

Central Coast Local Health District

Clinical Services Plan 2023-2028





Acknowledgement Of Country

We pay our respect to those lands that provide for us.

We acknowledge and pay respect to the ancestors that walked and managed these lands for many generations before us.

We acknowledge and recognise all Aboriginal people who have come from their own country and who have now come to call Darlington country their home. We acknowledge our Elders who are our knowledge holders, teachers and leaders.

We acknowledge our youth who are our hope for a brighter and stronger future and who will be our future leaders.

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Foreword



Our vision of Caring for the Coast encompasses delivering exceptional care for our patients, community and staff.

The CCLHD Clinical Services Plan 2023-2028 sets out the blueprint for us to achieve this vision over the next five years.

It identifies opportunities to develop our services and increase our capacity to better meet the health needs of our community, which are continuing to evolve and become more complex.

Our population is growing and ageing and levels of chronic disease are increasing. The cost and demand for health care continues to rise. People in our community are facing challenges accessing primary care, getting placements in residential aged care facilities or accessing disability care packages.

This plan documents our future strategic directions and how we can harness opportunities to provide our community with high-quality, safe and timely care; improve health and equity for all populations; make our organisation the best possible place to work and provide the best value for public health resources.

Critical to our success is our staff. They have been instrumental in the development of this plan and it is through their dedication and pursuit of excellence that we can achieve our goals.

Collaborating with other service providers and the community is also imperative. Our partners include general practitioners, non-government organisations, other government departments, private service providers and local community groups.

We would like to thank those who contributed to the development of the CCLHD Clinical Services Plan 2023-2028 –our staff, our partner organisations and the community.

Your ongoing support will be invaluable as we work together to deliver the key directions outlined in this plan, and continue to provide high quality health care to the people of the Central Coast.



Scott McLachlan

Chief Executive,
Central Coast Local Health District



Professor Donald MacLellan

Board Chair,
Central Coast Local Health District

Glossary

Acronym	Description
ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisation
ADAN	Aboriginal Drug and Alcohol Network
AH&MRC	Aboriginal Health and Medical Research Council of NSW
ALOS	Average length of stay
AMIHS	Aboriginal Maternal and Infant Health Services
BSF	Building Strong Foundations
CAGR	Compound Annual Growth Rate
CALD	Culturally and linguistically diverse
CCCA	Centre for Cultural Competence Australia
CCLHD	Central Coast Local Health District
COVID-19	Corona Virus 2019
DPE	Department of Planning and Environment
ED	Emergency Department
EDSSU	Emergency Department short stay unit
ENT	Ear, Nose and Throat
ETP	Emergency treatment performance
ESRG	Enhanced Service Related Group
FTE	Full time equivalent
FY	Financial Year
GEM	Geriatric Evaluation and Management
GI	Gastrointestinal
GP	General Practitioner
HITH	Hospital in the Home
HNECC	Hunter, New England and Central Coast
ICU	Intensive Care Unit
IRSD	Index of Relative Socio-Economic Disadvantage
ITC	Integrated Team Care

Acronym	Description
KPI	Key Performance Indicator
LGA	Local Government Area
LHD	Local Health District
MDB	Major Diagnostic Block
MoH	Ministry of Health
NACCHO	National Aboriginal Community Controlled Health Organisation
NAP	Non-admitted patients
NDIS	National Disability Insurance Scheme
NGO	Non-Government Organisation
Ngiyang	The Aboriginal Pregnancy and Child and Family Health service Ngiyang
NSW	New South Wales
OOHC	Out of home care
OOS	Occasions of service
PECC	Psychological Emergency Care Centre
PHN	Primary Health Network
RAC	Rapid Access Clinic
RACF	Residential Aged Care Facility
ROSH	Risk of significant harm
SA2	Statistical Area level 2
SEIFA	Socio-Economic Indexes for Areas
SNAP	Smoking, nutrition, alcohol and physical inactivity
SRG	Service related group
TAFE	Technical and further education
UCC	Urgent Care Clinic (Commonwealth)
UCS	Urgent Care Service (NSW)
YAHS	Yerin Eleanor Duncan Aboriginal Health Services

Executive summary

Context

The Central Coast Local Health District (CCLHD) is driven to provide high-quality care for its residents with health services that reflect and address the health needs of the local community. The population of the Central Coast will continue to grow, with older people representing an increasing proportion of the community. Additionally, an ageing population with more complex needs will result in health care demands continuing to rise over the period to 2028 and beyond. The CCLHD Clinical Services Plan 2023-2028 will enable the establishment of a forward plan to mitigate these issues.

Objective

The CCLHD Clinical Services Plan 2023-2028 articulates the best means to meet the health needs of the Central coast community over the next five years. The objectives of the Plan are to:

- Articulate the service planning context and assess the current and projected health needs of the population
- Evaluate current and future health and wellbeing challenges and consider the prevalence of socio economic factors that may negatively impact health outcomes
- Identify opportunities to increase health service capacity and better meet the identified needs of the community
- Outline future strategic directions and opportunities to support the development of future health services across the Central Coast region. These have been developed in consultation with key clinical and non clinical stakeholders (both internal and external to CCLHD) and in consideration of the broader planning context, the region's population and demographic profile, health status and the service profile and activity of the CCLHD.



Planning principles

Planning principles were established to inform the development of the CCLHD Clinical Services Plan 2023-2028. These embrace the strategic outcomes and key objectives outlined in NSW Health *Future Health*¹, and have been developed to meet the Institute for Healthcare Improvement's (IHI) quadruple aim² of:

- i. Improved quality, safety and patient experience of care
- ii. Improved health and equity for all populations
- iii. Improved staff experience
- iv. Best value for public health system resources.

The planning principles build upon the above and place patients and caregivers at the centre of service model design and emphasise the importance of receiving high quality care in culturally safe and appropriate locations. They focus on the critical role of the CCLHD workforce in developing and delivering the strategic directions and acknowledge the importance of education and training to support workforce to deliver new models in new care settings.

The principles acknowledge the importance of identifying opportunities to harness translational research, develop new service models, embrace technology and establish partnerships with primary care and other service providers to develop a stronger more flexible, integrated patient-centred health service.

1 NSW Ministry of Health, *Future Health: Guiding the next decade of care in NSW 2022-2032*, 2022 future-health-report.pdf (nsw.gov.au)

2 Institute for Healthcare Improvement, *Improving Health and Health Care Worldwide* | IHI-Institute for Healthcare Improvement



Approach

Service planning involves a collaborative approach that brings together key data, evidence and stakeholders to identify community need and planning considerations for services across the region. Development of this Plan has considered key services delivered by CCLHD hospitals as well as those delivered in partnerships with community-based health services. The Plan also includes consideration of mental health, maternity and other non-admitted services.

This Plan has been informed by:

- Conducting a situational and environmental analysis to provide an initial understanding of the current environmental and demographic drivers which may affect service planning into the future
- Health service activity data analysis, including analysis of both historic activity trends and future demand forecasts
- Demand modelling to test the base case future activity forecasts under a variety of circumstances to account for uncertainty in long-term planning
- Stakeholder consultations to gain collective insight, knowledge and experience to develop a Plan that meets the current and future health needs of the community and supports delivery of safe and efficient patient care.

Regional service planning considerations

The Central Coast region faces a range of demographic challenges. Across the region there is growth in the population and an increasing ageing population with increasingly complex health and social needs. Additionally, the CCLHD region is home to a large Aboriginal and Torres Strait Islander population.

The projected growth in the population, especially among the elderly, means there will be increasing demand for services of a complex nature. As a result, there may be increased pressure on an already stretched system. In the future it will be necessary to understand the complex needs of this growing cohort, and where possible, seek to co-design accessible services across the region.

The region experiences poor health outcomes across the wide spectrum of health areas. There is higher burden of disease and increased prevalence of lifestyle risk factors. Understanding the health status of residents living in the Central Coast region is imperative to better understand the collective health needs of the region.

Historic and forecast activity across CCLHD indicates demand will exceed capacity. Through consultation, CCLHD have identified key emergency department, hospital substitution and non-admitted service models that may reduce demand on key clinical services. These include targeted Hospital in the Home services for priority patient cohorts, Urgent Care Services and specialised outpatient and outreach services. Further analysis will determine selection and implementation of service models through consideration of their ability to demonstrably reduce demand on, and maintain capacity of, key clinical services. The outcome of this analysis will also determine whether further service models need to be considered to maintain capacity.



Forecast demand is especially high at Gosford Hospital compared to Wyong Hospital, notably emergency department and acute inpatient services. Considering the service profile of both facilities will be important to determine how services could be networked across the two facilities, to better balance demand and ensure timely and equitable access to the right level of clinical care.

Future focused strategic directions for CCLHD

Future focused strategic directions have been developed with consideration for the broader planning context for CCLHD. These have been determined through understanding of the policy environment, population and demographic drivers, historic and forecast activity as well as internal and external consultation with key clinical and non-clinical groups. The following key strategic directions were identified:

- **Implement timely emergency care alternatives:** Provision of timely, urgent and emergency health care services
- **Maximise the efficiency of acute service capacity:** Determining service profiles and networking to optimise activity
- **Enhance out of hospital services:** Provision of services delivered outside of acute hospital settings, expanding out-reach, community and home-based services
- **Promote prevention, education and self-management:** Population health and education to support improved health and wellbeing outcomes, and opportunities for self-management of care.

Enablers critical to all strategic directions include, workforce, data and technology (including the Virtual Care Strategy), Partnerships and Capital and Infrastructure Plans. Strong executive sponsorship and change management will be critical to consider new approaches and achieve successful implementation of the CCLHD Clinical Services Plan 2023-2028.

Implementation

Three key action areas have been identified to support the implementation and the CCLHD Clinical Services Plan 2023-2028 over the coming five-year period.

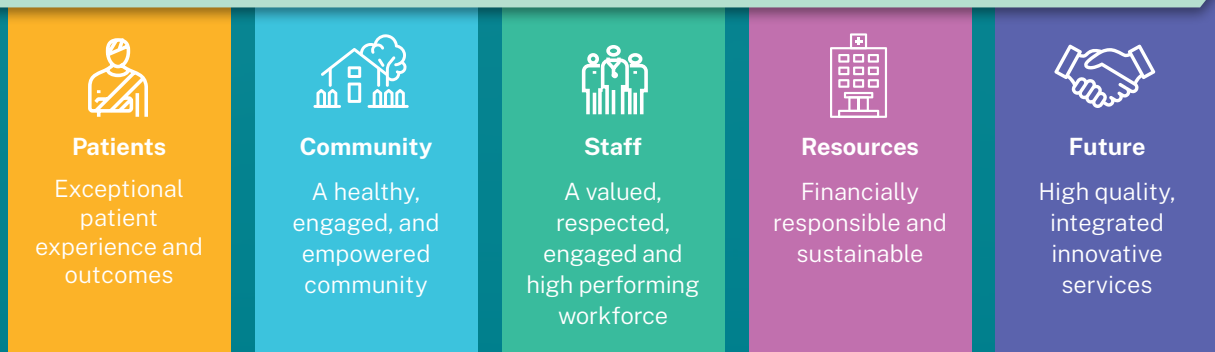
- 1 Continue to drive improvements in service delivery and service access across CCLHD through existing programs and initiatives.
- 2 Complete detailed analysis of the service models identified to inform prioritisation with the clinical teams. Undertaking data analytics and planning initiatives will provide the right level of data and evidence to determine where and how new service models should be implemented to best meet the health needs of the community, deliver optimal patient outcomes and experience, and maximise service efficiency.
- 3 Implement a dynamic service modelling approach to evaluate the impact of service models on patient and service outcomes, and promptly respond to new and emerging community health and service needs.

By doing this, CCLHD will be able to be effective in identifying key patient cohorts or services where changes in models of care can have the greatest impact on meeting the health needs of the community, delivering optimal patient outcomes and experience, and maximising service equity, accessibility and efficiency.

Section 1 – Planning context

Central Coast Local Health District (CCLHD) strategic pillars shaped and guided the *CCLHD Clinical Service Plan 2023 - 2028* development and align closely with the NSW Health Future Health priorities. Policy drivers and sector reform comes from the State and Commonwealth Government level and impact different parts of the system.

CCLHD strategic pillars



Policy context

NSW Health Future Health: Strategic Outcomes

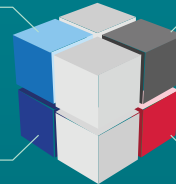
- Deliver safe, high quality reliable care for patients in hospital and other settings.
- Drive value-based healthcare that prioritises outcomes and collaboration.
- Attract and retain skilled people who put patients first.
- Align infrastructure and service planning around the future care needs.

NSW Integrated Care Strategy

NSW Health Workforce Plan 2022-2032

NSW Health 20-Year Health Infrastructure Strategy

NSW Aboriginal Health Plan 2013-2023



Sector reform

Urgent Care

Commonwealth Urgent Care Clinics (UCC) and NSW Urgent Care Services (UCS) to reduce pressure on hospital Emergency Departments.

Aged Care

Reforms and investment in response to the recommendations of the Royal Commission into Aged Care Quality and Safety.

Mental Health

Productivity Commission inquiry into the role of improving mental health to support economic participation and enhancing productivity and economic growth.

Aboriginal and Torres Strait Islander Health

The Closing the Gap National Agreement includes health sector related priorities and targets to improve the health outcomes.



Central Coast
Local Health District

Consideration of ongoing and planned health sector reform is important as this is likely to impact the direction and priorities of service delivery in future.

1 Planning context



This section outlines the planning context and objectives of the Central Coast Local Health District (CCLHD) Clinical Services Plan 2023-2028. It outlines the key policies, strategic priorities and sector reform drivers that will inform CCLHD strategic, clinical and operational service planning.

The CCLHD Clinical Services Plan 2023-2028:

- Aims to articulate how the CCLHD will respond to the increasing health needs and expectations of the community
- The CCLHD strategic priorities align closely with the NSW Health Future Health
- Policy drivers and sector reform will impact different parts of the system, from emergency care (e.g. urgent care clinics and services) to aged care (e.g. impacts of residential aged care facilities (RACF) changes).





1.1 Objective

In NSW, Local Health Districts (LHDs) are required to effectively plan the delivery of health care services to ensure they are responsive to the health needs of the population they serve. This includes the population residing in, or accessing services located within, the boundaries of the LHD. The CCLHD Clinical Services Plan 2023-2028 will identify the priorities and strategic directions for clinical services delivery across the Central Coast region (or the region) for the 2023–2028 period. The objectives of the Clinical Services Plan are to:

- Articulate the service planning context and assess the current and projected health needs of the population
- Evaluate the current and future health and wellbeing challenges and consider the prevalence of socio-economic factors that may negatively impact health outcomes
- Identify opportunities to increase health service capacity and better meet the identified needs of the community
- Outline future strategic directions and opportunities to support the development of future health services across the Central Coast region. These should be developed in consultation with key clinical and non clinical stakeholders (both internal and external to CCLHD) and in consideration of the broader planning context, the population and demographic profile of the Central Coast region as well as considering health status, and the service profile and activity of the District.

The CCLHD Clinical Services Plan 2023-2028 will seek to articulate how the District will respond to the increasing health needs and expectations of the community. As part of this, there will be opportunities to embrace the development of new service models, technology and virtual care and partnerships with primary care and other service providers to develop a stronger more flexible, integrated patient-centred health service. The CCLHD Clinical Services Plan 2023-2028 will outline key strategic directions and actions required to drive their implementation over the coming 5 years.

1.2 Policy context

The overarching directions for service planning are influenced by several key policy and direction setting documents from the NSW Government. These consider workforce, physical infrastructure, capacity planning, accessibility to care both for the population as a whole and vulnerable cohorts, as well as setting expectations for the delivery of safe and quality health care in NSW. Key NSW policies and considerations that guide locality planning are summarised in Table 1-1.

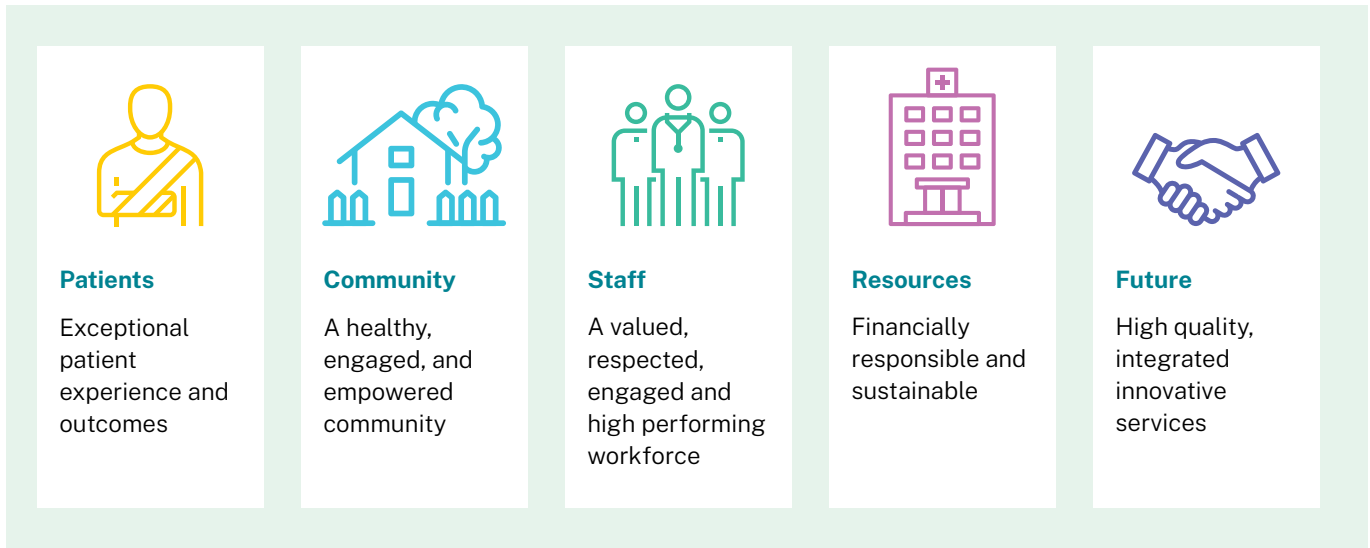
Table 1-1: Locality planning drivers: Policy context

Policy context	Key directions
<i>NSW Health Future Health</i>	<ul style="list-style-type: none"> • Strategic outcome 2.1: Deliver safe, high-quality, reliable care for patients in hospital and other settings. • Strategic outcome 6.1: Drive value-based healthcare that prioritises outcomes and collaboration. • Strategic outcome 4.5: Attract and retain skilled people who put patients first. • Strategic outcome 2.5: Align infrastructure and service planning around the future care needs.
<i>NSW Health Regional Health Strategic Plan 2022-2032</i>	<p>The NSW Health Regional Health Strategic Plan aligns closely with NSW Health Future Health Plan. The Plan identifies six strategic priorities to:</p> <ul style="list-style-type: none"> • Strengthen the regional workforce • Enable better access to safe, high quality and timely health services • Keep people healthy and well through prevention and education • Keep communities informed, building engagement, seeking feedback • Expand integration of primary, community and hospital care • Harness and evaluate innovation to support a sustainable health system.
<i>NSW Integrated Care Strategy</i>	<p>The NSW Integrated Care Strategy (which forms part of the NSW Health, Future Health Plan) aims to transform the delivery of care to improve health outcomes for patients and reduce costs deriving from inappropriate and fragmented care, across hospital and primary care services, including by:</p> <ul style="list-style-type: none"> • Designing better connected models of healthcare to leverage available service providers to meet the needs of smaller rural communities. • Providing greater access to out-of-hospital community-based care, to ensure patients receive care in the right place for them.
<i>NSW Health 20-Year Health Infrastructure Strategy</i>	<ul style="list-style-type: none"> • Ensuring that assets, physical or digital, are fit-for-purpose and help to improve health outcomes and experiences for the people of NSW. • Investment planning that considers trends in future healthcare delivery and a broader range of infrastructure assets. This includes a greater focus on virtual and digitally enabled care in non-hospital facilities, such as the home, to better suit future demand and patient and community expectations.
<i>NSW Health Workforce Plan 2022-2032</i>	<ul style="list-style-type: none"> • Build positive work environments that bring out the best in everyone. • Strengthen diversity in our workforce and decision-making. • Empower staff to work to their full potential around the future health care needs. • Equip our people with the skills and capabilities to be an agile, responsive workforce. • Attract and retain skilled people who put patients first. • Unlock the ingenuity of our staff to build work practices for the future.
<i>NSW Aboriginal Health Plan 2013-2023</i>	<ul style="list-style-type: none"> • Building trust through partnerships. • Ensuring integrated planning and service delivery. • Strengthening the Aboriginal workforce. • Providing culturally safe work environments and health services.
<i>NSW eHealth Strategy for NSW Health 2016-2026</i>	<ul style="list-style-type: none"> • Develop a digitally enabled and integrated health system. • Deliver patient-centred health experiences and quality health outcomes.
<i>NSW Ministry of Health Performance Agreement 2022-23</i>	<ul style="list-style-type: none"> • Sets out the service and performance expectations for funding and other support provided to the Central Coast Local Health District to support the provision of equitable, safe, high-quality and human-centred healthcare services. • Articulates direction, responsibility and accountability across the NSW Health system for the delivery of NSW Government and NSW Health priorities.

1.3 CCLHD strategic priorities

The CCLHD strategic priorities align closely with the NSW Health Future Health³ and the key strategies and Plans referenced in Section 1.2. The CCLHD Clinical Service Plan 2023-2028 incorporates the five strategic pillars at every stage of the planning process and considers each in determining the Strategic Directions.

Figure 1-1: CCLHD strategic pillars



1.4 Sector reform

Health systems across Australia and internationally are facing surges of crises driven by service access and demand, workforce shortages and staff burnout. Whilst Corona Virus 2019 (COVID-19) created significant pressures on the health system, there were already significant challenges impacting the future sustainability of health systems. Long before the pandemic, issues such as ageing and growing populations, increased non-communicable disease burden, economic inequality, reliance on outdated technology, workforce supply and wellbeing issues were already challenging the delivery of healthcare to communities.⁴

In response to these challenges, the Australian and jurisdictional governments have established some significant sector reforms which seek to alleviate the challenges felt across the health system. Sector reform refers to improving the wider health system through various means including, but not limited to, increased

investment in new and innovative models of care, provision of comprehensive services across the care continuum and shifting the sector's focus to outcomes-based healthcare. The CCLHD must consider ongoing and planned health sector reform as this is likely to impact the direction and priorities of service delivery into the future.

There are several significant government reforms already underway which will impact how health care is delivered into the future. For example, key activities relating to Commonwealth Urgent Care Clinics (UCC) and NSW Urgent Care Services (UCS) are already in progress. In 2023, CCLHD will commence urgent care delivery at one site (Long Jetty Health Facility), and it is anticipated that an additional two sites may become available for urgent care activity over the coming years, to support the CCLHD community. Table 1-2 provides an overview of sector reforms that will influence CCLHD and future planning considerations.

3 NSW Ministry of Health, Future Health: Guiding the next decade of care in NSW 2022-2032, 2022 [future-health-report.pdf \(nsw.gov.au\)](https://www.nsw.gov.au/health-and-care-services/publications/future-health-report)

4 KPMG International, Healthcare Horizons: Healthcare system transformation and the journey towards inclusive care, 2023, [Healthcare Horizons \(kpmg.com\)](https://www.kpmg.com/au/en/issues-and-insights/articlespublications/healthcare-horizons)

Table 1-2: Locality planning drivers: Sector reform

Sector reform	
Medicare Urgent Care Clinics	The Commonwealth Government is investing \$135 million over three years to fund 50 Medicare Urgent Care Centres nationally to deliver a new model of care through Primary Health Networks (PHNs) to reduce pressure on hospital emergency departments (ED). Four Urgent Care Centres will be established within the Hunter, New England and Central Coast Primary Health Network starting from July 2023.
NSW Government Urgent Care Services	In 2022, the NSW Government has also committed to provide 25 Urgent Care Services across NSW in collaboration with Local Health Districts and Primary Health Networks in the coming years to reduce demand on emergency departments.
Productivity Commission inquiry into the role of improving mental health to support economic participation and enhancing productivity and economic growth	The final Productivity Commission’s Mental Health Inquiry Report released in November 2020 presents a long-term plan aimed at improving the mental health system across workplaces, education, justice, healthcare and housing. The following reform areas were identified: <ul style="list-style-type: none"> • Prevention and early help for people • Improve people’s experiences with mental healthcare • Improve people’s experiences with services beyond the health system • Increase people’s participation in further education and work • Instil incentives and accountability for improved outcomes.
Royal Commission into Aged Care Quality and Safety	The Commonwealth Government 2023-24 Budget introduced a range of reforms and investment into the aged care sector in response to the recommendations of the Royal Commission into Aged Care Quality and Safety. These will support attraction and retention of a skilled workforce and ensuring high quality of care for residents through requirements for increased numbers of skilled staff and a new regulatory model.
Closing the Gap National Agreement	The Closing the Gap National Agreement includes health sector related priorities and targets to improve the health outcomes of Aboriginal and Torres Strait Islanders.

1.5 Workforce

In recent years, health systems in Australia and globally have experienced unprecedented strain in balancing their response to COVID-19 while ensuring essential service continuity, including a shift to new models of care and ways of working out of necessity. From a workforce perspective, the pandemic revealed the need to view the capacity of the health workforce through a more holistic lens, whereby elements including the health of the workforce emerged as a key consideration.

For the CCLHD these global trends and pressures are evident through responses to the People Matter NSW Public Sector Employee Survey 2022. Responses suggest lower levels of employee engagement, job satisfaction and wellbeing scores in 2022 as compared with 2021. Healthcare worker demands will continue to rise and as such consideration for future workforce capacity, capability and engagement will be critical.

Workforce Snapshot

There has been significant investment in CCLHD staffing over the past five years to provide for future growth in service delivery. In FY2018-19, the CCLHD workforce was 6,700 staff. As at March in FY2022-23, the CCLHD

workforce profile was more than 7,000 staff. This now makes up 5,831 full time equivalent (FTE) staff. The impact of COVID-19 resulted in an increase in staffing with additional funding received from NSW Health for this specific purpose. Across key workforce categories the FY2022-23 CCLHD staffing profile includes:

- 48 per cent Nursing
- 30 per cent Clinical and Corporate Support
- 10 per cent Allied Health
- 12 per cent Medical.

Nearly three-quarters (73 per cent) of the CCLHD workforce are permanently employed with the remaining (27 per cent) employed by temporary or casual contractual arrangements.

The CCLHD staffing profile is illustrated by the following key demographics:

- 24 per cent are aged over 55 years
- 3.2 per cent identify as Aboriginal and Torres Strait Islander
- 1.5 per cent of staff have a disability.⁵

⁵ CCLHD Corporate Analytics (SMRS) as at 2022/23, FN18



Workforce retention

The CCLHD has experienced high mobility within its workforce. During the last five years, retention was highest in FY2019-20 (up to 95 per cent) and lowest in FY2022-23 (down to 89 per cent).

The People Matter NSW Public Sector Employee Survey 2022 reported that 10% of survey respondents have an intention to stay within CCLHD of less than 1 year, and nearly half (46 per cent) of the CCLHD survey respondents reported feeling burned out by their work. This aligns with general health workforce trends nationally and internationally.

Staff shortages

A CCLHD staff vacancy review was undertaken in 2023 and critical workforce shortages were identified across a range of skills sets, including junior medical officers, nurses, health informatics, occupational therapists, social workers, mental health teams, clinical psychologists, and environmental service staff.

Staff shortages in CCLHD experienced over the past 12 to 18 months are likely to remain. Together with limitations in national and international workforce availability in 2023, these shortages will continue to affect CCLHD workforce supply in the short to medium term (one to three years). This suggests there is a critical need to ensure clinical service planning considers the changing workforce profile and expectations to ensure a sustainable workforce into the future. CCLHD are developing a Workforce Plan.

1.6 Service planning principles

The CCLHD Clinical Services Plan Steering Committee established planning principles to inform the development of the CCLHD Clinical Services Plan 2023-2028. The principles embrace the strategic outcomes and key objectives outlined in NSW Health Future Health⁶, and have been developed to meet the Institute for Healthcare Improvement's (IHI) quadruple aim⁷:

- i. Improved quality, safety and patient experience of care
- ii. Improved health and equity for all populations
- iii. Improved staff experience
- iv. Best value for public health system resources.

The following principles focus on patients and carers having positive experiences, cultural safety, closing the gap, safe and high-quality services, integrated and coordinated care, virtual care and models for hospital alternatives are of particular importance for CCLHD clinical service delivery:

1. Population health needs inform service scope:

- Planning is driven by community and population health needs including the identified needs of Aboriginal, culturally and linguistically diverse and other high risk population groups, and includes a focus on health and wellbeing, prevention of illness and keeping people well in the community

6 NSW Ministry of Health, Future Health: Guiding the next decade of care in NSW 2022-2032, 2022 [future-health-report.pdf \(nsw.gov.au\)](https://www.nsw.gov.au/health-and-care-services/publications/future-health-report)

7 Institute for Healthcare Improvement, [Improving Health and Health Care Worldwide | IHI-Institute for Healthcare Improvement](https://www.ihimetric.com/)

- Planning is undertaken in collaboration with the community, consumers and their carers, local agencies and CCLHD services.
2. **Services will deliver optimal patient outcomes and experiences of care**
 3. **Service models promote family, patient, client and community centred care**
 4. **Planning focuses on safe, high-quality services**
 5. **Services are sustainable and consider:**
 - Value based care -shifting the focus from the volume of services delivered, to maximising the outcomes achieved for patients in relation to the cost of care
 - Providing capacity for the community to contribute to their health and management of their health
 - Inclusion of collaborative service models with partner agencies.
 6. **Planning for the right technology to support service delivery**
 7. **Services are locally accessible (admitted and non-admitted) and networked within the District and beyond:**
 - 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 comprehensive range of clinical services should be available on the Central Coast with the exception of quaternary and highly specialised low volume services.
8. **Location, scope and number of services are matched to:**
 - Population demand
 - Changing technologies and treatments
 - Availability of current services and capacity (inpatient, outpatient, management of planned and unplanned activity, day only and overnight activity)
 - Workforce (appropriately skilled and adequate number)
 - Infrastructure (built and equipment)
 - Required support services.
 9. **Clinical service models of care are aimed at optimising achievements in Ministry of Health and CCLHD key performance indicators and targets**
 - Enhancing performance on service related key performance indicators (KPIs) and benchmarks, particularly for emergency department care and surgery.
 10. **Clinical and corporate risks**
 - 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.

1.7 Key considerations

Health services in Australia are experiencing rapid change in the post-pandemic environment to achieve sustainability, whilst continuing to respond to the health needs of Australians. For CCLHD, the changing context and needs of the population and the workforce mean that services will need to evolve. Significant policy drivers impacting different parts of the system, from emergency care (e.g. Urgent Care Centres and services) to aged care (e.g. impacts of changes in residential aged care facilities [RACFs]), will mean that the way the community as a whole interacts with the health system will continue to change.



Section 2 – Population

The CCLHD Clinical Services Plan 2023-2028 considers analysis of the demography of the Central Coast population and identifies factors that may influence demand for health services.



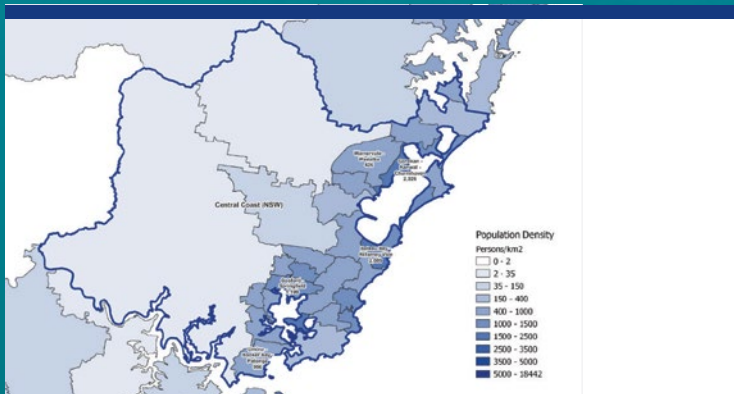
The region is experiencing growth in population



The population is ageing and has a growing proportion of people aged over 70 years



The region is home to a large Aboriginal and Torres Strait Islander population

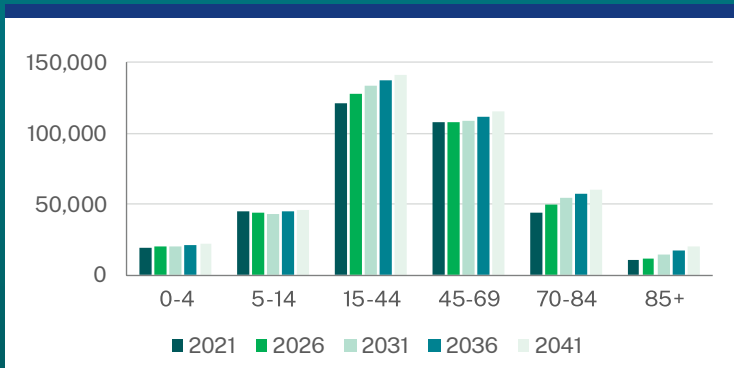


Source: NSW Department of Planning and Environment 2021, Australian Bureau of Statistics 2021



The Central Coast is a small region situated between Sydney to the south and Newcastle to the north. The population is mainly distributed along the coast.

Central Coast LGA projections of population by age, 2021 to 2041



Source: NSW Department of Planning and Environment 2021



The proportion of people aged over 70 years will increase from 16% in 2021 to 20% in 2041



Central Coast Local Health District

Understanding of the population profile and trends is an important consideration for future health service planning.

2 Population



This section analyses the demography of the CCLHD region population and identifies factors that may influence demand for health services. Along with stakeholder insights, this population-based information helps build the understanding around community health needs and future demands for specific services in the region.

The demographic, socioeconomic and health status of residents living in CCLHD are important considerations for service planning to ensure that health services are in place across the continuum of care; there is appropriate access for various population groups; services work together to meet community health needs; and the regional context is considered in terms of efficient and sustainable service delivery.

Overall, analysis of the demographic information suggests that the Central Coast:

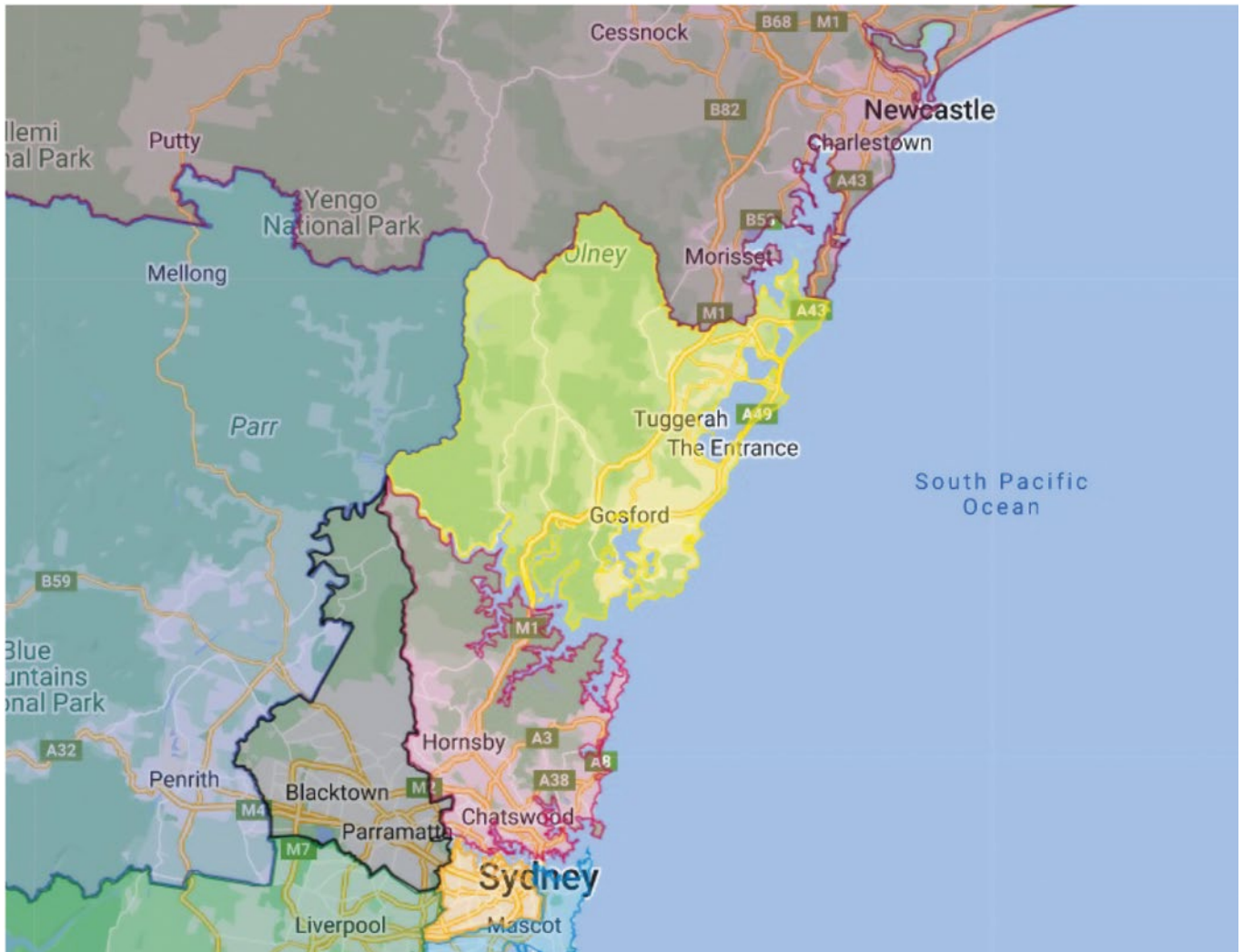
- Is experiencing population growth
- Has an ageing population
- Has a large Aboriginal and Torres Strait Islander population.



2.1 CCLHD region

The CCLHD is situated between metropolitan Sydney 60-90 kilometres to the south, and the regional metropolitan Greater Newcastle area about 80 kilometres to the north. The Central Coast region is connected to both via the Sydney-Newcastle Freeway. The CCLHD is located within the Central Coast Local Government Area (LGA) which is a peri-urban region and covers an area of approximately 1,680 square kilometres.

Figure 2-1: Map of the Central Coast Local Health District



Source: NSW Health

The City of Gosford is the commercial and administrative centre of the Central Coast region. The population of the Central Coast is predominantly located along the coast with small but significant farming communities to the west of the region. The region is attractive for retirees as the area has several retirement villages and residential aged care facilities.

The region's key industries for employment and economic contribution are tourism, healthcare, aged care, mining and manufacturing. The region also includes three Technical and Further Education (TAFE) campuses and two campuses of the University of Newcastle at Ourimbah and Gosford Hospital, with a third campus being developed in Gosford CBD. In the 2021 Australian Bureau

of Statistics (ABS) Census, the hospital sector was the largest employer in the Central Coast with five per cent of the workforce, and aged care services were third highest with 3.2 per cent. The CCLHD is a key economic driver in the Central Coast region.

Transport infrastructure in the region is somewhat limited. There is one main train line which runs between Sydney and Newcastle, and vehicular travel is largely diverted around the large waterways which characterise the geography of the region. There are limited public transport options and service links across the Central Coast. Section 4.2 provides further detail on the social determinants of health and the impact of health service access, including transportation issues.

2.2 Historical population change

In 2020 there were 345,809 people residing in the Central Coast LGA. Over the past 10 years, the population of the Central Coast LGA has increased at just over half the rate of the state average (0.77 per cent increase compared to 1.35 per cent annually). Despite a modest increase in population across most of the Central Coast, two areas experienced stronger growth. The population of Warnervale-Wadalba experienced an increase of more than five times the rate of the Central Coast LGA (4.12 per cent) and Jilliby – Yarramalong has

increased at a rate just above the state average (1.38 per cent).⁸

The Central Coast LGA is made up of 30 statistical level 2 areas (SA2s). Of these, the top five most populated SA2 account for 32 per cent of the LGA's population despite only covering six per cent of its total land area.⁹ Table 2-1 below outlines the changes in population over the period between 2010 and 2020 for the top five most populated SA2s in the Central Coast LGA.

Table 2-1: Average historical population change and population density information for the Central Coast LGA and the top five populated SA2s, 2020

SA2	Land Area (km2)	Total Population 2020	Population Density (persons/km2)	Total population change (per cent)*	Annual population change (per cent)*
Umina -Booker Bay - Patonga	25	25,124	995.9	8.39%	0.81%
Gorokan -Kanwal - Charmhaven	11	22,796	2,026.5	7.47%	0.72%
Bateau Bay -Killarney Vale	11	22,656	2,086.3	2.75%	0.27%
Gosford -Springfield	17	20,279	1,199.1	10.78%	1.03%
Warnervale -Wadalba	43	18,257	425.7	49.67%	4.12%
Central Coast	1,681	345,809	205.7	7.94%	0.77%
NSW	801,150	8,167,532	10.2	14.32%	1.35%

*Population growth rate has been calculated as historical 10-year growth from 2010 to 2020

Sources: NSW DPE 2021, ABS 2021, Geoscience Australia 2023

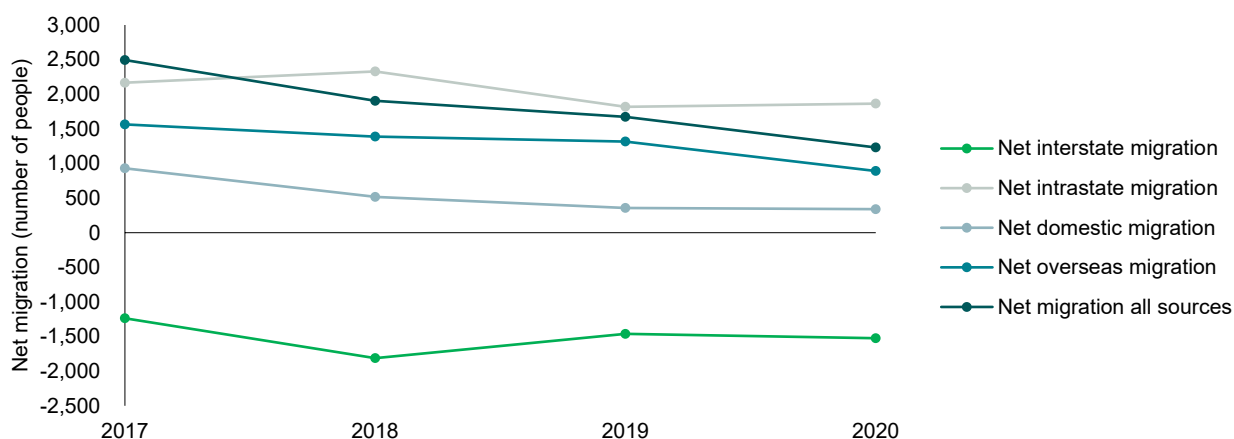
The steady growth in population size in the Central Coast region was not disrupted by COVID-19, unlike other regional areas. This is partially explained by the increase in net migration over the past three years, as shown in Figure 2-2 and Table A-1 in the Appendix A. The number of people migrating between Central Coast LGA and other regions within NSW is a net positive, while those migrating

between the area and other states is net negative. Overall, internal migration increased the region's population throughout the three years from 2017 to 2020 throughout COVID-19. Overseas migration also contributed to this increase in the population in the Central Coast LGA.

⁸ NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](#)

⁹ NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](#)

Figure 2-2: Net migration in Central Coast LGA 2017 to 2020

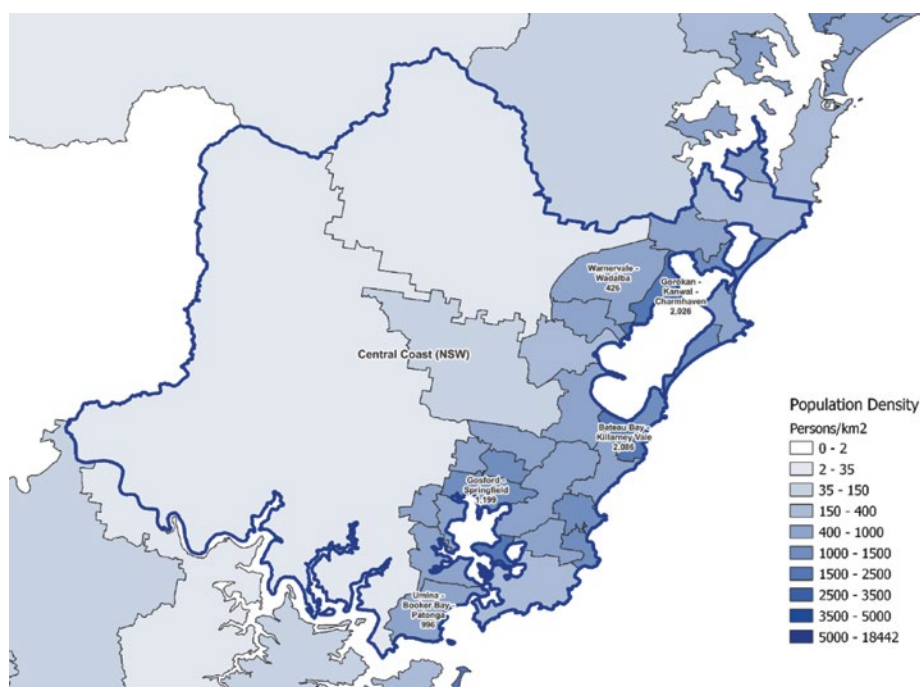


Source: NSW DPE 2021

The Central Coast region’s population is mainly distributed along the coast. The population is most densely located in towns and suburbs along the coast, Tuggerah Lake and Brisbane Water as shown in Figure 2-3: Population density by SA2 across Central Coast LGA Figure 2-3. This includes the commercial and administrative centre, Gosford. The area with the highest population is Umina -Booker Bay -Patonga region, with Bateau Bay -Killarney Vale recording the second highest.¹⁰

Within the geographic area of Central Coast LGA, there is a total population of 345,809. The region contributes to 4.2 per cent of NSW’s total population¹¹ while encompassing 0.2 per cent of NSW’s geography.¹² The population density is significantly higher than the NSW state average, as shown above in Table 2-2. Bateau Bay -Killarney Vale has the highest population density, whilst Calga –Kulnura is the least densely populated and is characterised by the large expanse of land.¹³ The population distribution significantly impacts the accessibility of health services and must be considered in the service planning context with respect to the types of health services, locations and service delivery methods required. Figure 2-3 below outlines the population density per square kilometre across SA2s in the Central Coast LGA.

Figure 2-3: Population density by SA2 across Central Coast LGA, 2021



Source: NSW DPE 2021, ABS 2021

10 NSW DPE, 2022 NSW Common Planning Assumptions, 2021. [Explore the data | Planning \(nsw.gov.au\)](https://www.nsw.gov.au/planning)

11 NSW DPE, 2022 NSW Common Planning Assumptions, 2021. [Explore the data | Planning \(nsw.gov.au\)](https://www.nsw.gov.au/planning)

12 ABS, Australian Statistical Geography Standard (ASGS) Edition 3, 2022. <https://www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026/access-and-downloads/digital-boundary-files>

13 ABS, Census, 2021

2.3 Age profile

The Central Coast region's population is older when compared to the NSW average. The Central Coast LGA has fewer residents of working age, with a greater percentage of people aged over 65 when compared to the NSW average. A low working age population has the potential to further contribute to socioeconomic disadvantage, increasing the burden of disease and demand for health services. This, coupled with the ageing population, also indicates a risk of increased demand for health services from the elderly population.

Table 2-2 provides an in-depth breakdown of the age spread across two statistical areas, level 2 (SA2s) of the Central Coast LGA compared to NSW. The two SA2s are included as comparisons between the area with the highest proportion of elderly residents, Lake Munmorah – Mannering Park SA2, and the commercial and administrative centre of Central Coast, Gosford – Springfield SA2, with an age profile similar to NSW state-wide figures. These two SA2s illustrate the variation in age profile within the region.

The median age of residents living in the region is generally older when compared to the NSW average, with 21 per cent of residents aged over 65 years compared to 16.7 per cent across NSW more broadly. Lake Munmorah – Mannering Park LGA contributes to this, sitting at almost double the NSW state average (30.1 per cent and 16.7 per cent). In

comparison, the business centre of the Central Coast LGA, Gosford – Springfield has a lower proportion of elderly residents at 19.0 per cent.¹⁴

The proportion of the working age population differs between the two SA2s in Table 2-2. The proportion of the age group 15-64 years in Gosford – Springfield SA2 is just over the Central Coast LGA wide figure and almost at the NSW state-wide proportion (74.8 per cent, 73.1 per cent and 77.2 per cent, respectively). The Lake Munmorah – Mannering Park SA2 reports a proportion that is 10 per cent lower than that of its business centre counterpart (64.7 per cent).¹⁵

The median age across NSW is 37.4 years, with Central Coast LGA sitting above this at 41.6 years. The median age in Lake Munmorah – Mannering Park and Gosford – Springfield region is slightly higher at 49.6 years and 39.6 years respectively.

