Central Coast Community Care Association Ltd
- Kamira Farm
- Salvation Army - Selah Farm
- Ngaimpie Aboriginal Corporation
- Catholic Care Diocese of Broken Bay Pregnancy Counselling Service
- Central Coast Women’s Health Centre
- Community Transport Central Coast Ltd
- Lifeline Central Coast
- Central Coast Council - Wyong community services
- Central Coast Council – Gosford community services
- Mental Health Carers ARAFMI
- Uniting Care Disability

Residential Aged Care

The availability of aged care places and packages is often a determining factor in the timely discharge of older people from acute and sub-acute inpatient care. Residential aged care is available in approximately 40 facilities across CCLHD.
6 Service drivers

Over the last 10 years there have been increasing demands placed on the healthcare system and a rapidly changing policy, social and technological environment. These trends are evident across most developed countries. The costs of providing care have increased and the need to provide high quality, evidence-based and sustainable services has been recognised by all levels of government.

The ageing, complexity and increased chronicity of the patient population, where care is provided by a wide range of professionals and sectors, have led to a greater push for integrated care strategies. These strategies require sustained efforts to link providers in patient-centred models of care, supported by improvements in clinical informatics, which can be applied across funding and administrative boundaries.

At the same time the education, aged care and disability sectors have had a number of major changes to their funding models and policy requirements. Governments are increasingly seeking to work in partnership with the private sector and the non-government or not-for-profit sectors in the provision of services, previously provided by the public health sector, through public private partnerships and competitive tendering processes.

6.1 Population growth and ageing

Over the next 20 years the population of the Central Coast is projected to grow by 22% to 415,060 persons. Much of this growth will occur in Wyong and it is likely that Wyong will overtake Gosford in terms of total population by 2026.

Wyong will see significant growth in the younger age groups. Significant growth will also occur in the older age groups in both Gosford and Wyong as people live longer lives due to a combination of improvements in disease prevention, detection and treatment.

Population growth is likely to result in increased demand for all services but particularly emergency and acute services and better linkages between the acute and community care sectors. Growth in younger age groups will increase demand for maternal and child health and paediatric services while older people often have a range of complex health conditions, requiring more services and more complex care.

Socioeconomic disadvantage is closely linked to health status, lower life expectancy and higher service needs. Social factors, including education, employment status, income level, gender and ethnicity, have an influence on how healthy a person is.

At risk groups in the population include Aboriginal and Torres Strait Islander people, people with chronic mental illness and their children, people in contact with the criminal justice system and their families, refugees, people with disability, children in care or vulnerable families. These vulnerable populations need to be targeted in strategies to reduce the impacts of disadvantage while increasing equity of access to services and outcomes.

The expansion and redevelopment of Wyong and Gosford hospitals and associated community health and other infrastructure, as well as changing models of care and partnerships, seek to respond to the anticipated population demand.

6.2 Integrated Care

There are increasing numbers of people living with a range of chronic conditions (such as diabetes, heart disease, cancer, mental illness) which will require ongoing, complex and connected care. Many chronic conditions are best managed in community settings with care provided by local community health services, specialist outreach teams or in primary care. In many cases, hospitalisation is considered potentially avoidable through the provision of preventive care and disease management programs.

To prevent and manage chronic conditions and, in particular, address the very complex needs of an ageing population, primary healthcare, and its connections with hospital care, must be strengthened.
Much has been written about the shift in demand from healthcare that is focused on short acute episodic hospital based care towards alternative models and settings to meet the needs of people, many of whom are older, with chronic and complex conditions. Many of these patients are managed by the public health system with admission through the emergency department but care often requires the involvement of general practitioners, allied health, residential aged care, and home or community support services. While a number of programs and approaches have been undertaken over the years, there has been a lack of an overarching service and funding strategy to link this wide range of providers together in a way that meets the needs of patients and their carers.

The **NSW Integrated Care Strategy** addresses the State Health Plan’s strategic direction of “keeping people well”. The Strategy seeks to develop a sustainable integrated health system with connected service provision with an emphasis on community based services to make sure that people with chronic and complex care needs, including people with disabilities, stay healthy and out of hospital. The Strategy focuses on three key areas:

- Demonstration projects to develop and test system wide approaches, working with the NSW Ministry of Health and pillar agencies
- Planning and Innovation Fund to support discrete local initiatives
- Statewide investment in key integrated care enablers including linked electronic health records and assessment tools.

CCLHD has been one of three *Integrated Care demonstrator sites* across NSW. The CCLHD Integrated Care Program has made significant progress in developing new ways of providing care, changing existing models of care, and enabling and seeding change in partnership with Hunter New England and Central Coast Primary Health Network (HNECCPHN), Family and Community Services (FACS), Ambulance Service of NSW (ASNSW), and the NSW Department of Education.

The selection of projects to improve the provision of high quality, accessible, timely health services has been based on four principles - projects should:

- be scalable across CCLHD
- be sustainable within CCLHD workforce and financial resources
- be replicable so that successful models can be implemented across larger population groups
- have shared governance with partners, sharing goals, decision making and, where possible, risk.

The LHD projects have been progressed across 3 streams including vulnerable youth, vulnerable aged, complex and chronic conditions, as well as district-wide initiatives to build capability:

- **Vulnerable youth**
  - Family Referral Service in schools – assess the needs of families to understand the health and social care issues faced by families, and work with them to prioritise actions that will support young people to engage with learning
  - Multi-agency response centre – co-location of multi-agency child protection services (CCLHD, FACS, Department of Education, and Family Referral Service) to facilitate consistent information exchange and triage
  - Patchwork – improve coordination between health and social care agencies (CCLHD, FACS, headspace) through the use of structured approaches, agreed processes and tools to reduce variation in sharing information and case management for complex and vulnerable children and families
  - Out of home care – co-design of multi-agency responses to the assessment and management of the health needs of vulnerable children in out of home care.

- **Vulnerable aged**
  - Care coordination North Wyong – using outcomes based commissioning two care providers determine the care coordination models that they will employ to keep their patient cohorts healthy, at home and out of hospital.
 Chronic and Complex conditions

- Alternative pathways – collaboration between ASNSW, General Practices and the HNECCPHN to reduce unnecessary transport of low acuity patient to ED and coordinate care with the patient’s usual care provider or available GP practices
- Woy Woy Integrated Care Coordination (pilot) – testing the transition from the Chronic Disease Management Program (CDMP) to a model focused in general practice
- Self-management Support Service – a flexible licencing arrangement has allowed other organisations to deliver Stanford University’s Better Health Self-Management program under the CCLHD licence until December 2018. The program provides 2½-hour workshops once a week for 6 weeks for people with chronic disease to help them manage their condition, stay well and get more out of life.
- E-enabled patient education trial – using a real time health secure GoShare platform this trial has delivered patient education bundles to clients and a series of information packs electronically; using this approach it is possible to see who has opened an education bundle.

 District-wide initiatives

- GP antenatal shared care project – 18 new GPs now offer this service resulting in an increase in participants from <2% to 5.2% over the course of a single year
- Redesign of Aboriginal Mothers and Babies – partnership between CCLHD and Yerin Aboriginal health Service, focusing on access to care, cultural support, patient information and education, and care coordination and integration
- Service Delivery Reform (SDR) – CCLHD is one of four SDR sites led by the Department of Premier and Cabinet exploring opportunities for multi-agency approach to designing and delivering services for children, young people and their families. Five projects are underway including: shared services directory, true community schools, cultural competence, mobile services/pop ups, and strengthening local hubs.
- The Integrated Care Program identified workforce change management skills as a major barrier of successful project implementation. Multi-agency training in Accelerated Implementation Methodology (AIM) is in place to build capability to deliver partnered change.

These first three years have been the start of a 10 year journey to transform the system of care and interface with social care. The Integrated care program will be evaluated in 2018.

6.3 National Disability Insurance Scheme

The National Disability Insurance Scheme (NDIS) is the new way of providing individualised support for people with disability, their families and carers. It is estimated that around 460,000 Australians will be supported by the NDIS by 2020.

The NDIS supports people with a permanent and significant disability that affects their ability to take part in everyday activities. An NDIS Planner works with eligible individuals to identify their goals and aspirations and develop a plan with the supports needed. Supports may help participants to achieve goals in many aspects of life, including independence, community involvement, education, employment and health and wellbeing.

The NDIS gives more choice and control to the participants over who, how, when and where supports are provided, giving certainty to the participants. NDIS provides an early intervention scheme where getting early supports can reduce the impact of disability on an adult or child participant and avoid the participant needing ongoing disability supports. The supports for participants are provided over the participations lifespan and should be regularly reviewed and adjusted as required. Participants have the choice once they turn 65 years to stay with NDIS or transfer to MyAgedCare.

CCLHD are not currently a registered provider under the NDIS but this may require reconsideration to respond if there are gaps in the market. The LHD will work cooperatively with potential NDIS participants, Local Area Coordinators, NDIS Planners and Support Coordinators to ensure that participants have access to sufficient health related information to support their application for NDIS supports.
The roll out of the NDIS will not change the responsibilities of the health system which will remain responsible for the diagnosis and clinical treatment of health conditions, including ongoing or chronic health conditions, and other activities that aim to improve the health status of Australians. This includes but is not limited to:

- general practitioner services, medical specialist services, dental care, nursing, allied health services (including acute and post-acute), preventive health, care in public and private hospital and pharmaceuticals or other universal health entitlements
- funding time-limited, goal-oriented services and therapies where the predominant purpose is treatment directly related to the person’s health status or provided after a recent medical or surgical event, with the aim of improving the person’s functional status including rehabilitation, or post-acute care, or palliative care
- individuals and families sometimes also have a role in funding the medical and clinical services, such as out of pocket expenses or gap payments.

CCLHD will monitor and respond to any changes in service demand, particularly in allied health, community health, or mental health services.

### 6.4 My Aged Care

My aged care is part of a national package of aged care reforms through the Commonwealth Department of Health which commenced in 2012. My aged care is a central point of access for aged care services and information in Australia. It is aimed at older people, their families and carers as well as service providers, and offers information on aged care as well as help in finding local providers such as aged care homes.

My Aged Care is a government website, there is also a contact centre both of which provide information and referrals for clients and their carers to be assessed for aged care services. It also offers online services to help users find information about aged care service providers and assessors, plus online fee estimators to check the pricing of home care packages and residential care. Patients requiring aged care packages including community Aged Care Assessment Team (ACAT) assessment are now referred through the my aged care site.

There are four levels of service available:

- **Commonwealth Home Support Program (CHSP)** is one of several changes which were introduced. The program commenced in July 2015 and brought together four existing programs: Commonwealth Home and Community Care (HACC) Program; Planned respite from the National Respite for Carers Program (NRCP); Day Therapy Centres (DTC) Program; and Assistance with Care and Housing for the Aged (ACHA) Program. with the aim to help older people stay independent and in their homes and communities for longer
  - Frail, older people (aged 65 years and over or 50 years and over for Aboriginal and Torres Strait Islander people) who need assistance with daily living to remain living independently at home and in the community are referred through My Aged Care for assessment for the CHSP. This is for people who require a basic level of care and/or support at home.
  - The My Aged Care Contact Centre allocates referrals either directly to service providers or the Regional Assessment Service (RAS). The RAS conduct face to face client assessments, short term case management and referral to appropriate services.

- **Home Care Packages** – for people requiring a complex level of care at home. The packages are coordinated services designed to meet the required care needs. Packages are provided under a system known as Consumer Directed Care (CDC) intended to provide more client choices for the kind of services and care to be accessed. Assessment is undertaken by ACAT to determine the care needs.

- **Residential Aged Care** for people with multiple and complex care needs this may be short term (respite care) or permanent care for people who are unable to continue living independently in their own home. To be eligible for Australian subsidised residential care assessment by an ACAT team is required.

- **Transitional Aged Care** – this can be provided either through a care package (TRANSPAC) or in a Transitional Care Unit (TCU). There are currently two Transitional Care Units located at Woy Woy Hospital and Long Jetty Health Facility.

The LHD staff continue to have a key role in referring and connecting people to services such as ACAT.
6.5  Funding Models and Performance Management

Activity based funding

Activity Based Funding (ABF) was introduced in 2012 as part of National Health Reform. Funds are provided to CCLHD by the Ministry of Health based on the State “efficient” price per unit of activity for acute admitted services, emergency department services, non-admitted services, sub-acute and non-acute admitted services and mental health admitted services. Other services and hospitals continue to be funded through block funding arrangements.

ABF requires explicit management of activity and cost to a greater degree than previously. This includes the need for accurate reporting, counting and coding of activity, monitoring of cost components and consideration of more efficient models of care. Ideally services should be able to be delivered at a marginally lower cost than the state price, allowing some of the budget to be used for service development. ABF assumes greater involvement by clinicians, in partnership with managers and consumers, in managing the costs of care.

There is a transparent approach with clear business rules for funding allocations. The CCLHD Service Agreement with the Ministry of Health requires the maintenance of high quality services and includes incentives for minimising potentially avoidable readmissions, maximising revenue and rules about exceeding and missing agreed activity levels.

Impediments to meeting ABF targets include continuing with historical inefficient models of care and it is acknowledged that ABF business rules have limited flexibility to support the transition of some acute inpatient services to ambulatory or non-admitted services.

CCLHD responses to performance management, engagement with other service providers, integrated care, and other service changes all seek to improve the quality and experience of care and maximise the value of available admitted and non-admitted capacity, workforce and financial resources.

Performance targets

The annual service agreement with the NSW Ministry of Health determines activity volumes and performance targets for the year. CCLHD has made considerable progress against many of the targets and benchmarks. There is scope for further improvement through the development of new models of care and with new, reconfigured or updated infrastructure. Performance targets require enhanced models of ambulatory, outpatient and community care to minimise hospitalisations and provide a more timely service.

Performance measures are monitored and reported monthly. Performance against emergency treatment performance (ETP) and elective surgery access performance (ESAP) are highlighted in tables below, for the 2016/17 financial year.

While CCLHD expects to achieve its activity against agreed targets there are some additional areas to be explored as part of planning future service organisation and capacity across service streams. Specific areas for investigation include the significant number of patients classified as “maintenance” in sub-acute beds at Gosford and Wyong Hospital, access to inpatient rehabilitation services, and the utilisation of sub-acute beds at Woy Woy and Long Jetty. A key focus is on the appropriate utilisation of sub-acute beds and maximising the availability of acute beds across admitted services.

Table 5: Emergency Treatment Performance (ETP) 2016/17 (ED treatment completed within 4 hour benchmark)

<table>
<thead>
<tr>
<th>Target: 81% in 4 hours</th>
<th>All patients</th>
<th>Admitted</th>
<th>Not Admitted</th>
<th>Mental Health Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCLHD</td>
<td>70.0%</td>
<td>35.9%</td>
<td>84.0%</td>
<td>45.2%</td>
</tr>
<tr>
<td>NSW</td>
<td>74.2%</td>
<td>43.7%</td>
<td>84.7%</td>
<td>39.5%</td>
</tr>
</tbody>
</table>

Table 6: Emergency Department Triage Performance 2016/17

<table>
<thead>
<tr>
<th>Target: 81%</th>
<th>Triage 1</th>
<th>Triage 2</th>
<th>Triage 3</th>
<th>Triage 4</th>
<th>Triage 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCLHD</td>
<td>100%</td>
<td>78.8%</td>
<td>67.7%</td>
<td>78.0%</td>
<td>96.3%</td>
</tr>
<tr>
<td>NSW</td>
<td>100%</td>
<td>80.9%</td>
<td>76.0%</td>
<td>80.9%</td>
<td>94.2%</td>
</tr>
</tbody>
</table>

Source: NSW Health System Performance Report (Statewide)
### 6.6 Workforce

The workforce is one of the most important and valuable assets of the LHD. Maintaining an adequate supply of qualified staff to meet the increasing demand for health services is one of the most important issues affecting sustainability of the health system. The workforce is facing a number of challenges as the population (including the health workforce) ages. Growth in services, changes in models of care, increasing demand for services and the future workforce requirements are interrelated.

Workforce considerations and planning are integral components of service and facility planning. Service expansion is reliant on having an adequate workforce both in number and range of positions as well as the right mix of skills.

To better meet the needs of ageing and diverse communities in an environment of changing services, models of care and technology, requires both the redesign of services and innovation in the development and configuration of workforce roles and skill mix.

To support the future service development strategies for the LHD there is a need to recruit, grow, support and develop the workforce ensuring the right skills and competencies are available to meet the increasing demand with high quality and innovative care. This will require investment in continuing workforce education and development.

The CCLHD Workforce Plan 2012-2022 articulates the workforce strategies which are to be implemented to ensure the LHD can meet the current and future service delivery demands which will occur.

The proposed development of the Health and Wellbeing Precinct including the Central Coast Medical School and Research Institute (CCMSRI) is expected to positively influence the availability of workforce across a range of health disciplines and positions.

As important as building the workforce is ensuring that the workforce shares the values of the LHD. This will be in part achieved through fostering a culture which is supportive, quality focussed and which encourages innovation, and supports ongoing education and development, building an innovative and flexible organisation that both attracts and retains its workforce.

### 6.7 Changing technology

Health care is an area of rapid change in technology and treatments which frequently drive changes in practice, models of care and service delivery. Increasingly there is growing recognition of the importance of rapid translation of evidence from high-quality research into clinical practice and population health programs, so that more people can enjoy the benefits of such breakthroughs. As these technological advances become more affordable they become more widely available and accessible reducing the need for patients to have to travel large distances to access these services.

These changes influence how and where services are delivered. Increasingly, people are admitted to hospitals for the acute phase of their illness only, discharged early and followed up at home by community based services. Technological and surgical improvements have seen moves to less invasive procedures including a shift toward interventional procedures as well as a shift toward day-only surgery/procedures and early discharge programs. In addition there has been an increase in procedures and treatments conducted on an ambulatory and non-inpatient basis.
Clinical informatics and information technology is also a fast moving area of health service provision with potential for both high costs and efficiencies. Better linkages between clinical technology and information technology systems facilitate improved data capture and timely access facilitating patient management as well as enabling informed decision making in regard to service management.

In this environment of rapid change and introduction of new technologies it will become increasingly important that there are robust processes in place for health technology assessment to ensure that investment decisions are evidence-based and align with the service priorities for the LHD.

### 6.8 Information and Communication Technology

The NSW Health sector is undergoing a revolution in the way technology is used to deliver better clinical and operational performance in Local Health Districts. The CCLHD recognises the need for technology to support improved patient experiences and outcomes.

The Information Communication and Technology (ICT) Service supports the LHD to improve access to information through provision of quality clinical and corporate information systems whilst also ensuring a robust, secure technology infrastructure platform. A key deliverable of the ICT service is to provide a technical framework that gives the ability to link people, processes and technologies together to optimise workflow, business operations and patient outcomes.

The CCLHD Information Communications and Technology Plan 2016-2020 outlines both state and local initiatives that bring information systems potential to clinical care and support services, including electronic medical records, new reporting systems and technological advances.

Technology availability to support growing information and communication capability within the LHD is provided through considerable capital investment by the MoH and the LHD. There are some moves toward an “as a service” for some technology platforms with this OPEX expenditure trend expecting to increase over time.

Over the next five to ten years demand for technological solutions will continue to grow requiring substantial investment in equipment, change management and staffing skillsets.

### Current and Future Services

Major capital ICT developments within the LHD are informed by the NSW State Health Plan Towards 2021 and A Blueprint for eHealth in NSW (2013), eHealth Strategy for NSW Health 2016-2026, CCLHD Information Communications and Technology Plan 2016-2020 (Version 1.3) and the CCLHD Clinical Services Plan.

Current and future MoH developments include:

- The system for the new Intensive Care Clinical Information System (eRIC) has been determined. eRIC is an enterprise-wide ICU Clinical Information System, integrated with other systems – eMR, Radiology and Pathology. The proposed implementation timeline is proposed for late 2018/early 2019.
- The electronic medical record (eMR) Connect Project is being rolled out in two phases: eMR2 and eMedications (eMeds):
  - eMR2 has been built on the foundation of the existing eMR platform and has introduced electronic clinical documentation including progress notes, between the flags, observations and mandatory assessments to better support clinical workflows in the inpatient settings. eMR2 was implemented to the Central Coast Hospitals in August and September 2016
  - The second phase of the eMR Connect Project introduces eMeds. eMeds includes systems for medication assessment, prescribing, decision support, dispensing, administration and outcomes monitoring. Gosford and Woy Woy Hospitals will implement eMeds in February 2018 followed by Wyong, and Long Jetty in April 2018.
  - The eMR Connect Project includes new technology to the inpatient areas including all-in-one computers and workstation on wheels (WOW’s). Touch screen tablets will also be trialled.
- The LHD is contributing to an eHealth co-ordinated state-wide program that is seeking options from suitable solution providers for the purchase of a Radiology Information System and Picture Archive & Communication
System (RIS-PACS), as a replacement for the current medical imaging systems. Following completion of a tender process in August 2017 rollouts are in the pipeline and expected to occur across the state during 2017/18 with rollout in CCLHD expected 2018/19.

- A new state wide Incident Management System (IIMS Plus) is in design, build & test phase with implementation being considered from 2018.

- HealthRoster is a state-wide rostering program to embed consistent state-wide rostering processes across the state’s health care facilities and is scheduled for rollout to CCLHD as part of cluster 4, with implementation commencing July – November 2017.

- The Clinical Application Reliability Improvement (CARI) program commenced in September 2015. This program provides a transition pathway for key state wide platforms like eMR into the Whole of Government Data Centres. CCLHD’s eMR environment was transitioned in June 2017.

- An Asset and Facilities Management System will be introduced from November 2017 and is expected go live in June 2018 to support strategic and operational management of capital works, facilities, property, maintenance, cleaning and security.

- The LHD went live with HealtheNet in March 2015. HealtheNet enables efficient access for NSW Health clinicians to patient information from across NSW LHDs and a patient’s ‘My Health Record’. In March 2017 federal legislation was passed for a national “opt out consent model” for inclusion in the National My Health Record Initiative. Following a national public awareness campaign go lives are expected to commence across the country progressively from mid-2018.

- The eMR Community Health and Outpatient Care (CHOC) Program rolled out to several services on the Central Coast in 2014. CHOC aims to build functionality for community health services in the electronic medical record (eMR) to enable integration across acute care and community health. The CHOC program extended to the Drug and Alcohol service in July 2016. Mental Health Teams implemented eMR Scheduling and Community Health Ambulatory Extract (CHAMB) on the 1st November 2016.

- The Cancer Institute NSW has provided a grant towards implementing a Medical Oncology system. A project has commenced to implement an Oncology Management Information System (OMIS) to replace the existing CHARM system with rollouts expected to occur within 2017/18.

- iPharmacy was upgraded in February 2017 in order to accommodate changes to the online claiming process as mandated by Medicare Australia.

- The Whole of Government Data Centre Reform Project (GovDC) is aligned to the NSW Government ICT Strategy and has commenced with discovery activities for the migration/transition of selected LHD server infrastructure to the GovDC well underway. ICT and e-Health are planning the next stage of the GovDC Program of work (Detailed Design and Future State Review), working towards having the GovDC migration completed in late 2018.

- Implementation of digital Voice over Internet Protocol (VoIP) telecommunications platforms across the LHD continues in line with the major redevelopment and capital works project delivery program at both acute facility and Community Health Centres (CHCs).

- Development and implementation of support for a range of mobile devices, both corporately and personally owned (usually referred to as Bring Your Own Device – BYOD) is well underway. In addition ICT is working to clearly define and articulate the “end user” mobility strategy that enables clinicians to access key hospital applications using a range of remote access options.

- Continued deployment of robust wireless networking capable of supporting real-time location services, mobility and Voice of Internet Protocol (VoIP) telephony “everywhere within the facility, for mobility to effectively contribute to clinical outcomes” across every acute clinical treatment facility: in accordance with eHealth under the state-wide program.

- Microsoft Windows 10 planning is underway and ICT is creating a Win10 Roadmap for implementation in 2017/18. The LHD is also partnering with e-Health to ensure compatibility with state wide platforms.

- ICT is piloting Skype for Business application provided by e-Health, with the intention to plan and implement a full scale rollout in late 2017, pending the successful pilot of the application and a thorough network impact assessment.
Service Drivers

- The LHD is implementing Patient Wi-Fi services for patients and visitors on personal devices so they can stay connected with families and friends while in hospital.
- ICT will continue to work closely with the CCLHD Redevelopment programs and delivery teams to ensure the ICT strategy is implemented in line with the project scope and available budgets.

Strategic Directions

Over the next ten years demand for technological solutions will continue to grow, requiring substantial investment in both equipment and staffing.

The LHD will continue to:

1. Implement integrated information and communication systems for clinical and corporate services.
2. Develop and improve appropriate data capture systems for continued performance reporting and supporting activity based funding.
3. Develop telehealth and video conferencing facilities and real-time access to online images and clinical data in both outpatient and inpatient settings.
4. Develop longer-term capacity to accommodate emerging technologies and models of care.

The LHD is currently assessing the safe use of social media, mobile technology, instant access and voice recognition within the District’s services. There is currently only limited funding identified for these services.
7. Current and Projected Clinical Activity

7.1 Built capacity

Table 8 outlines current built bed capacity at July 2017 by facility and bed type. While not all specialist capacity is fully utilised (e.g. paediatrics, renal dialysis), acute adult bed capacity has been consistently operating at close to 100% occupancy (and sometimes beyond) for a number of years.

Table 8: CCLHD built bed capacity, July 2017

<table>
<thead>
<tr>
<th>Bed Type</th>
<th>Gosford Hospital</th>
<th>Wyong Hospital</th>
<th>Long Jetty Health Facility</th>
<th>Woy Woy Hospital</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICU/HDU</td>
<td>16</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>CCU</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>Medical/Surgical</td>
<td>332</td>
<td>162</td>
<td>-</td>
<td>-</td>
<td>494</td>
</tr>
<tr>
<td>ED Short Stay</td>
<td>12</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>Sub Total Acute Adult</td>
<td>368</td>
<td>182</td>
<td>-</td>
<td>-</td>
<td>550</td>
</tr>
<tr>
<td>Maternity</td>
<td>32</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td>Nursery</td>
<td>32</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td>Special Care Nursery</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Paediatric</td>
<td>38</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>38</td>
</tr>
<tr>
<td>Sub Total Maternity, Cots &amp; Paediatric</td>
<td>112</td>
<td>20</td>
<td>-</td>
<td>-</td>
<td>132</td>
</tr>
<tr>
<td>PECC</td>
<td>-</td>
<td>4</td>
<td>-</td>
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<td>4</td>
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<tr>
<td>Adult Acute Mental Health</td>
<td>30</td>
<td>35</td>
<td>-</td>
<td>-</td>
<td>65</td>
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<tr>
<td>Older Person Acute Mental Health</td>
<td>-</td>
<td>15</td>
<td>-</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Sub Total Mental Health</td>
<td>30</td>
<td>54</td>
<td>-</td>
<td>-</td>
<td>84</td>
</tr>
<tr>
<td>Drug and Alcohol</td>
<td>-</td>
<td>15</td>
<td>-</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Sub-Acute*</td>
<td>-</td>
<td>58</td>
<td>10</td>
<td>53</td>
<td>121</td>
</tr>
<tr>
<td>Renal Dialysis Chairs</td>
<td>22</td>
<td>12</td>
<td>20</td>
<td>-</td>
<td>54</td>
</tr>
<tr>
<td>Total Built Beds</td>
<td>532</td>
<td>341</td>
<td>30</td>
<td>53</td>
<td>956</td>
</tr>
</tbody>
</table>

*Excluding Inpatient Transitional Care beds at Woy Woy and Long Jetty

Gosford Hospital redevelopment

When Gosford Hospital redevelopment is completed in 2019, built capacity will increase significantly across most services areas with acute bed capacity to meet projected requirements to at least 2027, additional surgical and procedural capacity, expanded intensive care, emergency department, maternity and neonatal, ambulatory care and clinical support services as well as a number of additional services including inpatient rehabilitation and nuclear medicine.

7.2 Trends in activity

While service specific trends in activity are detailed in other sections of this plan it is important to reference a number of broad trends seen since 2012 that relate predominantly to changes to models of care resulting from a range of policy settings from the health reform agenda. These include activity based funding, emergency treatment performance (ETP) and elective surgery admission performance (ESAP), as well as investments in sub-acute care, chronic disease management and integrated care.

Overall length of stay has continued to decline significantly for both medical and surgical episodes across most age groups, including the very old. While some of the reduction is a result of earlier type changing to sub-acute care, a large proportion is the result of genuine changes in models of care driven partly by the constrained infrastructure capacity at both Gosford and Wyong Hospitals. As a consequence, the re-admission rate for CCLHD facilities is high in comparison to peer facilities in NSW. Another significant trend has been the rapid increase in unplanned short stay episodes driven by new emergency department short stay units (SSUs). This is likely to continue as they become embedded in both hospitals and emergency department demand continues to grow at its current rate.

In 2015/16 Central Coast residents received their acute adult medical inpatient care predominantly in Central Coast LHD facilities (75.8%), with a further 16.7% in private facilities and only 2.3% in Northern Sydney LHD
facilities. Annual growth in demand was highest in CCLHD facilities, with most of the increase occurring in the last two years.

Table 9: CCLHD Resident Adult Medical Acute Inpatient Demand by Place of Treatment

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Coast</td>
<td>21,774</td>
<td>22,475</td>
<td>23,063</td>
<td>28,527</td>
<td>31,724</td>
<td>9.9%</td>
<td>75.8%</td>
</tr>
<tr>
<td>Northern Sydney</td>
<td>747</td>
<td>881</td>
<td>886</td>
<td>938</td>
<td>946</td>
<td>6.1%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Other Public</td>
<td>1,947</td>
<td>1,975</td>
<td>2,134</td>
<td>2,080</td>
<td>2,164</td>
<td>2.7%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Private</td>
<td>6,184</td>
<td>6,569</td>
<td>6,472</td>
<td>6,496</td>
<td>7,008</td>
<td>3.2%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Total</td>
<td>30,652</td>
<td>31,900</td>
<td>32,555</td>
<td>38,041</td>
<td>41,842</td>
<td>8.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

In contrast, Central Coast residents received their acute adult interventional (surgery and procedures) inpatient care predominantly in private facilities (62.2%), with a further 29.6% in CCLHD facilities and only 3.4% in Northern Sydney LHD facilities. Annual growth in demand was highest in Northern Sydney LHD facilities, averaging 7.1% over the past five years, although from a low base.

Table 10: CCLHD Resident Adult Interventional Acute Inpatient Demand by Place of Treatment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Coast</td>
<td>14,723</td>
<td>14,770</td>
<td>15,311</td>
<td>15,596</td>
<td>15,520</td>
<td>1.3%</td>
<td>29.6%</td>
</tr>
<tr>
<td>Northern Sydney</td>
<td>1,369</td>
<td>1,387</td>
<td>1,488</td>
<td>1,618</td>
<td>1,802</td>
<td>7.1%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Other Public</td>
<td>2,425</td>
<td>2,451</td>
<td>2,450</td>
<td>2,385</td>
<td>2,467</td>
<td>0.4%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Private</td>
<td>29,559</td>
<td>32,499</td>
<td>31,757</td>
<td>31,232</td>
<td>32,631</td>
<td>2.5%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Total</td>
<td>48,076</td>
<td>51,107</td>
<td>51,006</td>
<td>50,831</td>
<td>52,420</td>
<td>2.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

The Service Related Groups (SRGs) represented in the top ten admissions for CCLHD residents to Royal North Shore Hospital predominantly reflect referrals for tertiary care available at RNSH as part of its regional and state wide role. This includes Neurosurgery, Major Trauma, Cardiothoracic Surgery and Interventional Cardiology, Burns and Complex Cancer Surgery. Moderate flow returns to Gosford Hospital are expected following the redevelopment in 2019 while for Interventional Cardiology, where capability will be significantly enhanced, return of inpatient flows is expected to be significant.

Table 11: Top 10 CCLHD Resident Adult Acute Inpatient Flows to Royal North Shore Hospital

<table>
<thead>
<tr>
<th>Service Related Group</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurosurgery</td>
<td>297</td>
<td>340</td>
<td>355</td>
<td>336</td>
<td>385</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>231</td>
<td>235</td>
<td>255</td>
<td>267</td>
<td>264</td>
</tr>
<tr>
<td>Interventional Cardiology</td>
<td>177</td>
<td>152</td>
<td>138</td>
<td>170</td>
<td>164</td>
</tr>
<tr>
<td>Cardiothoracic Surgery</td>
<td>129</td>
<td>145</td>
<td>90</td>
<td>137</td>
<td>159</td>
</tr>
<tr>
<td>Non Subspecialty Surgery</td>
<td>92</td>
<td>98</td>
<td>112</td>
<td>136</td>
<td>137</td>
</tr>
<tr>
<td>Neurology</td>
<td>86</td>
<td>104</td>
<td>106</td>
<td>121</td>
<td>119</td>
</tr>
<tr>
<td>Upper GIT Surgery</td>
<td>42</td>
<td>68</td>
<td>86</td>
<td>97</td>
<td>94</td>
</tr>
<tr>
<td>Plastic and Reconstructive Surgery</td>
<td>68</td>
<td>73</td>
<td>81</td>
<td>93</td>
<td>89</td>
</tr>
<tr>
<td>Cardiology</td>
<td>63</td>
<td>75</td>
<td>84</td>
<td>86</td>
<td>76</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>43</td>
<td>60</td>
<td>70</td>
<td>68</td>
<td>74</td>
</tr>
<tr>
<td>Remainder</td>
<td>392</td>
<td>409</td>
<td>463</td>
<td>452</td>
<td>497</td>
</tr>
<tr>
<td>Total</td>
<td>1,620</td>
<td>1,759</td>
<td>1,840</td>
<td>1,963</td>
<td>2,058</td>
</tr>
</tbody>
</table>

The Service Related Groups (SRGs) represented in the top ten admissions for CCLHD residents to private facilities are nearly all surgical or procedural.

Table 12: Top 10 CCLHD Resident Adult Acute Inpatient Flows to Private Hospitals

<table>
<thead>
<tr>
<th>Service Related Group</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic GI Endoscopy</td>
<td>4,738</td>
<td>5,130</td>
<td>5,093</td>
<td>5,037</td>
<td>5,320</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>5,015</td>
<td>5,346</td>
<td>5,067</td>
<td>4,808</td>
<td>5,193</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>3,743</td>
<td>3,975</td>
<td>4,374</td>
<td>4,354</td>
<td>4,477</td>
</tr>
<tr>
<td>Non Subspecialty Surgery</td>
<td>3,099</td>
<td>3,456</td>
<td>3,399</td>
<td>3,226</td>
<td>3,227</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>2,547</td>
<td>2,672</td>
<td>2,671</td>
<td>2,816</td>
<td>3,112</td>
</tr>
<tr>
<td>Urology</td>
<td>1,927</td>
<td>2,269</td>
<td>2,083</td>
<td>2,244</td>
<td>2,178</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>2,219</td>
<td>2,287</td>
<td>2,177</td>
<td>2,027</td>
<td>2,055</td>
</tr>
<tr>
<td>Interventional Cardiology</td>
<td>1,522</td>
<td>1,932</td>
<td>1,652</td>
<td>1,610</td>
<td>1,822</td>
</tr>
<tr>
<td>Plastic and Reconstructive Surgery</td>
<td>1,462</td>
<td>1,634</td>
<td>1,608</td>
<td>1,656</td>
<td>1,636</td>
</tr>
<tr>
<td>ENT &amp; Head and Neck</td>
<td>1,088</td>
<td>1,225</td>
<td>1,318</td>
<td>1,211</td>
<td>1,252</td>
</tr>
<tr>
<td>Remainder</td>
<td>8,383</td>
<td>9,142</td>
<td>8,787</td>
<td>8,739</td>
<td>9,367</td>
</tr>
<tr>
<td>Total</td>
<td>35,743</td>
<td>39,068</td>
<td>38,229</td>
<td>37,728</td>
<td>39,639</td>
</tr>
</tbody>
</table>
In 2015/16 Central Coast residents birthed predominantly in Central Coast LHD facilities (73.8%), with a further 21.8% in private facilities, nearly all at Gosford Private Hospital. Over the past five years the total number of births to CCLHD residents has changed little. There has been a significant decline in births for CCLHD residents in Hunter New England LHD facilities since 2012/13 with the balance returning to CCLHD.

**Table 13: CCLHD Resident Births by Place of Treatment**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Coast</strong></td>
<td>2,626</td>
<td>2,570</td>
<td>2,723</td>
<td>2,756</td>
<td>2,835</td>
<td>1.0%</td>
<td>73.8%</td>
</tr>
<tr>
<td><strong>Hunter New England</strong></td>
<td>194</td>
<td>215</td>
<td>85</td>
<td>66</td>
<td>55</td>
<td>(27.0)%</td>
<td>1.4%</td>
</tr>
<tr>
<td><strong>Northern Sydney</strong></td>
<td>84</td>
<td>83</td>
<td>73</td>
<td>70</td>
<td>87</td>
<td>0.9%</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Other Public</strong></td>
<td>44</td>
<td>44</td>
<td>45</td>
<td>41</td>
<td>27</td>
<td>(11.5)%</td>
<td>0.7%</td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td>863</td>
<td>1,013</td>
<td>819</td>
<td>842</td>
<td>835</td>
<td>(0.8)%</td>
<td>21.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,811</td>
<td>3,925</td>
<td>3,745</td>
<td>3,775</td>
<td>3,839</td>
<td>0.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Inpatient Inflows**

In 2015/16 acute adult inpatient inflows from other LHDs predominantly came from Hunter New England LHD. Of these the vast majority came from Lake Macquarie West, which borders Wyong local government area (LGA), with far more admissions to Wyong Hospital compared with Gosford Hospital. The pattern for emergency department presentations is similar.

**Table 14: Adult Acute Inpatient Flows from other LHDs to CCLHD 2015/16**

<table>
<thead>
<tr>
<th>Place of Residence</th>
<th>Gosford Hospital</th>
<th>Wyong Hospital</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunter New England</td>
<td>843</td>
<td>2,218</td>
<td>3,061</td>
</tr>
<tr>
<td>Lake Macquarie West</td>
<td>587</td>
<td>2,040</td>
<td>2,627</td>
</tr>
<tr>
<td>Other HNE</td>
<td>256</td>
<td>178</td>
<td>434</td>
</tr>
<tr>
<td>Northern Sydney</td>
<td>155</td>
<td>41</td>
<td>196</td>
</tr>
<tr>
<td>Western Sydney</td>
<td>79</td>
<td>138</td>
<td>216</td>
</tr>
<tr>
<td>Other</td>
<td>600</td>
<td>346</td>
<td>946</td>
</tr>
<tr>
<td>Total</td>
<td>1,677</td>
<td>2,664</td>
<td>4,341</td>
</tr>
</tbody>
</table>

**Inpatient Inter-District Flows**

In 2015/16, 37.8% of all adult acute inpatient admissions for residents of Wyong LGA were at Gosford Hospital. This ranged from 29.9% for unplanned medical admissions to 67.5% for unplanned interventional admissions. Based on geography alone, where parts of the southern end of Wyong LGA are closer to Gosford Hospital, somewhere between 20%-25% of Wyong LGA residents would be expected to receive care at Gosford Hospital.

**Table 15: Adult Acute Inpatient Flows for Residents of Wyong LGA 2015/16**

<table>
<thead>
<tr>
<th></th>
<th>Gosford Hospital</th>
<th>Wyong Hospital</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Planned</td>
<td>588</td>
<td>605</td>
<td>1,193</td>
</tr>
<tr>
<td>Medical Unplanned</td>
<td>4,587</td>
<td>10,739</td>
<td>15,326</td>
</tr>
<tr>
<td>Medical Total</td>
<td>5,175</td>
<td>11,344</td>
<td>16,519</td>
</tr>
<tr>
<td>Interventional Planned</td>
<td>2,639</td>
<td>3,620</td>
<td>6,259</td>
</tr>
<tr>
<td>Interventional Unplanned</td>
<td>1,833</td>
<td>881</td>
<td>2,714</td>
</tr>
<tr>
<td>Interventional Total</td>
<td>4,472</td>
<td>4,501</td>
<td>8,973</td>
</tr>
<tr>
<td>Total Adult Acute</td>
<td>9,647</td>
<td>15,845</td>
<td>25,492</td>
</tr>
</tbody>
</table>

Table 16 shows, for each Service Related Group, the proportion of care received at Gosford Hospital for Wyong LGA residents in 2015/16. While a number of SRGs reflect the centralised nature of some specialist services at Gosford Hospital (e.g., Breast Surgery, Dental, Head and Neck Surgery, Interventional Cardiology, Haematology etc.) later chapters in this plan will identify some opportunities to provide care locally for Wyong residents across a range of services.
Table 16: Adult Acute Inpatient Flows for Residents of Wyong LGA 2015/16 by Service Related Group at Gosford Hospital

<table>
<thead>
<tr>
<th>Service Related Group</th>
<th>Wyong LGA at Gosford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ophthalmology</td>
<td>7.3%</td>
</tr>
<tr>
<td>Drug and Alcohol</td>
<td>8.0%</td>
</tr>
<tr>
<td>Respiratory Medicine</td>
<td>18.1%</td>
</tr>
<tr>
<td>Diagnostic GI Endoscopy</td>
<td>19.2%</td>
</tr>
<tr>
<td>Cardiology</td>
<td>21.5%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>26.4%</td>
</tr>
<tr>
<td>Upper GIT Surgery</td>
<td>28.4%</td>
</tr>
<tr>
<td>Non Subspecialty Medicine</td>
<td>32.3%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>32.7%</td>
</tr>
<tr>
<td>Colorectal Surgery</td>
<td>33.9%</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>34.8%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>37.0%</td>
</tr>
<tr>
<td>Pain Management</td>
<td>37.8%</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>38.5%</td>
</tr>
<tr>
<td>Neurology</td>
<td>40.1%</td>
</tr>
<tr>
<td>Non Subspecialty Surgery</td>
<td>42.0%</td>
</tr>
<tr>
<td>Plastic and Reconstructive Surgery</td>
<td>49.8%</td>
</tr>
<tr>
<td>Immunology and Infections</td>
<td>50.6%</td>
</tr>
<tr>
<td>Oncology</td>
<td>61.4%</td>
</tr>
<tr>
<td>Renal Medicine</td>
<td>68.5%</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>70.2%</td>
</tr>
<tr>
<td>Urology</td>
<td>73.8%</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>76.6%</td>
</tr>
<tr>
<td>Haematology</td>
<td>79.1%</td>
</tr>
<tr>
<td>Interventional Cardiology</td>
<td>80.2%</td>
</tr>
<tr>
<td>Breast Surgery</td>
<td>83.7%</td>
</tr>
<tr>
<td>ENT &amp; Head and Neck</td>
<td>89.9%</td>
</tr>
<tr>
<td>Dentistry</td>
<td>94.4%</td>
</tr>
<tr>
<td>Total Adult Acute</td>
<td>37.8%</td>
</tr>
</tbody>
</table>

7.3 Revised activity projections

Health service activity projections for Gosford and Wyong Hospitals, and other health facilities in CCLHD were developed for the 2012-2022 Clinical Services Plan and revised again in 2014 for the Gosford and Wyong Hospital redevelopment business cases. These projections provide an estimate of likely health service activity by clinical stream over time and inform the infrastructure required to support them.

Modelling tools have been developed by NSW Health for a range of acute, sub-acute and non-admitted services for all of NSW and are required to be used to support all business cases for capital funding. These tools are continually being revised and updated in response to planned population changes, known/observed changes in health service utilisation or anticipated changes resulting from new health policies, models of care or health technology.

All NSW Health activity projection tools are currently being overhauled and the release of base case projections for most services is expected in the second half of 2017. The revised projections will reflect recently released population projections as well as state wide trends in health service utilisation resulting from health reforms over the past five years (including activity based funding, emergency treatment performance (ETP) and elective surgery access performance (ESAP), investment in chronic disease and integrated care programs).

It is expected that the outputs of these projection tools may differ from figures currently supporting Gosford and Wyong Hospital business cases. However, until the new results are formally released and there has been an opportunity to consider them in detail it is recommended that CCLHD continues with current approved activity projections.

Once the new data is available a detailed review of these figures, and their implications for activity and facility requirements, will be undertaken and released in a separate companion document to the Clinical Services Plan. The projections in the companion document will be used to develop the revised Wyong Hospital business case in the second half of 2017.
8 Population Health Services

8.1 Aboriginal Health

**Current services**

The Aboriginal Health Service, known as Nunyara, is based at Gosford Hospital. A key role of Nunyara is providing advocacy and support for Aboriginal and Torres Strait Islander inpatients, outpatients and their families. They also have a key role in liaising with service providers and provision of advice on matters in relation to improving the health and well-being of Aboriginal patients and community members.

The service encompasses: hospital liaison for inpatients and outpatients, chronic care management and follow-up, Aboriginal Mothers and Babies service, and an Aboriginal Early Intervention Service. In addition, Nunyara coordinates and facilitates the annual NAIDOC Day, promotes and supports employment of Aboriginal people including Aboriginal health workers as well as cultural awareness and training for LHD staff.

A number of clinics are provided at Nunyara including GP and Allied Health clinics provided by the Yerin Aboriginal Health Service. The Ngiyang mothers and babies services provide a range of clinics including baby health checks, immunisation, antenatal and postnatal checks. Over time additional clinics will be developed and provided.

CCLHD provides a number of other community-based services specifically focused on the Aboriginal community including:

- Aboriginal Maternal and Infant Health (AMIH) and Building Strong Foundations (BSF) health teams (Ngiyang) providing:
  - Culturally sensitive pregnancy care to Aboriginal women and their families
  - Developmental health checks
  - Women’s Health Clinic at Mingaletta (located at Umina)
  - Young, Black and Ready for School program
  - Playgroups and parent support programs
- Aboriginal drug and alcohol liaison officer
- Aboriginal youth health worker
- Aboriginal immunisation worker
- Aboriginal Oral Health clinics for adults and children – in partnership with Yerin.

The Aboriginal Health Service maintains strong partnerships with other Aboriginal service providers in the area including:

- [Barang Regional Alliance](#), an organisation that gives voice to Aboriginal communities on the Central Coast; Barang is structured through the [Local Decision Making](#) and [Empowered Communities](#) initiatives with the goal of closing the gaps in Aboriginal disadvantage.
- [Yerin Aboriginal Health Service Inc](#) which provides a range of primary health services and community programs
- [Mingaletta](#) community, an organisation which provides a cultural base on the Woy Woy peninsula for the local community
- [Bungree Aboriginal Association](#), an NGO based in Tuggerah providing community care packages, community transport, housing and respite care to the Aboriginal community, and other services to Aboriginal elders
- [Ngaimpe Aboriginal Corporation](#) (also known as The Glen), located at Chittaway Point offering residential alcohol and drug rehabilitation services for men (both Aboriginal and non-Aboriginal).