There are almost the same proportion of people aged 0-14 years in the Central Coast region (18.6 per cent compared to 18.5 per cent), whilst less residents are aged 15-64 years when compared to the NSW state average (60.3 per cent compared to 64.5 per cent). This is particularly prevalent in Kincumber – Picketts Valley with only 52.9 per cent of the population of working age.

Table 2-2: Population spread per age (years) in SA2 with highest proportion of elderly residents and the business centre in Central Coast, 2020

SA2	Median Age	Age 0-4	Age 5-14	Age 15-44	Age 45-69	Age 70-84	Age 85+
Lake Munmorah - Mannering Park	49.5	531 (4.7%)	1,190 (10.5%)	3,378 (29.9%)	3,534 (31.3%)	2,234 (19.8%)	424 (3.8%)
Gosford -Springfield	39.6	1,255 (6.2%)	2,096 (10.3%)	8,052 (39.7%)	6,155 (30.4%)	2,114 (10.4%)	607 (3%)
Central Coast	41.6	20,185 (5.8%)	44,289 (12.8%)	120,152 (34.7%)	108,093 (31.3%)	42,767 (12.4%)	10,323 (3%)
NSW	37.4	495,091 (6.1%)	1,013,659 (12.4%)	3,323,891 (40.7%)	2,372,285 (29%)	783,511 (9.6%)	179,095 (2.2%)

Source: NSW DPE 2021

¹⁴ NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](#)

¹⁵ NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](#)



2.4 Culturally and linguistically diverse (CALD) populations

The NSW Government established the Multicultural NSW agency to lead implementation of policy and legislative framework to build an inclusive, connected and socially cohesive multicultural NSW. Multicultural NSW Strategic Plan 2021-2025 recognises that providing culturally responsive, respectful, and accessible services is a core responsibility of the department and the services it funds and delivers.¹⁶

When compared to the NSW average, the number of people born overseas in the Central Coast LGA is

Table 2-3: Cultural profile provides a more detailed cross-section of information relating to the culturally and linguistically diverse (CALD) populations in the region.

significantly fewer (16.1 per cent compared to 29.3 per cent respectively). Of those people who are born overseas, the highest proportion were born in England (5.4 per cent), New Zealand (1.7 per cent) and Philippines (0.7 per cent). This is marginally lower than NSW figures of 3.4 per cent, 1.5 per cent and 1.3 per cent respectively. There are also fewer people who speak a language other than English at home, with 7.1 per cent speaking another language in comparison to 26.6 per cent across NSW more broadly.¹⁷

Table 2-3: Cultural profile in Central Coast LGA

Proportion of total population (per cent) 2021

Region	Total born overseas	Speaks a language other than English at home	Aboriginal and Torres Strait Islander People
Central Coast	16.1%	7.1%	4.9%
NSW	29.3%	26.6%	3.4%

Source: ABS 2021

Despite the small proportion of the culturally and linguistically diverse population in the Central Coast LGA, its growth from 2011 to 2021 surpasses the NSW rate. The proportion of the population that speaks a language other than English increased by 4.3 per cent per annum in the Central Coast LGA, a rate more than double that of NSW (1.7 per cent). The average annual rate of change for each category from the above table is provided in Table 2-4.

¹⁶ Strategic Plan 2021-25_Oct-2022.pdf (nsw.gov.au)

¹⁷ ABS, Census, 2021

Table 2-4: Average annual rate of change from 2011 to 2021 in the cultural profile of Central Coast LGA

Annual change 2011-2021 (per cent)

Region	Total born overseas	Speaks a language other than English at home	Aboriginal and Torres Strait Islander People
Central Coast	1.4%	4.3%	5.5%
NSW	1.3%	1.7%	3.3%

Source: ABS 2021

Note: Average annual population growth rate has been calculated as 10-year growth from 2011 to 2021

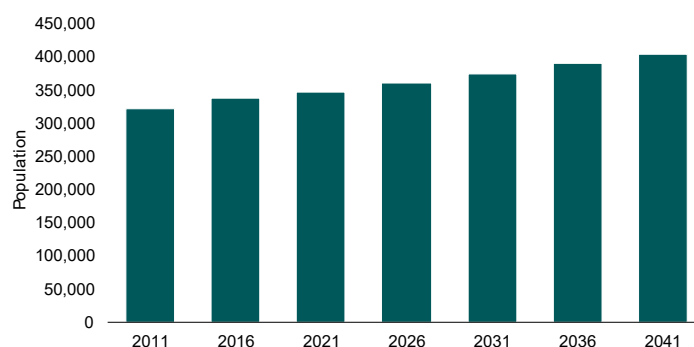
2.5 Projected population change

Projections of the expected population size and age profile are useful in health service planning as they enable planning to focus on the expected future population rather than the current community.

The NSW Government periodically publishes population projections that include consideration of births, deaths, migration, the supply of dwellings and household formation assumptions. At the time of this report, the latest version (2022 NSW Common Planning Assumption Projections) of projections were used as a description of the population estimates.

Projected population data for Central Coast LGA indicates that population growth rates will be less than the NSW state average (at just over three-quarters of the NSW state average with 0.76 per cent compared to 0.95 per cent per annum). The population growth from 2021 to 2041 translates to an increase of 56,790 residents.¹⁸ The LGA's historical and projected population is outlined in Figure 2-4 and Table A -2 in Appendix A.

Figure 2-4: Historical and projected population in Central Coast LGA, 2011 to 2041



Source: NSW DPE 2021

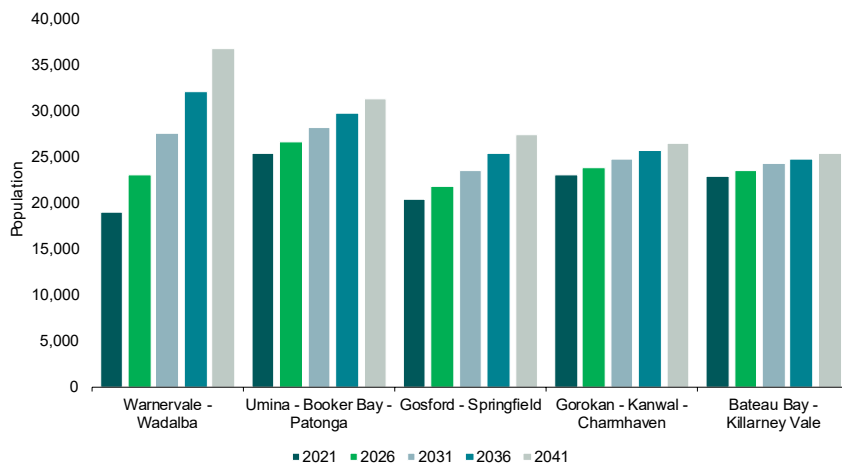
The Central Coast area (statistic area level 2) that is projected to have the most growth in population is Warnervale – Wadalba, while the area expected to see the most decline in population is The Entrance (increase by 3.36 per cent and decrease by 0.58 per cent per annum, respectively).¹⁹

The projected population growth for Central Coast LGA and the five most populated statistical area level 2s in the region is provided in more detail in Table A -3 in Appendix B and graphically in Figure 2-5.

¹⁸ NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](https://www.nsw.gov.au/planning)

¹⁹ NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](https://www.nsw.gov.au/planning)

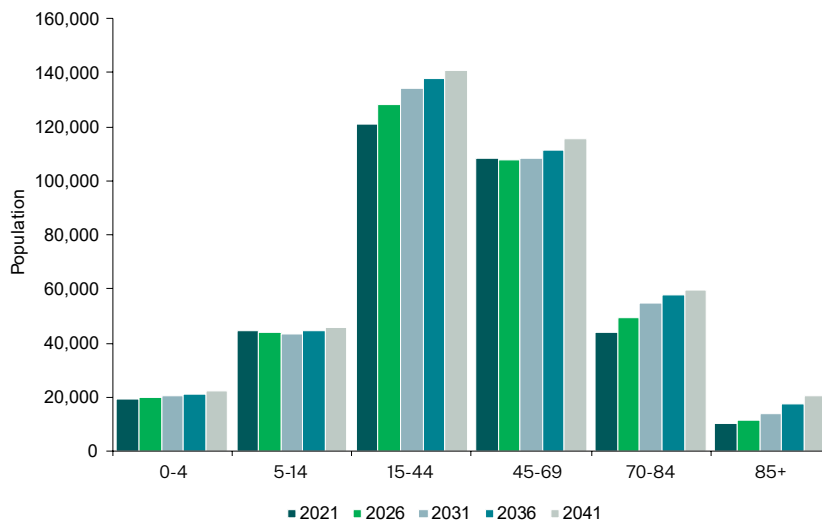
Figure 2-5: Projected population by top five most populated SA2 in Central Coast, 2021 to 2041



Source: NSW DPE 2021

The projected population growth on the Central Coast is mostly driven by the ageing population. The age groups that are expected to experience the most growth in the Central Coast LGA is the 85 years and over and 70-84 years age groups (3.40 per cent and 1.58 per cent a year to 2041). The least growth is forecasted in the 5-14 year age group (0.09 per cent a year to 2041). Figure 2-6 provides the projected population growth by age group for the Central Coast.²⁰

Figure 2-6 Central Coast LGA projections of population by age, 2021 to 2041



Source: NSW DPE 2021

The growth in the ageing population on the Central Coast is particularly driven by the statistical area level 2s (SA2s) with the highest proportion of people aged 70 years and over, Warnervale–Wadalba. This area is expected to have the highest annual growth of older people (4.86 per cent) and the largest absolute increase (2,531 people) between 2021 and 2041.²¹ Refer to Appendix A for all SA2s in the Central Coast LGA. Table 2-5 provides projected populations for the age group, 70 years and over, in two SA2s, the area with the highest proportion of elderly residents and Gosford, the commercial and administrative centre of the Central Coast.

20 NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](https://www.nsw.gov.au/planning)

21 NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](https://www.nsw.gov.au/planning)



Table 2-5: Projections of population aged 70 years and over in SA2 with highest proportion of elderly residents in the Central Coast, 2021 to 2041

Region	2021	2026	2031	2036	2041	Total change 2021-41 (number)	Total change 2021-41 (per cent)	Annual change 2021-41 (per cent)
Lake Munmorah - Mannering Park	2,708	3,053	3,404	3,677	3,851	1,143	42.22%	1.78%
Gosford - Springfield	2,722	2,857	3,159	3,567	3,930	1,207	44.35%	1.85%
Central Coast	54,114	60,809	68,599	75,098	80,107	25,993	48.03%	1.98%
NSW	995,762	1,171,080	1,366,662	1,542,072	1,690,440	694,678	69.76%	2.68%

Source: NSW DPE 2021

2.6 Key considerations

The growing population on the Central Coast means there will be increasing demand for health services alongside a need to maintain or improve the quality and efficiency of health care. The population of the Central Coast is ageing and health needs are increasing in complexity. As a result, there may be increased pressure on an already stretched health system.

As a small geographic region, the Central Coast is limited in terms of transport and accessibility. This presents further challenges to the region in terms of health service access and an increasing trend toward place-based care.

CCLHD needs to understand the future expectations and requirements of the community and identify opportunities to co-design and implement accessible services across the region which seek to alleviate the pressure of growing demand.

Section 3 – Aboriginal and Torres Strait Islander population

The CCLHD Clinical Services Plan 2023-2028 aims to ensure provision of culturally safe and competent services with strong appreciation of, and linkages with Aboriginal Community Controlled Health Organisations (ACCHOs). The relatively large population of Aboriginal and Torres Strait Islander people suggests that this cohort is a priority group for the region.

4.9 per cent

of the population identify as Aboriginal and Torres Strait Islander as compared with 3.4 per cent across NSW

17.4 per cent

of the Aboriginal and Torres Strait Islander community on the Central Coast experience mental health conditions as compared with 15.3 per cent across NSW

It is well documented that Aboriginal and Torres Strait Islander people are more likely to experience poorer health outcomes than non-Aboriginal people

Aboriginal people experience significantly poorer mental health with higher rates of suicide than non-Aboriginal people.

Aboriginal people experience a higher burden, lower survival rate and poorer outcomes associated with cancer compared to non-Aboriginal people.

Aboriginal mothers and their babies require culturally safe antenatal support.



Aboriginal people have lower life expectancy than non-Aboriginal people.

Aboriginal people experience higher levels of lifestyle risk factors than non-Aboriginal people.

Aboriginal people have complex health conditions and ageing related health conditions appear sooner in this cohort than non-Aboriginal people.



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These challenges will be considered by CCLHD in the Aboriginal Health Plan which is currently being developed.

3 Aboriginal and Torres Strait Islander population



This section outlines the demographic trends and health needs of the Aboriginal and Torres Strait Islander population on the Central Coast. An in-depth understanding of the Aboriginal and Torres Strait Islander population in the region is critical to ensure service planning and service provision meets the specific needs of this population.

Across the Central Coast, the Aboriginal and Torres Strait Islander population:

- Comprises a significant proportion of the catchment population and is growing at a fast rate, especially when compared to NSW levels
- Experience health care inequities that lead to poor health outcomes for the cohort
- Require considerations for health planning associated with the need for cultural appropriateness of services.



3.1 Demographic profile

There are more than 17,000 Aboriginal and Torres Strait Islander people living on the Central Coast. The proportion of the Aboriginal and Torres Strait Islander people on the Central Coast is greater than the NSW figures (4.9 per cent versus 3.4 per cent). Within the region, the Blue Haven – San Remo region has the highest proportion of Aboriginal and Torres Strait Islander people, followed by Gorokan – Kanwal – Charmhaven and Wyong region. Over six per cent of NSW's total number of Aboriginal and Torres Strait Islander people reside on the Central Coast.²²

The number of Aboriginal and Torres Strait Islander people on the Central Coast has gradually increased since 2011, growing at a faster rate than the overall population within the region (refer to Table 3-1).

Aboriginal and Torres Strait Islander people living in the region have the same median age as the NSW figure, as outlined below in Table 3-2. This is almost half of the median age of the entire Central Coast population (43 years).²³

Table 3-1: Population numbers and growth of Aboriginal and Torres Strait Islander people in the three SA2s with the highest proportion of this cohort

SA2	Population numbers 2011		Population numbers 2021		Total change between 2011-2021	
	Aboriginal and Torres Strait Islander people (no.)	Total Population (no.)	Aboriginal and Torres Strait Islander people (no.)	Total Population (no.)	Aboriginal and Torres Strait Islander people (per cent)	Total Population (per cent)
Blue Haven - San Remo	551	10,781	1,139	11,290	107%	5%
Gorokan - Kanwal - Charmhaven	947	20,675	1,681	22,362	78%	8%
Wyong	423	8,152	683	9,120	61%	12%
Central Coast	9,024	312,181	17,047	346,596	89%	11%
NSW	172,620	6,917,657	278,043	8,072,163	61%	17%

Source: ABS 2011, ABS 2021

Populations of Aboriginal and Torres Strait Islander people are also significant in neighbouring NSW LGAs, including in the Lake Macquarie (5.5 per cent), Cessnock (10.2 per cent) and Hawkesbury (4.8 per cent), with the exception of Hornsby (0.6 per cent).²⁴

Table 3-2: Median age of Aboriginal and Torres Strait Islander people in the three SA2s of the Central Coast with the highest proportion of Aboriginal and Torres Strait Islander people, 2021

SA2	Median age of Aboriginal and Torres Strait Islander peoples 2021
Blue Haven - San Remo	20
Gorokan - Kanwal - Charmhaven	22
Wyong	22
Central Coast	23
NSW	23

Source: ABS 2021

²² ABS, Census, 2021

²³ ABS, Census, 2021

²⁴ ABS, Census, 2021

3.2 Aboriginal community-controlled health organisations

Two Aboriginal Community Controlled Organisations (ACCHOs) provide services to Aboriginal and Torres Strait Islander people in the Central Coast region. These services include Ngaimpe Aboriginal Corporation – The Glen and Yerin Eleanor Duncan Aboriginal Health Services.²⁵ Figure 3-1 provides the locations of these services.

Ngaimpe Aboriginal Corporation – The Glen – The Glen is an ACCHO that provides drug and alcohol rehabilitation services. It operates over two sites, one for men located in Chittaway and the other for women located in Wyong Creek.²⁶

Yerin Eleanor Duncan Aboriginal Health Services (YAHS) – Yerin Eleanor Duncan Aboriginal Health Service is an ACCHO that provides primary healthcare and dental services in the Central Coast region. Services include medical, maternal, child and family, youth services, dental services, National Disability Insurance Scheme (NDIS) ability and well-being services, permanency support and family preservation, homelessness, suicide prevention and chronic disease management (integrated team care). The service is based at Wyong, with a centre also at Umina.²⁷

Figure 3-1: ACCHO sites across Central Coast



Source: The Glen Centre, Yerin Eleanor Duncan Aboriginal Health Services



25 NACCHO, NACCHO Map, [NACCHO Map - NACCHO](#) (accessed June 2023)

26 The Glen, Ngaimpe Aboriginal Corporation – [The Glen, The Glen - The Glen Centre](#) (accessed June 2023)

27 YAHS, Yerin Aboriginal Health Services, [Yerin Aboriginal Health Services Limited - NACCHO](#) (accessed June 2023)

3.3 Aboriginal health challenges

Due to unique and exacerbated health challenges, Aboriginal and Torres Strait Islander people are more likely to experience poorer health outcomes than non-Aboriginal people.²⁸ Across the Central Coast region, culturally appropriate programs for Aboriginal and Torres Strait Islander people have been implemented in response to specific health challenges:

- Aboriginal people experience significantly poorer mental health with higher rates of suicide than non-Aboriginal people. Historical trauma and experiences of systemic racism and discrimination has adverse implications for the mental health and wellbeing of Aboriginal communities. The Aboriginal and Torres Strait Islander people experience mental health conditions at a higher rate in the Central Coast LGA compared to NSW (17.4 per cent and 15.3 per cent respectively).²⁹
- Aboriginal people experience a higher burden, lower survival rate and poorer outcomes associated with cancer compared to non-Aboriginal people. Cancer hospital admissions in the Hunter, New England and Central Coast (HNECC) PHN region was at a rate of 1,014.2 per 100,000 population in 2016-2019, compared to 968.1 in NSW.³⁰
- Aboriginal mothers and their babies require culturally safe antenatal support. The Aboriginal Pregnancy and Child and Family Health service Ngiyang provides free services from early child development, immunisation, parenting support, education and referrals, that are culturally sensitive. The services are provided in the CCLHD by child and family health nurses,

midwives, social workers and Aboriginal health workers.³¹ Ngiyang includes Aboriginal Maternal and Infant Health Services (AMIHS) and Building Strong Foundations (BSF).³²

- Aboriginal people have lower life expectancy than non-Aboriginal people. The NSW life expectancy of Aboriginal and Torres Strait Islander people is 70.9 years for males and 75.9 years for females.³³ This is around ten years less than the entire NSW population (81.4 years for males, 85.4 years for females).³⁴ Life expectancy within the CCLHD is further discussed in Section 4.4.
- Aboriginal people experience higher levels of lifestyle risk factors than non-Aboriginal people. Nationally, tobacco smoking among Aboriginal and Torres Strait Islander people is responsible for 23 per cent of the difference in health burden with the non-Aboriginal population.³⁵ Furthermore, Aboriginal people are 3.4 times more likely to be hospitalised for drug-related complications.³⁶
- Aboriginal people have complex health conditions and ageing related health conditions appear sooner in this cohort than non-Aboriginal people. Nationally, the age cohort with the highest proportion of people using permanent residential aged care was the 70 to 74 age group (16.9 per cent of men and 15.0 per cent of women) for Aboriginal and Torres Strait Islander people in 2021. This is 15 years younger than the general population that reported the 85 to 89 age group had the highest proportion of aged care use (22.3 per cent of men and 24.6 per cent of women).³⁷

3.4 Key considerations

The relatively large and growing Aboriginal and Torres Strait Islander population have specific health needs to be considered. CCLHD has commenced development of an Aboriginal and Torres Strait Islander Health Plan to focus on improving the health outcomes for the Aboriginal and Torres Strait Islander population across the region, ensure

services are culturally safe, and that there are strong connections with the Aboriginal service providers. This will also consider an Aboriginal and Torres Strait Islander workforce plan, as part of CCLHD future workforce plan, to ensure there is sufficient Aboriginal health care workers with relevant qualifications and training.

28 HealthStats NSW, [Aboriginal Health, HealthStats NSW - Aboriginal Health](#) (accessed June 2023)

29 ABS, Census, 2021, [2021 Central Coast, Census Aboriginal and/or Torres Strait Islander people QuickStats | Australian Bureau of Statistics \(abs.gov.au\)](#)

30 HNECCPHN, [First Nations Health and Wellness Framework 2023-2028, 2023, First-Nations-Cultural-Framework.pdf \(imgix.net\)](#)

31 CCLHD, [Aboriginal Pregnancy NGIYANG, Aboriginal Pregnancy NGIYANG - Central Coast Local Health District - NSW Health \(accessed June 2023\)](#)

32 NSW Health, [Services for Aboriginal families, 2023, Services for Aboriginal families - Programs \(nsw.gov.au\)](#)

33 ABS, [Life Tables for Aboriginal and Torres Strait Islander Australians, 2018, Life Tables for Aboriginal and Torres Strait Islander Australians, 2015 - 2017 | Australian Bureau of Statistics \(abs.gov.au\)](#)

34 ABS, [Life tables, 2022, Life tables, 2019 - 2021 | Australian Bureau of Statistics \(abs.gov.au\)](#)

35 NACCHO, [Health tackles Indigenous smoking, 2020, Health tackles Indigenous smoking - NACCHO](#)

36 AIHW, [2.17 Drug and other substance use including inhalants, 2023, 2.17 Drug and other substance use including inhalants - AIHW Indigenous HPF](#)

37 AIHW, [Aboriginal and Torres Strait Islander people using aged care, 2021, Aboriginal and Torres Strait Islander people using aged care - AIHW Gen \(gen-agedcaredata.gov.au\) \(accessed June 2023\)](#)

Section 4 – Service drivers

The CCLHD Clinical Services Plan 2023-2028 considers the underlying health status of the catchment population. Compared to the rest of NSW, the people living in the Central Coast LHD experience poorer health outcomes.



The people of the Central Coast region experience socioeconomic disadvantage compared to the rest of NSW. The Central Coast includes areas that are among the most disadvantaged in Australia.



Barriers to accessing health care for the Central Coast community include long wait lists, after hours availability and the cost of health services.



Lifestyle risk factors are responsible for a significant proportion of the burden of disease in NSW. The Central Coast has high rates of risk factors.



There are higher rates of many chronic diseases in comparison to the NSW average. This has implications for health service planning for prevention and health promotion.



A higher proportion of people have multiple long-term health conditions relative to the NSW average.



Rates of avoidable death, including suicide, are higher than the rest of NSW.



The incidence of many cancers are substantially higher than the rest of NSW.



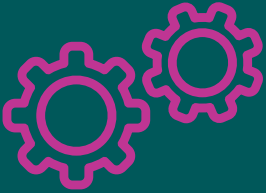
The Central Coast performs well compared to the rest of NSW for child and maternal health indicators.



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Poorer health outcomes among the Central Coast population influences demand for health services and drives the need to improve services that meet the region's needs.

4 Service drivers



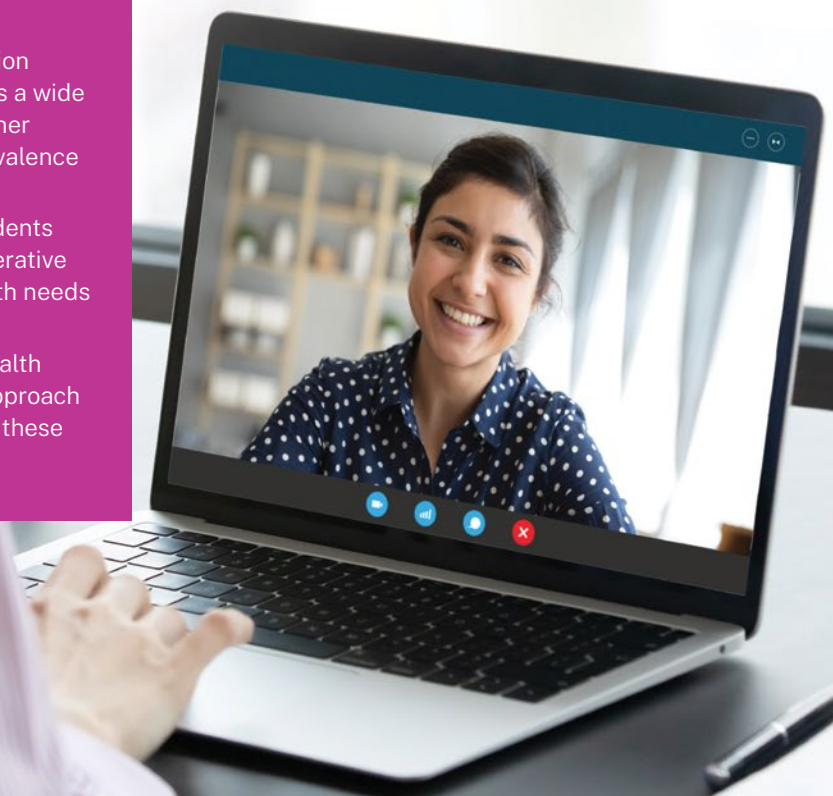
This section considers the underlying health status of the Central Coast population and the drivers of service demand. The section provides analysis of several indicators including burden of disease, risk factors, mortality rates and infrastructure condition.

The section covers:

- *Child and maternal health*
- *Chronic disease*
- *Lifestyle risk factors*
- *Life expectancy*
- *Mortality*
- *Potentially preventable hospitalisations*
- *Cancer incidence and screening*
- *Disability profile*
- *Socioeconomic characteristics*
- *Ageing infrastructure.*

Overall, drivers of health service demand across the Central Coast region indicate:

- The population of the Central Coast region experience poor health outcomes across a wide spectrum of health areas. There is a higher burden of disease and an increased prevalence of lifestyle risk factors
- Understanding the health status of residents living in the Central Coast region is imperative to better understand the collective health needs of the region
- This, in turn, enables identification of health service needs and development of an approach to service planning that best addresses these needs.



4.1 Central Coast Community Health Needs Survey

Compared to the rest of NSW, the people living in the Central Coast region are at higher risk of suffering from poor health outcomes with greater proportions of residents suffering from chronic disease, engaging in lifestyle risk factors, or experiencing higher levels of socioeconomic disadvantage. Thirty-four per cent of people in the Central Coast have one or more long-term health conditions, higher than for NSW overall.³⁸ This heavily influences demand for health services across the Central Coast and provides a key focus for improving health outcomes specific to the region's health needs.

The Central Coast Community Health Needs Survey³⁹ was undertaken to inform the CCLHD Clinical Services Plan 2023-2028. The survey aimed to identify both community and health worker perceptions on health service needs and barriers to accessing health care in the Central Coast. The survey results identify the key areas of focus identified by Central Coast residents and health workers in the next five years (refer Figure 4-1 and Table A-4 in

Appendix C) were:

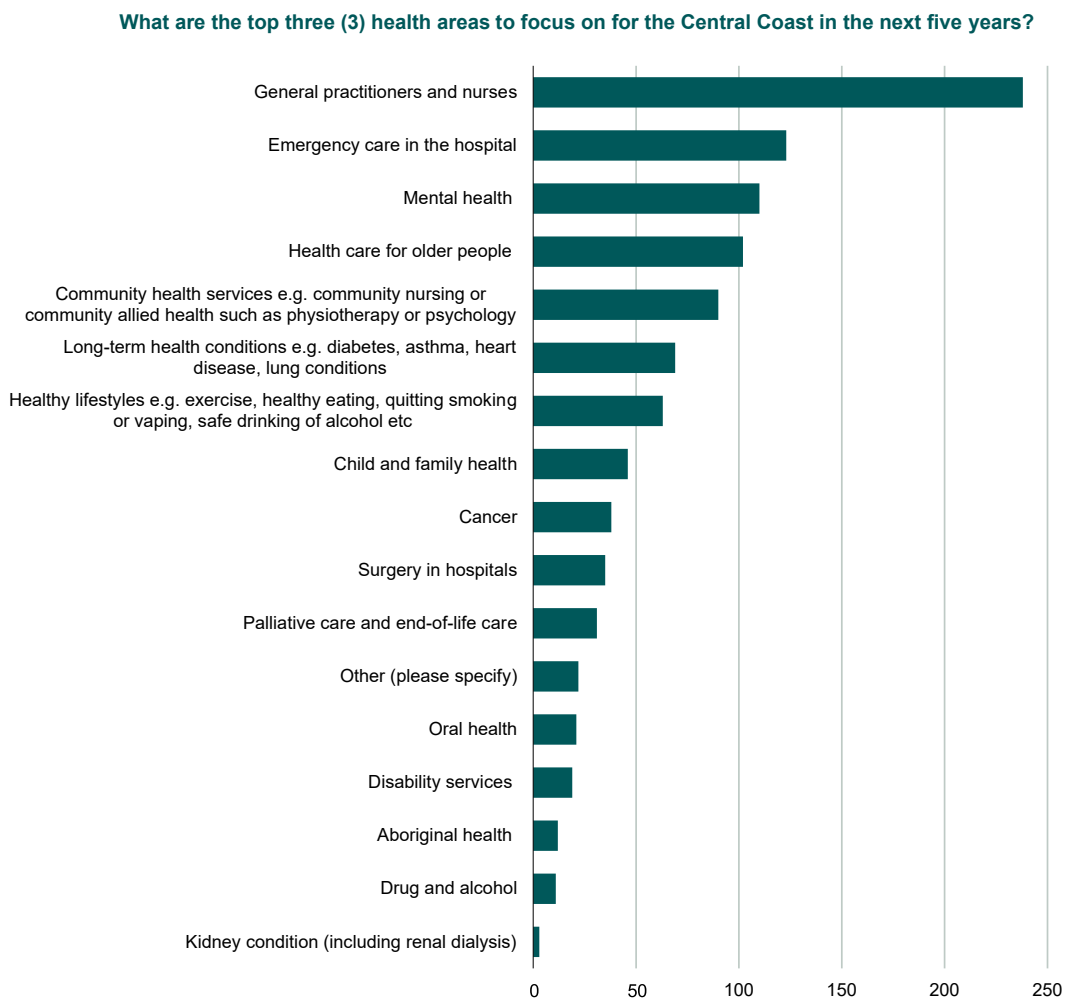
- General Practitioners and nurses
- Emergency care in the hospital
- Mental health
- Health care for older people
- Community health services.

The Central Coast Community Health Needs Survey also asked the about barriers to accessing health care, provided in Figure 4-1, Figure 4-2 and Table A-5 in Appendix C. The top three key barriers identified by the Central Coast community were:

- Long wait lists for health care
- Most services not available on weekends and after hours
- Cost of health services.

Other barriers included “Cost of medications”, and “Difficult to travel to services”.

Figure 4-1: Community survey results for the chosen top three health areas of focus in the next five years in Central Coast

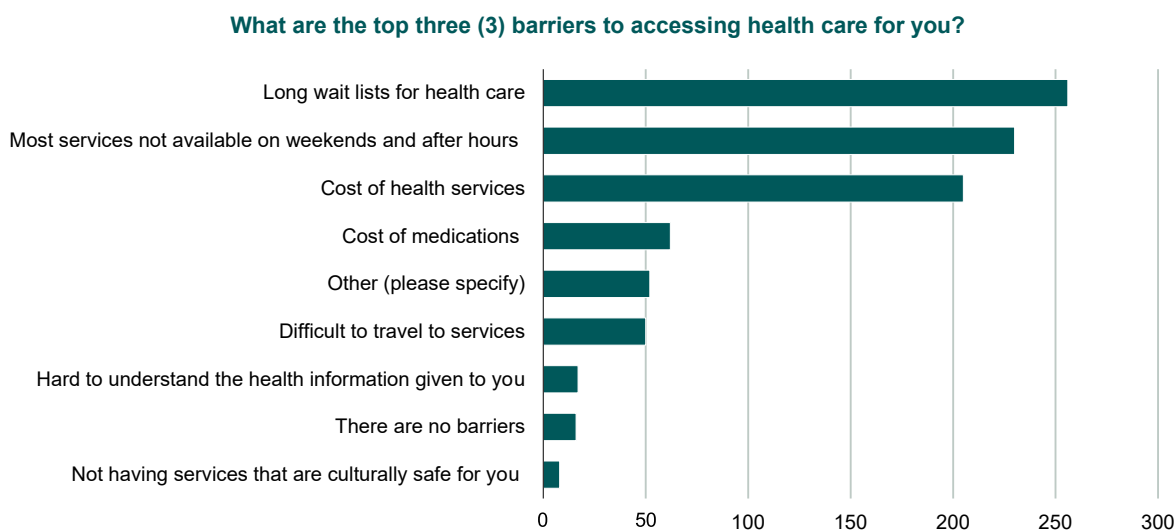


Source: The Central Coast Community Health Needs Survey

³⁸ ABS, 2021 Census Central Coast NSW, [2021 Central Coast \(NSW\), Census All persons QuickStats | Australian Bureau of Statistics \(abs.gov.au\)](#)

³⁹ The survey was available to all Central Coast residents including staff of the CCLHD and Hunter New England Primary Health Network and general practice staff, as well as community members. Over 300 responses were received.

Figure 4-2: Community survey results for the chosen top three barriers to accessing health care for survey respondents in Central Coast



Source: The Central Coast Community Health Needs Survey

4.2 Social determinants of health

Socioeconomic context is linked to an individual’s health status and access to adequate healthcare. Hence, the region’s overall socioeconomic characteristics will impact health service provision into the future.

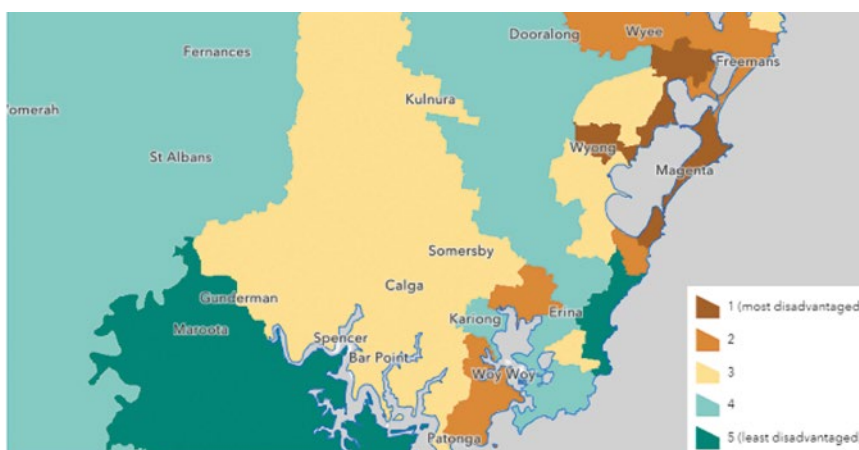
Disadvantage

The people of the Central Coast region experience a clear socioeconomic disadvantage when compared to the rest of NSW, as categorised by the Socioeconomic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Disadvantage (IRSD). This is particularly evident in the areas around Wyong, The Entrance and Blue Haven which are among the most disadvantaged in Australia, as outlined in the map in Figure 4-3 below.

The SEIFA allows for assessment of the socioeconomic status of Australian communities which may assist in

identifying the relationship between socioeconomic disadvantage and various health outcomes. In compiling the SEIFA index, the ABS defines relative socioeconomic advantage and disadvantage in terms of people’s access to material and social resources and their ability to participate in society. The index score is based on the standardised Australian score of 1,000. Scores above 1,000 indicate relative advantage whilst scores below indicate relative disadvantage.

Figure 4-3: SEIFA map of relative social disadvantage of the Central Coast in quintiles compared to Australia, 2021



Source: (ABS), Census of Population and Housing: Socio-Economic Indexes for Areas, 2021

Disability

Disability includes physical, neurological, psychiatric, intellectual or sensory impairment and can impact full and effective participation in the community. On the Central Coast, 12.5 per cent of the population provide unpaid assistance to a person with a disability, health condition or due to old age, relative to 11.5 per cent in NSW.⁴⁰

Assault and domestic violence

Domestic violence assaults on the Central Coast are high in volume and have increased over time. There were 483.2 assaults per 100,000 people on the Central Coast in 2022, compared to 375.5 state-wide, with a large 15 per cent increase over the previous 24 months.⁴¹

There are high numbers of sexual assault on the Central Coast. In 2022, there were 116 sexual assaults per 100,000 people on the Central Coast in 2022, compared to a state average of 95.1. There has also been a large nine per cent increase in sexual assaults over the past five years.⁴²

Children and young people at risk of harm

There are high numbers of children at risk of harm on the Central Coast. There were 14,652 Risk of Significant Harm (ROSH) reports involving children and young people in the Central Coast District in 2020-21. This was an increase of 18 per cent, or 2,248 more ROSH reports compared to the previous year.

There were 1,236 Aboriginal children and young people involved in ROSH reports in the CCLHD in 2020-21. This is an increase of 16 per cent or 175 more Aboriginal children and young people involved in ROSH reports compared to the previous year. Furthermore, Aboriginal children and young people in the CCLHD made up 4.6 per cent of the total number of Aboriginal children and young people involved in ROSH reports in all of NSW in 2020-21.

There were also 996 children and young people in Out of Home Care (OOHC) in the Central Coast District at the end June 2021. This was a three per cent decrease compared to the previous year.⁴³

Access to health services

As outlined in Section 4.1, the Central Coast Community Health Needs Survey identified difficulty in travelling to services as a key barrier to accessing health care. The geography and infrastructure within the Central Coast region creates challenges for patient access to CCLHD

health services (Section 2.1). The geography of the Central Coast can make travel throughout and within challenging. The main train line runs between Sydney and Newcastle and largely follows the north-south Pacific Highway and motorway. There are several large waterways on the Central Coast with car and bus travel largely diverted around these. There is also limited public transport options and service links across the Central Coast. Additionally, the most recent census data suggests that whilst car ownership itself is not lower than NSW average on the Central Coast, the proportion of households with no car is indeed lower than average. For those people without access to private transport, the lack of public transport in the region may be an issue for accessing services. These challenges make it difficult for people to access health services, especially people who are older, have a disability or low incomes, to access to health services.

Household income

The median weekly household income is significantly lower than the NSW average. The Central Coast median weekly household income is \$1,507 compared to \$1,829 for NSW more broadly.⁴⁴

Education

In terms of education, compared to the rest of NSW, people in the Central Coast region are far less likely to have a Bachelor's degree or above as the highest level of educational attainment (17.9 per cent, 27.8 per cent for NSW). However, people on the Central Coast are more likely to have a Certificate IV (4.6 per cent) or a Certificate III (16.4 per cent) qualification compared with the rest of NSW (3.3 per cent, 11.7 per cent).⁴⁵ The region has three TAFE campuses and a campus of the University of Newcastle.

Employment

The unemployment rate in the Central Coast region is slightly lower than the NSW average, however, a smaller proportion of the population participate in the labour force. The most common industries of employment are hospitals (5.0 per cent), other social assistance services (3.4 per cent), and aged care residential services (3.2 per cent). This indicates the CCLHD is a key economic driver in the region.

40 ABS, 2021 Census Central Coast NSW, [2021 Central Coast \(NSW\), Census All persons QuickStats | Australian Bureau of Statistics \(abs.gov.au\)](#)

41 NSW Bureau of Crime Statistics and Research, NSW Recorded Crime Statistics 2018-2022, Central Coast LGA

42 NSW Bureau of Crime Statistics and Research, NSW Recorded Crime Statistics 2018-2022, Central Coast LGA

43 Reports from NSW Department of Communities and Justice, Table A1B2C2D1N16-N20N27AC Aboriginal Children at ROSH 2021, Table A1B2C2D3N23-N26 ROSH report 2021, Table A1B3C2D1N37-N45 OOHC 2021, extracted on 4 April 2023

44 ABS, 2021 Census Central Coast NSW, [2021 Central Coast \(NSW\), Census All persons QuickStats | Australian Bureau of Statistics \(abs.gov.au\)](#)

45 ABS, 2021 Census Central Coast NSW, [2021 Central Coast \(NSW\), Census All persons QuickStats | Australian Bureau of Statistics \(abs.gov.au\)](#)



4.3 Lifestyle risk factors

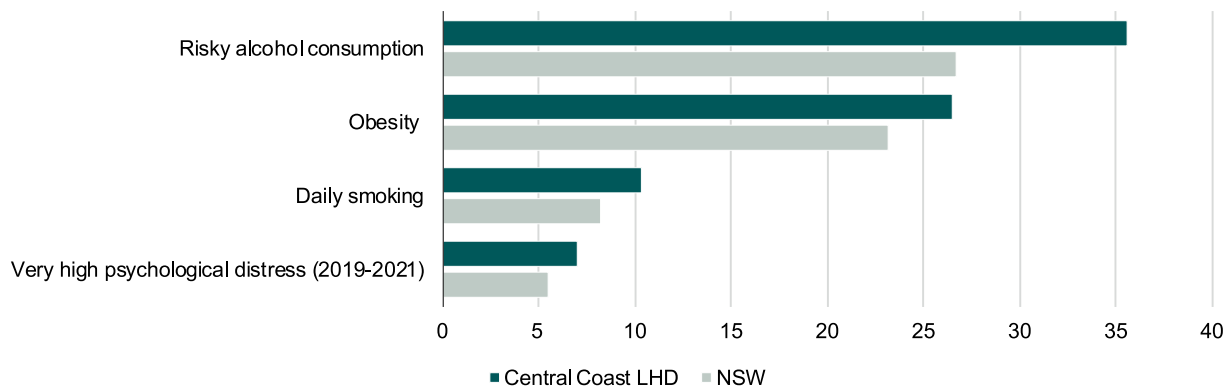
Risk factors, including modifiable lifestyle risk factors, are responsible for a significant proportion of the burden of disease in NSW. Smoking, nutrition, alcohol, and physical inactivity (SNAP) risk factors are health behaviours that individuals have more power to change than any other non-modifiable health factors and therefore should be the focus of health promotion and intervention.

The adult residents of the Central Coast region have greater rates of risk factors for chronic disease, including a higher prevalence of obesity and a greater proportion of the adult population likely to smoke and drink alcohol to excess (Figure 4-4 and Table A-6 in Appendix C). As a result, adult residents across the region are more likely

to suffer from two or more chronic diseases, compared to NSW.⁴⁶ This highlights the need for accessibility of health promotion and disease prevention activities across the Central Coast.

Risky alcohol consumption increases the risk of injury and violence in the short term and is a risk factor for multiple chronic diseases that severely impact quality of life and increase morbidity and mortality. This is an important indicator of the current and future health outcomes of a population. Across the catchment, rates of risky alcohol consumption are markedly higher than the NSW average with 35.6 per cent of the adult population of the Central Coast engaging in this behaviour when compared to the state average of 26.7 per cent.

Figure 4-4: Health risk factors of Central Coast LHD adult residents compared to NSW 2021 as a proportion of adult population



Source: NSW Healthstats (accessed April 2023). Note: Data exclusively for adult population (aged 16+ years).

46 ABS, 2021 Census Central Coast NSW, 2021 Central Coast (NSW), Census All persons QuickStats | Australian Bureau of Statistics (abs.gov.au)



4.4 Chronic disease

The burden of chronic disease is increasing rapidly. Health services needs for chronic disease include prevention, early detection and proactive management of chronic disease. There are several NSW Government strategies aimed at reducing the burden of chronic disease, including initiatives aimed at providing planned, managed and proactive care for people with chronic disease by providing more community-based health services and providing services within an integrated health care system.

The 2021 Census indicates that, compared to the NSW state average, people in the Central Coast region have higher rates of many chronic diseases. This includes, chronic diseases associated with older age such as arthritis, heart disease, cancer, lung condition, kidney disease, stroke and dementia, as well as mental health conditions, asthma, and diabetes.⁴⁷

A higher proportion of residents of the Central Coast also have a greater burden of multiple chronic diseases than the NSW average.⁴⁸ This will likely influence greater use of health care services and highlights the importance of integrated pathways between primary and tertiary health care.

Table 4-1: Proportion of Central Coast residents with a long-term health condition, by condition, 2021

Type of long-term health condition	Proportion of people (per cent) 2021		Percentage points
	Central Coast LGA	NSW	Difference*
Arthritis	11.5%	8.4%	+3.1
Mental health conditions	11.0%	8.0%	+3.0
Asthma	9.6%	7.8%	+1.8
Diabetes	5.5%	4.8%	+0.7
Heart disease	5.0%	3.9%	+1.1
Cancer	3.7%	2.8%	+0.9
Lung condition	2.7%	1.7%	+1.0
Kidney disease	1.3%	1.0%	+0.3
Stroke	1.3%	0.9%	+0.4
Dementia	1.1%	0.8%	+0.3

*Difference is given by subtracting NSW proportion of people from Central Coast LGA proportion of people.

Source: ABS Census 2021

47 ABS, 2021 Census Central Coast NSW, [2021 Central Coast \(NSW\), Census All persons QuickStats](#) | Australian Bureau of Statistics ([abs.gov.au](#))

48 ABS, 2021 Census Central Coast NSW, [2021 Central Coast \(NSW\), Census All persons QuickStats](#) | Australian Bureau of Statistics ([abs.gov.au](#))

Table 4-2: Proportion of Central Coast residents with a long-term health condition, number of conditions, 2021

Number of long-term health conditions	Proportion of people (per cent) 2021		Percentage points
	Central Coast LGA	NSW	Difference*
One condition	21.9%	18.3%	+3.6
Two conditions	7.7%	5.7%	+2.0
Three or more conditions	4.4%	3%	+1.4

*Difference is given by subtracting NSW proportion of people from Central Coast LGA proportion of people.

Source: ABS Census 2021

4.5 Life expectancy

Life expectancy is a lead indicator of the health status of the community. It is defined as the average number of years an individual of a given age is expected to live, if current mortality rates continue to apply.

The life expectancy at birth for people in the Central Coast region is slightly lower than that of the NSW state average, at 79.7 for males and 84.3 for females, compared to 81.4 for males and 85.4 for females for NSW.⁴⁹

4.6 Mortality

Mortality rates are the measure of the number of deaths in a particular population.⁵⁰ The mortality rate in the CCLHD is higher than that of NSW – 560.1 per 100,000 population compared to 496.2 per 100,000 population for NSW in 2021.⁵¹

4.6.1 Premature and avoidable mortality

Potentially avoidable deaths are those that occur before the age of 75 years and are caused by conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care. The Central Coast region has a higher rate of avoidable deaths than those of NSW overall, with 111.3 per 100,000 persons dying from an avoidable cause, compared with 95.3 in 2020.⁵² This is particularly noteworthy for future service planning to consider the scale of prevention and health promotion services.

4.6.2 Suicides

The rates of suicide deaths in the CCLHD are higher than the NSW state average, with 14.5 suicides per 100,000 compared with 10.4 in NSW in 2020.⁵³ There is a strong association between socioeconomic status and deaths by suicide in Australia, where deaths by suicide tend to be higher for those living in more disadvantaged areas. Methods of suicide also vary by socioeconomic area, and understanding the methods used are important for policy intervention of suicide prevention.⁵⁴ Other social and economic factors are also associated with higher risk of suicide, including fewer years of education, unemployment, being male, and being in a lone person household.⁵⁵ Suicide rates among Aboriginal and Torres Strait Islander people are also substantially higher than those of non-Indigenous Australians. Reducing deaths by suicide and suicidal behaviour among Indigenous Australians is a public health priority for all Australian governments.⁵⁶

49 ABS, Life tables, 2022, Life tables, 2019-2021 | Australian Bureau of Statistics (abs.gov.au)
Note: Central Coast figures are given at SA4 level

50 WHO 2018, <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death/>

51 NSW HealthStats, Deaths all causes, [HealthStats NSW](#) Accessed 7 June 2023

52 NSW HealthStats, Potentially avoidable deaths, [HealthStats NSW](#) Accessed 7 June 2023

53 NSW HealthStats, Suicide, [HealthStats NSW](#) Accessed 7 June 2023

54 Australian Institute of Health and Welfare (AIHW), Suicide & self-harm monitoring, [Suicide by socioeconomic areas - Australian Institute of Health and Welfare \(aihw.gov.au\)](#)

55 Australian Institute of Health and Welfare (AIHW), Suicide & self-harm monitoring, [Suicide by socioeconomic areas - Australian Institute of Health and Welfare \(aihw.gov.au\)](#)

56 Australian Institute of Health and Welfare (AIHW), Impact of suicide among Aboriginal and Torres Strait Islander Australians, [Impact of suicide among Aboriginal and Torres Strait Islander Australians - Australian Institute of Health and Welfare \(aihw.gov.au\)](#)



4.7 Potentially preventable hospitalisations

Potentially preventable hospitalisations are conditions for which hospital admission is considered potentially avoidable through prevention and early disease management, with health care usually delivered in an ambulatory (walk-in) setting, such as primary health care. Central Coast residents have higher rates of potentially preventable hospitalisations when compared to NSW

overall. In 2020-21 Central Coast residents experienced 2,111.5 potentially preventable hospitalisations per 100,000 people compared to 1,937.1 per 100,000 people for NSW.⁵⁷ Key barriers to accessing healthcare identified in the Central Coast Community Health Needs Survey outlined in Section 4.1 include long wait lists to access services and the cost of health services and medications.

4.8 Cancer incidence and screening

Cancer incidence is the number of new cases of cancer diagnosed in a population, in a given period of time. The incidence of the most common clinical cancer groups for

the Central Coast are substantially higher than for the rest of NSW, as outlined in the Table 4-3.⁵⁸

Table 4-3: Cancer incidence, most common clinical cancer groups Central Coast Local Health District, 2020

Clinical cancer group	Incidence per 100,000		
	Central Coast LHD	NSW	Difference*
Urogenital	145.7	128.1	+17.6
Skin	97.7	65.0	+32.7
Lymphohematopoietic	95.1	70.9	+24.2
Breast	87.6	71.8	+15.8
Bowel	77.8	61.0	+16.8
Respiratory	81.0	56.5	+24.5

*Difference is given by subtracting NSW incidence per 100,000 from Central Coast LHD incidence per 100,000.

Source: Cancer Institute NSW

⁵⁷ NSW HealthStats, Potentially Preventable Hospitalisations, 2021 [HealthStats NSW - Potentially preventable hospitalisations \(accessed June 2023\)](#)

⁵⁸ Cancer Institute NSW, Cancer incidence and mortality, [Cancer incidence and mortality | Cancer Institute NSW](#)

Cancer screening programs look for early signs of the disease or indications that a person is more likely to develop the disease in the future. In most cases, early detection of cancer increases the chances of successful

treatment and detecting and treating precursors to cancer can prevent the cancer from developing at all. Breast cancer screening rates in the Central Coast are lower than the NSW average across all age groups.⁵⁹

Table 4-4: Participation in the BreastScreen NSW Program, 2021-2022

Age group	Participation Rate (per cent)		Percentage points
	Central Coast LHD	NSW	Difference*
40-49	4.2%	5.5%	-1.3
50-69	40.5%	45.7%	-5.2
70-74	43.6%	48.2%	-4.6
75+	4.8%	5.9%	-1.1

*Difference is given by subtracting NSW participation rate from Central Coast LHD participation rate.

Source: Cancer Institute NSW

4.9 Child and maternal health

Child and maternal health are important considerations for the Central Coast region given that the fertility rate is higher than that of the NSW state average (Table 4-5). Gosford Hospital is the main public maternity service provider in the CCLHD. Private hospital maternity services are also available at Gosford Private Hospital including birthing suites, private rooms and a Level 2 Neonatal Special Care Nursery.⁶⁰

Key child and maternal health indicators for the Central Coast region are outlined below in Table 4-5.⁶¹ This shows

that when compared to the NSW average, the Central Coast performs better in terms of the number of children fully immunised at two years of age. Vaccinations reduce the risk of disease, disability and death, particularly in childhood.⁶² The proportion of infants with a low birth weight on the Central Coast is about the same as the NSW average. Low birthweight (birthweight less than 2,500 grams) has been associated with increases in illness and death in infancy and into adulthood.

Table 4-5: Child and maternal health indicators Central Coast compared to NSW, 2020

	Central Coast LHD	NSW
Fertility rate (number of births per woman)	1.9	1.5
Infants with a low birth weight	6.2%	6.1%
Children fully immunised at 24 months	94.6%	92.1%

Source: HealthStats NSW

4.10 Key considerations

High prevalence and growth of lifestyle risk factors and chronic disease across the Central Coast region indicates a need to focus on models for chronic disease management, to reduce the burden on acute care settings and shift demand to services based in the community. High incidence of cancer on the Central Coast suggests there are opportunities to enhance participation in

screening programs and access to specialist care. The high levels of socioeconomic disadvantage experienced by the Central Coast catchment population require collaboration between health services and other sectors, to holistically address the wide-ranging needs of the community.

⁵⁹ Cancer Institute NSW, [BreastScreen NSW](#), [BreastScreen NSW | Cancer Institute NSW](#)
Note: the BreastScreen program is recommended for women aged 50 to 74

⁶⁰ Gosford Private Hospital [Gosford Private Maternity Services | Homepage](#)

⁶¹ HealthStats NSW, [HealthStats NSW](#)

⁶² Australia's children, Immunisation - Australian Institute of Health and Welfare ([aihw.gov.au](#))

Section 5 – Service profiles

The CCLHD Clinical Services Plan 2023-2028 outlines the role and service profile of CCLHD facilities and services and other health service providers in the region. Health care is delivered by a mix of State and Commonwealth public providers, primary health care providers, private providers, residential aged care and community-based providers.

CCLHD facilities and services



Gosford Hospital

A tertiary referral Hospital, operating at role delineation level 5. The Hospital provides a comprehensive range of tertiary level services including emergency, medical, cancer, surgical, intensive care, maternity, special care nursery, paediatric, aged, diagnostic and mental health services across inpatient and ambulatory settings.



Wyong Hospital

A Major Hospital (Group B2), operating at role delineation level 4. The Hospital provides a comprehensive range of district level services for emergency, medical and surgical services, intensive care, diagnostics, aged, antenatal services, mental health and drug and alcohol inpatient and outpatient services, and subacute services for rehabilitation (general and aged).



Woy Woy Hospital

Provides rehabilitation (general and aged), non-acute (maintenance care type) as well as a Transitional Care Unit on the campus.



Long Jetty Healthcare Centre

Provides dialysis services and community-based health services, plus an Urgent Care Clinic (UCC) that will be commencing in the future.



Other health service providers

Non-government organisations

Primary health services

Private health care providers

Residential aged care facilities



Central Coast
Local Health District

While the region is small, the geography and infrastructure within the Central Coast region creates challenges for patient access to CCLHD health services.

5 Service profiles



This section outlines the roles and service profiles of CCLHD facilities and services, and other health service providers in the region.

The Central Coast Local Health District provides two acute public hospitals (Gosford and Wyong Hospitals), a healthcare facility (Woy Woy Healthcare Facility) and a range of community-based health services that provide health care for the Central Coast community. Health care is delivered by a mix of State and Commonwealth public providers, private providers, primary health care, residential aged care and community-based providers. While the region is small, the geography and infrastructure in the Central Coast region creates challenges for patient access to CCLHD health services.



5.1 CCLHD facilities and services

CCLHD operates several health facilities and services across the Central Coast. It is anticipated that Gosford, Wyong and Woy Woy Hospitals will continue to operate at their 2022 role delineation levels for the period to 2028.⁶³

5.1.1 Gosford Hospital

Gosford Hospital is a tertiary referral hospital, operating at role delineation level 5. The hospital provides a comprehensive range of tertiary level services including emergency, medical, cancer, surgical, intensive care, maternity, special care nursery, paediatric, aged, diagnostic and mental health services across inpatient and ambulatory settings. Gosford Hospital is designated as a Regional Trauma Centre.

Capacity

In 2023 Gosford Hospital has the following built capacity:

- **Emergency:** 52 treatment spaces within the emergency department.
- **Inpatient beds:**
 - 417 adult acute beds
 - 105 Women’s and Children’s beds (maternity beds, birthing rooms, paediatric beds and special care nursery)
 - 16 Emergency Department Short Stay Unit (EDSSU) beds are available
- **Sub-acute beds:** 14 beds total
- **Mental health:** 36 beds total.

5.1.2 Wyong Hospital

Wyong Hospital is a Major Hospital (Group B2), operating at role delineation level 4. The hospital provides a comprehensive range of district level services for emergency, medical and surgical services, intensive care, diagnostics, aged, antenatal services, mental health and drug and alcohol inpatient and outpatient services, and subacute services for rehabilitation (general and aged).

Capacity

Wyong Hospital has the following built capacity in 2023:

- **Emergency:** 54 treatment spaces within the emergency department.
- **Inpatient beds:**
 - 286 adult acute beds.
 - 21 Women’s and Children’s beds (including paediatric short stay beds)
 - 16 Emergency Department Short Stay Unit (EDSSU) beds are available

- **Sub-acute beds:** 60 beds total (with an additional 12 Palliative care beds in the capital planning phase in 2023)
- **Mental health:** 56 beds total.

5.1.3 Woy Woy Hospital

The Woy Woy Healthcare Facility provides rehabilitation (general and aged) and maintenance type care (non-acute care), as well as a Transitional Care Unit on the campus.

Capacity

Woy Woy Hospital has the following built capacity in 2023:

- **Sub and non-acute beds:** 53 beds total.

5.1.4 Long Jetty Healthcare Centre

The Long Jetty Healthcare Centre provides dialysis chairs and community and allied services. Long Jetty will be established as an Urgent Care Centre in the future.

5.1.5 Community Health Centres

There are several community health services provided from centres across the Central Coast, including CCLHD owned premises (hospital campuses, community health centres), as well as leased premises. Community health services are often collocated and include a comprehensive range of services (such as community nursing, aged health care, nursing home outreach services, chronic disease management, cardiac, heart failure and pulmonary rehabilitation programs), community mental health services (including perinatal, child and adolescent, adult and older people), women, children and family health services (antenatal, paediatric and family health, sexual assault and domestic violence services), oral health services, diabetes services, paediatric and adult allied health services and Aboriginal health services. CCLHD also provides a range of public health and health promotion services across the region.

5.1.6 Out of catchment service flows

In addition to the services provided within the catchment, CCLHD residents sometimes require referral or transfer outside the LHD to access selected specialist services under the NSW Health critical care tertiary referral network. Royal North Shore Hospital in Sydney is the designated tertiary referral hospital for CCLHD. Services where patients are referred or transferred outside of CCLHD include higher level complex care for maternity, neonatal and paediatric services, kidney transplant, adult critical care tertiary referral, severe burn injury, spinal cord injury, and major trauma.

⁶³ See Appendix D for 2022 and proposed future role delineation levels for CCLHD hospital sites



5.2 Other health service providers

The community is also supported by other health and social care organisations and service providers, such as general practitioners, non-government organisations, private providers and other government agencies operating in the region. Partnerships across these services are integral to delivering quality health care, particularly in the community setting.

5.2.1 Partnerships

Partnerships have an important role in the health and social care landscape on the Central Coast. CCLHD partnerships include working with the Central Coast Health Alliance, the broader community sector to deliver new models of care, the Central Coast Research Institute with the University of Newcastle, research and innovation opportunities, and collaboration with the age care sector. Partnerships with other health service providers include NSW Ambulance, Health Pathology, eHealth and HealthShare. Aboriginal Community partnerships include Yerin Eleanor Duncan Aboriginal Health Service and Ngaimpe Aboriginal Corporation – The Glen.

5.2.2 Non-government organisations on the Central Coast

A range of non-government organisations (NGOs) operate throughout the Central Coast. These NGOs provide a mix of health and non-health services to Central Coast residents.

5.2.3 Primary health services

The Hunter New England Central Coast Primary Health Network (HNECC PHN) coordinates and delivers a range of primary health care services across the catchment. This includes general practitioner (GP) services, Allied Health Services, health promotion and prevention initiatives, including diabetes support, and targeted support for Aboriginal health services. There are 394 general practitioners practising on the Central Coast, with a total of 92 general practices, and one Aboriginal Medical Service.⁶⁴ For every full-time general practitioner on the Central Coast, there are 776 patients.⁶⁵

64 HNECC PHN Central Coast LGA Profile 2021 [Central-Coast-LGA-Profile-2021_2021-10-05-000524_dzbc.pdf \(imgix.net\)](#)

65 HNECC PHN Central Coast LGA Profile 2021 [Central-Coast-LGA-Profile-2021_2021-10-05-000524_dzbc.pdf \(imgix.net\)](#)



Access to GPs is a significant barrier to care for many people within CCLHD. Recent survey data of adults in the Central Coast and Hunter New England region found that 31 per cent had been unable to access their preferred GP in the preceding 12 months as compared to 28 per cent in Australia. Nearly one-quarter of adults felt they waited longer than acceptable to get an appointment with a GP, compared to only one-fifth in Australia.⁶⁶ Additionally, GPs are integral in caring for residents in Residential Aged Care Facilities and reducing presentations of older people to Gosford and Wyong Hospital Emergency Departments.

5.2.4 Private health care providers

Healthe Care operates private hospitals that deliver health services across the CCLHD catchment. Gosford Private Hospital offers maternity, rehabilitation and a range of surgical specialities, including orthopaedics, bariatric weight loss, oncology, neurology and urology. Tuggerah Lakes Private Hospital in the north of the Central Coast (near Lake Haven) delivers additional surgical specialities, including dental, ear nose and throat

(ENT), ophthalmology and gynaecology. Brisbane Waters Private Hospital in Woy Woy provides mental health, rehabilitation and surgical specialities. Ramsay Health Care operates Berkeley Vale Private Hospital which is a medical rehabilitation and mental health facility, including palliative care services.

The region also includes private GP, medical, dental and allied health care providers.

5.2.5 Residential aged care facilities

Public and private Residential Aged Care Facilities (RACFs) are located across the CCLHD catchment. RACFs employ staff, including registered nurses, GPs and Allied Health Professionals, to provide health services to their residents. There are less residential aged care places on the Central Coast compared to NSW. In 2020 there were 70.3 residential aged care places per 1,000 people aged 70 years and over on the Central Coast compared to 75.7 in NSW.⁶⁷

5.3 Key considerations

From a health service perspective, within the Central Coast region, health care is delivered by a mix of state and Commonwealth public providers, primary health care, private providers, residential aged care and community-based providers. While the region is small, the geography and infrastructure within the Central Coast region creates challenges for patient access to CCLHD health services.

CCLHD delivers public acute hospital-based care and

community-based health care, however, there are challenges in the accessibility of primary health care services. The impact of accessibility challenges for GPs, therefore, has a flow on effect both to community and older people across the Central Coast region. Future service planning will need to consider how service providers across the Central Coast region can effectively collaborate to support the health needs of the population of the Central Coast.

66 HNECC PHN Core Needs Assessment Summary Version 2022-2025 [HNECC-Core-Needs-Assessment-22-25-Summary.pdf \(imgix.net\)](#)

67 HNECC PHN Core Needs Assessment Summary Version 2022-2025 [HNECC-Core-Needs-Assessment-22-25-Summary.pdf \(imgix.net\)](#)

Section 6 – CCLHD service activity and future forecasts

The CCLHD Clinical Services Plan 2023-2028 considers both historic and forecast activity in order to inform future strategic directions.



- Increasing number of presentations to emergency departments.
- Increasing complexity of presentations due to age of population and high rates of chronic conditions.



- High volume and growth for services for older people including Orthopaedics, Cardiology and Neurology.
- Medical-related hospital admissions will continue to comprise most of CCLHD hospital admissions.
- High rates of transfers between CCLHD hospitals to access selected specialty services.



- Increasing importance of sub-acute models of care for patients who no longer require acute care.
- Considering new and expanded models of care for Hospital in the Home, and opportunities to support care delivery with virtual technologies.



- Increasing paediatric presentations to emergency departments are placing additional demand on the system of care.
- Children in out of home care (OOHC) and increasing service demand due to complexity of presentations.
- Women's health and maternity care are a future focus area for CCLHD.



- Increasing mental health service demands on the Central Coast are likely to be largely unmet.
- Increasing importance of community-based Mental Health services.



Central Coast
Local Health District

Forecast activity across CCLHD services indicates demand may exceed capacity.

6 CCLHD service activity and future forecasts



This section details the historical and future forecast activity for CCLHD services over the care continuum. Health service data suggests that, for the various service streams, activity across the range of CCLHD services has steadily increased over time and is anticipated to continue to increase in future years.

Future forecasts show that:

- CCLHD health service activity increased from FY2012-13 to FY2021-22
- CCLHD health service activity is also forecast to increase in the future to 2036
- Scenario testing demonstrates a proportion of CCLHD health service activity needs to be diverted so that built capacity at Gosford and Wyong Hospitals can meet demand.



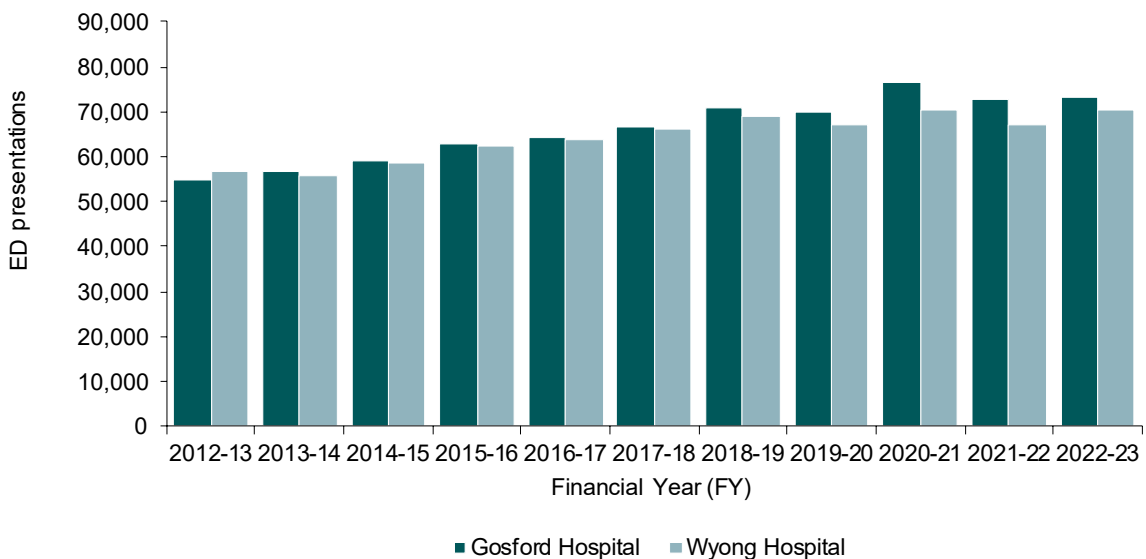
6.1 Emergency department presentations

The Gosford Hospital and Wyong Hospital Emergency Departments were upgraded in 2018 and 2021 respectively and provide 24-hour services to the local community.

Gosford Hospital Emergency Department (ED) had almost 73,000 presentations in FY2021-22. This is an increase of 3.2 per cent per annum from FY2012-13 and a total increase of almost 20,000 presentations in FY2021-22 compared with FY2012-13. There were slightly less presentations to Wyong Hospital Emergency Department with almost 67,000 in 2021-22. This is a 1.8 per cent per annum growth over this same period and a total increase

of over 20,000 presentations in FY2021-22 compared with FY2012-13. There was a particularly large increase in emergency department presentations to FY2018-19. The number of presentations in FY2020-21 and FY2021-22 may have been impacted by COVID-19. Other issues impacting presentations to the emergency departments included an increase in non-admitted presentations, presentations by children and young people and acuity of presentations. The presentations to the Emergency Departments in Gosford and Wyong Hospitals is reported in Figure 6-1, below and Table A-7 in Appendix E.

Figure 6-1: Gosford Hospital and Wyong Hospital Emergency Department presentations FY2012-13 to FY2022-23

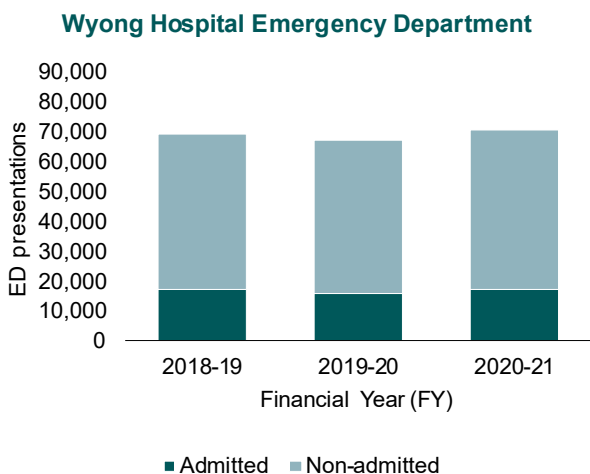
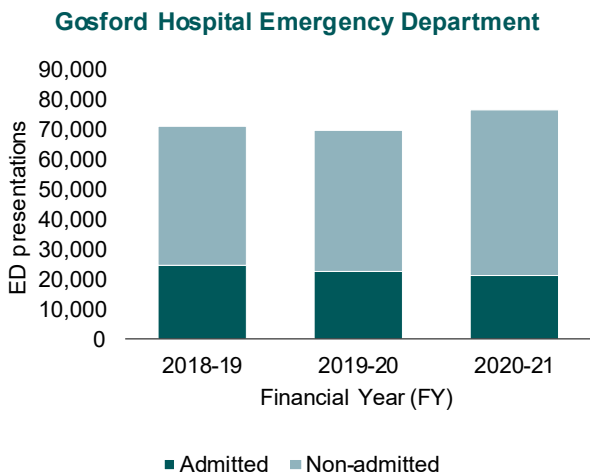


Source: FY2012-13 to FY 2021-22 data from ED-AAv21 and ED Utilisation App, FY2022-23 data from ED Utilisation App (extracted 14 July 2023).
 Note: Excludes presentations that were categorised as departed, "Did Not Wait", and "registered in error". Additional data for FY2022-23 has been extracted to understand the impact of recent trends.

Presentations by admission status

There was an overall increase in the number of non-admitted presentations to the CCLHD hospital emergency departments between FY2018-19 and FY2020-21, as shown in Figure 6-2 and Table A-8 in Appendix E. This was largely driven by the 9.0 per cent annual increase for non-admitted presentations to the Gosford Hospital Emergency Department while presentations for admitted patients decreased by 6.6 per cent between FY2018-19 and FY2020-21. Wyong Hospital had a smaller increase in non-admitted and admitted presentations (0.8 per cent and 1.9 per cent, respectively).

Figure 6-2: Gosford Hospital and Wyong Hospital Emergency Department presentations by admission status FY2018-19 to FY2020-21



Source: EDAAv21

Note: Includes presentations that were categorised as "Departed, did not wait", and "registered in error"

Acuity of presentations

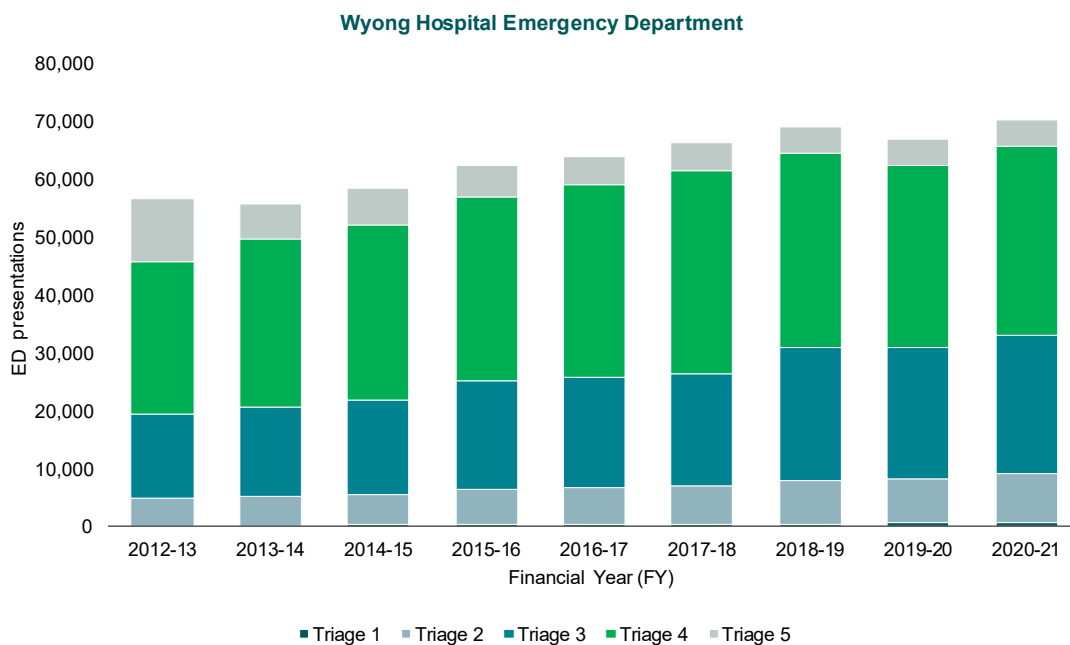
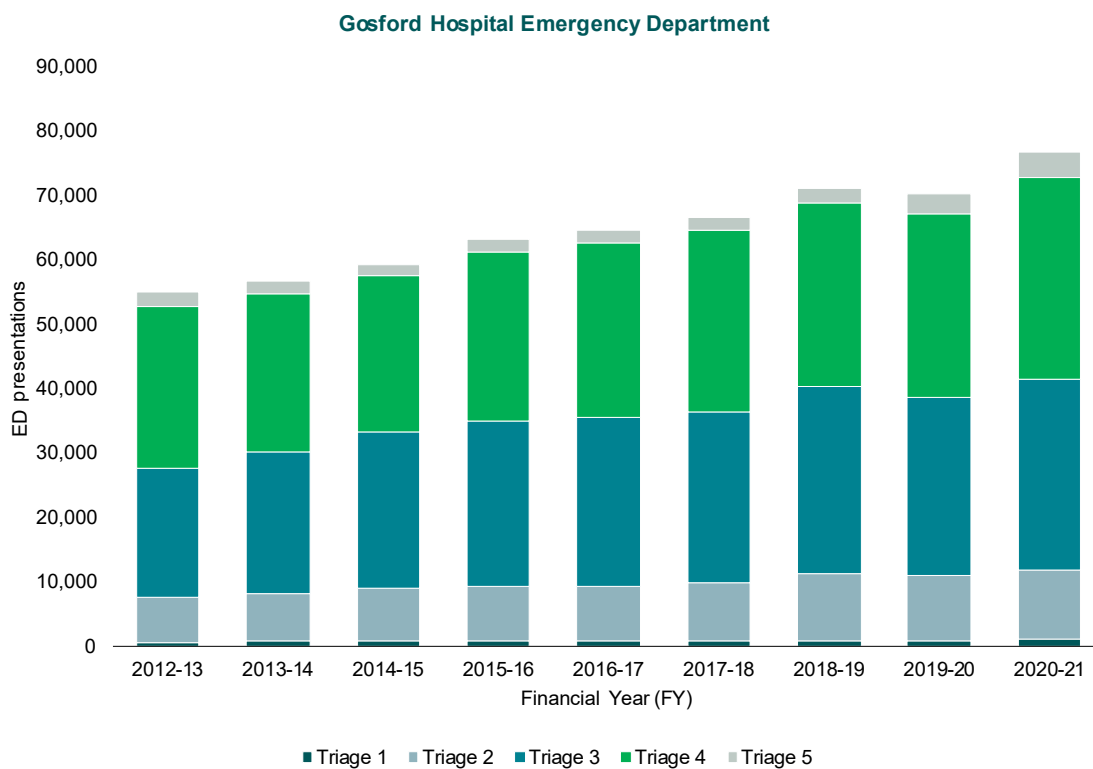
Triage Categories 3 and 4 reported the highest number of emergency department presentations at both Gosford and Wyong Hospitals in FY2020-21, accounting for 42.7 per cent and 36.8 per cent of presentations, respectively. These Triage Categories also experienced an increase in the total number of presentations in FY2020-21 compared with FY2012-13. This is provided in Figure 6-3 and Table A-9 in Appendix E. The largest growth in emergency department presentations on a per annum basis between FY2012-13 and FY2020-21 was in Triage Category 1, followed by Triage Categories 2 and 3 (9.9 per cent, 5.7 per cent, and 5.3 per cent per annum).⁶⁸

'Injury, single site and major' had the highest number of emergency department presentations for Triage Categories 4 and 5 for both Gosford and Wyong Hospitals (25.8 per cent and 24.2 per cent, respectively). This was followed by 'musculoskeletal/ connective tissue illness' composing 13.1 per cent and 14.3 per cent to the emergency department presentations in these hospitals, respectively.⁶⁹



68 EDAAv21
69 EDAAv21

Figure 6-3: Gosford Hospital and Wyong Hospital Emergency Department presentations by triage category FY2012-13 to FY2020-21



Source: EDAAv21

Note: Excludes presentations that were categorised as "Departed, did not wait", "registered in error", and "N/A".

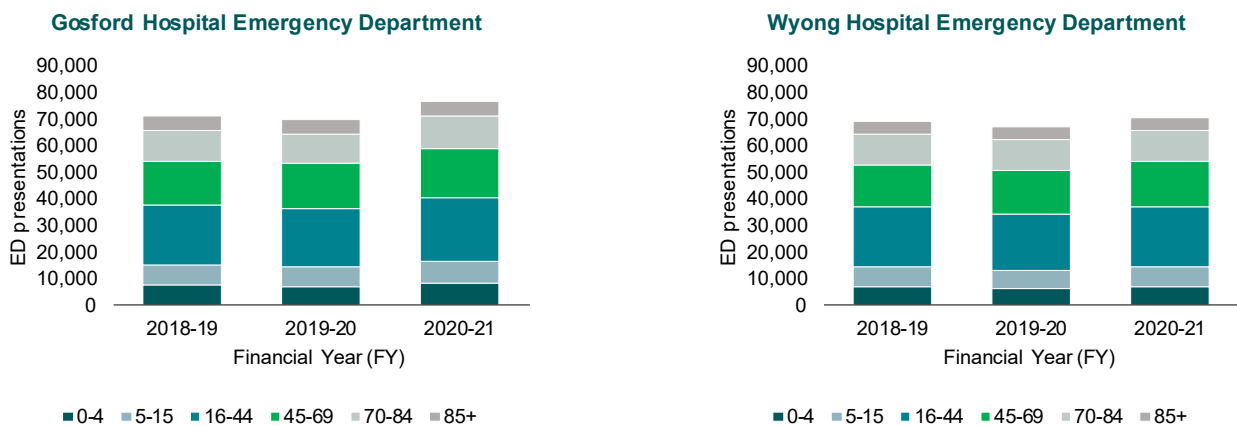


Presentations by age

Patients aged 70 years and over had the largest number of ED presentations at both Gosford Hospital and Wyong Hospital. Patients aged 0 to 15 years contributed to 21.1 per cent of all presentations between the Gosford and Wyong Hospitals (21.6 per cent and 20.5 per cent,

respectively).⁷⁰ However, outlined in Section 2 only 18.6 per cent of the population in the Central Coast is aged 0 to 15. Further details of age of emergency department presentations are provided in Figure 6-4 and Table A-10 in Appendix E.

Figure 6-4: Gosford Hospital and Wyong Hospital Emergency Department presentations by patient age FY2018-19 to FY2020-21



Source: EDAAv21

Note: Excludes presentations that were categorised as "Departed, Did Not Wait", and "registered in error"

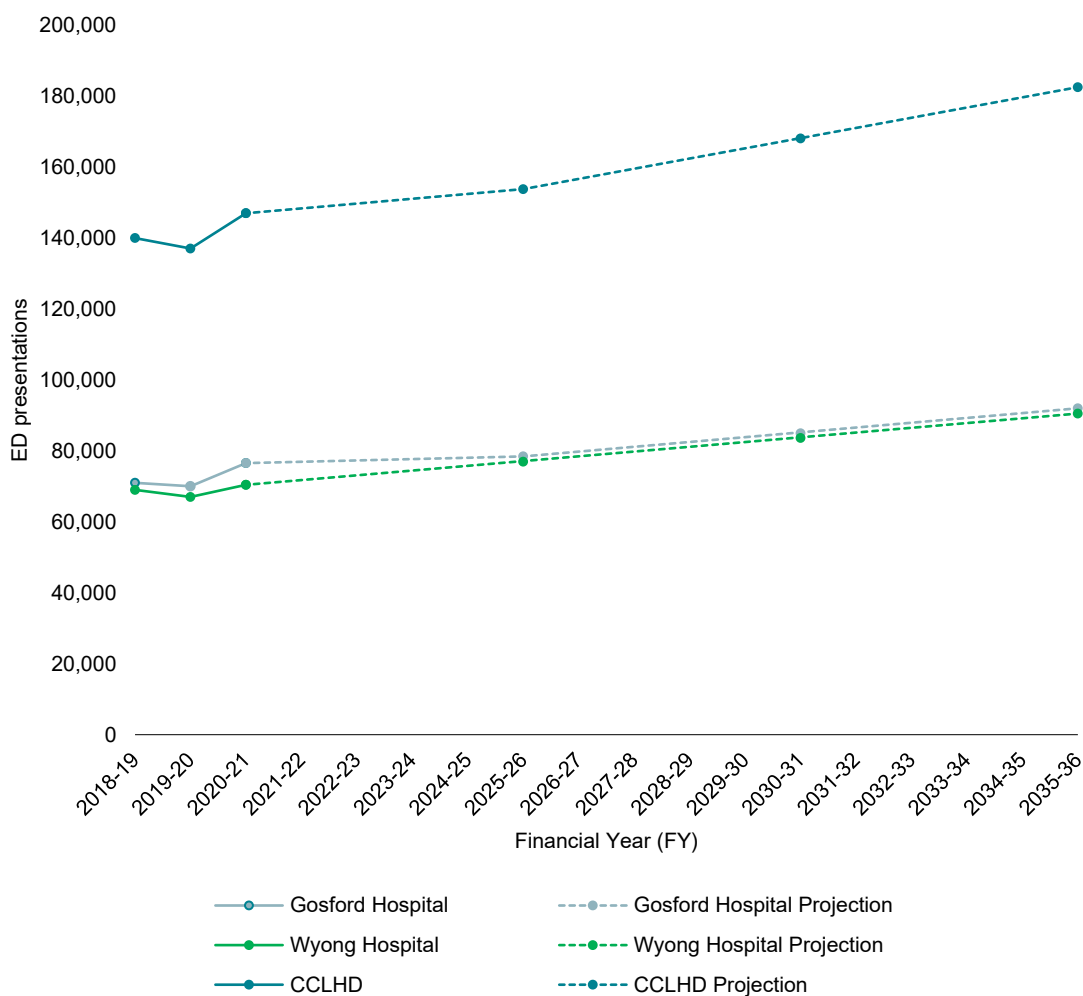
Forecast activity

Forecasting of emergency department activity was developed through projection of compound annual growth rate (CAGR) reported by HealthApp from 2021 to 2036 using base year presentations derived from the three-year average of admitted and non-admitted presentations between 6am to 12 midnight. The average base year is derived from EDAAv21 presentation volumes reported in FY2018-19, FY2019-20 and FY2020 21. The model excludes presentations that "departed, did not wait", and "registered in error".

Gosford and Wyong Hospitals' emergency department presentation projections are provided in Figure 6-5 and Table A-11 in Appendix E. Emergency department activity is projected to increase to 2036 at both Gosford and Wyong Hospitals. The projected increase in demand should be a consideration within future service planning.

70 EDAAv21

Figure 6-5: Historical and projected Gosford and Wyong Hospitals' Emergency Department presentations to 2036



Source: EDAAv21, HealthApp

Note: Excludes presentations that were categorised as "Departed, did not wait", and "registered in error".

Based on this model, more than 92,000 presentations to Gosford Hospital Emergency Department may be expected by 2036 (27 per cent increase from the base year). More than 90,000 presentations may be expected to Wyong Hospital Emergency Department by 2036 (32 per cent increase from the base year).

The emergency department activity projections should be used as an initial guide to the possible activity as:

- The growth of emergency department activity has been almost double the rate of the Central Coast

population. This included a 2.5 per cent per annum increase for emergency department presentations across CCLHD hospitals from FY2012-13 to FY2022-23⁷¹ while over a similar time period of 2012 to 2020 the growth rate for the Central Coast LGA population was 0.77 per cent per annum.⁷²

- Emergency department throughput is influenced by whole-of-hospital operational efficiency and casemix.
- The impact on admitted patient activity has been separately estimated and described in Section 6.2.

71 EDAAv21

72 NSW DPE, 2022 NSW Common Planning Assumptions, 2021, [Explore the data | Planning \(nsw.gov.au\)](https://www.planning.nsw.gov.au)

6.2 Adult acute admitted activity

There was growth in adult acute admitted activity at both Gosford and Wyong Hospitals from FY2012-13 to FY2020-21. Overall separations increased by 2.8 per cent per annum in Gosford Hospital and 5.5 per cent per annum in Wyong Hospital. At both Gosford and Wyong Hospitals, overnight activity is the largest proportion of adult acute

activity. Day only activity is a smaller proportion but has increased over time, particularly at Wyong Hospital.⁷³

By age group, 60 per cent of adult acute admitted activity was for patients aged 70 years or more in FY2020-21 across Gosford Hospital and Wyong Hospital. This activity is provided in Table 6-1.

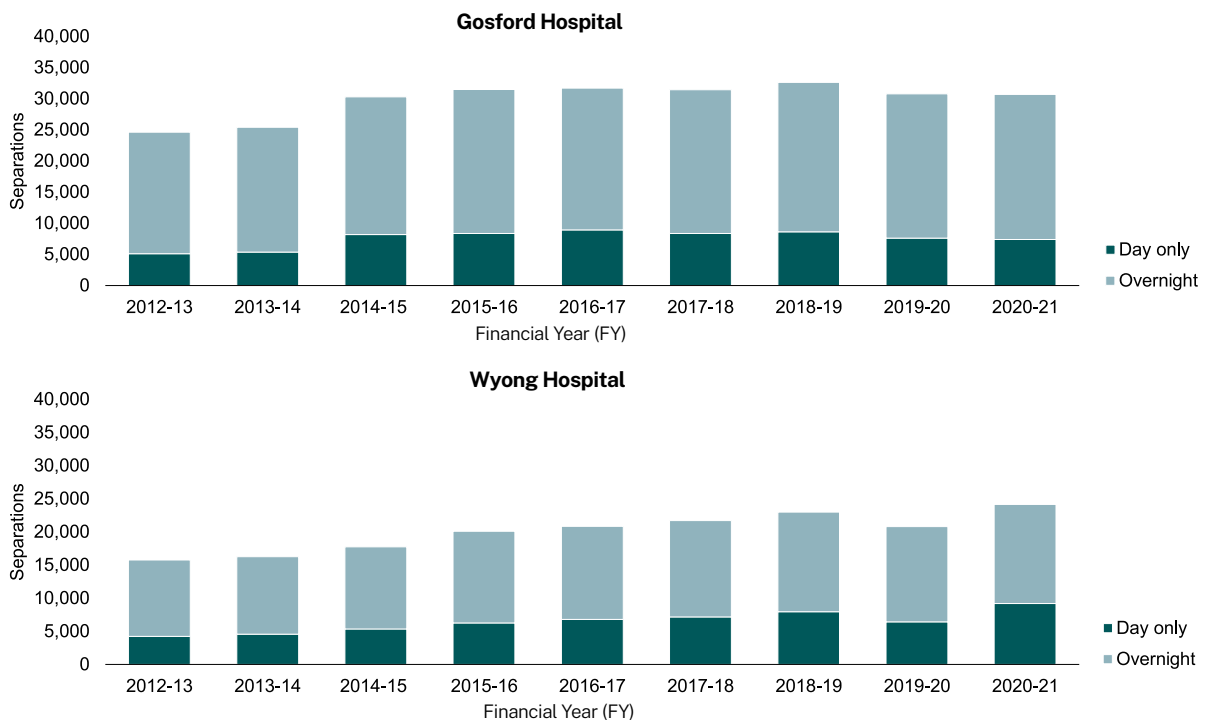
The adult acute admitted patient activity from FY2012-13 to FY2020-21 is provided in Figure 6-6 and Table A-12 in Appendix E

Table 6-1: Proportion of adult acute admitted patients aged over 70 years for separations and beddays in FY2020-21

	Adult acute	Aged over 70	Percentage aged over 70
Gosford Hospital			
Separations	30,708	13,682	45%
Beddays	136,924	78,466	57%
Wyong Hospital			
Separations	24,145	12,490	52%
Beddays	80,462	50,935	63%
CCLHD			
Separations	54,853	26,172	48%
Beddays	217,386	129,401	60%

Source: FlowInfov21

Figure 6-6: Gosford Hospital and Wyong Hospital adult acute admitted patient separations total across medical, surgical, and interventional, by day only and overnight FY2012-13 to FY2020-21



Source: FlowInfov21

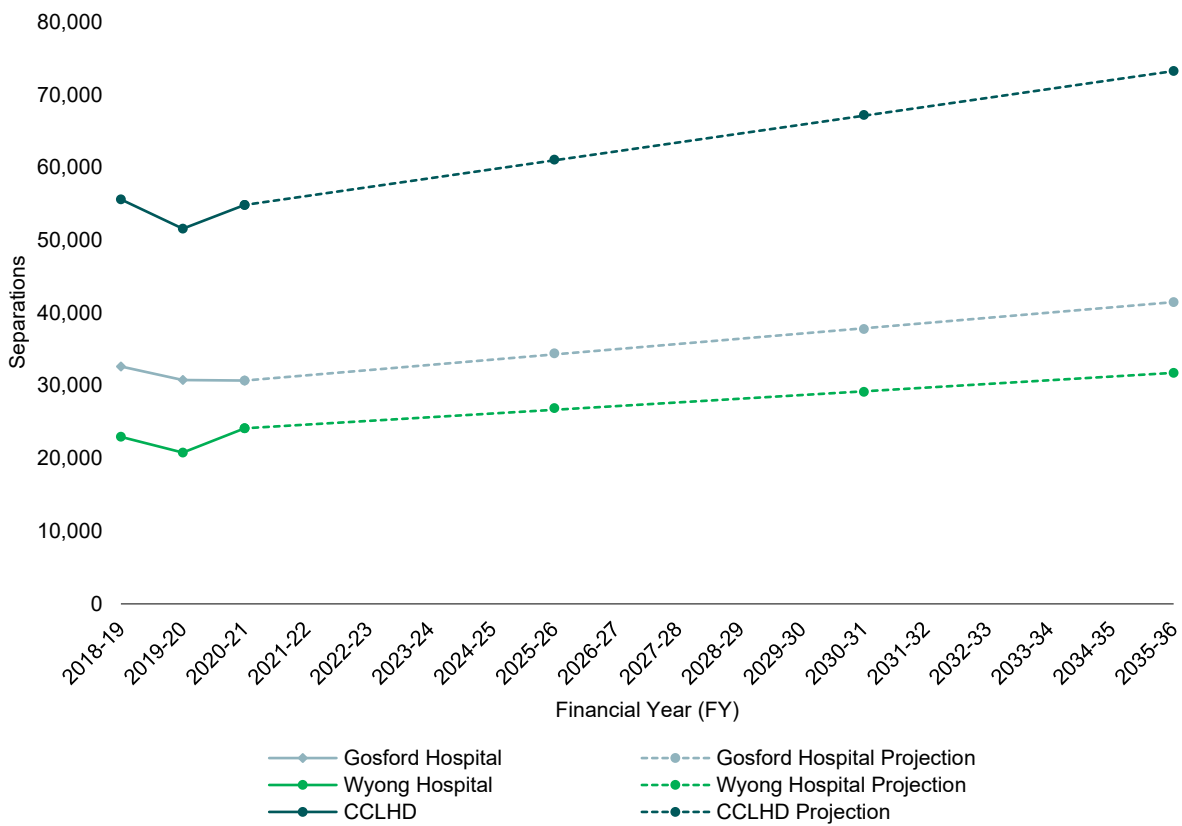
Note: Includes adult acute admitted medical and interventional, excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Forecast activity

Forecasting of adult acute admitted activity was developed following Ministry of Health (MoH) guidelines. Projections of separations and beddays are derived from the compound annual growth rate (CAGR) and average length of stay (ALOS) reported by the HealthApp. The base year is a three-year average of medical and interventional separations for patients aged 16 years and over split by day only and overnight activity. The base year is derived from FlowInfov21 activity in FY2018-19, FY2019-20 and FY2020-21.

Based on the existing occupancy and beddays in medical and interventional acute admitted activity for adults, the Gosford Hospital and Wyong Hospital activity projections are provided below in Figure 6-7 and Table A-13 in Appendix E. The adult acute admitted activity and forecast ALOS for medical is provided in Table A-14 and Table A-15 in Appendix E and for surgery and interventional in Table A-16 and Table A-17 in Appendix E.

Figure 6-7: Gosford Hospital and Wyong Hospital adult acute admitted total across medical, surgical, and interventional, historical and projected separations to 2036



Source: FlowInfov21, HealthApp

Note: Includes adult acute admitted medical and interventional, excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Activity by service related group

The adult acute admitted activity projections are further broken down by service related groups (SRGs) for the services that are expected to have the highest demand in Table 6-2. The conditions projected as the most common reason for inpatient care are General Medicine, Orthopaedics, Cardiology, and Gastroenterology.⁷⁴ The ability to accommodate the increasing demand must be considered within future service planning.

Table 6-2: Gosford Hospital and Wyong Hospital projected adult acute admitted activity by top 10 Service Related Group volume of separations to 2036

SRG	Base year	2025-26	2030-31	2035-36	Total change (per cent)*
Gosford Hospital					
General Medicine	3,954	4,447	5,003	5,629	42%
Orthopaedics	3,418	3,714	4,037	4,388	28%
Cardiology	2,834	3,149	3,498	3,886	37%
Gastroenterology	2,711	2,993	3,305	3,650	35%
Neurology	2,353	2,571	2,809	3,070	30%
Urology	2,238	2,466	2,716	2,993	34%
General Surgery	2,231	2,427	2,639	2,870	29%
Respiratory Medicine	2,218	2,450	2,706	2,989	35%
Gynaecology	1,416	1,465	1,516	1,569	11%
Interventional Cardiology	990	1,097	1,215	1,345	36%
Wyong Hospital					
General Medicine	3,029	3,449	3,928	4,475	48%
Cardiology	2,540	2,867	3,237	3,654	44%
Gastroenterology	2,215	2,483	2,783	3,120	41%
Respiratory Medicine	2,308	2,591	2,910	3,268	42%
Ophthalmology	1,739	1,962	2,215	2,500	44%
General Surgery	1,593	1,740	1,902	2,078	30%
Orthopaedics	1,345	1,481	1,631	1,797	34%
Neurology	1,278	1,438	1,618	1,821	43%
Drug and Alcohol**	1,059	1,059	1,059	1,059	
Urology	921	1,024	1,139	1,267	38%
Diagnostic GI Endoscopy	815	891	974	1,065	31%

*Total change is the percentage difference between the final year and the base year.

**Drug and Alcohol activity is part of adult acute activity.

Source: FlowInfov21, HealthApp

Note: Adult acute admitted separations include medical and interventional. Separations are projected using an average of FY2018-19, FY2019-20 and FY2020-21 figures as the base year. CAGR calculated between 2021 and 2036.

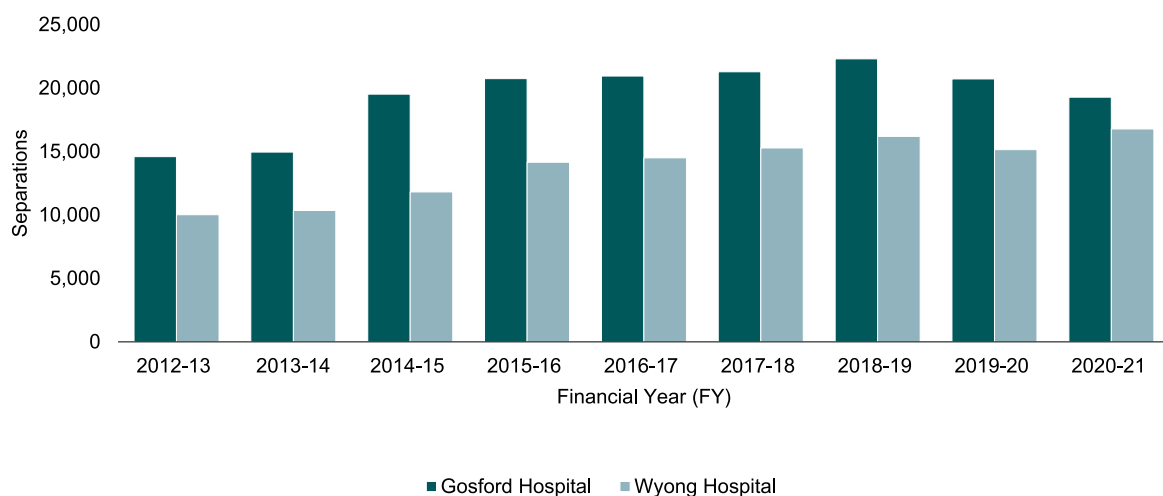


6.2.2 Adult acute admitted medical activity

Analysis of acute admitted medical activity in Gosford Hospital and Wyong Hospital demonstrates that the pattern of increasing acute separations is expected to continue. Key trends are summarised below.

- From FY2012-13 to FY2020-21, Gosford Hospital acute admitted medical separations has increased by 3.5 per cent per annum. A more notable increase is seen in Wyong Hospital with 6.7 per cent growth.
- The growth in adult acute admitted medical activity is projected to continue to 2036 with more than 28,000 separations at Gosford Hospital and almost 23,000 separations at Wyong Hospital.
- The average length of stay (ALOS) has decreased from FY2012-13 to FY2020-21 for both hospitals. Gosford Hospital declined from 5.6 days to 5.2 days of ALOS, while ALOS at Wyong Hospital declined from 5.7 days to 4.7 days.
- Details of the above trends are provided in Figure 6-8 and Figure 6-9 and Table A-14 and Table A-15 in Appendix E.