**Activity**

Emergency Department Activity - in 2015/16:

- 7,560 Aboriginal and Torres Strait Islander people presented to the emergency departments at Gosford and Wyong hospitals representing 5.9% of all ED presentations (5% of all adult and 9.1% of all paediatric presentations)
The total number of presentations increased by 89.9% (3,580) since 2010/11. This is a much larger increase compared to non-Aboriginal presentations which increased by 14.2% over the same period.

There were 4,983 adult and 2,577 paediatric (less than 16 years of age) presentations. Adult presentations have increased by 86.1% (2,306) since 2010/11 and paediatric presentations have increased by 97.8% (1,274)

58.4% presentations were to Wyong Hospital ED, including 57.1% of adult and 60.9% of paediatric presentations

There were 906 (0.7%) presentations where Aboriginal status is not known; this has increased from 291 (0.3%) presentations in 2010/11

5.7% (284) Aboriginal people presenting to ED either did not wait for treatment or left at their own risk; this has declined from 10.6% (285) in 2010/11. By comparison, 3.0% of non-Aboriginal people did not wait or left at own risk with a decline from 6.6% in 2010/11

20.1% of Aboriginal people presented by Ambulance compared to 27.2% of non-Aboriginal people

Admission rates differ for Aboriginal people (25.9%) compared to non-Aboriginal people (35.8%). Admission rates have increased for both groups (19.3% for Aboriginal people and 27.3% for non-Aboriginal people) since 2010/11.

Population Health Services

Collectively these three SRGs accounted for 26.5% (497) of Aboriginal adult acute inpatient episodes.

There were 2,476 inpatient episodes, 1,649 at Gosford Hospital and 827 at Wyong Hospital an increase of 96% since 2010/11.

Admission rates have increased for both groups (19.3% for Aboriginal people and 27.3% for non-Aboriginal people) since 2010/11.

Table 17: ED Presentations by Aboriginal Status 2010-2016

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<td></td>
<td></td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No. %</td>
</tr>
<tr>
<td>Gosford</td>
<td>Aboriginal - Adult</td>
<td>1,183</td>
<td>1,444</td>
<td>1,689</td>
<td>1,798</td>
<td>1,942</td>
<td>2,138</td>
<td>955 80.7%</td>
</tr>
<tr>
<td></td>
<td>Aboriginal - Paediatric</td>
<td>537</td>
<td>613</td>
<td>676</td>
<td>766</td>
<td>925</td>
<td>1,009</td>
<td>472 87.9%</td>
</tr>
<tr>
<td></td>
<td>Not Stated</td>
<td>231</td>
<td>1,203</td>
<td>1,241</td>
<td>865</td>
<td>591</td>
<td>600</td>
<td>369 159.7%</td>
</tr>
<tr>
<td>Wyong</td>
<td>Aboriginal - Adult</td>
<td>1,494</td>
<td>1,848</td>
<td>2,075</td>
<td>2,272</td>
<td>2,481</td>
<td>2,845</td>
<td>1,351 90.4%</td>
</tr>
<tr>
<td></td>
<td>Aboriginal - Paediatric</td>
<td>766</td>
<td>1,109</td>
<td>1,233</td>
<td>1,350</td>
<td>1,402</td>
<td>1,568</td>
<td>802 104.7%</td>
</tr>
<tr>
<td></td>
<td>Not Stated</td>
<td>60</td>
<td>454</td>
<td>447</td>
<td>367</td>
<td>308</td>
<td>306</td>
<td>246 410%</td>
</tr>
<tr>
<td>CCLHD</td>
<td>Total Aboriginal pres'ns</td>
<td>3,980</td>
<td>5,014</td>
<td>5,675</td>
<td>6,186</td>
<td>6,750</td>
<td>7,560</td>
<td>3,580 89.9%</td>
</tr>
<tr>
<td></td>
<td>Total Presentations</td>
<td>109,561</td>
<td>113,541</td>
<td>117,592</td>
<td>117,407</td>
<td>121,038</td>
<td>128,678</td>
<td>19,117 17.4%</td>
</tr>
</tbody>
</table>

Source: NSW Health, ED Activity Analysis Tool (EDAA) v16.0 download 14/07/2017

Inpatient activity - in 2015/16:

There were 2,476 inpatient episodes, 1,649 at Gosford Hospital and 827 at Wyong Hospital an increase of 96% since 2010/11.

The number of Aboriginal adult acute inpatient episodes has more than doubled since 2010/11 and paediatric inpatient episodes have increased 59%.

The number of maternity deliveries has increased by 72.6% (82 deliveries). This growth is significantly higher than for non-Aboriginal inpatient episodes over the same period.

There were 145 episodes where Aboriginal status was either not stated or unknown, a decrease of 42.9% since 2010/11 when there were 254 episodes.

The most common Service Related Groups (SRGs) (excluding renal dialysis) for adult acute inpatient episodes were Respiratory Medicine (169 episodes), Orthopaedics (166 episodes), and Cardiology (162 episodes).

Collectively these three SRGs accounted for 26.5% (497) of Aboriginal adult acute inpatient episodes.

Table 18: Aboriginal Persons acute Inpatient episodes by service stream (number and percentage of total activity) 2010-2016

<table>
<thead>
<tr>
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<tr>
<td></td>
<td></td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No. %</td>
</tr>
<tr>
<td>Gosford</td>
<td>Acute - Adult</td>
<td>527</td>
<td>604</td>
<td>649</td>
<td>783</td>
<td>948</td>
<td>1,058</td>
<td>531 100.8%</td>
</tr>
<tr>
<td></td>
<td>Acute - Paediatric</td>
<td>256</td>
<td>249</td>
<td>277</td>
<td>302</td>
<td>380</td>
<td>407</td>
<td>151 59.0%</td>
</tr>
<tr>
<td></td>
<td>Maternity*</td>
<td>104</td>
<td>129</td>
<td>141</td>
<td>178</td>
<td>216</td>
<td>184</td>
<td>80 76.9%</td>
</tr>
<tr>
<td></td>
<td>Gosford Total</td>
<td>887</td>
<td>982</td>
<td>1,067</td>
<td>1,263</td>
<td>1,544</td>
<td>1,649</td>
<td>762 85.9%</td>
</tr>
<tr>
<td>Wyong</td>
<td>Acute Adult</td>
<td>367</td>
<td>393</td>
<td>474</td>
<td>583</td>
<td>660</td>
<td>816</td>
<td>449 122.3%</td>
</tr>
<tr>
<td></td>
<td>Acute Paediatric</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Maternity*</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>8</td>
<td>11</td>
<td>2 22.2%</td>
</tr>
<tr>
<td></td>
<td>Wyong Total</td>
<td>376</td>
<td>403</td>
<td>483</td>
<td>589</td>
<td>669</td>
<td>827</td>
<td>451 120%</td>
</tr>
<tr>
<td>CCLHD</td>
<td>Total Episodes</td>
<td>1,263</td>
<td>1,385</td>
<td>1,550</td>
<td>1,852</td>
<td>2,213</td>
<td>2,476</td>
<td>1,213 96.0%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection *refers to the number of deliveries only
Future Service Configuration

Expansion of the Aboriginal Health Service (Nunyara) is required to enable a greater onsite presence and capacity for patient advocacy and liaison across Gosford, Wyong, Long Jetty and Woy Woy hospital sites.

Development of an increased number of programs targeting the following identified health priority areas: diabetes prevention and management, participation rates in cancer screening and treatment, and chronic disease prevention and management.

The Aboriginal Health Partnership Agreement with Yerin Aboriginal Health Service Inc and the Hunter New England Central Coast Primary Health Network will be critical to the continued development of services, as will the ongoing delivery of Aboriginal specific cultural awareness training for CCLHD staff.

Strategic Directions

5. Development of Aboriginal focussed health promotion and early intervention programs in partnership with other health services and community based organisations, with a specific emphasis on maternal health and adolescents to reduce health risk behaviours and improve health

6. Expansion of the current Aboriginal health programs, particularly chronic care, to meet demand, reduce waiting times, and increase program uptake by the population

7. Develop a culturally appropriate and easily accessible community based diabetes program to target early diagnosis, community education, consistent management, early recognition and intervention to prevent the development of complications

8. Development of a cancer program to reduce risk behaviours, increase screening participation and provide support for patients, families and the community during active treatment as well as palliative and end of life care

9. Expansion of the hospital liaison services to enable representation at all hospital sites and also increase presence in the EDs to reduce the number departures without being seen or against medical advice

10. Increase the profile of the Aboriginal Health Service including consideration of location and accommodation on each site

11. Develop an Aboriginal Health Council to guide the strategic development of health services, with representation from key community members and community based organisations.

8.2 Multicultural Health

Multicultural Health Service is responsible for ensuring the Central Coast Local Health District (CCLHD) meets its obligations under the Multicultural Policies and Services Program (MPSP) through ensuring ‘inclusion’ is incorporated into strategic planning, implementation, monitoring and evaluation of health services provided to people from culturally and linguistically diverse (CALD) backgrounds. Additionally, promoting the use of registered health care interpreters in the key communication processes involved with providing quality health care, including, but not limited to, obtaining informed consent from each patient prior to commencing treatment.

Other obligations for CCLHD are set out in key Multicultural Health references including: NSW Health Policy & Implementation Plan for Healthy Culturally Diverse Communities 2012-2016; the NSW Refugee Health Plan 2011-16; and, the CCLHD Multicultural Health Plan 2014-2017.

Strategic Directions

12. Continue to work with staff to raise cultural awareness and use of interpreter services

13. Revision of the CCLHD Multicultural Health Plan.

8.3 Health Promotion

The importance of promotion, prevention and early intervention and the need to refocus the health system toward illness prevention and health improvement, especially for populations at greatest risk, is well recognised.
Just a few factors account for most of the preventable deaths and chronic diseases in Australia. Tobacco smoking, physical inactivity, alcohol, lack of fruit and vegetables, fall injury risks among older people, communicable diseases, and illicit drugs are among the main challenges. Many chronic diseases are largely preventable such as type 2 diabetes, cardiovascular disease, and chronic obstructive pulmonary disease (COPD). Specific sub-populations are known to have higher levels of risk behaviours and poorer health, including Aboriginal people, some culturally and linguistically diverse (CALD) groups, carers, and people with mental health illnesses and disorders. There is also a correlation between lower socioeconomic status and higher prevalence of these lifestyle risk factors. Traditionally these groups are more difficult to target and are less receptive to mainstream health promotion techniques.

Within CCLHD, health promotion activities occur at a population or individual level:

- The CCLHD Health Promotion Service focuses on population level action; operating within the WHO Ottawa Charter framework of community action, healthy environments, healthy public policy, personal skills, and changing health service focus.
- Individual services provide targeted programs aimed at individuals including education programs, monitoring, treatment and rehabilitation. Programs evolve and change constantly and specific projects target identified local issues.

The majority of the CCLHD’s Health Promotion Service activities are anchored in four state-wide priorities:

- Tobacco control
- Healthy Eating Active Living (HEAL)
- Healthy active ageing
- Risky alcohol consumption.

Issues, challenges and opportunities

- Growth in the Central Coast population, particularly among vulnerable populations and those with socioeconomic disadvantage and associated risk factors, means future health promotion programs will need to respond to the needs of these groups.
- The majority of health funding is directed toward delivery of clinical services leaving little available for prevention and promotion. Adequate recognition and resourcing of prevention, promotion and early intervention as integral parts of service provision is required, including areas beyond the four state-wide priorities.
- Improved collaboration and alignment between the broad population approach of the Health Promotion Service and more targeted activities of individual services and service providers is desirable, with scope to address specific local health issues.
- Health Promotion strategies need to increasingly reach high risk groups and communities such as those with lower socioeconomic status, lower education levels, people with a mental health illness or disorder, Aboriginal population, those with cultural and language barriers and other marginalised groups.

Future Service Priorities

The Health Promotion Service will continue to develop, implement and evaluate innovative population based State-directed health promotion programs addressing tobacco, alcohol, healthy eating active living and healthy active ageing while supporting CCLHD services in their delivery of services to prevent illness, promote health, and identify illness early. The role of health promotion/illness prevention activities should be considered as part of the care continuum and included as part of service planning and development.

Strategic Directions

14. Develop integrated programs targeting existing and emerging community needs, and address factors which contribute to health disadvantage, in collaboration with CCLHD services and other agencies and service partners (government and non-government).
15. Work with the Regional Leadership Executive to build healthier environments for local communities including, for example, access to safe exercise space for the elderly, bike and walking tracks and healthy urban development.
16. Develop and implement initiatives that will assist CCLHD to exceed targets set in the Service Agreement for State-directed health promotion priorities.

### 8.4 Public Health

The Central Coast Public Health Unit, part of the state-wide network of Public Health Units, monitors and manages environmental health issues, infectious disease surveillance and control, immunisation, and provides the public health component of the LHD’s response to emergencies. The Unit also participates in descriptive and interventional studies concerning state and local priority health issues in the community setting. The Public Health Unit brings a population health perspective to its collaborative work with research, health planning and integrated care service initiatives. It is a partner investigator in research on healthy lifestyles of older people living in retirement villages and the general community. It is also a partner investigator with Health Promotion’s high school “Thirsty? Choose Water” project, and lead investigator exploring the relationship between social care, health services and health outcomes.

The Public Health Unit works with a wide range of stakeholders and key partners (both government and non-government) to achieve public health outcomes. These include General Practice, the Hunter New England and Central Coast Primary Health Network, schools, child care centres, local councils and residential aged care facilities. The Unit also works closely with other CCLHD services including Health Promotion, Child and Family Health and Infection Control.

**Issues, challenges and opportunities**

- High immunisation rates are currently achieved within the school immunisation programs on the Central Coast; these rates will need to be maintained into the future
- Influenza vaccination rates, particularly for vulnerable groups, could be improved
- Central Coast has substantial areas of ongoing development, particularly within the northern part of CCLHD. The public health implications of these developments need to be considered to achieve healthy urban development for residents.
- The Public Health Unit has an ongoing commitment to research regarding the health of the Central Coast community.

**Future Service Priorities**

The Public Health Unit will continue to develop in response to emerging and emergency issues and work with the NSW Public Health Network:

- to more effectively respond to environmental health issues e.g. urban development
- on statewide communicable disease research projects e.g. vaccine preventable diseases
- on public health emergency management planning and exercises e.g. pandemic response.

It will respond to notifications of infectious disease following NSW Ministry of Health protocols, using the state-wide database, and will work with local government and Planning NSW on large scale developments to promote healthy urban environments and environmental health issues.

The Public Health Unit will continue to participate in research projects relevant to the health needs of the Central Coast population including health in retirement and cardiovascular risk factors.

**Strategic Directions**

17. Maintain high participation rates in school immunisation programs in collaboration with Child & Family Health
18. Improve vaccination rates for all ages in collaboration with General Practices and the HNECC Primary Health Network, with an increased focus on influenza and local access to free vaccination services
19. Promote a population health approach to CCLHD service delivery; initial projects to include contributing to an Aboriginal Health Services Plan, taking a lead role in diabetes planning, and determining the feasibility/sustainability of ongoing Community Health Surveys
20. Strengthen relationships with key stakeholders in relation to human and animal infectious diseases, and emerging infectious diseases, initially establishing a Human and Animal Diseases Advisory Group
21. Advocate for and develop approaches to environmental sustainability in CCLHD, including increased awareness and implementation of a CCLHD Environmental Sustainability Strategy

22. Review future accommodation needs for the Public Health Unit, considering co-location with Health Promotion, and the benefits of co-location with other CCLHD services.
Community Health Services

Current Services

Community based services are an integral part of the care continuum. The primary health sector is where a significant number of people receive the majority of their health care. CCLHD primary and community health services, with a focus on integrated care, are provided in a range of settings including outpatient clinics, community health centres, in the home and in residential aged care facilities (RACF). These services play an increasingly important role in the delivery of acute care through the provision of early intervention, acute care substitution, and post-acute care in the community. Current services include:

- Community Health Access and Intake
- Community Health Nursing
- Acute Post-Acute Care (APAC)/ Hospital in the Home (HITH)
- Dementia and Behaviour Support Service (DABSS)
- Continence Services
- Complex Care Programs including Care Coordination
- Self-Management Support Service
- Transitional Aged Care Program
- Stomal Therapy
- Cardiac Rehabilitation, Pulmonary Rehabilitation, Heart Failure Rehabilitation, Home Education Respiratory Rehabilitation Service (HERRS)
- Diabetes Education Service
- Wound Management
- Specialist Palliative Care
- Women’s Health
- Allied Health Clinics
- Rehabilitation and Aged Care
- Child and Family Health
- Midwife antenatal clinics and group antenatal care
- Sexual Assault
- Domestic Violence
- Drug and Alcohol Services
- Mental Health
- Oral Health
- HIV and related programs (HARP) including Sexual Health
- Satellite dialysis at Lake Haven, Long Jetty, and Gosford.

Services are provided across 11 sites and, with the exception of mental health services, are arranged into three geographic sectors:

- **North:** Wyong Central Community Health Centre (CHC) (hub) – Wyong Hospital, Lake Haven, Mangrove Mountain (spokes)
- **Central:** Long Jetty CHC (hub) – Kincumber CHC, Erina (CHC) (spokes)
- **South:** Woy Woy CHC (hub) – Gosford Hospital (spoke)
- **Mental Health** – Toukley (hub) and Gosford Gateway (child and family services). Note- community mental health services are included in the Mental Health chapter 17.

Community Health is provided as a single service across multiple sites at Level 4 (the highest level) role delineation and incorporates community nursing, multicultural health, in-reach discharge planning, HITH and women’s health. Sexual Health is provided at level 4 role delineation as part of the HARP program located at Gosford Hospital.
Future Service Configuration

Population growth and ageing as well as increasing patient complexity are some of the key drivers for the health system. As pressure on the acute care system continues to increase, this will further drive the development of hospital avoidance and early discharge strategies that aim to manage people effectively in the community and minimise the need for inpatient care.

Increasing demand, patient acuity and complexity will require the development of mobile, extended hours community health services capable of providing more complex care, integrated across the care continuum. To streamline this process there will be centralised intake, consolidating existing telephone intake lines, for adult community programs (non-mental health) available seven days.

Hospital in the Home (HITH)

Implementation of the HITH model will support provision of high acuity care in the community. HITH is a short term multidisciplinary hospital substitution or admission prevention model for the provision of acute, subacute or post-acute care to patients outside the hospital setting. Care may be delivered in the patient’s home (including RACF) or in an ambulatory setting that may include hospital outpatient clinic, community clinic setting or workplace. The model will be implemented over three phases with the inclusion of additional patient cohorts with each phase:

- Phase 1 comprises the existing patient groups serviced by APAC which includes: cellulitis, deep vein thrombosis, pulmonary embolus, infections (post-operative, bone and joint, chest, hospital acquired, etc.)
- Phase 2 will include sub-acute cohorts including delirium
- Phase 3 will include services for other patient cohorts where care could be safely provided in the home environment with the appropriate clinical support.

Community based Services

There will be a greater emphasis on early intervention, preventative, and restorative management of complex and chronic disease in the community, ‘ageing in place’, person-centred care and integrated service models. Models will need to be well linked with general practice, inpatient care and rehabilitation programs. There is an increased role for care coordination for these patients to facilitate seamless access to appropriate services and providers.

An integral part of ongoing care for patients with chronic diseases will be equipping them with the knowledge and skills to manage their condition through supported self-management programs. There is a role for increased involvement of non-government organisation and/or community groups in providing these programs.

Community health services will need to maintain an important interface with primary care, in particular General Practice, as well as Ambulance NSW, Family and Community Services (FACS), RACF and the Primary Health Network promoting a seamless continuum of care for patients that extends beyond acute inpatient services. These links are supported by effective two way communication including sharing of care plans and discharge and transfer of care processes.

All these factors influence what services will be required into the future, how services should be provided including the appropriate setting and service configuration to ensure that the services have capacity to accommodate future demand and remain responsive to changing models of care. How services and teams interface with each other will become increasingly important to maximise the care provided as well as the effective use of valuable resources.

Increasing demand for existing community based services as well as emerging demand for new and additional services will require a comprehensive planning process to identify future service requirements, configuration and development opportunities. The pressure for increasing service provision in the community and implementation of new models is coming from all services not just those which have traditionally provided community based models. Services such as mental health, maternity, aged care, drug and alcohol, HARPs, rehabilitation, child and family, chronic and complex care will have increasing demands for accessible community based services.

Development of a service plan for community services will inform the future infrastructure needs to support service delivery. This will include considerations of service location to improve community access; opportunities to relocate services from hospital sites into the community; opportunities to establish additional and new services in the community; support implementation of identified models of care such as community based rehabilitation;
maximise use of built facilities by multiple services; consolidation or decentralisation of services; and support integration between services and providers. It will inform the best use of the existing facilities including refurbishment and/or repair requirements to ensure their suitability for the services provided and expected clientele as well as any additional infrastructure required.

**Strategic Directions**

23. Undertake a comprehensive planning process to identify service development opportunities and inform future service and infrastructure requirements across the spectrum of clinical and non-clinical community health services and providers

24. Develop a community health facility infrastructure plan detailing requirements, timeframes and capital acquisition strategies and options (repair, refurbish, replace existing or develop new infrastructure)

25. Development of mobile, extended hours community health services capable of providing more complex integrated care and transition to the centralised Community Health access and intake service

26. Improve the management of complex and chronic conditions through the development of additional care coordination capacity

27. Develop services and streamline access to community health services through improved integration with primary and social care providers, other government and non-government providers

28. Progressively implement the HITH model over three identified phases

29. Develop strong pathways in the community to reduce unnecessary hospital presentations.

### 9.1 Oral Health

**Current Services**

Oral health services are managed as a single service across the LHD and can be accessed by eligible CCLHD residents including:

- Children and adolescents (up to 18 years of age) who are eligible for Medicare
- Adult (age 18 years and older) who are eligible for Medicare and have one of the following: Health Care Card, Pensioner Concession Card or Commonwealth Seniors Health Card.

Services and clinics are located at Gosford Hospital (4 chairs), Wyong Hospital (11 chairs) and Woy Woy Hospital (5 chairs). Since 2014 the built capacity has reduced from 24 chairs to 20 following consolidation of services from The Entrance and East Gosford Child Dental Clinics.

Budget constraints and funding uncertainty remain a challenge for the service to meet current demand. It is currently funded through the State Dental Program (DEN) and the Commonwealth National Partnership Agreement (NPA). Access to day surgery facilities including operating theatres is required for more complex procedures or for patients with special needs requiring treatment to be provided under general anaesthetic. For adults this generally occurs at either Gosford or Wyong hospitals.

To manage the high demand for the treatment of children who require general anaesthetic, CCLHD purchases regular theatre time (2 sessions with approximately 8 patients per session) at Berkeley Vale Private Hospital and contracts a private specialist paediatric dentist and a private anaesthetist.

The NSW Oral Health fee-for-service voucher scheme is utilised to provide prosthetic (denture) services.

The current role delineation levels are: Gosford Hospital Level 4, Wyong Hospital Level 4, and Woy Woy Hospital Level 3.

**Future Service Configuration**

Oral health services will remain onsite at Gosford, Woy Woy and Wyong hospitals, however future consideration should be given to consolidating services at two sites.

It is expected that the role delineation levels will remain unchanged however depending on future service development; Gosford and possibly Wyong Hospital may meet the requirements for a Level 5 service at each site.
To meet sterilisation standards and to reduce risk, the insourcing of sterilisation to the District SSD is required which should occur within 6 to 12 months for all 3 clinics.

Replacement of ageing infrastructure (in particular dental chairs) at both Gosford and Wyong hospital clinics remains a significant issue which will need to be addressed in the short to medium term.

Regaining the 24 chairs capacity will also be required to meet the expected growth in demand for services as well as optimising chair utilisation.

Consideration should also be given to the establishment of a University of Newcastle dental training facility at Gosford Hospital or other location in CCLHD; in addition to expanding training opportunities for the University it would also have the advantage of providing additional chair capacity.

**Strategic Directions**

30. Expand oral health services and clinics to match increasing demand
31. Upgrade infrastructure (replace ageing chairs and equipment) at both Gosford and Wyong hospital clinics and increase capacity back to 24 chairs by 2020
32. Explore opportunities and options for the development of a joint University of Newcastle and CCLHD dental clinic and training facility on the Gosford Hospital campus.

### 9.2 Sexual Assault Services

**Current Services**

Sexual Assault Services (known as Biala) are specialist services which provides support, counselling, information and medical services to adults, adolescents and children who have experienced sexual assault and to their families and significant others.

Biala provides the following services:

- After-hours crisis service for victims of recent sexual assault
- Counselling immediately after an assault, and in the following weeks and months
- Counselling support and information for partners, family and friends
- Forensic and/or medical treatment in regard to possible pregnancy and sexually transmitted infections
- Information about reporting to police and the legal process
- Information about victim's compensation
- Preparation and support for court
- Therapeutic groups for adult victims of sexual assault and for adult survivors of childhood sexual abuse.

The service is located in Gosford CBD (forensic facilities and staff). Adult presentations to Wyong Hospital ED are transferred to Gosford Hospital. Counselling services are available at Gosford, Wyong and Lake Haven Community Health Centres.

The current role delineation level for the service is Level 4.

**Future Service Configuration**

The Royal Commission into Institutional Child Sexual Abuse has raised community awareness and there has been a subsequent increase in clients presenting with historic sexual abuse. Consideration needs to be given to maintaining staffing levels to respond to this. Increasing awareness and reporting of sexual assault in vulnerable and marginalised community groups such as victims with disability, Aboriginal or CALD require more intensive service models to meet client needs (e.g. regular use of interpreters, support workers to bring clients with disability to appointments). Co-ordination of such services requires higher staffing levels and time to enable vulnerable clients to access service.

**Strategic Directions**

33. Develop the medical and Sexual Assault Nurse Examiners (SANE) workforce to maintain sufficient numbers to operate the in-hours and after-hours service
34. Secure access to a specific forensic medical and crisis counselling suite in proximity to Gosford Emergency Department.

9.3 Domestic Violence Services

Current Services

The current domestic and family violence service comprises one worker who compiles the LHD response to the Safety Action Meeting for Tuggerah Lakes police Command. Victims who present to the emergency departments can be referred to social work either On Duty or On Call. Victims who are admitted to a facility can be referred to the social worker for the ward/unit who can support them during their admission. There is currently no service specifically working with victims after discharge from an acute presentation.

Future Service Configuration

There are different options for where domestic and family violence services are located within the LHD. Acute response, short term community support and referral, and the CCLHD Safety Action Meeting information management have different support and connection requirements. The MoH is currently exploring the various LHD models of service delivery.

Strategic Directions

35. Development of a comprehensive trauma informed response to victims of domestic and family violence who present to CCLHD acute facilities

36. Development of an appropriate forensic response to domestic and family violence presentations to ensure that evidence supports any police action to protect the victim.
10 Ambulatory and Outpatient Services

Current Services

Non-admitted services encompass outpatient clinics and day based treatment services as well as diagnostic and support services such pharmacy, medical imaging and pathology.

The range of services currently provided on an outpatient or ambulatory (walk in/walk out) basis include:

- Specialist clinics – aligned with clinical specialist services providing consultation and possibly treatment
- Multidisciplinary clinics – medical, nursing and allied health disciplines participate in the clinic, most commonly for chronic and complex diseases
- Rapid Assessment Clinics – consistent with chronic disease management models as well as early follow-up and investigation of discharged patients for specific clinical conditions e.g. TIA
- Allied Health clinics – allied health based treatments and services
- Nurse-led clinics – treatments and services such as wound management and continence services
- Maternity clinics
- Fracture clinics
- Pre-admission clinics
- Procedural clinics – outpatient based procedures are undertaken, for example insertion of vascular access devices, high risk foot service, urodynamic studies
- Specialised group sessions - patient education e.g. diabetes education
- Diagnostic investigation – e.g. respiratory investigations, sleep laboratory, stress testing, holter monitor, neuropsychology, etc.
- Ambulatory/ Medical day therapy – infusion therapies.

Outpatient services, including medical day therapy, are located at both Gosford and Wyong hospitals. Specialist medical outpatient consultation is also available through the Specialist and Cancer centres at Gosford Hospital. Diabetes education is based at Gosford Hospital and services are provided to Wyong Hospital as well as in the community.

Future Service Configuration

There is a continuing shift toward providing an increasing range of clinical services on a non-inpatient and ambulatory basis:

- Expansion of infusion and drug therapies which can be administered under clinical supervision on an ambulatory basis
- Trend toward rapid review models with increasing patient volumes and range of services
- Expansion in the role and availability of Nurse Practitioners in the outpatient services
- There is increasing use of multidisciplinary clinics particularly for chronic disease and cancer patients.

These trends alter and increase the requirement for:

- larger consultation space/rooms to accommodate a multidisciplinary team with adequate technology to view test results and scans simultaneously
- flexible access to additional consultation facilities/rooms to accommodate variable patient numbers
- Easy access to diagnostic and support services.

As part of the Gosford Hospital redevelopment an ambulatory services precinct is being built. The precinct will encompass multidisciplinary and specialist consultation and treatment clinics for medical and surgical sub-specialties, non-procedural and procedural day treatments, allied health therapies, and access to diagnostic and investigative procedures such as imaging and pathology. The following models and services will be accommodated in the ambulatory services precinct:

- Women’s health centre - accommodating maternity/antenatal clinics, gynaecology (colposcopy), women’s health, early pregnancy assessment service (EPAS) and ante natal day assessment unit
- Clinical support services – medical day procedures unit (8 chairs and 2 procedure rooms), satellite pathology collection service, medical imaging, neuropsychology, respiratory investigations and sleep studies
- Medical clinics – respiratory, neurology, endocrine, diabetes including the high risk foot service, rehabilitation, gastroenterology and geriatric medicine
- Surgical clinics – pre-admission clinics, orthopaedic trauma clinics (fracture clinics), ophthalmology, urodynamic studies, ambulatory cystoscopy, thoracic, ENT, vascular, pain management, plastics, wound, stoma therapies
- Allied Health therapies – speech pathology, audiology (including audiology booth), physiotherapy, occupational therapy, orthotics, social work, podiatry, psychology, nutrition, equipment loan pool.

As part of the redevelopment planning for Wyong Hospital an Ambulatory Services Precinct is proposed. Given the service changes including the increased range and volume of services which will be provided at Wyong Hospital in the future it is proposed that further planning is undertaken to identify the future service requirements to ensure that the development proposal will be adequate to accommodate the range and volume of services to be provided as well as the proposed service models.

### Strategic Directions

37. Identify and plan outpatient and ambulatory services, including diagnostic services, ambulatory treatment options, and minor procedures capacity, to support the proposed service expansion and increased role delineation levels at Wyong Hospital.

38. Evaluate the requirements for a second audiology booth at Gosford Hospital to support expanded ENT, Neurology and Paediatric services.
11.1 Medical Imaging, Interventional Radiology and Nuclear Medicine

Current Services

Gosford Hospital provides an extensive range of medical imaging and interventional radiology services at role delineation Level 5. Wyong Hospital provides radiology services at role delineation Level 4. Services are networked across the two hospitals and a Radiology Information System (RIS) and Picture Archival Communication System (PACS) supports all modalities. Services provided are set out in Table 19 and Table 20 current and future role delineation levels are set out in Table 22.

There is currently no onsite radiology service at Woy Woy Hospital or Long Jetty Health Facility. Patients requiring X-ray or other medical imaging are transported to either Gosford Hospital (for Woy Woy) or Wyong Hospital (for Long Jetty). Patients at Woy Woy Hospital may also access imaging services at Brisbane Waters Private Hospital which is located next to Woy Woy Hospital.

Nuclear Medicine services are provided at role delineation Level 4 at both Gosford and Wyong hospitals (Table 21). Services are currently accessed through formal agreements with private providers in Gosford and Wyong/Kanwal. Access to positron emission tomography (PET) scanning is also through private providers. Wyong Hospital accesses MRI through a private provider located adjacent to the hospital.

The service is accredited with the Royal Australian and New Zealand College of Radiologists (RANZCR).

Future Service Configuration

The service will continue to be provided as a single service across multiple sites with services networked between Gosford and Wyong hospitals and potential service provision at Woy Woy Hospital and Long Jetty Health Facility. Following completion of the redevelopment, Gosford Hospital will provide tertiary level services for CCLHD providing medical imaging, interventional radiology services and nuclear medicine at role delineation Level 5.

Access to PET scanning will continue through a private provider in the short to medium term. The following will be additional to the existing services:

- Nuclear medicine with diagnostic and therapeutic capabilities will be available onsite with Gamma Camera and SPECT CT
- There will be facilities for installation of Positron Emission Tomography (PET) in the Gosford Hospital redevelopment. PET has become a vital imaging tool for the management of cancer over the last decade. Not just limited to its ability to markedly improve the detection of cancer and the extent of its spread, PET is effective in the detection of treatment success, compared to current imaging modalities such as MRI and CT. A business case for the procurement of a PET scanner will be developed by the Medical Imaging Department.
- An integrated imaging operating room and an additional interventional laboratory will free some capacity in the existing main medical imaging department to accommodate some of the expected growth in the volume and complexity of interventional procedures
- Additional capacity and facilities for interventional radiology will enable expansion in the range of Tier B procedures provided. The number of days that the service is available will also be increased. There will be growth in demand for interventional radiological services in response to rapid technical developments and the increasing number of clinical sub-specialties utilising interventional techniques and procedures in place of traditional approaches.
- Additional Medical Imaging equipment will include a 3T MRI scanner, two new CT scanners, three digital x-ray systems, and three new ultrasound rooms. This will boost the ability of Medical Imaging to provide services for outpatients.

Wyong Hospital will provide radiology and interventional radiology services at role delineation Level 4 or possibly Level 5. Nuclear Medicine will be provided at role delineation Level 4 and will be networked with the nuclear medicine service at Gosford Hospital with the exception of PET scanning which will continue to be accessed.
through a private provider. There will be an increased range and volume of services available matching the growth in surgical, sub-specialty medicine, maternity and paediatric services. Future service development will include limited provision of lower complexity Tier A interventional radiological procedures onsite.

An increased range and complexity of ultrasound procedures will be available across Gosford and Wyong hospitals including nuchal translucency, foetal morphology ultrasound, paediatric hip, musculoskeletal, neuro-ultrasound, trans-rectal ultrasound (TRUS), arterial doppler, ophthalmic artery doppler, breast ultrasound and hook wire insertion. More complex and specialised procedures will be undertaken at Gosford Hospital.

Other strategies include:
- Provision of a medical imaging service to Woy Woy and Long Jetty facilities using onsite mobile digital image recording with wireless transmission for reporting
- Establishment of a Central Coast Mobile X-ray Service for Residential Aged Care Facilities (RACFs) and home patients could reduce transfers to the emergency departments to access X-Ray facilities
- Improved radiology visibility and communication through investment in information technology to facilitate timely diagnostic reporting, teleradiology, radiology portal, and educational talks to referring clinicians
- Increasing capacity for after-hours radiology services to eliminate reliance on outsourced reporting on plain imaging and urgent after hours CT.

An integral part of future service provision will be ongoing workforce development to expand and enhance specialist skills.

| Table 19: Current and Future Services Configuration: Radiology Modalities (number of machines) |
|---|---|---|---|---|---|---|
| | Gosford | Wyong | | | | |
| | 2016/17 | 2021/22 | 2026/27 | 2016/17 | 2021/22 | 2026/27 |
| PACS/RIS | | | | | | |
| General radiology rooms | 3 | 5 | 5 | 2 | 2 | 2 |
| Satellite radiology rooms (ED) | 2 | 1 | 1 | 2 | 2 | 2 |
| Mobile DR | 3 | 3 | 3 | 2 | 2 | 2 |
| Ultrasound rooms | 2 | 3 | 3 | 2 | 3 | 3 |
| INTV Ultrasound | 2 | 3 | 3 | 2 | 3 | 3 |
| CT | 2 | 3 | 3 | 1 | 2 | 2 |
| CT – perfusion capability | | | | | | |
| MRI | 1 | 2 | 2 | - | 1 | 1 |
| Mammmography | - | - | - | - | - | - |
| Image Intensifier/C-arm | | | | | | |
| Screening room DXA | 1 | 1 | 1 | 1 | 2 | 2 |

| Table 20: Current and Future Services Configuration: Interventional Radiology (number of facilities/rooms) |
|---|---|---|---|---|---|---|
| | Gosford | Wyong | | | | |
| | 2016/17 | 2021/22 | 2026/27 | 2016/17 | 2021/22 | 2026/27 |
| Tier A procedures | | | | | | |
| After Hours Tier A | - | - | - | - | - | - |
| Tier B procedures | limited | range | | - | - | - |
| After Hours Tier B | - | - | - | - | - | - |
| MRI - After hours/on-call service | - | - | - | - | - | - |
| Diagnostic Angiography (non-cardiac) | 1 | 1 | 1 | limited | limited | |
| Radiology Procedure Room | - | 1 | 1 | - | 1 | 1 |

*except highly specialised procedures

| Table 21: Current and Future Services Configuration: Nuclear Medicine Modalities (number of machines) |
|---|---|---|---|---|---|---|
| | Gosford | Wyong | | | | |
| | 2016/17 | 2021/22 | 2026/27 | 2016/17 | 2021/22 | 2026/27 |
| Gamma Camera | - | 1 | 1 | - | - | - |
| SPECT CT | 1 | 1 | 1 | - | - | - |
| PET | - | future | - | - | - | - |
| Orthopantomogram (OPG) | 1 | 1 | 1 | - | - | - |
| Fluoroscopy | 1 | 1 | 1 | 1 | 1 | 1 |

| Table 22: Current and Future Services Configuration: Role Delineation |
|---|---|---|---|---|---|---|
| | Gosford | Wyong | | | | |
| | 2016/17 | 2021/22 | 2026/27 | 2016/17 | 2021/22 | 2026/27 |
| Radiology & Interventional Radiology | 5 | 5 | 5 | 4 | 4 | 4 |
| Nuclear Medicine | 4 | 5 | 5 | 4 | 4 | 4 |
11.2 Pharmacy Services

Current Services
Pharmaceutical therapy is the principle modality of treatment in the healthcare setting, requiring access to medications in accordance with state and national health legislation, and clinical and corporate policy.

Pharmacy services are central to enabling best outcomes in medication management through the provision of timely and uninterrupted access to appropriate medications at the point of care, enhancing patient outcomes, and by supporting medical and nursing colleagues. This multifaceted service requires a significant range of skills and knowledge in therapeutics, logistics, health policy, economics, information technology and clinical governance.

Literature demonstrates that investment in pharmacy services produces a positive financial return ($23 return for each $1 investment) primarily through optimisation of cost-effective prescribing and medication-related patient harm reduction. 1-3

The CCLHD Pharmacy Department principally operates from Gosford and Wyong hospitals, providing services to Woy Woy, Long Jetty and community health services, with a total staff complement of 78 FTE – 48 pharmacists, 24 technicians and 6 support staff. It delivers services across five domains:

- **Medication supply**
  - Inpatient/outpatient/discharge dispensing
  - Sterile/extemporaneous/cytotoxic manufacture
  - Ward/clinic imprest supply
  - IV fluid management
  - Clinical Trials
  - APAC/HITH antibiotic infusors
- **Clinical review/care**
  - Best Possible Medication History (BPMH) collection
  - Inpatient medication review (chart review, multidisciplinary team rounding/liaison)
  - Discharge reconciliation
  - Medication counselling (inpatient/outpatient/discharge)
Education, research and support
- Patient education
- Pharmacy and CCLHD staff medication education
- Drug information
- Co-ordination and involvement in patient-centric research projects
- Support and liaison with medical/pharmacy colleagues (community, industry, academic professional)

Governance and accountability
- Management of $55M/year asset (drug spend)
- National Safety & Quality Health Service (NSQHS) Standard 4 adherence co-ordination
- Antimicrobial stewardship management
- Smoking cessation activity co-ordination and supply (CE goal)
- Formulary management (governance, financial, regulatory requisite)

Resource optimisation and risk avoidance
- Risk management practices (recalls, safety alerts, audits)
- Medication-related interventions
- Medication safety initiatives (projects, education, alerts)
- Cost minimisation/savings strategies (medication returns/procurement optimisation)
- Medication policy/procedure/guideline development and review
- Strategic planning for LHD pharmaceutical needs.

Activity

In 2016:
- CCLHD spent $55.7 million on medications
- 19,000 medication histories were taken
- 247,000 medications dispensed
  - 133,000 inpatient items
  - 46,000 outpatient items
  - 68,000 discharge items
- 133,000 items distributed to ward imprests and clinics
- 13,300 chemotherapy items manufactured onsite
- Dispensing for over 100 clinical research trials
- Over 3,800 documented clinical interventions have been recorded since 2014
- Participation in over 80 committees.

Since 2013/14 there has been significant and sustained growth in both volume and complexity of core aspects of service provision (outpatients, inpatients, discharges, clinical trials, chemotherapy manufacture, APAC/ HITH services, pharmaceutical purchasing/supply):
- The total drug spend per month has increased from an average of $2 million/month in January 2016 to $4.9 million/month during 2016/17
- Outpatient transaction activity for Gosford and Wyong hospitals has increased from 8,000 non-weighted Occasions of Service (OOS) in 2010/11 to approximately 12,500 OOS in the fourth quartile in 2015/16
- Discharge dispensing activity for Gosford and Wyong hospitals has increased from approximately 15,500 non-weighted OOS in 2013/14 to approximately 18,500 OOS in 2015/16.

Growth in activity, coupled with increasing costs and complexity of medication supply, has outstripped the funded service model, resulting in substantial strain on the department’s clinical and corporate processes.

To mitigate this risk, since November 2016 a series of planned activities have been undertaken to redefine pharmacy service priorities, meet this escalating demand and align services to the overarching CCLHD strategic directions. The review process has included workforce profiling, service priorities review and workplace culture activities. A business case is being finalised in collaboration with workforce and management accountants and it is anticipated that resulting changes to the service model will be implemented during the 2017 calendar year.
Future Service Configuration

The review of pharmacy services will ensure activities and resources are aligned to CCLHD priorities and enable operational autonomy at each principal site (Gosford and Wyong) while maintaining resource sharing and efficiency under the cross-site leadership structure. Changes in the service structure will minimise pharmaceutical costs, improve engagement with clinical and financial stakeholders, and provide a more robust framework for contract and inventory management.

A workforce plan will upskill staff to better manage clinical, financial and workforce demands. It is anticipated that this proposal will improve service quality, efficiency, scope, consistency and sustainability with a modest investment. However, additional investments will be required to meet the anticipated demands of the redevelopment of Gosford Hospital and electronic medications management (eMM) system.

Strategic Directions

49. Redefine and implement a sustainable pharmacy service model, delivering greater consistency and increased scope of clinical services across all core clinical disciplines.
50. Improve pharmaceutical purchasing, accountability, contract management and stakeholder engagement.
51. Implement a workforce plan to equip pharmacy staff with the skills and knowledge to deliver services in a “team based model”.
52. Implement an electronic medications management system (eMM).

References

11.3 Pathology

Current Services

Pathology services are provided through Pathology North, a network of NSW Health Pathology. Planning and governance of pathology services is now undertaken on a State-wide basis.

Gosford Hospital meets role delineation requirements for a Level 5 service while Wyong Hospital meets requirements for a Level 4 service, and Woy Woy Hospital and Long Jetty Health Facility meet requirements for Level 1 services. The following services are currently provided:

- Core pathology services (biochemistry, haematology, coagulation, blood bank services) are available at both Gosford and Wyong hospitals 24-hours per day
- Microbiology and histology services (including frozen section) are provided at Gosford Hospital
- Samples requiring specialised testing, such as serology and toxicology, are sent to specialised labs outside CCLHD
- A collection service is provided at Woy Woy Hospital and Long Jetty Health Facility; a domiciliary collection service is provided as part of APAC/HITH
- Specialist training is supported through pathology registrars in anatomical pathology and haematology.

Growth in pathology services is driven by advances in pathology technology/ testing and generalised increases in the volume and types of tests ordered.

Future Service Configuration

Future changes to the current service configuration will be driven by advances in technology, capacity and the expanding clinical needs of the LHD and will be consistent with the strategic direction of NSW Health Pathology.
Strategic Direction

53. Work with Pathology North to match service provision to growing clinical demand including: introduction of
digital pathology; expanded microbiology polymerase chain reaction (PCR); optimisation of electronic ordering
and decision support software; and implementation of access to pathology results and ordering through
mobile devices.

11.4 Allied Health

Current Services

Service specific allied health issues and strategies are identified in the relevant sections of the Plan. This section
outlines the scope of allied health services across CCLHD and brings together the specific service development
priorities and strategies that are common across a range of disciplines, services and sites.

Allied health services are provided across a range of service delivery locations and models including the emergency
deptartment, inpatient units, ambulatory/outpatient care, early discharge and hospital avoidance programs such as
APAC/HITH, rehabilitation programs, mental health, drug and alcohol services, complex and ongoing chronic
disease programs, and in other community-based programs and services. Allied health staff may work in
profession-specific clinics and services or as members of multidisciplinary teams and clinics.

Currently the majority of disciplines operate as a single service across multiple sites. This allows for consistency in
operational and clinical governance as well as flexibility with staffing when required. This maximises staff
utilisation and service provision for smaller services such as audiology and podiatry, enabling services to be
available at more than one site.

The largest allied health disciplines include: physiotherapy, psychology, occupational therapy, social work,
dietetics/nutrition and speech pathology. These allied health services are provided at each of the four facilities
delivering inpatient and outpatient/ambulatory services as well as community based programs.

Medical Imaging professionals (radiographers, radiation therapists, sonographers) and pharmacists are also
included in the allied health classification and represent a significant proportion of the workforce. They are based
at the two acute sites Gosford and Wyong hospitals. Pharmacy also provides services to the sub-acute facilites at
Woy Woy and Long Jetty and to community and home-based services.

Several other smaller services are provided:

- Audiology is provided at Gosford and Wyong hospitals for adults and paediatrics. The service is predominantly
  an outpatient service but there is a small volume of inpatient activity.
- A limited inpatient Podiatry service is provided at Gosford and Wyong hospitals. Outpatient services are
  provided at Gosford and Wyong hospitals, Long Jetty Health Facility, Erina Community Health Centre and Woy
  Woy Hospital. A high risk foot service is provided at Wyong Hospital. The University of Newcastle podiatry
  training centre is located at Wyong Hospital.
- Orthotic services are available to inpatients across the LHD and an outpatient service is available at Gosford
  Hospital.