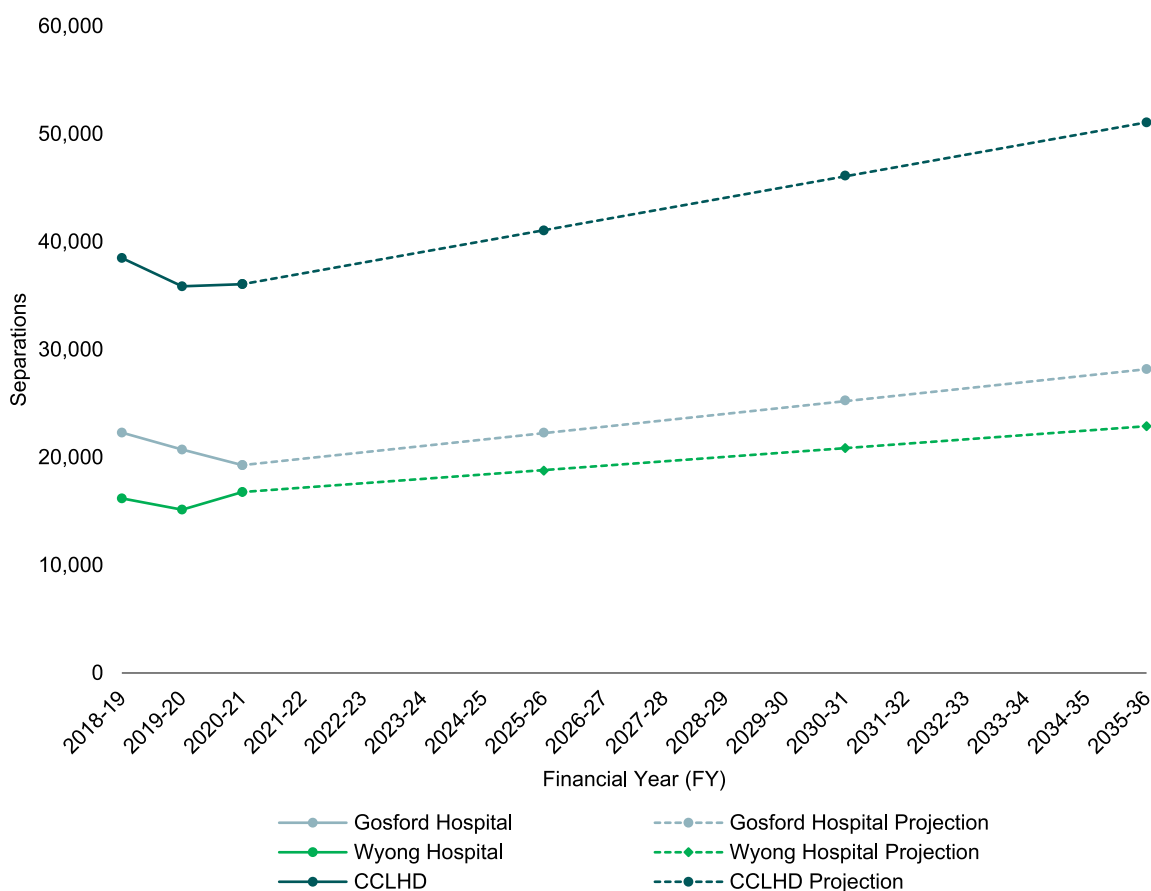
Figure 6-8: Gosford Hospital and Wyong Hospital historical adult acute admitted medical separations



Source: FlowInfov21

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Figure 6-9: Gosford Hospital and Wyong Hospital historical and projected adult acute admitted medical separations to 2036



Source: FlowInfov21, HealthApp

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

6.2.3 Adult acute admitted surgery and interventional activity

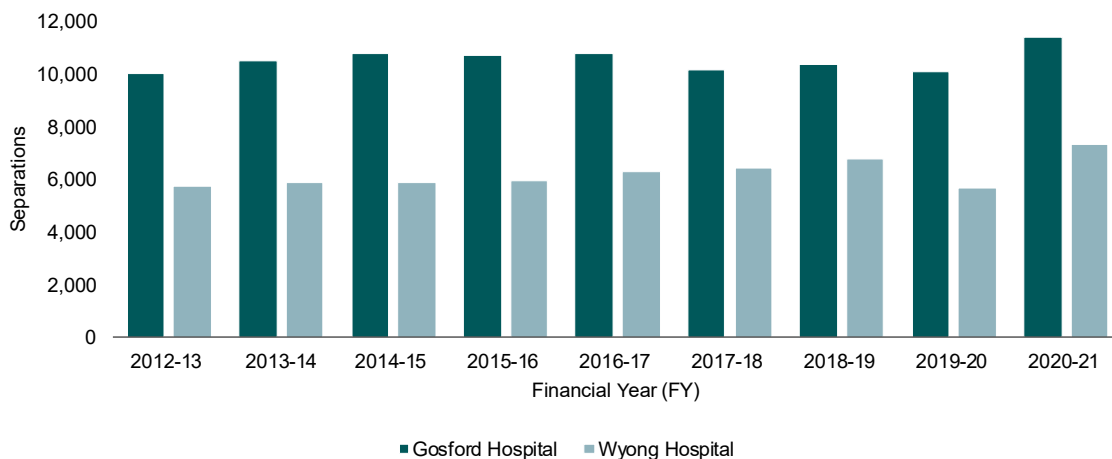
Gosford Hospital and Wyong Hospital provide surgery and other interventional procedures. Gosford Hospital largely provides Orthopaedics, Urology, Interventional Cardiology, General Surgery, Gynaecology, and Diagnostic Endoscopy procedures. Wyong Hospital predominantly provides Ophthalmology, Diagnostic GI Endoscopy, Orthopaedics, General Surgery and Urology procedures.

The acute admitted surgery and interventional activity in Gosford Hospital and Wyong Hospital demonstrates a slightly lower rate of increase than the medical acute activity. This is expected to continue in the future based on the projections derived from the method outlined in Section 6.2. The key trends observed are summarised below.

- Acute admitted surgery and interventional separations have increased at Gosford Hospital and Wyong Hospital from FY2012-13 to FY2020-21.
- This activity is projected to increase to 2036 with more than 13,000 separations at Gosford Hospital and almost 9,000 separations at Wyong Hospital.
- The average length of stay has increased at Gosford Hospital from FY2012-13 to FY2020-21 – from 6.1 days to 6.5 days. Over the same period, the average length of stay at Wyong Hospital has declined from 5.7 days to 4.7 days.

Details of the above trends are provided in Figure 6-10 and Figure 6-11 and Table A-16 in Appendix E.

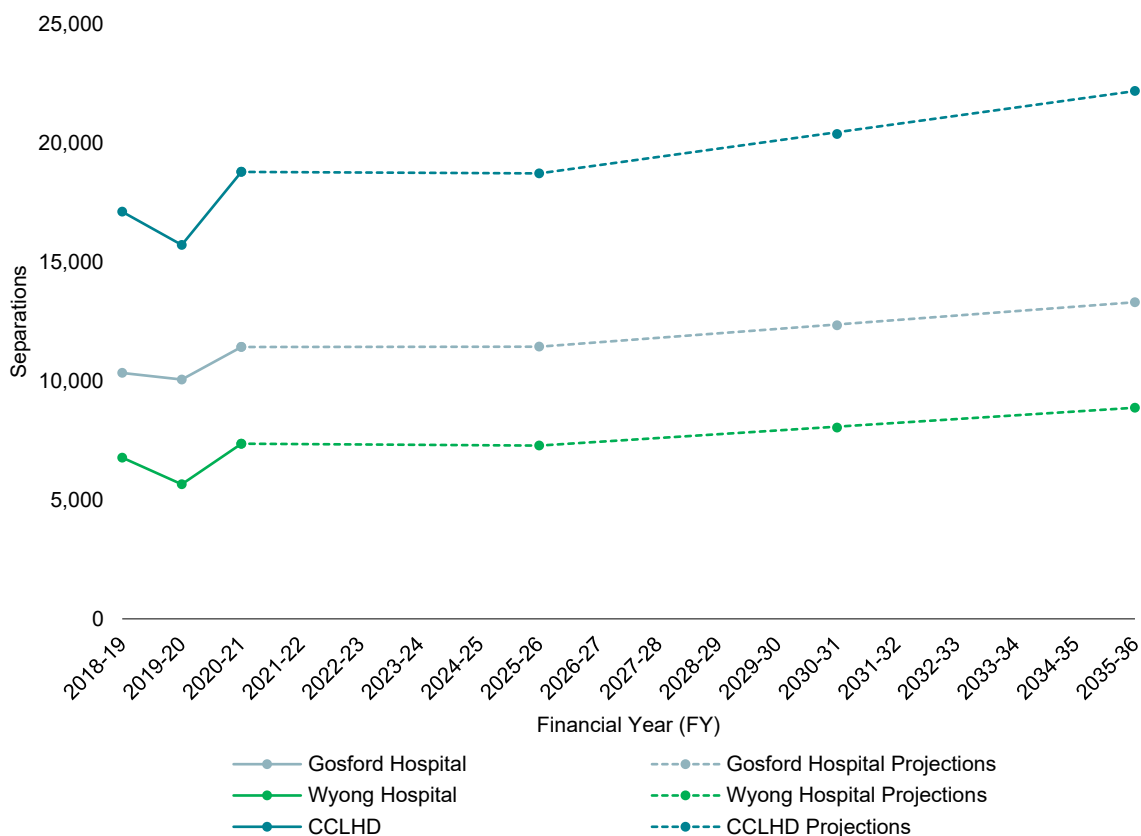
Figure 6-10: Gosford Hospital and Wyong Hospital historical adult acute admitted surgery and interventional separations



Source: FlowInfov21

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Figure 6-11: Gosford Hospital and Wyong Hospital historical and projected adult acute admitted surgery and interventional separations to 2036



Source: FlowInfov21, HealthApp

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years



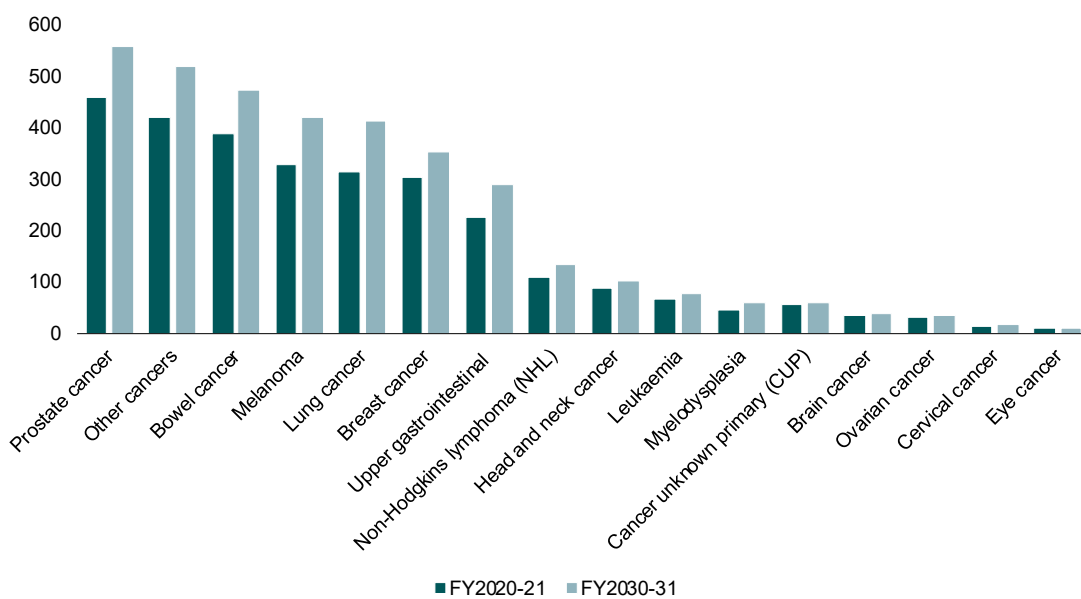
6.2.4 Cancer

The incidence of cancer is projected to increase for Central Coast residents. As outlined in Section 4.8, Central Coast residents have higher cancer incidence rates than the NSW average. Key trends in cancer activity in the CCLHD are summarised below.

- The number of new cases of cancer for Central Coast residents is projected to increase from 2021 to 2031.
- Prostate cancer, bowel cancer, melanoma and lung cancer are projected to have the largest increase in the number of new cases.
- The demand for chemotherapy services at Gosford Hospital and Wyong Hospital is also forecast to increase to 2036, particularly at Wyong Hospital.
- Gosford Hospital is the main hub for cancer services on the Central Coast and this is expected to continue. This includes inpatient and outpatient services comprising chemotherapy and radiation oncology.
- A Rapid Access Clinic for cancer patients at Gosford Hospital commenced in early 2023. The Wyong Hospital Cancer Day Unit is in development and will include additional chemotherapy capacity, which is expected to increase cancer service delivery in the northern part of the Central Coast.

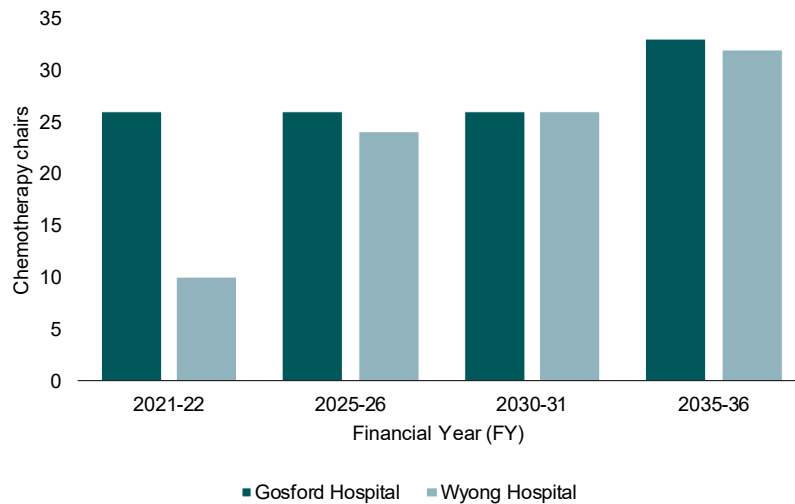
Details of the above trends are provided in Figure 6-12 and Figure 6-13 and Table A-18 and Table A-19 in Appendix E.

Figure 6-12: CCLHD number of adjusted new diagnosis of cancer projections by cancer type, 2020-21 to 2030-31



Source: NSW Cancer Institute, NSW Cancer Registry

Figure 6-13: Gosford Hospital and Wyong Hospital chemotherapy chair projections to 2036



Source: MOSAIQ, CHARM

6.2.5 Renal dialysis

As outlined in Section 4.4, the incidence of chronic kidney disease among Central Coast residents is higher than the NSW average. The Central Coast also has higher levels of risk factors for chronic kidney disease than the NSW average, such as risky alcohol consumption (see Section 4.2).

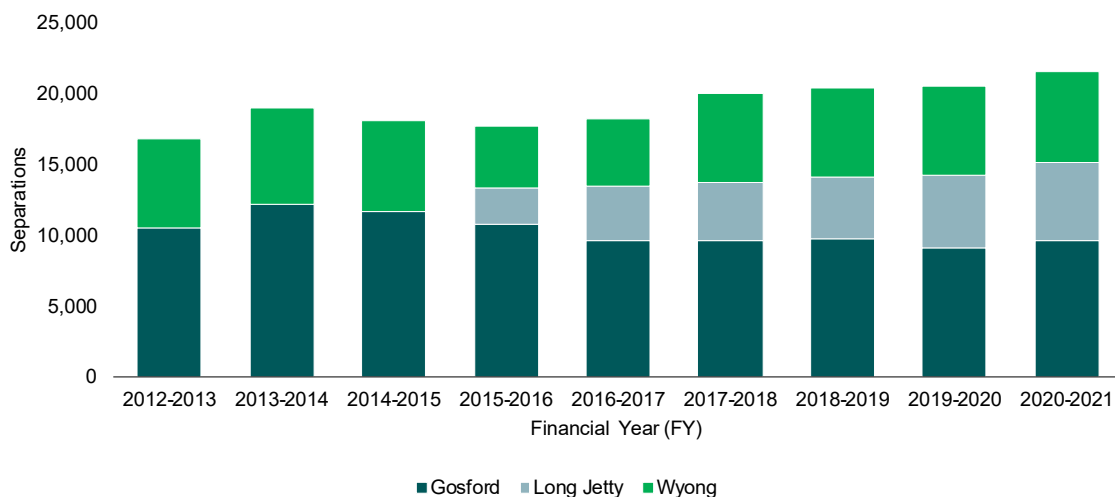
Renal dialysis options for Central Coast patients with kidney disease include home dialysis, satellite dialysis units (at Gosford, Long Jetty and Lake Haven) and in-centre dialysis unit (at Gosford Hospital), as well as

renal supportive care. Kidney transplants for Central Coast residents are provided through Royal North Shore Hospital.

There were 195 renal dialysis patients in CCLHD Renal Services in 2021. The number of renal dialysis separations across the CCLHD has increased since FY2012-2013.

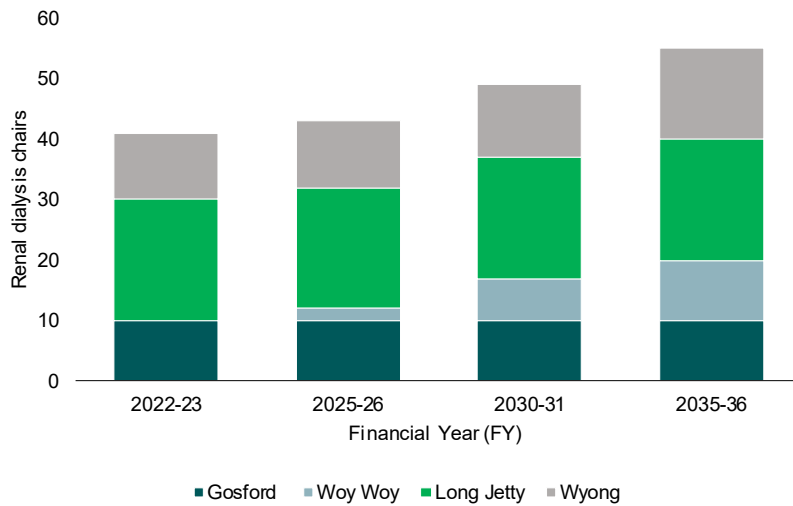
Details of the above trends are provided in Figure 6-14 and Figure 6-15 and Table A-20 and Table A-21 in Appendix E.

Figure 6-14: CCLHD renal dialysis historical separations by treatment facility



Source: FlowInfo v21. Note: Wyong Satellite Dialysis facility is based in Lake Haven.

Figure 6-15: CCLHD projected renal dialysis chair requirements to 2036



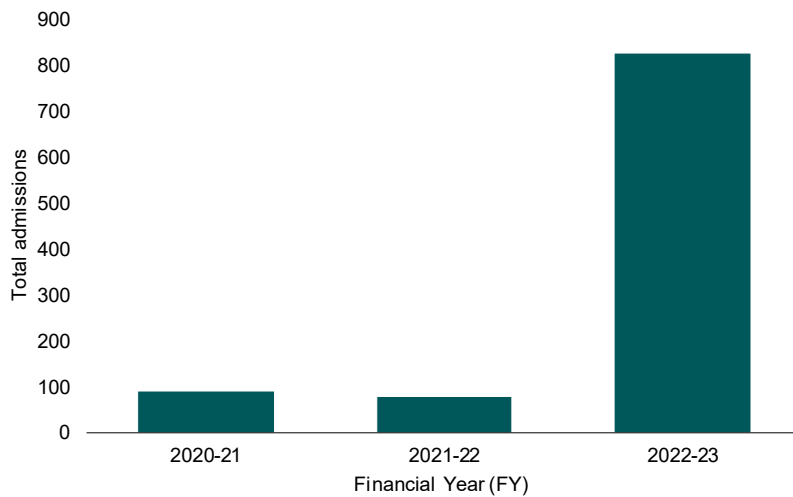
Source: FlowInfo v21. Note: Wyong Satellite Dialysis facility is based in Lake Haven.

6.2.6 Hospital in the home

Hospital in the Home (HITH) is an alternative model of acute care in a person’s home rather than in a hospital. The acute HITH episode of care is supported by “in-reach” into the person’s home by appropriate staffing inclusive of medical, nursing and allied health.

CCLHD has introduced a HITH model. There were 826 HITH admissions in CCLHD in FY2022-23. Details of the above trends are provided in Figure 6-16 and Table A -22 in Appendix E.

Figure 6-16: CCLHD HITH total admissions FY2020-21 to FY2022-23



Source: HITH Dashboard (accessed July 2023)

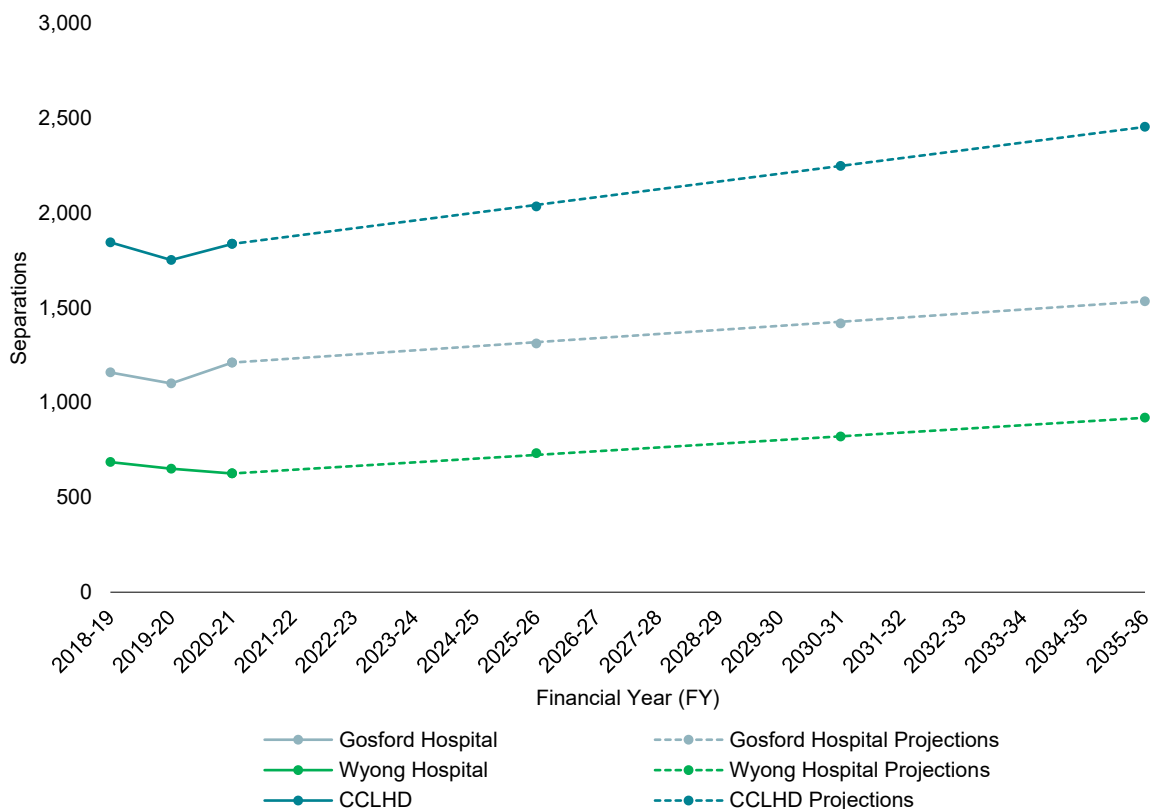


6.2.7 Intensive care unit

Activity in the Intensive Care Unit (ICU) at both Gosford Hospital and Wyong Hospital has increased from FY2012-13 and is projected to increase in future. Note that ICU separations are included within the adult acute admitted activity outlined above. Gosford Hospital ICU hours increased by 5.7 per cent annually from FY2012-13 to FY2020-21, while Wyong Hospital ICU hours greatly increased by 25.2 per cent.⁷⁵

Details of the above trends are provided in Figure 6-17, below, Table A-23 and Table A-24 in Appendix E.

Figure 6-17: Gosford Hospital and Wyong Hospital historical and projected ICU separations to 2036



Source: FlowInfo v21, HealthApp

Note: The ICU separations are within (not in addition to) the adult acute admitted beds.



6.3 Women and children

Women's and children's acute care services are predominantly provided for Central Coast residents from Gosford Hospital. Specialist care for maternity and neonatal services is provided by referral to Royal North Shore Hospital or other specialist hospitals. Specialist paediatric care is provided through the Children's Hospital Network.

As outlined in Section 5, there are high levels of domestic and family violence on the Central Coast relative to the NSW average, and an increase over time in the number of children at risk of harm.

6.3.1 Maternity

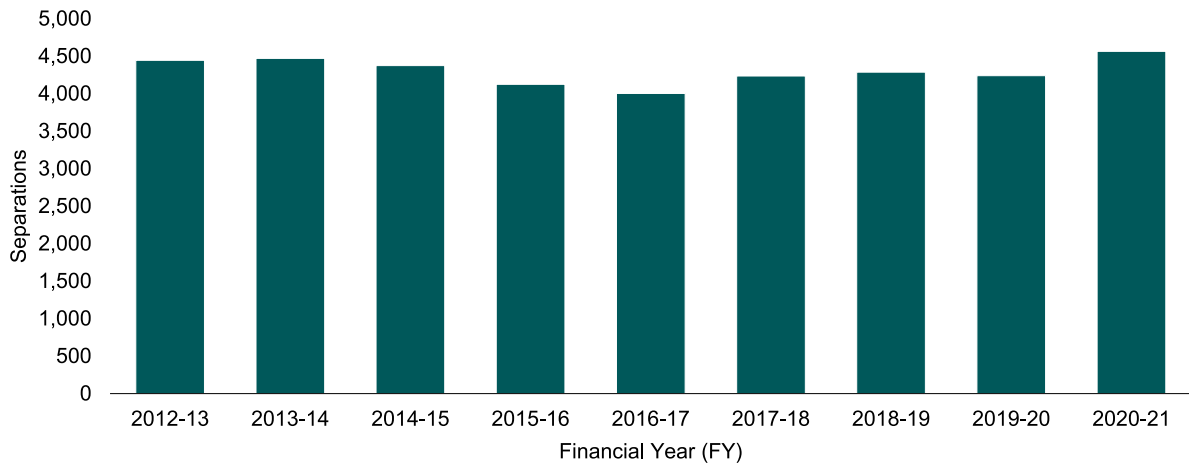
Most births in CCLHD occur at Gosford Hospital and this is expected to continue in future. Maternity referrals to specialist services provided outside of CCLHD occur through the Maternal Transfer System. Maternal foetal monitoring for Central Coast women is mostly provided at Royal North Shore Hospital. Key trends in maternity activity in the CCLHD are summarised below.

- The number of births in CCLHD has increased from FY2012-2013 to FY2020-2021.
- Births in CCLHD are forecast to continue to increase to 2036.
- Births in private facilities in the Central Coast are declining. This could be due to increased confidence

in the public health system for birthing, capacity to afford private birthing care and the draw card of the new Gosford Hospital Redevelopment. The forecast birthing and maternity activity projections include a five per cent shift from private facilities to public facilities for birthing.

Details of the above trends are provided in Figure 6-18, Figure 6-19, and Figure 6-20 and in Table A-25, Table A-26, and Table A-27 in Appendix E.

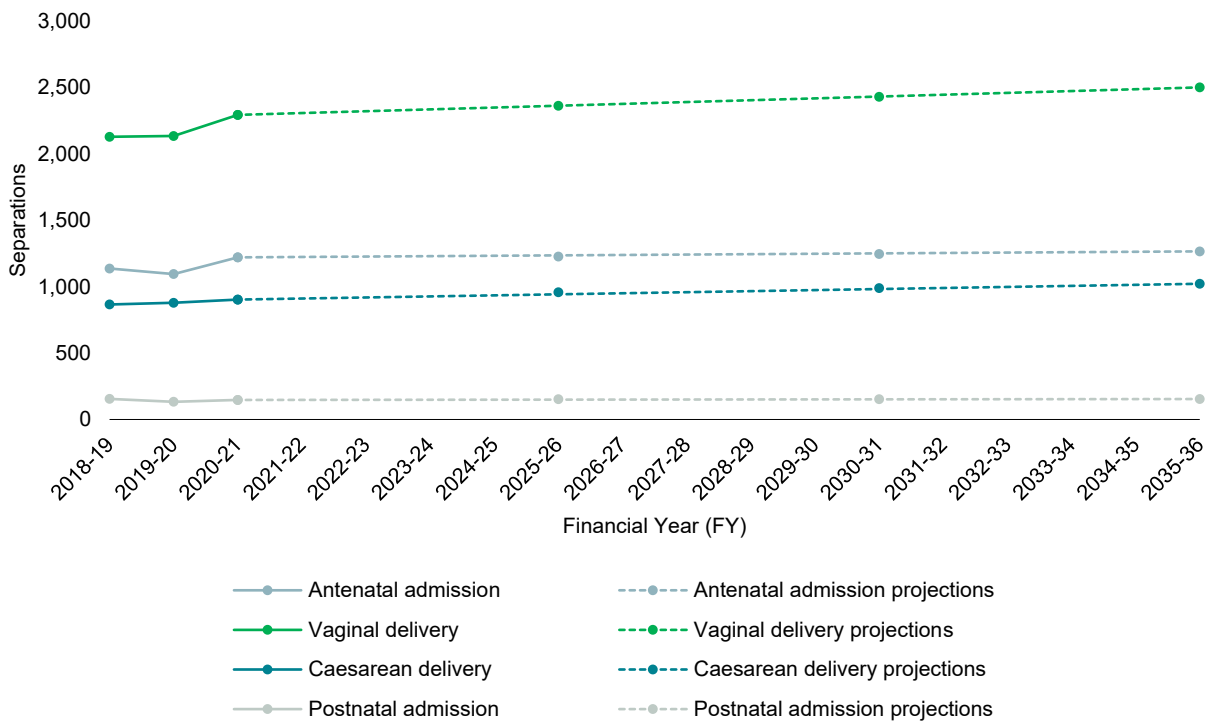
Figure 6-18: CCLHD historical maternity separations



Source: FlowInfov21

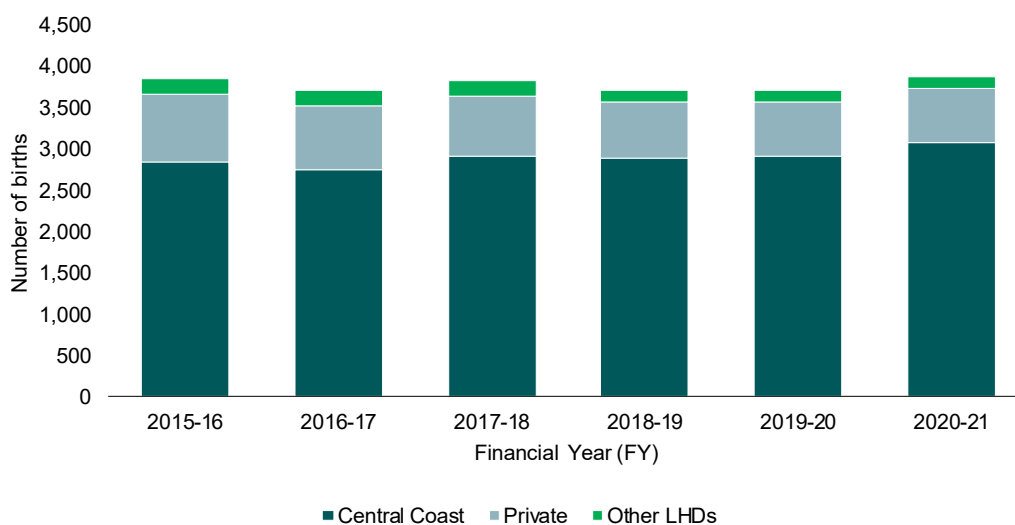
Note: Refer to Table A-25 in Appendix E for CCLHD historical maternity separations by Enhanced Service Related Group (ESRGs).

Figure 6-19: CCLHD historical and projected maternity separations by Enhanced Service Related Groups to 2036



Source: FlowInfov21, HealthApp

Figure 6-20: Locations of births for Central Coast residents by public (CCLHD), private and other facilities FY2015-16 to FY2020-21



Source: FlowInfov21

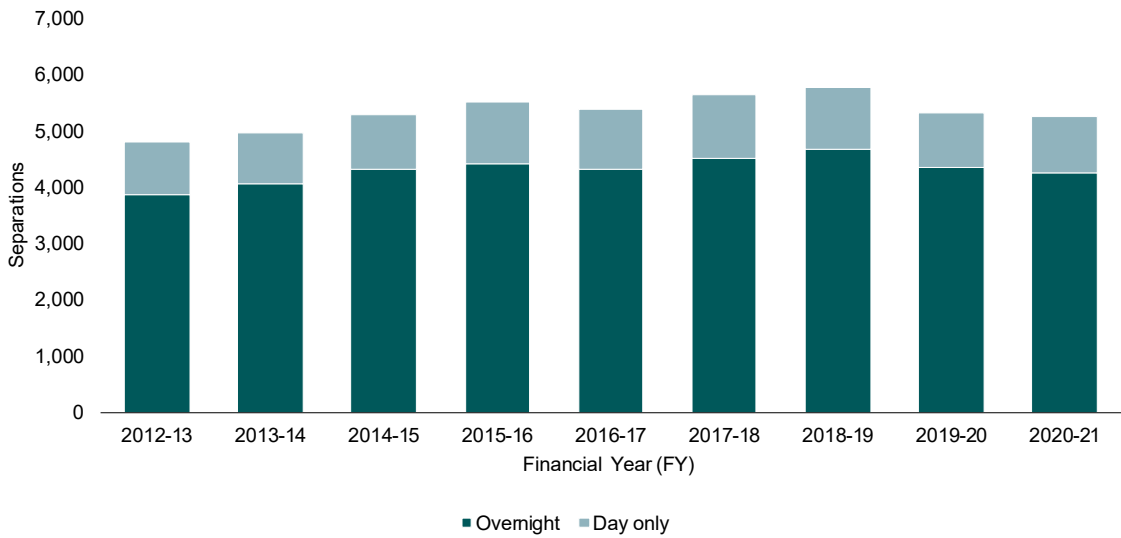
6.3.2 Paediatrics

The Paediatric Inpatient Unit for CCLHD is based at Gosford Hospital, including high observation beds. There are paediatric non-admitted Short Stay Units located at both Gosford Hospital and Wyong Hospital. Paediatric surgery is predominantly undertaken at Gosford Hospital, with most surgery for Ear Nose and Throat, Orthopaedics and General Surgery. Paediatric clinics are available from the CCLHD hospital sites, as well as from community health centres located throughout the Central Coast. Key trends in paediatric activity in CCLHD are summarised below.

- Paediatric acute inpatient separations increased slightly from FY2012-13 to FY2020-21.
- Acute inpatient paediatric activity is forecast to increase to 2036, noting projections include activity within the Special Care Nursery at Gosford Hospital. In addition, there may be a degree of unmet demand in the community.
- There is a high volume of transfers of paediatric patients from Wyong Hospital to Gosford Hospital, with approximately two patients per day in FY2021-22.
- There are high volumes of paediatric patients presenting to the emergency departments at both Gosford and Wyong Hospitals, with close to 10,000 patients waiting beyond the four-hour timeframe in FY2021-22.

Details of the above trends are provided in Figure 6-21 and Figure 6-22, and in Table A -28 and Table A -29 in Appendix E.

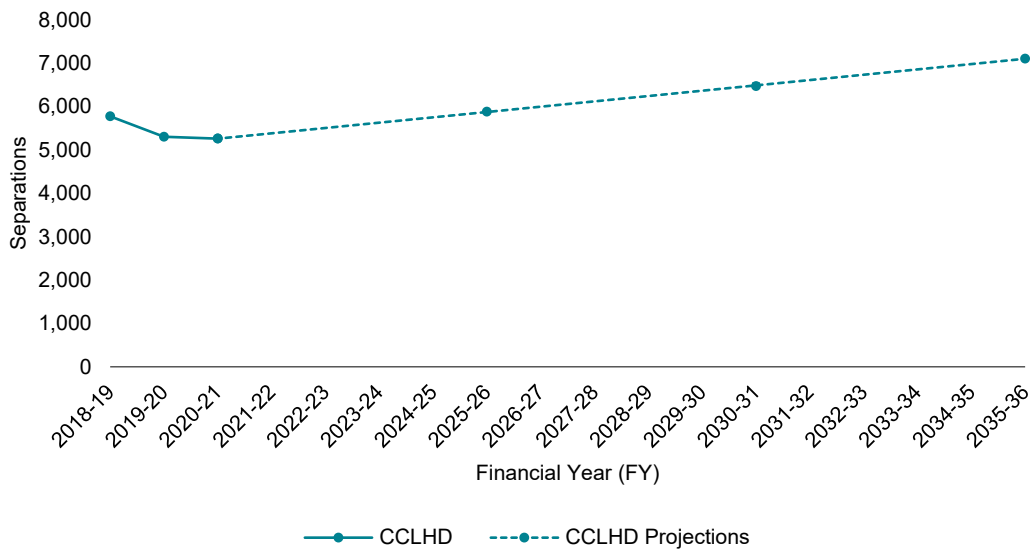
Figure 6-21: CCLHD historical paediatric inpatient care separations, 2012-13 to 2020-21



Source: FlowInfov21

Note: Paediatric age group is 0 to 15 years. Base year is derived by the three-year average of FY2018-19, FY2019-20, and FY2020-21 and includes Special Care Nursery projected activity.

Figure 6-22: CCLHD historical and projected paediatric inpatient care separations to 2036



Source: FlowInfov21, HealthApp

Note: Includes Special Care Nursery. Paediatric age group is 0 to 15 years.

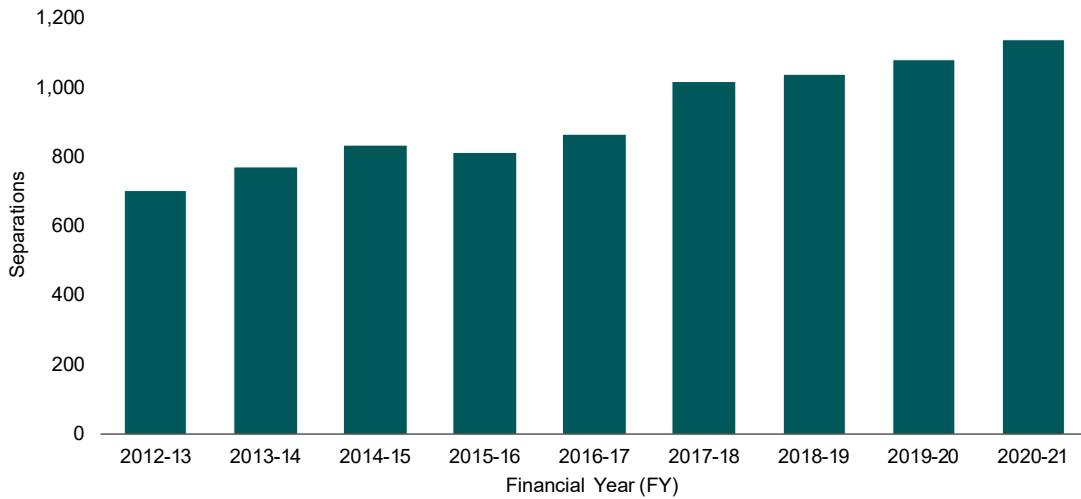
6.3.3 Special care nursery

There is a Special Care Nursery at Gosford Hospital. Key trends are summarised below.

- There has been a steady increase in the number of separations to the Special Care Nursery at Gosford Hospital from FY2012-13 to FY2020-21.
- Activity is forecast to continue to increase to 2036.

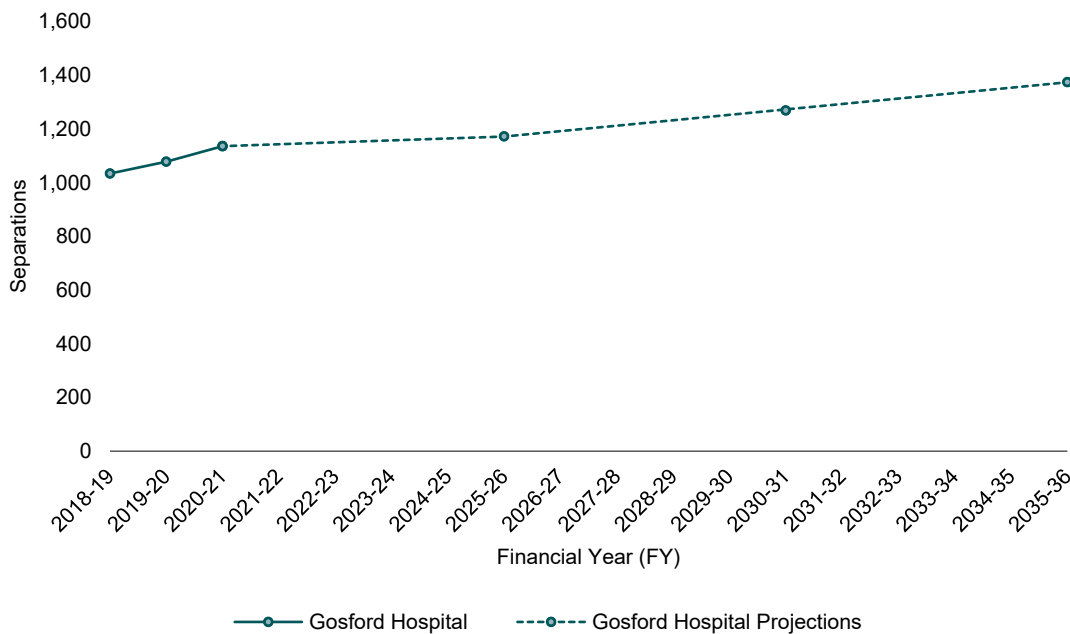
Details of the above trends are provided in Figure 6-23 and Figure 6-24 below, and in Table A -30 and Table A -31 in Appendix E.

Figure 6-23: Gosford Hospital historical Special Care Nursery separations, 2012-13 to 2020-21



Source: FlowInfov21

Figure 6-24: Gosford Hospital historical and projected Special Care Nursery separations to 2036



Source: FlowInfov21, HealthApp



6.4 Sub-acute and non-acute

Sub-acute care involves specialised multi-disciplinary care with the primary aim of optimising a patient’s functioning and quality of life. This includes Rehabilitation, Palliative Care, Geriatric Evaluation and Management (GEM), Psychogeriatric care, Maintenance and Palliative Care. Sub-acute care is provided at all CCLHD facilities including Gosford, Wyong and Woy Woy Hospitals. Sub and non-acute care was provided at Long Jetty Healthcare Inpatient Unit until it closed in October 2021.

Rehabilitation, Geriatric Evaluation and Management (GEM) and Psychogeriatric care sub acute activity, and Maintenance non-acute care activity are combined in Section 6.4.1. Palliative care is considered separately in Section 6.4.2.

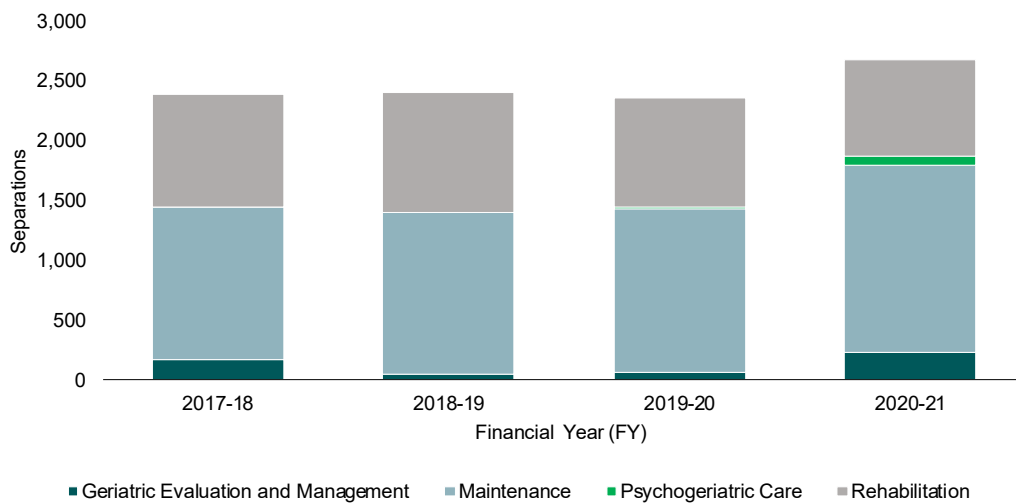
6.4.1 Rehabilitation, geriatric evaluation management, psychogeriatrics and maintenance

Key trends in CCLHD for the combined Rehabilitation, Geriatric Evaluation and Management (GEM), Psychogeriatric care and Maintenance activity are summarised below.

- Total activity across CCLHD facilities has increased from FY2017-18 to FY2020-21.
- The Maintenance care type is largely driving the increases in activity. Maintenance activity accounts for almost 60 per cent of the total separations in the combined Sub and Non-Acute care type group in FY2020-21.
- Within the Maintenance care activity, nearly 50 per cent of separations were due to “Waiting for admission to residential aged care services” in FY2020-21.
- Geriatric Evaluation and Management and Psychogeriatric separations increased from FY2017-18 to FY2020-21, and Rehabilitation separations decreased.
- Activity is forecast to increase to 2036.

Details of the above trends are provided in Figure 6-25, Figure 6-26, and Figure 6-27, and in Table A-32, Table A-33, and Table A-34 in Appendix E.

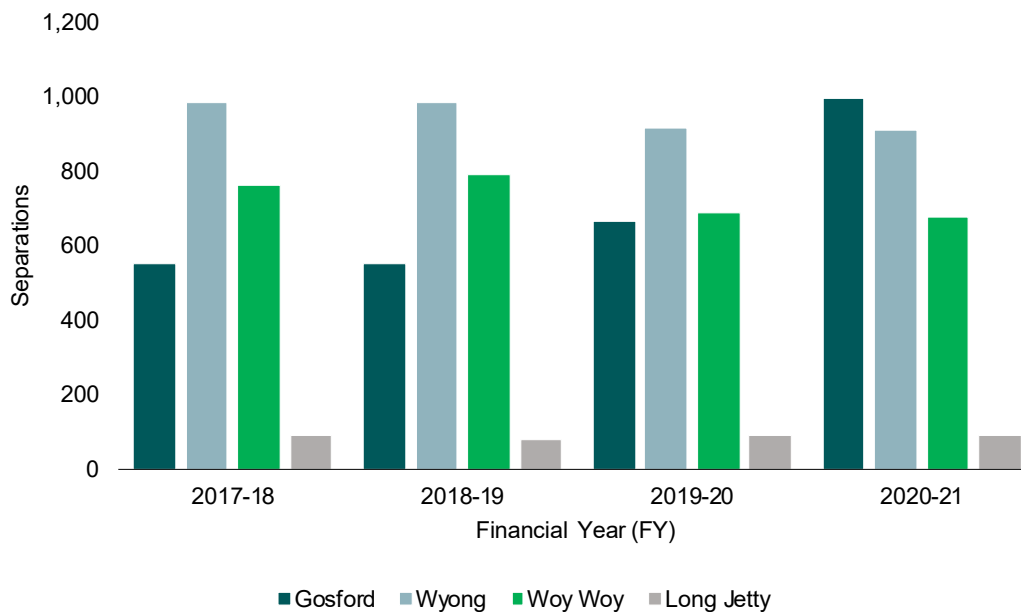
Figure 6-25: CCLHD proportion of sub-acute and non-acute care type separations FY2017-18 to FY2020-21



Source: FlowInfov21

Note: Includes adult patients' separations. Includes Rehabilitation, Geriatric Evaluation and Management, Psychogeriatrics and Maintenance Care separations for adult patients. Excludes palliative care.

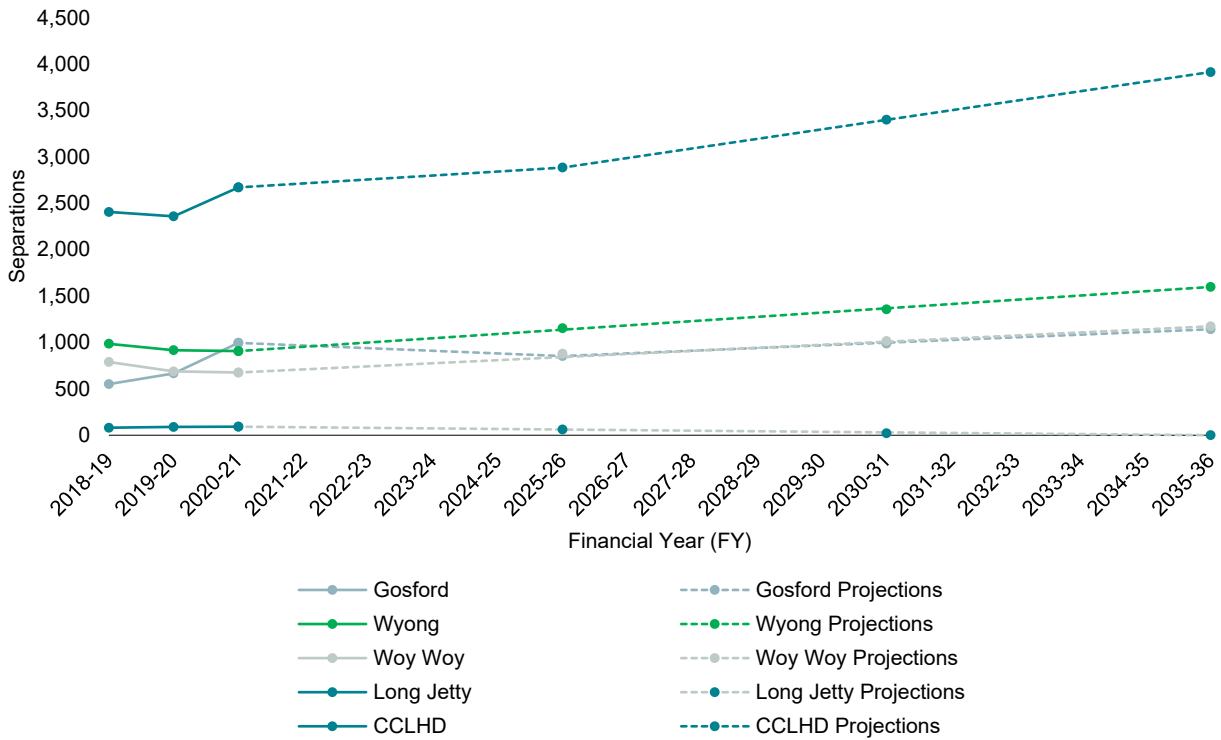
Figure 6-26: CCLHD sub-acute and non-acute separations by facility, 2017-18 to 2020-21



Source: FlowInfov21

Note: Long Jetty Healthcare Centre sub and non-acute unit activity was transferred to other facilities since its closure in 2021 and projected activity has been reallocated to other facilities. This includes Rehabilitation, Geriatric Evaluation and Management, Psychogeriatrics and Maintenance Care separations for adult patients. Excludes palliative care.

Figure 6-27: CCLHD historical and projected sub-acute and non-acute separations to 2036



Source: FlowInfov21, HealthApp

Note: Long Jetty Healthcare Centre sub and non-acute unit activity was transferred to other facilities since its closure in 2021 and projected activity has been reallocated to other facilities. This includes Rehabilitation, Geriatric Evaluation and Management, Psychogeriatrics and Maintenance Care separations for adult patients. Excludes palliative care.

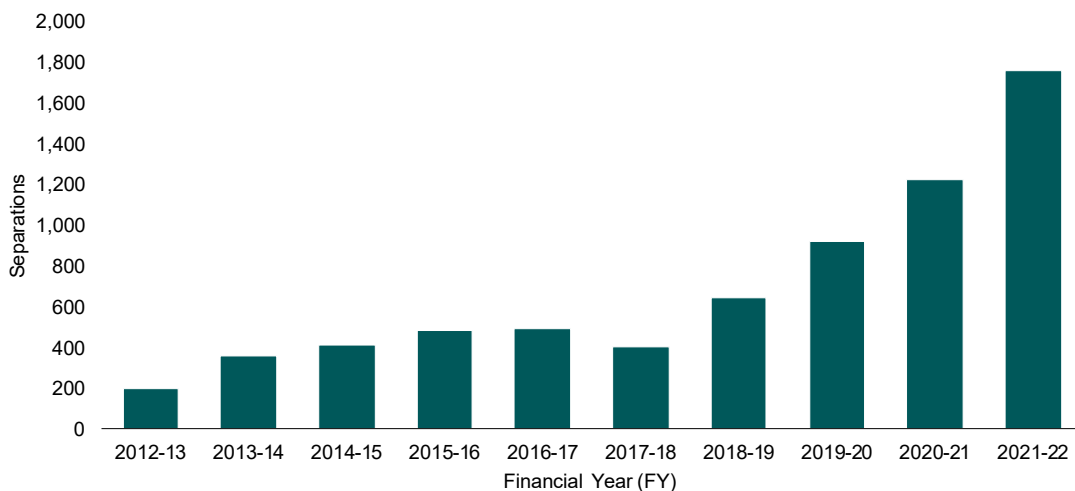
6.4.2 Palliative care

Palliative care services in CCLHD are provided in community based and hospital inpatient-based care settings. The Palliative Care Unit at Gosford Hospital opened in April 2021, and a new unit Palliative Care Unit is planned for Wyong Hospital. Key trends are summarised below.

- There has been a large increase in separations for palliative inpatient care from FY2012-13 to FY2020-21.
- Palliative care inpatient activity is forecast to increase further to 2036.

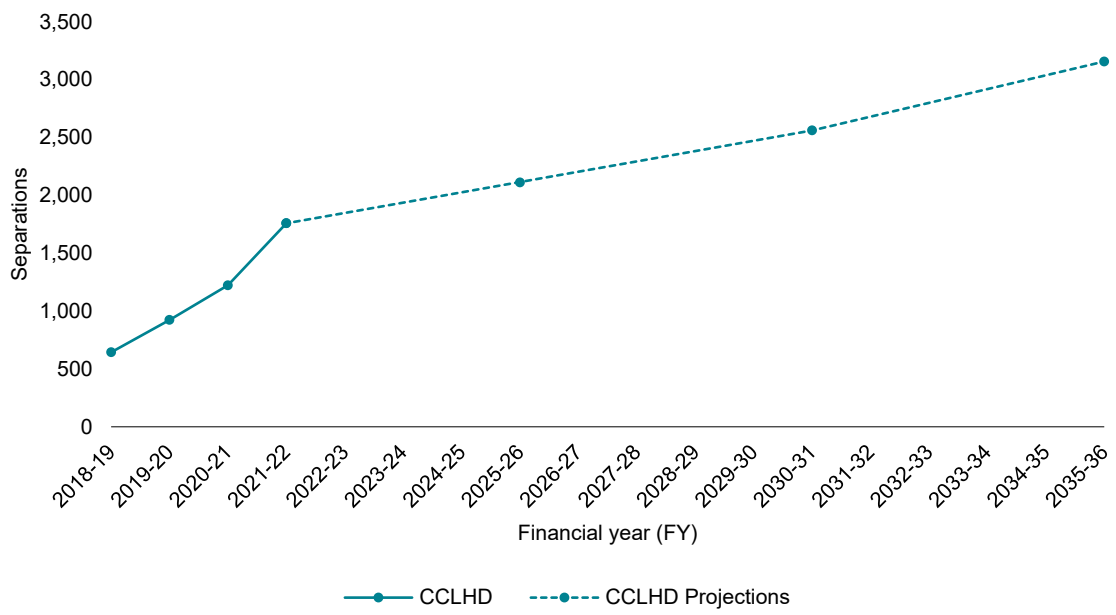
Details of the above trends are provided in Figure 6-28 and Figure 6-29 and in Table A-35 and Table A-36 in Appendix E.

Figure 6-28: CCLHD palliative care separations, 2012-13 to 2021-22



Source: CaseMix App

Figure 6-29: CCLHD historical and projected palliative care separations to 2036



Source: CaseMix App, HealthApp



6.5 Mental health

As outlined in Section 4, potential drivers of demand for mental health service in the Central Coast include rates of high and very high psychological distress and suicide that are above the state-wide average. Mental health services are provided by CCLHD across the care continuum from community-based care to inpatient care, across age groups from perinatal mental health care to older age, and across the geography of the Central Coast. In addition, partnerships in care delivery are crucial including NGOs, GPs and other public services.

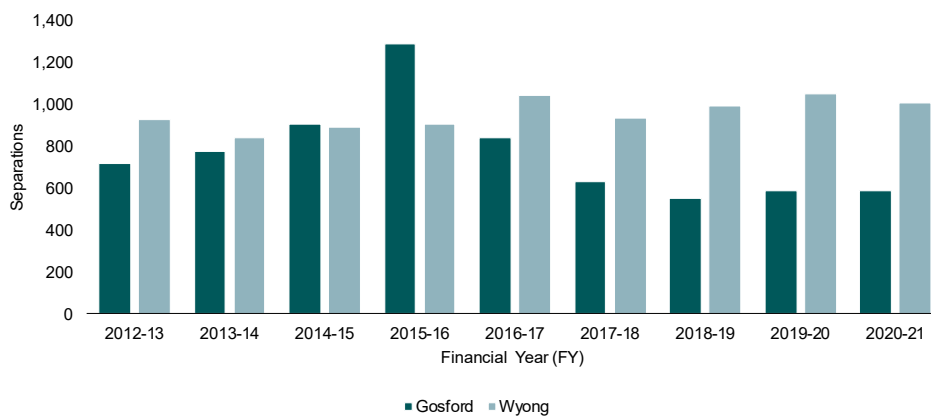
Mental Health inpatient units are located at Gosford and Wyong Hospitals. Referral networks are available to access mental health inpatient care provided in other Local Health Districts for adolescents (in Brolga Unit, Hornsby), intensive care (at Hornsby Hospital) and rehabilitation (in Orange). Mental Health Emergency Department Teams operate from the emergency

departments at Gosford and Wyong Hospitals. Psychological Emergency Care Centre (PECC) is operational at Wyong Hospital (four of six beds). A PECC Unit (six beds) was built at Gosford Hospital but has not yet been operationalised. A Safe Haven suicide prevention service commenced at Gosford Hospital in 2023 and another is being planned for Wyong Hospital.

CCLHD mental health services and mental health strategic directions are outlined in the CCLHD Mental Health Strategic Plan and the CCLHD Caring for our Community Plan 2021-2031. Details of trends in mental health activity are outlined in Figure 6-30 and Figure 6-31 below, and in Table A-37 and Table A-38 in Appendix E.

Details of 2023 Mental Health capacity and activity to FY2020-21 are provided in Figure 6-30 and Figure 6-31 below and in Table A-37 and Table A-38 in the Appendix E.

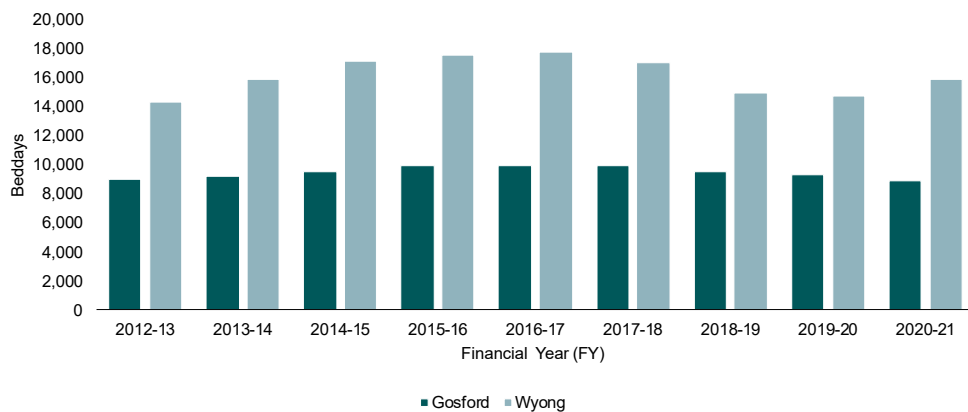
Figure 6-30: CCLHD adult mental health acute separations FY2012-13 to FY2020-21



Source: FlowInfov21

Note: Includes adult mental health acute separations.

Figure 6-31: CCLHD adult mental health acute beddays FY2012-13 to FY2020-21



Source: FlowInfov21

Note: Includes adult mental health acute beddays.

Mental health inpatient projections for CCLHD are outlined below. The statements and observations for mental health service inpatient projections by 2036 in CCLHD are based on outputs from a nationally endorsed planning tool called the National Mental Health Services Planning Framework v4⁷⁶, which uses best available evidence, expert opinion and assumptions about how mental health services are organised and delivered to provide an estimate of anticipated demand. The tool provides estimates of mental health inpatient separations, bed days and community services, projected to 2036. The following projections focus on mental health inpatient care. The importance of community-based mental health care is acknowledged.

Modelling shows that more State and Commonwealth funded mental health inpatient services will be needed to meet the service demands of a growing Central Coast population. Based on the modelling, those most in need for increased mental health inpatient care are adolescents and young people, followed by older people and then adults. There are currently no dedicated inpatient services for adolescent and young people in CCLHD. Adult facilities need to be designed to better deliver contemporary practice. There is a growing older person population on the Central Coast that will also have increased mental health inpatient care needs. Projected demand for CCLHD to 2036 also indicates an increased demand for new services such as Mental Health Intensive Care inpatient care, which is designed to provide higher levels of supervision and support for people with severe mental illness who require containment, stabilisation and therapeutic engagement.

The modelling process for mental health inpatient care for CCLHD has also identified the need for services designed to assist the transition of people from acute care to environments which can better facilitate their recovery and rehabilitation (termed Step Up Step Down

Care).⁷⁷ These services in the CCLHD will be designed to meet local demand, accommodating a wide range of age groups.

The modelling process also shows a need for Non-acute Mental Health Inpatient care (termed Long-term Recovery-oriented Residential care) across age groups for CCLHD by 2036. Long-term Recovery-oriented Residential care provides accommodation and recovery oriented, developmentally and culturally appropriate treatment for those whose needs are associated with severe mental illness, associated clinical symptoms and emerging or unresolved psychosocial or functional disability.

In summary, by 2036, for CCLHD, National Mental Health Services Planning Framework projected demand for mental health inpatient care includes:

- Acute mental health inpatient care, across age groups
 - 2,951 separations from hospital and 42,244 occupied beddays. People, on average, will spend 14 days in hospital in these treatment environments.
- Step up step down mental health inpatient care, across age groups 12 years and over
 - 361 separations from hospital and 10,334 occupied beddays. People, on average, will spend just under a month (29 days) in hospital in these treatment environments.
- Long-term recovery-oriented residential care (non-acute mental health care), across age groups 18 years and over
 - 89 separations, with 31,434 beddays. People, on average, will spend up to nearly a year (353 days) receiving these services, however, with appropriate access to community-based rehabilitation and community-based care and services, discharge may occur earlier.

⁷⁶ The National Mental Health Services Planning Framework (NMHSPF) is a standardised national model which was developed based on best available evidence and expert opinion. It relies on a set of assumptions about expected levels of demand and efficient operation of service components within a comprehensive, integrated and interdependent mental health service system. The NMHSPF outputs do not reflect local context, such as sociodemographic factors impacting on demand or differences in how local services are arranged and delivered. These factors must be taken into consideration when applying the NMHSPF outputs. The NMHSPF outputs should be tailored to the designated population of focus and details of local modelling refinements or variations should be documented to guide interpretation.

⁷⁷ Step Up Step Down mental health inpatient activity projections have been aligned with the modelled 'Sub-acute care' demand estimates in the National Mental Health Services Planning Framework tool.

6.6 Aboriginal health

As outlined in Section 3, the Central Coast has a large Aboriginal community and the population of Aboriginal people is forecast to increase. The Aboriginal Health Unit in CCLHD coordinates the delivery of culturally appropriate Aboriginal health care across the region, as well as planning for future strategic directions and service delivery for Aboriginal Health services within CCLHD, and with partner organisations. Within the CCLHD, Aboriginal Health services delivered include Mental Health, Drug and Alcohol, Immunisation, Youth Health and Women, Children and Families Health, as well as Aboriginal Liaison Officer positions within CCLHD hospitals.

Aboriginal Health managers within the CCLHD workforce provide cultural leadership and support for Aboriginal Health services delivered within the LHD. The Aboriginal Liaison Officer at each hospital site supports access to culturally safe health care for the Aboriginal patient population. The Aboriginal Health Advisory Council provides overarching governance for Aboriginal health within CCLHD and reports directly to the CCLHD Board.

At Gosford Hospital, the Aboriginal Health Service Nunyara provides advocacy and support for Aboriginal and Torres Strait Islander people living on the Central Coast. Health services provided include Aboriginal Chronic Care, Aboriginal Hospital Liaison Officers, Aboriginal Palliative Care worker, Aboriginal Immunisation Health Worker, Aboriginal Youth Health Worker, Drug and Alcohol service (supported by Nunyara) and Mental Health (supported by Nunyara).

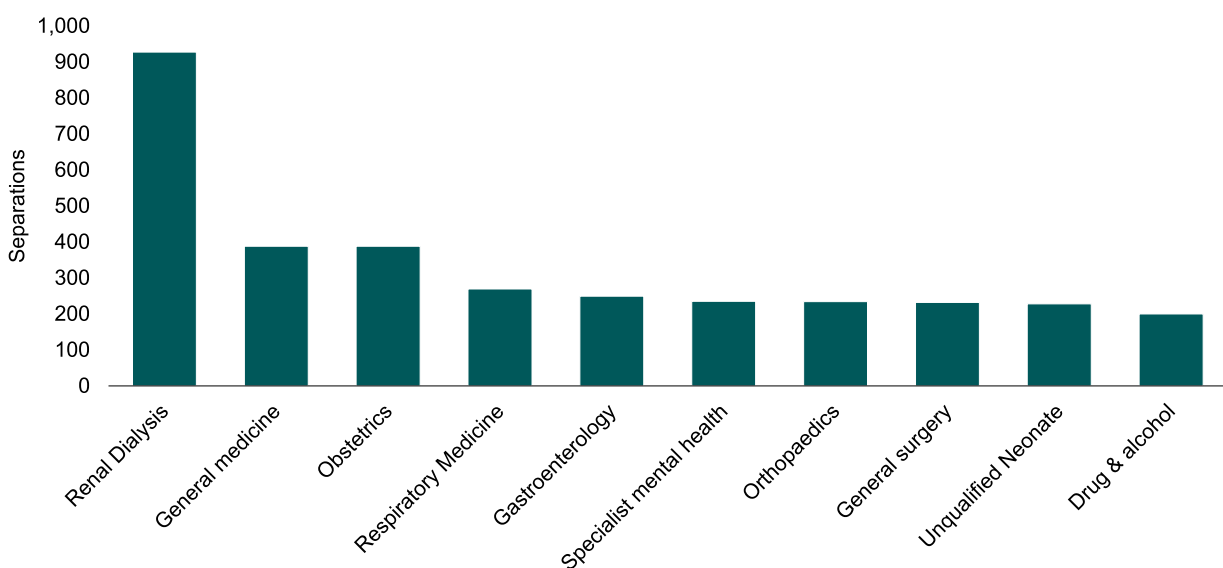
At Wyong Hospital, a new Aboriginal Health Unit is currently in development in 2023. The Ngiyang Aboriginal Health Service provides culturally appropriate care to pregnant women who identify as Aboriginal or Torres Strait Islander, or who identify their infant as Aboriginal and Torres Strait Islander, and their families.

Aboriginal patients are seen throughout the range of services provided by CCLHD outlined in this section, including at Gosford, Wyong and Woy Woy Hospitals, and their activity is captured within each of the service categories. Key trends for Aboriginal patients are summarised below.

- For emergency department presentations, the three main presenting problems for Aboriginal patients in FY2020-21 were:
 - Injury, single site major (1,987 presentations)
 - Digestive system illness (1,288 presentations)
 - Musculoskeletal-connective tissue illness (912 presentations).
- The three top conditions for hospital admissions in CCLHD facilities for Aboriginal people in FY2020-21 were:
 - Renal dialysis (927 admissions)
 - General medicine (388 admissions)
 - Obstetrics (388 admissions).

Details of the above trends are provided in Figure 6-32 and Figure 6-33 and in Table A -39 and Table A -40 in Appendix E.

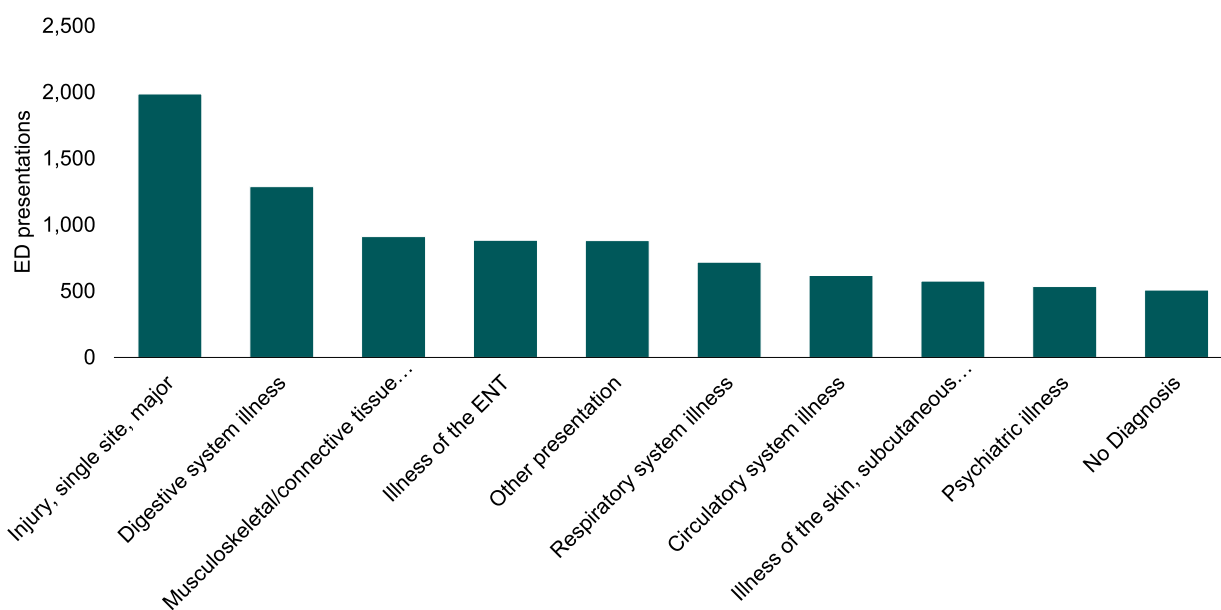
Figure 6-32: Aboriginal and Torres Strait Islander top 10 acute admitted separations to CCLHD hospitals by Service Related Group FY2020-21



Source: FlowInfo v21

Note: Includes all age groups.

Figure 6-33: Aboriginal and Torres Strait Islander top 10 Emergency Department Presentations, Gosford and Wyong Hospitals, by Major Diagnostic Block FY2020-21



Source: EDAA v21

6.7 Outpatient

Outpatient (non-admitted) activity occurs at each of the CCLHD hospital sites – Gosford, Wyong and Woy Woy Hospitals and at Long Jetty Healthcare Facility. A range of outpatient services are provided across the region, including:

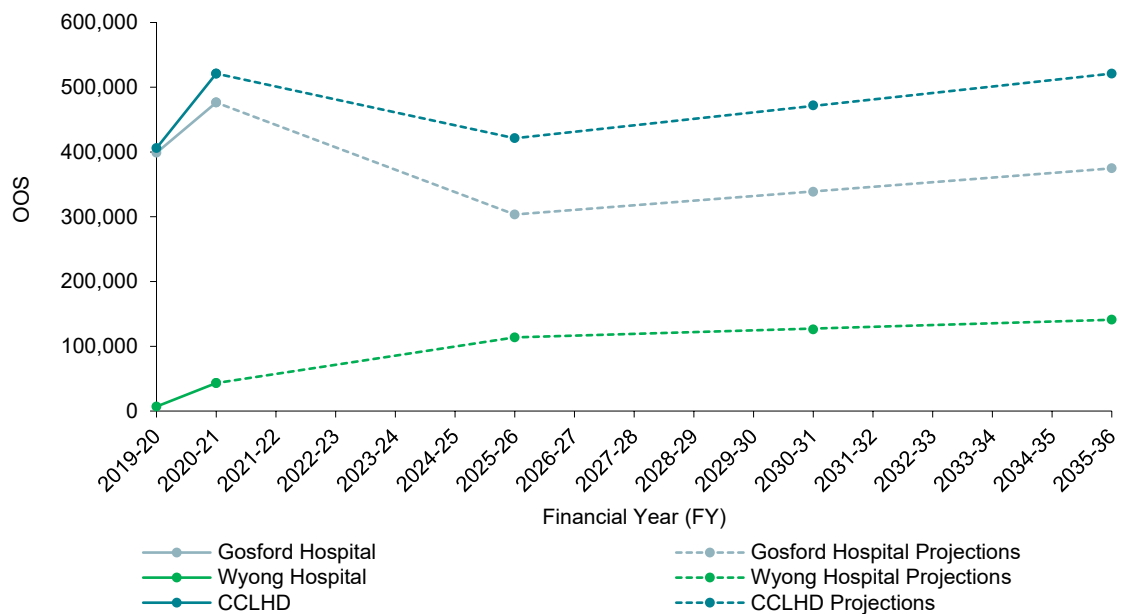
- Medical, for example chemotherapy and radiation oncology, cardiology investigative procedures, rapid access clinics, diabetes and endocrinology and other medical specialties
- Surgery and interventional procedures (non-admitted)
- Women and children's services
- Aboriginal health
- Drug and alcohol and sexual health
- Allied health specialties.

Key trends for outpatient (non-admitted) activity in CCLHD are summarised below.

- Over 520,000 occasions of service (OOS) for non-admitted outpatient services were delivered in FY2021-22 by CCLHD services across all sites, including more than 132,000 COVID related occasions of service. However, COVID-19 activity is not expected to continue at the level observed during this period and COVID-19 activity is not included in activity projections outlined in the following Figure 6-34 and Table 6-3.
- By 2036, over 520,000 OOS for non-admitted outpatients across CCLHD are forecast, excluding COVID related activity. Details of the historical and projected outpatient activity are provided in Figure 6-34 and Table 6-3, and in Table A -41 in Appendix E.



Figure 6-34: CCLHD historical (including COVID-19 activity) and projected (excluding COVID-19 activity) non-admitted patient OOS by clinic to 2036



Source: FY2021-22 OOS data from 2022 NAP EDWARD extract, FY2019-20 to FY2020-21 OOS data from 2023 NAP EDWARD extract, FY2025-26 to FY2035-36 projected OOS uses HealthApp for CAGR.

Note: Some variations in clinic names categorised to the facilities, e.g. Wyong Cardiac clinic mapped to Gosford Hospital. Information includes activities for patients of all ages, all facilities and all SRGs for "Setting Type" reported as "Hospital settings" in the NAP activity data. It also includes COVID-19 related activity for historical data (FY2019-20 and FY2020-21) and excludes COVID-19 related activity for projected data (FY2025-26 to FY2035-36).

Projected outpatient activity by hospital setting for CCLHD is shown in the Table below. This includes Tier 2 series of outpatient clinics where:

- 10 series: Procedural activity, provided by a surgeon or medical specialist
- 20 series: Medical Consultations, provided by a general physician or medical specialist
- 30 series: Diagnostic Service, within a specific field of medicine
- 40 Series: Allied Health and/or CNS (Clinical Nurse Specialist) Intervention Clinics.⁷⁸

Table 6-3: Historical and projected Non-Admitted Patient Occasions of Service by Tier 2 service type and clinic in FY2021-22 to FY2035-26, COVID-19 excluded

	Financial Year (FY)				Total change (per cent)*
	2021-22	2025-26	2030-31	2035-36	
Tier 2, 10 Series					
Gosford Hospital	45,412	50,939	57,234	64,423	42%
Wyong Hospital	14,138	15,758	17,759	20,075	42%
Woy Woy Hospital	-	-	-	-	-
Long Jetty Health Care Centre	1,035	1,314	1,459	1,634	58%
Total	60,585	68,011	76,452	86,132	42%
Tier 2, 20 Series					
Gosford Hospital	126,765	139,491	153,566	171,683	35%
Wyong Hospital	40,271	44,885	50,028	56,145	39%
Woy Woy Hospital	647	742	866	1,004	55%
Long Jetty Health Care Centre	247	314	348	390	58%
Total	167,930	185,432	204,808	229,221	36%
Tier 2, 30 Series					
Gosford Hospital	21,149	23,802	26,979	30,784	46%
Wyong Hospital	11,333	12,835	14,610	16,743	48%
Woy Woy Hospital	-	-	-	-	-
Long Jetty Health Care Centre	-	-	-	-	-
Total	32,482	36,637	41,589	47,527	46%
Tier 2, 40 Series					
Gosford Hospital	81,973	89,288	97,825	107,961	32%
Wyong Hospital	37,307	40,170	43,553	48,014	29%
Woy Woy Hospital	792	863	960	1,071	35%
Long Jetty Health Care Centre	768	885	1,018	1,163	51%
Total	120,840	131,207	143,355	158,209	31%

*Total change is the percentage difference between FY2021-22 and FY2035-36.

Source: EDWARD extract, HealthApp

Note: There are some variations in clinic names and mapping to facilities, e.g. Wyong Hospital Cardiology clinic mapped to Gosford Hospital. Service type derived from NSW NAP Establishment Type classifications.⁷⁹ Information includes activities for patients of all ages, all facilities and all SRGs and excludes COVID related activity, "Setting Type" not reported as "Hospital settings" in NAP activity data.

⁷⁸ NSW Activity Based Funding and Activity Based Management Compendium 2022-2023 (NSW Health)

⁷⁹ NSW Health, Non-Admitted Patient Establishment Type Definitions Manual, 2021, Non-Admitted Patient Establishment Type Definitions Manual (nsw.gov.au)

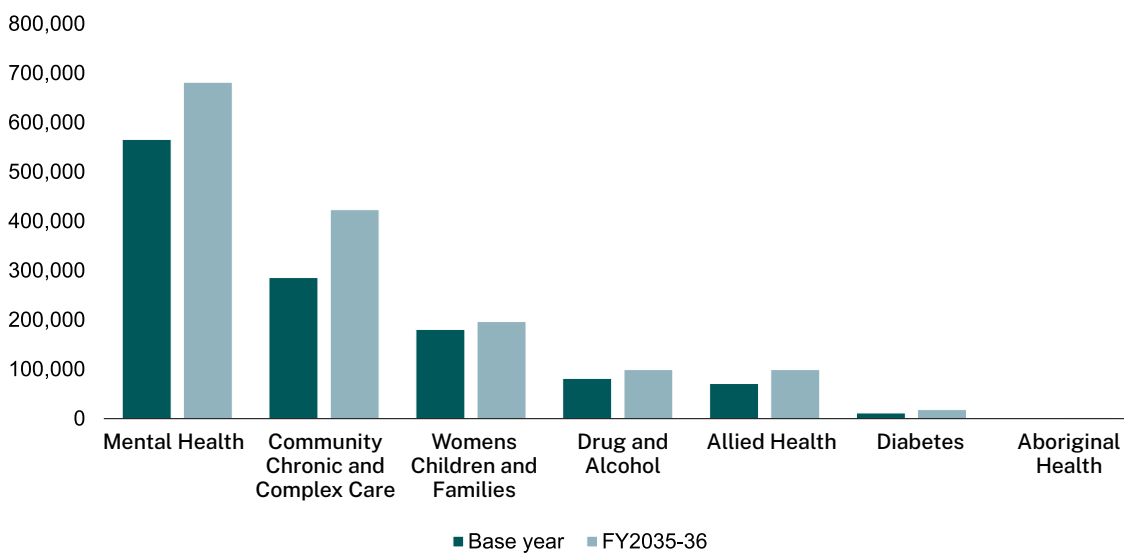
6.8 Community health services

Community health services operate across the Central Coast. These services include community nursing, community allied health, rehabilitation programs for chronic disease groups, ante and postnatal care, paediatric clinics, paediatric allied health, domestic violence and sexual assault initiatives and clinics, drug and alcohol related clinics, palliative care services, Aboriginal health services and mental health programs. A comprehensive community health plan was developed in 2022 Caring for our Community Plan, CCLHD, 2021 to 2031. Key trends are summarised below.

- More than 1.2 million occasions of service were delivered by the range of CCLHD community-based health services on the Central Coast during FY2019-20.
- Forecasts indicate 322,579 more occasions of service in 2036, than in FY2018-19.
- Community chronic and complex care, and Mental Health services are forecast to have both the highest activity, and the highest increase in the number of occasions of service to 2036.

Details of the above trends are provided in Figure 6-35 below and in Table A -42 in Appendix E.

Figure 6-35: CCLHD projected Community based non-admitted occasions of service to 2036



Source: CommCare, CERNER, Raw Data extract, ICIS, WebNAP, CHOC, eMR PAS, HealthApp, DPE Population Projections

Note: Base year is derived from occasions of service in FY2018-19.

6.9 Key considerations

Historical and forecast activity across CCLHD indicates demand will exceed capacity. Through consultation, CCLHD have identified key emergency department, hospital substitution and non-admitted service models that may reduce demand on key clinical services.

These include targeted HITH services for priority patient cohorts, Urgent Care Service and specialised outpatient and outreach services. The impact of shifting care into community settings should be considered in projecting non-admitted demand to understand the quantum of increased activity in non-admitted services required to

deliver the new models effectively. Consideration of the impact of this movement of activity between acute and non-admitted settings will need to be carefully planned and modelled.

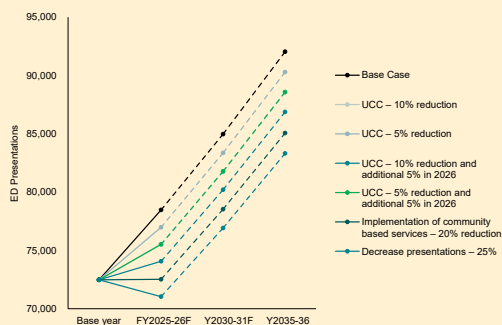
Forecast demand is especially high at Gosford Hospital compared to Wyong Hospital, notably emergency department and acute inpatient services. Considering the service profile of both facilities will be important to determine how services could be networked across the two facilities, to better balance demand, and ensure timely access to the right level of clinical care.

Section 7 – Future planning considerations

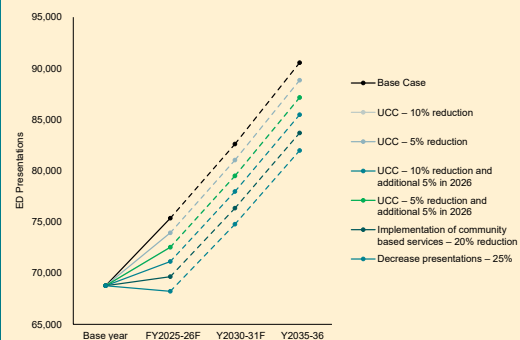
The CCLHD Clinical Services Plan 2023-2028 considers high-level demand model testing to inform future strategic directions.

Emergency department demand testing

Gosford Hospital is near Emergency Department treatment space capacity. Implementation of Urgent Care Centre and Community based programs could manage demand until approximately 2026. Additional actions will be required between 2026 and 2031 to manage growing demand.



Wyong Hospital Emergency Department does have some treatment space capacity. Successful implementation of Urgent Care Centre and Community based programs could manage demand until the earlier 2030s based on current demand forecasts.



Adult acute admitted patients demand testing

Gosford Hospital is near bed capacity and requires actions to reduce demand by 15-20 per cent by 2031. Wyong Hospital has bed capacity for the next 5 years. Actions are required to reduce demand by 5-10 per cent by 2031.

Acute admitted patients aged over 70 demand testing

For Gosford and Wyong Hospitals, maintaining the number of acute patients over 70 admitted overnight at 2021 levels would require a reduction of around 10 per cent in demand by 2031.

Maternity and paediatric demand testing

Maternity: Demand model testing has shown that additional demand for birthing could require 4 more beds by 2031 (currently 31 beds).

Paediatric emergency department presentations: To manage increased demand would require a 5-10 per cent reduction in paediatric emergency department demand.



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The high-level demand model testing indicates CCLHD needs to consider strategic directions to shift demand from the hospital system and into the community, while acknowledging the impact on non-admitted activity.

7 Future planning considerations



This section outlines high-level modelling to understand the potential change in demand for CCLHD services relative to the activity forecasts outlined in Section 6. The demand modelling has been used to inform the Strategic Directions outlined in the final part of this report, Section 8.

The following high-level demand models were tested for CCLHD services:

- Emergency department
- Adult acute admitted
- Patients aged over 70
- Women and children.





Population growth and the increasingly complex health needs of Central Coast residents will drive demand for health services over the next decade. The increased demand will likely exceed the capacity of the CCLHD to provide services or impact the quality of service provided to patients.

A set of high-level demand models have been developed to understand the potential change in demand for selected services. Possible actions which could help manage future demand have also been considered. A series of tests for each demand model have been undertaken to provide an indication of the relative magnitude of impact that different assumptions may have on overall demand. These assumptions have been derived from a combination of demographic data, health service drivers, historical and projected service demand and planned and potential new service models. The full results tables for the demand testing are in Appendix F and the sources and method are outlined in Appendix G.

There are a range of options tested under the high-level demand models which could reduce demand at Gosford and Wyong Hospitals including new models of care such as Urgent Care Centre (UCC) and Hospital in the Home (HITH), and the implementation of other community-based services. The demand modelling is based on the maximum outcomes that could be achieved by the models proposed. Further modelling to determine specific outcomes is required as part of evaluating the implementation of the first Urgent Care Centre.

Given the complexity of factors which drive demand and the various ways which health services can be provided and structured, the high-level demand models are used to understand the potential implications for CCLHD and to inform the strategic directions outlined in Section 8. As there are a range of actions available to CCLHD to manage demand for services, further work would be required to develop and refine the operational models for the various actions.

7.1 Emergency department demand testing

Gosford Hospital Summary: Based on FY2022-23 average time in emergency department, Gosford Hospital Emergency Department is near treatment space capacity and demand is forecast to continue to increase. Successful implementation of Urgent Care Centres and community-based intervention programs could assist to manage demand in the existing treatment spaces for an additional five years. Even with successful implementation of Urgent Care Centres and community-based intervention programs, high level modelling indicates additional actions will be required between 2026 and 2031 to manage growing demand.

Wyong Hospital Summary: Based on FY2022-23 average time in emergency department, Wyong Hospital Emergency Department has some remaining capacity within the 2023 number of treatment spaces. Successful implementation of Urgent Care Centres and community-based intervention programs could assist to manage demand in the existing treatment spaces until the earlier 2030s based on FY2022-23 demand forecasts.

Emergency department presentations consume significant resources and both Gosford Hospital (3.2 per cent annual growth) and Wyong Hospital (1.8 per cent annual growth) and have experienced high growth since FY2012-13. Emergency department presentations in FY2021-22 were 72,949 at Gosford Hospital, and 66,884 at Wyong Hospital. Time in the emergency department across the two hospitals has increased, with admitted time in the emergency department ranging between 6.5 hours and 7.2 hours and non admitted ranging between 3.4 hours and 3.7 hours. Without an increased supply of emergency department treatment spaces, growing demand will likely result in increased time in the emergency department.⁸⁰

In FY2020-21, Gosford Hospital Emergency Department (ED) has a built capacity of 52 treatment spaces with demand indicating that capacity constraints were impacting on average time in the emergency department. Assuming that the FY2022-23 average time in ED (for both admitted and non-admitted presentations) remain constant, demand for treatment spaces is expected to increase to FY2035-36.

In FY2020-21, Wyong Hospital Emergency Department (ED) has a built capacity for 54 treatment spaces with FY2022-23 demand indicating that there is some remaining capacity. Demand for treatment spaces is expected to increase to FY2035-36.

To ensure that capacity utilisation remains within the built capacity levels, demand would have to be reduced by around 20 per cent over the next decade.

There are several options which could reduce the demand for treatment spaces at the Gosford and Wyong Hospital Emergency Departments. This demand model has been tested based on the following assumptions:

- Urgent Care Centres would need to reduce FY2022-23 demand for Category 4 and 5 presentations by between 5 per cent and 10 per cent⁸¹
- Community-based intervention programs would need to reduce emergency department demand by 20 per cent.⁸²

The results of this demand model testing, in terms of number of emergency department presentations are outlined in Figures 7-1 and 7-2.



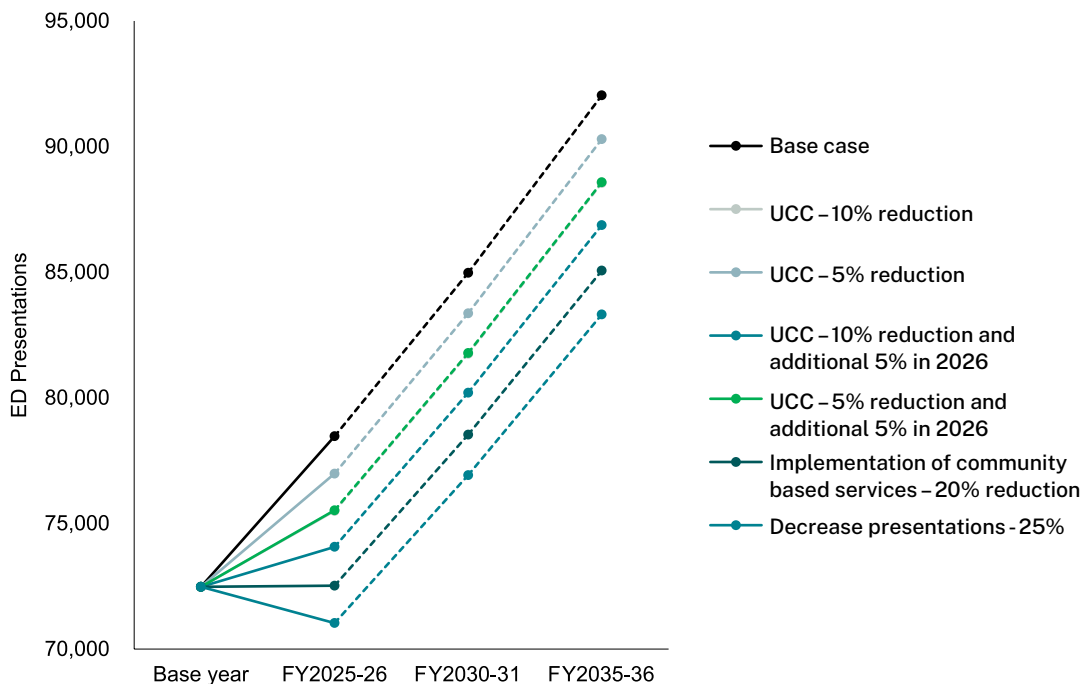
⁸⁰ The NSW Ministry of Health benchmark for emergency department performance is Emergency Treatment Performance (ETP) which is the per cent of emergency department patients treated in less than or equal to 4-hours

⁸¹ Based on Long Jetty Hospital Urgent Care Centre business case

⁸² Based on CCH@H virtual care estimates diverting 10% total emergency department demand

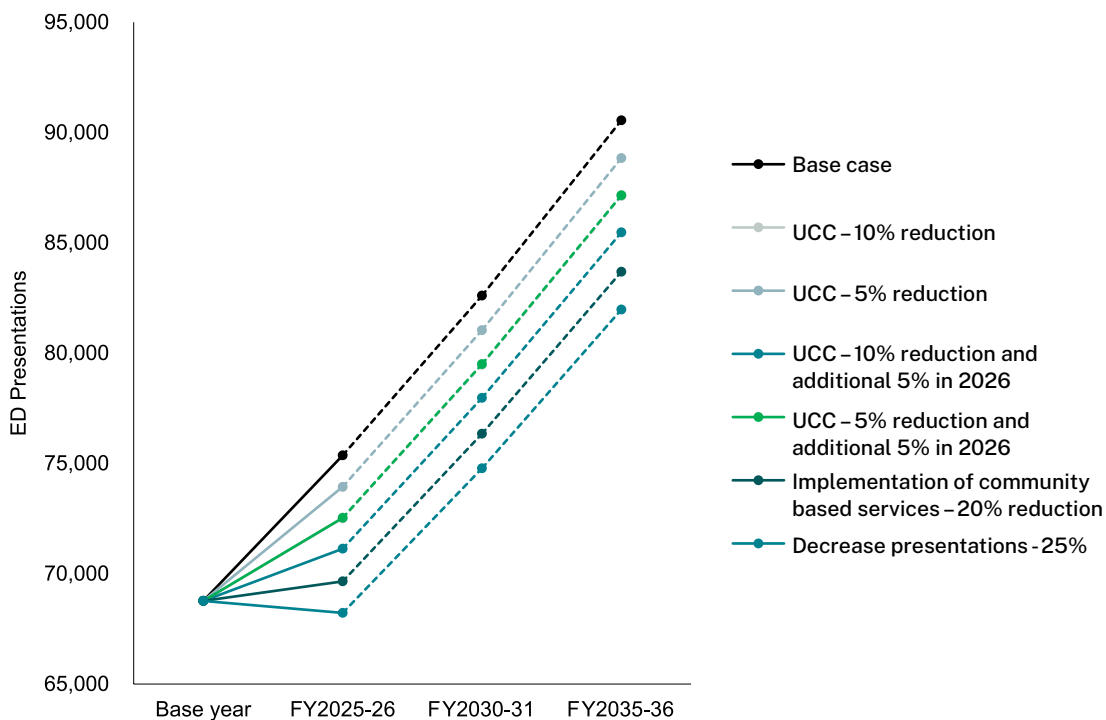
Emergency department presentations

Figure 7-1: Gosford Hospital Emergency Department forecast demand testing



Source: Refer Appendix G

Figure 7-2: Wyong Hospital Emergency Department forecast demand testing



Source: Refer Appendix G



Time in emergency department considerations

- Hospital capacity can be considered in terms of the number of patients treated or in the number of spaces/ beds available. Capacity should also consider performance metrics such as time in the emergency department. The base case projections assume that the average time in the emergency department remains constant into the future. If time in the emergency department is reduced, through improved hospital efficiencies, the number of treatment spaces required into the future will be lower.
- Using 'What if analysis', the impact of reduced time in the emergency department can be considered for both Gosford and Wyong Hospital Emergency Departments.
- If the average time in the emergency department for admitted and non-admitted patients trended down as shown below, the Gosford Hospital Emergency Department will remain within its built capacity. This would require Gosford Hospital Emergency Department to reach the 4-hour NSW Ministry of Health time in the emergency department benchmark by 2026 and further reduce time in the emergency department to 3.4 hours in 2036.

Table 7-1: 'What if analysis' Gosford Hospital Emergency Department

	Base Year	2026	2031	2036
Admitted - Average time in ED -hours	7.2	6.4	6.1	5.5
Not admitted - Average time in ED -hours	3.4	2.9	2.6	2.4
Weighted Average time in ED -hours	4.6	4.0	3.8	3.4
Emergency Department Treatment Spaces	52	52	52	52

Source: Refer Appendix G

Given that Wyong Hospital Emergency Department does have some treatment space capacity in the base year, average time in the emergency department would not have to reach the 4-hour NSW Ministry of Health benchmark until 2036.

Table 7-2: 'What if analysis' Wyong Hospital Emergency Department

	Base Year	2026	2031	2036
Admitted - Average time in ED -hours	6.5	6.5	5.9	5.3
Not admitted - Average time in ED -hours	3.7	3.7	3.4	3.1
Weighted Average time in ED -hours	4.6	4.6	4.2	3.9
Emergency Department Treatment Spaces	54	54	54	54

Source: Refer Appendix G



7.2 Adult acute admitted demand testing

Gosford Hospital Summary: Gosford Hospital is near capacity for adult acute admitted care and requires targeted actions to reduce future demand by 15-20 per cent over the next decade (to 2031) in order to manage service demand.

Wyong Hospital Summary: Wyong Hospital has capacity to provide care for adult acute admitted patients, however, this capacity could be exhausted over the next five years with no changes to current service delivery models. Reducing demand by 5-10 per cent, over the next decade (to 2031) will be required to manage future demand growth.

Some actions such as HITH and community-based programs have been identified to reduce demand. More detailed analysis is required to understand the impact these actions will have on demand for adult acute admitted patients. This analysis will help understand the likelihood of achieving 15-20 per cent reductions in adult acute admissions at Gosford Hospital or 5-10 per cent at Wyong Hospital.

Growth in adult acute admitted service demand is reflecting broader trends across NSW and nationally. Between FY2012-13 to FY2020-21, adult acute separations increased by 2.8 per cent per annum at Gosford Hospital and 5.5 per cent per annum at Wyong Hospital.⁸³ Adult acute admitted separations in FY2020-21 were 30,708 at Gosford Hospital, and 24,145 at Wyong Hospital. Overnight average length of stay declined by 2.4 per cent annually in Wyong Hospital and remained constant in Gosford Hospital between FY2012-13 and FY2020-21.

Surgery is provided at both Gosford and Wyong Hospitals. However, not all surgical services are provided at Wyong Hospital, and there is a requirement for some patients to travel to Gosford Hospital for their surgical procedures. Considering the surgical services profile of both facilities will be important to determine how services could be networked across the two facilities, to better balance surgical and inpatient demand, and ensure timely and equitable access to surgical services.

Implementing HITH and other targeted models have been identified as opportunities to reduce demand on inpatient capacity. There were 826 HITH admissions across CCLHD in 2022-23. Broadening the model of care for HITH to target specific patient cohorts and specialties alongside continuation and expansion of targeted length of stay

warrant further exploration to determine their ability to have a more significant impact on increasing inpatient capacity. While increase in HITH capacity would further alleviate pressure on demand for inpatient services, the flow on impact on enabling functions such as workforce and technology is an important consideration.