Collectively the allied health disciplines are represented by the Director of Allied Health. Allied health professionals
working in CCLHD services have a mix of operational and professional reporting lines. Most allied health positions
are managed operationally and professionally by individual discipline-specific managers at facilities who determine
the allocation of resources across services and sites including inpatient, outpatient and the community settings.
Some allied health professionals are embedded within and report to specific services or divisions. Professional
support, lines of responsibility and clinical supervision may remain within the professional grouping or this may be
undefined. There is ad hoc access to clinical supervision and discipline-specific professional development for allied
health staff.

Allied health assistants (AHA) support the delivery of allied health services under the direction of allied health
professionals. They are important members of the healthcare team in increasing the capacity and intensity of
therapy, and tasks that support therapy that can be delivered directly to patients in the acute hospital setting. Use
of the AHA workforce releases more time for allied health professionals to concentrate on complex assessment and interventions. This workforce is relatively new and generally well utilised; opportunities to further increase this workforce are currently under review.

In addition to services provided by CCLHD, allied health services are provided in private practice, private hospitals and NGOs.

## Future Services

In the activity based management environment there is a need to develop a clear understanding of the range and depth of allied health staff and resources within CCLHD and identify strategies to address potential threats as well as opportunities to improve service efficiency, effectiveness and reduce unwarranted clinical variation. Growth in individual allied health services has been organic as the professional groups respond to the development of new services and models of care. There have been limited opportunities to examine and evaluate service developments to date.

An ongoing issue for allied health services has related to the need for staffing enhancements. Allied health resources and positions have generally been allocated to hospital and community services based on historical arrangements or as specific project or program funding, rather than through a planned evidence based process. Establishment of new models of care should have evidence based levels of allied health staffing included as an essential part of the staffing establishment. A planned process based on evidence which supports resource allocation in areas where there is clear patient benefit and outcome would mean services could respond to changing demand.

The allied health workforce requires a structure that allows access to a casual and/or a flexible staffing pool to adequately cover leave on a shift or daily basis, or to flex the staff complement up or down to match activity level in peak activity times such as winter.

Allied health services are moving towards a requirement of delivering a 6-7 day service; to do this, the workforce needs to be flexible and responsive to the demands of the health system.

Future opportunities to further develop and improve utilisation of allied health assistants need to be explored. Several services have been identified as areas for further consideration for service development, these include: lymphoedema, cancer, and high risk foot services (at Gosford Hospital) and opportunities to further develop psychology, and outpatient and community based services, and consider development of a limb salvage service.

## Strategic Directions

4. Evaluate the demand, provision and utilisation of allied health services across acute, sub-acute and community health services and advise on the most appropriate distribution, allocation and organisation of allied health resources to improve patient outcomes, reduce unwarranted clinical variation, improve service efficiency and improve timely access to community based services.

55. Work with clinical divisions to identify opportunities to increase and improve allied health input to existing services and future service planning, development and redesign.

56. Review allied health scope of practice and identify opportunities for advanced practice allied health roles and expansion of the allied health assistant workforce.

57. Consider:
   - service demand, scope and service model to improve timely patient access to lymphoedema services
   - options for the provision of allied health services to meet the growing demand for cancer services
   - a high risk foot service at Gosford Hospital in the context of a multidisciplinary limb salvage service targeting patients with high risk foot conditions, lower limb cellulitis, lymphoedema and amputation or a possible limb salvage service.
Current Services

Emergency Department services are provided at Gosford and Wyong hospitals. Gosford Hospital operates as a Level 5 Emergency Department (ED) and is designated as a regional trauma service, managing major trauma patients some of whom will require transfer for tertiary and specialist care after initial assessment and resuscitation. Services are provided for both paediatric and adult presentations.

Wyong Hospital has a role delineation of Level 4 providing 24 hour services for both paediatric and adult presentations. Patients requiring emergency sub-speciality surgery (most notably orthopaedics, gynaecology and urology) are transferred to Gosford Hospital. There is a 4 bed Psychiatric Emergency Care Centre (PECC) co-located with the ED.

Each ED is supported by an ED Short Stay Unit (EDSSU) which can accommodate patients for up to 24 hours. The EDs are required to meet a number of state performance benchmarks, the key ones being:

- Transfer of Care – 90% of patients transferred from Ambulance to ED care within 30 minutes of arrival
- Triage times – initial assessment and treatment within the benchmark time for each of the five triage categories
- Emergency Treatment Performance (ETP) - 81% of ED patients have a total length of stay four hours or less.

Activity

- ED presentations have increased by 17% (9,434) at Gosford and 18% (9,683) at Wyong since 2010/11
- There was a sharp increase (over 6%) in presentations in 2015/16 compared to 2014/15 at both Gosford and Wyong; preceded by a plateau in activity in 2013/14.
- Paediatric presentations represented 22% of activity at both Gosford and Wyong EDs. The growth in presentations has been higher at Gosford ED than Wyong ED and since 2014/15 Gosford ED has seen higher numbers of paediatric presentations than Wyong ED.
- Between 2010/11 and 2015/16 the number of admissions from ED increased by 49% in Gosford and 52% in Wyong. Most of this growth has occurred since 2013/14 which coincides with opening of the EDSSU at both Gosford (August 2014) and Wyong (February 2015).
- It is expected that the growth in admissions will continue to increase as each EDSSU becomes fully operational.

Figure 13: ED Presentations and Admissions 2010/11 to 2015/16

Source: CaSPA – EDAA v16.0 * Excludes: Died in ED; Admitted and Discharged from ED; Transferred to another hospital; Dead on arrival

In 2015/16 presentations via the Ambulance Service of NSW accounted for 29% (18,734) presentations to Gosford ED and 25% (15,799) presentations to Wyong ED. The number of presentations via Ambulance has increased at
both EDs since 2010/11, however, as a proportion of total presentations they have declined from 32.1% at Gosford and 27.7% at Wyong in 2011/12.

Table 23: ED Presentations and Admissions 2010/11 – 2015/16

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Source: CaSPA – EDAA v16.0 * Excludes: Died in ED; Admitted and Discharged from ED; Transferred to another hospital; Dead on arrival

Future Service Configuration

Current role delineation levels will be maintained – Gosford Level 5 and Wyong Level 4. Patients will continue to be transported directly to an appropriate tertiary or quaternary hospital for major trauma, spinal injury, severe burns, cardiothoracic surgery and neurosurgery.

Gosford Hospital will remain as a regional trauma service and receiving centre for patients meeting the criteria for primary percutaneous cardiac intervention (PPCI) and stroke thrombolysis.

As clinical services and the availability of emergency sub-specialty surgery and procedures, as well as diagnostic capability, continue to develop at Wyong Hospital the number of transfers from Wyong ED to Gosford Hospital for non-tertiary services will decline.

On completion of the redevelopments at Gosford and Wyong hospitals both EDs will relocate to new and expanded facilities providing additional capacity to accommodate the projected growth in demand and facilitating the adoption of contemporary models of care and patient throughput. The following models have been identified for adoption at both sites:

- Quick triage, early treatment zone and patient streaming incorporating see and treat
- Fast Track for management of low acuity and complexity patients
- Resuscitation (adults and paediatric) and adult acute treatment area
- Separate paediatric treatment space incorporating waiting area, acute treatment and fast track
- Co-located Psychiatric Emergency Care Centre (PECC)
- Co-located EDSSU
- Acute Medicine Unit (AMU) in proximity to and easily accessible from triage to facilitate direct referrals.

Strategic Directions

Gosford and Wyong hospital EDs:

58. Develop and implement the identified models of care within the constraints of current ED facilities and in preparation for relocation to the new ED.
59. In conjunction with the cardiology service develop an agreed chest pain assessment model to streamline and improve the efficiency of patient management.

60. In conjunction with the AMU agree criteria for direct referral of patients from triage to the AMU and early transfer of suitable patients from ED to AMU.

61. In conjunction with the mental health service develop and implement an agreed model of care for PECC including patient admission criteria and medical support arrangements.
13 Medical Services

Current Services

Medical services encompass general and acute medicine and the sub-specialties of cardiology and interventional cardiology, endocrinology, gastroenterology, geriatric medicine, infectious diseases, neurology, cancer services including medical and radiation oncology, haematology, palliative care, renal, respiratory and sleep medicine. Many of these services are provided on both an inpatient and outpatient basis. There are close links with chronic and complex care programs, community-based services including Hospital in the Home (HITH), as well as rehabilitation and sub-acute services.

Medicine sub-specialty services are provided at both Gosford and Wyong hospitals although the complexity, scope and role delineation differs between the sites.

Gosford Hospital as the principal referral hospital for CCLHD provides a comprehensive range of sub-specialty medical services with an increasing range provided at tertiary level. Services are provided predominantly at role delineation Level 5. Sub-specialty services provided include cardiology, interventional cardiology, endocrinology and diabetes, gastroenterology and hepatology, geriatric medicine, infectious diseases, neurology and acute stroke, haematology and cancer services including medical and radiation oncology, renal medicine and renal dialysis, and respiratory and sleep medicine. Many of the clinical services provide outpatient services.

Wyong Hospital provides services at role delineations Levels 3 or 4. All services are networked with complex patients and those requiring more specialised care transferred to Gosford Hospital. The medical staffing model is substantially based around a single admitting roster with subsequent transfer to sub-specialist care when necessary. Sub-specialty services provided include cardiology, endocrinology, gastroenterology, geriatric medicine, haematology, neurology and acute stroke, and respiratory medicine. Cancer services including haematology and medical oncology are provided on an outpatient basis. Respiratory, cardiac and heart failure rehabilitation, endocrinology and diabetes education, palliative care and renal dialysis are provided in the community.

Activity

<table>
<thead>
<tr>
<th>Facility</th>
<th>Total Episodes</th>
<th>% Total activity S/D &amp; O/N</th>
<th>% Total O/N activity</th>
<th>Planned %</th>
<th>Unplanned %</th>
<th>Same Day %</th>
<th>Overnight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford</td>
<td>16,372</td>
<td>59.7%</td>
<td>58.6%</td>
<td>15.0%</td>
<td>85.0%</td>
<td>9.9%</td>
<td>90.1%</td>
</tr>
<tr>
<td>Bed Days</td>
<td>75,535</td>
<td>60.3%</td>
<td>60.0%</td>
<td>12.2%</td>
<td>87.8%</td>
<td>2.1%</td>
<td>97.9%</td>
</tr>
<tr>
<td>Wyong</td>
<td>11,058</td>
<td>40.3%</td>
<td>41.4%</td>
<td>12.9%</td>
<td>87.1%</td>
<td>5.9%</td>
<td>94.1%</td>
</tr>
<tr>
<td>Bed Days</td>
<td>49,826</td>
<td>39.7%</td>
<td>40.0%</td>
<td>12.6%</td>
<td>87.4%</td>
<td>1.3%</td>
<td>98.7%</td>
</tr>
<tr>
<td>Total</td>
<td>27,430</td>
<td>62.1%</td>
<td>74.4%</td>
<td>14.6%</td>
<td>85.5%</td>
<td>8.3%</td>
<td>91.7%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

In 2015/16 across Gosford and Wyong hospitals:

- Medical inpatient episodes accounted for 74.4% (25,161) of the total (medical and surgical) overnight episodes (33,827) and 72.7% (123,110) of overnight bed days (169,422).
- 86.9% (21,857) of overnight medical admissions (25,161) were via ED.
- 59.7% of medical episodes and 60.3% of medical bed days are at Gosford Hospital.
- The specialties with the highest number of overnight episodes are: cardiology (20.7%), geriatric medicine (13.9%), neurology (12.6%), and respiratory (8.5%). At Wyong Hospital 60.7% (5,129) of overnight medical episodes are admitted to the specialty identified as Medicine while only 8.1% (684 episodes) are admitted to geriatric medicine; in contrast at Gosford Hospital 1.1% (101 episodes) are admitted to the Medicine specialty and 23.4% (2,473 episodes) are admitted to geriatric medicine.
- 50.2% medical episodes were Wyong residents, 40.3% Gosford residents and 9.4% inflows.
- 29% of medical episodes for Wyong residents occurred at Gosford Hospital compared to 5.7% of Gosford resident activity occurring at Wyong Hospital.
- Patients aged over 70 years accounted for 52.9% of overnight medical episodes and 62.8% of bed days (at Gosford Hospital the figures were 51.1% episodes and 62.1% bed days and at Wyong Hospital 55.4% episodes
and 64.0% bed days). Their average length of stay is 5.8 days compared to 4.9 days for all overnight medical patients.

Since 2010/11:

- Medical inpatient episodes (same day and overnight) increased by 19.5% (4,467 episodes) while bed days declined by 2.1% (2,628 bed days) (excludes ED SSU activity)
- Overnight episodes increased by 19.6% (4,123 episodes) while bed days have declined by 2.3% (2,957 bed days). The average length of stay was 4.9 days in 2015/16 compared to 6.0 days in 2010/11 (excludes ED SSU activity)
- Planned episodes decreased by 3% (119 episodes) and bed days decreased by 9.3% (1,597 bed days).
- Unplanned episodes increased by 24.7% (4,586 episodes) and bed days declined by 0.9% (1,031 bed days).
- Same Day episodes increased by 17.9% (344 episodes) and bed days by 17.1% (329 bed days).

**Future Service Configuration**

**Gosford Hospital:**

- Complex and specialised services will be concentrated at Gosford Hospital
- The majority of medical sub-specialty services will be provided at role delineation Level 5, providing networked support to Wyong Hospital
- A general medicine model will be implemented supporting timely access, diagnosis and treatment of patients with complex medical needs and providing a medical short stay model as well as an alternative entry point for unplanned admissions.

**Wyong Hospital:**

- An increasing range of sub-specialty services will be developed at Wyong Hospital to meet the growing population demand and to reduce the need for transfer to Gosford Hospital for non-tertiary care. Sub-specialty services will continue to be networked with Gosford Hospital.
- Priority sub-specialty services for development are: cardiology, neurology including acute stroke services, respiratory, and diabetes services as well as capacity for after-hours emergency endoscopies.
- An expanded range of diagnostic services will be available onsite to support the sub-specialty services and reduce the need for transfer to Gosford Hospital in particular Trans Oesophageal Echocardiogram (TOE) and respiratory investigations
- There will be an expanded general medicine model consistent with that available at Gosford Hospital.

**Services for Development:**

The following services are currently not provided, or provided on a limited basis within CCLHD and have been identified for development:

- Dermatology – registrar level coverage is currently provided through a partnership arrangement with RNSH; further development of this service will need to occur.
- Clinical Genetics – for both general and cancer genetics are currently available on a limited basis through separate visiting arrangements with individual clinicians and/or other LHDs. Expansion of both services is required to support increasing local demand and in line with increasing births and cancer services provided locally.
- Immunology – development of a local service is required
- Rheumatology – a limited service is currently available; the need for further development of this service has been identified
- Clinical Pharmacology/ toxicology service should be considered for development
- Infectious Diseases - currently infectious diseases services are provided at both sites as a clinical consultation service to inpatients, outpatient clinics and antimicrobial stewardship rounds in ICU and wards. A clear need exists for dedicated inpatient infectious diseases teams. This would allow management of infectious diseases patients under the appropriate specialist and reduce the burden of these patients being admitted under other medical teams.
Eating Disorders – development of a model for the management of people with an eating disorder who require inpatient management. The Eating Disorders service will continue to be primarily provided on a non-inpatient basis.

### Table 25: Current and Future Medical Services Role Delineation Levels and Models

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</thead>
<tbody>
<tr>
<td>Cardiology &amp; Interventional Cardiology</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
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</tr>
<tr>
<td>Clinical Genetics</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>-</td>
<td>73</td>
</tr>
<tr>
<td>Dermatology</td>
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<td>4</td>
<td>4</td>
<td>-</td>
<td>73</td>
<td>3</td>
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<td>5</td>
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<td>4</td>
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<tr>
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<td>5</td>
<td>3</td>
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<td>4</td>
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<tr>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Neurology</td>
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<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
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</tr>
<tr>
<td>Oncology - Medical</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Oncology - Radiation</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>5</td>
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<td>5</td>
<td>4</td>
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<td>4</td>
</tr>
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<td>Renal Medicine</td>
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<td>2</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Respiratory and Sleep Medicine</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
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<td>4</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>4</td>
<td>4/5</td>
<td>5</td>
<td>-</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

### Strategic Directions

62. Develop medical sub-specialty inpatient and outpatient services at Wyong Hospital; priority services for development include: cardiology, neurology, respiratory, diabetes and cardiology.

63. Develop shared care models with geriatric medicine for older patients with complex medical needs.

64. Develop the dermatology, clinical genetics and rheumatology specialties, initially at Gosford Hospital with future expansion to Wyong Hospital.

65. Develop the inpatient infectious diseases service at both Gosford and Wyong with the appropriate complement of specialist and junior medical (registrar/resident) staff.

66. Establish immunology and clinical pharmacology/toxicology services, initially at Gosford Hospital and potential future expansion to Wyong Hospital.

67. Develop a model of care for the management of people with an eating disorder requiring inpatient management with linkage to the existing Eating Disorders service.

### 13.1 General and Acute Medicine

**Current Services**

General Medicine is currently not provided as a specialist service at Gosford or Wyong Hospital. Gosford Hospital operates a full sub-specialty roster with no general medicine coverage. A single general admitting model, staffed by medical sub-specialists, is in place at Wyong Hospital covering most available medical specialties (excluding geriatric medicine and rehabilitation). No medical specialists practice solely as general physicians at either Wyong or Gosford hospitals.

Both hospitals operate a Medical Assessment Unit (MAU) for acute medical patients with a length of stay up to 48 hours. Gosford MAU has 12 beds and Wyong MAU has 20 beds.

In response to the shift to medical sub-specialisation there is increasing focus on the role of general physicians in the management patients with complex care needs and multi-morbidities. In recent years there has been pressure on gerontologists to fulfil this role, particularly as many of these patients are also older. The Royal Australasian College of Physicians has also recognised the increasing complexity and acuity of medical patients and has expanded the advanced physician training program to encompass general and acute medicine.
Future Service Configuration

General and acute medicine will be provided as a specialist service at both Gosford and Wyong hospitals. Gosford Hospital will provide services at role delineation Level 5 and Wyong Hospital at Level 4. To achieve a Level 5 service will require appointment of a general physician to head the service across both sites supported by an adequate general physician workforce. The requirements for a Level 4 service at Wyong Hospital will require care provision by general physicians with 24 hour a day, seven days per week availability.

Under the general and acute medicine model it is proposed that an Acute Medicine Unit (AMU) will be established at both Gosford and Wyong hospitals. AMUs are specialised short-stay acute medicine units specifically designed and staffed to provide rapid access to senior assessment, diagnosis and multidisciplinary treatment for patients. The Unit will receive direct referrals and admission of patients who are medically stable and do not require the resources of ED. AMU patients may require extended periods of assessment and/or care planning due to a combination of factors including complexity involving the presence of multiple comorbidities and/or social factors. The AMU model would supplant the existing MAU model.

The effectiveness of the model will be dependent on the availability of an adequate medical (specialist, senior and junior), nursing and allied health workforce.

Features of the model include:
- Medical governance and clinical leadership by a General and Acute Medicine specialist
- Dedicated general physician staff on-site for extended hours and on call after-hours
- Hub for medical admissions to relieve pressure on ED
- Direct referral from - GPs, ED triage, community-based chronic care programs and ED
- Length of stay less than 48 hours prior to discharge or transfer to ward
- Care provided by multidisciplinary team
- Early comprehensive assessment, priority access to diagnostic investigative services and early establishment of a management plan
- Triage by Acute care physician to most appropriate speciality (including general medicine)
- Potential to assess, institute management and determine that admission is not required
- Early and effective discharge planning
- Rapid review outpatient clinic for follow-up of AMU patients.

Strategic Directions

68. Recruit a General Medicine Physician to lead the AMU and further develop the proposed model of care.
69. Establish an AMU at both Gosford and Wyong hospitals with facilities to provide inpatient management and outpatient review
70. Establish General Medicine as a specialty service at Gosford Hospital and further develop the service at Wyong Hospital through recruitment of General Medicine Physicians and advanced trainees to the existing training positions at Wyong Hospital and establish training positions at Gosford Hospital.

13.2 Cardiology and Interventional Cardiology

Current Services

The scope of cardiac services provided is: cardiac medicine, coronary care, cardiac diagnostic and interventional services, and cardiac and heart failure rehabilitation services. Patients requiring cardiac surgery, electrophysiology studies (EPS) and implantable cardioverter defibrillators (ICD) or biventricular pacing are referred to RNSH or other tertiary referral hospitals.

Gosford Hospital provides services at role delineation Level 5 which include: inpatient cardiology and coronary care units, coronary angiography (diagnostic and interventional) including primary percutaneous coronary intervention (PPCI) during business hours, temporary and permanent pacemaker insertion, diagnostic cardiac services and outpatient review clinic. Cardiac and heart failure rehabilitation are accessed offsite at Woy Woy Hospital.
Wyong Hospital provides services at role delineation Level 4 which include: inpatient cardiology and coronary care unit, temporary pacemaker insertion and some cardiac diagnostics. Cardiac and heart failure rehabilitation are provided onsite.

### Activity
- About 84.4% of adult episodes managed by the Cardiology service are captured within the Cardiology and Interventional Cardiology SRGs.
- Since 2010/11 the number of episodes admitted to the Cardiology service increased at Gosford Hospital; most of this increase was for interventional cardiology which grew by over 74%.
- The decline in episodes for non-cardiology SRGs admitted to the cardiac service at Wyong Hospital reflects the shift from cardiologist participation in the general medicine on-call roster to providing a sub-specialty cardiology on-call service which occurred during 2012/13.

### Table 26: Cardiology Service Episodes by SRG 2010/11 – 2015/16 (same day & overnight) – age >15 years

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Gosford Cardiology</td>
<td>1,654</td>
<td>61</td>
<td>1,665</td>
<td>61</td>
<td>1,449</td>
<td>77</td>
<td>1,715</td>
<td>74.2%</td>
</tr>
<tr>
<td>Interventional Cardiology</td>
<td>446</td>
<td>331</td>
<td>387</td>
<td>331</td>
<td>608</td>
<td>121</td>
<td>722</td>
<td>8.4%</td>
</tr>
<tr>
<td>Other (non-cardiology) SRGs</td>
<td>392</td>
<td>391</td>
<td>426</td>
<td>425</td>
<td>331</td>
<td>425</td>
<td>331</td>
<td>331</td>
</tr>
<tr>
<td>Total Gosford</td>
<td>2,492</td>
<td>425</td>
<td>2,498</td>
<td>425</td>
<td>2,545</td>
<td>331</td>
<td>2,813</td>
<td>17.1%</td>
</tr>
<tr>
<td>Wyong Cardiology</td>
<td>1,540</td>
<td>90</td>
<td>1,375</td>
<td>90</td>
<td>1,429</td>
<td>121</td>
<td>1,362</td>
<td>2.3%</td>
</tr>
<tr>
<td>Interventional Cardiology</td>
<td>27</td>
<td>43</td>
<td>97</td>
<td>43</td>
<td>90</td>
<td>43</td>
<td>108</td>
<td>333.3%</td>
</tr>
<tr>
<td>Other (non-cardiology) SRGs</td>
<td>985</td>
<td>345</td>
<td>1,020</td>
<td>345</td>
<td>257</td>
<td>345</td>
<td>345</td>
<td>64.7%</td>
</tr>
<tr>
<td>Total Wyong</td>
<td>2,552</td>
<td>455</td>
<td>2,492</td>
<td>455</td>
<td>1,819</td>
<td>197</td>
<td>2,041</td>
<td>20.0%</td>
</tr>
<tr>
<td>Total Cardiology</td>
<td>5,044</td>
<td>86</td>
<td>4,990</td>
<td>86</td>
<td>4,394</td>
<td>86</td>
<td>4,958</td>
<td>1.7%</td>
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<tr>
<td>Cardiology SRG in other services</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ED Short Stay Unit (Gosford &amp; Wyong)</td>
<td>14</td>
<td></td>
<td>18</td>
<td></td>
<td>9</td>
<td></td>
<td>169</td>
<td></td>
</tr>
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<td>Medicine (Wyong Hospital)</td>
<td>71</td>
<td></td>
<td>84</td>
<td></td>
<td>274</td>
<td></td>
<td>321</td>
<td></td>
</tr>
<tr>
<td>Geriatric Medicine (Gosford Hospital)</td>
<td>226</td>
<td></td>
<td>245</td>
<td></td>
<td>212</td>
<td></td>
<td>249</td>
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<tr>
<td>Source: CCLHD Inpatient Data Collection</td>
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</table>

### Cardiology SRG Activity:

#### Service Demand:
- In 2015/16, there were 4,583 inpatient episodes for Central Coast residents. Of these 83.8% (3,839) episodes were in Gosford and Wyong hospitals, 9.4% (431) episodes private hospitals and there were 6.8% (313 episodes) public outflows to another LHD most commonly Northern Sydney or St Vincent’s Hospital.
- There has been an increase in self-sufficiency since 2010/11 when 80.9% residents were treated within the LHD, 12.2% treated in private facilities and 7.0% public outflows.

#### Service Supply – Central Coast LHD activity (includes inflows):
- In 2015/16:
  - There were 5,714 episodes across Gosford and Wyong hospitals for the cardiology SRG, of these 26.7% (1,525) were admitted to the ED Short Stay Unit. Of the remaining 4,189 episodes 92.1% (3,857) episodes were admitted overnight and 7.9% (332) were same day episodes. The average length of stay was 3.6 days, a decrease from 4.1 days in 2010/11.
  - The Cardiology SRG accounted for 15.2% (3,819) of all overnight medical episodes and 11.1% (13,708) bed days representing the second highest medical SRG behind the Non- subspecialty Medicine SRG.
  - Since 2010/11 overnight episodes have increased marginally by 0.7% (27 episodes) while bed days have declined by 10.5% (1,643 bed days).
  - People aged 70 years and older accounted for 65.6% of overnight episodes and 77.8% of cardiology SRG bed days increasing from 60.5% episodes and 73% bed days in 2010/11.
  - About 78% of overnight episodes for the cardiology SRG and 62% of bed days were managed by the cardiology service. The other main services with admissions for the SRG were the geriatric specialty at Gosford with 7% of episodes and 17% of bed days, and medicine at Wyong with 7% episodes and 8.4% of bed days.
  - Within the Cardiology SRG - Heart Failure and Shock (ESRG 113) had the highest number of overnight episodes (755) and bed days (4,473) followed by Chest Pain (ESRG 111) (738 episodes and 1,275 bed days) and Non-
Major Arrhythmias and Conduction Disorders (ESRG 114) (694 episodes and 2,201 bed days). Note – 900 (51.8%) episodes for the Chest Pain ESRG and 251 (23.8%) episodes for Non-Major Arrhythmias and Conduction Disorders ESRG were admitted to the EDSSU.

Table 27: SRG 11 Cardiology Episodes by ESRG 2010/11 – 2015/16 (same day and overnight) – age >15 years

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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
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<tr>
<td>Gosford</td>
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<td></td>
<td></td>
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<tr>
<td>111 Chest Pain</td>
<td>487</td>
<td>450</td>
<td>420</td>
<td>369</td>
<td>405</td>
<td>405</td>
<td>(82)</td>
<td>(16.8%)</td>
<td></td>
</tr>
<tr>
<td>112 Unstable Angina</td>
<td>160</td>
<td>155</td>
<td>140</td>
<td>96</td>
<td>98</td>
<td>113</td>
<td>(47)</td>
<td>(29.4%)</td>
<td></td>
</tr>
<tr>
<td>113 Heart Failure &amp; Shock</td>
<td>342</td>
<td>380</td>
<td>367</td>
<td>386</td>
<td>419</td>
<td>391</td>
<td>49</td>
<td>14.3%</td>
<td></td>
</tr>
<tr>
<td>114 Non-Major Arrhythmia &amp; Conduction Disorders</td>
<td>388</td>
<td>392</td>
<td>363</td>
<td>355</td>
<td>450</td>
<td>469</td>
<td>81</td>
<td>20.9%</td>
<td></td>
</tr>
<tr>
<td>115 AMI W/O Invasive Cardiac Inves Proc</td>
<td>191</td>
<td>176</td>
<td>158</td>
<td>192</td>
<td>174</td>
<td>188</td>
<td>3</td>
<td>(1.6%)</td>
<td></td>
</tr>
<tr>
<td>116 Syncope &amp; Collapse</td>
<td>238</td>
<td>287</td>
<td>270</td>
<td>253</td>
<td>299</td>
<td>277</td>
<td>39</td>
<td>16.4%</td>
<td></td>
</tr>
<tr>
<td>119 Other Cardiology</td>
<td>302</td>
<td>268</td>
<td>249</td>
<td>268</td>
<td>319</td>
<td>337</td>
<td>35</td>
<td>11.6%</td>
<td></td>
</tr>
<tr>
<td>Total Gosford</td>
<td>2,108</td>
<td>2,108</td>
<td>1,967</td>
<td>1,919</td>
<td>2,164</td>
<td>2,180</td>
<td>72</td>
<td>3.4%</td>
<td></td>
</tr>
<tr>
<td>Wyong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>111 Chest Pain</td>
<td>423</td>
<td>444</td>
<td>445</td>
<td>388</td>
<td>330</td>
<td>432</td>
<td>9</td>
<td>2.1%</td>
<td></td>
</tr>
<tr>
<td>112 Unstable Angina</td>
<td>213</td>
<td>130</td>
<td>166</td>
<td>125</td>
<td>74</td>
<td>66</td>
<td>(147)</td>
<td>(69%)</td>
<td></td>
</tr>
<tr>
<td>113 Heart Failure &amp; Shock</td>
<td>260</td>
<td>274</td>
<td>317</td>
<td>343</td>
<td>347</td>
<td>371</td>
<td>111</td>
<td>42.7%</td>
<td></td>
</tr>
<tr>
<td>114 Non-Major Arrhythmia &amp; Conduction Disorders</td>
<td>273</td>
<td>238</td>
<td>274</td>
<td>308</td>
<td>336</td>
<td>335</td>
<td>62</td>
<td>22.7%</td>
<td></td>
</tr>
<tr>
<td>115 AMI W/O Invasive Cardiac Inves Proc</td>
<td>309</td>
<td>260</td>
<td>277</td>
<td>258</td>
<td>225</td>
<td>257</td>
<td>(52)</td>
<td>(16.8%)</td>
<td></td>
</tr>
<tr>
<td>116 Syncope &amp; Collapse</td>
<td>193</td>
<td>192</td>
<td>228</td>
<td>209</td>
<td>251</td>
<td>331</td>
<td>138</td>
<td>71.5%</td>
<td></td>
</tr>
<tr>
<td>119 Other Cardiology</td>
<td>242</td>
<td>184</td>
<td>156</td>
<td>198</td>
<td>218</td>
<td>217</td>
<td>(25)</td>
<td>(10.3%)</td>
<td></td>
</tr>
<tr>
<td>Total Wyong</td>
<td>1,913</td>
<td>1,722</td>
<td>1,863</td>
<td>1,829</td>
<td>1,778</td>
<td>2,009</td>
<td>96</td>
<td>5.0%</td>
<td></td>
</tr>
<tr>
<td>Total Cardiology SRG</td>
<td>4,021</td>
<td>3,830</td>
<td>3,830</td>
<td>3,748</td>
<td>3,942</td>
<td>4,189</td>
<td>168</td>
<td>4.2%</td>
<td></td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection  Note: excludes ED short stay unit activity

Interventional Cardiology SRG:

It should be noted that the following information pertains to inpatient episodes only; a number of invasive cardiac investigative procedures (ESRG 121), pacemaker procedures (ESRG 123) and other interventional procedures (ESRG 129) are undertaken as non-admitted or privately referred non-inpatient (PRNIPS) so are not captured in this data.

Service Demand:

- In 2015/16 there were 2,957 inpatient interventional cardiology episodes for Central Coast residents; of these, 830 episodes (28.1% activity) were at Gosford Hospital, 1,822 episodes (61.6%) in private facilities, and 305 (10.3%) were public outflows to other LHDs. 35.3% of episodes were Same Day. Since 2010/11 there has been a 29.6% increase in episodes.
- The proportion of activity managed locally has steadily increased from 20.1% in 2010/11. Outflows have declined over the same period from 63.6% in private facilities and 16.6% public outflows in 2010/11.
- The most common procedure was Cardiac Investigative Procedures (ESRG 121) which accounted for 51.5% of activity (1,512 episodes), followed by Percutaneous Coronary Angioplasty (ESRG 122) with 31.2% activity (922 episodes), Pacemaker procedures (ESRG 123) with 11.8% (350 episodes) and Other Interventional Procedures (ESRG 129) with 5.9% (173 episodes) of activity.
- The majority of public outflows were to Royal North Shore Hospital (164 episodes or 53.8% outflows) and St Vincent’s Hospital (39 episodes or 12.8% activity). The number of outflows to each hospital has declined since 2010/11. The breakdown of public outflow episodes by ESRG in 2015/16 was: Cardiac Investigative Procedures 95 episodes (31.2% activity); Percutaneous Coronary Angioplasty 91 episodes (29.8%), Pacemaker Procedures 36 episodes (11.8%) and Other Interventional Cardiology 83 episodes (27.2% activity).

Service Supply – Central Coast LHD activity (includes inflows):

- In 2015/16 there were 909 inpatient episodes for interventional cardiology (648 overnight episodes with an ALOS 3.8 days)
- The total number of inpatient episodes has increased by 86.7% (422 episodes) since 2010/11 - overnight episodes have increased by 44.9% (212 episodes) and same day increased from 15 episodes to 225. The
largest increase has occurred in Percutaneous Coronary Angioplasty which has increased by 206 episodes since 2010/11.

- People aged 70 years and older represented less than 50% of activity however this is an increase from 2010/11 when they accounted for 45% of episodes. They represented about 48% of invasive cardiac investigation episodes and 39% of percutaneous coronary angioplasties however they accounted for 80% of other interventional cardiology procedures.

Table 28: Interventional Cardiology SRG Episodes by ESRG 2010/11 – 2015/16 (same day and overnight) – age >15 years

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Gosford</td>
<td>121 Invasive cardiac Investig Proc</td>
<td>259</td>
<td>223</td>
<td>322</td>
<td>395</td>
<td>342</td>
<td>334</td>
<td>75</td>
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<tr>
<td></td>
<td>123 Pacemaker procedures</td>
<td>56</td>
<td>48</td>
<td>81</td>
<td>133</td>
<td>120</td>
<td>127</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>129 Other interventional Cardiology</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Total Gosford</td>
<td>458</td>
<td>394</td>
<td>620</td>
<td>773</td>
<td>735</td>
<td>788</td>
<td>330</td>
<td>72.1%</td>
</tr>
<tr>
<td>Wyong</td>
<td>121 Invasive cardiac Investig Proc</td>
<td>10</td>
<td>73</td>
<td>78</td>
<td>91</td>
<td>85</td>
<td>69</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>123 Pacemaker procedures</td>
<td>17</td>
<td>18</td>
<td>11</td>
<td>11</td>
<td>14</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>129 Other interventional Cardiology</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Wyong</td>
<td>29</td>
<td>97</td>
<td>96</td>
<td>113</td>
<td>127</td>
<td>121</td>
<td>92</td>
<td>317.2%</td>
</tr>
<tr>
<td>Total Interventional Cardiology</td>
<td>487</td>
<td>491</td>
<td>716</td>
<td>886</td>
<td>862</td>
<td>909</td>
<td>422</td>
<td>86.7%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

Note: excludes ED Short Stay Unit activity

Future Service Configuration

Table 29: Summary of current and proposed cardiac services and facilities at Gosford and Wyong Hospitals

<table>
<thead>
<tr>
<th>Care Type</th>
<th>Services</th>
<th>Gosford</th>
<th>Wyong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Delineation - Cardiology and Interventional Cardiology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Hospital</td>
<td>PHT/PAPA</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ED</td>
<td>Chest Pain Assessment Pathway</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>Echocardiogram</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Trans-Desophageal (TOE)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Trans-Thoracic (TTE)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Exercise Tolerance Test (ETT)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Cardiac CT (CTCA)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Cardiac MRI</td>
<td>Referred</td>
<td>Referred</td>
</tr>
<tr>
<td></td>
<td>Nuclear Medicine</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td>Interventional</td>
<td>Angiography Suite (number)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Implantable device (Temporary)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Implantable device (Permanent)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Bi-ventricular pacing (BiVP)</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Automatic Implantable Cardiac Defibrillator</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Implantable Loop Recorders (ILRs)</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Electrophysiology Services (EPS)</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Primary PCI (Business Hours)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>24/7 PCI</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Left Atrial Appendage Occlusion</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Atrial Septal Defect Closure</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Percutaneous Valve Procedures</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td>Surgery</td>
<td>Cardiotoracic Surgical Unit</td>
<td>Referred</td>
<td>Yes</td>
</tr>
<tr>
<td>Inpatient</td>
<td>CCU (Beds)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Chest Pain Assessment Unit (Beds)</td>
<td>0</td>
<td>2 (flex)</td>
</tr>
<tr>
<td></td>
<td>Ward Beds (telemetry+ other)</td>
<td>20+4</td>
<td>20</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>Cardiac Rehabilitation</td>
<td>Yes*</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Heart Failure Management</td>
<td>Yes*</td>
<td>Yes</td>
</tr>
<tr>
<td>Outpatient</td>
<td>Echocardiography</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Education</td>
<td>Advanced trainees</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Fellow</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Nursing (specialisation)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Research</td>
<td>LHD Cardiac Drug Trial Unit</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>LHD Cardiovascular Research Unit</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: CCLHD CSP (2012-2022) and CCLHD Gosford Hospital – Cardiovascular Suite, Cardiac Diagnostic Unit and Coronary Care Unit Functional Design Briefs (2015)

Notes: *These services were moved offsite to Woy Woy Hospital in 2015.

1. Organisational placement within LHD to be determined
Gosford Hospital
The redevelopment of Gosford Hospital includes new facilities for an integrated cardiovascular suite, cardiac diagnostics unit, coronary care unit, and cardiac inpatient unit delivering an integrated model across the continuum of care from diagnostic and interventional services through acute care and outpatients. The cardiovascular suite will have three interventional rooms, two dedicated to cardiology with the third a hybrid room for vascular, interventional radiology, and overflow cardiology if required.

The provision of two cardiac interventional rooms will increase the range of services available locally, including the provision of 24/7 PPCI at Gosford and the introduction of additional procedures including electrophysiology services (EPS), and implantable defibrillators.

A chest pain assessment service will be available with access to two inpatient beds on the cardiac inpatient unit. Increased utilisation of Cardiac Angiography CT (CTCA) will support patient assessment, facilitate timely decision-making in the ED and early discharge for patients with non-cardiac chest pain.

Wyong Hospital
Service enhancement is required at Wyong hospital in particular local access to an increased range of diagnostic services such as stress testing/exercise tolerance test (both inpatient and outpatient) as well as establishment of a Trans Oesophageal Echocardiogram (TOE) service and a chest pain assessment service. Service enhancement at Wyong Hospital will not only respond to the health needs of the local growing population but will also afford the opportunity to move secondary level services for this same population from Gosford Hospital; in turn this will release much needed capacity at Gosford Hospital and allow it to further develop tertiary level services for the whole of CCLHD.

Specialised cardiothoracic surgery
Timely access to cardiothoracic surgery is required to support some of the more advanced interventional procedures (e.g. left atrial appendage occlusion, atrial septal defect closure, and percutaneous valve procedure) proposed for future introduction at Gosford Hospital. There is currently insufficient demand/volume to support establishment of a sustainable cardiothoracic service within CCLHD, however, further consideration of options for access to this service will inform decisions about introduction of these procedures.

Strategic Directions
71. Implement a chest pain assessment model at Gosford (initially) and Wyong Hospitals in conjunction with the ED including utilisation of technologies to support early decision making such as Cardiac CT (CTCA).
72. Expand the inpatient and outpatient cardiac diagnostic service capabilities at Wyong Hospital including Trans-Oesophageal Echocardiography (TOE).
73. Extend the hours of operation for the cardiac interventional service, in particular Primary PCI up to 24 hour availability at Gosford Hospital.
74. Introduce additional procedures including electrophysiology services (EPS), implantable loop recorders, bi-ventricular pacing and automatic implantable cardiac defibrillators (ICD) at Gosford Hospital.
75. Expand the range of outpatient services at both Gosford and Wyong Hospitals including rapid review for patients with chronic cardiac disease.
76. Expand cardiac rehabilitation and heart failure services to meet demand and improve ‘in-reach’ to acute care.
77. Expand cardiac research, education and training to support a cardiovascular clinical research program with tertiary academic links to the University of Newcastle.

13.3 Endocrinology and Diabetes

Current Services
Endocrinology and diabetes services are provided predominantly on an outpatient and ambulatory basis with an inpatient consultative service. The majority of clinical work is diabetes related.
Gosford Hospital provides endocrinology services at role delineation Level 5. Services include inpatient management and consultation, limited specialist outpatient clinic for endocrinology and diabetes, gestational diabetes mellitus (GDM) clinic, endocrine disorders in pregnancy clinic, insulin stabilisation, insulin pump services, multidisciplinary clinics and nutrition clinics. There is a limited paediatric consultation service.

Wyong Hospital provides endocrinology services at role delineation Level 3. The service consists of a limited inpatient consultation service. A high risk foot service is provided onsite and operates in conjunction with University of Newcastle.

Diabetes education is based at Gosford Hospital and services are provided at Gosford Hospital, Wyong Hospital and community health centres at Woy Woy, Erina, Long Jetty and Lake Haven.

Priority areas identified for development include: endocrinology, metabolic bone clinic/service, and a specialist obesity management service.

### Activity

- The majority of clinical activity for both endocrinology and diabetes is provided as a consultation service for inpatients or on an outpatient basis.
- In 2015/16 there were 446 inpatient episodes with the Endocrine SRG as the principal diagnosis, this is an increase of 34.3% (114 episodes) since 2010/11. Of these 83.7% (386 episodes) had a principal diagnosis of diabetes.
- In the majority of inpatient episodes diabetes is not the principal diagnosis but appears as a secondary diagnosis; as such, it is difficult to identify the activity and demand for endocrinology or diabetes services.
- In 2016 it was estimated that 9.6% of Central Coast residents (age >16 years) have diabetes or high blood glucose compared to 8.9% for NSW. The prevalence of diabetes in the Aboriginal population (aged >16 years) across NSW was 21.7%. (source: NSW Health: Health Statistics). The prevalence of diabetes increases with age.
- The presence of modifiable risk factors for diabetes (overweight and obesity, diet and physical activity) among Central Coast residents is higher than the NSW rates. This would suggest that the rates of diabetes among the Central Coast population can be expected to continue to increase.

### Future Service Configuration

#### Endocrinology

Endocrinology services require further development and expansion to accommodate an increasing demand for both inpatient and outpatient services. The service will be predominantly an outpatient based service and will include:

- Services for adrenal, pituitary, sex hormone and growth, and antenatal endocrine issues (other than GDM)
- A thyroid disorders service for the investigation, management and treatment of thyroid disease, nodules and cancer. The service would require access to thyroid ultrasound with biopsy, and thyroid surgery.
- The presence of onsite nuclear medicine service at Gosford Hospital will enable access to thyroid scanning. This will also offer the potential to treat thyroid cancer with administration of high dose radioactive iodine with suitable inpatient post procedure facilities.
- A metabolic bone clinic and a more comprehensive osteoporosis service in conjunction with the orthopaedic (and potentially a rheumatology) service and the orthogeriatric service. A key part of the service will be identification and capture of ‘at risk’ patients (particularly those aged less than 70 years) and those presenting with fracture (to ED, inpatient or outpatient) in addition to GP referrals. Following assessment and development of a treatment plan patients would be referred to their GP for ongoing management. GP and primary care education would be a key component of the service.
- An endocrine Clinical Nurse Consultant to support development and implementation of altered models of care and care processes and to advise on nursing management of complex patients. Additional specialist nursing resources are also required to coordinate the endocrine diagnostic investigation requirements for each of the endocrine services/clinics including identification of ‘at risk’ patients for the metabolic bone clinic and subsequent follow-up. In addition they would provide clinical support for the specialist clinics and oversee patients receiving infusion therapies in the Medical Day Treatment Unit.
Diabetes Services
The LHD has been working in partnership with the HNECC PHN and Yerin Aboriginal Health Service to develop a whole of population and whole of system approach to diabetes. This is a collaborative approach involving the community in the prevention, early detection and ongoing management of diabetes. The key components are:

- Prevention and health promotion - priority areas include promoting healthy and active living to reduce risk factors for diabetes, as well as raising awareness of diabetes and the risks it poses
- Early detection and optimal diabetes management takes place predominantly in general practice with support from diabetes specialists if required. Priority actions focus on early detection, self-management, disadvantaged and priority groups, and best practice diabetes management.
- Enhanced services provided by the CCLHD diabetes specialist team - to manage complex diabetes, support general practices to manage complex patients, and providing education updates for health professionals.

Within this framework CCLHD has a lead role in delivering health promotion strategies, diabetes education and support for patients and education for general practitioners and primary care providers. The fundamental role for CCLHD will be delivering specialist services for the management of complex patients and those with diabetes complications. A key element will be linking patients and their care back to their primary care provider/GP.

To meet this role CCLHD will need to progressively develop a comprehensive range of specialist diabetes services and further development and/or enhancement of the following:

Inpatient Services:
- Inpatient consultation, outpatient clinics and increased diabetes education at Wyong Hospital
- Review and care planning for patients presenting to ED (or the hospital) with diabetes to streamline admission and inpatient management or expedite discharge ensuring referral to appropriate community based services.
- Establishment of a process to identify and review patients with newly diagnosed diabetes, including those admitted with hypo- or hyperglycaemia (elevated HbA1C), to ensure appropriate inpatient management and appropriate post discharge referral for follow-up with GP and community based services such as diabetes education.
- Review of inpatients admitted with diabetes related complications or diagnoses to ensure optimal diabetes management and referral to GP or specialist follow-up post discharge.
- Pre-admission preparation and care planning for planned surgical patients with diabetes (involvement in pre-admission clinic).
- Active education program for other specialist teams (medical/surgical) to improve patient identification, provision of optimal diabetes care (including avoidance of hypoglycaemia) and timely referral to the diabetes service where appropriate either during the inpatient stay or post discharge.

Diabetes in pregnancy (Type 1, Type 2, gestational):
- Pre-conception counselling
- Alternative models for management including increased diabetes educator and dietician involvement, supported GP shared care and postnatal follow-up.

Paediatric and Adolescent:
- Expanded paediatric diabetic service including increased access to insulin pump commencement service
- Further development of the transition support program for adolescents with access to psychological support.