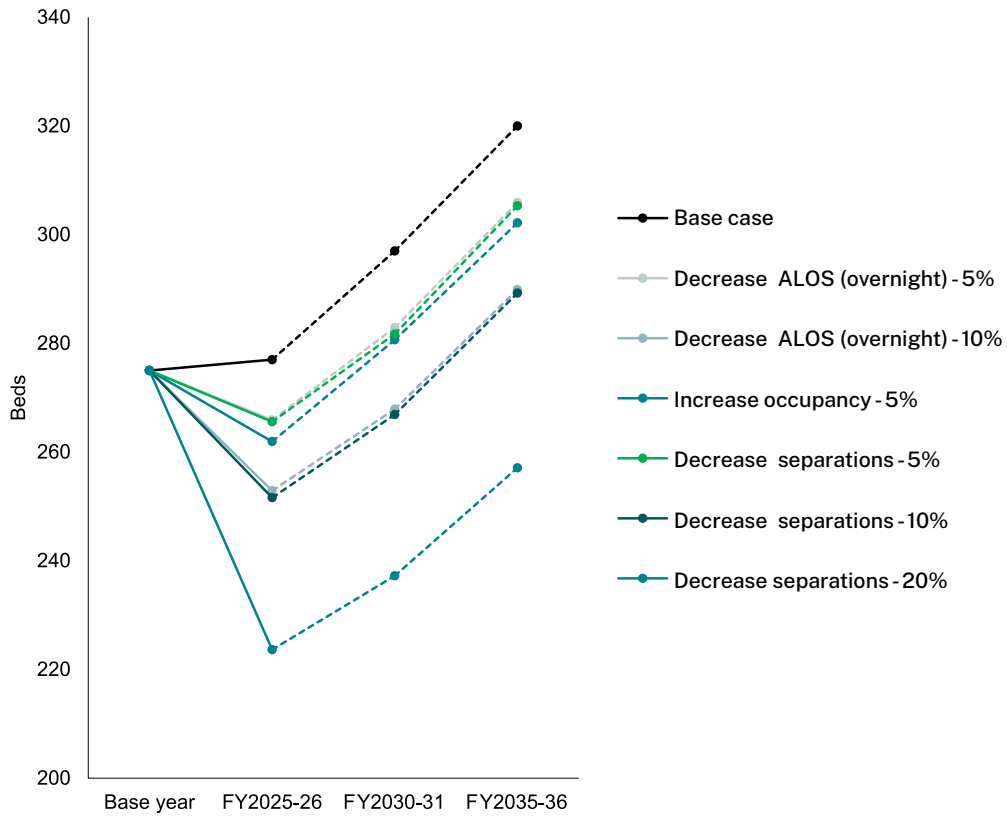
Additionally, there should be a focus on identifying and managing sub and non-acute patients with extended lengths of stay within acute inpatient units (most notably rehabilitation and maintenance patients). Further analysis to break this down into the specific patient cohorts will assist with determining appropriate care locations and models of care, to further reduce demand on acute inpatient capacity.

The demand models for adult acute care at both Gosford and Wyong Hospitals are shown below and are tested based on a need to reduce demand between 5-20 per cent as a result of various actions. More detailed analysis is required to understand how these actions can help to reduce demand by the level required to remain within existing capacity.

High-level demand model testing has been conducted for adult acute care separately for medical, and surgical and interventional activity at both Gosford and Wyong Hospitals. Demand testing has been further separated by overnight and day only.

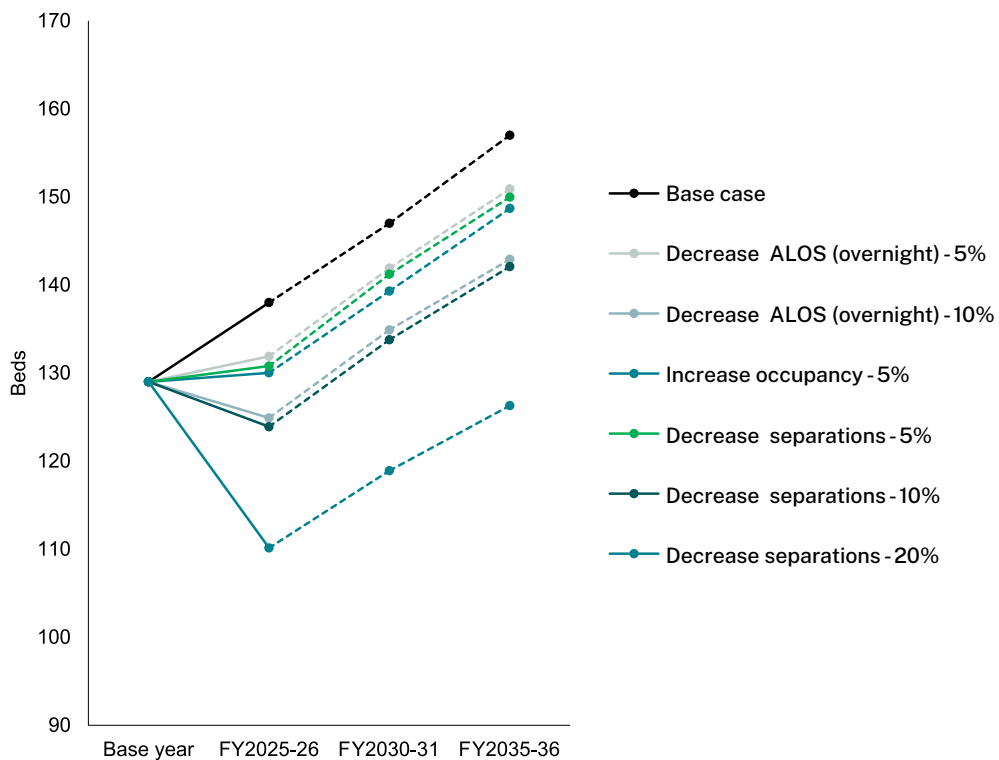
Gosford Hospital – adult acute admitted -overnight

Figure 7-3: Gosford Hospital Medical Adult Acute forecast demand testing –overnight



Source: Refer Appendix G

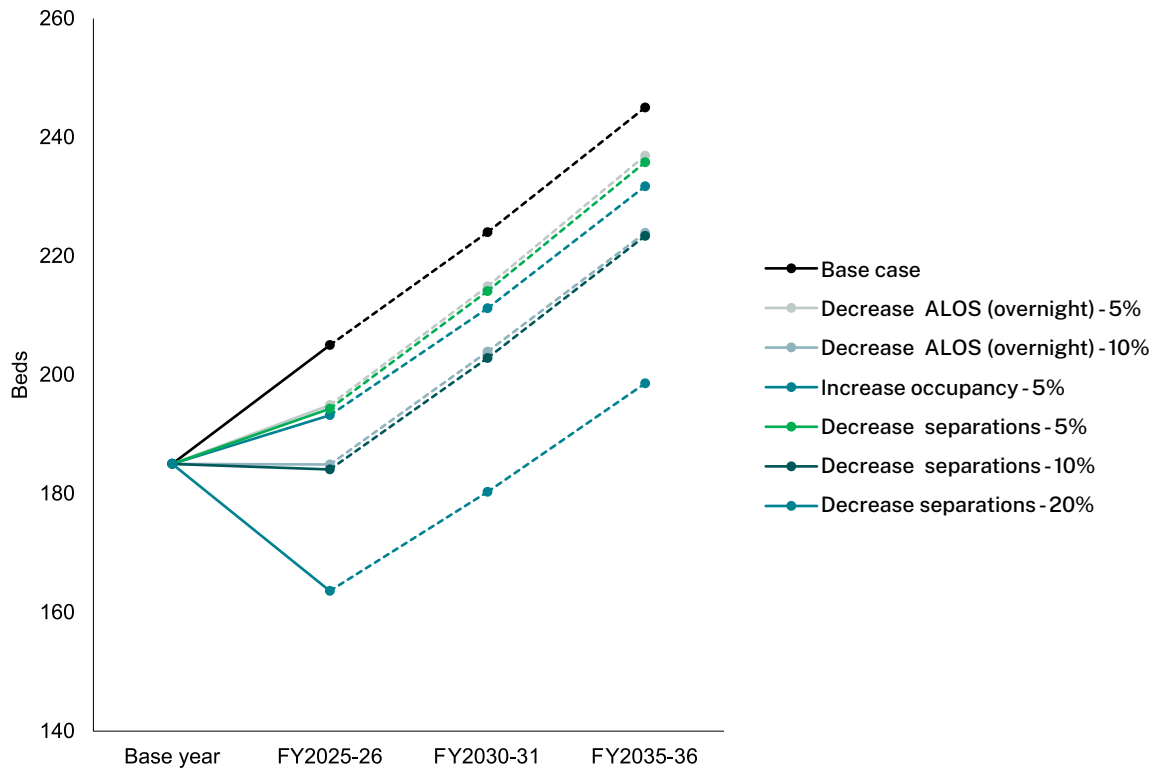
Figure 7-4: Gosford Hospital Surgery and Interventional Adult Acute forecast demand testing –overnight



Source: Refer Appendix G

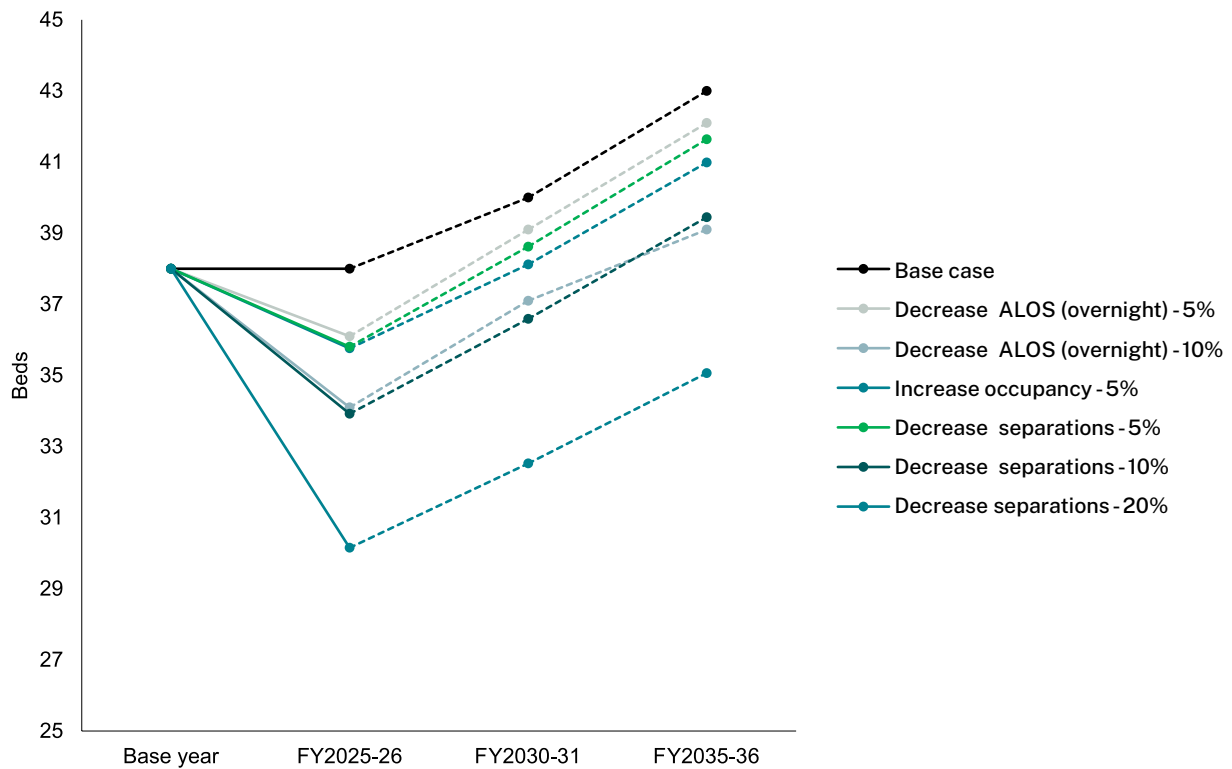
Wyong Hospital – adult acute admitted -overnight

Figure 7-5: Wyong Hospital Medical Adult Acute forecast demand testing –overnight



Source: Refer Appendix G

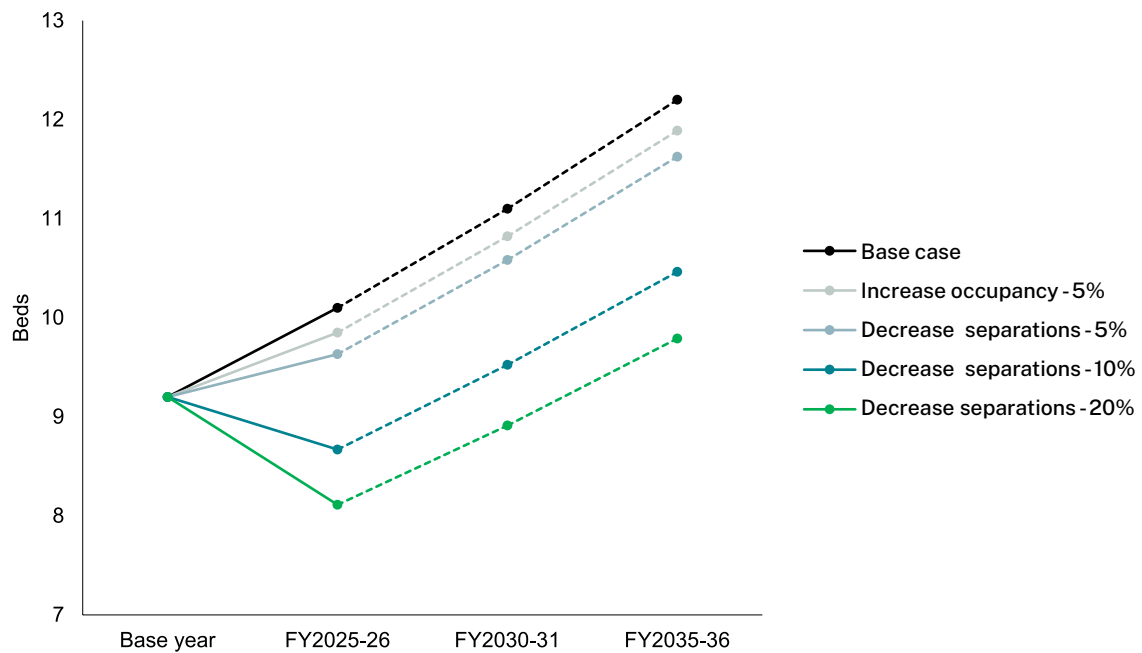
Figure 7-6: Wyong Hospital Surgery and Interventional Adult Acute forecast demand testing –overnight



Source: Refer Appendix G

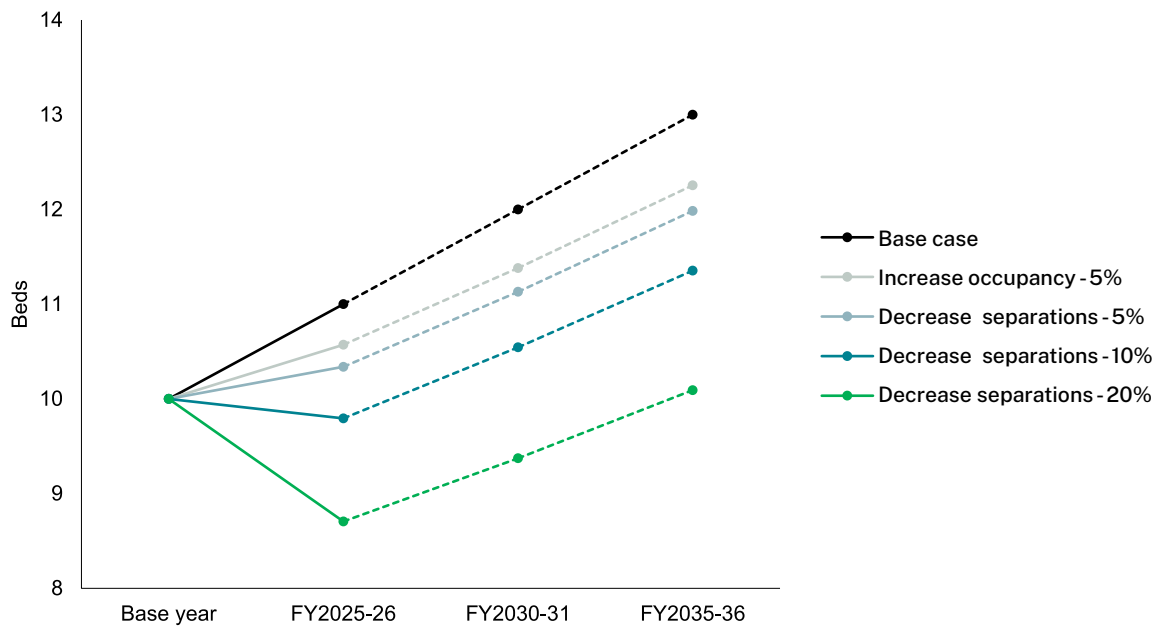
Gosford Hospital – adult acute admitted – day only

Figure 7-7: Gosford Hospital Medical Adult Acute forecast demand testing -day only



Source: Refer Appendix G

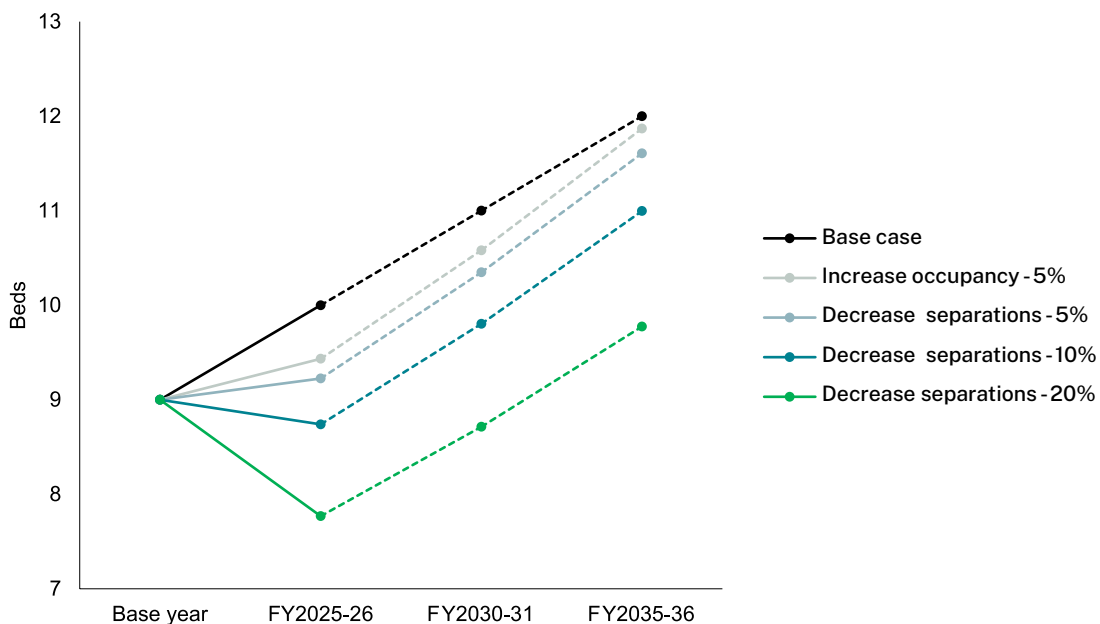
Figure 7-8: Gosford Hospital Surgery and Interventional Adult Acute forecast demand testing -day only



Source: Refer Appendix G

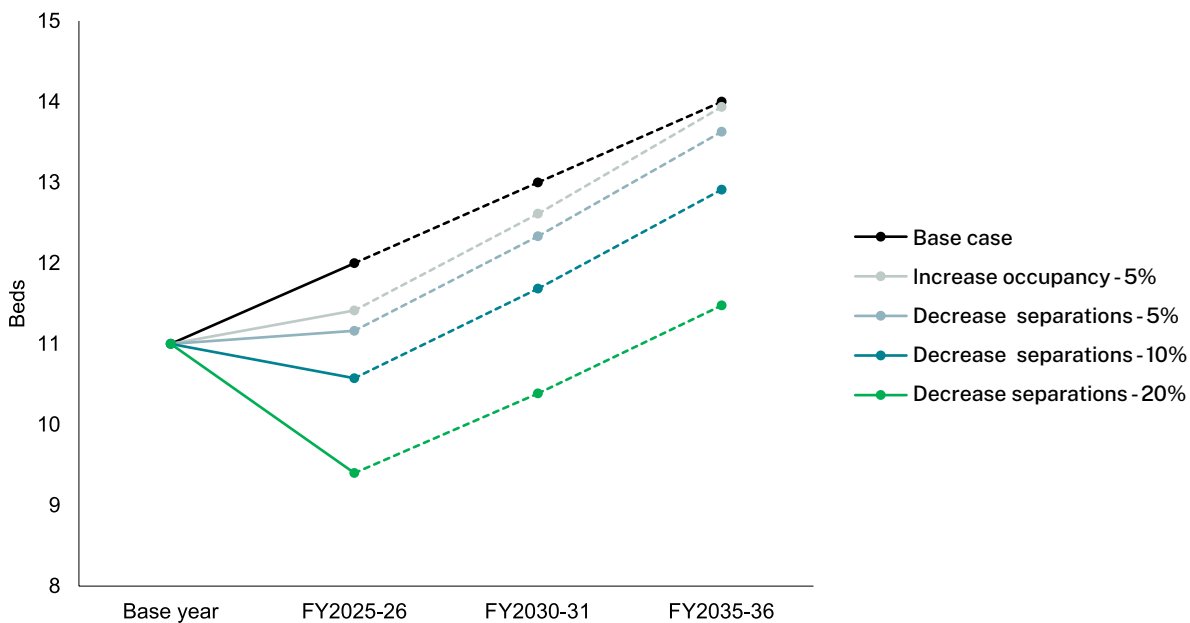
Wyong Hospital – adult acute admitted – day only

Figure 7-9: Wyong Hospital Medical Adult Acute forecast demand testing -day only



Source: Refer Appendix G

Figure 7-10: Wyong Hospital Surgery and Interventional Adult Acute forecast demand testing -day only



Source: Refer Appendix G

7.3 Patients aged over 70 demand testing

Summary: For both Gosford and Wyong Hospitals to keep the number of acute patients over 70 years admitted overnight at 2021 levels, a 10 per cent reduction in demand by 2031 would be required. This 10 per cent reduction could be achieved through community-based programs and HITH to decrease inpatient separations.

Although it should be noted, that given the significant growth in the over 70-year cohort, baseline demand could be 5-10 per cent higher. With this baseline, more action would be required to reduce demand.

The projected population growth on the Central Coast will see a significant increase in the number of people aged over 70 years. The needs of this cohort will place increasing demands on health services. A potential future situation for the Central Coast is the population ages more rapidly than forecast, for example, through increased numbers of retired people moving to the region. Another potential future situation arising from an ageing population is an increase in average length of stay. The over 70 patient cohort tends to have more complex health needs and co-morbidities. There is also a risk of increased average length of stay in hospital if there is reduced availability of residential aged care facility options for those patients who require placement.

Given the significance of the cohort, two higher tests ('Increase average length of stay' and 'Ageing population') have been prepared to understand the scale of a more rapid growth in demand from patients over 70 years than already incorporated into the activity forecasts.

Hospital in the Home considerations

Considering Hospital in the Home (HITH) activity (including average length of stay) during FY2022-23, there is, on average, approximately 50 admissions per HITH bed per year. While this will vary depending on the speciality and service type, Table 7-3 illustrates the estimated number of separations per HITH bed that may be achieved with increasing investment in the HITH program.

The number of admissions per HITH bed depends on both the average length of stay per patient per bed and the occupancy rate. A shorter average length of stay and a higher occupancy rate would increase the number of admissions per HITH bed. As patients in each of the clinical service streams will have different lengths of stay and

There are several options which could reduce demand. The demand models are tested based on the following assumptions:

- Community-based programs would need to reduce demand for inpatient admission by 10 per cent
- HITH programs would need to reduce inpatient bed admissions demand by 10 per cent.

More detailed analysis is required to understand how these actions can help to reduce demand by the level required to remain within existing capacity.

High-level demand model testing has been conducted for adult acute patients aged over 70 years separately for medical, and surgical and interventional activity at both Gosford and Wyong Hospitals. Demand model testing has been further separated by overnight and day only. It is noted that increased demand for day only separations may be due to a shift in patients from overnight to day only care. This would be seen as a positive shift in demand related to the substitution for overnight care.

service requirements, it will be necessary to undertake detailed data analysis (of key specialties and patient cohorts) to understand the extent to which the addition of HITH beds will reduce demand on inpatient capacity.

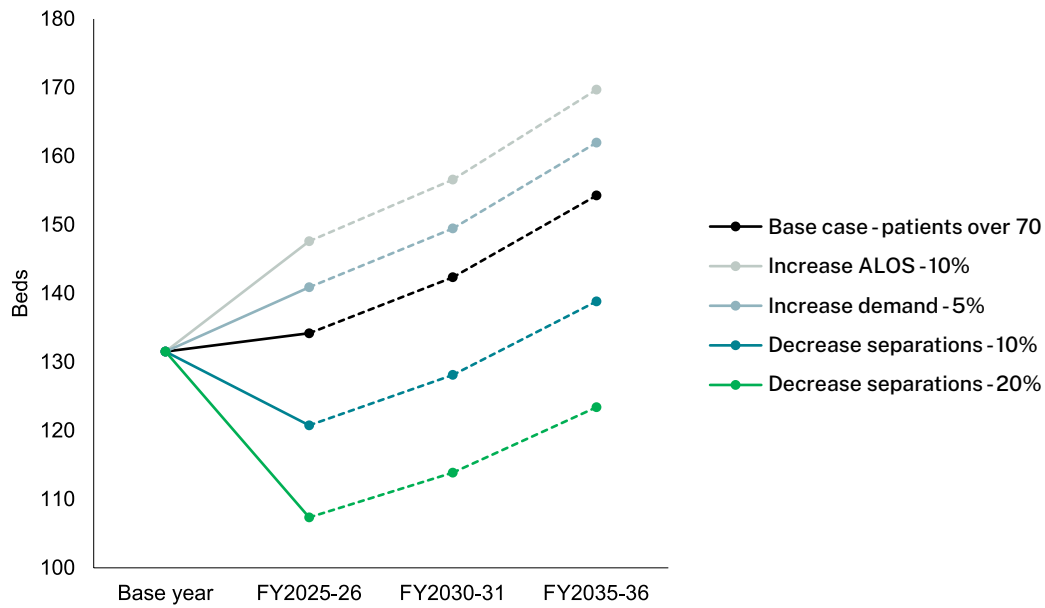
Notably, while HITH admissions are expected to reduce the number of adult acute admitted admissions, some patients admitted to a HITH bed may also require an inpatient admission. Despite this, investment in HITH is highly valued for patient experience and patient reported outcomes, as such, detailed analysis will be essential to support future planning of this service. Section 8.1.3 provides further information on suggested work required to identify the impact of HITH on inpatient admissions.

Table 7-3 Estimated number of separations per HITH beds per year in CCLHD

HITH Beds	10	20	30	40	50
Approximate separations (85% occupancy)	425	850	1,275	1,700	2,125
Approximate separations (90% occupancy)	450	900	1,350	1,800	2,250

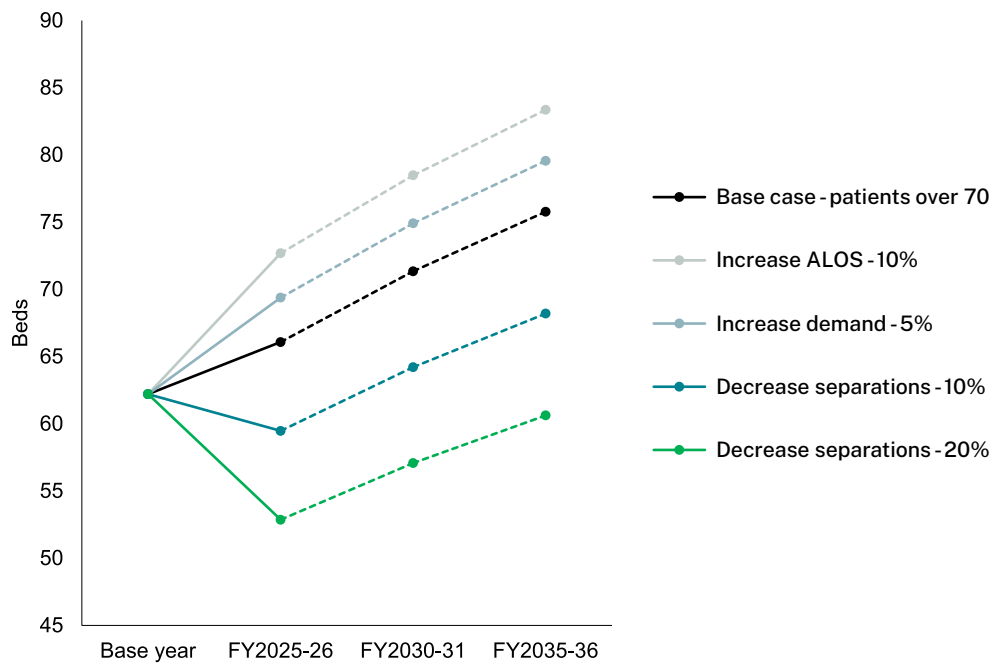
Gosford Hospital – adult acute admitted patients aged over 70 -overnight

Figure 7-11: Gosford Hospital Medical Adult Acute patients over 70 forecast demand testing –overnight



Source: Refer Appendix G

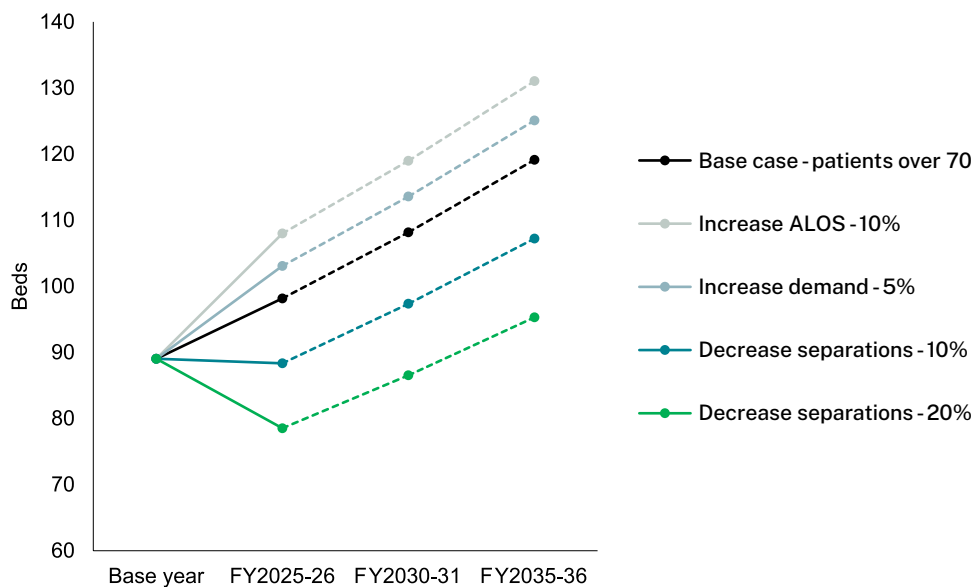
Figure 7-12: Gosford Hospital Surgery and Interventional Adult Acute patients over 70 forecast demand testing –overnight



Source: Refer Appendix G

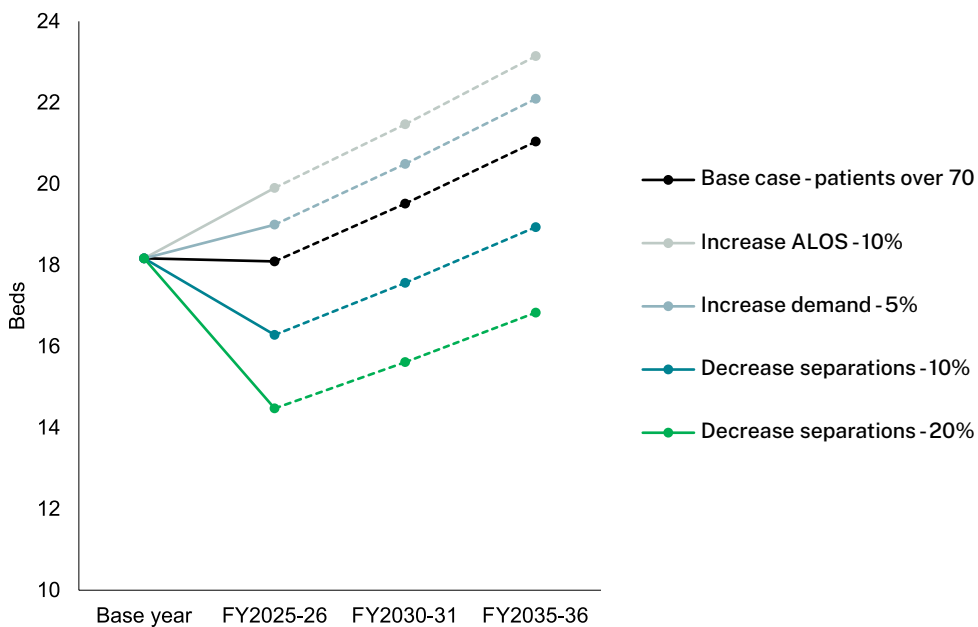
Wyong Hospital – adult acute admitted patients aged over 70 -overnight

Figure 7-13: Wyong Hospital Medical Adult Acute patients over 70 forecast demand testing –overnight



Source: Refer Appendix G

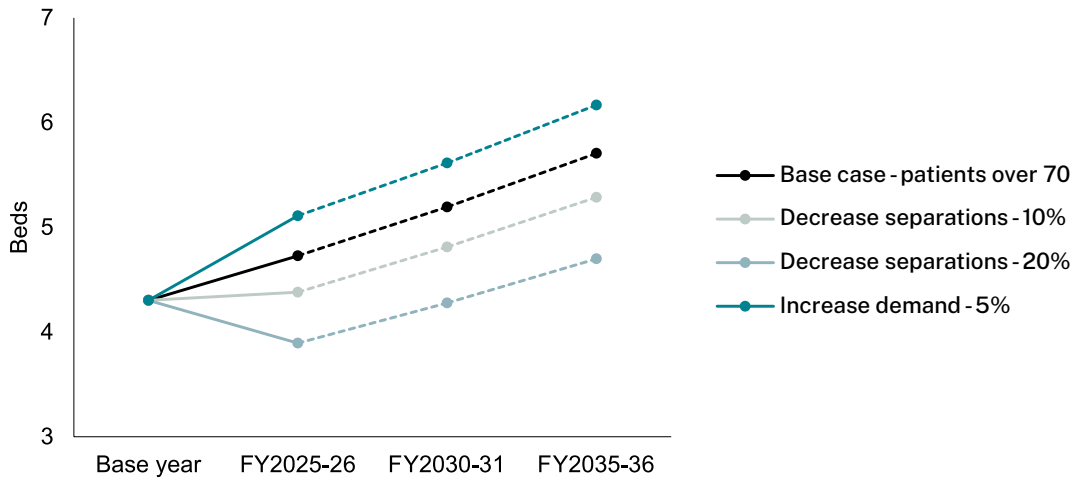
Figure 7-14: Wyong Hospital Surgery and Interventional Adult Acute patients over 70 forecast demand testing –overnight



Source: Refer Appendix G

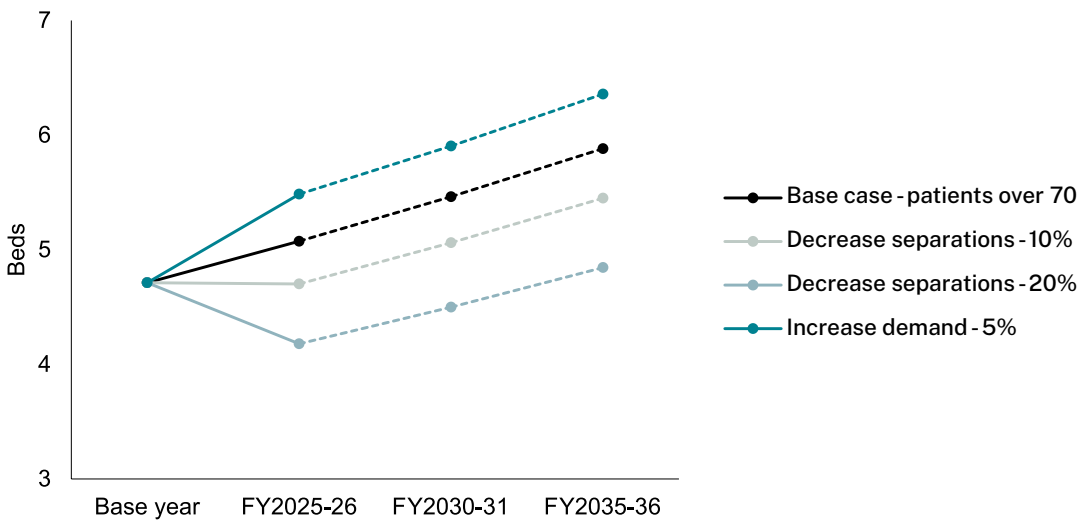
Gosford Hospital – adult acute admitted patients aged over 70 –day only

Figure 7-15: Gosford Hospital Medical Adult Acute patients over 70 forecast demand testing –day only



Source: Refer Appendix G

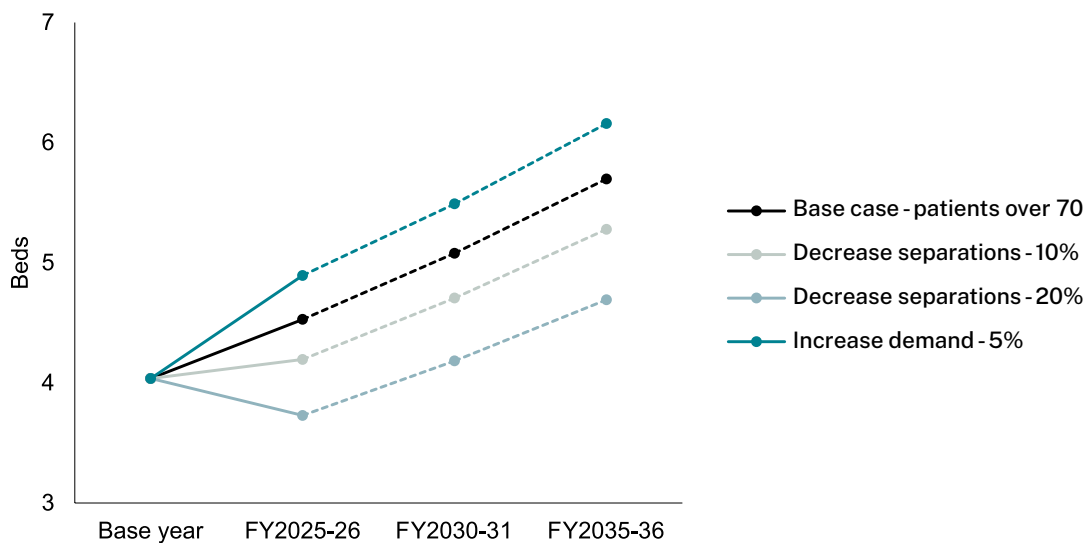
Figure 7-16: Gosford Hospital Surgery and Interventional Adult Acute patients over 70 forecast demand testing –day only



Source: Refer Appendix G

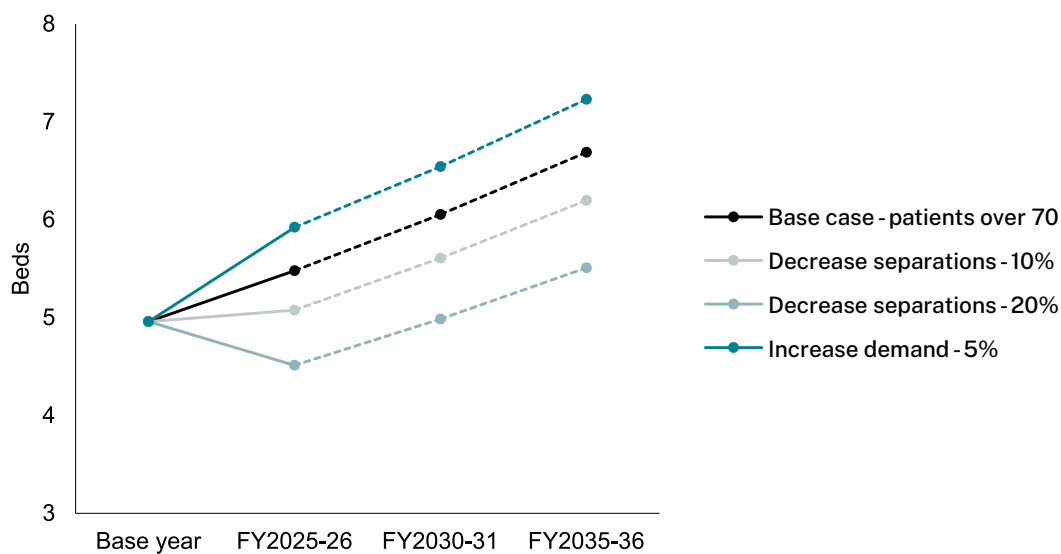
Wyong Hospital – adult acute admitted patients aged over 70 –day only

Figure 7-17: Wyong Hospital Medical Adult Acute patients over 70 forecast demand testing –day only



Source: Refer Appendix G

Figure 7-18: Wyong Hospital Surgery and Interventional Adult Acute patients over 70 forecast demand testing –day only



Source: Refer Appendix G

7.4 Women and children demand testing

7.4.1 Maternity

Summary: High-level demand modelling has shown that if there is additional demand for maternity services, this could require some additional maternity capacity by 2031.

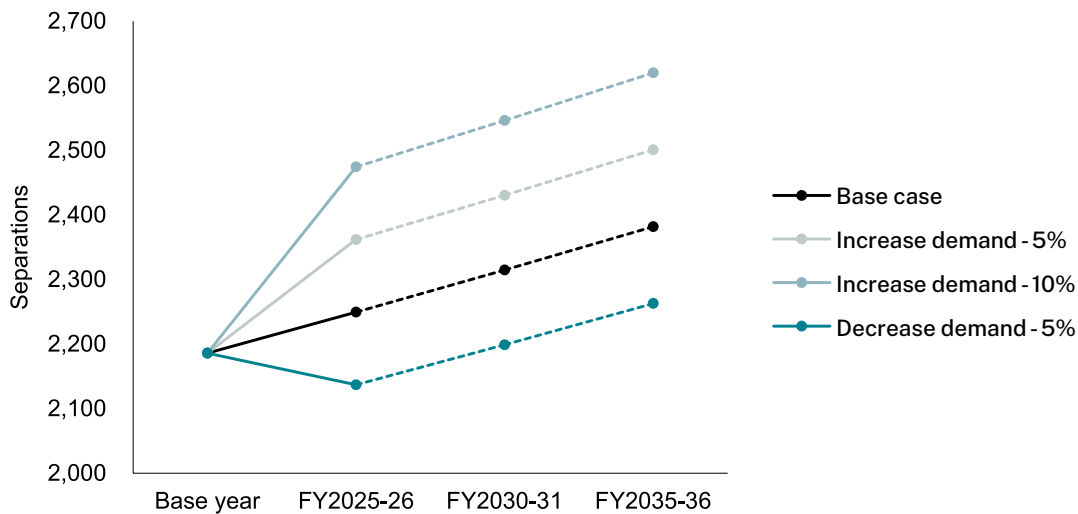
In FY2020-21 there was a significant increase of almost eight per cent in the number of maternity separations. This followed three years of relatively unchanged maternity separations. Population movement to the CCLHD region and reduction in private health cover require further exploration to definitively quantify this.

Demand model testing has shown that if there is additional demand for maternity services, this could require some additional capacity by 2031. In 2023, the Central Coast Midwifery Group Practice (CCMGP) will

introduce home birthing services as an additional model of care for clinically appropriate women. This will provide greater choices for women on the Central Coast, as well as provide greater birthing service capacity. Forecast demand for maternity (delivery) services for both inpatient and home birthing will need to be considered post implementation of the home birthing model to determine future capacity requirements for these services.

Maternity

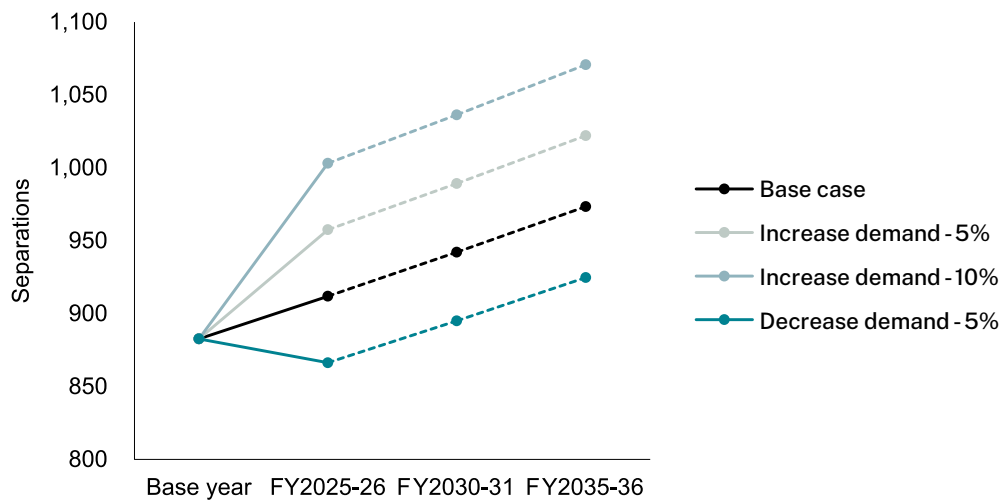
Figure 7-19: CCLHD Separations Maternity (vaginal delivery) forecast demand testing



Source: see Appendix G



Figure 7-20: CCLHD Separations Maternity (caesarean delivery) forecast demand testing



Source: see Appendix G

7.4.2 Paediatric emergency department

Summary: To manage increased paediatric demand would require a 5-10 per cent reduction in paediatric emergency department demand. Implementing paediatric clinics at hospital sites and community health centres could meet this requirement.

The demand model analysis suggests that Wyong Hospital catchment should be a focus for any actions to reduce demand given the share of paediatric presentations comparatively to Gosford Hospital. Although the underlying drivers of the high demand at Wyong Hospital may require non-health related interventions.

There are high volumes of paediatric patients presenting to the emergency departments at both Gosford and Wyong Hospitals, with close to 10,000 patients in the emergency department beyond the 4 hour benchmark timeframe in FY2021-22.⁸⁴

The share of emergency department presentations that are paediatric patients (0 to 15 years) at Gosford Hospital is broadly in line with NSW average for this group. Wyong Hospital has a rate almost double compared to Gosford Hospital.

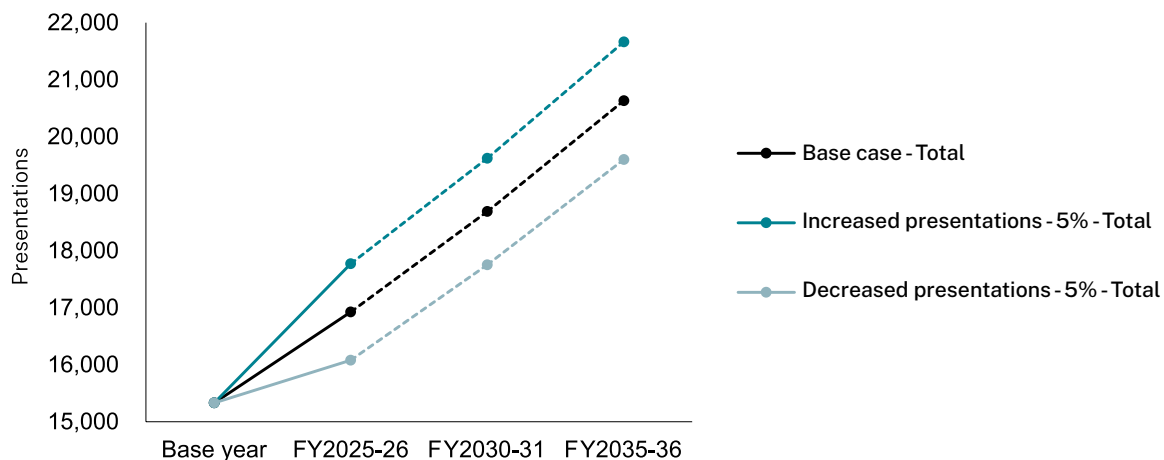
Demand model testing indicates additional emergency department treatment spaces could be required at both Gosford and Wyong Hospitals by 2031. To manage this increased demand would require a 5-10 per cent reduction in demand.

This emergency department presentations reduction could potentially come from paediatric non-admitted patient clinics located at the CCLHD hospital sites, as well as from community health centres located throughout the Central Coast.