Non-inpatient Services:
- Insulin pump commencement service for adults
- Development of a high risk foot clinic at Gosford Hospital and continuation of the current service at Wyong Hospital
- Increased community based programs including Diabetes in the Elderly program to provide home-based support for older patients commencing on insulin
- A supported program for diabetes clients with mental health issues
Implementing, in conjunction with the Aboriginal Health Service, a program for the Aboriginal population targeting early diagnosis, consistent management, reduction, early recognition and timely review of complications (cross reference with strategic direction number 7)

Continuing development of technological opportunities to support patient management including the use of applications (apps) to engage with patients, GPs, care providers (home-based, RACF) as well as remote monitoring

Development of psychological/mental health support service for patients of all ages with diabetes burnout

Development of a rehabilitation program where diabetic patients can access specific and relevant diabetes education combined with a tailored exercise program. This would be a community based program supported by endocrinology review, diabetes educator, nutrition, psychology, exercise physiologist or physiotherapist and social worker.

**Interface with primary and community based care:**

- Provision of non-specialised diabetes care by GPs and primary care providers supported by specialist diabetes service providers including:
  - Timely access to specialist advice, consultation and rapid patient review
  - Education and support for GPs, practice nurses and other primary care providers in the management of diabetes including diabetes education and insulin stabilisation
  - Improved linkage and interaction for care coordination, case conferencing and the potential for combined GP and specialist clinics in the future.

**Gosford Hospital**

Gosford Hospital will continue to provide inpatient and outpatient endocrinology and diabetes services at role delineation Level 5. There will be an expanded range and volume of outpatient and community-based programs including a high risk foot service, access to adequate ambulatory and outpatient facilities to support multidisciplinary clinics, and provision of rapid review clinic. Additional specialist medical, senior clinical nursing, allied health and advanced trainee positions will be required to meet the increasing demand and support the proposed service developments.

Development of a Diabetes and Metabolism Centre, a hub for CCLHD specialist services, will accommodate the diabetes and obesity management services. The Centre will require space for multidisciplinary clinics, specialist clinics, rapid review clinics and high risk foot service. Facilities will also need to support staff, patient and group education sessions as well as technology to support remote patient consultation with GPs, RACFs or in the patient’s home.

**Wyong Hospital**

Wyong Hospital will provide inpatient consultation and outpatient clinics for both endocrinology and diabetes at role delineation Level 4. The service will be networked with Gosford Hospital for the management of complex patients. Additional specialist medical, nursing and access to allied health staff will be required to support the proposed expansion of services. Expanded services will include:

- Inpatient consultation and management
- Onsite diabetes education
- Endocrinology and Diabetes clinics including capacity for rapid review of patients
- Endocrine/Diabetes antenatal clinics
- Continuation of high risk foot service
- A metabolic bone service delivered in conjunction with other relevant services including geriatric medicine, orthopaedic and rehabilitation services.

**Strategic Directions**

**Endocrinology**

78. Expand the specialist endocrinology service to encompass adrenal, pituitary, sex hormone and growth issues as well as antenatal endocrine issues (other than GDM).
79. Develop a thyroid service to include additional diagnostic and treatment options including the potential for use of radioactive iodine treatment for thyroid cancer at Gosford Hospital.

80. Provide a metabolic bone service linked with orthopaedic, geriatric medicine and rheumatology services at both Gosford and Wyong hospitals.

**Diabetes**

81. Develop and enhance services at Wyong Hospital to include inpatient consultation, outpatient clinics and diabetes education.

82. Integrate CCLHD services with GPs and primary care providers to support the management of diabetes patients in a primary care setting. This will include: timely access to specialist advice and review, insulin stabilisation, patient education and support, and the potential for combined GP and specialist clinics in the future.

83. Develop and enhance Gosford and Wyong hospital inpatient diabetes services to provide:
   - Increased capacity to undertake inpatient and ED review of newly diagnosed diabetics, patients admitted with hypo- or hyperglycaemia, or diabetes related complications
   - Active education program for other specialist in-hospital teams (medical/surgical) to improve patient identification, provision of optimal diabetes care (including avoidance of hypoglycaemia) and timely referral to appropriate inpatient or primary care diabetes services
   - High risk foot management – inpatient and outpatient services available at both Gosford and Wyong hospitals
   - Expanded services to be supported by a specialist multidisciplinary inpatient diabetes team.

84. Enhance the specialist diabetes programs predominantly provided in the outpatient or community setting:
   - Endocrine/diabetes maternity services including pre-conception counselling, GP shared care, expanded educator services and development of pathway and program for post pregnancy follow-up
   - Paediatric diabetes service including access to insulin pump commencement program and further development of adolescent transition support program
   - Diabetes clinic for Aboriginal patients in conjunction with the Aboriginal Health Service (Nunyara) for review and management of complex cases and complications [Cross reference with Strategic Direction no. 7]
   - Supported management program for mental health patients with diabetes
   - Diabetes in the Elderly program as a home-based service to provide follow-up, support, coach and monitor elderly patients commenced on insulin.

85. Development of a Diabetes and Metabolism Centre on the Gosford Hospital campus with access to appropriate clinical capacity and facilities to support both clinical and education services.

**13.4 Obesity Management Services**

Obesity is a key risk factor for a number of chronic conditions in particular type 2 diabetes, cardiovascular disease and hypertension. Excess weight is also implicated in a number of other conditions which affect quality of life and health including obstructive sleep apnoea, certain cancers, depression, social problems, osteoarthritis, and metabolic syndromes such as insulin resistance. Metabolic syndrome is becoming increasingly common among children and adolescents, and its prevalence increases directly with the degree of obesity.

There is a high prevalence of overweight and obesity among both children and adults on the Central Coast. Between 2012 and 2015, 22.3% of children on the Central Coast aged between five and 16 years were overweight or obese, just below the NSW rate of 22.4% (source: NSW Health SAPHaRI). The rate of overweight is consistent with NSW however the prevalence of obesity is much higher among the Central Coast population. In 2016 it was estimated that 57.3% of the Central Coast population aged over 16 years were overweight or obese (NSW 53.3%), of this 26.5% were obese (NSW 21.4%) (source: NSW Health Statistics). Previous data analysis indicated significantly higher obesity prevalence in the Wyong area compared to the Gosford area.
The NSW Premier’s Priorities include a reduction of overweight and obesity in children by 5% over the next 10 years.

The NSW Health, Healthy Eating Active Living Strategy: Preventing overweight and obesity in NSW 2013-2018 (HEAL Strategy) provides a whole of government framework to promote and support healthy eating and active living, and a whole of population approach to weight management in NSW. A number of statewide initiatives have been introduced to support the Strategy; one of the key initiatives is the Get Healthy Information and Coaching Service which provides individual health coaching for adults as well as tailored programs for Aboriginal people, CALD people, pregnant women and those at risk of type 2 diabetes. There are a number of targeted programs for children from birth to adulthood.

In conjunction with the Central Coast Regional Leadership Executive, an implementation plan to reduce childhood obesity and promote healthy eating active living has been developed. This is a whole of government approach targeting childhood obesity prevention. There are four strategic areas for action which are consistent with the NSW HEAL Strategy and cover improvements to environments for healthy eating and active living, delivery of state-wide support programs, enhancements to clinical services, and facilitation of education programs. While the plan targets children a number of the actions are also aimed at families. The Health Promotion Unit are actively involved with the development and implementation of this strategy.

There is a need to develop a region-wide multi-agency framework and plan aimed at encouraging and supporting healthy lifestyle choices as well as the management of obesity across all age groups.

It is envisaged that the management of children and adults who are overweight and mildly to moderately obese (BMI <39 without significant comorbidities) will be coordinated by General Practitioners and will be aligned with the NHMRC Summary Guide for the management of Overweight and Obesity in Primary Care (2013).

Within this context there is a need for an Obesity Management Service for adults to be developed to target the most severe cases requiring intensive and specialist interventions to support weight loss. Within this framework bariatric surgery will be one component in the overall management of these patients. The numbers of patients who could be managed through such a service are quite limited. Such a service would require good links and integration with primary care providers and services.

**Strategic Direction:**

86. Develop an Obesity Management Plan which will inform the development of an Obesity Management Service within the context of the NSW Healthy Eating Active Living Strategy and a Central Coast Healthy Eating Active Living Framework population health approach to the prevention and management of overweight and obesity on the Central Coast.

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**13.5 Gastroenterology**

**Current Services**

Gastroenterology, encompassing general and endoscopic services, is provided at both Gosford and Wyong hospitals. Routine diagnostic and therapeutic endoscopy and colonoscopy services are provided at both sites. All after hours emergency procedures are undertaken at Gosford Hospital while in-hours emergency procedures are undertaken at both sites. Specialised procedures and management of complex and acutely unwell patients is concentrated at Gosford Hospital.

Gosford Hospital provides services at role delineation Level 5. Services include inpatient and outpatient management, endoscopy and colonoscopy, endoscopic retrograde cholangio-pancreatography (ERCP), endoscopic ultrasound (EUS) and services for Inflammatory Bowel Disease (IBD) as well as liver disease services which include hepatitis C treatment and chronic liver disease clinics.

Wyong Hospital provides services at role delineation Level 3 providing inpatient management, endoscopy and colonoscopy services and limited outpatient services. The service is networked with Gosford Hospital and patients requiring after-hours emergency review or procedures are transferred to Gosford Hospital.
Direct Access, a collaborative project with the NSW Cancer Institute to increase capacity and timely access to endoscopy for patients with a positive faecal occult blood test (FOBT), is in the implementation phase and will operate across both Gosford and Wyong hospitals.

**Activity**

The following data and analysis reflects inpatient activity only. An increasing proportion of procedural activity is being undertaken on a non-inpatient basis including Privately Referred Non-Inpatients (PRNIP).

- In 2015/16 about 83% of adult inpatient episodes admitted to the Gastroenterology service are captured within the Gastroenterology and Diagnostic GI Endoscopy SRGs. Since 2010/11 the number of inpatient episodes admitted to the Gastroenterology service has decreased by 38.5% across Gosford and Wyong Hospitals. It is likely that this reflects a shift toward non-admitted service provision.

**Table 30: Inpatient Episodes by SRG admitted to the Gastroenterology service 2010/11 – 2015/16 age >15years**

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<td></td>
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<td>No.</td>
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<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No. %</td>
</tr>
<tr>
<td>Gosford</td>
<td>Gastroenterology SRG</td>
<td>642</td>
<td>204</td>
<td>(31.8%)</td>
<td>506</td>
<td>239</td>
<td>(36.2%)</td>
<td>(163)</td>
</tr>
<tr>
<td></td>
<td>Diagnostic GI Endoscopy SRG</td>
<td>576</td>
<td>337</td>
<td>(58.5%)</td>
<td>338</td>
<td>241</td>
<td>(40.9%)</td>
<td>(135)</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>224</td>
<td>19</td>
<td>8.5%</td>
<td>229</td>
<td>232</td>
<td>87%</td>
<td>(37)</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>1,442</td>
<td>1,073</td>
<td>1,006</td>
<td>911</td>
<td>886</td>
<td>920</td>
<td>(522)</td>
</tr>
<tr>
<td>Wyong</td>
<td>Gastroenterology SRG</td>
<td>410</td>
<td>111</td>
<td>(27.1%)</td>
<td>400</td>
<td>299</td>
<td>(40.9%)</td>
<td>(101)</td>
</tr>
<tr>
<td></td>
<td>Diagnostic GI Endoscopy SRG</td>
<td>594</td>
<td>400</td>
<td>173%</td>
<td>555</td>
<td>338</td>
<td>(375)</td>
<td>(87.4%)</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>429</td>
<td>375</td>
<td>15.7%</td>
<td>400</td>
<td>338</td>
<td>15.7%</td>
<td>(87.4%)</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>1,433</td>
<td>1,355</td>
<td>1,114</td>
<td>874</td>
<td>892</td>
<td>847</td>
<td>(586)</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>2,875</td>
<td>2,428</td>
<td>2,120</td>
<td>1,785</td>
<td>1,778</td>
<td>1,767</td>
<td>(1,108)</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

**Gastroenterology SRG Activity:**

**Table 31: Inpatient Episodes for Gastroenterology (SRG 15) by ESRG 2010/11 – 2015/16 age >15years**

<table>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. %</td>
<td>87</td>
<td>40.1%</td>
<td>(9.5%)</td>
<td>240</td>
<td>304</td>
<td></td>
<td>(109)</td>
</tr>
<tr>
<td>Gosford</td>
<td>151 Oesophagitis, Gastroenteritis &amp; Misc Digestive System Disorders</td>
<td>217</td>
<td>263</td>
<td>319</td>
<td>287</td>
<td>240</td>
<td>304</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>152 Gastroscopy</td>
<td>265</td>
<td>181</td>
<td>157</td>
<td>188</td>
<td>180</td>
<td>183</td>
<td>(82)</td>
</tr>
<tr>
<td></td>
<td>153 ERCP</td>
<td>96</td>
<td>79</td>
<td>80</td>
<td>103</td>
<td>112</td>
<td>97</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>159 Other Gastroenterology</td>
<td>1,044</td>
<td>1,092</td>
<td>1,126</td>
<td>1,077</td>
<td>1,018</td>
<td>1,105</td>
<td>61</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>1,622</td>
<td>1,615</td>
<td>1,682</td>
<td>1,655</td>
<td>1,550</td>
<td>1,689</td>
<td>67</td>
</tr>
<tr>
<td>Wyong</td>
<td>151 Oesophagitis, Gastroenteritis &amp; Misc Digestive System Disorders</td>
<td>173</td>
<td>203</td>
<td>221</td>
<td>231</td>
<td>217</td>
<td>243</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>152 Gastroscopy</td>
<td>288</td>
<td>261</td>
<td>255</td>
<td>255</td>
<td>264</td>
<td>258</td>
<td>(30)</td>
</tr>
<tr>
<td></td>
<td>153 ERCP</td>
<td>50</td>
<td>58</td>
<td>55</td>
<td>55</td>
<td>42</td>
<td>37</td>
<td>(13)</td>
</tr>
<tr>
<td></td>
<td>159 Other Gastroenterology</td>
<td>721</td>
<td>714</td>
<td>819</td>
<td>793</td>
<td>795</td>
<td>846</td>
<td>125</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>1,232</td>
<td>1,236</td>
<td>1,350</td>
<td>1,334</td>
<td>1,318</td>
<td>1,384</td>
<td>152</td>
</tr>
<tr>
<td>Gastroenterology SRG Total</td>
<td>2,854</td>
<td>2,851</td>
<td>3,032</td>
<td>2,989</td>
<td>2,868</td>
<td>3,073</td>
<td>219</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection  Note: Excludes ED SSU activity

In 2015/16:

**Service Demand:**

- There were 6,506 inpatient episodes for Central Coast residents (demand) of these 46.7% (3,040) were in CCLHD hospitals, 47.8% (3,112) were in private hospitals, and 5.4% (354) were outflows to other LHDs.
- The total demand by Central Coast residents has increased by 18.7% (1,027 episodes) since 2010/11, most of this increase (52% or 534 episodes) occurred between 2014/15 and 2015/16.
- The percentage of episodes managed locally has increased by 15.7% (412 episodes), the percentage of episodes admitted to private facilities has increased by 23.8% (598 episodes) and the percentage outflows to other public hospitals decreased by 5.0% (17 episodes).
Service Supply – Central Coast LHD activity (includes inflows):
- There were 3,073 inpatient episodes an increase of 7.7% since 2010/11; the largest increase was at Wyong Hospital.
- About 83% episodes were overnight. This is an increase from 75% in 2010/11
- About 79% episodes were unplanned/emergency admissions. This is an increase from 70% in 2010/11
- About 24% episodes for the Gastroenterology SRG and 19.7% bed days were admitted to the gastroenterology specialty (excludes ED SSU episodes). This is a decrease from 2010/11 when 36.9% episodes and 28.3% bed days were admitted to the Gastroenterology specialty.
- There were 988 episodes admitted to EDSSU (both Gosford and Wyong) representing 24.3% of the total episodes for this SRG
- Within the Gastroenterology SRG – Other Gastroenterology (ESRG 159) had the highest number of bed days 7,690 (64.4%) followed by Oesophagitis, Gastroenteritis and Miscellaneous Digestive System Disorders (ESRG 151) with 2,104 bed days, Gastroscopy (ESRG 152) 1,562 bed days, and ERCP (ESRG 153) with 580 bed days.

Diagnostic GI Endoscopy SRG Activity:
In 2015/16:

Service Demand:
- There were 6,934 inpatient episodes for Central Coast residents (demand); of these 20.8% (1,443) episodes were in CCLHD hospitals, 76.7% (5,320 episodes) were in a private hospital, and 2.5% (171 episodes) were outflows to other LHDs
- Total inpatient demand by Central Coast residents has increased by 1.4% (94 episodes) since 2010/11
- The percentage of episodes managed locally has decreased by 18.8% (333 episodes), the percentage of episodes admitted to private facilities has increased by 8.2% (401 episodes), and the percentage outflows to other public hospitals increased by 17.9% (26 episodes). It is likely that this reflects the increasing shift toward non-admitted procedures in the public hospitals.

Service Supply – Central Coast LHD activity (includes inflows):
- There were 1,633 inpatient episodes a decrease of 18.2% since 2010/11; the largest decrease was at Gosford Hospital.
- About 27.9% episodes were overnight; this is an increase from 21.4% in 2010/11
- About 26% episodes were unplanned/emergency; this is an increase from 18.6% in 2010/11
- About 44.7% (730) episodes and 44% bed days were admitted to the gastroenterology specialty. This is a decrease of 38% (440 episodes) since 2010/11 when 59% (1,170 episodes) were admitted to gastroenterology.

Table 32: Inpatient Episodes for Diagnostic GI Endoscopy (SRG 16) by ESRG 2010/11 – 2015/16 age >15years

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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Gosford</td>
<td>161 Other Colonoscopy</td>
<td>583</td>
<td>501</td>
<td>458</td>
<td>449</td>
<td>460</td>
<td>366</td>
<td>217 (37.2%)</td>
</tr>
<tr>
<td></td>
<td>162 Other Gastroscopy</td>
<td>372</td>
<td>311</td>
<td>294</td>
<td>268</td>
<td>275</td>
<td>285</td>
<td>88 (23.6%)</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>956</td>
<td>812</td>
<td>752</td>
<td>717</td>
<td>735</td>
<td>651</td>
<td>305 (31.9%)</td>
</tr>
<tr>
<td>Wyong</td>
<td>161 Other Colonoscopy</td>
<td>731</td>
<td>656</td>
<td>741</td>
<td>719</td>
<td>710</td>
<td>694</td>
<td>37 (5.1%)</td>
</tr>
<tr>
<td></td>
<td>162 Other Gastroscopy</td>
<td>310</td>
<td>320</td>
<td>298</td>
<td>332</td>
<td>326</td>
<td>288</td>
<td>22 (7.1%)</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>1,041</td>
<td>976</td>
<td>1,039</td>
<td>1,051</td>
<td>1,036</td>
<td>982</td>
<td>59 (5.7%)</td>
</tr>
<tr>
<td>Diagnostic GI Endoscopy SRG Total</td>
<td>1,997</td>
<td>1,788</td>
<td>1,791</td>
<td>1,768</td>
<td>1,771</td>
<td>1,633</td>
<td>364 (18.2%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection  Note: Excludes ED SSU activity

Future Service Configuration

Gosford Hospital will continue to provide services at Level 5. There will be an expanded range of services to include manometry and motility studies, capsule endoscopy, and radiofrequency ablation of Barrett’s Oesophagus. The service will be supported by access to an expanded range of interventional radiology procedures available onsite with after-hours coverage.

Wyong Hospital will increase role delineation to Level 4 with capacity to provide emergency after-hours coverage and procedures. The range and complexity of procedures will increase supported by a Level 4 ICU. Patients requiring more specialised procedures and a higher level of care will continue to be transferred to Gosford.
ERCP will be provided and there will be an expanded outpatient service including hepatitis C, chronic liver disease, and possibly an IBD clinic.

**Strategic Directions**

87. Provide after-hours coverage to enable emergency review and procedures at Wyong Hospital.
88. Expand after-hours on-call coverage, including specialist endoscopy nurses, to support emergency procedures at both Gosford and Wyong hospitals.
89. Expand the range of services at Gosford Hospital to include manometry and motility studies, capsule endoscopy, and radiofrequency ablation of Barrett’s Oesophagus.
90. Continue the Direct Access Project with timely access to a public endoscopy service for patients with a positive faecal occult blood test (FOBT)
91. Expand outpatient clinic capacity at both Gosford and Wyong hospitals for the provision of gastroenterology, liver disease and inflammatory bowel disease clinics.

**13.6 Neurology**

**Current Services**

Gosford Hospital provides services at role delineation Level 5 encompassing a specialist inpatient unit with an 8 bed acute stroke unit, 24 hour acute stroke service with thrombolysis capabilities, acute neurovascular service for transient ischaemic attack (TIA), neurophysiology and CT perfusion scanning. Outpatient and ambulatory models are increasingly used for the management of a range of neurological conditions. Specialised non-admitted services are available for Parkinson’s disease (PD) and TIA while specialised non-admitted services for multiple sclerosis (MS), epilepsy, motor neurone disease (MND), neuromuscular disease, headaches and dementia in conjunction with geriatric medicine need to be developed. The Neurology service is provided as a networked service across Gosford and Wyong hospitals.

Wyong Hospital provides services at role delineation Level 4 with a 4 bed Acute Stroke Unit within a general inpatient unit. Neurology on-call coverage is available Monday to Thursday while coverage for Friday to Sunday is provided through Gosford Hospital (patients requiring admission on these days are transferred to Gosford Hospital). Ambulance bypass to Gosford Hospital is in place for acute stroke patients suitable for thrombolysis although it may be administered for suitable patients who self-present to ED. CT perfusion scanning and neurophysiology services are available. Specialist outpatient services are accessed at Gosford Hospital with the exception of a Parkinson’s Disease clinic and TIA clinic.

Patients requiring neurosurgery and interventional neuro-radiology are transferred to RNSH; patients suitable for clot retrieval (thrombectomy) are predominantly transferred to John Hunter Hospital in Newcastle to access this service pending development of a new neurovascular network by the Ministry of Health.

There are a number of CCLHD-wide community/home based therapy services provided for stroke, spinal cord lesions, Guilliane Barre, acquired brain injury (ABI), and patients with progressive neurological conditions such as Parkinson’s disease, motor neurone disease and multiple sclerosis. With the exception of services for Parkinson’s disease the remaining services are provided by services outside the Neurology service.

Previously these services were provided through two community based specialised neurology allied health services, the Community Outreach Rehabilitation Team (CORT) for patients with progressive neurological disorders and the Community Neurology and Stroke Service (CNSS). They are now provided through the community Allied Health team. This has created concern within the Neurology service about the potential loss of the specialised skill set required to manage these patients.

**Activity**

In 2015/16 about 73.1% of adult inpatient episodes managed by the Neurology service are captured within the Neurology SRG. Since 2010/11 the number of episodes admitted to the Neurology service increased at Gosford
Hospital, most of this increase was for the Neurology SRG which increased by 22.8%. Over the same period the number of episodes admitted to the Neurology service more than doubled at Wyong Hospital.

Table 33: Inpatient Episodes for Neurology SRG and Admission Specialty 2010/11 – 2015/16 - age >15yrs

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<td></td>
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<td>No.</td>
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<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Gosford</td>
<td>Neurology SRG 21</td>
<td>1,163</td>
<td>265</td>
<td>1,248</td>
<td>240</td>
<td>1,303</td>
<td>243</td>
<td>1,129</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>451</td>
<td>94</td>
<td>462</td>
<td>89</td>
<td>500</td>
<td>98</td>
<td>477</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>1,614</td>
<td>359</td>
<td>1,710</td>
<td>329</td>
<td>1,803</td>
<td>342</td>
<td>1,795</td>
</tr>
<tr>
<td>Wyong</td>
<td>Neurology SRG 21</td>
<td>315</td>
<td>78</td>
<td>405</td>
<td>86</td>
<td>510</td>
<td>103</td>
<td>496</td>
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<tr>
<td></td>
<td>Other SRGs</td>
<td>75</td>
<td>15</td>
<td>96</td>
<td>19</td>
<td>142</td>
<td>30</td>
<td>146</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>291</td>
<td>405</td>
<td>301</td>
<td>65</td>
<td>462</td>
<td>95</td>
<td>472</td>
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<tr>
<td>Total Neurology Service</td>
<td></td>
<td>2,005</td>
<td>517</td>
<td>2,211</td>
<td>465</td>
<td>2,455</td>
<td>490</td>
<td>2,437</td>
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<td>Other Specialties – Neurology SRG 21</td>
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<td>EDSSU</td>
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<td>6</td>
<td>2</td>
<td>7</td>
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<td>Geriatric Medicine</td>
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<td>169</td>
<td>27</td>
<td>194</td>
<td>36</td>
<td>211</td>
<td>32</td>
<td>168</td>
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<tr>
<td>Medicine</td>
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<td>69</td>
<td>77</td>
<td>59</td>
<td>69</td>
<td>112</td>
<td>146</td>
<td>125</td>
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<tr>
<td>Others</td>
<td></td>
<td>333</td>
<td>45</td>
<td>287</td>
<td>42</td>
<td>251</td>
<td>32</td>
<td>222</td>
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<tr>
<td>Total Neurology SRG</td>
<td></td>
<td>2,056</td>
<td>312</td>
<td>2,195</td>
<td>320</td>
<td>2,394</td>
<td>365</td>
<td>2,363</td>
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</tbody>
</table>

Source: CCLHD Inpatient Data Collection

Neurology SRG Activity:

Table 34: Neurology SRG Inpatient Episodes by ESRG 2010/11 – 2015/16 – age >15 years (excludes ED SSU activity)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Gosford</td>
<td>211 Stroke</td>
<td>409</td>
<td>13</td>
<td>421</td>
<td>13</td>
<td>419</td>
<td>13</td>
<td>473</td>
</tr>
<tr>
<td></td>
<td>212 TIA</td>
<td>176</td>
<td>78</td>
<td>180</td>
<td>44.3%</td>
<td>177</td>
<td>43.7%</td>
<td>207</td>
</tr>
<tr>
<td></td>
<td>213 Seizures</td>
<td>219</td>
<td>48</td>
<td>226</td>
<td>21.9%</td>
<td>255</td>
<td>23.6%</td>
<td>217</td>
</tr>
<tr>
<td></td>
<td>219 Other Neurology</td>
<td>610</td>
<td>173</td>
<td>655</td>
<td>28.4%</td>
<td>772</td>
<td>31.2%</td>
<td>756</td>
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<tr>
<td>Total Gosford</td>
<td></td>
<td>1,414</td>
<td>312</td>
<td>1,482</td>
<td>320</td>
<td>1,623</td>
<td>365</td>
<td>1,589</td>
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<tr>
<td>Wyong</td>
<td>211 Stroke</td>
<td>180</td>
<td>34</td>
<td>183</td>
<td>18.9%</td>
<td>186</td>
<td>17.8%</td>
<td>171</td>
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<tr>
<td></td>
<td>212 TIA</td>
<td>71</td>
<td>41</td>
<td>85</td>
<td>57.7%</td>
<td>86</td>
<td>57.7%</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>213 Seizures</td>
<td>76</td>
<td>57</td>
<td>113</td>
<td>75.0%</td>
<td>92</td>
<td>60.4%</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>219 Other Neurology</td>
<td>309</td>
<td>175</td>
<td>330</td>
<td>56.6%</td>
<td>400</td>
<td>60.4%</td>
<td>351</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>636</td>
<td>239</td>
<td>711</td>
<td>37.6%</td>
<td>764</td>
<td>56.6%</td>
<td>729</td>
</tr>
<tr>
<td>Total Neurology</td>
<td></td>
<td>2,050</td>
<td>551</td>
<td>2,193</td>
<td>26.9%</td>
<td>2,387</td>
<td>44.3%</td>
<td>2,318</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

In 2015/16:

Service Demand:

- There were 3,194 inpatient neurology episodes for Central Coast residents (demand); of these 77.6% (2,477) episodes were in hospitals within CCLHD, 10.7% (342 episodes) were in a private hospital and 11.7% (375 episodes) were outflows to other LHDs most commonly Northern Sydney LHD.
- Total inpatient demand by Central Coast residents has increased by 30.2% (740 episodes) since 2010/11. The percentage of episodes managed within the LHD has decreased from 78.8%, the percentage of episodes admitted to private facilities has decreased from 11.5%
- The percentage outflows to other public hospitals increased from 9.8%. The largest number of public outflows was to RNSH (35.3% or 115 episodes).

Service Supply – Central Coast LHD activity (includes inflows):

- 2,491 (95.8%) episodes were overnight, this is decrease from 2010/11 when 97.7% were overnight
- There were 13,289 bed days, of these 99.2% (13,181) were overnight. The number of bed days has declined from 14,548 in 2010/11 when 99.7% (14,501) were overnight
- Since 2010/11 overnight episodes have increased by 24.4% (489 episodes) while bed days have declined by 9.1% (1,320 bed days)
- 90% (2,342) episodes were emergency/ unplanned and increase from 2010/11 when 86.1% were unplanned
- 72.3% of overnight episodes and 70.3% of bed days were managed by the neurology service. This is a decrease since 2010/11 when 74.4% episodes and 71.4% bed days were managed by Neurology. The other main service with admissions for the SRG was the Geriatric specialty with 7.2% episodes and 14% bed days.
 People aged over 70 years accounted for 51.7% (1,288) overnight episodes and 61.6% (8,121) bed days decreasing from 54% episodes and 63.3% bed days in 2010/11
 Within the SRG (excluding ED SSU episodes), Other Neurology (ESRG 219) had the highest number of episodes (1,267) and bed days (6,383) followed by Stroke (ESRG 211) (568 episodes and 4,149 bed days), Transient Ischaemic Attack (TIA) (ESRG 212) (366 episodes and 1,177 bed days) and Seizures (ESRG 213) 400 episodes and 1,580 bed days
 There were 540 episodes admitted to the ED SSU; the ESRG with the largest number of episodes was Other Neurology with 405 episodes and the same bed days
 The Neurology SRG accounted for 9.9% (2,477) of the total overnight medical episodes (25,160) and 10.6% (13,065) bed days representing the fourth highest medical SRG behind non sub-specialty medicine, cardiology and respiratory SRGs.

Future Service Configuration

Gosford Hospital will continue to provide services at role delineation Level 5 providing a comprehensive range of specialist inpatient, ambulatory and outpatient services. Administration of thrombolysis for acute stroke will continue to be concentrated at Gosford Hospital. Further development and expansion of sub-specialty areas of acute stroke management, neurovascular disease, neuro-immunology (MS); epilepsy, Parkinson’s disease and neuromuscular disease (MND) will be required.

Wyong Hospital will continue to provide services at role delineation Level 4 however there will be growth and development to enable provision as a sub-subspecialty service with a direct admitting roster and a fulltime presence onsite including after hours on call. There will be an increased number of beds in the acute stroke unit to 8 beds however thrombolysis will continue to be centred at Gosford Hospital but the acute stroke unit will increase to 8 beds. The service will be supported by an expanded neurophysiology service available five days per week providing both inpatient and outpatient services.

Services identified for further development include:
 An acute neurovascular pathway including outpatient service for follow-up of patients presenting with TIA as a multidisciplinary service provided at both Gosford and Wyong Hospitals
 Neuro-immunology – establishment of a multidisciplinary clinic at both Gosford and Wyong hospitals to support increased management of MS as an outpatient. This will require increased availability and access to appropriate clinically supported ambulatory infusion services.
 Epilepsy – establishment of a rapid review clinic at both Gosford and Wyong hospitals for review post first seizure
 Parkinson’s Disease – expansion of clinics at Wyong Hospital
 Neuromuscular (MND) – establishment of multidisciplinary clinic linked with the Respiratory and Palliative Care services
 Expansion of community and home-based programs to support patients with degenerative neurological disorders

Access to outpatient/ community based rehabilitation services or gymnasium supported by a rehabilitation program would be of benefit for patients with neurodegenerative conditions.

Patients requiring neurosurgery, interventional neuroradiology and clot retrieval services will continue to be referred to tertiary centres to access these services.

Strategic Directions

92. Develop a sub-specialty neurology service at Wyong Hospital with designated inpatient beds providing full time medical cover, a direct admitting roster, and after-hours on-call.
93. Improved and timely access to muscle and nerve biopsies.
94. Develop a rapid review neurology clinic for follow-up review of patients with neurological conditions discharged from ED.
95. Expand the Parkinson’s disease outpatient service at both Gosford and Wyong hospitals.
96. Develop a neuro-immunology/MS service including outpatient clinics and ambulatory infusion services, initially at Gosford Hospital with later expansion to Wyong Hospital.

97. Establish a specialist epilepsy service and clinic including rapid review of patients presenting with first seizure.

98. Establish a multidisciplinary neuromuscular/motor neurone disease clinic in conjunction with respiratory, allied health and palliative care services.

99. Enhance community and home-based programs to support patients with degenerative neurological disorders including access to rehabilitation facilities.

### 13.7 Cancer and Haematology

#### Current Services

The Cancer Service incorporates: medical oncology, radiation oncology, haematology (cancer and non-cancer), care coordination, multidisciplinary team (MDT) review for most cancer streams (lung, colorectal, breast, head and neck, urological and haematology), and clinical trials. The service is centred at Gosford Hospital with non-inpatient services provided at Wyong Hospital. The following services are provided at each site:

**Gosford Hospital:**
- Role Delineation Levels: Medical Oncology - Level 4; Radiation Oncology - Level 5; Haematology - Level 5
- Inpatient unit for cancer and haematology patients
- Medical oncology and radiation oncology – inpatient and outpatient services
- Cancer Day Unit (13 chairs) - chemotherapy, apheresis and other infusion therapies
- Radiation therapy – Linear Accelerators (LINACS) – 2 in operation plus built capacity (bunker) for a third
- Haematology – inpatient and outpatient service and autologous bone marrow transplantation
- Apheresis and stem cell collection service.

**Wyong Hospital:**
- Role Delineation Levels: Medical Oncology - Level 3; Radiation Oncology - No service; Haematology - Level 4
- Medical oncology and haematology - outpatient consultation
- Cancer Day Unit (10 chairs) - chemotherapy and other infusion therapies
- Unwell patients and patients requiring inpatient management are referred to Gosford Hospital.

There is a private radiation therapy provider with 2 LINACS located in Gosford. Private chemotherapy services are provided through Gosford Private Hospital.

#### Activity

The majority of cancer and haematology treatments are provided on an ambulatory/outpatient basis. The following data provides an indication of changes to inpatient activity for each of the cancer specialities. This does not represent all cancer related inpatient activity, only episodes which were admitted to the three cancer specialities – haematology, medical oncology and radiation oncology.

**Table 35: Inpatient Episodes Cancer and Haematology by specialty 2010/11 – 2015/16 (same day and overnight) age >15 yrs**

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>Change</td>
</tr>
<tr>
<td>Gosford</td>
<td>Haematology</td>
<td>450</td>
<td>424</td>
<td>401</td>
<td>432</td>
<td>436</td>
<td>475</td>
<td>25 5.6%</td>
</tr>
<tr>
<td></td>
<td>Medical Oncology</td>
<td>845</td>
<td>957</td>
<td>911</td>
<td>909</td>
<td>985</td>
<td>1,179</td>
<td>334 39.5%</td>
</tr>
<tr>
<td></td>
<td>Radiation Oncology</td>
<td>-</td>
<td>29</td>
<td>156</td>
<td>178</td>
<td>161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>1,295</td>
<td>1,381</td>
<td>1,341</td>
<td>1,497</td>
<td>1,599</td>
<td>1,815</td>
<td>520 40.2%</td>
</tr>
<tr>
<td>Wyong</td>
<td>Haematology</td>
<td>321</td>
<td>136</td>
<td>21</td>
<td>44</td>
<td>53</td>
<td>48</td>
<td>(273) (85.0%)</td>
</tr>
<tr>
<td>Total Cancer Specialist Services</td>
<td></td>
<td>1,616</td>
<td>1,517</td>
<td>1,362</td>
<td>1,541</td>
<td>1,652</td>
<td>1,863</td>
<td>247 15.3%</td>
</tr>
</tbody>
</table>

**Source:** CCLHD Inpatient Data Collection

#### Service Demand:
- In 2015, 88.4% of Central Coast residents accessed radiation therapy on the Central Coast. Of patients treated on the Central Coast 65.5% accessed radiation therapy at the Central Coast Cancer Centre (CCCC)
Since opening in 2013 the number of courses of radiotherapy provided at CCCC has increased from 597 in 2013 to 807 in 2016. Capacity for the 2 LINACS, based on NSW Ministry of Health estimates, is 828 courses of radiotherapy per annum (operating Monday to Friday business hours). It is expected that full capacity will be reached during 2017/18; prior to commissioning a third LINAC additional capacity can be created by extending the hours of operation.

**Service Supply – Central Coast LHD activity (includes inflows):**

- In 2015/16, 98.5% episodes and 99.8% bed days were overnight; this has remained consistent since 2010/11
- Overnight episodes have increased by 39.6% (507 episodes) at Gosford Hospital; the largest increase was for Oncology which increased by 38% (319 episodes). Over the same period the number of haematology episodes at Wyong Hospital declined by 85% (267 episodes).
- Since 2010/11 the number of bed days decreased by 17.4% from 15,983 to 13,226. The largest decrease was for oncology where bed days decreased by 18.1% from 9,785 to 8,013 in 2015/16. The number of bed days at Wyong Hospital decreased by 85.7% from 2,021 to 289 in 2015/16.
- The average length of stay has decreased from 10.9 days to 7.2 days at Gosford Hospital and to 6.1 days at Wyong Hospital
- About 54% of overnight episodes are residents of Gosford, 41% from Wyong and 5% are inflows from other LHDs.

**Future Service Configuration**

The future service configuration and strategic directions will be influenced by the outcomes of the CCLHD Cancer Services Plan and the Palliative Care Review; both planning processes will be completed during 2017/18. Pending the outcomes of these Plans the following services and configuration are proposed:

**Gosford Hospital:**

- Haematology, medical oncology and radiation oncology will continue to be provided at role delineation Level 5
- Inpatient care and management of high risk and complex patients will continue to be provided at Gosford Hospital. Cancer surgery will be concentrated at Gosford Hospital
- An increased range of specialist cancer services and treatments will be available locally reducing the need for patient to travel to access non-quaternary treatments
- Increased outpatient consultation space in proximity to the Cancer Centre to accommodate increased patient volume and workforce
- Expanded outpatient and ambulatory services to support the expected growth in demand for treatments due to growth in new cases (incidence) as well as increased survival rates and need for ongoing therapy.
- Expanded comprehensive cancer services including allied health support, diagnostic services and supportive medical services such as dental, genetics, and gastroenterology
- Commissioning of the third LINAC, it is anticipated that this will be required by 2019
- Increased number of clinical trials available for patients
- Availability of palliative care outpatient clinics and inpatient consultation, inpatient admissions and pathway for end of life care
- Specialist pain clinic for the management of non-palliative cancer related pain
- Acute assessment clinics in medical oncology and haematology
- Access to technology enabled facilities to be used for multidisciplinary team patient reviews (MDT review) which can accommodate the volume of specialist staff and access to patient records including test results, scans and real time capture of information.

**Wyong Hospital:**

- Haematology, medical oncology and radiation oncology provided as outpatient services and inpatient consultation services at role delineation Level 4
- Increased number and frequency of outpatient clinics for medical oncology and haematology
- Radiation Oncology clinics which include consultation (including infrastructure for fibreoptic nasendoscopy) and radiation therapy planning
Patients will continue to travel to Gosford Hospital for Radiation Therapy treatment

- Expanded supportive services required for comprehensive cancer care including allied health support, diagnostic services and supportive medical services such as dental, genetics, and gastroenterology
- Expanded ambulatory and non-inpatient services including acute assessment and short term treatment of unwell patients excluding radiotherapy treatments
- Availability of palliative care outpatient clinics and inpatient consultation, inpatient admissions and pathway for end of life care
- Specialist pain clinic for the management of non-palliative cancer related pain
- Potential for an inpatient unit will require further evaluation and planning in the future.

**Radiation Oncology:**

- There are currently licences for 4 LINACS on the Central Coast – 2 public at Gosford Hospital (CCCC) and 2 private located in Gosford
- Currently 2 LINACs are in operation at Gosford Hospital with built capacity for a third machine. A licence will need to be obtained prior to commissioning the third LINAC. It is expected that the additional LINAC will require commissioning by 2019
- Based on current planning criteria 5 LINACs would be sufficient to meet demand from the Central Coast population to 2027. A change in the service level or location of the private operator could impact on the demands on the public radiation oncology service, potentially at short notice.

<table>
<thead>
<tr>
<th>Table 36: Current and Future Cancer and Haematology Services Role Delineation</th>
</tr>
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<tbody>
<tr>
<td><strong>Gosford</strong></td>
</tr>
<tr>
<td><strong>Haematology</strong></td>
</tr>
<tr>
<td><strong>Medical Oncology</strong></td>
</tr>
<tr>
<td><strong>Radiation Oncology</strong></td>
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<table>
<thead>
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<th>Table 37: Current and Future Cancer and Haematology Services Configuration</th>
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</thead>
<tbody>
<tr>
<td><strong>Gosford</strong></td>
</tr>
<tr>
<td><strong>Services</strong></td>
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<td><strong>Outpatient/Ambulatory</strong></td>
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<td>Haematology</td>
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<tr>
<td>Medical Oncology</td>
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<tr>
<td>Radiation Oncology</td>
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<tr>
<td>Radiation Oncology - Simulation &amp; Planning</td>
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<tr>
<td>Paediatric Oncology Clinic</td>
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<tr>
<td><strong>Treatments</strong></td>
</tr>
<tr>
<td>Linear Accelerators</td>
</tr>
<tr>
<td>Chemotherapy chairs</td>
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<tr>
<td>Haematology</td>
</tr>
<tr>
<td>Ambulatory infusions</td>
</tr>
</tbody>
</table>

Notes: *tbd – to be determined

**Strategic Directions**

100. Expand outpatient services provided at Wyong Hospital including:
- number and frequency of medical oncology and haematology outpatient clinics
- outpatient radiation oncology clinics for consultation, radiation therapy planning and simulation.

101. Commence medical and radiation oncology inpatient consultation at Wyong Hospital.

102. Increase outpatient consultation and clinic capacity in proximity to the Cancer Centre at Gosford Hospital to support increasing demand.

103. Replace existing Oncology Management Information System to capture and analysis treatment activity across inpatient, outpatient and community based care.

104. Enhance capacity within the Clinical Trials Unit to facilitate increased participation in future clinical trials.
105. Develop Allied Health led programs to enhance patient psychological, nutritional, and physical health outcomes for cancer patients (with a focus on identified vulnerable groups).

106. Expand supportive services required for comprehensive cancer care including all relevant allied health services, diagnostic services and supportive medical services such as dental, genetics, and gastroenterology.

107. Enhance supportive programs, such as CoastCanCare wellness program, to improve patient wellbeing during and after cancer diagnosis and management.

108. Develop integrated diagnostic, community, surgical and medical specialty services to support the expansion of cancer services.

109. Develop a cancer-related pain service targeting patients undergoing treatment or with ongoing post treatment pain, in conjunction with the Pain Service.

110. Improve access to facilities for multidisciplinary team patient reviews (MDT meetings) with appropriate staff capacity and technology to support review of patient records including test results and scans as well as videoconferencing.

### 13.8 Palliative and End of Life Care

#### Current services

The Palliative Care Service is currently located at Long Jetty Healthcare Facility with services provided across CCLHD. This is a consultative service that:

- provides clinical advice, support and intervention for people with complex symptom and end of life related care needs
- supports and supplements the clinical management provided by medical teams in acute inpatient settings
- supports General Practitioners and primary care/aged care nurses providing end of life care in community settings and residential aged care facilities.

The model provides 24/7 specialist nursing advice for registered palliative care patients at home; inpatient consultation is provided during business hours. Service components include:

- Palliative Care Medical Specialists – includes specialists, registrars and advanced trainee
- Palliative Care Nursing Specialists – includes a Nurse Practitioner and CNC
- Allied Health – Social Work and Occupational Therapy
- Bereavement Counselling – service is not limited to palliative care
- Administration support
- Volunteers.

Palliative care nursing in the home is provided by the Community Nursing service.

There are currently no designated inpatient facilities for the management of patients requiring inpatient management or end of life care. Patients requiring inpatient management are admitted to an acute inpatient bed at Gosford or Wyong Hospital under a physician from an acute medical specialty. There are currently no outpatient services or clinics.

The current role delineation at both Gosford and Wyong Hospitals is Level 3.

A review of the CCLHD Palliative and End of Life Services is currently occurring; the outcomes of this review will further inform the future service requirements, service configuration and strategic directions for the service.

#### Future Service Configuration

Recommendations of the Review are expected to include enhancement of current services and additional options for service provision into the future. The underlying principle will be toward developing models of care and services which are consistent with being Dying Friendly Hospitals. The goal is providing palliative and end of life care services that are responsive, coordinated and flexible in meeting the changing needs of these patients, enabling a seamless transition across all settings for patients and their loved ones.
At present the proposed future role delineation level for Gosford and Wyong hospitals is expected to be a Level 5 service at each site with facilities for the management of palliative care patients requiring inpatient management for acute exacerbation, symptom management, or management of complications if required. The future role of Woy Woy Hospital and Long Jetty Health Facility in the inpatient management of palliative and end of life care patients is yet to be determined.

It is also expected that the recommendations will include provision of outpatient and outreach services into the community.

**Strategic Directions**

The following strategic directions for Palliative and End of Life Care should are intended as a guide and will be formalised based on the outcomes of the Review.

111. An extended specialist palliative care consultative and supportive care model to work in close collaboration with acute and sub-acute inpatient teams at all CCLHD hospital sites and primary care providers in the community, Residential Aged Care Facilities (RACF) and designated Palliative Care Unit. The distribution and availability of services will need to ensure equitable access across the District for all client groups diagnosed with a life-limiting illness. The model will include:
   - Provision of 24 hour access to specialist nursing and medical advice and support at home for registered specialist palliative care patients
   - A palliative care medical specialist on-call roster
   - A direct care admission model at acute and subacute facilities for palliative care physicians
   - Ability for palliative care physicians to take over care of palliative and end of life care patients requiring escalated specialised palliative care management.

112. Establishment of multidisciplinary outpatient clinics to facilitate care planning, specialist palliative care review, treatment, advanced care planning and coordinate symptom management for patients with palliative care prognostic indicators. These may be stand-alone clinics or linked with established sub-specialty clinics.

113. Access to an ambulatory care model where patients can have minor procedures, treatments, imaging and pathology completed without requiring emergency presentation.

114. Access to suitable palliative care beds in:
   - the acute facilities for acute symptom management (for palliative care patients known to specialist palliative care)
   - the sub-acute facilities for end of life care. Consideration should be given to enable direct end of life care admissions for GPs
   - RACF and private hospitals and pathways to facilitate early transfer to these facilities for eligible patients.

115. Access to a palliative care unit for the provision of respite and to enable education and skill development for patients and carers in self-management techniques, and providing end of life care if required.

116. Provision of education and support to:
   - GPs, RACFs and community care providers to be able to provide ‘End of Life Care’ in the community
   - Inpatient medical, nursing, allied and supporting teams to facilitate management of palliative and end of life care within the treating team
   - The community about dying, palliative and end of life care.

117. Review advanced care planning, resuscitation plan, end of life care pathways and comfort observation processes for palliative and end of life care patients.

118. Multidisciplinary case conferencing and care planning for inpatients and patients in the community that incorporate all clinicians and service providers.

119. Development of collaborative partnerships with community partners involved in the care of palliative and end of life patients (e.g. HNECCPHN, Cancer Council, Hammond Care, NGO and private nursing services).

120. Clearly defined referral pathways and access to allied health, bereavement and volunteers for palliative care clients in the community and inpatient settings. Models of care should be developed for these services.
121. Review of workforce capabilities to enable consultative, admitted, outpatient and community palliative care services to expand and meet the needs of the Central Coast community.

### 13.9 Renal Medicine

#### Current Services

Gosford Hospital provides services at role delineation Level 5 providing inpatient renal medicine as well as in-centre renal dialysis. There are currently no public outpatient services so patients are reviewed in specialist’s rooms. A renal specific end of life service Renal Supportive Care is available.

Wyong Hospital provides services at role delineation Level 2. Patients requiring specialist consultation, review or inpatient management are transferred to Gosford Hospital.

In-centre dialysis is located at Gosford Hospital and has 12 chairs. Satellite dialysis services are located onsite at Gosford Hospital (10 chairs), Lake Haven Community Health Centre (11 chairs) and onsite at Long Jetty Health Facility with built capacity of 20 chairs, 12 of which are currently commissioned. Home dialysis training and support is located as part of Long Jetty dialysis unit (2 chairs). The dialysis service provides ongoing support for patients dialysing at home.

Patients requiring renal transplantation surgery are referred to a tertiary centre, most frequently Westmead Hospital. Ongoing post-transplant care is provided by private providers.

#### Activity

**Renal Dialysis:**

There has been annual variation in the volume of dialysis activity but overall the volume has increased by 1,028 episodes (6.2%) between 2010/11 to 2015/16. Prior to 2010/11 the annual growth in dialysis activity was 5.0% per annum. Between 2010/11 and 2015/16 annual growth has declined to 1.2% per annum.

In 2015/16 there were 113 renal dialysis patients receiving treatment (based on 156 treatments per year - three treatments per week per patient) as well as 41 patients supported to dialyse in their home.

**Table 38: Renal Dialysis Episodes 2015/16 - Age >15years**

<table>
<thead>
<tr>
<th>Dialysis Unit</th>
<th>No. chairs</th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gosford</strong></td>
<td>12 In-Centre Satellite</td>
<td>10,640</td>
<td>11,431</td>
<td>10,457</td>
<td>12,131</td>
<td>11,657</td>
<td>10,704</td>
</tr>
<tr>
<td><strong>Lake Haven</strong></td>
<td>11 Satellite</td>
<td>5,965</td>
<td>6,342</td>
<td>6,354</td>
<td>6,761</td>
<td>6,405</td>
<td>4,309</td>
</tr>
<tr>
<td><strong>Long Jetty</strong></td>
<td>20 Satellite</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2,620</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53 Episodes</td>
<td>16,605</td>
<td>17,773</td>
<td>16,811</td>
<td>18,892</td>
<td>18,062</td>
<td>17,633</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

**Inpatient Activity:**

**Table 39: Inpatient Episodes for Renal Medicine SRG by Specialty 2010/11 – 2015/16 (same day and overnight) age >15 years**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gosford</strong></td>
<td>Renal Medicine SRG</td>
<td>192</td>
<td>223</td>
<td>239</td>
<td>239</td>
<td>273</td>
<td>266</td>
<td>4</td>
<td>38.5%</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>648</td>
<td>589</td>
<td>677</td>
<td>815</td>
<td>666</td>
<td>776</td>
<td>128</td>
<td>20.0%</td>
</tr>
<tr>
<td><strong>Total Gosford</strong></td>
<td></td>
<td>840</td>
<td>812</td>
<td>916</td>
<td>1,054</td>
<td>939</td>
<td>1,042</td>
<td>202</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Wyong</strong></td>
<td>Renal Medicine SRG</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>10</td>
<td>2</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>90</td>
<td>34</td>
<td>18</td>
<td>12</td>
<td>200%</td>
</tr>
<tr>
<td><strong>Total Wyong</strong></td>
<td></td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>92</td>
<td>44</td>
<td>20</td>
<td>13</td>
<td>186%</td>
</tr>
<tr>
<td><strong>Total Renal Specialty</strong></td>
<td></td>
<td>847</td>
<td>814</td>
<td>920</td>
<td>1,146</td>
<td>983</td>
<td>1,062</td>
<td>215</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Other specialties - Renal Medicine SRG</strong></td>
<td></td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>8</td>
<td>104</td>
<td>109</td>
<td>106</td>
<td>-</td>
</tr>
<tr>
<td><strong>EDSSU</strong></td>
<td></td>
<td>273</td>
<td>197</td>
<td>203</td>
<td>188</td>
<td>223</td>
<td>215</td>
<td>(58)</td>
<td>(21.2%)</td>
</tr>
<tr>
<td><strong>Urology</strong></td>
<td></td>
<td>10</td>
<td>19</td>
<td>50</td>
<td>66</td>
<td>68</td>
<td>81</td>
<td>71</td>
<td>-</td>
</tr>
<tr>
<td><strong>Medicine</strong></td>
<td></td>
<td>193</td>
<td>212</td>
<td>152</td>
<td>157</td>
<td>186</td>
<td>171</td>
<td>(22)</td>
<td>(11.4%)</td>
</tr>
<tr>
<td><strong>Total Renal SRG</strong></td>
<td></td>
<td>672</td>
<td>652</td>
<td>645</td>
<td>660</td>
<td>864</td>
<td>844</td>
<td>172</td>
<td>25.6%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection
In 2015/16, 25.2% of adult episodes managed by the Renal service are captured within the Renal Medicine SRG. Since 2010/11 the number of episodes admitted to the Renal service increased by 25% (215 episodes). The number of episodes admitted at Wyong Hospital remained small reflecting the lack of renal services onsite.

### Table 40: Renal Medicine SRG Episodes by ESRG 2010/11 – 2015/16 (same day and overnight) – age >15 years

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Gosford</td>
<td>221 Renal Failure</td>
<td>168</td>
<td>200</td>
<td>187</td>
<td>202</td>
<td>231</td>
<td>240</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>229 Other Renal Medicine</td>
<td>369</td>
<td>307</td>
<td>342</td>
<td>308</td>
<td>399</td>
<td>355</td>
<td>(14)</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>537</td>
<td>507</td>
<td>529</td>
<td>510</td>
<td>630</td>
<td>595</td>
<td>58</td>
</tr>
<tr>
<td>Wyong</td>
<td>221 Renal Failure</td>
<td>52</td>
<td>67</td>
<td>47</td>
<td>72</td>
<td>77</td>
<td>66</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>229 Other Renal Medicine</td>
<td>80</td>
<td>78</td>
<td>68</td>
<td>70</td>
<td>53</td>
<td>74</td>
<td>(6)</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>132</td>
<td>145</td>
<td>115</td>
<td>142</td>
<td>130</td>
<td>140</td>
<td>8</td>
</tr>
<tr>
<td>Total Renal Medicine SRG</td>
<td></td>
<td>669</td>
<td>652</td>
<td>644</td>
<td>652</td>
<td>760</td>
<td>735</td>
<td>66</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection  
Note: Excludes ED SSU activity

### Renal Medicine SRG Activity:

In 2015/16:

#### Service Demand:

- There were 1,217 inpatient renal medicine episodes for Central Coast residents (demand) of these 35.9% (437) episodes were in hospitals within the LHD, 61.1% (744 episodes) were in a private hospital and there 3.0% (36 episodes) were outflows to another LHD
- The total inpatient demand by Central Coast residents has increased by 48.1% (395 episodes) since 2010/11
- The percentage of episodes managed within the LHD has decreased from 39.4% (324 episodes), the percentage of episodes admitted to private facilities has increased from 56.9% (468 episodes) and the percentage of outflows to other public hospitals has decreased from 3.6% (30 episodes).

#### Service Supply – Central Coast LHD activity (includes inflows):

- There were 2,959 bed days (2,441 at Gosford and 518 at Wyong). Of these 92.9% (2,749) were overnight (2,242 at Gosford and 507 at Wyong). Since 2010/11 the number of bed days has declined from 3,243 (2,564 at Gosford and 679 at Wyong) of which 92.1% (2,986) were overnight.
- 525 (71.4%) episodes were overnight, this is an increase from 2010/11 when 61.3% were overnight.
- At Gosford Hospital 46% of overnight episodes for the Renal Medicine SRG and 54.4% of bed days were managed by the Renal service. This is a decrease from 2010/11 when 50.7% episodes and 58% bed days were managed by the Renal service. At Gosford Hospital 20.6% (87) episodes and 14% (318) bed days were admitted to Urology and at Wyong Hospital 46.9% (75) episodes and 51.4% (276) bed days were admitted to the Medicine specialty.
- Within the Renal Medicine SRG – Other Renal Medicine (ESRG 229) had the highest number of episodes (429) and bed days (1,190) and Renal Failure (ESRG 221) had 306 episodes and 1,769 bed days (excludes ED SSU activity)
- There were 109 episodes admitted to the ED SSU, 97 of these were admitted to the Other Renal Medicine ESRG
- People aged over 70 years accounted for 55.2% (406) overnight episodes and 61.3% (1,813) bed days decreasing from 57.2% (380) episodes and 70.4% (2,284) bed days in 2010/11.

### Future Service Configuration

Gosford Hospital will remain as a Level 5 service providing inpatient renal services. Services will be supported by a public non-admitted service.

Wyong Hospital will meet role delineation as a Level 3 service with inpatient consultation available.

Based on current growth in demand for renal dialysis and the available built capacity no further increase in satellite dialysis chairs are required before 2027. Replacement of the current satellite dialysis centre onsite at Gosford Hospital will be required due to the age of the building.

Patients requiring renal transplantation will continue to be referred to a tertiary centre.
Strategic Directions
122. Expansion of the renal services to enable inpatient consultation at Wyong Hospital.
123. Development of public renal outpatient clinics, initially at Gosford Hospital and then at Wyong Hospital.
124. Develop capacity for local follow up and support for renal transplant patients with a dedicated Transplant Nurse.
125. Replacement the satellite dialysis facility currently located onsite at Gosford Hospital.

13.10 Respiratory Medicine

Current Services
Gosford Hospital provides services at role delineation Level 5 providing inpatient management, non-invasive ventilation (NIV), respiratory investigation services, sleep medicine, bronchoscopy and endoscopic bronchial ultrasound (EBUS), outpatient clinics, outpatient/outreach tuberculosis (TB) clinic and cystic fibrosis clinic. Wyong Hospital provides services at role delineation Level 4 providing inpatient consultation and management, respiratory investigation and bronchoscopy services and limited outpatient clinics.

Pulmonary rehabilitation operates as a centre-based service located onsite at Wyong, Woy Woy and Long Jetty hospitals; a home based program is also available through the Home Education and Respiratory Rehabilitation Service (HERRS).

Asthma Education and Management Service operates as outpatient based programs. Separate programs are offered for adults with a central point of referral through the Ongoing and Complex Care Service based at Wyong Hospital.

There is limited thoracic surgery provided at Gosford Hospital with patients referred predominantly to RNSH for surgery.

Activity
About 76% of adult inpatient episodes managed by the respiratory medicine service are captured within the Respiratory SRG. Since 2010/11 at Gosford Hospital, the number of episodes admitted to the Respiratory service increased, most of this increase was for the Respiratory SRG which increased by 7.2% (80 episodes). Over the same period the number of episodes admitted to the respiratory medicine specialty at Wyong Hospital decreased by 60.2% (804 episodes) while the number of episodes admitted to the Medicine specialty with the Respiratory SRG increased by 1,267 episodes. This most likely reflects the limited sub-specialty respiratory service onsite at Wyong Hospital.

Table 41: Respiratory Medicine SRG Episodes by Specialty 2010/11 – 2015/16 (same day and overnight) – age >15 years

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Respiratory SRG</td>
<td>1,117</td>
<td>1,093</td>
<td>1,066</td>
<td>1,074</td>
<td>1,120</td>
<td>1,197</td>
<td>80 (7.2%)</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>244</td>
<td>229</td>
<td>200</td>
<td>221</td>
<td>190</td>
<td>199</td>
<td>(45) (18.4%)</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>1,361</td>
<td>1,322</td>
<td>1,266</td>
<td>1,295</td>
<td>1,310</td>
<td>1,396</td>
<td>35 (2.6%)</td>
</tr>
<tr>
<td>Wyong</td>
<td>Respiratory SRG</td>
<td>674</td>
<td>897</td>
<td>658</td>
<td>405</td>
<td>377</td>
<td>283</td>
<td>(391) (58.0%)</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>661</td>
<td>870</td>
<td>468</td>
<td>330</td>
<td>279</td>
<td>248</td>
<td>(413) (62.5%)</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>1,335</td>
<td>1,767</td>
<td>1,126</td>
<td>735</td>
<td>656</td>
<td>531</td>
<td>(804) (60.2%)</td>
</tr>
<tr>
<td>Total Respiratory Medicine</td>
<td></td>
<td>2,696</td>
<td>3,089</td>
<td>2,392</td>
<td>2,030</td>
<td>1,966</td>
<td>1,927</td>
<td>(769) (28.5%)</td>
</tr>
<tr>
<td>Other specialties- Respiratory SRG</td>
<td></td>
<td>44</td>
<td>65</td>
<td>88</td>
<td>55</td>
<td>440</td>
<td>481</td>
<td>477</td>
</tr>
<tr>
<td>EDSSU</td>
<td></td>
<td>84</td>
<td>66</td>
<td>88</td>
<td>55</td>
<td>440</td>
<td>481</td>
<td>477</td>
</tr>
<tr>
<td>Medicine (Wyong Hospital)</td>
<td></td>
<td>316</td>
<td>358</td>
<td>1,016</td>
<td>1,368</td>
<td>1,432</td>
<td>1,583</td>
<td>1,267</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td></td>
<td>215</td>
<td>269</td>
<td>252</td>
<td>314</td>
<td>348</td>
<td>353</td>
<td>138 (64.2%)</td>
</tr>
<tr>
<td>Cardiology</td>
<td></td>
<td>413</td>
<td>452</td>
<td>219</td>
<td>164</td>
<td>193</td>
<td>215</td>
<td>(198) (47.9%)</td>
</tr>
<tr>
<td>Total Respiratory SRG</td>
<td></td>
<td>3,416</td>
<td>3,593</td>
<td>3,680</td>
<td>3,795</td>
<td>4,398</td>
<td>4,563</td>
<td>1,147 (33.6%)</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection
Table 42: Inpatient Episodes for Respiratory Medicine SRG by ESRG 2010/11 – 2015/16 (same day and overnight) age >15 yrs

<table>
<thead>
<tr>
<th>Facility</th>
<th>ESRG</th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford</td>
<td>241 Bronchitis &amp; Asthma</td>
<td>116</td>
<td>104</td>
<td>119</td>
<td>82</td>
<td>78</td>
<td>99</td>
<td>(17)</td>
<td>(14.7%)</td>
</tr>
<tr>
<td></td>
<td>242 Chronic Obstructive Airway Disease</td>
<td>472</td>
<td>502</td>
<td>475</td>
<td>514</td>
<td>561</td>
<td>570</td>
<td>98</td>
<td>20.8%</td>
</tr>
<tr>
<td></td>
<td>243 Respiratory Infections/Inflammation</td>
<td>532</td>
<td>495</td>
<td>497</td>
<td>535</td>
<td>692</td>
<td>695</td>
<td>163</td>
<td>30.6%</td>
</tr>
<tr>
<td></td>
<td>244 Bronchoscopy</td>
<td>94</td>
<td>75</td>
<td>54</td>
<td>58</td>
<td>41</td>
<td>45</td>
<td>(49)</td>
<td>(52.1%)</td>
</tr>
<tr>
<td></td>
<td>249 Other Respiratory Medicine</td>
<td>483</td>
<td>531</td>
<td>548</td>
<td>585</td>
<td>581</td>
<td>598</td>
<td>115</td>
<td>23.8%</td>
</tr>
<tr>
<td>Total Gosford</td>
<td>1,697</td>
<td>1,707</td>
<td>1,693</td>
<td>1,774</td>
<td>1,953</td>
<td>2,007</td>
<td>310</td>
<td>18.3%</td>
<td></td>
</tr>
<tr>
<td>Wyong</td>
<td>241 Bronchitis &amp; Asthma</td>
<td>98</td>
<td>120</td>
<td>129</td>
<td>108</td>
<td>100</td>
<td>131</td>
<td>33</td>
<td>33.7%</td>
</tr>
<tr>
<td></td>
<td>242 Chronic Obstructive Airway Disease</td>
<td>655</td>
<td>720</td>
<td>708</td>
<td>740</td>
<td>754</td>
<td>805</td>
<td>150</td>
<td>22.9%</td>
</tr>
<tr>
<td></td>
<td>243 Respiratory Infections/Inflammation</td>
<td>461</td>
<td>494</td>
<td>536</td>
<td>555</td>
<td>586</td>
<td>639</td>
<td>178</td>
<td>38.6%</td>
</tr>
<tr>
<td></td>
<td>244 Bronchoscopy</td>
<td>105</td>
<td>129</td>
<td>119</td>
<td>110</td>
<td>105</td>
<td>109</td>
<td>4</td>
<td>3.8%</td>
</tr>
<tr>
<td></td>
<td>249 Other Respiratory Medicine</td>
<td>396</td>
<td>417</td>
<td>487</td>
<td>453</td>
<td>460</td>
<td>391</td>
<td>(5)</td>
<td>(1.3%)</td>
</tr>
<tr>
<td>Total Wyong</td>
<td>1,715</td>
<td>1,880</td>
<td>1,979</td>
<td>1,966</td>
<td>2,005</td>
<td>2,075</td>
<td>360</td>
<td>21.0%</td>
<td></td>
</tr>
<tr>
<td>Total Respiratory Medicine SRG</td>
<td>3,412</td>
<td>3,587</td>
<td>3,672</td>
<td>3,740</td>
<td>3,958</td>
<td>4,082</td>
<td>670</td>
<td>19.6%</td>
<td></td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection  Note excludes ED SSU activity

Respiratory SRG Activity:

Service Demand:

In 2015/16:

- There were 4,687 inpatient respiratory episodes for Central Coast residents (demand). Of these 85.0% (3,982) episodes were in hospitals within the LHD, 9.7% (454 episodes) were in a private hospital and 5.4% (251 episodes) were outflows to another LHD most commonly Northern Sydney LHD
- The total inpatient demand by Central Coast residents has increased by 21.0% (692 episodes) since 2010/11
- The percentage of episodes managed within the LHD has increased from 78.6%, the percentage of episodes admitted to private facilities has decreased from 14.6% and the percentage outflows to other public hospitals decreased from 6.8%. The largest number of public outflows was to RNSH (28.3% or 60 episodes).

Service Supply – Central Coast LHD activity (includes inflows):

- In 2015/16 there were 20,344 bed days (10,777 at Gosford and 9,567 at Wyong) of these 98% (19,930) (98.3% at Gosford and 97.5% at Wyong) were overnight. The number of bed days has declined from 22,282 in 2010/11 when 99.3% (22,126) were overnight.
- Since 2010/11 overnight episodes have increased by 27.2% (888 episodes) while bed days have declined by 9.9% (2,196 bed days)
- 94.9% (3,873) episodes were emergency/unplanned an increase from 2010/11 when 92.5% were unplanned
- Excluding ED SSU activity, at Gosford Hospital 60% (1,182) overnight episodes for the Respiratory SRG and 48.9% of bed days were admitted to the Respiratory service. This is a decrease from 2010/11 when 65.8% (1,076) episodes and 57.5% bed days were admitted to the respiratory medicine service. At Gosford 12.9% (254) episodes were admitted to the geriatric medicine service.
- At Wyong Hospital 9.6% (188) overnight episodes for the Respiratory SRG and 10.3% bed days were admitted to the Respiratory service. This is a decrease from 2010/11 when 36.5% (592) episodes and 34.8% bed days were admitted to the Respiratory service. In contrast 78.2% (1,525) episodes and 70.2% bed days were admitted to the Medicine specialty this is an increase from 2010/11 when 17.3% (281) episodes and 16.9% bed days were admitted to Medicine.
- People aged over 70 years accounted for 59.6% of overnight episodes and 66.9% of Respiratory SRG bed days which is relatively unchanged from 2010/11 when they accounted for 59% episodes and 65.8% bed days
- Within the Respiratory SRG (excluding ED SSU episodes) – Chronic Obstructive Pulmonary Disease (COPD) (ESRG 242) had the highest number of overnight episodes (1,356) and bed days (5,881) followed by Respiratory Infections/Inflammation (ESRG 243) with 1,319 episodes and 7,454 bed days and Other Respiratory Medicine (ESRG 249) with 959 episodes and 5,184 bed days.
There were 481 episodes admitted to ED SSU, the ESRG with the largest number of episodes was Other Respiratory Medicine with 224 episodes and the same bed days.

The Respiratory Medicine SRG accounted for 14.7% (3,690) of the total overnight medical episodes (25,160) and 14.2% (17,505) bed days representing the third highest medical SRG behind Non sub-specialty medicine, and Cardiology SRGs.

### Future Service Configuration

Gosford Hospital will continue to provide services at Level 5. In addition to the current range of services there will be a continued shift toward ambulatory management of respiratory patients supported by a rapid review model and increased outpatient clinic capacity. Introduction of a hospital wide pleural service for patients requiring an intercostal catheter is proposed, the service would encompass assessment, insertion, management and removal of intercostal catheter. Regular scheduled access to endoscopy facilities is required to enable timely patient access to EBUS, cryobiopsies and pleuroscopic procedures.

Development of a thoracic surgical service will support the provision of a number of procedures locally reducing the need for patients to travel outside CCLHD to access these services and would support the development of additional specialist services and programs locally including interstitial lung disease and support for non-cancer respiratory disease. Proposed thoracic procedures include video-assisted thorascopic surgery (VATS), lobectomy and pleurodesis; this service would also support provision of cryobiopsy, cryoprobe and radial probe.

Wyong Hospital will continue to develop as a Level 4 service. With further development and expansion toward providing a sub-specialty service with a direct admitting roster supported by after hours on-call, additional outpatient clinics and hours of operation to support rapid review and management of chronic lung disease, increased range of respiratory diagnostic facilities onsite and increased bronchoscopies. As services continue to develop an increased range of specialist outpatient services and models will become available. This will reduce the need for patients to be transferred or travel to Gosford Hospital to access these services.

Increased availability and frequency of pulmonary rehabilitation and patient education service across the LHD is required to improve access for patients and respond to increasing demand. Service development will be in line with the Thoracic Society of Australia and New Zealand (TSANZ) pulmonary rehabilitation guidelines.

### Strategic Directions

126. Development and expansion of respiratory medicine as a sub-specialty service at Wyong Hospital.

127. Expand the range of respiratory investigations available at Wyong Hospital to support increasing self-sufficiency.

128. Development of tertiary and specialist services and clinics at Gosford Hospital including: interstitial lung disease and pulmonary hypertension clinic, respiratory failure clinic for obesity-hypoventilation, neuromuscular conditions, multidisciplinary lung cancer clinic, and local access to thoracic surgical support.

129. Expansion of outpatient and ambulatory services at both Gosford and Wyong hospitals with administrative support.

130. Development of a hospital-wide pleural service for patients requiring an intercostal catheter, encompassing: assessment, catheter insertion, management and removal at both Gosford and Wyong hospitals.

131. Expansion of the pulmonary rehabilitation program to support increased frequency to twice per week and an increased number of sites across CCLHD to ensure equitable access for residents.

132. Expand community and home based chronic care and rehabilitation assessment and treatment programs.
14 Aged, Sub-Acute and Rehabilitation Services

14.1 Geriatric Medicine

Current Services
The focus of aged care services is to manage health issues related to: physical disability, mental disability, bereavement, quality of life issues, continuing care (including accommodation and support), multiple medical problems and poly-pharmacy. Aged care services can also assist a small number of younger adults with dementia and disability and high support needs for whom there are no specific services.

The Geriatric Medicine service undertakes inpatient consultation to inpatient areas across all four facilities (Gosford, Wyong, Woy Woy and Long Jetty).

**Acute Inpatient Services:**
- Gosford Hospital - two inpatient wards, 62 beds – role delineation Level 5
- Wyong Hospital - 30 beds - role delineation Level 5
- Ortho-geriatric service – inpatient service and outpatient clinic at Gosford Hospital
- Supported Transitioning Care Team - multidisciplinary assessments and care planning in ED and inpatient units.

**Outpatient Services:**
- Geriatric outpatient clinics are conducted at Gosford, Wyong and Woy Woy hospitals
- Geriatric home-based assessment is undertaken for all initial appointments for patients referred to the clinic; subsequent appointments may be home-based for patients in RACF or who are immobile and unable to attend the hospital based clinic
- A Movement Disorder Clinic is conducted monthly with a Neurologist and the Parkinson’s Disease Counsellor
- Dementia care services are provided at Long Jetty Health Facility.

**Subacute Inpatient Units:**
- Geriatric Evaluation & Management (GEM)/Aged care rehabilitation – 28 beds at Wyong Hospital
- GEM/ Aged care rehabilitation – 20 beds at Woy Woy Hospital – role delineation Level 2
- Maintenance (non-acute) – 23 beds at Woy Woy Hospital
- Maintenance (non-acute) – 10 beds at Long Jetty Health Facility

**Transition Services:**
- Transition Care Unit – 20 beds at Woy Woy Hospital
- Transition Care Unit – 12 beds at Long Jetty
- Transition Care Packages - community

**Community and Extended Care Services:**
- Aged Care Services in Emergency Team (ASET) Outreach – to the patient’s home and Residential Aged Care Facilities (RACF) to minimise avoidable presentations to ED; provide follow-up assessment post discharge; and facilitate earlier discharge from hospital. Part of Community Based Nursing Services.
- Dementia and Behaviour Support Services (DABSS) – encompasses ASET BA (Behavioural Assessment) and dementia care services to undertake assessment of patients experiencing moderate to severe behavioural and psychological symptoms of dementia (BPSD). The aim is to improve management in RACF or home, and to minimise avoidable presentations to ED. Memory Screening Assessment is undertaken by an aged care Nurse Practitioner who operates across CCLHD supported by Geriatricians and advanced trainees. The DABSS service is contracted to a private provider.
- Aged Care Assessment Teams (ACAT) – part of my Aged Care
- Commonwealth Home Support Program (CHSP) – part of my Aged Care
- Flexible care – National Aboriginal and Torres Strait Islander flexible aged care, transition care, short-term restorative care.
Key clinical relationships exist between these services and the emergency departments; rehabilitation medicine; sub-acute aged care services; other medical sub-specialties; surgical services; orthopaedic surgery; liaison psychiatry, psychogeriatric and Specialised Mental Health Services for Older People (SMHSOP); general practitioners; acute post-acute care (APAC); community nursing; ongoing and complex care programs; transition care; palliative care; and RACFs.

**Activity**

**Figure 14:** Projected population aged 70 years and older for Gosford and Wyong area 2016 to 2036

- The population aged 70 years and older is projected to increase by 35.3% between 2016 and 2026 (33.2% increase in Gosford LGA and 37.5% in Wyong LGA). It is then projected to increase by a further 30.2% between 2026 and 2036 (26.7% increase in Gosford LGA and 33.8% in Wyong LGA). This is more than three times higher than the total population growth on the Central Coast which is projected to be 10.4% by 2026 and 10.7% by 2036.
- In 2016 people aged 70 years and older represented 14.5% of the Central Coast population (14.8% in Gosford and 14.2% in Wyong). By 2026 it is projected that they will represent 17.7% of the population (18.4% in Gosford and 17.1% in Wyong) and by 2036 they will represent 20.9% of the population (21.8% in Gosford and 20.0% in Wyong).
- While they remain a small proportion of the overall population they are significant consumers of health services and the rapid growth in this population group can be expected to have a substantial impact on the demand for health services.
- In 2016 it was estimated that there were 6,678 residents on the Central Coast with dementia. Assuming that incidence rates remain the same or similar it is estimated that the number will increase by 28% to 8,548 residents by 2026 (AIHW 2012).

**Table 43:** Inpatient Activity 2015/16 - Age 70 years and older

<table>
<thead>
<tr>
<th>Facility</th>
<th>Episodes</th>
<th>Bed Days</th>
<th>% of total</th>
<th>Planned %</th>
<th>Unplanned %</th>
<th>Same Day %</th>
<th>Overnight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford Medical</td>
<td>7,936</td>
<td>46,280</td>
<td>68.6%</td>
<td>11.4%</td>
<td>88.6%</td>
<td>4.9%</td>
<td>95.1%</td>
</tr>
<tr>
<td>Interv</td>
<td>3,629</td>
<td>19,817</td>
<td>31.4%</td>
<td>62.1%</td>
<td>37.9%</td>
<td>35.1%</td>
<td>64.9%</td>
</tr>
<tr>
<td>Total Gosford</td>
<td>11,565</td>
<td>66,097</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wyong Medical</td>
<td>6,001</td>
<td>31,688</td>
<td>69.2%</td>
<td>6.3%</td>
<td>93.6%</td>
<td>4.0%</td>
<td>96.0%</td>
</tr>
<tr>
<td>Interv</td>
<td>2,675</td>
<td>6,935</td>
<td>30.8%</td>
<td>85.2%</td>
<td>14.8%</td>
<td>70.8%</td>
<td>29.2%</td>
</tr>
<tr>
<td>Total Wyong</td>
<td>8,676</td>
<td>38,623</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCLHD Medical</td>
<td>13,937</td>
<td>77,968</td>
<td>68.9%</td>
<td>9.2%</td>
<td>90.8%</td>
<td>4.5%</td>
<td>95.5%</td>
</tr>
<tr>
<td>Interv</td>
<td>6,304</td>
<td>26,752</td>
<td>31.1%</td>
<td>71.9%</td>
<td>28.1%</td>
<td>50.3%</td>
<td>49.7%</td>
</tr>
<tr>
<td>Total</td>
<td>20,241</td>
<td>104,720</td>
<td></td>
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</tr>
</tbody>
</table>

*Source: CCLHD Inpatient Data Collection  Note: excludes ED SSU activity*
Aged, Sub-Acute and Rehabilitation

- Almost 70% of inpatient episodes and about 75% of bed days for patients aged 70 years and older were for medical services, of which over 90% were unplanned and 95% were admitted overnight.
- The most common SRGs were Cardiology with 2,669 episodes, 13.2% activity; Respiratory Medicine 2,438 episodes, 12.0% activity; Non-specialty medicine 2,406 episodes, 11.9% activity; Orthopaedics 1,636 episodes, 8.1% activity; and Gastroenterology 1,462 episodes, 7.2% activity. These five SRGs accounted for 52.4% inpatient episodes.

Table 44: Inpatient Episodes for Geriatric and General Medicine Specialties 2010/11 – 2015/16 (same day and overnight)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford</td>
<td>Geriatric Medicine</td>
<td>1,415</td>
<td>1,534</td>
<td>1,746</td>
<td>1,852</td>
<td>1,966</td>
<td>2,267</td>
<td>852</td>
<td>60.2%</td>
</tr>
<tr>
<td></td>
<td>Medicine</td>
<td>43</td>
<td>48</td>
<td>55</td>
<td>40</td>
<td>83</td>
<td>105</td>
<td>62</td>
<td>144%</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>1,458</td>
<td>1,582</td>
<td>1,801</td>
<td>1,892</td>
<td>2,049</td>
<td>2,372</td>
<td>914</td>
<td>62.7%</td>
</tr>
<tr>
<td>Wyong</td>
<td>Geriatric Medicine</td>
<td>750</td>
<td>850</td>
<td>597</td>
<td>652</td>
<td>622</td>
<td>684</td>
<td>(66)</td>
<td>(8.8%)</td>
</tr>
<tr>
<td></td>
<td>Medicine</td>
<td>1,252</td>
<td>1,606</td>
<td>4,085</td>
<td>4,922</td>
<td>4,501</td>
<td>4,559</td>
<td>3,307</td>
<td>264%</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>2,002</td>
<td>2,546</td>
<td>4,682</td>
<td>5,574</td>
<td>5,123</td>
<td>5,243</td>
<td>3,241</td>
<td>161.9%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

- In 2015/16 the most common specialties for patients aged 70 years and older to be admitted to were: Cardiology (2,906 episodes), Geriatric Medicine (2,893 episodes); Medicine (predominantly at Wyong) 2,888 episodes; Ophthalmology (1,386 episodes); and Orthopaedics (1,305 episodes). In addition there were 2,908 episodes admitted to the EDSSU.

- It should be noted that only about 14% (2,951) acute inpatient episodes for people aged 70 years and older were admitted to the Geriatric Medicine specialty with the remaining 86% managed by other clinical specialties.

Future Service Configuration

The service model will consist of multi-disciplinary teams involving geriatricians, psycho-geriatricians, nursing and allied health providing a comprehensive range of assessment and management services for older people in a range of settings. It will encompass the continuum of care (inpatient, outpatient, community and domiciliary) and all aspects of care (prevention, acute care, rehabilitation and maintenance care) with a view to reducing the number of ED presentations and inpatient episodes through improved management and support in the community including in residential aged care facilities. It will also require networking and links with other agencies, NGOs and community groups who provide services for the aged population.

Management of patients with dementia and delirium will be part of the service and will include prevention through identification of at risk patients, early identification of symptoms, and management of patients with in an appropriate environment.

The service will continue to operate across four sites (Gosford, Wyong, Woy Woy and Long Jetty) with acute inpatient services located at Gosford and Wyong hospitals. Role delineation levels will remain unchanged for Gosford (Level 5), Wyong (Level 5) and Woy Woy (Level 2) hospitals. Depending on service development, Long Jetty Health Facility may provide a Level 2 service in the future.

Key components of the service will include:
- Multidisciplinary Outreach Assessment and Review Team providing services in the community, RACF and home
- Rapid review team for assessment and review of patients (acutely unwell, dementia and delirium) in ED or other inpatient areas; this will include development of an appropriate care plan
- An inpatient short stay model in conjunction with the AMU at both Gosford and Wyong hospitals
- Acute Care of the Elderly (ACE) inpatient units at Gosford and Wyong hospitals
- Inpatient facilities appropriately designed for the management of patients with dementia and/or delirium related cognitive impairment. May be part of the ACE units.
- A range of multidisciplinary outpatient and ambulatory clinics and services for assessment, review and management of patients
- Ortho-geriatric service in conjunction with orthopaedic surgery at both Gosford and Wyong hospitals
Falls prevention and re-fracture prevention (metabolic bone) service in conjunction with the orthopaedic and endocrinology services.

Dementia and delirium service for the management of patient agitation and challenging behaviours. Comprehensive service provided within the inpatient setting with outreach to RACF and home.

**Strategic Directions**

133. Further develop and expand the Outreach Assessment and Review Team to increase capacity for rapid review and the range of treatments provided in the community.

134. Develop a dementia and delirium inpatient and community service for the management of agitation and challenging behaviours in conjunction with psycho-geriatrician and mental health services.

135. Strengthen assessment capability for older patients presenting to ED with rapid assessment by a geriatric services team.

136. Develop an Acute Evaluation of the Elderly (ACE) model in conjunction with the AMU with rapid access, direct referral and short stay admission if required.

137. Ensure appropriate design for inpatient facilities for the management of acute aged care including patients with cognitive impairment due to dementia and/or delirium.

138. Expand community based aged care services to support early discharge, transition to home and ongoing care at home.

139. Expand care coordination services to facilitate patient access to clinical and social care that supports patients to remain well and in the community.

140. Provide a comprehensive ortho-geriatric model of care across both Gosford and Wyong hospitals.

141. Develop a comprehensive falls service which includes: multidisciplinary mobility and falls assessment team; a falls prevention clinic with links to a metabolic bone service, primary care, ED and outpatients.

142. Implement a delirium service model across all facilities and services for prevention, identification of patients at risk, early symptom recognition and timely appropriate management of patients with delirium.

**14.2 Sub-Acute and Rehabilitation Services**

CCLHD sub-acute services encompass inpatient and community-based rehabilitation and aged care services. Patients are allocated to a sub- or non-acute care type according to the primary clinical purpose or treatment goal of the care provided which is independent of the location of the patient. The sub- and non-acute care type is classified using the Australian National Subacute and Non-Acute Classification (AN-SNAP) (source NSW Health PD2016_036). There are four sub-acute care types: Rehabilitation; Geriatric Evaluation and Management (GEM); Palliative Care and Psycho-geriatric Care; and one non-acute care type: Maintenance. The following care types are relevant to this section:

- **Rehabilitation** - The primary clinical purpose or treatment goal is improvement in the functional ability of a patient with an impairment, activity limitation or participation restriction due to injury or disease. This is achieved through a goal-directed, multidisciplinary approach involving medical, nursing and allied health staff. The patient needs to be capable of actively participating.

- **Geriatric Evaluation and Management (GEM) (includes Aged Care Rehabilitation)** - The primary clinical purpose or treatment goal is improvement in functioning of a patient with multi-dimensional needs associated with medical conditions related to ageing, such as a tendency to fall, incontinence, reduced mobility and cognitive impairment. The patient may also have complex psychosocial problems.

- **Maintenance (non-acute care)** - The primary clinical purpose or treatment goal is support for a patient with impairment, activity limitation or participation restriction due to a health condition or limited weight bearing. Following assessment or treatment the patient does not require further complex assessment or stabilisation. These patients may be suitable for rehabilitation once their activity limitation has resolved. These patients would normally not require hospital treatment but there are factors which make it inappropriate to discharge the patient. This group includes patients awaiting placement, guardianship, or completion of home modifications. These patients often require care over an indefinite period.
Current Services

Services are provided across the acute hospital sites, sub-acute sites and in the community (home based and outreach to residential aged care facilities (RACFs)).

**Wyong Hospital**
- Role delineation Level 5
- 48 inpatient sub-acute beds – 20 rehabilitation and 28 GEM (aged care rehabilitation)
- Gymnasium and outdoor exercise facility
- Hydrotherapy pool
- Outpatient clinics

**Woy Woy Hospital**
- Role delineation Level 4
- 30 inpatient sub-acute beds – 10 rehabilitation and 20 GEM (opened in 2013)
- 23 maintenance/ non-acute beds
- Gymnasium and outdoor exercise area
- Hydrotherapy pool
- Outpatient gymnasium
- 20 bed transitional care unit
- Outpatient clinics
- Rehabilitation day programs for respiratory, cardiac and heart failure

**Long Jetty Healthcare Facility**
- Role delineation Level 2
- 10 maintenance/non-acute beds

**Transitional Care**

Transitional Care is a non-acute program providing restorative care with the aim of returning the patient to a level of functional ability to return home or be at their best in residential care. It is provided as a 12 week program either in a Transitional Care Unit (TCU) or as a home-based package. TCUs are located at Woy Woy Hospital (20 beds) and Long Jetty Health Facility (12 beds).

**Outpatient Clinics**
- Clinics are conducted at Gosford, Wyong and Woy Woy hospitals as part of the geriatric service.

**Support Services**

There are limited support services provided at Woy Woy Hospital and Long Jetty Health Facility:
- Medical imaging - patients requiring medical imaging are either referred to a private provider or to Gosford or Wyong hospitals.
- Pharmacy – limited coverage is provided by a pharmacist and pharmacy technician. Medications are often provided by community pharmacies in Webster packs.
- Pathology – limited service with daily blood collection; specimens collected at other times are transported to Gosford or Wyong hospitals for processing.

**Activity**

- In 2015/16 there were 111 sub- and non-acute beds in CCLHD – 78 sub-acute (rehabilitation and GEM) and 33 non-acute (maintenance). This is an increase from 93 beds in 2010/11 - 68 rehabilitation and GEM and 25 maintenance. There are no designated palliative care beds in CCLHD.
- Over 80% of rehabilitation patients are aged over 70 years which has increased from 74.2% in 2010/11. In contrast 81.5% of maintenance patients are aged over 70 years which has decreased from 90.7% in 2010/11.
- Since 2010/11 the number of sub-acute episodes has increased by 24.9% from 2,483 episodes to 3,111 in 2015/16. Over the same period bed days increased by 44% from 34,646 to 49,887. The number of sub-acute episodes peaked in 2013/14 at 3,995 while the number of bed days peaked in 2014/15 at 55,274.
The largest increase in activity has been for Maintenance which has increased from 615 episodes in 2010/11 to 1,574 in 2015/16 while bed days increased from 5,504 to 23,728. Both episodes and bed days peaked in 2014/15 at 2,136 episodes and 25,902 bed days. Most of this increase was at Gosford Hospital where the number of episodes increased from 297 in 2010/11 to 934 in 2015/16 after peaking at 1,402 in 2014/15. The number of bed days also increased from 2,449 in 2010/11 to 10,379 in 2015/16 after peaking at 12,341 in 2014/15. At Gosford Hospital the ALOS increased from 8.6 days to 11.4 days the ALOS at Wyong Hospital increased from 6.6 days to 12.7 days. The ALOS at Woy Woy Hospital increased from 13.9 days to 35 days and at Long Jetty it increased from 23.1 days to 40.2 days.

The number of episodes type changed to Rehabilitation remained fairly stable at about 885 episodes however bed days increased from 10,300 to 21,536. The ALOS remained fairly stable at Gosford Hospital increasing from 6.3 to 6.8 days. At Wyong Hospital the ALOS increased from 17.5 to 25.1 days and at Woy Woy the increase was from 5.3 to 24.8 days.

The number of episodes for GEM decreased by 82.6% from 929 in 2010/11 to 162 in 2015/16 and the number of bed days decreased by 89.4% from 18,404 to 1,944 reflecting the shift away from type changing patient to GEM. While the number of episodes has decreased the ALOS at Wyong Hospital increased from 8.5 to 11.6 days and at Woy Woy from 25.2 to 40.3 days.

There are three private providers of rehabilitation services within CCLHD – Gosford Private Hospital, Brisbane Waters Private Hospital and Berkeley Vale Private Hospital. In 2015/16 there were 8,406 episodes for rehabilitation in private hospitals, an increase from 5,372 in 2010/11. In 2015/16, 88.5% episodes for rehabilitation for Central Coast residents were in private hospitals.

Figure 15: Sub-Acute Bed Days by Care Type 2010/11 - 2015/16

Source: CCLHD Inpatient Data Collection

Future Service Configuration

In 2018/19, 30 rehabilitation beds will come online at Gosford Hospital increasing the number of sub-acute beds to 131 (108 sub-acute plus 23 non-acute). There are no further proposed increases to the inpatient bed configuration for sub-acute and non-acute beds.
Aged, Sub-Acute and Rehabilitation

Table 45: Current and Future Rehabilitation Role Delineation and Facilities

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</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>-</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Gymnasium</td>
<td>-</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hydrotherapy</td>
<td>-</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
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</tbody>
</table>

Table 46: Current and Future Sub-Acute Inpatient Capacity and Configuration

<table>
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</thead>
<tbody>
<tr>
<td>Rehabilitation</td>
<td>-</td>
<td>30</td>
<td>20</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>-</td>
<td>-</td>
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<tr>
<td>GEM (aged care rehab)</td>
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<td>28</td>
<td>28</td>
<td>20</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Maintenance</td>
<td>-</td>
<td>-</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Palliative Care</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>Total</td>
<td>-</td>
<td>30</td>
<td>48</td>
<td>48</td>
<td>53</td>
<td>53</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Transitional Care</td>
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<td>-</td>
<td>20</td>
<td>20</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

A review of current service type change practices is proposed to provide a greater understanding of the reasons for the increase in type changing to “maintenance” and to enable strategies to be developed to address the volume of patients.

Further planning needs to be undertaken to address the following:

- Develop a vision for the future roles of the Woy Woy and Long Jetty facilities including the range and types of services which will be provided
- A plan for managing the increasing demand for sub- and non-acute services this will include service models, alternatives to inpatient management, and partnerships with other providers ensuring effective use of resources and that patients are managed in the most appropriate environment and location
- Articulation of built infrastructure that will be required to enable service expansion and accommodate contemporary models of care. This will include future inpatient beds as well as outpatient/ambulatory and community based services.

### Strategic Directions

143. Develop and embed clear criteria and practice for type changing patients to sub- and non-acute care.
144. Development of clear referral and admission criteria and guidelines for access to, and use of, sub-acute facilities and beds.
145. Improved access to diagnostic (medical imaging and pathology) and pharmacy services at Woy Woy Hospital and Long Jetty Health Facility.
146. Determine future role and function of the Woy Woy and Long Jetty facilities including service development opportunities.
147. Develop service models to manage the increasing demand for sub- and non-acute services including engagement with other agencies and providers.
148. Identify future capital and infrastructure requirements for inpatient and non-admitted sub- and non-acute services.

### 14.3 Rehabilitation Services

Rehabilitation care is defined (by the Agency for Clinical Innovation, 2015) as the provision of care that aims to:

- Restore functional ability for a person who has experienced an illness or injury
- Enable regain of function and self-sufficiency to the level prior to that illness or injury within the constraints of the medical prognosis for improvement
- Develop functional ability to compensate for deficits that cannot be medically reversed.
Current Services
Rehabilitation includes both general and aged care rehabilitation (GEM). There are 78 inpatient beds located at:
- Wyong Hospital has 48 inpatient beds – 20 Rehabilitation and 28 Aged Care Rehabilitation (GEM); gymnasium and outdoor exercise facility located in proximity to the rehabilitation unit but distant from GEM unit. There is a hydrotherapy pool onsite.
- Woy Woy Hospital has 30 inpatient beds - 10 Rehabilitation and 20 Aged Care Rehabilitation (GEM). The inpatient unit is purpose built with accessible outdoor areas, gymnasium and activity area. Onsite there is an additional gymnasium for outpatient and ambulatory programs.