⁸⁴ The NSW Ministry of Health benchmark for ED performance is emergency treatment performance (ETP) which is the per cent of ED patients treated in less than or equal to 4 hours

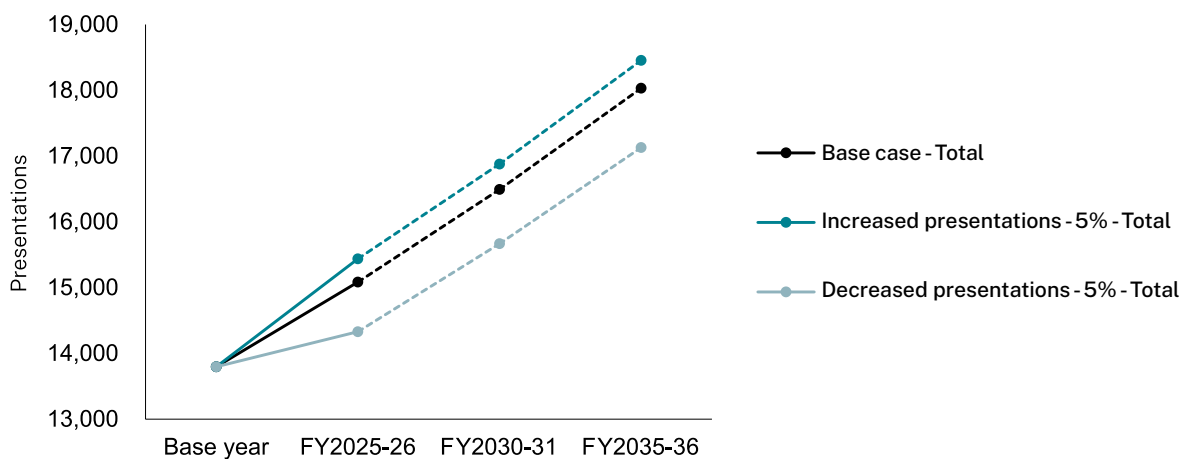
Paediatric emergency department presentations

Figure 7-21: Gosford Hospital Paediatric Emergency Department demand testing



Source: see Appendix G

Figure 7-22: Wyong Hospital Paediatric Emergency Department demand testing



Source: see Appendix G



7.5 Key considerations

Given that forecast activity across many CCLHD services indicates that demand will exceed capacity, a set of high-level demand models have been developed to understand the scale of potential additional demand and when capacity could be reached. Possible actions which could help manage future demand have been considered. The key conclusions of the high-level demand models are outlined below.

- The maternity demand model indicates that there are no significant capacity pressures on the number of maternity capacity.
- Gosford Hospital Emergency Department demand indicates that it is likely to be near treatment space capacity and implementation of an Urgent Care Centre and community-based intervention programs could assist to manage demand for an additional five years. Additional actions will be required between 2026 and 2031 to manage demand. This could include reducing time in the emergency department through improved hospital efficiencies. Wyong Hospital Emergency Department is likely to have some treatment space capacity and implementation of Urgent Care Centre and community-based intervention programs could manage demand in the existing treatment spaces until the earlier 2030s.
- To manage increased paediatric emergency department demand would require a 5-10 per cent reduction in demand. Paediatric clinics at hospital

sites and community health centres could be an action which could reduce demand by this 5-10 per cent level. The demand model analysis suggests that Wyong Hospital should be a focus for any actions to reduce demand given the share of paediatric presentations comparative to Gosford Hospital, although the underlying drivers of the high demand at Wyong Hospital may require non-health related interventions.

- Adult acute admitted services at Gosford Hospital are likely to be near capacity and require actions which would reduce future demand by 15-20 per cent by 2031. Wyong Hospital does have some remaining capacity for adult acute care which would be exhausted in the next five years. Reducing demand by 5-10 per cent over the next decade (to 2031) will be required to manage future demand growth.
- To keep the number of acute patients over 70 admitted overnight at 2021 levels would require reductions of around 10 per cent in demand by 2031. This 10 per cent reduction could be achieved through community-based programs and HITH to decrease inpatient separations.

Further analysis will determine selection and implementation of service models through consideration of their ability to demonstrably reduce demand on, and maintain capacity of, key clinical services. The outcome of this analysis will also determine if further service models will need to be considered to manage capacity.

Section 8 – Strategic directions

Overarching strategic directions for CCLHD have been developed through consideration of the broader planning context, priority populations, high-level demand modelling, and stakeholder consultations.

Strategic directions

Implement timely emergency care alternatives:

Provision of timely, urgent and emergency health care services

Maximise efficiency of acute service capacity:

Provision of services at the 'right' hospital or health service site

Enhance out of hospital services:

Provision of services delivered outside of acute hospital settings, expanding out-reach, community and home-based services

Promote prevention, education and self-management:

Population health and patient education to support improved health and wellbeing outcomes, and opportunities for self-management of care

Service models

- Service model 1: Emergency care models for specific patient cohorts
- Service model 2: Emergency care alternatives
- Service model 3: Rapid Access Clinics.

- Service model 4: Inpatient capacity and networking
- Service model 5: In-reach.

- Service model 6: HITH (including virtual care)
- Service model 7: Outpatients and community services
- Service model 8: Outreach services.

- Service model 9: Population health and patient education
- Service model 10: Care coordination and navigation
- Service model 11: Chronic disease programs
- Service model 12: Supportive and end of life carerolived health and wellbeing outcomes, and opportunities for self-management of care

Considerations and enablers



Workforce



Digital and virtual transformation and technology



Partnerships



Capital and infrastructure

Next steps: Dynamic service planning



Detailed scenario modelling to test service models



Pilot to demonstrate impact



Annual review, evaluation and investment consideration



Impact against population need and capacity



Central Coast
Local Health District

8 Strategic directions



The strategic directions of the CCLHD Clinical Services Plan 2023-2028 have been developed through consideration of the following:

- NSW Health, Future Health: and CCLHD Strategic Plans and Priorities
- Population and Service Planning Outcomes: including analysis of the region's population, demographic profile, and health status, alongside service activity profiles
- Priority Populations and Patient Cohorts: identified through population and activity data
- Demand Modelling Outcomes: indicating where demand could exceed built capacity, most notably in emergency department and inpatient settings within Gosford Hospital
- Internal and External Consultations: with key clinical and non-clinical groups



8.1 Strategic directions

Strategic Direction	Context
<p>Strategic Direction 1:</p> <p>Implement timely emergency care alternatives: <i>Provision of timely, urgent and emergency health care services</i></p>	<p>Growth in emergency department presentations in CCLHD are forecast to continue to increase in the coming decade. Additionally, the growth in population and complexity demonstrated through demographic data indicates there will be increased demand on emergency departments. Commonwealth and State initiatives aim to reduce this increasing demand by providing easily accessible alternatives for patients requiring urgent, but not emergency, care. Demand modelling indicates expansion of these services, as well as additional service models in community settings across the Central Coast region, will be required to reduce demand on emergency department capacity, most notably at Gosford Hospital.</p>
<p>Strategic Direction 2:</p> <p>Maximise efficiency of acute service capacity: <i>Determining service profiles and networking to optimise activity</i></p>	<p>Maintaining an appropriate balance and configuration of services across CCLHD facilities is critical to ensure safe and efficient care provision. Across Gosford and Wyong Hospitals, forecast demand will place significant pressure on current infrastructure, particularly at Gosford Hospital. Considering the role and service profiles of Gosford and Wyong hospitals is an important component of this Strategic Direction. Service profiles and opportunities to network services to maximise the efficiency of services across CCLHD facilities and reduce the need for patient transfers, will be considered within the service plans relevant for this strategic direction.</p>
<p>Strategic Direction 3:</p> <p>Enhance out of hospital services: <i>Provision of services delivered outside of acute hospital settings, expanding out-reach, community and home-based services</i></p>	<p>In line with the increasing trend toward the delivery of out-of-hospital care, shifting and expanding the range of services that are delivered away from the hospital setting will become an essential consideration of the future.</p> <p>Considering where some services can be provided in locations closer to the local community, notably in the north of the Central Coast region where access to transport is more limited, would improve access to services. Expanding out-reach, community and home-based services for priority populations and patient cohorts.</p>
<p>Strategic Direction 4:</p> <p>Promote prevention, education and self-management: <i>Health promotion and education to support improved health and wellbeing outcomes, and opportunities for self-management of care.</i></p>	<p>The Central Coast region has large numbers of patients with chronic and complex illnesses. A key component of a patient-centred approach is the ability to empower a patient to self-manage their health. Empowering patients can take different forms, whether it be equipping them with information to participate in decision-making or by providing them with the tools and technology to manage and monitor their own health and navigate services across care settings.</p> <p>Enhancing patient and community education initiatives to improve health literacy, navigate services and support patients to make informed decisions on treatment options, including self-management is an important aspect of this strategic direction.</p> <p>Equally important is the provision of supportive and end of life care services for patients.</p>



The following sub-sections provide further detail on each strategic direction including the underlying rationale, the significance for the CCLHD population and services and key service models.

8.1.1 Strategic direction 1: Implement timely emergency care alternatives

Why is this important?

As evidenced in data analysis, and in broader trends across the sector, presentations to emergency departments are increasing in volume and complexity. Successfully implementing emergency care models for specific patient cohorts supports increased patient flow through the emergency departments and supports timely access to emergency care.

Reduced access to primary care services across the Central Coast region has resulted in an increased reliance on emergency departments for patients requiring urgent, but not emergency, health care services. Acute exacerbations of conditions, due to loss of regular primary care access, is resulting in presentations of higher acuity and complexity to emergency departments.

Alternative service models to support access to urgent care services will ensure patients receive timely urgent care and will preserve emergency department capacity for patients requiring emergency care. The Commonwealth and NSW Government Urgent Care Centres and services focus on providing timely urgent care to individuals who would otherwise present to the emergency department as a Triage Category 4 or 5 patient. Those who require low level care, diagnostics and/or intervention, and are typically discharged directly from the emergency department. Implementation of these

services will reduce non-emergency presentations to emergency departments, increasing capacity to provide timely emergency care.

Undertaking data analysis post implementation of the clinics and services will determine their effectiveness and identify the remaining lower acuity patients still presenting to the emergency department, who could be managed through alternative services and service models. This includes though service models such as Rapid Access Clinics, for specific specialties across CCLHD identified through data.

Emergency care alternatives for priority populations and patient cohorts to ensure they receive timely, culturally appropriate care in clinically appropriate settings away from the emergency departments have been identified. These aim to provide timely access to care for specific patient cohorts and further reduce the demand on emergency department capacity.

What does this involve?

Service models to support the provision of efficient, effective and accessible services to the CCLHD population include:

- Service Model 1: Emergency care models for specific patient cohorts
- Service Model 2: Emergency care alternatives
- Service Model 3: Rapid Access Clinics.

Table 8-1 illustrates the service models, services / models of care and key considerations. These should be considered in line with the planning principles listed in Section 1.6 and further analysed and prioritised with the clinical teams to inform development and implementation of service and enabler Plans as outlined in section 8.3.

Table 8-1: Strategic Direction 1: service models, services / models of care and key considerations *denotes exemplar service identified through consultations⁸⁵

Service Model	Services / Models of Care	Key Considerations
1. Emergency care models for specific patient cohorts		
<p><i>For short term treatment, observation, assessment and discharge of specific patient cohorts, or patients with selected conditions.</i></p>	<ul style="list-style-type: none"> • Short Stay (ED) • MAU (Non-ED) - Expansion of Service (beds) / Hours (excl. Paediatric) • Paediatric Short Stay (Wyong) • HOPE ED Model • Accelerated Discharge Pathway (RACE) • Mental Health Emergency Care 	<ul style="list-style-type: none"> • Determine and closely monitor the model of care parameters essential for supporting patient flow and efficiency (notably admission criteria and admission timeframes) • Through further analysis of ED presentations, identify opportunities for implementing targeted, culturally appropriate, emergency care models in response to high demand priority populations or patient cohorts at Gosford Hospital and Wyong Hospital.
2. Emergency Care Alternatives		
<p><i>For priority populations and patient cohorts to ensure they receive timely, culturally appropriate care in clinically appropriate settings away from emergency departments.</i></p>	<ul style="list-style-type: none"> • Urgent Care Services • Rapid Community Response for Older People Model (ACRT Model) • Culturally appropriate emergency services for Aboriginal and Torres Strait Islander people • Safe Haven -Mental Health Drop-in Centres* 	<ul style="list-style-type: none"> • Based on population demographics, determine the most appropriate and accessible location for emergency care alternatives for priority patient cohorts • Evaluate implemented UCCs to determine efficacy of model of care in providing urgent care alternatives and if future UCCs should have a consistent, expanded or varied model of care to support reducing demand on ED, ie, emerging top T4 and T5 / Non-Admitted ED presentations • Consider alignment opportunities for Emergency Care Alternatives with other out of hospital and non-admitted services (e.g. outpatient, outreach, HITH, community care) to facilitate ease of referral and integration of clinical expertise • Identify opportunities to provide specialist education and virtual care support to RACFs to support patients to remain in RACFs, where clinically appropriate • Consider how the existing partnership with NSW Ambulance could be enhanced to support delivery of emergency care alternative models or outreach models.
3. Rapid Access Clinics		
<p><i>For prompt assessment and management of specific clinical conditions or specialties.</i></p>	<ul style="list-style-type: none"> • Rapid Access Clinics (RACs) –for specific clinical conditions or specialties, this may include top Triage Category 4 (T4) and Triage Category 5 (T5) of ED presentations 	<ul style="list-style-type: none"> • Review presentations for top T4 and T5 / Non-Admitted ED presentations post implementation of UCC and consider if RAC model/s could be implemented to manage these presentations • Determine optimal location of RACs across CCLHD to support patient access • Consider how RACs and outpatient clinics within specialties could be functionally aligned to collocate clinical expertise, maximise efficiency of service provision and support ease of referral • Identify opportunities to partner with other primary care providers, or provide outreach education and support to UCCs, GPs and primary care providers through virtual technology.

⁸⁵ Further detail of best practice exemplar models can be found in Appendix H



8.3.1 Strategic direction 2: Maximise efficiency of acute service capacity

Why is this important?

Ensuring timely patient access to the right level of acute care is critical. Population and activity growth across the Central Coast region indicate a need to maximise the efficiency of acute services to ensure service capacity can meet this demand. Considering service provision across CCLHD and the service profiles of Gosford and Wyong Hospitals (within current overall facility role delineations) into the future will be important to meet the growing population needs, especially in the northern part of the Central Coast region.

Demand modelling indicates capacity challenges in ED and inpatient services at Gosford Hospital are more significant than at Wyong Hospital. Additionally, forecast population growth in the northern Central Coast region is higher than in the southern Central Coast region. Development of service Plans for specific specialties at Gosford and Wyong Hospitals will be prioritised to ensure equitable access to services in the northern region and reduce demand on Gosford Hospital.

Enhancing clinical networking across Gosford and Wyong Hospitals will provide greater access to specialist services for patients across the Central Coast region. Formalising networking arrangements for access to specialist consultation for clinical services across Gosford and Wyong Hospitals will reduce the need for patient transfers, where clinically appropriate. Increasing timely access to specialist care will improve patient outcomes and improve efficiency of care delivery across the District. Facilitating

this will require consideration of service, workforce and technology enhancements that would be required operation as an efficient, networked service.

Significant work on reducing length of stay and delivering excellence in patient care is underway across the District. This program of work will continue to identify and encourage clinical excellence, length of stay reduction, efficiency of care and optimal patient outcomes across sites and services. Through this work key specialties and patient cohorts with protracted lengths of stay will be further analysed.

For patients in acute services requiring sub and non-acute care (for example, maintenance, rehabilitation and psychogeriatric care), opportunities to provide this care to patients through in-reach service models will be considered. This could be from current sub and non-acute services within the District, new sub and non-acute services or through partnerships with sub and non-acute service providers (where appropriate).

What does this involve?

Service models that support maximising the efficiency of acute service capacity include:

- Service Model 4: Inpatient capacity and networking
- Service Model 5: In-reach Services.

Table 8-2 illustrates the service models, service plans / models of care and key considerations. These should be considered in line with the planning principles listed in Section 1.6, and further analysed and prioritised with the clinical teams to inform development and implementation of service and enabler plans as outlined in section 8.3.

Table 8-2: Strategic Direction 2 service models, service plans / models of care and key considerations. *denotes exemplar service identified through consultations

Service Model	Services / Models of Care	Key Considerations
4. Inpatient Capacity and Networking		
<p><i>Considering service provision across CCLHD. Defining the specific service profiles of Gosford Hospital and Wyong Hospital within each specialty service plan (within existing overall facility role delineations).</i></p>	<p>Development of service plans that articulate the service profile of Gosford and Wyong Hospitals for the following:</p> <p>Inpatient (Medical) including:</p> <ul style="list-style-type: none"> • Neurology Services (including stroke rehabilitation*) • Chronic Diseases (including Respiratory services at Wyong Hospital and Cardiology services, including Interventional Cardiology services at Gosford Hospital) • Geriatric Medicine • Management of Patients with Behavioural Concerns (across all age cohorts) • Pain Services (Acute and Chronic) • Inpatient (Surgical and Procedural) • Surgical and Procedural services (all surgical and procedural services across CCLHD) • Trauma Services (including Orthopaedic surgery) <p>Maternity Services (including in hospital and home birthing service models and ante/ post-natal)</p> <p>Paediatric services</p> <p>Mental Health Services (noting acute, step up step down, non-acute inpatient care across age groups young people, adult, older people)</p>	<ul style="list-style-type: none"> • Determine the role and service profiles of both Gosford and Wyong Hospitals to support a reduction in demand at Gosford Hospital and increase equity of access for patients in the Northern region of Central Coast in each service plan. • Formalise networking arrangements for specialist consultation between clinical services across Gosford and Wyong Hospitals to reduce the need for patient transfers, where clinically appropriate. • Review opportunities for culturally appropriate acute services for the Aboriginal population as part of the CCLHD Aboriginal Health Plan.
5. In-Reach Services		
<p><i>Considering models of care for the management of long stay patients in acute facilities no longer requiring acute care. This cohort of patients may require specific non-acute services that could be most effectively provided through an in-reach service model</i></p>	<ul style="list-style-type: none"> • Frailty* • Sub and Non-acute – Maintenance, Rehabilitation, Psychogeriatric and Geriatric Evaluation Management* 	<ul style="list-style-type: none"> • Determine in-reach models of care, or new care locations, for identified high volume, long length of stay patients in acute facilities no longer requiring acute care (including sub and non-acute – Maintenance, Rehabilitation, Psychogeriatric and GEM patients) • Consistent with Service Model 4, consider establishment of virtual links between sites to manage patients in appropriate clinical locations with formalised specialist escalation support by virtual links • Identify opportunities to create multi-disciplinary virtual links with GPs, or other primary care providers, for managing complex patients back into primary care settings safely

8.1.3 Strategic direction 3: Enhance out of hospital services

Why is this important?

Enhancing service models that promote care in alternate settings will be critical in reducing demand on both emergency department and inpatient capacity. This aligns with global trends, and the strategic aim of NSW Health to increase the delivery of out of hospital care, shifting and expanding the range of services that are delivered away from the hospital setting. Increasing care delivery in the community will enable clinically appropriate patients to remain in their place of residence and receive high-quality care and support that is specific to their needs. With the expansion of technology to support home monitoring, broadening the scope of patient cohorts that could be cared for through the CCLHD Hospital in the Home (HITH) service, through collaboration with priority clinical specialties once identified, will be an important part of this strategic direction.

Some ambulatory, day only, outpatient and outreach services can be moved away from traditional hospital

settings and provided in locations closer to the local community. These service models can be developed to support a range of specific patient cohorts and be tailored to be culturally appropriate for priority populations. Noting the broad geography and demographic profile of the Central Coast population, this approach provides opportunity for greater access to services.

What does this involve?

Service models that enhance the availability and capacity of out of hospital services include:

- Service Model 6: HITH (including virtual care)
- Service Model 7: Outpatients and community services
- Service Model 8: Outreach services.

Table 8-3 illustrates the service models, services / models of care and key considerations. These should be considered in line with the planning principles listed in Section 1.6, and further analysed and prioritised with the clinical teams to inform development and implementation of service and enabler Plans as outlined in section 8.3.



Table 8-3: Strategic Direction 3 service models, services / models of care and key considerations. *denotes exemplar service identified through consultations

Service Model	Services / Models of Care	Key Considerations
6. HITH (including Virtual Care)		
<i>Provision of hospital level care to individuals within their home, supported by virtual technologies</i>	<ul style="list-style-type: none"> • HITH (including Virtual Care*) 	<ul style="list-style-type: none"> • Undertake data analysis to consider top priority cohorts and specialties for HITH, including robust analysis to determine the impact of expanding HITH 'bed numbers' to create inpatient capacity in key clinical specialties • Establish appropriate governance and oversight mechanisms to support the implementation and expansion of HITH services across CCLHD • Develop specific model/s of care for HITH with clinical specialties, inclusive of virtual care requirements • Consider partnerships with general practitioners and other primary care providers in expanding HITH service provision • Review opportunities for culturally appropriate HITH services for the Aboriginal population as part of the CCLHD Aboriginal Health Plan
7. Outpatient and Community Services		
<i>Provision of specialist medical care provided to patients in outpatient settings. Expanding provision of services provided to patients in community settings</i>	<ul style="list-style-type: none"> • Medical outpatient clinics • Mental Health Community Care services 	<ul style="list-style-type: none"> • Complete the review of Medical Outpatient Clinics and determine the top 3-5 outpatient service clinics to be established to meet community health needs • Model the impact of establishing new or expanded outpatient clinics on acute services (notably, impact on numbers of surgical and procedural services) • Identify opportunities to link multiple service providers to the patient through virtual technology to facilitate multi-disciplinary consultation in a single appointment • Determine the role of specialist outpatient clinics in providing targeted education to primary care providers to enable them to manage patients in the community • Review the location of services and consider if some outpatient services provided in acute care settings could be provided in a community health centre, in general practice, in other culturally appropriate locations or by virtual care
8. Outreach Services		
<i>Provision of renal dialysis in a patient's home</i>	<ul style="list-style-type: none"> • Home based renal dialysis* 	<ul style="list-style-type: none"> • Determine the extent to which barriers for the uptake of home based renal dialysis can be addressed as part of model of care planning.



8.1.4 Strategic direction 4: Promote prevention, education and self management

Why is this important?

Health promotion and prevention services are critical in keeping people well and reducing the need for people to access increasingly complex acute services further along the continuum of care. Increased provision of community-based education initiatives aims to improve health literacy and support patients to make informed choices about treatment options for their conditions. Developing a greater range of education and self-management initiatives will increase the ability for some patients to self-manage their health in the context of their own personal circumstances.

As the incidence and prevalence of chronic disease increases, implementing specific services and programs (collaboratively with primary health care providers) to

manage chronic and complex patient cohorts in co-ordinated, out of hospital services will be critical to avoid additional demand on emergency and acute capacity. Empowering people to self-manage their health in the community with their primary care provider promotes continuity of care and may facilitate a reduction in demand for emergency and acute care services. Considering the specific needs of the Aboriginal and Torres Strait Islander population in ensuring services developed are culturally safe and appropriate are important considerations for all services across CCLHD and will be important considerations in the CCLHD Aboriginal Health Plan.

Providing greater understanding and awareness of supportive and end of life care services.

What does this include?

Service models that have a focus on self-management through education and preventative health include:

- Service Model 9: Population Health and Patient Education
- Service Model 10: Care Coordination and Navigation
- Service Model 11: Chronic Disease Programs
- Service Model 12: Supportive and End of Life Care.

Table 8-4 illustrates the service models, plans, services / models of care and key considerations. These should be considered in line with the planning principles listed in Section 1.6 and further analysed and prioritised with the clinical teams to inform development and implementation of service and enabler Plans as outlined in section 8.3.

Table 8-4: Strategic Direction 4 service models, plans / services / models of care and key considerations. *denotes exemplar service identified through consultations

Service Models	Plans / Services / Models of Care	Key Considerations
9. Population Health and Patient Education		
<p><i>Ensuring patients have access to timely education to support them to manage their health and well-being, and make informed treatment choices. Acknowledging the requirement for education materials to be culturally appropriate, and available in a range of languages</i></p>	<ul style="list-style-type: none"> • Health Promotion and Education • Patient Education Services • All Inclusive Care of the Elderly (ALICE) 	<ul style="list-style-type: none"> • Identify opportunities to provide specialist education to primary care providers to support them to educate and manage patients in the community and assist them to make choices about their treatment options • Determine how education can be provided at the time of diagnosis and through appropriate follow-ups, to ensure patients are able to make informed treatment choices • Establish key partnerships with local organisations to facilitate well-being services including opportunities for connection to reduce loneliness (e.g. older people)
10. Cancer Care Coordination and Navigation		
<p><i>Ensuring patients and carers are able to clearly understand and navigate their care</i></p>	<ul style="list-style-type: none"> • Cancer Services Plan • Care Coordination and Navigation 	<ul style="list-style-type: none"> • Consider Survivorship Model* within cancer services planning • Determine the role of Multi-Disciplinary Teams (MDTs) and care co-ordination for cancer services in cancer services planning. • Identify opportunities for service directories and referral pathways to be made accessible for patients, carers and primary care providers to assist with service navigation. • Consider opportunities to streamline referrals for key community services through a single point
11. Chronic Disease Programs		
<p><i>Ensuring services are easily accessible and co-ordinated to improve patient accessibility and efficiency of service provision</i></p>	<ul style="list-style-type: none"> • Care Co-ordination for Chronic Disease Management. Top patient cohorts to consider include: <ul style="list-style-type: none"> – Early Intervention Service e.g. Respiratory* – Self Management e.g. Heart Failure* 	<ul style="list-style-type: none"> • Identify opportunities to link multiple service providers to the patient via virtual technology to facilitate multi-disciplinary consultation in a single appointment • Identify opportunities to provide chronic disease management education to primary care providers to enable them to manage patients in the community • Review the location of services and if some chronic disease services could be provided in a community health centre, in general practice, with other culturally appropriate services, or via virtual care
12. Supportive and End of Life Care		
<p><i>Ensuring patients are supported in their decisions around end of life care</i></p>	<ul style="list-style-type: none"> • Palliative Care Plan • Renal Supportive Care* 	<ul style="list-style-type: none"> • Incorporate entire palliative care service across inpatient and community services and End of Life Care* (inc. Voluntary Assisted Dying Legislation) in palliative care planning, especially considering the new Palliative Care Unit at Wyong Hospital. • Identify opportunities to support the end of life pathway and ensure this is a priority in care delivery in all care settings.

8.2 Enablers

The following key enablers to support successful implementation of the CCLHD Clinical Services Plan 2023-2028 were identified consistently throughout all consultations.

8.2.1 Workforce

Attracting, retaining and growing the capability of the workforce has been identified as a key enabler across all strategic directions. The following opportunities will be considered as part of workforce planning.

- **Workforce requirements:** to deliver new or enhanced service models and models of care. This may include supporting development of new skills, training and micro-credentialling to ensure the workforce is clinically equipped to deliver new models of care (incorporating new technologies) and care in different settings (including out of hospital and virtual settings).
- **Working to the top of scope of practice:** and considering opportunities to utilise existing and new clinical and non-clinical workforces as part of new models of care delivery.
- **Digital support for models of care:** to reduce the burden of administrative activities and create greater capacity for clinical care delivery.
- **Flexibility:** in traditional workforce roles. Considering opportunities to support the workforce to work across multiple care settings (face to face and virtual) to increase variety and flexibility of roles.
- **Promotion of learning and innovation:** to demonstrate a commitment to staff development and continuous learning in the workplace. Focusing on strengthening attraction and retention initiatives may contribute to improving overall workforce engagement and wellbeing.
- **Change management capability:** to support successful implementation of new models of care.

8.2.2 Digital and virtual transformation and technology enablement

Digital transformation and technology enablement has been identified as a key enabler across all strategic directions. The following opportunities will be considered as part of the development of key strategies and planning activities.

- **Development and Implementation of the CCLHD Virtual Care Strategy:** considering opportunities to leverage innovative tools, digital solutions, and telehealth to enhance the delivery of health care services.

- **Redesign and Innovation:** of service models to identify opportunities for digital transformations and implementation of new technology. Supporting the clinical teams to consider new and innovative models of care, and then determining how technology can enhance care delivery, increase the capacity of the clinical teams, increase accessibility and experience for patients.
- **Single Digital Patient Record:** considering the internal and external opportunities presented and being cognisant of the upcoming change as part of all service model development.
- **Artificial Intelligence (AI):** to increase efficiency, remove menial tasks and support clinical decision making.

8.2.3 Partnerships

Partnerships have been identified as a key enabler across all strategic directions. Section 5.2.1 outlines some of the key partnerships in place between CCLHD and key entities. The following partnership opportunities will be considered as part of respective planning processes.

Partnerships with Care Providers and Government Entities

- **Partnerships for Shared Care:** with external service providers, including private providers through collaborative commissioning arrangements, NGOs, ACCHOs and other clinical and non-clinical care providers to broaden the mix of services available across CCLHD.
- **Partnerships with NSW Government entities to Support Vulnerable Populations:** most notably children in Out of Home Care, to improve their health outcomes and avoid multiple presentations to acute care facilities.
- **Partnerships to Upskill Primary Care Providers:** to enable patients to remain in their care would not only reduce demand on CCLHD services, but expand the capability and capacity of the primary care sector to manage chronic and complex patients. This may include GPs, Residential Aged Care Providers and Disability support providers.
- **Partnerships with Acute Care Providers:** may play a significant role in enabling the District to more effectively meet patient demand, particularly for surgical and medical procedures. Collaboration with providers outside CCLHD will not only facilitate an ability to increase service capacity, but may reduce wait times for patients.



Partnerships with Research, Education and Training Providers

- **Partnering to Increase Education, Translational Research, Innovation and Evaluation:** across the District. Opportunities to partner with innovation labs to support data analytics and innovation in care delivery in light of the significant advances in health technology. Additionally, partnerships with research institutions to support the evaluation of the impact of specific initiatives in improving the health status and health outcomes for the CCLHD population. Continuing to strengthen the partnership with the University of Newcastle, and considering opportunities for clinical academic appointments.
- **Partnering with Education Providers:** to attract young people into the healthcare workforce. With Universities and TAFE to consider how to optimise collaborative placements amongst clinical specialties to foster a team based learning environment, identify opportunities for new courses for new health care workforces, and consider micro-credentialling.

8.2.4 Capital and infrastructure

Minor capital and infrastructure enhancements have been identified as enablers to some strategic directions and service models to support implementation of new models of care. The following key points will be considered as part of capital and infrastructure planning.

- **Strategic Asset Management Plan and Asset Management Plan:** to demonstrate the alignment of NSW Health assets with service needs and

where appropriate, identify the gaps between asset supply and future requirements for assets. These requirements may relate to unmet or forecast service demand requiring increased infrastructure capacity or a change in the nature of the health service model of care or technology. The priority and timing of implementation of capital investment and asset disposal strategies of Local Health District's is influenced and determined by resource availability and other investment priorities that may be approved in the Ministry of Health's NSW Asset Strategy and Capital Investment Strategic Plan. Each Local Health District is responsible for the development of these Plans, linked with the District's Health Care Services Plan.

- **Capital Investment Plans:** Capital investment proposals are submitted annually, aligned to strategic directions. These proposals are assessed in accordance with the NSW Investment and Prioritisation Framework and align to state strategy to shift investment away from acute hospital settings towards community based, out of hospital and in home settings.
- **Service Planning and Modelling:** for all capital investments will be undertaken in line with the identified Strategic Directions and service models that are identified as part of this CCLHD Clinical Services Plan 2023-2028. Capital infrastructure will be planned to be sufficiently flexible to anticipate the development of new and expanded CCLHD services and considered alongside the technology Plan (including the Virtual Care Strategy) for CCLHD.

8.3 Implementation

Three key action areas have been identified to support the implementation of the CCLHD Clinical Services Plan 2023-2028 over the five-year period, are outlined below.

1. Continue to drive improvements in service delivery and service access across CCLHD through existing programs and initiatives.
2. Complete detailed analysis of the service models identified in Section 8.1 to inform prioritisation with the clinical teams. Undertaking data analytics and planning initiatives will provide the right level of data and evidence to determine where and how new service models should be implemented to best meet the health needs of the community, deliver optimal patient outcomes and experience and maximise service efficiency.

Further data analytics and planning initiatives to be undertaken include:

- Identify clinical specialties and patient cohorts demonstrating highest service demand through analysis of key factors (e.g., volume of separations, length of stay)
 - For identified clinical services and patient cohorts, with the respective clinical teams, consider models of care (from within CCLHD, national and international best practice) and determine the best practice model of care to improve equity of access, deliver optimal patient outcomes and experience, and increase efficiency and capacity of services.
 - As part of all models of care, determine support service requirements (clinical and non-clinical)
 - Identify the support, education and training needs to enable the workforce to deliver new models of care, alongside the role of technology in increasing efficiency and increasing access to services, where clinically appropriate.
 - Pilot and / or scale identified models of care and evaluate against specific KPIs to determine impact on patient outcomes and service efficiency.
3. Implement a dynamic service modelling approach to evaluate the impact of service models on patient and service outcomes, and promptly respond to new and emerging community health and service needs.

Evaluation should consider the extent to which the service models:

- Meet the health needs of the community (or promptly identify emerging health needs to be addressed)
- Deliver optimal patient experience and outcomes
- Improve the efficiency and capacity of services.

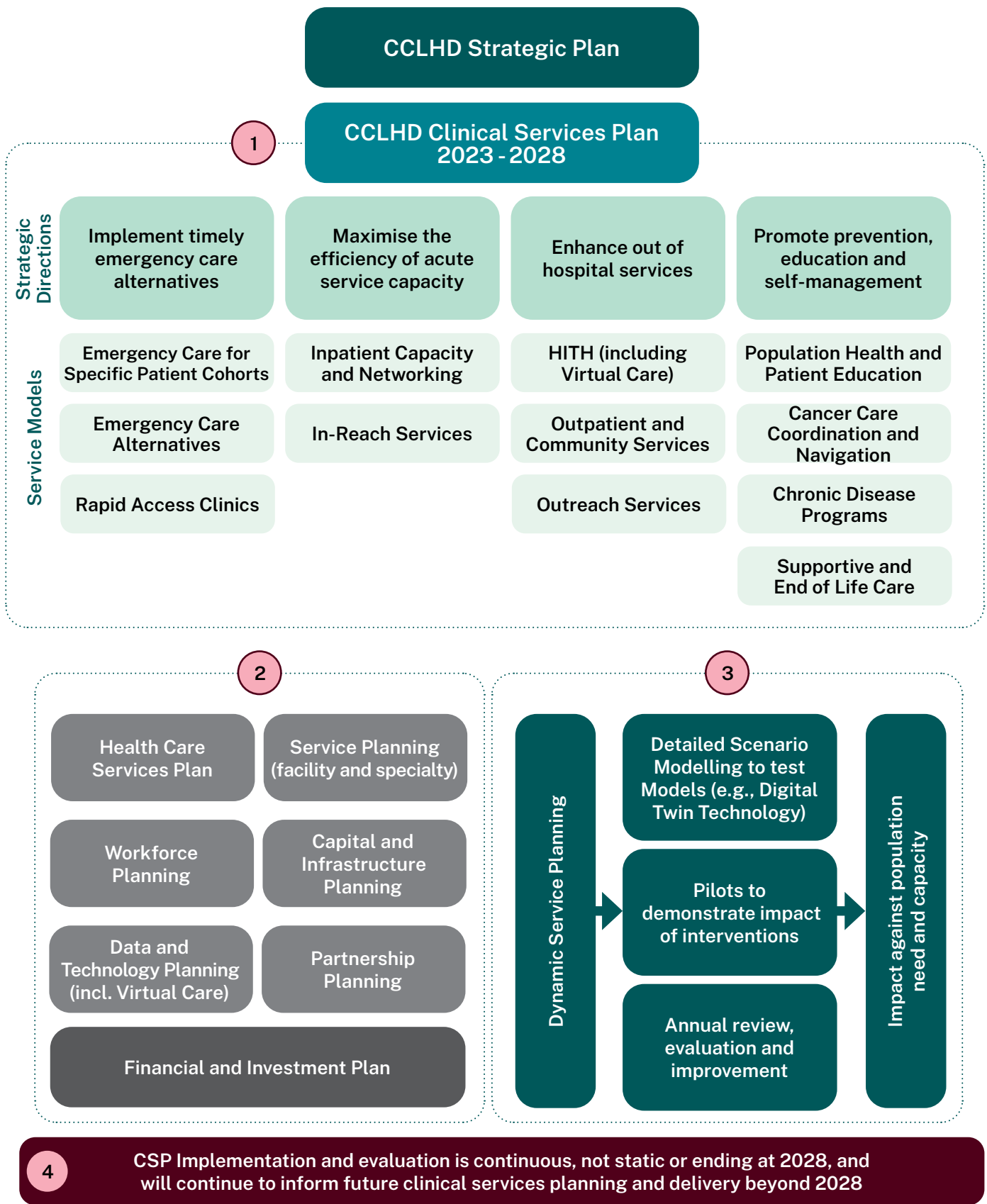
By doing this, CCLHD will be able to be effective in identifying key patient cohorts or services where changes in models of care can have the greatest impact in meeting the health needs of the Central Coast community, delivering optimal patient outcomes and experience and maximising service equity, accessibility and efficiency.

Figure 8-1 illustrates the implementation framework.

- **Part 1** articulates the four strategic directions and 12 service models for consideration across all service planning.
- **Part 2** lists the key planning activities required to support implementation of the CCLHD Clinical Services Plan 2023-2028 including a Health Care Service Plan⁸⁶, facility and service planning, as well as planning activities for the critical enablers including workforce, data and technology (including the Virtual Care Strategy), partnership and capital and infrastructure investment planning. These enabler plans are supported by the key CCLHD Strategic Plan Strategic Directions of Governance and Leadership and Research and Innovation.
- **Part 3** documents a dynamic approach to service modelling that is agile in evaluating the impact of service models on patient and service outcomes and responsive to new and emerging community health and service needs.
- **Part 4** captures the importance of considering the CCLHD Clinical Services Plan 2023-2028 implementation and evaluation as continuous, not static or ending at 2028, and will continue to inform future clinical services planning and delivery beyond 2028. Governance of the CCLHD Clinical Services Plan 2023-2028 implementation will be in line with the CCLHD Planning Framework.

⁸⁶ A Health Care Services Plan provides comprehensive planning for the service direction and detail of priorities for a LHD over a five to ten year horizon, with specific focus on those issues which affect the health of the catchment population and the delivery of services. This informs strategic planning and priority setting for ensuring appropriate capacity to respond to demand for the LHD's health services.

Figure 8-1: CCLHD Clinical Services Plan 2023-2028 implementation framework



Appendices

The following appendices provide supporting information for the CCLHD Clinical Services Plan 2023-2028.

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Appendix A: Population – data tables

Population change

Table A - 1: Net internal migration in Central Coast LGA 2017 to 2020

	2017	2018	2019	2020
Net interstate migration	-1,236	-1,812	-1,461	-1,524
Net intrastate migration	2,166	2,329	1,818	1,864
Net domestic migration	930	517	357	340
Net overseas migration	1,564	1,388	1,316	891
Net migration all sources	2,494	1,905	1,673	1,231

Source: NSW DPE 2021

Projected population change

Table A - 2: Historical and projected population in Central Coast LGA 2011 to 2041

	2011	2016	2021	2026	2031	2036	2041
Central Coast	322,657	336,611	347,475	360,341	375,289	389,916	404,265

Source: NSW DPE 2021

Table A - 3: Forecasted population by top five most populated SA2 in Central Coast, 2021 to 2041

Region	2021	2026	2031	2036	2041	Total change 2021-41 (number)	Total change 2021-41 (per cent)	Annual change 2021-41 (per cent)
Warnervale -Wadalba	18,988	23,035	27,482	32,063	36,783	17,796	93.72%	3.36%
Umina -Booker Bay - Patonga	25,292	26,562	28,116	29,687	31,248	5,957	23.55%	1.06%
Gosford -Springfield	20,418	21,696	23,485	25,386	27,367	6,949	34.03%	1.48%
Gorokan -Kanwal - Charmhaven	22,945	23,867	24,792	25,669	26,496	3,551	15.48%	0.72%
Bateau Bay -Killarney Vale	22,778	23,508	24,192	24,786	25,310	2,532	11.12%	0.53%
Central Coast	347,475	360,341	375,289	389,916	404,265	56,790	16.34%	0.76%
NSW	8,166,757	8,462,770	8,933,640	9,404,886	9,872,934	1,706,176	20.89%	0.95%

Source: NSW DPE 2021

Appendix B: Estimated resident population by SA2, 2021 to 2041

Region	2021	2026	2031	2036	2041	Total change 2021-41 (number)	Total change 2021-41 (per cent)	Annual change 2021-41 (per cent)
Avoca Beach - Copacabana	7,748	7,732	7,796	7,877	7,975	227	2.93%	0.14%
Bateau Bay - Killarney Vale	22,778	23,508	24,192	24,786	25,310	2,532	11.12%	0.53%
Blue Haven - San Remo	11,314	11,320	11,247	11,120	10,959	-355	-3.14%	-0.16%
Box Head - MacMasters Beach	11,152	11,369	11,662	11,938	12,200	1,048	9.39%	0.45%
Budgewoi - Buff Point - Halekulani	9,854	10,006	10,187	10,374	10,570	716	7.27%	0.35%
Calga - Kulnura	5,027	5,249	5,479	5,682	5,870	843	16.76%	0.78%
Chittaway Bay - Tumbi Umbi	15,686	15,547	15,415	15,269	15,125	-561	-3.58%	-0.18%
Erina - Green Point	14,390	14,872	15,429	15,879	16,224	1,834	12.75%	0.60%
Gorokan - Kanwal - Charmhaven	22,945	23,867	24,792	25,669	26,496	3,551	15.48%	0.72%
Gosford - Springfield	20,418	21,696	23,485	25,386	27,367	6,949	34.03%	1.48%
Jilliby - Yarramalong	3,589	3,682	3,790	3,902	4,021	433	12.06%	0.57%
Kariong	6,579	6,588	6,600	6,603	6,602	22	0.34%	0.02%
Kincumber - Picketts Valley	7,483	7,349	7,227	7,077	6,898	-585	-7.82%	-0.41%
Lake Munmorah - Mannering Park	11,325	11,582	11,836	12,038	12,205	880	7.77%	0.37%
Narara	6,953	6,979	6,956	6,922	6,893	-59	-0.85%	-0.04%
Niagara Park - Lisarow	8,064	8,054	8,069	8,085	8,112	48	0.60%	0.03%
Ourimbah - Fountaindale	4,946	4,872	4,831	4,794	4,764	-182	-3.68%	-0.19%
Point Clare - Koolewong	6,279	6,185	6,131	6,080	6,037	-242	-3.85%	-0.20%
Saratoga - Davistown	7,391	7,664	8,000	8,343	8,696	1,305	17.65%	0.82%
Summerland Point - Gwandalan	6,262	6,707	7,208	7,717	8,226	1,963	31.35%	1.37%
Terrigal - North Avoca	14,943	16,105	17,537	18,968	20,375	5,432	36.35%	1.56%
The Entrance	15,780	15,311	14,919	14,494	14,043	-1,737	-11.01%	-0.58%
Toukley - Norah Head	10,479	11,347	12,347	13,375	14,407	3,928	37.48%	1.60%
Tuggerah - Kangy Angy	5,512	5,782	6,086	6,386	6,686	1,175	21.31%	0.97%

Region	2021	2026	2031	2036	2041	Total change 2021-41 (number)	Total change 2021-41 (per cent)	Annual change 2021-41 (per cent)
Umina-Booker Bay - Patonga	25,292	26,562	28,116	29,687	31,248	5,957	23.55%	1.06%
Wamberal - Forresters Beach	10,561	10,948	11,390	11,814	12,220	1,659	15.71%	0.73%
Warnervale - Wadalba	18,988	23,035	27,482	32,063	36,783	17,796	93.72%	3.36%
Woy Woy - Blackwall	14,581	14,874	15,208	15,479	15,669	1,087	7.46%	0.36%
Wyoming	11,864	12,113	12,248	12,298	12,288	424	3.57%	0.18%
Wyong	9,289	9,438	9,626	9,810	9,993	704	7.58%	0.37%
Central Coast	347,475	360,341	375,289	389,916	404,265	56,790	16.34%	0.76%
NSW	8,166,757	8,462,770	8,933,640	9,404,886	9,872,934	1,706,176	20.89%	0.95%

Source: NSW DPE 2021

Appendix C: Service drivers – data tables

Central Coast Community Health Needs Survey

Table A -4: Community survey results for the chosen top three health areas of focus in the next five years in Central Coast

Item	Responses
General practitioners (doctors) and nurses	238
Emergency care in the hospital	123
Mental health	110
Health care for older people	102
Community health services e.g. community nursing or community allied health such as physiotherapy or psychology	90
Long-term health conditions e.g. diabetes, asthma, heart disease, lung conditions	69
Healthy lifestyles e.g. exercise, healthy eating, quitting smoking or vaping, safe drinking of alcohol etc	63
Child and family health	46
Cancer	38
Surgery in hospitals	35
Palliative care and end-of-life care	31
Oral health	21
Disability services	19
Aboriginal health	12
Drug and alcohol	11
Kidney condition (including renal dialysis)	3
Other (please specify)	22

Source: The Central Coast Community Health Needs Survey

Table A -5: Community survey results for the chosen top three barriers to accessing health care for survey respondents in Central Coast

Item	No Responses
Long wait lists for health care	256
Most services not available on weekends and after hours	230
Cost of health services	205
Cost of medications	62
Difficult to travel to services	50
Hard to understand the health information given to you	17
There are no barriers	16
Not having services that are culturally safe for you	8
Other (please specify)	52

Source: The Central Coast Community Health Needs Survey

Lifestyle risk factors

Table A -6: Health risk factors of Central Coast LHD adult residents compared to NSW 2021 as a proportion of adult population

	Proportion (per cent)		Percentage point
	Central Coast LHD	NSW	Difference*
Risky alcohol consumption	35.6%	26.7%	+8.9
Obesity	26.5%	23.2%	+3.3
Daily smoking	10.3%	8.2%	+2.1
Very high psychological distress (2019-2021)	7%	5.5%	+1.5

*Difference is given by subtracting NSW proportion of adult population from Central Coast LHD proportion of adult population.

Source: NSW Healthstats (accessed April 2023)

Note: Data exclusively for adult population (aged 16+).