Outpatient and community based services
- Outpatient clinics for rehabilitation, amputees, prosthetics and hydrotherapy are at Wyong and Woy Woy Hospitals
- Specialist rehabilitation programs for neurological conditions and stroke are provided through allied health clinics at the Long Jetty and Woy Woy Community Centres.
- There is an occupational therapy led hand therapy service at Woy Woy Hospital and a physiotherapy led service at Wyong Hospital.
- Home-based, intensive, short duration rehabilitation programs are provided for a range of conditions including neurological (CNSS and CORT) and respiratory patients (HERRS).
- Community based rehabilitation programs for cardiac, heart failure and pulmonary rehabilitation and hand therapy. Cardiac and pulmonary rehabilitation are provided on-site at Woy Woy, Wyong and Long Jetty (pulmonary only) hospitals.

Future Service Configuration
Rehabilitation will be provided as a single service across multiple sites with a central referral and intake point ensuring a standardised referral process. Services will be provided seven days per week. There will be an integrated model for both rehabilitation and aged care rehabilitation (GEM).
- Gosford Hospital will have a 30 bed inpatient unit with co-located gymnasium accommodating rehabilitation and aged care rehabilitation (GEM) patients. Services will be provided at role delineation Level 5. Having an onsite unit will enable rehabilitation to commence earlier as an adjunct to acute treatment with easy access to sub-specialist and clinical support including diagnostic services if required.
- Wyong Hospital will continue to provide services at role delineation Level 5. It is proposed as part of the Wyong Hospital redevelopment to co-locate the 20 bed rehabilitation and 28 bed aged care rehabilitation (GEM) units in a suitable inpatient area with a gymnasium, outdoor exercise facility, dining and activity areas. This will enable shared use of resources and use of a standardised model of care.
- Woy Woy Hospital will continue to provide services at role delineation Level 4 for stable rehabilitation, aged care rehabilitation (GEM) and sub-acute patients.

Further development opportunities for outpatient and ambulatory based programs include expansion of existing specialist programs (cardiac, heart failure and pulmonary) to accommodate increasing demand.
- In line with the ACI rehabilitation model of care, two community-based rehabilitation facilities located in the north and south of the Central Coast will be developed to cater for a broad range of generalist and specialist rehabilitation therapies. Suitable locations for these facilities will be included as part of the master planning for community based services.

Strategic Directions
149. Develop a single rehabilitation service across multiple sites with central referral and intake and defined model of care that includes in-reach to acute inpatient unit, sub-acute inpatient rehabilitation, ambulatory and outreach services.
150. Develop programs to support patients with specialised needs including ortho-geriatric patients, degenerative neurological conditions, patients with cognitive impairment, young people, patients transferred from
statewide specialist centres (spinal cord injuries, brain injury), and to avoid/reduce deconditioning as part of illness and/or treatments.

151. Develop rehabilitation services, co-located with aged care rehabilitation (GEM) at Wyong Hospital in a suitable ward space with gymnasium, dining and recreational space, and inpatient beds.

152. Expand ambulatory (outpatient, day rehabilitation, home-based) and outreach services to facilitate earlier discharge for patients and ongoing support.

153. Develop two community-based day rehabilitation facilities located in the north and south of the Central Coast that can cater for a broad range of generalist and specialist rehabilitation therapies.

154. Develop and expand a sustainable multidisciplinary botulinum toxin treatment program for the treatment of spasticity.
15 Surgical Services

Current Services

Surgical services encompass anaesthetics, operating suites, procedure and endoscopy rooms, pre-operative, operative and post-operative care, and pain management. Surgical services are provided at both Gosford and Wyong hospitals although the complexity, scope and role delineation differs between the sites. Higher risk patients including those with multiple co-morbidities and complex surgery are managed at Gosford Hospital.

Gosford Hospital is the principal referral hospital and regional trauma service providing a comprehensive range of surgical sub-specialties predominantly at role delineation level 5. The hospital provides both emergency/unplanned and planned/elective surgery. The scope of services includes: general surgery, orthopaedic, vascular, urology, ENT/otolaryngology and Head and Neck, paediatric surgery, gynaecology, obstetrics, plastics & reconstructive, maxillofacial, breast and endocrine, hand surgery, ophthalmology and dental surgery. Endoscopy (including endoscopic ultrasound), bronchoscopy and electro convulsive therapy are also provided. In addition the following outpatient services are available: pre-admission, fracture, gynaecology, hand, urology and ENT clinics.

Wyong Hospital provides lower complexity surgery predominantly at role delineation level 3. The majority of surgery is planned/elective, there is limited emergency/unplanned surgery undertaken. The majority of activity is for the following services: general surgery, endoscopies and ophthalmology, there are limited planned procedures for the following specialties: urology, orthopaedics, vascular and gynaecology. Wyong Hospital is the centre for ophthalmology surgery for the LHD undertaking over 82% of planned ophthalmology procedures.

Patients requiring access to statewide services (such as severe burn injury, major trauma, spinal cord injury and organ transplants) and some highly specialised and complex services such as neurosurgery, cardiothoracic surgery as well as some high complex low volume procedures will continue to travel outside the LHD for these services. Planned surgery is coordinated across the LHD through the Integrated Booking Unit (IBU) which includes patient booking for surgery, pre-admission clinic appointments including identifying and coordinating multidisciplinary review for patients at risk of delirium and/or who will require additional support on discharge.

While balancing the demands of emergency/unplanned and planned/elective surgery the LHD will need to continue to meet the Elective Surgery Access Performance (ESAP) targets for Category 1 (100%), Category 2 ($\geq$ 97%) and Category 3 ($\geq$ 97%).

Since release of the CSP in 2012 the following models have been implemented or are in the process of development for implementation prior to completion of the Gosford Hospital redevelopment:

- **Acute Surgical Unit (ASU)** – has been implemented at Gosford Hospital for the management of emergency general surgical cases with a predictable length of stay less than 72 hours (LOS < 72 hours). It is proposed that this model will be expanded to include other surgical specialties.
- **Direct Access Project** – commenced in 2017 and is located at Gosford and Wyong Hospital. The majority of the high volume procedures are undertaken at Wyong Hospital. The project is in conjunction with the NSW Cancer Institute to increase capacity and timely access to endoscopy for patients with a positive faecal occult blood test (FOBT)
- **Enhanced Recovery After Surgery (ERAS) pathways** – targeting pre-operative, intra-operative and post-operative management for specific procedures.

The following models of care are in the process of development for implementation when additional physical capacity becomes available either through the redevelopment or reconfiguration of current services. These models are proposed for both Gosford and Wyong hospitals:

**Planned Surgery Models:**

- **Adult Day Only** – surgical and procedural activity including endoscopy
- **Adult High Volume Short Stay (HVSS)** – surgeries and procedures with a predictable LOS up to 23 hours (Extended Day Only) and less than 72 hours. Care is managed by defined care protocols and clinical pathways. Will be accommodated into a Surgical Short Stay Unit (SSSU)
**Emergency Surgery Models:**

Both models will accept surgical referrals from ED, directly from specialist rooms or inter-hospital transfers:

- Surgical Acute Rapid Assessment (SARA) model – a pre-operative surgical unit for surgical assessment for hitherto undifferentiated surgical patients or where their presenting condition is evolving/yet to declare, along with the pre-operative workup of patients who would benefit from early surgery. LOS is less than 24 hours. Post-operative management will be in the SSSU, inpatient unit or possibly ICU/ COU.
- Acute Surgery Unit (ASU) this model is already in place at Gosford Hospital however further expansion to include other surgical specialties is proposed. Introduction of this model at Wyong Hospital is also proposed.

Inpatient Surgical Units will manage complex cases and those with an expected length of stay greater than 72 hours both emergency and planned cases.

**Extended Recovery Model:**

- This model applies to planned surgical cases and is intended to reduce operative cancellations and waiting time for surgical procedures for patients identified as potentially requiring ICU support post-operatively
- It will provide short-term critical care for unstable surgical patients post-operatively for 6-8 hours
- Once stable the patient will be transferred to the ward or Close Observation Unit (COU), alternatively if the patient does not stabilise they will be transferred to ICU
- This model is proposed for Gosford Hospital initially and for Wyong Hospital in the future when the volume and types of surgery are expanded.

**Wound Management**

The acute wound management service is an important component of the surgical services. This is a nursing led service providing consultation, staff and patient education and support across all acute specialties and services at Gosford and Wyong hospitals. Non-acute and community based wound management is provided by the community nursing service.

**Activity**

**Table 47: Interventional (Surgical & Procedural) Inpatient Episodes 2015/16 - Age >15yrs (excludes ED SSU activity)**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Total Interv</th>
<th>% of total activity</th>
<th>Planned %</th>
<th>Unplanned %</th>
<th>Same Day %</th>
<th>Overnight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford</td>
<td>Episodes</td>
<td>10,782</td>
<td>39.7%</td>
<td>15.0%</td>
<td>85.0%</td>
<td>38.2%</td>
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<tr>
<td></td>
<td>Bed Days</td>
<td>40,202</td>
<td>34.7%</td>
<td>12.2%</td>
<td>87.8%</td>
<td>10.2%</td>
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<tr>
<td>Wyong</td>
<td>Episodes</td>
<td>5,928</td>
<td>34.9%</td>
<td>82.4%</td>
<td>17.6%</td>
<td>66.3%</td>
</tr>
<tr>
<td></td>
<td>Bed Days</td>
<td>14,153</td>
<td>22.1%</td>
<td>52.8%</td>
<td>47.2%</td>
<td>27.8%</td>
</tr>
<tr>
<td>Total</td>
<td>Episodes</td>
<td>16,710</td>
<td>37.9%</td>
<td>69.8%</td>
<td>30.2%</td>
<td>48.1%</td>
</tr>
<tr>
<td></td>
<td>Bed Days</td>
<td>54,355</td>
<td>29.1%</td>
<td>43.3%</td>
<td>56.7%</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

- Since 2010/11 the number of interventional episodes has increased by 8.1% while bed days have declined by 4.7%
- The number of planned episodes has increased by 1% and bed days have declined by 10.2%
- Unplanned episodes have increased by 29.2% and bed days declined by 0.1%
- Same Day episodes have increased by 5.8% and bed days by 5.9%
- Overnight episodes have increased by 10.3% while bed days have declined by 6.3%
- In 2015/16, 64.5% of all interventional episodes and 74% of interventional bed days were at Gosford Hospital
- The SRGs with the highest number of episodes were: Orthopaedic Surgery (17.3%), Ophthalmology (11.8%) and Non-subspecialty surgery (9.6%)
- 53.6% episodes were for Wyong residents, 38.3% Gosford residents and 8.1% inflows
- Almost 50% of interventions for Wyong residents occurred at Gosford Hospital compared to 13% of Gosford resident activity occurring at Wyong Hospital.

**Future Service Configuration**

**Gosford Hospital:**

- Complex and high-end specialist surgery will be concentrated at Gosford Hospital
The majority of surgical services will continue at Level 5 providing a comprehensive range of surgical sub-specialties. Cancer related surgery will be concentrated at Gosford hospital.

Surgical sub-specialty services will continue to develop capabilities to provide more complex procedures, increasing self-sufficiency within the LHD and reducing the need for residents to travel out of the LHD to access non-quaternary services. Services highlighted for further expansion and development include: ENT/ head & neck surgery, plastic and reconstructive surgery (in particular free-flaps), maxillofacial and thoracic surgery.

Sub-specialty services more commonly provided on planned/day only basis at other locations (e.g., ophthalmology) will need to maintain capabilities, equipment and services at Gosford Hospital to support it in its role as a regional trauma centre.

**Wyong Hospital:**

- A broad range of emergency and elective surgery will be provided at Wyong Hospital to meet most non-tertiary emergency and elective surgical demand for the Wyong population. A gradual expansion of services will be planned according to identified population priorities.
- Enhanced after hours coverage for emergency procedures
- Priority services identified for development include: Orthopaedic trauma (including fractured neck of femur) both planned and emergency, increased general surgery (planned & emergency), Urology, Gynaecology, endoscopies (emergency) and possibly ENT.
- Paediatric surgery for selected short stay procedures will be developed in the future, types of procedures identified include: closed reduction of fractures, repair of hernia, torsion of testes, and possibly ENT.

Patients requiring highly specialised and quaternary services (such as severe burns, neurosurgery, cardiothoracic surgery, pancreatic surgery) will continue to be referred to an appropriate centre to access these services.

### Table 48: Current and Future Surgical Services Role Delineation

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaesthesia &amp; Recovery</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Operating Suite</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Surgery for Children</td>
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<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
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</table>

### Table 49: Current and Future Surgical Services Configuration

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Rooms</td>
<td>8</td>
<td>10#</td>
<td>10 or 12*</td>
<td>4</td>
<td>6</td>
<td>6 or 8*</td>
</tr>
<tr>
<td>Procedure Rooms</td>
<td>1</td>
<td>2*</td>
<td>2*</td>
<td>1</td>
<td>2*</td>
<td>2*</td>
</tr>
<tr>
<td>Endoscopy Rooms</td>
<td>1</td>
<td>2</td>
<td>2 or 3*</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Recovery: Stage 1/Stage 2</td>
<td>50</td>
<td>50</td>
<td>14</td>
<td>33</td>
<td>33</td>
<td>33</td>
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<tr>
<td>Stage 3/Discharge Lounge</td>
<td>-</td>
<td>12</td>
<td>12</td>
<td>19</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: CSP, Gosford & Wyong Functional Design Briefs

*new procedure rooms to be sized as operating rooms for additional future capacity

# includes 2 integrated medical imaging operating rooms (hybrid theatres) for vascular & other specialties requiring intraoperative fluoroscopy/angiography 1 to be commissioned by 2019 (completion of redevelopment) and 1 for future requirements

*additional space identified for 3rd endoscopy room if required

### Table 50: Current and Future Surgical Services Models

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Integrated Booking Unit</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day Surgery Unit</td>
<td>GSAC</td>
<td>✓</td>
<td>✓</td>
<td>SAC</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HVSS / SSSU</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SARA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>ASU</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: CSP, Gosford & Wyong Functional Design Briefs

**Strategic Directions**

155. Increase planned surgical activity in stages at Wyong Hospital supported by additional after hours coverage including anaesthetics, general surgery, orthopaedics, urology, gynaecology, ENT and acute pain services.
156. Develop additional emergency surgery capability and capacity at Wyong Hospital, in particular for orthopaedic trauma and endoscopy.
157. Improve utilisation of existing resources at Wyong Hospital to accommodate increased volume and complexity of surgical services prior to redevelopment.
158. Develop an LHD wide ortho-geriatric model of care in conjunction with the acute aged care and rehabilitation services.
159. Expand and enhance ENT/head and neck, plastic and reconstructive surgery, maxillofacial surgery and thoracic surgery at Gosford Hospital to support the increasing cancer related demand.
160. Develop and implement the following models: HVSS, ASU, SARA at both Gosford and Wyong hospitals.
161. Continue the development of care pathways including those being developed as part of the Enhanced Recovery After Surgery (ERAS) project which will support consistent practice, safe patient care, good outcomes and timely discharge.
162. Develop the Extended Recovery model in the context of the Close Observation Unit and expanded ICU capacity at both Gosford and Wyong hospitals.
163. Introduce paediatric surgery at Wyong Hospital for selected procedures with LOS <48 hours.
164. Determine the feasibility of undertaking a limited number of bariatric surgical procedures on a defined cohort of patients in the context of a locally available obesity management service.

### 15.1 Anaesthetics and Recovery

#### Current Services
Anaesthetic services are managed as a single service across Gosford and Wyong hospitals.

Gosford Hospital provides services at role delineation Level 5 for good to high risk adult and paediatric patients. Services include: pre-operative assessment, operative and post-operative management in recovery, pain management as part of the Acute Pain Service, intravenous line insertion for cancer and other acute patients as well as anaesthetic/sedation support for procedural work in interventional radiology, medical imaging, cardioversion and endoscopy services.

Wyong Hospital provides services at role delineation Level 4 for good to moderate risk adult patients with the same range of services as Gosford Hospital.

#### Future Service Configuration
Gosford will remain as a Level 5 service. There will be increased requirements of the service in line with the increased complexity and types of surgical and procedural activity to be undertaken. The service will have an integral role in the proposed Extended Recovery Model (described previously) as well as the ERAS project.

Wyong Hospital will remain as a Level 4 service however there will be an increase in the volume, range and complexity of surgical and procedural activity to be undertaken as well as the commencement of low complexity paediatric surgery.

#### Strategic Directions
165. Develop existing services at Wyong Hospital to support the increase in scope and complexity of surgical and procedural activity which will occur.

### 15.2 Pain Management Service

#### Current Services

**Acute Pain Service (APS)**

The Acute pain Service is a specialist led consultative service for inpatients experiencing acute pain with a particular focus on post-anaesthesia/ post-operative pain. Services are provided by a multidisciplinary team under the direction of a specialist in pain medicine. The service is based at Gosford Hospital with specialist coverage five
days per week and is also available at Wyong Hospital with specialist coverage two days per week. The service is supported on each site by registrar and nurse.

Central Coast Integrated Pain Service (CCIPS)
Established in 2016 as a Tier 2 chronic pain management service treating patients with low to moderate disability and medium complexity, the Central Coast Integrated Pain Service is a multidisciplinary outpatient based pain management service for adults with chronic and complex pain needs. The service is based in the outpatient department at Gosford Hospital and also provides group programs at Erina Community Health Centre. The service has good links with the Drug & Alcohol service and is developing closer links including education support with GPs and primary care providers. The service is currently provided on a part-time basis.

The service is networked with Tier 3 pain services at Royal North Shore Hospital and the Hunter Integrated Pain Service in Newcastle for people with severe pain related disability and high complexity pain.

Paediatric patients (aged less than 16 years) requiring specialist pain management are referred to a Tier 3 service at Sydney Children’s Hospital, Children’s Hospital Westmead or John Hunter Children’s Hospital.

Future Service Configuration

Acute Pain Service
Expanded service across Gosford and Wyong hospitals providing inpatient consultation and outpatient follow-up including ambulatory methods of analgesia delivery in response to increasing surgical complexity and reducing length of stay. The service will be integrated and ideally co-located with the CCIPS service. In addition there will be:

- Increased involvement of Drug and Alcohol service in patient review and management planning
- A sub-acute pain clinic at each acute site for patients experiencing ongoing acute pain post discharge
- Potential for provision of consultative service to the sub-acute sites at Woy Woy and Long Jetty.

Central Coast Integrated Pain Service (CCIPS)
Gosford Hospital will be developed into a Tier 3 pain service providing an integrated pain service with inpatient consultation, outpatient services, and specific multidisciplinary programs for patients with high complexity pain and severe disability. This is in addition to the existing programs for low to moderate complexity and lower levels of disability. The service will include:

- Admitting rights for patients requiring specialised procedures for pain management
- Specialised programs for:
  - Cancer patients who are experiencing pain while undergoing treatment and who do not require palliative care
  - Cancer survivors who experience ongoing pain
  - Other identified groups.

Wyong Hospital will operate as a Tier 2 pain service providing multidisciplinary services for low to moderate complexity and lower levels of disability. The service will be networked with Gosford Hospital. Inpatient consultation as well as outpatient and community-based programs will be provided.

The service will be integrated with the Drug & Alcohol service across both sites operating joint clinics and consultation.

The service will provide accredited specialist training for the Australian and New Zealand College of Anaesthetists (ANZCA) Faculty of Pain Medicine (FPM) as well as training and education for allied health staff (physiotherapy, occupational therapy and psychology) and nursing staff.

There will be well established networks with GPs and primary care providers including integrated pain management plans for patients in the community as well as provision of training and education for these providers.
Strategic Directions

2017-2019

166. Expand the Acute Pain Service (APS) and the level of coverage at Wyong Hospital in line with projected growth in surgical activity.
167. Integrate the APS with the Central Coast Integrated Pain Service (CCIPS) and the Drug & Alcohol service.
168. Enhance and expand the CCIPS service to a full-time service able to provide additional outpatient clinics, inpatient consultation, and community-based programs initially at Gosford Hospital with a view to expansion to Wyong Hospital.
169. Develop specialist clinics for cancer and non-cancer patients, initially at Gosford Hospital, for both APS and CCIPS.
170. Develop capacity to admit patients for short stay specialised pain management procedures with access to procedure room and necessary support services.
171. Identify alternative site(s) that are easily accessible to Wyong residents for community-based programs.
172. Establish networks with GPs and primary care providers to support well-informed pain management in the community including integrated pain management plans and education support and guidance.

2020 – onwards

173. Develop a tier 3 service at Gosford Hospital, supported by trainees from ANZCA Faculty of Pain Management (FPM), with inpatient consultation, capacity to undertake inpatient procedures, a range of specialist outpatient clinics as well as specialised and community based programs for all low to high complexity patients.
174. Develop a tier 2 service at Wyong Hospital, networked with Gosford Hospital, providing inpatient consultation, outpatient clinics and community based programs for low to moderate complexity patients.

15.3 Intensive Care (ICU and Retrieval)

Current Services

Intensive Care services are managed as a single networked department across Gosford and Wyong hospitals with Gosford the tertiary service provider. Gosford Hospital provides services at role delineation Level 5 able to manage complex multi-system life support and provide mechanical ventilation, renal replacement therapy and invasive cardiovascular monitoring for extended periods for post-surgical, trauma, obstetric and complex medical patients.

Wyong Hospital operates at role delineation Level 4 (since 2016) able to provide immediate resuscitation and short term cardiorespiratory support for critically ill patients including invasive mechanical ventilation and simple invasive cardiovascular monitoring for up to 24 hours. Patients requiring care for more than 24 hours, or complex care, are managed in consultation with the ICU at Gosford Hospital.

The increased role level at Wyong Hospital will support increased patient complexity for medical patients and more complex surgery as well as other services proposed for the future.

Each unit has a Clinical Director and Nurse Unit Manager.

The service also encompasses:

- Retrieval Service to manage the transfer of critically ill patients between Wyong and Gosford hospitals. Currently this is based at Gosford Hospital but with the further development at Wyong Hospital may be better based there in the future.
- Rapid Response Team supporting patients who deteriorate in ward areas. This service is provided on both sites and is comprised of senior medical officer and nurse from the ICU (who are not supernumerary). There is increasing demand for this service which is placing pressure on the ICU to accommodate staff absence from the Unit for increasingly frequent and extended periods.
- Intensive Care Liaison Service for patients with complex needs both pre-admission and post-discharge from ICU to an inpatient unit with regular follow-up and review of patients.
- Organ and Tissue Donation Service aimed at increasing donation rates it is funded through a national program until October 2018.
Predicting ICU demand is difficult; demand may decrease with the introduction of less invasive surgical techniques but the ageing and growing population and societal expectations may dictate that more aggressive treatment options be offered than is currently the case.

The current configuration and networked model will continue with Gosford Hospital a Level 5 service supporting its role as a regional major trauma centre and tertiary service provider. Wyong Hospital will continue to develop and expand as a Level 4 service.

Additional capacity will be created at both sites as part of the redevelopments. It is expected that both ICUs will have a role with the proposed Extended Recovery Model and also the Close Observation Units however that role will be further defined as those models of care are developed.

A two-tier rapid response model will be developed. For life threatening incidents the response team will be comprised of medical and nursing staff from ICU with the potential inclusion of an anaesthetic registrar. Less critical events will be responded to by a specialist ‘supernumerary’ medical and nursing team.

<table>
<thead>
<tr>
<th>Table 51: Current and Future ICU Services Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Beds</td>
</tr>
<tr>
<td>Models of Care</td>
</tr>
<tr>
<td>Retrieval Service*</td>
</tr>
<tr>
<td>Rapid Response Team</td>
</tr>
<tr>
<td>ICU Liaison Service</td>
</tr>
<tr>
<td>Organ &amp; Tissue Donation^^</td>
</tr>
</tbody>
</table>

Note: * possible expansion into COU space if required
# as part of previous planning flexible space identified which would allow expansion to 20 beds in the future
^ Retrieval service currently based at Gosford as services at Wyong expand it is expected that this service would shift to Wyong
^^ Funding commitment to 2018 – dependent on ongoing funding

Increase capability at Wyong Hospital as a Level 4 service in line with the expected increase in the range of services and complexity, supported by adequate after hours and weekend senior medical coverage.

Relocate the Retrieval Service to be based at Wyong Hospital.

Develop a specialist Rapid Response Team at both Gosford and Wyong hospitals to respond to non-critical patient events in the hospital.

Enhance provision of ICU liaison services to support complex patients and staff in wards and other non-critical care areas.

Identify funding source for ongoing provision of the Organ and Tissue Donation Service

Enhance provisions for research at both Gosford and Wyong ICUs including structures to support clinical trials.

This is a new model of care proposed for both Gosford and Wyong hospitals as part of the redevelopment of each site. The service will be provided at role delineation Level 4 at each site.

At Gosford Hospital this will be a 9 bed unit co-located with the ICU. At Wyong Hospital it will be a 9 bed unit located in proximity to the ICU.

The Close Observation Unit (COU) is intended for complex patients who require a higher level of observation and higher intensity of nursing care than can be provided in a ward setting but do not require intensive care.

Proposed types of patients would include:

- Medical and surgical patients requiring nursing care at a dependency of 1:3 or greater for frequent monitoring
- Patients transitioning from the ICU who require a higher level of care or frequency of observation not available on a regular inpatient unit
Surgical Services

- Patients assessed as likely to require frequent support from ICU based support services such as Rapid Response and ICU Liaison
- Patients requiring non-invasive ventilation where the intention is not to escalate treatment to invasive ventilation and potentially patients requiring short term low level vasopressor therapy.

The model of care including admission criteria and governance of the unit are yet to be finalised; two options under consideration are that patient admission and medical care may be under the direction of the admitting medical officer or an intensivist. The COU will have a close relationship with the intensive care service, including clinical advice and professional development.

### Table 52: Current and Future COU Services Configuration

<table>
<thead>
<tr>
<th></th>
<th>Gosford</th>
<th></th>
<th></th>
<th>Wyong</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016/17</td>
<td>2021/22</td>
<td>2026/27</td>
<td>2016/17</td>
<td>2021/22</td>
<td>2026/27</td>
</tr>
<tr>
<td>Role Delineation Level - COU</td>
<td>-</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>No. Beds</td>
<td>-</td>
<td>9</td>
<td>9</td>
<td>-</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

### 15.5 General Surgery

#### Current Services

General surgery services are provided at both Gosford and Wyong hospitals, incorporating the four sub-specialty services: Breast and Endocrine, Colorectal, Upper Gastrointestinal (GI) and trauma surgery.

Gosford Hospital provides services at role delineation Level 5 with the service covered by sub-specialist surgeons. In addition to minor and intermediate level surgical procedures the hospital is capable of undertaking a range of major and complex major surgical procedures.

Wyong Hospital provides services at role delineation Level 4, the service is covered predominantly by general surgeons. The service is capable of undertaking a range of common and intermediate surgical procedures and some major surgical procedures on suitable patients.

#### Future Service Configuration

Gosford Hospital will remain a Level 5 service for General Surgery but there will be continued differentiation into its sub-specialties of breast and endocrine, colorectal, upper gastrointestinal and trauma. Breast surgery will be concentrated at Gosford Hospital along with other cancer related surgery. As surgeons become increasingly specialised, maintaining sufficient specialist workforce with general surgical skills will be challenging.

Wyong Hospital will remain a Level 4 service and will continue to enhance and expand the range of general surgical planned and emergency procedures. Continued provision of a general surgical roster at Wyong Hospital is expected in both the short and long term.

#### Strategic Directions

1. Identify strategies to maintain and increase general surgery workforce and skills as surgery becomes increasingly specialised.
2. Increase the registrar and fellow workforce to support growth and expansion of services and after-hours coverage in particular at Wyong Hospital.
3. Increase the specialist workforce to support growth in upper gastrointestinal surgical procedures at both Gosford and Wyong hospitals and to support increased complexity of procedures at Gosford Hospital.
4. Expand the endocrine surgery service including the range of conditions which can be surgically managed within CCLHD, including access to an increased range of locally available pathology tests.
5. Enhance the breast surgery service with onsite access to breast imaging and insertion of hook wires pre-operatively, and further develop an oncology-plastic service.
6. Improve data capture for local use as well as participation in the Australian Breast Device Registry and the national breast cancer audit.
15.6 Gynaecology

Current Services

Gosford Hospital currently provides services at role delineation Level 5 providing a comprehensive range of both emergency and planned services and procedures.

Wyong Hospital provides services at role delineation Level 3 providing low complexity procedures.

Outpatient clinics are provided at both Gosford and Wyong hospitals. A gynaecology oncology clinic is provided at Gosford Hospital by a visiting specialist as part of the cancer services.

Activity

Service Demand:

- In 2015/16 adult demand for residents of the Central Coast was 3,873 episodes. Of these 38.0% (1,473) episodes were within CCLHD, 53.1% (2,058) episodes were in private facilities and 8.8% (319) episodes were public outflows.
- The number of local episodes increased by 13.8% from 1,294 in 2010/11, while the number of private and public outflows declined.

Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- 80% of inpatient episodes were provided at Gosford Hospital this has declined since 2010/11 when 84% of episodes were at Gosford Hospital.
- There were 2,156 beds days, 1,813 at Gosford Hospital and 343 at Wyong Hospital. The number of bed days has increased by 2.4% (51 bed days). 84.1% bed days were at Gosford Hospital this has declined since 2010/11 when 84.7% were at Gosford.
- There were 48 episodes admitted to ED SSU.
- At Gosford Hospital 50.7% (618) episodes were same day this is a decline from 53.5% of episodes in 2010/11. There were 600 overnight episodes with an ALOS 2.0 days utilising 1,195 bed days.
- At Wyong Hospital 85.2% (288) episodes were same day this is an increase from 68.3% in 2010/11. There were 45 overnight episodes with an ALOS 1.9 days utilising 85 bed days.
- At Gosford Hospital 38.9% episodes and 41% bed days were for unplanned/emergency patients this is an increase from 34.2% episodes and 38.5% bed days in 2010/11 (includes ED SSU episodes).
- At Wyong Hospital 14.5% (47 episodes) and 21.4% bed days were for unplanned/emergency patients an increase from 7.7% episodes and 20.4% bed days in 2010/11 (includes ED SSU episodes).

<table>
<thead>
<tr>
<th>Table 53: Inpatient Episodes for Gynaecology (SRG 71) 2010/11 – 2015/16 (excludes ED SSU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Gosford</td>
</tr>
<tr>
<td>Wyong</td>
</tr>
<tr>
<td>Adults Total</td>
</tr>
<tr>
<td>Paediatric (Gosford)</td>
</tr>
<tr>
<td>Source: CCLHD Inpatient Data Collection</td>
</tr>
</tbody>
</table>

Future Service Configuration

Gosford Hospital will continue to provide services at role delineation Level 5. There will be access to uro-dynamic studies following completion of the redevelopment.

Wyong Hospital will increase role level to Level 4, the volume and range of procedures will increase in line with the increased level and volume of maternity services.

Public outpatient clinics will continue to be provided on each site

Strategic Directions

187.Increase the range, complexity and volume of gynaecology procedures at Wyong Hospital
188. Develop a specialised ambulatory/outpatient service for women’s health at Wyong Hospital providing colposcopy, hysteroscopy and uro-gynaecology with access to urodynamic studies.

## 15.7 Ophthalmology

### Current Services

Gosford Hospital provides services at role delineation Level 5 providing both emergency and planned ophthalmology procedures including management of ophthalmic trauma, lens procedures, paediatric cases and corneal transplantation (commenced 2016).

Wyong Hospital provides services at Level 3 providing both emergency and planned ophthalmology procedures including management of ophthalmic trauma and lens procedures.

The CCLHD service is predominantly located at Wyong Hospital where the majority of procedures are undertaken. There is currently no publically funded ophthalmic outpatient service on the Central Coast.

### Activity

**Table 54: Inpatient Episodes for Ophthalmology SRG 50 (2010/11 – 2015/16 – Age >15years)**

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford</td>
<td>426</td>
<td>415</td>
<td>397</td>
<td>363</td>
<td>419</td>
<td>423</td>
<td>(3) (0.7%)</td>
</tr>
<tr>
<td>Wyong</td>
<td>1,222</td>
<td>1,306</td>
<td>1,306</td>
<td>1,488</td>
<td>1,472</td>
<td>1,618</td>
<td>396 (32.4%)</td>
</tr>
<tr>
<td>Total Surgical ESRGs</td>
<td>1,648</td>
<td>1,721</td>
<td>1,703</td>
<td>1,851</td>
<td>1,891</td>
<td>2,041</td>
<td>393 (23.8%)</td>
</tr>
<tr>
<td>% Wyong</td>
<td>74.2%</td>
<td>75.9%</td>
<td>76.7%</td>
<td>80.4%</td>
<td>77.8%</td>
<td>79.3%</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** CCLHD Inpatient Data Collection

### Service Demand:

- In 2015/16 total adult demand for residents of the Central Coast was 6,824 episodes. Of these 28.4% (1,936) episodes were within CCLHD, 66.3% (4,524) episodes were in private facilities and 5.3% (364) episodes were public outflows to other LHDs.
- Since 2010/11 demand has increased by 26.8% (1,442 episodes), there has been a 20% (322) increase in episodes within the LHD, 30.9% (1,069) increase in private facilities and 16.3% (51 episodes) increase in public outflows. While there has been an increase in episodes within CCLHD the percentage of resident demand being managed within the LHD has declined from 30% in 2010/11 while private activity has increased from 64.2% and public outflows have declined from 5.8% of activity.
- It is expected that there will be increased demand for cataract surgical services increases as well as glaucoma, diabetic retinopathy, macular degeneration, ocular surface diseases, peri-ocular cancer and paediatric conditions.

### Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- 97% of episodes were planned/elective. 74.2% of emergency episodes were at Gosford Hospital.
- 96.7% of episodes were same day and 76.1% of overnight episodes were at Gosford Hospital.
- There were 49 inpatient episodes for paediatric patients in 2015/16.
- There were 58 episodes admitted to the ED SSU – 32 at Gosford and 26 at Wyong Hospital.

### Future Service Configuration

The current service configuration will be maintained with Gosford Hospital providing services at Level 5 and Wyong Hospital providing services at Level 3.

Wyong Hospital will continue to be the primary site for provision of ophthalmological procedures however a service will be maintained onsite at Gosford Hospital to support the management of ophthalmic trauma, and to support the neonatal and paediatric services, as well as other sub-specialty services.
Surgical Services

Access to publicly funded ophthalmic outpatient services for ophthalmic patients to undertake minor procedures and laser procedures is required.

**Strategic Directions**

189. Maintain ophthalmology service at Gosford Hospital to support ophthalmic trauma, neonatal and paediatric services, as well as other sub-specialty services.
190. Develop publicly funded ophthalmic outpatient service to undertake minor procedures and laser procedures at Wyong Hospital.
191. Expansion of the range of procedures to including retinal surgery, glaucoma, corneal surgery, oculoplastic and peri-ocular cancer therapy.
192. Expand capacity to support the expected increasing demand for procedures.

**15.8 Orthopaedics**

**Current Services**

Gosford Hospital provides services at role delineation Level 5 and is the primary centre for major orthopaedic surgery for CCLHD providing a full range of both emergency and planned procedures. Services at Wyong Hospital are currently at role delineation Level 3 with only small volumes of planned procedures undertaken. Orthopaedic trauma services are not currently provided at Wyong Hospital. Patients presenting at Wyong Hospital ED who require emergency orthopaedic trauma surgery are referred to Gosford Hospital, including elderly patients with hip fractures and children who require inpatient care for orthopaedic conditions.

**Activity**

The Orthopaedic service manages patients with diagnoses outside of the Orthopaedic SRG. Likewise patients with episodes assigned to the Orthopaedic SRG may be managed by other clinical specialties other than orthopaedics:

<table>
<thead>
<tr>
<th>Table 55: Inpatient episodes by SRG admitted to the Orthopaedic Service 2010/11 – 2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
</tr>
<tr>
<td>Gosford</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total Gosford</td>
</tr>
<tr>
<td>Wyong</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total Wyong</td>
</tr>
<tr>
<td>Total Orthopaedic Service</td>
</tr>
<tr>
<td>% Gosford</td>
</tr>
<tr>
<td>Paediatric Episodes</td>
</tr>
</tbody>
</table>

*Source: CCLHD Inpatient Data Collection*

- In 2015/16 about 82.7% (3,402) adult inpatient episodes managed by the Orthopaedic service were captured within the Orthopaedic SRG. Since 2010/11 the number of episodes admitted to the Orthopaedic service increased at Gosford Hospital by 14.2% (453 episodes). In comparison the number of episodes admitted to the Orthopaedic service at Wyong Hospital decreased by 27.7% (180 episodes).

**Orthopaedic SRG:**

**Service Demand:**

- In 2015/16 adult demand by residents of the Central Coast for the Orthopaedic SRG was 10,290 episodes. Of these 38.6% (3,696) were in hospitals within CCLHD, 50.5% (5,193) episodes were in private facilities and 11.0% (1,128) episodes were outflows to another LHD.
- Since 2010/11 adult demand has increased by 8.6% (816) episodes. The percentage of episodes managed within CCLHD has decreased from 39.4% episodes, the percentage of episodes admitted to private facilities decreased from 52.0% and the percentage outflows to other public hospitals increased from 8.6%.
Since 2010/11 paediatric demand has increased by 2.8% from 777 to 799 episodes. Of this 66.1% (528) episodes were within CCLHD, 12.5% (100) episodes were in private facilities and 21.4% (171) episodes were in other LHDs. The percentage of episodes managed within CCLHD has decreased from 68.3%, the percentage of episodes admitted to private facilities decreased from 13.4% episodes and the percentage outflows to other public hospitals increased from 18.3%.

Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:
- 3,153 (76.3%) episodes were overnight this has increased by 15.3% (419 episodes) since 2010/11 when 71.1% (2,734) episodes were overnight
- There were 21,336 bed days for the Orthopaedic SRG (17,467 at Gosford Hospital and 3,869 at Wyong Hospital). Of these 95.3% (19,989) were overnight. The number of bed days has increased by 11.8% (2,219) since 2010/11 and the number of overnight bed days has increased by 13.3% (2,350) over the same period (excludes ED SSU activity).
- 23.7% of episodes were Same Day this is a decline from 28.9% in 2010/11 (excludes ED SSU activity)
- 61.3% (2,757) episodes were unplanned/emergency this is an increase from 46.9% (1,808) in 2010/11
- The Average Length of Stay was 6.3 days which is similar to 2010/11 when it was 6.5 days
- 3,402 (82.3%) adult episodes for the Orthopaedic SRG and 70.3% bed days were managed by the Orthopaedic Service. This is a decrease from 2010/11 when 84.5% (3,246) episodes were managed by the orthopaedic service the percentage bed days remained stable (excludes ED SSU activity).
- Within the SRG 30.2% (1,247) episodes were classified as non-surgical (medical) which is a 35.1% (324 episodes) increase since 2010/11
- There were 365 episodes admitted to EDSSU which is about 8.1% activity for this SRG
- People aged 70 years and older accounted for 47.8% (1,507) overnight episodes and 65.9% (13,280) bed days increasing marginally from 47.7% episodes and 64.8% bed days in 2010/11.
- There were 559 episodes for paediatric patients of these 47.2% were managed surgically. All episodes were at Gosford Hospital.
- Within the SRG there are seven ESRGs of these: Other Orthopaedics – Surgical (ESRG 495) had the highest number of episodes (1,524) and bed days (8,906); followed by Injuries to Limbs – Medical (ESRG 491) with 931 episodes and 4,562 bed days; Wrist and Hand procedures (ESRG 492) with 520 episodes and 705 bed days; and Hip Replacement/Revision (ESRG 496) with 364 episodes and 3,050 bed days (excludes ED SSU episodes).

Table 56: Inpatient Episodes for Orthopaedic SRG 49 by specialty 2010/11 – 2015/16

<table>
<thead>
<tr>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghosford</td>
<td>Orthopaedic Service</td>
<td>2,673</td>
<td>2,816</td>
<td>2,572</td>
<td>2,609</td>
<td>2,883</td>
<td>2,971</td>
<td>298 (11%)</td>
</tr>
<tr>
<td>Ghosford</td>
<td>ED SSU</td>
<td>12</td>
<td>8</td>
<td>10</td>
<td>25</td>
<td>184</td>
<td>229</td>
<td>217</td>
</tr>
<tr>
<td>Ghosford</td>
<td>Geriatric Medicine</td>
<td>135</td>
<td>156</td>
<td>173</td>
<td>204</td>
<td>172</td>
<td>222</td>
<td>87 (64.4%)</td>
</tr>
<tr>
<td>Ghosford</td>
<td>Other Specialties</td>
<td>218</td>
<td>169</td>
<td>212</td>
<td>205</td>
<td>191</td>
<td>182</td>
<td>(36) (16.5%)</td>
</tr>
<tr>
<td>Total Ghosford</td>
<td></td>
<td>3,038</td>
<td>3,149</td>
<td>2,967</td>
<td>3,043</td>
<td>3,430</td>
<td>3,604</td>
<td>566 (18.6%)</td>
</tr>
<tr>
<td>Wyong</td>
<td>Orthopaedic Service</td>
<td>573</td>
<td>641</td>
<td>608</td>
<td>594</td>
<td>476</td>
<td>431</td>
<td>(142) (24.8%)</td>
</tr>
<tr>
<td>Wyong</td>
<td>EDSSU</td>
<td>12</td>
<td>3</td>
<td>9</td>
<td>11</td>
<td>61</td>
<td>136</td>
<td>136</td>
</tr>
<tr>
<td>Wyong</td>
<td>Medicine</td>
<td>46</td>
<td>33</td>
<td>99</td>
<td>133</td>
<td>128</td>
<td>181</td>
<td>135 (293.5%)</td>
</tr>
<tr>
<td>Wyong</td>
<td>Other Specialties</td>
<td>198</td>
<td>230</td>
<td>150</td>
<td>116</td>
<td>130</td>
<td>146</td>
<td>(52) (26.3%)</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>817</td>
<td>907</td>
<td>857</td>
<td>854</td>
<td>794</td>
<td>894</td>
<td>77 (9.4%)</td>
</tr>
<tr>
<td>Total Orthopaedic SRG</td>
<td></td>
<td>3,855</td>
<td>4,056</td>
<td>3,824</td>
<td>3,897</td>
<td>4,225</td>
<td>4,498</td>
<td>643 (16.7%)</td>
</tr>
<tr>
<td>% Ghosford</td>
<td></td>
<td>78.8%</td>
<td>77.6%</td>
<td>77.6%</td>
<td>78.1%</td>
<td>81.2%</td>
<td>80.1%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Paediatric Episodes</td>
<td></td>
<td>588</td>
<td>547</td>
<td>530</td>
<td>553</td>
<td>565</td>
<td>559</td>
<td>(29) (4.9%)</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

Future Service Configuration

Gosford Hospital will continue to provide orthopaedic services are at Level 5. Outpatient orthopaedic services (in addition to the current fracture clinic) with GP referral for assessment and management of public patients will be developed. This will require access to medical imaging and allied health services.
Wyong Hospital will move to provide services at Level 4 with an increased range of planned and emergency procedures including orthopaedic trauma surgery and fractured neck of femur and some paediatric surgery (closed reduction of fractures). Orthopaedic outpatient services, including referral for allied health, may be developed onsite.

Further development of a geriatric orthopaedic service will be required at both Gosford and Wyong hospitals as well as development of a metabolic bone service to be delivered in conjunction with other relevant services including geriatric medicine, rehabilitation and endocrinology services.

**Strategic Directions**

193. Expand orthopaedic surgical services at Wyong Hospital to include planned and emergency surgery and an increased range of procedures in particular orthopaedic trauma surgery (including fractured neck of femur).

194. Provide a comprehensive orthopaedic-geriatric model of care in conjunction with geriatric medicine and rehabilitation services at both Gosford and Wyong hospitals.

195. Provide a re-fracture prevention model in conjunction with endocrine and/or rheumatology services.

196. Develop orthopaedic outpatient services at Gosford and Wyong hospitals.

197. Provide selected paediatric orthopaedic procedures (closed reduction of fractures) at Wyong Hospital.

## 15.9 Ear, Nose & Throat/Otolaryngology/Head and Neck

### Current Services

Gosford provides services at role delineation Level 5 providing a range of procedural and non-procedural services encompassing the following specialties: Ear, Nose and Throat (ENT), Otolaryngology, and Head and Neck surgery. The service includes emergency and planned episodes of care for both adults and paediatrics. The service treats patients with a wide variety of conditions of the head and neck including surgical oncology treatment of the mouth, tongue, pharynx and larynx, hearing conditions, and sinus or other base of skull disease. Since the Cancer Centre opened in 2013 the demand for head and neck surgery has continued to increase.

Public outpatient services are provided at Gosford Hospital and audiology services are available at both Gosford and Wyong hospitals.

The ENT service is concentrated at Gosford Hospital with only a small volume of mainly non-procedural activity occurring at Wyong Hospital. Paediatric services including surgery are concentrated at Gosford Hospital.

### Activity

Table 57: Inpatient Episodes by SRG admitted to ENT/Head & Neck service 2010/11 – 2015/16

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT / Head and Neck Specialty Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gosford</td>
<td>ENT/Head &amp; Neck (SRG 48)</td>
<td>628</td>
<td>603</td>
<td>634</td>
<td>729</td>
<td>779</td>
<td>712</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>241</td>
<td>227</td>
<td>237</td>
<td>267</td>
<td>313</td>
<td>277</td>
<td>36</td>
</tr>
<tr>
<td>Wyong</td>
<td>ENT/Head &amp; Neck (SRG 48)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total ENT/Head &amp; Neck Specialty</td>
<td></td>
<td>869</td>
<td>830</td>
<td>871</td>
<td>996</td>
<td>1,092</td>
<td>989</td>
<td>120</td>
</tr>
<tr>
<td>Other Specialties – ENT/Head &amp; Neck SRG 48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wyong Hospital (exclude EDSSU)</td>
<td></td>
<td>49</td>
<td>39</td>
<td>45</td>
<td>47</td>
<td>52</td>
<td>56</td>
<td>7</td>
</tr>
<tr>
<td>ED SSU (Gosford &amp; Wyong)</td>
<td></td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>26</td>
<td>242</td>
<td>238</td>
<td>237</td>
</tr>
<tr>
<td>Maxillofacial Surgery</td>
<td></td>
<td>8</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>39</td>
<td>31</td>
</tr>
<tr>
<td>Other specialties</td>
<td></td>
<td>99</td>
<td>87</td>
<td>81</td>
<td>93</td>
<td>100</td>
<td>81</td>
<td>(18)</td>
</tr>
<tr>
<td>Total Other Specialties</td>
<td></td>
<td>157</td>
<td>135</td>
<td>130</td>
<td>174</td>
<td>403</td>
<td>414</td>
<td>257</td>
</tr>
<tr>
<td>Total ENT/Head &amp; Neck (SRG 48)</td>
<td></td>
<td>785</td>
<td>738</td>
<td>764</td>
<td>903</td>
<td>1,182</td>
<td>1,128</td>
<td>341</td>
</tr>
<tr>
<td>ENT Specialty</td>
<td></td>
<td>425</td>
<td>479</td>
<td>554</td>
<td>500</td>
<td>575</td>
<td>597</td>
<td>172</td>
</tr>
<tr>
<td>Other Specialties</td>
<td></td>
<td>208</td>
<td>198</td>
<td>189</td>
<td>257</td>
<td>281</td>
<td>296</td>
<td>88</td>
</tr>
<tr>
<td>Total Paediatrics</td>
<td></td>
<td>633</td>
<td>677</td>
<td>743</td>
<td>757</td>
<td>856</td>
<td>893</td>
<td>260</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection
Service Demand:

- In 2015/16 adult demand by residents of the Central Coast was 2,091 episodes. Of these 33.7% (704) were in hospitals within CCLHD, 59.9% (1,252) episodes were in private facilities and 6.5% (135) episodes were outflows to another LHD.
- Adult demand has increased by 10.6% (200) episodes since 2010/11. The percentage of episodes managed within CCLHD has decreased from 35.4% episodes, the percentage of episodes admitted to private facilities increased from 57.4% and the percentage outflows to other public hospitals decreased from 7.2%.
- Since 2010/11 paediatric demand has increased by 28.8% from 1,304 to 1,679 episodes. In 2015/16 32.6% (547) episodes were within CCLHD, 61.6% (1,034) episodes were in private facilities and 5.8% (98) episodes were in other LHDs. The percentage of episodes managed within CCLHD has remained stable from 32.1% episodes, the percentage of episodes admitted to private facilities increased from 56.4% episodes and the percentage outflows to other public hospitals decreased from 11.4%.

Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- 72% (712) adult episodes managed by the ENT and Head & Neck specialty are captured within the ENT and Head & Neck SRG (48). In 2015/16 there were 989 episodes admitted to the ENT and Head & Neck specialty, this was an increase of 13.8% from 2010/11 when the number of adult episodes was 869.
- 80.2% (712) of the total adult episodes (excluding ED SSU) for this SRG were admitted under the ENT and Head & Neck specialty. 39 (4.4%) episodes were admitted to the Maxillofacial specialty with the remaining episodes admitted to other clinical specialties.
- 66.9% (597) paediatric episodes for the SRG are admitted to the ENT specialty the remaining 32% (296) episodes are admitted to the Paediatric specialty.
- The number of adult episodes for the SRG has increased by 43.4% since 2010/11. The number of paediatric episodes has also increased by over 40%. Paediatric activity comprises 79.3% of total episodes (2,019).
- The number of bed days (excluding ED SSU activity) has increased for both adults and paediatrics. Adult bed days increased from 1,421 bed days to 1,670 (17.5%), bed days increased at Gosford while they decreased at Wyong. Bed days for paediatric episodes increased from 862 to 1,062 (23.2%).
- Same day episodes represented 19.7% (175) adult activity an increase from 18.8% (147) episodes in 2010/11; 26.4% (236) paediatric activity is same day this is a decline from 27% (171) in 2010/11.
- The average length of stay for overnight activity increased from 2.0 to 2.1 days for adults and declined from 1.5 to 1.3 days for paediatric cases.
- The percentage of unplanned/emergency episodes for adults has increased from 25.9% in 2010/11 to 46.6% in 2015/16, for paediatric episodes they have increased from 26.1% to 29.9%.

Future Service Configuration

Gosford Hospital will remain at role delineation Level 5; more complex ENT procedures will continue to be concentrated here. To support an expected continuing growth in demand an increase in the number of general ENT surgeons will be required including those with special interest in otology, rhinology, stapedectomy and head and neck surgery. Increased complexity in head and neck surgery including free-flap procedures will be undertaken in conjunction with the plastic and reconstructive surgery specialty. There will be a continuation of the public outpatient clinics, onsite audiology as well as an expanded range of services and procedures provided on an ambulatory and non-inpatient basis for both adults and paediatric patients.

Wyong Hospital will operate at role delineation Level 3 providing lower complexity ENT surgery for adults initially with the potential for provision of selected paediatric procedures in the future once paediatric services are expanded. Development of outpatient services and continued onsite access to audiology services will be required to support the expanded service.

Strategic Directions

198. Introduce a day only model of care for septoplasty, myringoplasty and paediatric tonsillectomy
199. Provide lower complexity adult and selected paediatric ENT surgical procedures at Wyong Hospital
200. Develop head and neck surgery including flap reconstruction procedures at Gosford Hospital in conjunction with the plastic and reconstructive surgery specialty.

201. Expand the range and volume of head and neck, rhinology, otology and other ENT procedures at Gosford Hospital.

202. Expand the range of services and procedures provided on an ambulatory and non-inpatient basis at both Gosford and Wyong hospitals.

15.10 Plastic and Reconstructive Surgery

Current Service

Gosford Hospital provides services at role delineation Level 5. Specialist plastic surgery is concentrated at Gosford Hospital. A range of plastic and reconstructive surgical procedures are provided by specialist plastic surgeons including microvascular tissue transfer, skin grafts, treatment of burns, free flap procedures and reconstructive surgery. Outpatient consultation occurs through a clinic conducted in the Specialist Centre.

Wyong Hospital does not provide a specialist plastic and reconstructive surgical service. Some plastic surgical procedures are undertaken by other surgical specialities.

Activity

- In 2015/16, 21.3% (141) episodes for the Plastic and Reconstructive Surgery SRG were admissions of the Plastic Surgery Specialty. This is an increase since 2010/11 when 19.2% (111) episodes were admissions of the specialty.
- The number of episodes managed by the Plastic Surgery specialty has increased by 27% (30 episodes) since 2010/11.
- It is also important to note that collectively 37.3% (247) episodes for this SRG were admissions to either Plastic Surgery (21.3%), Maxillofacial Specialty (8.3%) or ENT (7.7%). This has increased from 35.8% (207) episodes in 2010/11.
- 34.9% (230) episodes were admissions to the Surgery specialty 62% (145) of these were at Wyong Hospital where there is no specialist plastic surgery presence.
- 77.1% (141) episodes for the Plastic Surgery specialty are within the Plastic and Reconstructive Surgery SRG.

Table 58: Inpatient episodes by SRG admitted to the Plastic Surgery Specialty 2010/11 – 2015/16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic &amp; Reconstructive Surgery Specialty</td>
<td>Plastic &amp; Reconstructive SRG</td>
<td>111</td>
<td>104</td>
<td>126</td>
<td>105</td>
<td>124</td>
<td>141</td>
<td>30</td>
<td>27.0%</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>41</td>
<td>37</td>
<td>44</td>
<td>43</td>
<td>46</td>
<td>42</td>
<td>1</td>
<td>2.4%</td>
</tr>
<tr>
<td>Wyong</td>
<td>Plastic &amp; Reconstructive SRG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other SRGs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Plastic &amp; Reconstructive Specialty</td>
<td></td>
<td>152</td>
<td>142</td>
<td>170</td>
<td>148</td>
<td>170</td>
<td>183</td>
<td>31</td>
<td>20.4%</td>
</tr>
<tr>
<td>Other Specialties – Plastic &amp; Reconstructive Surgery SRG 51</td>
<td>Surgery</td>
<td>243</td>
<td>279</td>
<td>339</td>
<td>268</td>
<td>286</td>
<td>230</td>
<td>(13)</td>
<td>(5.4%)</td>
</tr>
<tr>
<td></td>
<td>Maxillofacial</td>
<td>23</td>
<td>27</td>
<td>21</td>
<td>37</td>
<td>37</td>
<td>55</td>
<td>32</td>
<td>139.1%</td>
</tr>
<tr>
<td></td>
<td>ENT</td>
<td>73</td>
<td>56</td>
<td>64</td>
<td>55</td>
<td>59</td>
<td>51</td>
<td>(22)</td>
<td>(30.1%)</td>
</tr>
<tr>
<td></td>
<td>Vascular</td>
<td>21</td>
<td>17</td>
<td>14</td>
<td>12</td>
<td>25</td>
<td>20</td>
<td>(1)</td>
<td>(4.8%)</td>
</tr>
<tr>
<td></td>
<td>Other Specialties</td>
<td>108</td>
<td>122</td>
<td>117</td>
<td>157</td>
<td>159</td>
<td>163</td>
<td>55</td>
<td>50.9%</td>
</tr>
<tr>
<td>Total Other Specialties</td>
<td></td>
<td>468</td>
<td>501</td>
<td>555</td>
<td>529</td>
<td>564</td>
<td>519</td>
<td>51</td>
<td>10.9%</td>
</tr>
<tr>
<td>Total Plastic &amp; Reconstructive (SRG 51)</td>
<td></td>
<td>579</td>
<td>605</td>
<td>681</td>
<td>634</td>
<td>688</td>
<td>660</td>
<td>81</td>
<td>14.0%</td>
</tr>
<tr>
<td>Paediatric Episodes (SRG 51)</td>
<td></td>
<td>47</td>
<td>43</td>
<td>40</td>
<td>50</td>
<td>43</td>
<td>58</td>
<td>31</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

Service Demand:

- In 2015/16 adult demand for residents of the Central Coast was 2,574 episodes. Of these 23.3% (601) episodes were within CCLHD, 63.6% (1,636) episodes were in private facilities and 13.1% (337) episodes were public outflows.
The resident demand has increased by 9.1% (214) episodes since 2010/11. The percentage managed within CCLHD has decreased from 23.9%, the percentage of episodes admitted to private facilities has decreased from 64.2% and the percentage of outflows to other public hospitals increased from 11.8%. The largest numbers of public outflows are to RNSH, RPAH and Concord Hospital.

Since 2010/11 Paediatric demand has remained stable at about 158 episodes with some small annual variations. In 2015/16, 34.8% (55) episodes were within CCLHD, 31.6% (50) episodes in private facilities and 33.5% (53) episodes in other public hospitals. Since 2010/11 the percentage managed within CCLHD has increased from 32.5%, the percentage managed in private facilities has decreased from 37.7% and the percentage outflows have increased from 29.9%.

Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- There were 1,663 bed days of these 81.1% (1,349) were overnight. The number of bed days has increased from 1,550 in 2010/11 when 79.2% (1,228) were overnight.
- 346 (52.4%) episodes were overnight an increase from 47.6% (314) in 2010/11.
- 48.7% adult and 36.2% paediatric episodes were same day this has declined from 58.8% for adults and 38.3% for paediatrics in 2010/11.
- 29.6% (195) of adult episodes were emergency episodes compared to 50% (29) paediatric episodes. The number of emergency episodes has increased from 20% adults and 48.9% paediatric episodes in 2010/11.

Within the SRG there are four ESRGs of these: Skin, Subcutaneous Tissues and Breast Procedures (ESRG 512) had the highest number of episodes (296) but not the highest bed days (706). Microvascular Tissue Transfer or Skin Grafts (ESRG 511) had 162 episodes and the highest number of bed days (706) (excludes ED SSU episodes).

**Table 59: Inpatient Episodes for Plastic & Reconstructive Surgery (SRG 51) by ESRG 2010/11 – 2015/16**

<table>
<thead>
<tr>
<th>Facility</th>
<th>ESRG</th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>Change</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford</td>
<td>511 Microvascular Tissue Transfer or Skin Grafts</td>
<td>120</td>
<td>107</td>
<td>137</td>
<td>108</td>
<td>133</td>
<td>132</td>
<td>12</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>512 Skin, Subcutaneous Tissue and Breast Proc</td>
<td>194</td>
<td>182</td>
<td>214</td>
<td>202</td>
<td>214</td>
<td>192</td>
<td>(2)</td>
<td>(1.0%)</td>
</tr>
<tr>
<td></td>
<td>513 Maxillo-Facial Surgery</td>
<td>83</td>
<td>107</td>
<td>84</td>
<td>120</td>
<td>94</td>
<td>115</td>
<td>32</td>
<td>38.6%</td>
</tr>
<tr>
<td></td>
<td>519 Other Plastic &amp; Reconstructive Surgery</td>
<td>32</td>
<td>35</td>
<td>39</td>
<td>27</td>
<td>44</td>
<td>38</td>
<td>6</td>
<td>18.8%</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>429</td>
<td>431</td>
<td>474</td>
<td>457</td>
<td>485</td>
<td>477</td>
<td>48</td>
<td>11.2%</td>
</tr>
<tr>
<td>Wyong</td>
<td>511 Microvascular Tissue Transfer or Skin Grafts</td>
<td>39</td>
<td>43</td>
<td>59</td>
<td>48</td>
<td>44</td>
<td>32</td>
<td>(7)</td>
<td>(17.9%)</td>
</tr>
<tr>
<td></td>
<td>512 Skin, Subcutaneous Tissue and Breast Proc</td>
<td>81</td>
<td>92</td>
<td>100</td>
<td>85</td>
<td>109</td>
<td>105</td>
<td>24</td>
<td>29.6%</td>
</tr>
<tr>
<td></td>
<td>513 Maxillo-Facial Surgery</td>
<td>8</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>18</td>
<td>19</td>
<td>11</td>
<td>137.5%</td>
</tr>
<tr>
<td></td>
<td>519 Other Plastic &amp; Reconstructive Surgery</td>
<td>22</td>
<td>27</td>
<td>38</td>
<td>31</td>
<td>34</td>
<td>27</td>
<td>5</td>
<td>22.7%</td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>150</td>
<td>174</td>
<td>207</td>
<td>174</td>
<td>205</td>
<td>183</td>
<td>33</td>
<td>22.0%</td>
</tr>
<tr>
<td>Total Plastic &amp; Reconstructive SRG</td>
<td></td>
<td>579</td>
<td>605</td>
<td>681</td>
<td>631</td>
<td>690</td>
<td>660</td>
<td>81</td>
<td>14.0%</td>
</tr>
<tr>
<td>Paediatric Episodes</td>
<td></td>
<td>47</td>
<td>43</td>
<td>40</td>
<td>50</td>
<td>43</td>
<td>58</td>
<td>11</td>
<td>23.4%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

**Future Service Configuration**

Gosford Hospital will remain as role delineation Level 5; specialist plastic and reconstructive services for CCLHD will continue to be concentrated at Gosford Hospital. Further development and enhancement is required to support the provision of a comprehensive service in response to increasing demand. This will include provision of a full after-hours roster, consultation service, as well as outpatient services.

The scope of service will include: reconstructive services for cancer surgery (melanoma, head & neck, breast, maxillofacial), limb and maxillofacial trauma reconstruction, planned procedures, and management of general plastics patients not requiring specialised multidisciplinary care e.g. lacerations in cosmetically sensitive areas, simple burns and areas of soft tissue loss.
Wyong Hospital will continue at its current role with limited plastic surgical procedures undertaken as part of routine treatment by other surgical specialties.

Appropriate links with relevant tertiary and statewide services (e.g. Statewide Burn Injury Service) will be maintained for advice, referral and education support.

**Strategic Directions**

203. Develop the specialist plastic and reconstructive service at Gosford Hospital to provide an increased scope of services to meet local public demand including an after-hours roster and regular outpatient clinics (including dressing clinic). This will include additional specialist staff, accredited registrar support, operating theatre access, and specialist equipment (operating microscope and instruments).

### 15.11 Maxillofacial Surgery

#### Current Services

Maxillofacial surgery is concentrated at Gosford Hospital. The service works closely with the Plastic and Reconstructive Surgery, ENT, Head & Neck specialties and also the Oral Health service.

#### Activity

When looking at inpatient activity Maxillofacial surgery is an ESRG of the Plastic and Reconstructive Surgery SRG (SRG 51).

| Table 60: Inpatient episodes by SRG admitted to the Maxillofacial Specialty 2010/11 – 2015/16 |
|---------------------------------------------------------------|---|---|---|---|---|---|---|
| Maxillofacial Specialty | | | | | | | |
| Gosford | Plastic & Reconstructive Surgery (SRG 51) | 23 | 27 | 21 | 34 | 37 | 55 | 32 | 139.1% |
| ENT/Head & Neck (SRG 48) | 8 | 6 | 2 | 8 | 9 | 39 | 31 | 387.5% |
| Dentistry (SRG 47) | 7 | 1 | 2 | 3 | 53 | 250 | 243 | - |
| Other SRGs | 8 | 7 | 6 | 8 | 21 | 38 | 30 | 375.0% |
| Total Maxillofacial Surgery Specialty | 46 | 43 | 31 | 53 | 120 | 382 | 336 | 370.4% |
| Other Specialties – Maxillofacial ESRG 513 | | | | | | | |
| Wyong Hospital | | 8 | 12 | 10 | 10 | 18 | 19 | 11 | 137.5% |
| Dental Surgery | | 27 | 47 | 39 | 49 | 13 | 16 | (11) | (40.7%) |
| ED SSU | | 7 | 1 | 4 | 16 | 20 | 20 | - |
| ENT | | 19 | 12 | 8 | 13 | 14 | 19 | (6) | (40.0%) |
| Total Maxillofacial ESRG 513 | 91 | 119 | 94 | 130 | 112 | 134 | 43 | 47.3% |
| Paediatric Episodes (ESRG 513) | 24 | 23 | 16 | 18 | 23 | 23 | (1) | (4.2%) |

**Source: CCLHD Inpatient Data Collection**

#### Service Demand:

- In 2015/16 adult demand for residents of the Central Coast was 118 episodes. Of these 29.7% (35) episodes were within CCLHD, 59.3% (70) episodes were in private facilities and 11.0% (13) episodes were outflows to other LHDs.
- The resident demand has increased by 16.8% (17) episodes since 2010/11. The percentage managed within CCLHD has decreased from 37.6%, the percentage of episodes admitted to private facilities has increased from 52.5% and the percentage of outflows to other LHDs increased from 9.9%.
- Paediatric demand has decreased from 9 to 4 episodes since 2010/11. In 2015/16 there were no episodes within CCLHD, there was 1 episode in a private facility and 3 outflows to other LHDs. The number of episodes within CCLHD does not correlate with the episodes captured in the CCLHD inpatient data collection.

#### Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- There were 382 adult episodes for the Maxillofacial Specialty of these 14.4% (55) episodes were for Maxillofacial Surgery (ESRG 513); 65.5% (250) episodes for Dental Extraction (ESRG 471); 5.8% (22) for Head
and Neck Surgery (ESRG 484) and 3.9% (15) episodes for Other Procedural ENT (ESRG 489) the remaining episodes were across a number of other ESRGs.

- Of the episodes for the Maxillofacial ESRG, 48.3% (55) were admitted to the Maxillofacial Specialty; 14% (16) to Dentistry and 7.9% (9) to the ENT Specialty, the remaining episodes were scattered across a range of other specialties.
- Of the 382 episodes admitted to the Maxillofacial Specialty (not the ESRG) 78.3% (299) were same day and 17% (65) were emergency/unplanned.
- For the ESRG there were 114 adult episodes (excludes ED SSU) this has increased by 25.3% (23 episodes) since 2010/11 when there were 91 episodes.
- 13.2% (15) episodes were same day this has not changed since 2010/11.
- 71.9% (82) episodes were unplanned/emergency which has increased from 60.4% (55) in 2010/11.
- For paediatric episodes there were no same day episodes and 78% (18) episodes were unplanned/emergency this is consistent with 2010/11.

Future Service Configuration

The service will remain concentrated at Gosford Hospital. Future enhancement of the services will be required to respond to the expected increasing demand for cancer related procedures and to increase the availability of this service within the LHD. For highly specialised and complex procedures it is expected that this will continue to be referred to appropriate specialist centres.

Strategic Directions

204. Provide a comprehensive service and range of procedures at Gosford Hospital to meet local demand including an after-hours service.

15.12 Paediatric Surgery – see also Child & Family Health Section

For more detailed information relating to paediatric services please refer to Child and Family Health Services (Chapter 16.3).

Future Service Configuration

Paediatric surgery will continue to be concentrated on the Gosford Hospital site where paediatrician expertise is available 24 hours per day to support sub-specialist surgeons in the management of children in the post-operative period. Wyong will develop its capacity to manage some minor procedures in selected children to reduce delays in treatment and avoid the need for transfer to Gosford Hospital.

The provision of more comprehensive planned surgery for children over 2 years and emergency surgery for over 12 year olds at Wyong Hospital is proposed by general and sub-speciality surgeons (with child-appropriate pre-and post-operative accommodation). Key infrastructure at Wyong Hospital will need to be configured to accommodate an increased role in paediatric surgery if required.

Strategic Directions

205. Define and agree patient profiles and minor surgical procedures that can safely be provided for paediatric patients at Wyong Hospital.

15.13 Thoracic Surgery

Current Service

There is currently no locally based public cardiothoracic service. Patients requiring cardiothoracic and/or thoracic surgical procedures are referred to tertiary centres in Sydney or access services in private facilities. Gosford Private Hospital provides cardiothoracic surgical services.
Activity

Table 61: Cardiothoracic Surgery Episodes for Central Coast residents 2010/11 – 2015/16 Age >15yrs (public & private demand)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>421 - Coronary Bypass</td>
<td>173</td>
<td>160</td>
<td>172</td>
<td>163</td>
<td>142</td>
<td>145</td>
<td>(28)</td>
<td>(16.2%)</td>
</tr>
<tr>
<td>429 – Other Cardiothoracic Surgery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Chest Procedures</td>
<td>120</td>
<td>134</td>
<td>134</td>
<td>144</td>
<td>131</td>
<td>148</td>
<td>28</td>
<td>23.3%</td>
</tr>
<tr>
<td>Cardiac Valve Procedures</td>
<td>114</td>
<td>93</td>
<td>120</td>
<td>118</td>
<td>96</td>
<td>113</td>
<td>(1)</td>
<td>(0.9%)</td>
</tr>
<tr>
<td>Cardiovascular Vascular Proc</td>
<td>9</td>
<td>12</td>
<td>16</td>
<td>14</td>
<td>13</td>
<td>18</td>
<td>9</td>
<td>100%</td>
</tr>
<tr>
<td>Other Cardiothoracic Proc</td>
<td>21</td>
<td>28</td>
<td>34</td>
<td>28</td>
<td>42</td>
<td>41</td>
<td>20</td>
<td>95.2%</td>
</tr>
<tr>
<td>Total Other Cardiothoracic Surgery</td>
<td>264</td>
<td>267</td>
<td>304</td>
<td>294</td>
<td>282</td>
<td>320</td>
<td>56</td>
<td>21.2%</td>
</tr>
<tr>
<td>Total</td>
<td>437</td>
<td>427</td>
<td>476</td>
<td>457</td>
<td>424</td>
<td>465</td>
<td>28</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

Source: NSW Health, FlowInfo v16.0

In 2015/16:
- 31.2% (145) episodes were Coronary Bypass (ESRG 421) and 68.8% (320) episodes for Other Cardiothoracic Surgery (ESRG 429). In 2010/11, 39.1% (173) episodes were for Coronary Bypass and 61% (264) for Other Cardiothoracic Surgery.
- The number of episodes for Coronary Bypass has declined by 16.2% (28) episodes since 2010/11 whereas the number of episodes for Other Cardiothoracic Surgery has increased by 18.5% (50) episodes.
- 40% (58) Coronary Bypass episodes were in Private Hospitals with the remaining 60% in other public hospitals. The majority of episodes were at RNSH (67.8% or 59 episodes) and 27.6% (24) episodes at St Vincent’s Hospital (SVH).
- 40.4% (158) episodes were in Private Hospitals. There were 22 (6.6%) within the LHD and outflows to other public hospitals accounted for 43.8% (140) episodes. Of the public outflows 71.4% (100) episodes were at RNSH and 13.6% (19) episodes at SVH.
- Major Chest Procedures accounted for 46.3% (148) episodes for the Other Cardiothoracic Surgery ESRG. The number of episodes has increased by 23.3% (28) episodes since 2010/11.

Future Service Configuration

Gosford Hospital will provide services at role delineation Level 5 providing thoracic surgical procedures only. The proposed thoracic surgical service would be for patients requiring non-complex, non-bypass lung and mediastinal procedures including video-assisted thoroscopic surgery (VATS), pleurodesis, mediastinoscopy and lobectomy. Patients requiring more complex procedures outside the proposed scope will continue to be referred to a tertiary centre or access the services privately.

The development of a thoracic surgical service at Gosford Hospital would support the Central Coast Cancer Centre, the Respiratory Service and would provide access to services for palliative procedures closer to home.

Strategic Directions

206. Develop a thoracic surgical service at Gosford Hospital capable of providing non-complex, non-bypass lung and mediastinal procedures.

207. Continue to provide cardiac surgery including coronary bypass through networked arrangements with tertiary centres.

15.14 Urology

Current Services

Gosford Hospital provides services at role delineation Level 5 providing a comprehensive range of emergency and elective urological procedures. Outpatient services and procedures including lithotripsy are provided onsite.

Wyong Hospital provides services at Level 3 providing a limited range and volume of urological procedures, predominantly planned episodes with a small number of emergency episodes. Outpatient services including
lithotripsy are available onsite. Presentations to Wyong Hospital ED requiring surgical intervention are transferred to Gosford Hospital.

Nurse led clinics including continence services are provided at Erina and Wyong Central Community Health Centres.

### Activity

#### Table 62: Inpatient Episodes by SRG admitted to the Urology Service 2010/11 – 2015/16 – Age >15 years

<table>
<thead>
<tr>
<th>Facility</th>
<th>SRG</th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>% Change</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urology Specialty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urology Specialty</td>
<td>Gosford</td>
<td>1,335</td>
<td>1,492</td>
<td>1,533</td>
<td>1,683</td>
<td>1,754</td>
<td>1,683</td>
<td>348</td>
<td>26.1%</td>
<td></td>
</tr>
<tr>
<td>Other SRGs</td>
<td></td>
<td>432</td>
<td>432</td>
<td>456</td>
<td>404</td>
<td>511</td>
<td>512</td>
<td>81</td>
<td>18.8%</td>
<td></td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>1,767</td>
<td>1,924</td>
<td>1,989</td>
<td>2,087</td>
<td>2,265</td>
<td>2,196</td>
<td>429</td>
<td>24.3%</td>
<td></td>
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<tr>
<td>Wyong</td>
<td>Urology Specialty</td>
<td>436</td>
<td>405</td>
<td>355</td>
<td>308</td>
<td>371</td>
<td>335</td>
<td>(101)</td>
<td>(23.2%)</td>
<td></td>
</tr>
<tr>
<td>Other SRGs</td>
<td></td>
<td>103</td>
<td>90</td>
<td>75</td>
<td>62</td>
<td>58</td>
<td>50</td>
<td>(53)</td>
<td>(51.5%)</td>
<td></td>
</tr>
<tr>
<td>Total Wyong</td>
<td></td>
<td>539</td>
<td>495</td>
<td>430</td>
<td>370</td>
<td>429</td>
<td>385</td>
<td>(154)</td>
<td>(28.6%)</td>
<td></td>
</tr>
<tr>
<td>Urology Service</td>
<td></td>
<td>2,306</td>
<td>2,419</td>
<td>2,419</td>
<td>2,457</td>
<td>2,694</td>
<td>2,581</td>
<td>275</td>
<td>11.9%</td>
<td></td>
</tr>
<tr>
<td>% Gosford</td>
<td></td>
<td>76.6%</td>
<td>79.3%</td>
<td>82.2%</td>
<td>84.9%</td>
<td>84.1%</td>
<td>85.1%</td>
<td></td>
<td></td>
<td>8.5%</td>
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<tr>
<td>Other Specialties</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ED SSU</td>
<td></td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>13</td>
<td>192</td>
<td>282</td>
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<td>Renal Medicine</td>
<td></td>
<td>4</td>
<td>40</td>
<td>42</td>
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<td>12</td>
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<td></td>
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<tr>
<td>Medicine (Wyong)</td>
<td></td>
<td>6</td>
<td>8</td>
<td>20</td>
<td>34</td>
<td>30</td>
<td>30</td>
<td>24</td>
<td>400%</td>
<td></td>
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<tr>
<td>Other specialties</td>
<td></td>
<td>122</td>
<td>110</td>
<td>116</td>
<td>114</td>
<td>117</td>
<td>114</td>
<td>(8)</td>
<td>(6.6%)</td>
<td></td>
</tr>
<tr>
<td>Total Other Specialties</td>
<td></td>
<td>170</td>
<td>160</td>
<td>181</td>
<td>220</td>
<td>385</td>
<td>478</td>
<td>308</td>
<td>181.2%</td>
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<tr>
<td>Urology Service</td>
<td></td>
<td>1,941</td>
<td>2,057</td>
<td>2,069</td>
<td>2,211</td>
<td>2,512</td>
<td>2,498</td>
<td>557</td>
<td>28.7%</td>
<td></td>
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<tr>
<td>Paediatric Episodes</td>
<td></td>
<td>92</td>
<td>82</td>
<td>83</td>
<td>84</td>
<td>78</td>
<td>60</td>
<td>(32)</td>
<td>(34.8%)</td>
<td></td>
</tr>
<tr>
<td>Urology Specialty</td>
<td></td>
<td>49</td>
<td>45</td>
<td>42</td>
<td>32</td>
<td>39</td>
<td>35</td>
<td>(14)</td>
<td>(28.6%)</td>
<td></td>
</tr>
<tr>
<td>Urology SRG</td>
<td></td>
<td>92</td>
<td>82</td>
<td>83</td>
<td>84</td>
<td>78</td>
<td>60</td>
<td>(32)</td>
<td>(34.8%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

#### Service Demand:

- In 2015/16 adult demand by residents of the Central Coast for the Urology SRG was 4,811 episodes. Of these 50.6% (2,432) were in hospitals within CCLHD, 45.3% (2,178) episodes were in private facilities and 4.2% (201) episodes were outflows to another LHD.
- Adult demand has increased by 10.7% (464) episodes since 2010/11. The percentage of episodes managed across the various hospital sectors has remained fairly stable since 2010/11 when 50.8% were within CCLHD, 44.9% in private facilities and 4.3% outflows to other LHDs.
- Since 2010/11 paediatric demand has decreased by 23.5% from 213 to 163 episodes. Of this 39.3% (64) episodes were within CCLHD, 17.2% (28) episodes were in private facilities and 43.6% (71) episodes were outflows to other LHDs. As with the adults the percentage of episodes managed across the three hospital groups has remained stable since 2010/11 when 39.9% were within the LHD, 17.4% in private facilities and 42.7% outflows to other public hospitals.

#### Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- 78.2% (2,018) episodes admitted to the Urology Specialty were from the Urology SRG. This has increased from 2010/11 when 76.8% (1,771) episodes were from the Urology SRG.
- 80.8% (2,018) episodes for the Urology SRG were admitted to the Urology Specialty. This has declined since 2010/11 when 91.2% episodes for the SRG were admitted to the Urology specialty.
- There were 5,066 bed days for the Urology SRG of these 71.8% (3,636) were overnight. The number of bed days has increased from 4,516 in 2010/11 when 77.7% (3,509) were overnight.
- 64.9% inpatient urology episodes are surgical/procedural – 61.4% episodes at Gosford Hospital and 85.2% at Wyong
- 85.1% of urology episodes were at Gosford Hospital this is an increase from 76.6% in 2010/11
- 56.6% (1,254) episodes were Same Day this has increased since 2010/11 when 52% (1,008) episodes were same day.
The Average Length of Stay was 3.3 days which is the same in 2010/11
32.4% (808) episodes were emergency/unplanned this is an increase from 22% (424) episodes in 2010/11
58.3% (35) Urology SRG episodes for paediatric patients were admitted to the Urology Specialty. This is an increase since 2010/11 when 53.3% were admitted to the Urology Specialty.

Future Service Configuration

Gosford Hospital will remain a Level 5 service. Facilities to conduct urodynamic studies will be available on completion of the current redevelopment.

Wyong Hospital will increase to a Level 4 service providing an increased volume and complexity of urological procedures including both planned and emergency procedures. There will be a mixture of same day, extended same day as well as patients requiring overnight admission. To achieve this registrar coverage supported by senior resident medical officer will be required. Expansion of the outpatient services will need to occur in response to the increased level of service.

Strategic Directions

208. Expand urology service, including same day, extended day only and overnight inpatient beds, at Wyong Hospital to increase the range, volume and complexity of planned and emergency procedures; increase self-sufficiency and reduce transfers to Gosford Hospital for non-tertiary procedures.

209. Expand outpatient urology services at both Gosford and Wyong hospitals with both medical and nurse-led clinics.

210. Establish renal calculi management pathway and reduce complications at Gosford and Wyong hospitals including routine scheduling for follow-up lithotripsy or alternative procedure within the benchmark time of 30 days post stent insertion.

211. Improve after-hours access to interventional radiology for nephrology procedures.

212. Enhance education support for nursing and medical staff across the LHD with a particular focus on Wyong Hospital as service complexity increases.

213. Expand community based urological services to additional locations across the LHD providing an increased range of nurse-led clinics and procedures including continence services. Consider the role of nurse practitioner to support this model.

15.15 Vascular Surgery

Current Services

Gosford Hospital provides services at role delineation Level 5 encompassing complex vascular surgical procedures and some endovascular procedures for both emergency and planned episodes.

Wyong Hospital provides services at role delineation Level 4 encompassing low to moderate complexity procedures for both emergency and planned episodes. Procedures include wound debridement, some limb amputations, formation and repair of arteriovenous fistulas and surgery for varicose vein. There is a high-risk foot clinic onsite.

Vascular diagnostic services are accessed privately.

Vascular surgery has clinical relationships with a large range of clinical services; key among these are renal medicine, diabetes, cardiology, neurology and stroke, and trauma services.

Activity

Service Demand:

In 2015/16 adult demand by Central Coast residents for the Vascular Surgery SRG was 1,533 episodes. Of these 51.9% (795) episodes were in hospitals within CCLHD, 42.1% (645) episodes were in private facilities and 6.1% (93) episodes were outflows to another LHD.
Adult demand has increased by 9.5% (133) episodes since 2010/11. The percentage of episodes managed within CCLHD has decreased from 54.9%, the percentage admitted to private facilities has increased from 39.6% and the percentage of outflows to other LHDs has increased from 5.4%.

Service Supply – Central Coast LHD activity (includes inflows):
In 2015/16:
- 70.4% (702) episodes admitted to the Vascular Surgery Specialty were from the Vascular Surgery SRG. This has decreased from 2010/11 when 71.4% (623) episodes were from the Vascular Surgery SRG.
- 80.7% (702) episodes for the Vascular SRG were admitted to the Vascular Surgery Specialty. This has increased from 2010/11 when 74.6% (623) episodes for the SRG were admitted to the Vascular Surgery Specialty.
- There were 5,545 bed days for the Vascular Surgery SRG of these 95.8% (5,310) were overnight. The number of bed days has decreased from 6,384 in 2010/11 when 97.8% (6,245) were overnight.
- The volume of episodes has increased at Wyong Hospital and now represents about 48% of the total episodes admitted to the Vascular Surgery Specialty however complex procedures and cases are managed at Gosford Hospital.
- The Average Length of Stay for the Vascular Surgery SRG has decreased from 9.0 days in 2010/11 to 8.4 days in 2015/16.
- 25.6% episodes were Same Day this has increased since 2010/11 when 20.0% were Same Day.
- 40.6% episodes were emergency/unplanned this has increased since 2010/11 when 38.6% episodes were emergency/unplanned.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular Specialty Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gosford</td>
<td>Vascular SRG 53</td>
<td>426</td>
<td>432</td>
<td>377</td>
<td>371</td>
<td>359</td>
<td>383</td>
<td>(43) (10.1%)</td>
<td>64.3%</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>135</td>
<td>110</td>
<td>109</td>
<td>104</td>
<td>139</td>
<td>134</td>
<td>(1) (0.7%)</td>
<td>59.8%</td>
</tr>
<tr>
<td>Total Gosford</td>
<td></td>
<td>561</td>
<td>542</td>
<td>486</td>
<td>475</td>
<td>498</td>
<td>517</td>
<td>(44) (7.8%)</td>
<td>58.1%</td>
</tr>
<tr>
<td>Wyong</td>
<td>Vascular SRG 53</td>
<td>197</td>
<td>243</td>
<td>253</td>
<td>290</td>
<td>321</td>
<td>319</td>
<td>122 (61.9%)</td>
<td>53.4%</td>
</tr>
<tr>
<td></td>
<td>Other SRGs</td>
<td>115</td>
<td>122</td>
<td>98</td>
<td>124</td>
<td>134</td>
<td>161</td>
<td>46 (40%)</td>
<td>58%</td>
</tr>
<tr>
<td>Total Wyong</td>
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<td>312</td>
<td>365</td>
<td>351</td>
<td>414</td>
<td>455</td>
<td>480</td>
<td>168 (53.8%)</td>
<td>48.8%</td>
</tr>
<tr>
<td>Total Vascular Surgery Service</td>
<td></td>
<td>873</td>
<td>907</td>
<td>837</td>
<td>889</td>
<td>953</td>
<td>997</td>
<td>124 (14.2%)</td>
<td>53.4%</td>
</tr>
<tr>
<td>% Gosford</td>
<td></td>
<td>64.3%</td>
<td>59.8%</td>
<td>58.1%</td>
<td>53.4%</td>
<td>52.3%</td>
<td>51.9%</td>
<td>(12.4%)</td>
<td>56.8%</td>
</tr>
<tr>
<td>Other Specialties – Vascular Surgery SRG 53</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td></td>
<td>37</td>
<td>43</td>
<td>58</td>
<td>59</td>
<td>29</td>
<td>32</td>
<td>(5) (13.5%)</td>
<td>58.1%</td>
</tr>
<tr>
<td>Renal Medicine</td>
<td></td>
<td>43</td>
<td>23</td>
<td>40</td>
<td>30</td>
<td>19</td>
<td>20</td>
<td>(23) (53.5%)</td>
<td>53.4%</td>
</tr>
<tr>
<td>Medicine (Wyong)</td>
<td></td>
<td>6</td>
<td>9</td>
<td>37</td>
<td>18</td>
<td>26</td>
<td>22</td>
<td>18 (300%)</td>
<td>52.3%</td>
</tr>
<tr>
<td>Other Specialties</td>
<td></td>
<td>126</td>
<td>97</td>
<td>111</td>
<td>90</td>
<td>91</td>
<td>94</td>
<td>(32) (25.4%)</td>
<td>51.9%</td>
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<td>Total Other Specialties</td>
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<td>212</td>
<td>172</td>
<td>246</td>
<td>197</td>
<td>165</td>
<td>168</td>
<td>(44) (20.8%)</td>
<td>58%</td>
</tr>
<tr>
<td>Total Vascular Surgery SRG 53</td>
<td></td>
<td>835</td>
<td>847</td>
<td>876</td>
<td>858</td>
<td>845</td>
<td>870</td>
<td>35 (4.2%)</td>
<td>58%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

Future Service Configuration

Gosford Hospital will continue to provide services at role delineation Level 5. High end vascular surgery (open aortic and complex endovascular procedures) will be concentrated at Gosford Hospital. There will be increased interventional and endovascular surgical procedures following completion of the redevelopment and opening of the integrated imaging operating room. There will be an increased range of interventional and endovascular procedures undertaken on a non-inpatient basis. The service will be supported by outpatient consultation and clinics.

Wyong Hospital will continue to provide services at role delineation Level 4 with the capacity to perform mid-range vascular procedures on both an elective and emergency basis reducing patient transfer to Gosford Hospital for these procedures. Selected lower complexity endovascular procedures may be undertaken in the future. An ongoing inpatient and outpatient consultative service is also required.

A public vascular laboratory to undertake vascular specific diagnostic services will be required to support the expanding LHD service into the future. Currently these services are accessed privately.
Strategic Directions

214. Expanded the range and complexity of minimally invasive and endovascular procedures at Gosford Hospital.
215. Develop and expand services at Wyong Hospital to include inpatient and outpatient consultation as well as provision of lower complexity emergency and planned procedures.
216. Develop a public vascular laboratory able to provide a range of diagnostic procedures including venous and arterial Doppler studies.
217. Continue to provide renal vascular procedures to support renal dialysis patients at both Gosford and Wyong hospitals.
218. Develop a high-risk foot service at Gosford Hospital.
16 Child and Family Health Services

16.1 Maternity

Current Services

Gosford Hospital provides services at role delineation Level 5 catering for women across all risk profiles. The service includes a 28 bed inpatient unit, 4 antenatal day assessment beds, and 8 birthing rooms for labour and delivery. Elective and emergency caesarean deliveries are managed in the main operating theatre suite. There are both obstetrician-led and midwife-led birthing models available. A GP antenatal shared care model is in place for women with low to normal risk pregnancies.

Wyong Hospital provides services at role delineation Level 2 providing a midwife-led birthing service for women with normal or low risk pregnancies and births. There are three birthing rooms available. Women with higher levels of risk during pregnancy or delivery are referred to Gosford Hospital.

An Early Pregnancy Assessment Service (EPAS) is based at Gosford Hospital providing outpatient assessment and ongoing management for women with threatened miscarriage prior to 20 weeks gestation or with ectopic and molar pregnancies.

A range of antenatal and postnatal outpatient and community-based services are available:

- Midwife-led antenatal care is provided through outpatient clinics at Gosford and Wyong Hospitals with satellite clinics at Erina, Wyong Central and Woy Woy community health centres
- Obstetric-led clinics for high risk pregnancies are provided at Gosford Hospital and as outreach to Wyong Hospital, with the exception of gestational diabetes where a clinic is only provided at Gosford Hospital
- Pregnancy and Early Parenting Education (PEPE) program is provided in community health centres at Erina and Wyong Hospital
- Postnatal clinics are provided at Gosford and Wyong hospitals
- Home-based postnatal follow-up is provided through the Midwifery Support Program for the first 5 days followed by the Child & Family health Universal Home Visiting program up until day 14 post delivery
- Women are routinely referred to the Early Childhood Health Service on discharge for ongoing support in the care and development of their baby. Women may also require the support of other services including the Safe Start program for vulnerable or at-risk families, perinatal mental health, and/or drug and alcohol services
- About 10-15% of women experience perinatal depression (PND). Most women with mild to moderate PND are managed in the community with a combination of perinatal mental health services and General Practice.

Women requiring tertiary level maternity and/or neonatal services are referred to a Level 6 service (maternity with Level 5/6 neonatal service) outside the LHD.

Gynaecology Services

Gynaecology services are provided predominantly (80% of episodes) in Gosford Hospital’s Surgical Assessment Centre (GSAC). Gynaecology services are covered in the Surgical Services chapter 17 section 17.6.

Activity

Service Demand:

- In 2015/16 there were 3,839 deliveries for Central Coast residents of these 73.8% (2,835) were at Gosford or Wyong hospitals, 21.8% (835) in private hospitals, 4.4% (169) in other public hospitals. The number of deliveries for Central Coast residents has decreased by 70 (1.8%) since 2010/11 however the numbers of deliveries in CCLHD facilities has increased by 6.1% (164). The number of deliveries in private facilities has decreased by 10% (93) and deliveries in other public facilities have decreased by 45.5% (141) over the same period.
- Using aM2012 it is projected that Central Coast resident demand will increase by 857 to 4,632 deliveries by 2027 with 3,244 deliveries at Gosford and Wyong hospitals, 1,074 at private hospitals and 396 at other public hospitals.
Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

❖ There were 4,135 inpatient episodes for the Obstetrics SRG; of these 3,924 were at Gosford and 211 at Wyong Hospital
❖ Antenatal admissions represented 26.7% of maternity inpatient episodes, 53% of these episodes were same day. There were 847 overnight bed days with an average length of stay of 1.7 days
❖ 70.4% (2,911) inpatient episodes were for delivery. Of these 2,145 were vaginal deliveries and 766 caesarean deliveries.

❖ 8.2% (165 episodes) vaginal deliveries at Gosford Hospital and 70% (109) at Wyong Hospital were same day admissions. Vaginal deliveries utilised 4,272 overnight bed days at Gosford Hospital with an average length of stay 2.3 days whereas at Wyong Hospital there were 34 overnight bed days and an average length of stay of 1.0 day.
❖ 26.3% (766) deliveries were caesarean deliveries. This is a decrease from 31.6% (869) in 2010/11. The average length of stay was 3.6 days.

❖ The number of postnatal inpatient episodes increased by 23.4% (30 episodes) between 2010/11 and 2014/15 before decreasing by 24.1% (38 episodes) in 2015/16. In 2015/16 postnatal episodes accounted for 191 bed days with an average length of stay of 2.0 days at Gosford Hospital and 1.3 days at Wyong Hospital.
❖ In 2015/16 - 51.1% (1,488) deliveries were for Wyong residents, 45.2% (1,317) Gosford residents, 2.1% (60) Lake Macquarie residents and 1.6% (46) residents from other areas.

Table 64: Maternity Episodes (Obstetric SRG 72) 2010/11 – 2015/16

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>721-Antenatal</td>
<td>Gosford</td>
<td>1,595</td>
<td>1,628</td>
<td>1,639</td>
<td>1,448</td>
<td>1,329</td>
<td>1,040</td>
<td>(555) (34.8%)</td>
</tr>
<tr>
<td></td>
<td>Wyong</td>
<td>40</td>
<td>31</td>
<td>40</td>
<td>64</td>
<td>50</td>
<td>64</td>
<td>24 (60.0%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,635</td>
<td>1,659</td>
<td>1,679</td>
<td>1,512</td>
<td>1,379</td>
<td>1,104</td>
<td>(531) (32.5%)</td>
</tr>
<tr>
<td>722-Vaginal Delivery</td>
<td>Gosford</td>
<td>1,712</td>
<td>1,694</td>
<td>1,729</td>
<td>1,870</td>
<td>1,883</td>
<td>2,002</td>
<td>290 (16.9%)</td>
</tr>
<tr>
<td></td>
<td>Wyong</td>
<td>166</td>
<td>176</td>
<td>149</td>
<td>160</td>
<td>144</td>
<td>143</td>
<td>(23) (13.9%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,878</td>
<td>1,870</td>
<td>1,878</td>
<td>2,030</td>
<td>2,027</td>
<td>2,145</td>
<td>267 (14.2%)</td>
</tr>
<tr>
<td>723-Caesarean</td>
<td>Planned</td>
<td>791</td>
<td>780</td>
<td>733</td>
<td>723</td>
<td>767</td>
<td>715</td>
<td>(76) (9.6%)</td>
</tr>
<tr>
<td></td>
<td>Emergency</td>
<td>78</td>
<td>45</td>
<td>32</td>
<td>52</td>
<td>50</td>
<td>51</td>
<td>(27) (34.6%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>869</td>
<td>825</td>
<td>765</td>
<td>817</td>
<td>817</td>
<td>766</td>
<td>(103) (11.9%)</td>
</tr>
<tr>
<td>724 Postnatal</td>
<td>Gosford</td>
<td>123</td>
<td>145</td>
<td>122</td>
<td>150</td>
<td>153</td>
<td>116</td>
<td>(7) (5.7%)</td>
</tr>
<tr>
<td></td>
<td>Wyong</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>(1) (20.0%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>128</td>
<td>149</td>
<td>129</td>
<td>159</td>
<td>158</td>
<td>120</td>
<td>(8) (6.3%)</td>
</tr>
<tr>
<td>Obstetrics Total</td>
<td></td>
<td>4,510</td>
<td>4,503</td>
<td>4,451</td>
<td>4,476</td>
<td>4,381</td>
<td>4,135</td>
<td>(375) (8.3%)</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

Future Service Configuration

Maternity services will continue to be closely linked across Gosford and Wyong hospitals with Gosford remaining as the principal referral hospital for the LHD. Women requiring tertiary level maternity and/or neonatal services will continue to be referred out of the LHD to a Level 6 maternity service with Level 5/6 neonatal service.

Gosford Hospital will continue as a Level 5 service providing maternity services across all risk profiles. On completion of the redevelopment there will be 36 inpatient beds including 2 high observation beds, 10 birthing rooms and 4 antenatal day assessment beds.

Services at Wyong Hospital will be developed to role delineation Level 4, able to manage women with moderate risk pregnancies, and planned and emergency caesarean deliveries. Inpatient antenatal and postnatal beds will be available and the service will be supported by a Level 3 nursery. Obstetrician-led and midwifery-led models will be provided. There will be additional antenatal and postnatal services including clinics for high risk pregnancies and gestational diabetes, and EPAS. As part of the enhancement there will be an expanded range and volume of gynaecological procedures.
Strategic Directions

219. Provide a Level 4 maternity service at Wyong Hospital including inpatient antenatal and postnatal care, emergency and planned caesarean deliveries, and obstetrician- and midwifery-led models of care.

220. Provide an increased range of outpatient services for high-risk pregnancies and gestational diabetes at Wyong Hospital.

221. Provide an Early Pregnancy Assessment Service (EPAS) at Wyong Hospital.

222. Increase the number of GPs participating in the antenatal shared care model and extend the model to the Wyong area.

223. Increase the range of uro-gynaecology procedures undertaken at Wyong Hospital.

224. Develop a local program to better support women with perinatal mental health in the community in conjunction with the Mental Health Service.

225. Develop specialised public obstetric medical imaging services including ultrasonography, amniocentesis and chorionic villus sampling.

16.2 Neonatal Services

Current Services

Neonatal services are provided for newborns at Gosford Hospital with follow-up for well babies at a number of community sites across the LHD as well as through the universal home health visiting program.

Gosford Hospital provides neonatal services at role delineation Level 4 encompassing services for well babies (unqualified neonates) who ‘room in’ with their mother in the maternity inpatient unit, and a Special Care Nursery (SCN). The SCN manages short-term complex care for newborns with a gestational age of 32 weeks or greater who require additional support due to prematurity, low birth weight or other problem, and step down care for neonates returning from a Neonatal Intensive Care Unit (NICU). The SCN has 12 cots and provides cardio-respiratory monitoring, IV fluid therapy, tube feeds, phototherapy, continuous positive airway pressure (CPAP) and short-term assisted ventilation while awaiting transfer to a NICU.

Wyong Hospital provides neonatal services at Level 1 caring for well babies greater than 37 weeks gestation. Neonates requiring higher level care are transferred to the SCN at Gosford Hospital or a NICU located in another LHD.

Activity

In 2015/16 there were 1,016 qualified neonate (unwell babies) episodes, an increase of 33.7% since 2010/11 when there were 760 episodes. 4,927 bed days were utilised which is equivalent to 14 cots. 94% of episodes were overnight and the average length of stay was 5.1 days.

Future Service Configuration

Gosford Hospital will continue to provide services at role delineation Level 4. The SCN will have 20 cots (10 low dependency and 10 high dependency), resuscitation bay, and facilities for mothers to stay. It is expected that in the future the service will be required to manage neonates with lower gestational age, who are more unwell, and accept back transferred babies earlier as demand pressure on NICUs increases.

Wyong Hospital will have a Level 3 neonatal service (nursery) with 24 hour staffing to provide support for the Level 4 maternity service including provision of immediate care for neonates of 34 weeks gestation. Neonates requiring higher level care will continue to be transferred to the SCN at Gosford Hospital or a NICU located in another LHD.

Strategic Directions

226. Develop a Level 3 neonatal service at Wyong Hospital including access to paediatricians with on-call, registrar coverage, experienced nursing staff and access to Allied Health staff.
16.3 Paediatric Medicine and Surgery

Current Services

Gosford Hospital provides services for infants, children and adolescents up to the age of 16 years at role delineation Level 4. The service is provided through:

- 28 bed inpatient unit for same day or overnight medical and surgical care, which includes a 4-bed high observation unit (HOB), and designated adolescent beds with a lounge area
- Paediatric acute review clinic (PARC) and short term observation and treatment area (LOS < 4 hours) (accommodated within the built capacity of the inpatient unit)
- Outpatient clinics
- Children requiring admission with mental health issues are managed short-term in the inpatient unit.
- Children and youth requiring inpatient management for eating disorders are managed in the inpatient unit at Gosford pending transfer to a tertiary facility.

Wyong Hospital provides non-inpatient services for infants, children and adolescents up to the age of 16 years at role delineation Level 2. The ambulatory based service is provided through:

- Paediatric Ambulatory Unit (PAU), an alternative for inpatient management, provides daily acute review clinics, observation short stay beds, outreach home visiting/hospital in the home and telephone support; Ambulatory based treatments including infusion therapies and dressings
- Other services include: sub-acute and chronic care services as well as a range of outpatient clinics both doctor and nurse-led clinics.
- Children requiring inpatient management or surgical procedures are either transferred or referred to Gosford Hospital.

There are several shared-care services (burns and oncology/chemotherapy) which operate in conjunction with the specialist children’s hospitals and children requiring higher levels of care are referred to those hospitals.

Both Gosford and Wyong hospital emergency departments have beds/areas for paediatric patient assessment and treatment.

Activity

Service Demand:

- In 2015/16 Central Coast resident demand for inpatient paediatric care (excludes newborn care) was 7,729 episodes, a 16.3% (1,085) increase since 2010/11. 54.7% (4,227) episodes were in CCLHD hospitals, 23.1% (1,784) in private hospitals, and 22.2% (1,718) in other public hospitals. Since 2010/11 LHD activity increased by 19.6% (692) episodes, private activity increased by 20.4% (302) and public outflows increased by 5.6% (91) episodes. About 80% (1,386) episodes in other public hospitals were in the three specialist children’s hospitals.

Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- The number of ED presentations has increased at both Gosford and Wyong EDs since 2010/11.
- Triage categories – over 87% of presentations were categorised as triage 3 and 4 at both Gosford and Wyong EDs; 9.6% presentations at Gosford ED and 5.7% at Wyong ED were categorised as triage 1 and 2; 2.2% presentations at Gosford ED and 7.2% at Wyong ED were categorised as triage 5.
- Children under 4 years account for 50.1% (7,189) of presentations at Gosford ED and 43.2% (6,036) at Wyong ED
- 61.8% of inpatient episodes were for medicine, 23.8% for surgery, and 14.4% were admitted and discharged from ED (ED only). Over 85% of ED only episodes were at Wyong Hospital reflecting the absence of inpatient options onsite.
- The most frequent SRGs for admitted episodes were Respiratory Medicine with 19.8% (1,035) episodes, ENT 18.0% (941) episodes and Orthopaedics with 11.8% (616) episodes
Over 70% (3,683) of inpatient episodes were emergency/unplanned admission. This was highest for medicine where 78.6% (2,542) were emergency episodes, an increase from 69.9% (1,849) in 2010/11. For surgery 31% (387) were emergency episodes, a decrease from 32.5% (345 episodes) in 2010/11.

- 5.5% (287) episodes had a length of stay over 72 hours while over 73.7% (3,862) inpatient episodes had a length of stay less than 24 hours (28.6% or 1,501 same day episodes, and 45.1% or 2,361 overnight episodes).
- For surgical episodes 80.5% (1,004) had a length of stay < 24 hours (35% or 435 same day episodes, and 45.6% or 569 overnight episodes)
- For medical episodes 65% (2,103) have a length of stay < 24 hours (18% or 580 same day episodes, and 47% or 1,523 overnight episodes).

- 49.5% (2,597) inpatient episodes were residents of Wyong LGA, 42.2% (2,209) residents of Gosford, 3.8% (200) residents of Lake Macquarie and 4.5% (234) from other areas.

**Table 65: Paediatric ED Presentations 2010/11 – 2015/16 age <16 years**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosford</td>
<td>11,815</td>
<td>12,171</td>
<td>12,606</td>
<td>12,888</td>
<td>13,185</td>
<td>14,351</td>
<td>2,536 21.5%</td>
</tr>
<tr>
<td>Wyong</td>
<td>12,083</td>
<td>12,820</td>
<td>13,211</td>
<td>12,701</td>
<td>12,797</td>
<td>13,961</td>
<td>1,878 15.5%</td>
</tr>
<tr>
<td>Total</td>
<td>23,898</td>
<td>24,991</td>
<td>25,817</td>
<td>25,589</td>
<td>25,985</td>
<td>28,312</td>
<td>4,414 18.5%</td>
</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

**Future Service Configuration**

Gosford Hospital will continue as a Level 4 service and as the referral site within CCLHD for the more acute and higher complexity medicine and surgical paediatric patients. On completion of the redevelopment within the ED there will be a separate paediatric pod which will include Fast Track and acute treatment beds. There will be continued development of the PARC model toward an ambulatory care service similar to Wyong PAU, with a 10 bay ambulatory service/short stay area co-located with a 28 bed inpatient unit.

Wyong Hospital will provide a Level 3 paediatric service which will include inpatient short stay (up to 48 hours) medical and surgical care for children aged 2 years or over. The short stay surgical service will be for selected planned and emergency procedures. Children requiring a higher level of care or more complex surgical procedures will continue to be referred to Gosford Hospital or a tertiary children’s hospital if required. The dominant model will continue to be the PAU supporting ambulatory management of children including the current range of services - daily acute review clinics, observation short stay beds, ambulatory treatment, outreach home visiting/hospital in the home, outpatient clinics and telephone support. A 10 bay (increasing to 14 bays by 2027) space located in close proximity to the ED has been identified for this service as part of Wyong Hospital redevelopment.

**Table 67: Current and Future Paediatric Services Role Delineation**

<table>
<thead>
<tr>
<th></th>
<th>Gosford</th>
<th>Wyong</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/17</td>
<td>2021/22</td>
<td>2026/27</td>
</tr>
<tr>
<td>Paediatric Medicine</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Surgery for Children</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>
Strategic Directions

227. Develop the Wyong PAU ambulatory care model so that the majority of care and treatment for children can be provided on an ambulatory basis at both Gosford and Wyong hospitals.
228. Provide short stay (up to 48 hours) inpatient, non-complex, medical and surgical care for children aged over 2 years at Wyong Hospital.
229. Provide selected planned and emergency surgical procedures for children aged 2 years or over at Wyong Hospital; this may include: closed fracture reduction, minor surgical procedures, torsion of testes, appendicectomy (aged 12 years and older) and potentially selected ENT procedures.
230. Develop a suitable model for the management of children and young people with mental health issues requiring short-term inpatient care in conjunction with the Mental Health Service.

16.4 Child and Family Health

Current Services

Child and family health services are provided as outreach and community based services in community centres across the LHD. The overall service meets role delineation Level 4; individual services include:

- Early Childhood Service – provided in community health centres across 9 sites
- Family Assessment Consultation, Education and Therapy Services (FACETS) – across 7 sites
- Child Developmental Assessment
- Aboriginal Maternal and Infant Health Service
- Building Strong Foundations
- Family Care Cottage – 2 sites in Gosford (Gateway) and onsite at Wyong Hospital
- Allied Health clinics – occupational therapy, speech pathology, physiotherapy and social work
- Immunisation clinics
- Pre-schooler eyesight screening
- Hearing screening
- Sustaining NSW Families program.

Strategic Directions

231. Develop and expand services to accommodate increasing demand and complexity.
232. Improve links and integration with other related services to reduce service gaps and overlap, including: paediatric services, youth health, the Primary Health Network, Aboriginal services, mental health, and drug and alcohol services in the management of increasingly complex case presentations.

16.5 Child Protection Services

Current Services

Child Protection services are provided as a single service across CCLHD at role delineation Level 3. Managed through the Social Work Department the following services are provided:

- Child Protection Counselling Service provides intensive family counselling for high risk children and families referred by Community Services. The service operates from a base at Erina CHC and provides outreach to Wyong Hospital and home visits as required.
- Child Protection Liaison Social Work operates at both Gosford and Wyong hospitals and provides an acute inpatient consultancy service for high risk child protection presentations and case management for children who are already clients of Community Services
- The Joint Investigative Response Team (JIRT) is based at The Entrance and the Social Work Health Clinicians (2) are co-located with Police and Community Services partners
- The social work department 24 hour on call to both Wyong and Gosford emergency departments, the service includes child protection referrals and is staffed by a wide cross section of LHD social work staff. The
Information Exchange service is located in the Central Coast Multi Agency Response Centre. This provides collaboration with multi agency partners in responding to the safety of individual children at risk of harm.

- The Whole of Family Team provides a six month intensive family support and counselling service to adults with drug and alcohol and/or mental health issues and children in their care at risk of significant harm. The service is a funded program through to 30 June 2018. The service is located at the Gateway building in Gosford.
- The Out of Home Care Program (OOHC) coordinates the health assessments for children and young people entering OOHC and liaises with NGO OOHC providers, Community Services, GP’s and various health practitioners.

**Strategic Direction:**

233. Engage a child protection paediatrician to support the service including the forensic requirements.
235. Enhance support for the Health Clinicians in the JIRT.

## 16.6 Youth Health Service

### Current Services

The Youth Health Service operates from a hub located at Wyong Central with outreach to other CHCs, youth centres, schools and other youth-focused agencies. The service focuses on marginalised and at risk young people aged 12-24 years, in particular those who are Aboriginal, homeless, have mild disabilities, are living with chronic disease, have unplanned pregnancies, are same-sex-attracted and/or are socially isolated. Referrals are not required to access the service.

This is a community-based LHD wide service and meets role delineation Level 4 with inpatient beds, if required, located at Gosford Hospital.

The components of the service are:

- GP and Registered Nurse Youth Health Clinic at Wyong Central CHC
- Youth Health clinics at Lake Munmorah, Kincumber and San Remo
- Aboriginal Youth Health Worker based at Wyong
- Intake and advice line
- Counselling and Allied Health services operating from a number of CHCs
- Liaison with the Emergency Departments and services
- Health promotion and capacity building through Outreach Social Worker and Aboriginal Youth Worker
- Chronic Illness Peer Support (ChIPS) program for young people aged 12-24 years living with a chronic illness or physical condition
- Seasons for Growth a support program for young people 12 – 24 years who have experienced significant loss in their lives.

### Strategic Directions

236. Develop new ways for Youth Health to provide a more effective service through working with parents and carers, such as Tuning into Teens, reinforcing the therapy provided by Allied Health staff, with possible outcomes such as reduced length of stay and more sustained change.
237. Incorporate co-design into service development and build young people’s capacity through peer education, adapting and modifying existing group and health education programs such as Standing Strong, CHIPS, Seasons for Growth and sexual and reproductive health outreach into a peer leadership framework, adapting SHAPE (Sexual Health and Peer Educators) onto local programs. This also brings in aspects of co-design and engaging young people as community consultants.
238. Improve young people’s access to health care through collaboration and partnerships with other health service providers.

239. Establish a staff specialist position in Adolescent Medicine.

240. Develop and implement additional strategies to target marginalised groups in the community in partnership with internal and external service providers.
Mental Health Services

17 Mental Health Services

Mental health services are provided as an LHD wide service and include acute inpatient services and community-based services. Services are provided across three streams:

- Child and Youth Mental Health
- Adult services
- Specialist Mental Health Services for Older People (SMHSOP)

There are 84 acute inpatient mental health beds located at Gosford (30 beds) and Wyong (35 beds) hospitals and a four bed Psychiatric Emergency Care Centre (PECC) co-located with the ED at Wyong Hospital. A 15 bed acute older persons (SMHSOP) unit is located at Wyong Hospital (Miri Miri). The mental health executive is located at Wyong Hospital.

Mental Health Intensive Care (MHICU), sub-acute, non-acute and very long stay beds are accessed through Northern Sydney LHD. Adolescent inpatient services (ages 12-17 years) are accessed via referral through the specialist unit at Hornsby Hospital (Brolga Unit).

Community-based services are provided as LHD wide services with specialist services for each stream. The community-based services span acute and crisis interventions as well as longer term non-acute and maintenance services.

There are a limited number of Housing and Accommodation Support Initiative (HASI) packages available to support mental health clients with accommodation and suitable support to remain in the community.

Child and Youth Mental Health Services

Central Coast Children and Young People’s Mental Health (CYPMH) is a multidisciplinary youth specific service for children and young people aged 12-24 years presenting with moderate to severe mental health issues. It is a community-based business hours service located in the Gateway building at Gosford.

Services for children aged less than 12 years are predominantly provided through the Child and Family Health Services (FACETS) with some programs are provided through CYPMH.

The following CYPMH services are available:

- The Youth Mental Health Teams (YMH) and the Young People and Early Psychosis Intervention (YPPI) service
- Consultation and Assessment Team (CAT) which is the entry point for clients to access YMH and YPPI
- Prevention, Promotion and Early Intervention includes ‘got IT’ a school based education and early intervention program targeted at primary school aged children and Children of Parents with a Mental Illness (COPMI) program
- Safe Start – provided by the perinatal infant mental health team (PIMH) partially funded through CC Kids and Families.

If inpatient management is required paediatric patients (up to age 16 years) are admitted to the paediatric inpatient unit. However, patients aged 14-16 years may be admitted either to the PECC at Wyong Hospital for short stay crisis management up to 72 hours length of stay or they may be admitted to the paediatric inpatient unit.

Adolescents requiring longer term admission for on-going mental health treatment are referred to a specialist unit most commonly the Brolga Unit at Hornsby Hospital. Delays in transfer are difficult to manage within the services currently available.

There is also, headspace Central Coast, a Commonwealth-funded program providing specialist services for young people aged 12-25 years with mild to moderate mental health issues that operates from two sites – the Gateway building in Gosford and at Lake Haven shopping centre.

Adult Mental Health Services

Services for adults aged 18-64 years include acute assessment and short-term intensive treatment, intensive case management and care coordination for complex clients, and continuing care (including care coordination) for the long term and non-acute clients. Access into adult mental health services is generally via the Mental Health
Telephone Access Line (MHTAL) based at Gosford Hospital, through referral by a psychiatrist, GP, the community team, via emergency services (Police/ Ambulance) or by presentation to the EDs.

Acute adult inpatient services are provided at Gosford (30 beds) and Wyong (35 beds) hospitals plus a four bed PECC co-located with ED at Wyong Hospital. Within the current units are separate areas for patients requiring high dependency or closer observation. Mental Health inpatient units operate as contained units. There is no capacity on the Central Coast to open surge beds during periods of high demand.

Multi-disciplinary community based teams for patients with moderate to severe mental health issues, include:

Acute teams based at Wyong and Gosford hospitals:
- Emergency Department Mental Health Team (EDMHT) operates 24 hours seven days per week providing assessment in ED
- Acute Care Team (ACT) provides intensive short-term follow-up of acute clients including recent discharges from the acute inpatient units. Operates seven days from 8am to 8pm
- Consultation Liaison (CL) – consultation service for hospital inpatients.

Non-acute teams:
- Care Coordination Team - for people who are moderately to severely affected by a major mental illness, and supports them through various stages of their recovery; focusing on symptom management, education around mental illness, and psychosocial interventions, physical health care and community integration.
- Assertive Outreach Team (AOT) - provides intensive rehabilitation. Majority of care is provided through home visits with some provided at Community Health Centres.
- For both services, linking people with General Practice care is central to their approach to ensure ongoing effective mental and physical health care. Facilitating access to disability support programs either through the National Disability Insurance Scheme or other pathways are also core service roles.

The ACT will cater for clients outside of the adult age brackets (i.e. children, young people and older people) who present out of hours requiring assistance, until a more appropriate referral can be made. Clients who present with mild to moderate mental health issues are cared for by GPs, private psychiatrists, private allied health providers and NGOs.

Clozapine Clinics are conducted onsite at both Gosford and Wyong hospitals. Demand for Clozapine has increased significantly, to support the increasing demand a project aimed at developing GP capacity and skill to manage these clients in partnership with the mental health service is in place.

An Eating Disorders service is based at Toukley with an early intervention service.

Project Air is a community-based program from Wollongong University for people with a personality disorder. There are two streams; the first is a short term program of three sessions. The second stream involves a long-term clinic which clients attend if the client requires ongoing care over a longer period. As part of the program education and training is provided for LHD and NGO staff on managing patients who have a personality disorder.

A small proportion of clients require forensic care in either inpatient or community services. Rehabilitation services are provided by referral to specialist centres in NSW. The NSW Forensic Mental Health Service provides consultation to the Central Coast mental health service.

Partnership Teams
- Aboriginal Mental Health Team provides support for mental health clients on the Central Coast.
- Consumer advocates are employed within both inpatient and community mental health services.
- Mental Health Promotion officers work with health staff, service providers and the wider community to implement mental health promotions across the Central Coast.
- Official Visitors visit people within the mental health inpatient units as well as people with community treatment orders as part of the NSW Official Visitors Program to ensure that standards of care and facility standards are being achieved. If requested they will also advocate on behalf of individual clients and their carers.
Older Persons Mental Health Services

Specialist Mental Health Services for Older People (SMHSOP) provides assessment and mental health management of older people aged 65 years and older experiencing mental illness. Sometimes this may include assessment and management of comorbid cognitive decline and/or behavioural and psychological symptoms of dementia (BPSD). The service does not provide services for clients with dementia alone. Consumers under 65 years can access services if they are Aboriginal or Torres Strait Islander or they have complex medical needs causing significant functional disability that would benefit from SMHSOP intervention.

SMHSOP provides multidisciplinary acute and community based services and works in partnership with a range of care providers such as aged care, community support services, community residential services and residential aged care services.

Acute inpatient services – there is a 15-bed acute psychogeriatric (SMHSOP) inpatient unit at Wyong Hospital (Miri Mi).

Non-acute services are based at Wyong Hospital and in Gosford:

- The Community Team – provide case management of clients with mood, psychotic or anxiety disorders
- Behaviour Assessment and Intervention Service (BASIS) - offers a service to people aged 65 years and older who present with severe and persistent behavioural and psychological symptoms associated with mental illness, dementia or other long standing organic brain disorders.
- BASIS provides assessment and behaviour intervention strategies and plans for clients with moderate to severe and persistent BPSD as well as providing education to residential aged care facilities, carers, NGOs and other service providers.

Future Service Configuration

Statewide and nationally there has been a shift in direction in the delivery of mental health services toward increased emphasis on prevention, early intervention and rehabilitation with sub- and non-acute services delivered in the community potentially by NGOs or other providers in partnership with the mental health service. There is a shift in emphasis from acute and crisis intervention toward a focus on early intervention and self-care as well as a shift from inpatient to supported community-based care.

Leading these changes is the NSW Mental Health Commission Living Well: a strategic plan for mental health in NSW 2014-2024 and nationally the Fifth National Mental Health Plan (draft December 2016) with the accompanying National Mental Health Services Planning Framework (v2.1) (NMHSPF) (not publicly available). Implementation of the strategic directions proposed by these documents will have a significant impact on how services are delivered on the Central Coast.

Fundamental to the proposed changes is the concept that good mental health care for many people is reliant on access to and integration between services and service providers across health care, social care, housing and other services including government, non-government and private providers. Achieving this integration will be an integral component of mental health services development on the Central Coast.

The NMHSPF is a population needs based model which describes the full range of services required in a comprehensive mental health system and spans the care provision from health promotion and illness prevention through to primary care and specialist mental health care for perinatal, child and youth (0-11 and 12-17 years), adult (18-64 years) and older adults (65 years and older).

Services are modelled according to the setting (inpatient, residential/community) and by provider (NSW Health, NGOs and primary care (GP)) across acute, sub-acute and non-acute care and also includes primary and specialised ambulatory services. The future direction is toward provision of the majority of care in a community/residential setting with options available to support a step up or step down of care as required aimed at supporting people to remain in the community.

As part of the NMHSPF, activity estimates and future resources requirements are modelled for individual LHDs which include the number of beds (hospital and residential) across each of the bed types (acute, sub-acute and
Mental Health Services

Clinical Services Plan Mid-Point Review 2017

non-acute), community contact hours and also HASI-type services. However, the modelled bed estimates rely on all components of the system being in place which includes community and residential based services. A significant gap in the current services available within CCLHD is the availability of sub- and non-acute services. There is a lack of sub-acute inpatient mental health services (or alternatives for accommodating this cohort) as well as limited community based non-acute services. Development of these services will be a priority but will need to be undertaken in a coordinated and staged approach as part of the spectrum of care for mental health clients. Using the NMHSPF (v2.1) as a guide the future service configuration on the Central Coast will have the following components:

**Child and Youth**
- Children aged up to 12 years will generally receive inpatient care within a paediatric unit with mental health in-reach
- Young people aged 12-17 years requiring short-term crisis management will be managed in the PECC for up to 12 hours for assessment and support until the immediate crisis has reduced sufficiently to be managed in the community. Young people requiring observation, assessment and support for more than 12 hours will be admitted to either the paediatric inpatient unit or the Vulnerable Persons unit (3-4 beds) within the acute adult mental health unit at Gosford Hospital depending on their age and level of maturity.
- Young people requiring longer term inpatient management will be referred and transferred to a specialist unit (most commonly the Brolga Unit at Hornsby Hospital)
- Community-based services and programs will continue to be available. Review of the current programs provided across mental health and child and family health (particularly for children aged under 12 years) will be undertaken with a view to reducing confusion in accessing services, duplication of services and service gaps to develop streamlined, developmentally focussed care pathways for children and their families.

**Perinatal Mental Health Services**
- Continued management of women with mild to moderate perinatal mental illness in the community. Most commonly this is depression but includes other disorders such as anxiety disorders, personality disorders and psychotic disorders.
- Women with severe illness or who are unresponsive to less intensive interventions would be transferred to a supra-regional specialist unit once a unit is developed.

**Adult Services**
- **Psychiatric Emergency Care Centres** – 6 bedded units co-located with the ED at both Gosford and Wyong Hospitals (the PECC at Wyong Hospital will increase from 4 to 6 beds as part of the proposed redevelopment). The model of care is currently under development but will support integrated patient management between mental health and ED, with psychiatric emergency care provided by mental health clinicians and ED clinicians managing the clinical needs.
- **Acute Inpatient Unit** – will provide short term (days to weeks) management of the acutely unwell where the primary goal of care is reduction in severity of symptoms, behavioural disturbances and/or distress associated with the recent onset or exacerbation of a mental illness.
  - The future role, operation and inpatient capacity required will be determined by the overall development of the mental health services as a single integrated service with supporting non-inpatient components for sub-acute care and community teams in place and operating effectively
  - The NMHSPF recommends a reduction in acute inpatient capacity (includes PECC units) for the LHD by 2027 however achievement of this will be reliant on the non-inpatient (including residential) components of the service being in place. In determining the number of inpatient beds will need to ensure capacity to accommodate surges in demand when required.
  - Patients requiring access to MHICU will continue to be referred to the specialist unit at Hornsby Hospital.
- **Sub-acute care** is specialised multidisciplinary care in which the primary need for care is optimisation of the patient’s functioning and quality of life. These services should be located in a residential community setting with good access to transport, shops, and education resources. Services could be delivered in partnership with
clinical and non-clinical community support services/organisations such as NGOs potentially with in-reach from specialist mental health services when required. The proposed models in the NMHSPF include:

- **Sub-acute Intensive Care** – may be hospital or preferably community based
- **Step up/Step down** - for patients who no longer require acute inpatient care but would benefit from short-term intensive treatment and support (step down) and people living in the community who require short term support, treatment and intervention to prevent further deterioration or relapse which may result in rehospitalisation (step up).
- **Rehabilitation** – the focus of the service is improvement in functioning and skill development to increase independence and capacity to successfully live independently.

- **Non-acute bed based care** - extended treatment may be provided in residential, hospital or nursing-home settings. Services are usually delivered as collaborations between specialist clinical and community support services. Services are provided over an extended period with an expected length of stay in excess of six months.
- **Consultation Liaison** to inpatient units across all four facilities. The service is comprised of a multidisciplinary team who undertake mental health assessment, provide advice on clinical management and early recognition of mental health symptoms.
- There is the potential for the expansion of this type of service to general practice including supported follow-up.
- **Specialised Mental Health Community Support Services** will provide support to patients in the community with the goal of reducing relapse rates and a consequent reduction in presentations to ED and admissions into the acute inpatient units. These services would include care coordination and liaison between carers, care providers and agencies to manage planning and service delivery for individual clients.
- **Housing and accommodation support initiative (HASI)** there will be an increased requirement to support the shift of clients to the community.

Other areas identified for further development:

- **Improvements in integration with clinical services for the management of the physical health needs of mental health clients**
- **People with intellectual disability and associated challenging behaviours** – it is anticipated that there may be an increase in this cohort in response to changes in the social care systems and programs
- **Management of patients with concomitant drug and alcohol problems (dual diagnosis)**
- **Management of forensic clients who are not under the jurisdiction of the justice services or police**
- **Management of clients with eating disorders in conjunction with other relevant clinical services with access to acute inpatient beds when required**
- **GP liaison clinic to provide review and management advice on patients who do not require case management and can be managed by the GP with psychiatric support**
- **After hours medication management service to support clients with medication compliance to reduce inpatient admissions**
- **Improved aftercare support following suicidal ideation and self-harm.**

**Older Adult (65 years and older)**

- **Acute Older Adult Inpatient Unit (Miri Miri)** – as part of the current Wyong Hospital business case for the proposed redevelopment the bed base will increase to 22 beds by 2022 and to 26 beds by 2027 from the current 15 beds.

Other areas identified for further development:

- **Acute Older Patients with severe behavioural and psychological symptoms associated with dementia (BPSD)** hospital based inpatient beds/unit – short to medium term inpatient assessment and treatment services for older patients experiencing severe episodes of mental illness that cannot be adequately treated in a less restrictive environment. Some younger people with dementia and severe BPSD may also be admitted.
- **Sub-acute services:**
May be co-located on a hospital site and with a BPSD unit (mental health or geriatric medicine) provide specialised clinical treatment, rehabilitation and support in order to regain function lost due to an acute mental illness and to prevent or delay admission to a RACF. Services are delivered in close collaboration with the general aged care sector.

Rehabilitation - residential based services delivered in partnership with clinical and non-clinical community support services/organisations such as NGOs.

- Further development of a dementia and delirium inpatient and community service for the management of agitation and challenging behaviours in conjunction with the aged care services including in-reach to inpatient units as well as outreach to RACF and home-based services.

**Strategic Directions**

**2017-2018**

241. Undertake a comprehensive and detailed planning process to review current services (inpatient and community-based) to determine the future service requirements to meet the population need in line with the directions of the NMHSPF and NSW Mental Health Commission. The outcome of this process will inform:

- What services are required along the spectrum of care for each service stream (child and youth, adult and older adult) including prevention and early intervention as well as treatment options
- How services should be delivered – inpatient, community-based, residential, via telehealth or other media
- Where services should be located – ensure appropriate settings as well as enhance accessibility by clients
- Who would be the best providers and the role of various service providers – opportunities for partnerships between the mental health services, other health services, other government agencies, NGOs and other service providers
- The future service configuration, as well as service and capital requirements for the LHD based services – inpatient and community-based
- Required timeframe as well as a coordinated and staged approach to achieving the required changes.

**2018-2022**

242. In conjunction with the child and family services (part of CC Kids and Families Division) further develop a comprehensive range of networked services to meet the needs of children and youth with mental health issues

243. Expansion of the consultation liaison service in line with increasing demand for this service

244. Integration with clinical services for the management of the physical health needs of mental health clients

245. Development of a model of care for the management of patients with intellectual disability and associated challenging behaviours with a focus on non-inpatient alternatives

246. In conjunction with other relevant clinical services, develop a model for the management of clients with an eating disorder including access to acute inpatient management when required

247. In conjunction with the drug and alcohol service develop a service model for the management of patients with concomitant drug and alcohol problems (dual diagnosis)

248. Expand the number of older persons acute mental health inpatient beds at Wyong Hospital to 22 beds by 2022 and 26 bed by 2027

249. In conjunction with the aged care/geriatric medicine services develop a model and appropriate facilities to support the safe management of patients with BPSD

250. In conjunction with the neurology and anaesthetic services develop a neuropsychological and brain stimulation service (Transcranial Magnetic Stimulation Electroconvulsive Therapy).
Drug and Alcohol Services

Current Services

Drug and Alcohol Services are located at Gosford and Wyong hospitals. Community based counselling teams are located across the Central Coast in Community Health Centres and on hospital sites. Treatment services are provided to clients aged 18 years and older except the Cannabis Clinic which provides services to clients aged 16 years and older. Services include:

- Centralised Intake telephone line and GP Consultancy Line located at Wyong Hospital
- Inpatient Detoxification Unit (Maruma-li) for both alcohol and drug detoxification with 15 beds located onsite at Wyong Hospital. Accepts referrals from other LHDs
- Hospital Inpatient Consultation and Liaison Service includes patients in ED at both Gosford and Wyong hospitals
- Specialist advice and consultation to maternity services and pregnant women
- Specialist Medical Assessment and Treatment
- Opioid Treatment Program (OTP) – Methadone and Suboxone at both Gosford and Wyong hospitals
- Counselling Services (individual and group) provided from eight Community Health Centres
- Magistrates Early Referral into Treatment Program (MERIT) covering Gosford, Wyong and Woy Woy Courts
- Aboriginal Consultancy Team
- Cannabis Treatment Clinics provided in Community Health Centres
- Health promotion, education and prevention services - work closely with Community Drug Action Teams and other agencies on specific projects
- Support and liaison with the primary health sector including GPs, community pharmacists and other private Allied Health providers
- Support and liaison with other health and welfare and agencies – including Family and Community Services (FACS) and Police in relation to child protection, domestic and family violence.

The service meets role delineation Level 5 across Gosford and Wyong hospitals as the service is provided as an LHD wide service.

Activity

The D&A services are predominantly outpatient or Consultant-liaison. The following data refers to inpatient episodes.

<table>
<thead>
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<td>739</td>
<td>864</td>
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<td>Total</td>
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<td>953</td>
<td>977</td>
<td>1,004</td>
<td>1,091</td>
<td>215</td>
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<td>% Overnight</td>
<td>96.3%</td>
<td>97.6%</td>
<td>96.9%</td>
<td>96.2%</td>
<td>96.8%</td>
<td>96.5%</td>
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</tr>
</tbody>
</table>

Source: CCLHD Inpatient Data Collection

Service Demand:

- In 2015/16 Central Coast resident demand for inpatient Drug and Alcohol (SRG 81) was 1,038 episodes. This is an increase of 28.2% (228 episodes) from 810 episodes in 2010/11. The majority of episodes (87.7% or 910 episodes) were admitted to CCLHD facilities, there were 67 (6.5%) episodes in private facilities and 61 (5.9%) outflows to other LHDs.

Service Supply – Central Coast LHD activity (includes inflows):

In 2015/16:

- There were 4,714 bed days, these have increased by 9.4% from 4,309 episodes in 2010/11
- About 84% of episodes and 87% of bed days are at Wyong Hospital this has declined since 2010/11 when 86.6% of episodes and 89.6% of bed days were at Wyong Hospital
The average length of stay has decreased at both Gosford and Wyong hospitals – at Gosford it decreased from 3.9 days to 3.6 while at Wyong it decreased from 5.2 days to 4.6.

In 2015/16 there were the equivalent of two beds utilised at Gosford Hospital and 11-12 beds at Wyong Hospital.

Future Service Configuration

The role delineation will remain at Level 5 for the service and provision of the current range of services will continue. The following services have been identified for introduction or as services requiring further development:

Hospital–based services

- The inpatient detoxification unit will remain part of the acute hospital at Wyong Hospital with 15 inpatient beds
- Improved access to diagnostic services (medical imaging and pathology services), and Allied Health Services for clients of the inpatient unit
- Access to two to three acute inpatient beds for the management of acutely unwell drug and alcohol patients when required
- Establishment of hospital outpatient clinics at both Gosford and Wyong hospitals for the management of clinically unwell clients
- Expansion of the Hospital Inpatient Consultation and Liaison Service to enable provision of a formalised service with capacity to meet increasing inpatient demand
- Increased involvement in the acute and integrated pain (CCIPS) services in both inpatient consultation and outpatient clinics at Gosford and Wyong hospitals
- Expansion of the substance use in pregnancy service to accommodate increasing demand.

Community–based services

- Re-establishment of the ambulatory withdrawal/home-based detoxification service for both drug and alcohol withdrawal. The service operates on a similar model and is closely linked with the inpatient detoxification service.
- Establishment of a stimulant treatment program operating as a non-inpatient program
- Establishment of adult Drug Court Programs which are intensive 12-24 month programs for drug-related crimes they are cross-agency program with the courts, police and corrections services.
- Increased capacity for education and skills development for other providers (GPs, NGO, primary care providers).

Strategic Directions

251. More comprehensive management of the physical health needs of drug and alcohol clients at both Gosford and Wyong hospitals including access to acute inpatient beds for the management of acute illness; medical outpatient clinics for review and follow-up of medically unwell clients; and access to diagnostic and allied health services for drug and alcohol clients for both inpatient and ambulatory programs
252. Expansion of inpatient consultation and liaison service to meet increasing demand and patient complexity
253. Ongoing development of relationships with key services: pain service, mental health, Aboriginal health and acute inpatient services
254. Expansion of established drug & alcohol programs to meet increasing community demand for services including – substance use in pregnancy, Aboriginal consultancy team, Opioid Treatment Program (OTP) clinics and counselling services
255. Use of telehealth/videoconferencing to facilitate client consultation
256. Develop additional ambulatory treatment programs – priority programs for development are ambulatory/home-based detoxification a program and stimulant treatment program
257. Development of adult Drug Court Programs in collaboration with the Courts, Police and Corrections services
258. Further development of education and training programs for GPs, NGOs and other providers
259. Develop partnerships with other LHDs and providers for opportunities to increase participation in larger research projects

260. Ongoing growth and development of the Drug and Alcohol service as a training centre for addiction medicine for medical and other professions, including capacity for local research and opportunities to partner with other LHDs in larger research projects.
Appendices
Current and Proposed Role Delineation

The following role levels have been determined using the 2016 NSW Health Guide to the Role Delineation of Clinical Services and in consultation with clinical services. Each clinical service standard has up to six levels in ascending order of complexity. Not all services start at Level 1 and not all levels follow consecutively with a gap generally reflecting considerable difference between levels. For example, Intensive Care services start at Level 4 and Burns services move from Level 2 to Level 4 to Level 6 omitting standards for level 3 and Level 5.

The term ‘No Planned Service’ (NPS) is used to indicate that a service is not currently available or does not meet the service standard for the minimum level of service.

In the proposed service levels to 2022 there are a number of services where two options are provided for example NPS / ?3 or 4/5 this is because the Level in 2022 will be dependent on how proposed service development has progressed. The role delineation levels are regularly reviewed and updated according to service changes which may have occurred.

Table 69: CCLHD Current and Proposed Role Delineation

<table>
<thead>
<tr>
<th>Hospital Peer Group</th>
<th>Gosford Current</th>
<th>Wyong B2 – Major Metropolitan Group 2 Current</th>
<th>Woy Woy D1b – Community Hospital without Surgery Current</th>
<th>Proposed</th>
<th>Long Jetty D1b – Community Hospital without Surgery Current</th>
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<td>1. Anaesthesia and Recovery</td>
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<td>3. Close Observation Unit (COU)</td>
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<td>4. Intensive Care Services</td>
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<td>5. Nuclear Medicine</td>
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<td>6. Radiology and Interventional Radiology</td>
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<td>7. Pathology</td>
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<td><strong>PART B: Medicine</strong></td>
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<td>B6. General &amp; Acute Medicine</td>
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<td>B9. Immunology</td>
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## Appendix 1: Current and Proposed Role Delineation

<table>
<thead>
<tr>
<th>Hospital Peer Group</th>
<th>Gosford</th>
<th>Wyong</th>
<th>Woy Woy</th>
<th>Long Jetty</th>
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<tr>
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<td>A1 - Principal Referral</td>
<td>B2 - Major Metropolitan Group 2</td>
<td>D1b - Community Hospital without Surgery</td>
<td>D1b - Community Hospital without Surgery</td>
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### Part C: Surgery

| C1. Burns | 4 | 4 | NPS | NPS | NPS | NPS | NPS | NPS |
| C2. Cardiothoracic Surgery | NPS | 5 | NPS | NPS | NPS | NPS | NPS | NPS |
| C3. Ear, Nose and Throat | 5 | 5 | NPS | 3 | NPS | NPS | NPS | NPS |
| C4. General Surgery | 5 | 5 | 4 | 4 | NPS | NPS | NPS | NPS |
| C5. Gynaecology | 5 | 5 | 3 | 4 | NPS | NPS | NPS | NPS |
| C6. Neurosurgery | NPS | NPS | NPS | NPS | NPS | NPS | NPS | NPS |
| C7. Ophthalmology | 5 | 5 | 3 | 3 | NPS | NPS | NPS | NPS |
| C8. Oral Health | 4 | 4/75 | 4 | 4 | 3 | 3 | NPS | NPS |
| C9. Orthopaedics Surgery | 5 | 5 | 3 | 4 | NPS | NPS | NPS | NPS |
| C10. Plastic Surgery | 4 | 5 | NPS | NPS | NPS | NPS | NPS | NPS |
| C11. Urology | 5 | 5 | 3 | 4 | NPS | NPS | NPS | NPS |
| C12. Vascular Surgery | 5 | 5 | 4 | 4 | NPS | NPS | NPS | NPS |

### Part D: Child and Family Health Services

| D1. Child and Family Health | 4 | NPS | NPS | NPS | 4 | 4 | 4 | 4 |
| D2. Child Protection Services | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| D3. Maternity | 5 | 5 | 2 | 4 | NPS | NPS | NPS | NPS |
| D4. Neonatal | 4 | 4 | 1 | 3 | NPS | NPS | NPS | NPS |
| D5. Paediatric Medicine | 4 | 4 | 2 | 3 | NPS | NPS | NPS | NPS |
| D6. Surgery for Children | 4 | 4 | 2 | 3 | NPS | NPS | NPS | NPS |
| D7. Youth Health | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |

### Part E: Mental Health and Drug & Alcohol Services

| E1. Child/Adolescent Mental Health | 4 | 4 | 4 | 5 | NPS | NPS | NPS | NPS |
| E2. Adult Mental Health | 5 | 5 | 5 | 5 | NPS | NPS | NPS | NPS |
| E3. Older Adult Mental Health | 5 | 5 | 5 | 5 | NPS | NPS | NPS | NPS |
| E4. Drug & Alcohol | 5 | 5 | 5 | 5 | NPS | NPS | NPS | NPS |

### Part F: Aboriginal Health

| Aboriginal Health | 4 | 4 | 2 | 4 | 2 | 4 | 2 | 4 |

### Part G: Community Health

<p>| Community Health | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |</p>
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<tr>
<th>Acronym</th>
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<td>Magistrates Early Referral into Treatment</td>
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<td>Mental Health Intensive Care Unit</td>
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<td>Mental Health Service (Clinical Division)</td>
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<td>Mental Health Telephone Access Line</td>
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<td>Motor Neurone Disease</td>
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<td>National Aboriginal and Islander Day Observance Committee</td>
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<td>Non-government organisation</td>
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<td>Neonatal Intensive Care Unit</td>
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<td>Neck of Femur</td>
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<td>Description</td>
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<td>Pregnancy and Early Parenting Education</td>
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<td>Primary Health Network</td>
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<td>RIS-PACS</td>
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<td>Specialty Health Networks</td>
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<td>Statistical Local Area</td>
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<td>Specialist Mental Health Services for Older People</td>
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<td>Standardised Mortality Ratio</td>
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<td>Senior Medical Officer</td>
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<td>Single-Photon Emission Computed Tomography</td>
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<td>Senior Resident Medical Officer</td>
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<td>SSSU</td>
<td>Surgical Short Stay Unit</td>
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<td>ST-segment Elevation Myocardial Infarction</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>TCU</td>
<td>Transitional Care Unit</td>
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<td>TIA</td>
<td>Transient Ischaemic Attack</td>
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<td>TOE</td>
<td>Trans-oesophageal Echocardiogram</td>
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<td>TSANZ</td>
<td>Thoracic Society of Australia and New Zealand</td>
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<td>Urgent Care Centre</td>
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<td>University of Newcastle</td>
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<td>Video-assisted Thorascopic Surgery</td>
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<td>Workstation on Wheels</td>
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<td>Young People and Early Psychosis Intervention service</td>
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Appendix 3: Planning Hierarchy

Planning Hierarchy

State Plan and Premier’s Priorities
State Health Plan
Other relevant state and national plans

CCLHD Strategic Plan

Clinical Services Plan 2017 -2022

Enabling Plans
- CORE Values Charter
- Asset Strategic Plan
- Workforce Plan 2012-2022
- Research Plan 2017 2021
- Information & Communication Technology
- Finance and Corporate Services
- Corporate Governance
- Risk Management
- Clinical Governance, Quality and Safety
- Community & Consumer Engagement
- Performance Management
- Education & Training
- Integrated Care
- Counter Disaster

Service Plans and Models of Care
- Public Health
- Health Promotion
- Aboriginal Health
- Multicultural Health
- Disability Plan
- Carers Plan
- Community Health
- HITH
- Maternity
- Mental Health
- Drug & Alcohol
- Cancer
- Palliative Care & End of Life
- Sub-Acute Care
- Rehabilitation
- Medical Imaging
- Pharmacy
- Other services

CCLHD Service Agreement with NSW Ministry of Health

Annual Operational Plans

LHD Directorate / Divisional Facilities:
- Gosford Hospital
- Wyong Hospital
- Sub-Acute Facilities
- Community Services