Appendix D: Role Delineation Levels

D.1 Gosford Hospital Role Delineation: Levels for 2022, Proposed levels for 2028

Gosford Hospital Role Delineation

Service Stream	2022	Proposed 2028
Core services (L5)		
1. Anaesthesia and recovery	5	5
2. Operating suite	5	5
3. Close observation unit	NPS	NPS
4. Intensive care service	5	5
5. Nuclear medicine	5	5
6. Radiology & Interventional radiology	5	5
7. Pathology	5	5
8. Pharmacy	5	5
A. Emergency Medicine (L5)		
Emergency Medicine	5	5
B. Medicine (mostly L5)		
B1. Acute stroke services (adult)	5	5
B2. Cardiology & interventional cardiology	5	5
B3. Chronic pain management services	3	3
B4. Clinical genetics	3	3
B5. Dermatology	3	3
B6. Drug and alcohol services	5	5
B7. Endocrinology	5	5
B8. Gastroenterology	5	5
B9. General & Acute Medicine	3	3
B10. Geriatric medicine	5	5
B11. Haematology	5	5
B12. Immunology	NPS	NPS
B13. Infectious diseases	5	5
B14. Neurology	5	5
B15. Oncology-Medical	5	5
B16. Oncology-Radiation	5	5

Gosford Hospital Role Delineation continued

Service Stream	2022	Proposed 2028
B17. Palliative care	5	5
B18. Rehabilitation medicine	NPS	NPS
B19. Renal medicine	5	5
B20. Respiratory & sleep medicine	5	5
B21. Rheumatology	NPS	NPS
B22. Sexual assault services	4	4
B23. Sexual health	4	4
C. Surgery		
C1. Burns	4	4
C2. Cardiothoracic surgery	NPS	NPS
C3. Ear Nose and Throat surgery	5	5
C4. General surgery	5	5
C5. Gynaecology	5	5
C6. Neurosurgery	NPS	NPS
C7. Ophthalmology	5	5
C8. Oral health	4	4
C9. Orthopaedic surgery	5	5
C10. Plastic surgery	4	4
C11. Urology	5	5
C12. Vascular surgery	5	5
D. Child and Family Health Services		
D1. Child and family health	4	4
D2. Child protection services	3	3
D3. Maternity	5	5
D4. Neonatal	4	4
D5. Paediatric medicine	4	4
D6. Surgery for children	4	4
D7. Youth health	4	4
E. Mental Health Services		
E1. Adult mental health	5	5
E2. Child and youth mental health	4	4
E3. Older person mental health	4	4
F. Aboriginal Health		
Aboriginal Health	4	4

D.2 Wyong Hospital Role Delineation: Levels for 2022, Proposed levels for 2028

Wyong Hospital Role Delineation

Service Stream	2022	Proposed 2028
Core services		
1. Anaesthesia and recovery	4	4
2. Operating suite	4	4
3. Close observation unit	NPS	NPS
4. Intensive care service	4	4
5. Nuclear medicine	4	4
6. Radiology & Interventional radiology	4	4
7. Pathology	4	4
8. Pharmacy	4	4
A. Emergency Medicine		
Emergency Medicine	4	4
B. Medicine		
B1. Acute stroke services (adult)	4	4
B2. Cardiology & interventional cardiology	4	4
B3. Chronic pain management services	NPS	NPS
B4. Clinical genetics	NPS	NPS
B5. Dermatology	NPS	NPS
B6. Drug and alcohol services	5	5
B7. Endocrinology	3	3
B8. Gastroenterology	3	3
B9. General & Acute Medicine	4	4
B10. Geriatric medicine	4	4
B11. Haematology	4	4
B12. Immunology	NPS	NPS
B13. Infectious diseases	4	4
B14. Neurology	4	4
B15. Oncology-Medical	3	3
B16. Oncology-Radiation	NPS	NPS
B17. Palliative care	4	5
B18. Rehabilitation medicine	4	4
B19. Renal medicine	2	2
B20. Respiratory & sleep medicine	4	4
B21. Rheumatology	NPS	NPS
B22. Sexual assault services	1	1

Wyong Hospital Role Delineation continued

Service Stream	2022	Proposed 2028
B23. Sexual health	NPS	NPS
C. Surgery		
C1. Burns	NPS	NPS
C2. Cardiothoracic surgery	NPS	NPS
C3. Ear Nose and Throat surgery	NPS	NPS
C4. General surgery	4	4
C5. Gynaecology	3	3
C6. Neurosurgery	NPS	NPS
C7. Ophthalmology	3	3
C8. Oral health	4	4
C9. Orthopaedic surgery	3	3
C10. Plastic surgery	NPS	NPS
C11. Urology	3	3
C12. Vascular surgery	4	4
D. Child and Family Health Services		
D1. Child and family health	4	4
D2. Child protection services	3	3
D3. Maternity	1	1
D4. Neonatal	1	1
D5. Paediatric medicine	2	2
D6. Surgery for children	2	2
D7. Youth health	3	3
E. Mental Health Services		
E1. Adult mental health	5	5
E2. Child and youth mental health	4	4
E3. Older person mental health	5	5
F. Aboriginal Health		
Aboriginal Health	4	4

D.3 Woy Woy Healthcare Facility and Long Jetty Healthcare Facility: Levels for 2022, Proposed levels for 2028

	2022	Proposed 2028
Woy Woy Healthcare Facility		
B10. Geriatric Medicine	2	2
B18. Rehabilitation	4	4

Appendix E: CCLHD service activity and future forecast

Emergency department presentations

Activity

Table A -7: Gosford Hospital and Wyong Hospital ED presentations FY2012-13 to FY2022-23

	Financial Year (FY)											Total change (per cent)*
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	
Gosford Hospital	54,937	56,571	59,162	62,976	64,413	66,432	71,026	70,053	76,578	72,949	73,083	33%
Wyong Hospital	56,792	55,926	58,411	62,466	63,879	66,324	69,025	67,045	70,459	66,884	70,282	24%
Total	111,729	112,497	117,573	125,442	128,292	132,756	140,051	137,098	147,037	139,833	143,365	28%

*Total change is the percentage difference between FY2012-13 and FY2022-23.

Source: FY2012-13 to FY 2021-22 data from ED-AAv21 and ED Utilisation App, FY2022-23 data from ED Utilisation App (extracted 14 July 2023).

Note: Excludes presentations that were categorised as "Departed, Did Not Wait", and "Registered in error". Additional data for FY2022-23 has been extracted to understand the impact of recent trends.

Presentations by admission status

Table A -8: Gosford Hospital and Wyong Hospital ED presentations by admission status FY2018-19 to FY2020-21

	Financial Year (FY)			Total change (per cent)*
	2018-19	2019-20	2020-21	
Gosford Hospital				
Admitted	24,533	22,937	21,414	-13%
Non-admitted	46,402	47,036	55,113	19%
Total	70,935	69,973	76,527	8%
Wyong Hospital				
Admitted	16,825	15,943	17,463	4%
Non-admitted	52,102	51,036	52,942	2%
Total	68,927	66,979	70,405	2%

*Total change is the percentage difference between FY2018-19 and FY2020-21.

Source: EDAAv21

Note: Excludes presentations that were categorised as "Departed, Did Not Wait", "Registered in error" and ED ESRG "Other", "Unknown" and "N/A unknown".

Acuity of presentations

Table A -9: Gosford Hospital and Wyong Hospital ED presentations by triage category FY2012-13 to FY2020-21

Financial Year (FY)										
Triage Category	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total change (per cent)*
Gosford Hospital										
1	622	810	859	836	845	771	844	863	949	53%
2	6,812	7,226	8,154	8,391	8,430	8,980	10,406	10,030	10,859	59%
3	20,242	22,114	24,287	25,701	26,280	26,481	29,015	27,676	29,541	46%
4	24,854	24,532	24,154	26,205	26,978	28,145	28,609	28,512	31,323	26%
5	2,383	1,880	1,702	1,838	1,876	2,050	2,151	2,964	3,905	64%
Total	54,913	56,562	59,156	62,971	64,409	66,427	71,025	70,045	76,577	39%
Wyong Hospital										
1	213	269	283	308	402	426	492	640	649	205%
2	4,880	5,065	5,321	6,265	6,330	6,730	7,431	7,670	8,527	75%
3	14,339	15,480	16,235	18,667	19,056	19,190	23,056	22,722	23,867	66%
4	26,314	28,915	30,264	31,893	33,448	35,132	33,565	31,534	32,620	24%
5	11,039	6,191	6,304	5,329	4,642	4,846	4,478	4,477	4,796	-57%
Total	56,785	55,920	58,407	62,462	63,878	66,324	69,022	67,043	70,459	24%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: EDAAv21

Note: Excludes presentations that were categorised as "Departed Did Not Wait", "Registered in error" and "Triage category N/A"

Age of presentations

Table A -10: Gosford Hospital and Wyong Hospital ED presentations by patient age FY2018-19 to FY2020-21

Financial Year (FY)				
Age Group	2018-19	2019-20	2020-21	Total change (per cent)*
Gosford Hospital				
0-4	7,858	7,089	8,144	3.6%
5-15	7,472	7,151	8,277	10.8%
16-44	22,070	21,726	23,937	8.5%
45-69	16,850	17,238	18,388	9.1%
70-84	11,187	11,251	12,069	7.9%
85+	5,497	5,518	5,712	3.9%
Total	70,934	69,973	76,527	7.9%

Age Group	Financial Year (FY)			Total change (per cent)*
	2018-19	2019-20	2020-21	
Wyong Hospital				
0-4	6,578	6,014	6,583	0.1%
5-15	7,535	6,902	7,776	1.0%
16-44	22,485	21,302	22,629	2.7%
45-69	16,203	16,497	16,960	4.6%
70-84	11,298	11,226	11,668	3.3%
85+	4,828	5,038	4,789	-0.8%
Total	68,927	66,979	70,405	2.1%
Grand Total	139,861	136,952	146,932	5.1%

*Total change is the percentage difference between FY2018-19 and FY2020-21.

Source: EDAAv21

Note: Excludes presentations that were categorised as "Departed Did Not Wait", "Registered in error", "ED ESRG "Other", "N/A unknown" and "unknown".

Forecast activity

Table A - 11: Projected Gosford Hospital and Wyong Hospital ED presentations by admission status

Projection					
Financial Year (FY)					
	Base year	2025-26	2030-31	2035-36	Total change (per cent)*
Gosford Hospital					
Admitted	22,961	25,381	28,057	31,015	35%
Non-admitted	49,517	53,088	56,918	61,023	23%
Total	72,478	78,470	84,975	92,038	27%
Wyong Hospital					
Admitted	16,744	18,779	21,062	23,623	41%
Non-admitted	52,027	56,664	61,715	67,217	29%
Total	68,770	75,443	82,777	90,840	32%
CCLHD					
Admitted	39,705	44,160	49,119	54,638	38%
Non-admitted	101,544	109,752	118,633	128,240	26%
Total	141,248	153,913	167,752	182,878	29%

*Total change is the percentage difference between the final year and the base year.

Source: EDAAv21

Note: Base year is a 3-year average of ED presentations in FY2018-19, FY2019-20 and FY2020-21. Excludes presentations that were categorised as "Departed Did Not Wait", and "Registered in error".

Adult acute admitted

Activity

Table A - 12: Gosford Hospital and Wyong Hospital adult acute admitted patient separations and beddays total across medical, surgical, and interventional, by overnight and day only FY2012-13 to FY2020-21

	Financial Year (FY)									Total change (per cent)*
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Gosford Hospital										
Overnight										
Separations	19,493	20,035	22,129	23,082	22,796	23,079	23,993	23,157	23,312	20%
Beddays	112,153	110,323	107,928	111,571	113,717	118,402	125,814	120,953	129,528	15%
Day only										
Separations	5,129	5,392	8,176	8,380	8,913	8,363	8,644	7,624	7,396	44%
Beddays	5,129	5,392	8,176	8,380	8,913	8,363	8,646	7,624	7,396	44%
Total										
Separations	24,622	25,427	30,305	31,462	31,709	31,442	32,637	30,781	30,708	25%
Beddays	117,282	115,715	116,104	119,951	122,630	126,765	134,460	128,577	136,924	17%
Wyong Hospital										
Overnight										
Separations	11,511	11,673	12,365	13,848	14,014	14,526	15,002	14,362	14,943	30%
Beddays	66,252	61,075	60,557	60,793	63,046	64,665	68,289	67,719	71,260	8%
Day only										
Separations	4,252	4,580	5,356	6,248	6,804	7,165	7,968	6,442	9,202	116%
Beddays	4,252	4,580	5,356	6,248	6,804	7,165	7,968	6,442	9,202	116%
Total										
Separations	15,763	16,253	17,721	20,096	20,818	21,691	22,970	20,804	24,145	53%
Beddays	70,504	65,655	65,913	67,041	69,850	71,830	76,257	74,161	80,462	14%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfov21

Note: Includes adult acute admitted medical and interventional, excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years. ALOS figures by medical and surgical and interventional are provided in Table A - 14 and Table A - 16, respectively.

Forecast activity

Table A -13: Gosford Hospital and Wyong Hospital historical and projected adult admitted patient separations and beddays, total across medical, surgical, and interventional –by day only and overnight

	Historical			Projection			Total change (per cent)*
	1-year interval			5-year interval			
	Financial Year (FY)						
	2018-19	2019-20	2020-21	2025-26	2030-31	2035-36	
Gosford Hospital							
Overnight							
Separations	23,993	23,157	23,312	25,857	28,470	31,351	33%
Beddays	125,814	120,953	129,528	128,756	137,957	148,104	18%
Beds	406	390	418	415	444	477	18%
Day only							
Separations	8,646	7,624	7,396	8,577	9,325	10,140	29%
Beds	21	18	18	21	23	25	31%
Total							
Separations	32,644	30,781	30,708	34,433	37,794	41,490	32%
Beddays	134,486	128,577	136,924	137,332	147,282	158,243	19%
Beds	426	409	436	436	467	502	19%
Wyong Hospital							
Overnight							
Separations	15,002	14,362	14,943	16,588	18,632	20,930	42%
Beddays	68,289	67,719	71,260	75,211	81,902	89,592	30%
Beds	220	218	229	243	264	288	29%
Day only							
Separations	7,968	6,442	9,202	8,756	9,741	10,838	38%
Beds	20	16	22	22	24	26	30%
Total							
Separations	22,970	20,804	24,145	25,344	28,374	31,768	40%
Beddays	76,257	74,161	80,462	83,968	91,643	100,430	30%
Beds	239	234	252	264	288	316	31%
CCLHD							
Separations	55,614	51,585	54,853	59,777	66,168	73,258	32%
Beddays	210,743	202,738	217,386	221,300	238,925	258,673	23%
Beds	665	643	688	700	755	818	23%

*Total change is the percentage difference between the final year and the base year (3-year average between FY2018-19, FY2019-20 and FY2020-21).

Source: FlowInfov21

Note: Includes adult acute admitted medical and interventional, excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years. ALOS figures by medical and surgical and interventional are provided in Table A -15 and Table A -17, respectively.

Adult acute admitted medical

Table A -14: Gosford Hospital and Wyong Hospital adult acute admitted medical patient separations, beddays and ALOS by overnight and day only FY2023-13 to FY2020-21

		Financial Year (FY)									Total change (per cent)*
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Gosford Hospital											
Separations											
Day only		1,441	1,520	4,151	4,270	4,649	4,516	4,791	3,752	2,751	91%
Overnight		13,159	13,438	15,378	16,480	16,302	16,765	17,508	16,969	16,530	26%
Total		14,600	14,958	19,529	20,750	20,951	21,281	22,299	20,721	19,281	32%
Beddays											
Day only		1,441	1,520	4,151	4,270	4,649	4,516	4,793	3,752	2,751	91%
Overnight		73,664	70,485	70,835	75,969	77,502	82,266	87,375	83,044	85,570	16%
Total		75,105	72,005	74,986	80,239	82,151	86,782	92,168	86,796	88,321	18%
ALOS (overnight)		5.6	5.2	4.6	4.6	4.8	4.9	5	4.9	5.2	-7%
Wyong Hospital											
Separations											
Day only		483	657	1,483	2,291	2,729	2,991	3,492	2,939	4,164	762%
Overnight		9,533	9,694	10,329	11,866	11,773	12,289	12,704	12,208	12,621	32%
Total		10,016	10,351	11,812	14,157	14,502	15,280	16,196	15,147	16,785	68%
Beddays											
Day only		483	657	1,483	2,291	2,729	2,991	3,492	2,939	4,164	762%
Overnight		54,511	50,368	49,947	50,688	51,699	53,281	56,445	56,397	59,033	8%
Total		54,994	51,025	51,430	52,979	54,428	56,272	59,937	59,336	63,197	15%
ALOS (overnight)		5.7	5.2	4.8	4.3	4.4	4.3	4.4	4.6	4.7	-18%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfov21

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Table A -15: Gosford Hospital and Wyong Hospital historical and projected adult acute admitted medical patient separations, beddays, and ALOS –by day only and overnight

	Historical			Projection			Total change (per cent)*
	1-year interval			5-year interval			
	Financial Year (FY)						
	2018-19	2019-20	2020-21	2025-26	2030-31	2035-36	
Gosford Hospital							
Overnight							
Separations	17,508	16,969	16,530	18,855	20,910	23,188	36%
Beddays	87,375	83,044	85,570	86,045	92,195	99,261	16%
Beds	282	268	276	277	297	320	16%
Day only							
Separations	4,793	3,752	2,751	4,137	4,545	4,993	33%
Beds	12	9	7	10	11	12	33%
Total							
Separations	22,306	20,721	19,281	22,992	25,454	28,181	36%
Beddays	92,194	86,796	88,321	90,182	96,740	104,254	17%
Beds	293	277	283	287	308	332	17%
ALOS (overnight)	5	5	5	4.6	4.4	4.3	-15%
Wyong Hospital							
Overnight							
Separations	12,704	12,208	12,621	14,100	15,890	17,908	43%
Beddays	56,445	56,397	59,033	63,464	69,379	76,127	33%
Beds	182	182	190	205	224	245	33%
Day only							
Separations	3,492	2,939	4,164	3,962	4,444	4,985	41%
Beds	9	7	10	10	11	12	41%
Total							
Separations	16,196	15,147	16,785	18,061	20,334	22,893	43%
Beddays	59,937	59,336	63,197	67,426	73,823	81,112	33%
Beds	190	189	200	214	235	258	33%
ALOS (overnight)	4.4	4.6	4.7	4.5	4.4	4.3	-7%

*Total change is the percentage difference between the final year and the base year (3-year average between FY2018-19, FY2019-20 and FY2020-21).

Source: FlowInfov21, HealthApp

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Adult acute admitted surgical and interventional

Table A -16: Gosford Hospital and Wyong Hospital adult acute admitted surgery and interventional patient separations, beddays and ALOS by overnight and day only FY2012-13 to FY2020-21

	Financial Year (FY)									Total change (per cent)*
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Gosford Hospital										
Separations										
Day only	3,688	3,872	4,025	4,110	4,264	3,847	3,853	3,872	4,645	26%
Overnight	6,334	6,597	6,751	6,602	6,494	6,314	6,485	6,188	6,782	7%
Total	10,022	10,469	10,776	10,712	10,758	10,161	10,338	10,060	11,427	14%
Beddays										
Day only	3,688	3,872	4,025	4,110	4,264	3,847	3,853	3,872	4,645	26%
Overnight	38,489	39,838	37,093	35,602	36,215	36,136	38,439	37,909	43,958	14%
Total	42,177	43,710	41,118	39,712	40,479	39,983	42,292	41,781	48,603	15%
ALOS (overnight)	6.1	6	5.5	5.4	5.6	5.7	5.9	6.1	6.5	7%
Wyong Hospital										
Separations										
Day only	3,769	3,923	3,873	3,957	4,075	4,174	4,476	3,503	5,038	34%
Overnight	1,978	1,979	2,036	1,982	2,241	2,237	2,298	2,154	2,322	17%
Total	5,747	5,902	5,909	5,939	6,316	6,411	6,774	5,657	7,360	28%
Beddays										
Day only	3,769	3,923	3,873	3,957	4,075	4,174	4,476	3,503	5,038	34%
Overnight	11,741	10,707	10,610	10,105	11,347	11,384	11,844	11,322	12,227	4%
Total	15,510	14,630	14,483	14,062	15,422	15,558	16,320	14,825	17,265	11%
ALOS (overnight)	5.9	5.4	5.2	5.1	5.1	5.1	5.2	5.3	5.3	-11%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfov21

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Table A -17: Gosford Hospital and Wyong Hospital historical and projected adult acute admitted surgery and interventional patient separations, beddays, and ALOS – by day only and overnight

	Historical			Projection			Total change (per cent)*
	1-year interval			5-year interval			
	Financial Year (FY)						
	2018-19	2019-20	2020-21	2025-26	2030-31	2035-36	
Gosford Hospital							
Overnight							
Separations	6,485	6,188	6,782	7,002	7,560	8,163	26%
Beddays	38,439	37,909	43,958	42,711	45,762	48,843	22%
Beds	124	122	142	138	147	157	22%
Day only							
Separations	3,853	3,872	4,645	4,440	4,780	5,147	25%
Beds	9	9	11	11	12	13	25%
Total							
Separations	10,338	10,060	11,427	11,441	12,340	13,309	25%
Beddays	42,292	41,781	48,603	47,150	50,542	53,989	22%
Beds	133	132	153	149	159	170	22%
ALOS (overnight)	6	6	6	6.1	6.1	6	-3%
Wyong Hospital							
Overnight							
Separations	2,298	2,154	2,322	2,488	2,742	3,022	34%
Beddays	11,844	11,322	12,227	11,747	12,523	13,465	14%
Beds	38	36	39	38	40	43	14%
Day only							
Separations	4,476	3,503	5,038	4,794	5,297	5,853	35%
Beds	11	9	12	12	13	14	35%
Total							
Separations	6,774	5,657	7,360	7,283	8,040	8,875	35%
Beddays	16,320	14,825	17,265	16,542	17,820	19,318	20%
Beds	49	45	52	50	53	58	19%
ALOS (overnight)	5.2	5.3	5.3	4.7	4.6	4.5	-15%

*Total change is the percentage difference between the final year and the base year (3-year average between FY2018-19, FY2019-20 and FY2020-21).

Source: FlowInfov21, HealthApp

Note: Excludes Chemotherapy, Renal dialysis, Obstetrics, episodes entirely HITH, <16 years.

Cancer

Table A - 18: CCLHD number of adjusted new diagnosis of cancer projections by cancer type

	Financial Year (FY)		
	2019-20	2020-21	Total change (per cent)*
Prostate cancer	458	555	21%
Other cancers	418	520	24%
Bowel cancer	386	473	23%
Melanoma	329	420	28%
Lung cancer	312	412	32%
Breast cancer	304	352	16%
Upper gastrointestinal	225	287	28%
Non-Hodgkins lymphoma (NHL)	108	132	22%
Head and neck cancer	86	102	19%
Leukaemia	64	77	20%
Myelodysplasia	45	59	31%
Cancer unknown primary (CUP)	55	59	7%
Brain cancer	34	39	15%
Ovarian cancer	30	35	17%
Cervical cancer	14	15	7%
Eye cancer	9	11	22%

*Total change is the percentage difference between FY2020-21 and FY2030-31.

Source: NSW Cancer Institute, NSW Cancer Registry

Table A - 19: Gosford Hospital and Wyong Hospital chemotherapy chair projections

	Financial Year (FY)				Total change (per cent)*
	2021-22	2025-26	2030-31	2035-36	
Gosford Hospital	26	26	26	33	27%
Wyong Hospital	10	24	26	32	220%
Total	36	50	52	65	81%

*Total change is the percentage difference between FY2021-22 and FY2035-36.

Source: MOSAIQ, CHARM

Renal dialysis

Table A -20: CCLHD renal dialysis separations by treatment facility

	Financial Year (FY)									Total change (per cent)*
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Gosford	10,457	12,131	11,657	10,706	9,570	9,638	9,673	9,028	9,611	-8%
Long Jetty	-	-	-	2,621	3,846	4,037	4,464	5,122	5,544	112%
Wyong	6,354	6,761	6,405	4,310	4,816	6,345	6,205	6,339	6,361	0.1%
Total	16,811	18,892	18,062	17,637	18,232	20,020	20,342	20,489	21,516	28%

*Total change is the percentage difference between FY2012-13 and FY2020-21, except for Long Jetty where it is the percentage difference between FY2015-16 and FY2020-21.

Source: FlowInfo v21.

Note: Wyong Satellite Dialysis facility is based in Lake Haven.

Table A -21: CCLHD projected renal dialysis chair requirements

	Financial Year (FY)				Total change (per cent)*
	2022-23 Built capacity	2025-26	2030-31	2035-36	
Total Renal Dialysis Chairs	53	57	63	70	32%
In-centre Chair Requirements	12	14	14	15	25%
Satellite Chairs – chair allocation	41	43	49	55	34%
Gosford	10	10	10	10	0%
Woy Woy (proposed new)	0	2	7	10	400%
Long Jetty	20	20	20	20	0%
Wyong (Lake Haven proposed expanded)	11	11	12	15	36%

*Total change is the percentage difference between FY2022-23 and FY2035-36, except for Woy Woy where it is the percentage difference between FY2025-26 and FY2020-21.

Source: FlowInfo v21.

Note: Wyong Satellite Dialysis facility is based in Lake Haven

Hospital in the home

Table A -22: CCLHD HITH total admissions FY2020-21 to FY2022-23

	Financial Year (FY)			Total change (per cent)*
	2020-21	2021-22	2022-23	
Total Admission	89	79	826	828%

*Total change is the percentage difference between FY2020-21 and FY2022-23.

Source: HITH Dashboard (accessed July 2023) Adult acute admitted surgical and interventional

Intensive Care Unit

Table A -23: Gosford Hospital and Wyong Hospital ICU activity, FY2012-13 to FY2020-21

		Financial Year (FY)									Total change (per cent)*
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Gosford Hospital											
Interventional ICU											
Separations	839	987	939	805	732	547	541	506	569	-32%	
Hours	44,449.5	41,430.7	38,177.2	27,617.7	46,063.4	65,918.2	66,280.3	63,673.4	69,505.6	56%	
ALOS (hours)	53.0	42.0	40.7	34.3	62.9	120.5	122.5	125.8	122.2	131%	
ALOS (days)	2.2	1.7	1.7	1.4	2.6	5.0	5.1	5.2	5.1	132%	
Beds	11.2	12.0	11.7	9.8	10.0	10.0	10.1	9.7	10.6	-5%	
Medical ICU											
Separations	530	572	615	713	640	559	618	595	642	21%	
Hours	21,991.6	21,028.4	25,454.1	32,900.9	29,741.3	29,068.9	31,551.7	29,680.0	34,220.4	56%	
ALOS (hours)	41.5	36.8	41.4	46.1	46.5	52.0	51.1	49.9	53.3	28%	
ALOS (days)	1.7	1.5	1.7	1.9	1.9	2.2	2.1	2.1	2.2	29%	
Beds	3.3	3.2	3.9	5.0	4.5	4.4	4.8	4.5	5.2	58%	
Total											
Separations	1,369	1,559	1,554	1,518	1,372	1,106	1,159	1,101	1,211	-12%	
Hours	66,441.1	62,459.1	63,631.4	60,518.6	75,804.7	94,987.2	97,832.0	93,353.4	103,726.0	56%	
ALOS (hours)	48.5	40.1	40.9	39.9	55.3	85.9	84.4	84.8	85.7	77%	
ALOS (days)	2.0	1.7	1.7	1.7	2.3	3.6	3.5	3.5	3.6	80%	
Beds	14.5	15.2	15.5	14.9	14.6	14.5	14.9	14.2	15.8	9%	
Wyong Hospital											
Total											
Separations	210	173	185	210	399	675	686	651	626	198%	
Hours	5,787.0	5,744.0	5,299.0	6,327.0	17,753.0	35,507.0	34,847.0	34,661.0	34,949.0	504%	
Beds	0.9	0.9	0.8	1.0	2.7	5.4	5.3	5.3	5.3	489%	

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfo v21

Note: Both Gosford Hospital activity is a total of ICU Flag level 1 and 2. Wyong Hospital activity is a total of ICU Flag level 1 and 2 and high-dependency care units (HDUs). The ICU beds are within (not in addition to) the adult acute admitted beds.

Table A -24: Gosford Hospital and Wyong Hospital projected ICU activity, FY2025-26 to FY2035-36

	Financial Year (FY)				Total change (per cent)*
	Base year	2025-26	2030-31	2035-36	
Gosford Hospital					
Interventional ICU					
Separations	539	580	625	673	25%
Hours	66,486	71,625	77,160	83,123	25%
Beds	10	11	12	13	30%
Medical ICU					
Separations	618	686	761	845	37%
Hours	31,817	35,301	39,167	43,456	37%
Beds	5	5	6	7	40%
Total					
Separations	1,157	1,271	1,397	1,534	33%
Hours	98,304	106,926	116,327	126,579	29%
Beds	15	16	18	19	-
Wyong Hospital					
Interventional ICU					
Separations	221	244	269	297	35%
Hours	16,730	18,471	20,393	22,516	35%
Beds	2.5	2.8	3.1	3.4	36%
Medical ICU					
Separations	433	488	549	618	43%
Hours	18,089	20,367	22,931	25,818	43%
Beds	2.8	3.1	3.5	3.9	39%
Total					
Separations	654	733	821	920	41%
Hours	34,819	38,837	43,324	48,334	39%
Beds	5.3	5.9	6.6	7.4	39%

*Total change is the percentage difference between the final year and the base year.

Source: FlowInfo v21, HealthApp

Note: Base year is a 3-year average between FY2018-29 to FY2020-21. The ICU hours and beds consist of ICU level 1 activity. The ICU beds are within (not in addition to) the adult acute admitted beds.

Women and children

Maternity

Table A - 25: CCLHD maternity separations, beddays, beds, and ALOS by ESRGs FY2012-13 to FY2020-21

	Financial Year (FY)									Total change (per cent)*
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
721 - Antenatal admission										
Separations	1,677	1,512	1,379	1,103	1,046	1,095	1,137	1,095	1,221	-27%
Beddays	2,155	1,982	1,740	1,436	1,371	1,531	1,465	1,414	1,723	-20%
ALOS	1.3	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.4	8%
Beds	5.8	5.4	4.7	4	3.9	4.5	4.3	4	5.2	-10%
Beds	11.2	12.0	11.7	9.8	10.0	10.0	10.1	9.7	10.6	-5%
722 - Vaginal delivery										
Separations	1,878	2,031	2,027	2,146	2,039	2,134	2,129	2,135	2,294	22%
Beddays	4,039	4,399	4,418	4,659	4,451	4,910	4,865	4,558	4,691	16%
ALOS	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.1	2	-9%
Beds	14.8	16.1	16.1	17	16.3	17.9	17.8	16.7	17.1	16%
Beds	3.3	3.2	3.9	5.0	4.5	4.4	4.8	4.5	5.2	58%
723 - Caesarean delivery										
Separations	765	775	817	766	797	873	866	879	903	18%
Beddays	2,922	2,869	3,101	2,787	2,932	3,331	3,279	3,309	3,238	11%
ALOS	3.8	3.7	3.8	3.6	3.7	3.8	3.8	3.8	3.6	-5%
Beds	10.7	10.5	11.3	10.2	10.7	12.2	12	12.1	11.8	10%
724 - Postnatal admission										
Separations	126	153	152	110	122	134	155	133	147	17%
Beddays	297	317	311	203	252	249	306	294	333	12%
ALOS	2.4	2.1	2	1.8	2.1	1.9	2	2.2	2.3	-4%
Beds	1.1	1.2	1.1	0.7	0.9	0.9	1.1	1.1	1.2	9%
Total										
Separations	4,446	4,471	4,375	4,125	4,004	4,236	4,287	4,242	4,565	3%
Beddays	9,413	9,567	9,570	9,085	9,006	10,021	9,915	9,575	9,985	6%
ALOS	2.1	2.1	2.2	2.2	2.2	2.4	2.3	2.3	2.2	5%
Beds	32.3	33.2	33.3	32	31.8	35.6	35.1	33.8	35.4	10%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfov21

Table A -26: CCLHD projected maternity separations, beddays, beds, and ALOS by ESRGs

Projection					
Financial Year (FY)					
	Base year	2025-26	2030-31	2035-36	Total change (per cent)*
Antenatal admission					
Separations	1,209	1,227	1,246	1,266	5%
Beddays	1,611	2,305	2,327	2,348	46%
ALOS	1.3	1.9	1.9	1.9	46%
Beds	4.7	7.7	7.8	7.9	68%
Vaginal delivery					
Separations	2,295	2,362	2,430	2,501	9%
Beddays	4,940	4,747	4,385	4,009	-19%
ALOS	2.3	2	1.8	1.6	-30%
Beds	18	17.3	16	14.6	-19%
Caesarean delivery					
Separations	927	958	989	1,022	10%
Beddays	3,439	3,362	3,117	2,856	-17%
ALOS	3.9	3.5	3.2	2.8	-28%
Beds	12.6	12.3	11.4	10.4	-17%
Postnatal admission					
Separations	152	153	153	154	1%
Beddays	327	286	258	229	-30%
ALOS	2.3	1.9	1.7	1.5	-35%
Beds	1.2	1	0.9	0.8	-33%
Total					
Separations	4,583	4,699	4,819	4,943	8%
Beddays	10,316	10,700	10,087	9,442	-8%
ALOS	2.3	2.3	2.1	1.9	-17%
Beds	37	38	36	34	-8%

*Total change is the percentage difference between the final year and the base year.

Source: FlowInfov21, HealthApp

Note: Base year is derived by the 3-year average of FY2018-19, 2019-20, and FY2020-21.

Table A -27: Locations of births for Central Coast residents by public, private and other facilities FY2015-16 to FY2020-21

Location of births	Financial Year (FY)						Total change (per cent)*
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Central Coast LHD	2,835	2,752	2,918	2,892	2,906	3,083	9%
Private	835	769	729	671	669	652	-22%
Others	174	196	188	152	131	137	-21%
Total	3,844	3,717	3,835	3,715	3,706	3872	1%
Proportion of private	22%	21%	19%	18%	18%	17%	-23%
Proportion of CCLHD	74%	74%	76%	78%	78%	80%	8%

*Total change is the percentage difference between FY2015-16 and FY2020-21.

Source: FlowInfov21

Paediatrics

Table A -28: CCLHD paediatric inpatient care separations FY2012-13 to FY2020-21

	Financial Year (FY)									Total change (per cent)*
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Day only	934	913	980	1,076	1,055	1,132	1,115	950	1,006	8%
Overnight	3,862	4,048	4,305	4,429	4,317	4,505	4,661	4,354	4,256	10%
Total	4,796	4,961	5,285	5,505	5,372	5,637	5,776	5,304	5,262	10%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfov21

Note: Paediatric age group is 0 to 15 years.

Table A -29: CCLHD projected paediatric inpatient care separations, beddays, ALOS, and beds

Projection					
Financial Year (FY)					
	Base year	2025-26	2030-31	2035-36	Total change (per cent)*
Overnight					
Separations	4,494	4,855	5,245	5,667	26%
Beddays	11,807	11,173	11,958	12,669	7%
ALOS (overnight)	2.6	2.3	2.3	2.2	-15%
Beds	43	41	44	46	7%
Day only					
Separations	1,101	1,203	1,315	1,437	31%
Beds	3	3	3	4	31%
Total					
Separations	5,595	6,058	6,560	7,103	27%
Beddays	12,908	12,376	13,272	14,106	9%
ALOS (overnight)	2.3	2.0	2.0	2.0	-14%
Beds	46	44	47	50	9%

*Total change is the percentage difference between the final year and the base year.

Source: FlowInfov21, HealthApp

Note: Base year is derived by the 3-year average of FY2018-19, FY2019-20, and FY2020-21. Includes Special Care Nursery. Paediatric age group is 0 to 15 years.

Special Nursery Care

Table A -30: Gosford Hospital Special Care Nursery separations FY2012-13 to FY2020-21

Financial Year (FY)										
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total change (per cent)*
Total separations	700	768	832	810	864	1,018	1,034	1,078	1,136	62%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfov21

Table A -31: Gosford Hospital projected Special Care Nursery separations, hours, days, ALOS and beds

	Base year	Projection Financial Year (FY)			Total change (per cent)*
		2025-26	2030-31	2035-36	
Separations	1,083	1,172	1,269	1,374	27%
Hours	105,853	114,597	124,063	134,310	27%
Days	4,411	4,775	5,169	5,596	27%
ALOS (overnight)	4.1	4.1	4.1	4.1	0%
Beds	16.1	17.4	18.9	20.4	27%

*Total change is the percentage difference between the final year and the base year.

Source: FlowInfov21, HealthApp

Note: Base year is derived by the 3-year average of FY2018-19, FY2019-20, and FY2020-21.

Sub-acute and non-acute

Rehabilitation, Geriatric Evaluation Management, Psychogeriatrics and Maintenance

Table A -32: CCLHD proportion of sub-acute and non-acute care type separations FY2017-18 to FY2020-21

	Financial Year (FY)				Total change (per cent)*
	2017-18	2018-19	2019-20	2020-21	
Geriatric Evaluation and Management	164	41	55	232	41%
Maintenance	1,284	1,352	1,370	1,563	22%
Psychogeriatric Care	3	2	12	70	2233%
Rehabilitation	936	1,011	922	806	-14%
Total	2,387	2,406	2,359	2,671	12%

*Total change is the percentage difference between FY2017-28 and FY2020-21.

Source: FlowInfov21

Note: Includes adult patients separations. Includes Rehabilitation, Geriatric Evaluation and Management, Psychogeriatrics and Maintenance Care separations for adult patients. Excludes palliative care.

Table A -33: CCLHD sub-acute and non-acute separations by facility FY2017-18 to FY2020-21

	Financial Year (FY)				Total change (per cent)*
	2017-18	2018-19	2019-20	2020-21	
Gosford	548	551	666	996	82%
Wyong	985	985	916	907	-8%
Woy Woy	763	789	688	676	-11%
Long Jetty	91	81	89	92	1%
Total	2,387	2,406	2,359	2,671	12%

*Total change is the percentage difference between FY2017-28 and FY2020-21.

Source: FlowInfov21

Note: Includes Rehabilitation, Geriatric Evaluation and Management, Psychogeriatrics and Maintenance Care separations for adult patients. Excludes palliative care.

Table A -34: CCLHD projected sub-acute and non-acute separations, beddays, ALOS and beds by facility

Projection					
Financial Year (FY)					
	Base year	2025-26	2030-31	2035-36	Total change (per cent)*
Gosford					
Separations	738	853	987	1,142	55%
Bed Days	8,238	10,595	10,233	11,252	37%
ALOS (overnight)	11.2	12.4	10.4	9.9	-12%
Beds	25	31	31	34	37%
Wyong					
Separations	936	1,153	1,357	1,598	71%
Bed Days	15,020	16,061	18,361	21,214	41%
ALOS (overnight)	16	14	14	13	-17%
Beds	45	49	56	65	43%
Woy Woy					
Separations	717	879	1,016	1,174	64%
Bed Days	15,567	12,217	13,711	15,469	-1%
ALOS (overnight)	21.7	14	13	13	-39%
Beds	37	37	42	47	27%
Long Jetty					
Separations	87	reallocated	reallocated	reallocated	-
Bed Days	3,771				-
ALOS (overnight)	43.3				-
Beds	11				-
Separations	2,479	2,886	3,361	3,913	58%
Bed Days	42,596	38,862	42,305	47,935	13%
ALOS (overnight)	17.2	13.5	12.6	12.2	-29%
Beds	119	117	129	147	23%

*Total change is the percentage difference between the final year and the base year.

Source: FlowInfov21, HealthApp

Note: Base year is derived by the 3-year average of FY2018-19, 2019-20, and 2020-21. Long Jetty activity is reallocated to other facilities since its closure in 2021. Includes Rehabilitation, Geriatric Evaluation and Management, Psychogeriatrics and Maintenance Care separations for adult patients. Excludes palliative care.

Palliative care

Table A -35: CCLHD palliative care separations, beddays, ALOS and beds FY2012-13 to FY2020-21

Financial Year (FY)											
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Total change (per cent)*
Gosford											
Separations	154	183	239	296	287	238	339	594	788	1,142	642%
Beddays	693	922	1213	1567	1253	1081	1293	3344	4567	9,887	1327%
ALOS (over-night)	4.5	5	5.1	5.3	4.4	4.5	3.8	5.6	5.8	8.7	93%
Beds	2	3	4	5	4	3	4	10	14	30	1400%
Wyong											
Separations	38	175	167	183	201	143	274	317	416	600	1479%
Beddays	249	786	777	1017	1153	725	1240	1606	2288	3,757	1409%
ALOS (over-night)	6.6	4.5	4.7	5.6	5.7	5.1	4.5	5.1	5.5	6.3	-5%
Beds	1	2	2	3	4	2	4	5	7	11	1000%
Woy Woy											
Separations	4	3	1	3	7	22	23	11	16	17	325%
Beddays	14	20	9	16	33	246	244	135	185	562	3914%
ALOS (over-night)	3.5	6.7	9	5.3	4.7	11.2	10.6	12.3	11.6	33.1	846%
Beds	0	0	0	0	0	1	1	0	1	2	-
Long Jetty											
Separations		2	5	6	2	5	8	2	3	-	-
Beddays		8	116	80	115	41	88	30	13	-	-
ALOS (over-night)		4	23.2	13.3	57.5	8.2	11	15	4.3	-	-
Beds		0	0.4	0.2	0.4	0.1	0.3	0.1	0	-	-
Total											
Separations	196	363	412	488	497	408	644	924	1223	1,759	797%
Beddays	956	1736	2115	2680	2554	2093	2865	5115	7053	14,206	1386%
ALOS (over-night)	4.9	4.8	5.1	5.5	5.1	5.1	4.4	5.5	5.8	8.1	65%
Beds	3	5	6	8	8	6	9	16	21	43	1333%

*Total change is the percentage difference between FY2012-13 and FY2021-22.

Source: FlowInfov21, CaseMix App

Note: The Palliative Care Unit at Gosford Hospital opened in April 2021, which is not captured in FlowInfov21 data, hence, the use of CaseMix App to inform the FY2021-22 activities.

Table A -36: CCLHD projected palliative care separations, beddays, ALOS and beds

Projection					
Financial Year (FY)					
	Base year	2025-26	2030-31	2035-36	Total change (per cent)*
Separations	1,759	2,079	2,562	3,157	79%
Beddays	14,206	16,694	20,424	24,988	76%
ALOS (overnight)	8.1	8	8	7.9	-2%
Beds	43	51	62	76	76%

*Total change is the percentage difference between the final year and the base year.

Source: CaseMix App, HealthApp

Note: Base year is FY2021-22 Palliative Care activity

Mental health

Table A -37: CCLHD mental health adult inpatient capacity 2023

	Built capacity	Operational Beds
Acute Mental Health Inpatient Care		
Child 0-11	0	Nil
Adolescents (12-17 years)	0	Nil
Adults (18-64 years)	77	69
Older Adult (65+ years)	15	15
Older Adult BPSD (65+ years)	0	Nil
Rural	0	Nil
Perinatal and Infant Mental Health	0	Nil
Eating disorders	0	Nil
Intensive care	0	Nil
Total	92	84
Step Up-Step Down (Sub-Acute)		
SU-SD Youth 12-24 years (Residential)	0	Nil
Youth 18-24 years (Residential)	0	Nil
Adult & Older Adult 25+ years (Residential)	0	Nil
SU-SD Adult & Older Adult 25+ years (Residential)	0	Nil
Older Adult 65+ years (Hospital)	0	Nil
Rural (Residential-Hospital)		Nil
Intensive Care Service (Hospital)	0	Nil
Total	0	Nil
Non-Acute		
Youth (18-24 years) (Residential)	0	Nil
Adult and Older Adult 25+ years (Residential)	0	Nil
Older Adult 65+ years (Hospital-RACF)	0	Nil
Intensive Care Service (Hospital)	0	Nil
Intensive Care -Older Adult 65+ years (Hospital)	0	Nil
Total	0	Nil

Note: Adult (18-64) acute mental health inpatient care includes PECC bed capacity of 6 beds at Gosford Hospital which is not yet operational. PECC at Wyong Hospital has 6 bed capacity, however, only 4 of these beds are used. Medical resources are shared with the acute community mental health team that covers 40 patients per day above capacity. Built capacity is based on 2022 inpatient capacity. The number of operational beds is as of April 2023.

Table A -38: CCLHD adult mental health acute separations and beddays FY2012-13 to FY2020-21

Financial Year (FY)										
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total change (per cent)*
Gosford Hospital										
Separations	716	775	906	1,288	838	629	550	585	588	-18%
Beddays	9,014	9,156	9,560	9,906	9,977	9,885	9,462	9,306	8,874	-2%
Wyong hospital										
Separations	926	839	890	902	1,043	930	989	1,049	1,002	8%
Beddays	14,267	15,879	17,108	17,578	17,776	16,995	14,875	14,728	15,854	11%
Total										
Separations	1,642	1,614	1,796	2,190	1,881	1,559	1,539	1,634	1,590	-3%
Beddays	23,281	25,035	26,668	27,484	27,753	26,880	24,337	24,034	24,728	6%

*Total change is the percentage difference between FY2012-13 and FY2020-21.

Source: FlowInfov21

Note: Includes adult mental health acute activity.

Aboriginal health

Table A -39: CCLHD Aboriginal and Torres Strait Islander top 10 admitted separations by SRG FY2020-21

SRG	Separations
Renal Dialysis	927
General medicine	388
Obstetrics	388
Respiratory Medicine	269
Gastroenterology	249
Specialist mental health	235
Orthopaedics	234
General surgery	232
Unqualified Neonate	228
Drug & alcohol	200

Source: FlowInfo v21

Note: Includes all age groups.

Table A -40: CCLHD Aboriginal and Torres Strait Islander top 10 ED separations by MDB FY2020-21

	ED Presentations
Injury, single site, major	1,987
Digestive system illness	1,288
Musculoskeletal-connective tissue illness	912
Illness of the ENT	884
Other presentation	881
Respiratory system illness	719
Circulatory system illness	618
Illness of the skin, subcutaneous tissue, breast	576
Psychiatric illness	535
No Diagnosis	508

Source: FlowInfo v21

Note: Includes all age groups

Outpatient

Table A -41: CCLHD historical (including COVID-19 activity) and projected (excluding COVID-19 activity) non-admitted patient OOS by clinic

	Historical	Projection		
	Base year	5-year interval		
	Financial Year (FY)			
	2021-22	2025-26	2030-31	2035-36
Gosford Hospital	360,293	303,520	335,603	374,851
Wyong Hospital	150,581	113,649	125,951	140,976
Woy Woy Hospital	1,439	1,605	1,825	2,075
Long Jetty Health Care Centre	2,050	2,513	2,825	3,187
Total	514,363	421,287	466,204	521,089

Source: EDWARD extract and HealthApp

Note: There are some variations in clinic names and mapping the clinics to facilities, e.g. Wyong Cardiac clinic mapped to Gosford Hospital. Includes activities for patients of all ages, all facilities and all SRGs for "Setting Type" reported as "Hospital settings" in the NAP activity data. Includes COVID-19 related activity for historical data (FY2021-22) and excludes COVID-19 related activity for projected data (FY2025-26 to FY2035-36).

Note: Projected COVID related outpatient activity, hospital setting for CCLHD was estimated at 20,107 OOS for 2025-26, 2030-31, 2035-36.

Community health services

Table A -42: CCLHD Community based projected non-admitted OOS to FY2035-36

	Financial Year (FY)		
	Base year	2035-36	Total change (per cent)*
Mental Health	565,924	681,536	20%
Community Chronic and Complex Care	286,054	423,600	48%
Women's Children and Families	180,978	196,612	9%
Drug and Alcohol	81,471	99,553	22%
Allied Health	71,115	99,344	40%
Diabetes	11,434	18,348	60%
Aboriginal Health	929	1,491	60%
Total	1,197,905	1,520,483	27%

*Total change is the percentage difference between the final year and base year.

Source: CommCare, CERNER, Raw Data extract, ICIS, WebNAP, CHOC, eMR PAS, HealthApp, DPE Population Projections

Note: Base year is derived from OOS in FY2018-19.

Appendix F: High-level Demand Modelling – results tables

Emergency department demand testing

ED Presentations

Table A -43: Gosford Hospital Emergency Department summary demand testing

Gosford Hospital		ED Presentations		
		Financial Year (FY)		
	Base year	2025-26	2030-31	2025-36
Base Case	72,478	78,470	84,975	92,038
UCC –10% reduction		75,496	81,754	88,550
UCC –5% reduction		76,983	83,364	90,294
UCC –10% reduction and additional 5% in 2026		74,065	80,205	86,872
UCC –5% reduction and additional 5% in 2026		75,524	81,785	88,583
Implementation of community based services –20% reduction		72,522	78,534	85,062
Decrease presentations –25%		71,035	76,923	83,317

Table A -44: Wyong Hospital Emergency Department summary demand testing

Wyong Hospital		ED Presentations		
		Financial Year (FY)		
	Base year	2025-26	2030-31	2025-36
Base Case	68,770	75,365	82,605	90,554
UCC –10% reduction		72,510	79,475	87,123
UCC –5% reduction		73,938	81,041	88,839
UCC –10% reduction and additional 5% in 2026		71,136	77,969	85,472
UCC –5% reduction and additional 5% in 2026		72,537	79,505	87,156
Implementation of community based services –20% reduction		69,653	76,345	83,691
Decrease presentations –25%		68,225	74,779	81,975

Adult acute admitted demand testing

Gosford Hospital – adult acute admitted -overnight

Table A -45: Gosford Hospital Medical Adult Acute summary demand testing -overnight

Gosford Hospital	Medical Adult Acute - Overnight Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	275	277	297	320
Decrease ALOS (overnight) -5%		266	282	305
Decrease ALOS (overnight)-10%		252	267	289
Increase occupancy -5%		262	281	302
Decrease separations -5%		266	282	305
Decrease separations -10%		252	267	289
Decrease separations -20%		224	237	257

Table A -46: Gosford Hospital Surgery and Interventional Adult Acute summary demand testing -overnight

Gosford Hospital	Surgery and Interventional Adult Acute - Overnight beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	129	138	147	157
Decrease ALOS (overnight) -5%		131	141	150
Decrease ALOS (overnight)-10%		124	134	142
Increase occupancy -5%		130	139	149
Decrease separations -5%		131	141	150
Decrease separations -10%		124	134	142
Decrease separations -20%		110	119	126

Wyang Hospital – adult acute admitted -overnight

Table A -47: Wyong Hospital Medical Adult Acute summary demand testing -overnight

Wyang Hospital	Medical Adult Acute - Overnight beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	185	205	224	245
Decrease ALOS (overnight) -5%		194	214	236
Decrease ALOS (overnight)-10%		184	203	223
Increase occupancy -5%		193	211	232
Decrease separations -5%		194	214	236
Decrease separations -10%		184	203	223
Decrease separations -20%		164	180	199

Table A -48: Wyong Hospital Surgery and Interventional Adult Acute summary demand testing –overnight

Wyong Hospital	Surgery and Interventional Adult Acute - Overnight beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	38	38	40	43
Decrease ALOS (overnight) -5%		36	39	42
Decrease ALOS (overnight)-10%		34	37	39
Increase occupancy -5%		36	38	41
Decrease separations -5%		36	39	42
Decrease separations -10%		34	37	39
Decrease separations -20%		30	33	35

Gosford Hospital –adult acute admitted –day only

Table A -49: Gosford Hospital Medical Adult Acute summary demand testing -day only

Gosford Hospital	Medical Adult Acute - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	9	10	11	12
Increase occupancy -5%		10	11	12
Decrease separations -5%		10	11	12
Decrease separations -10%		9	10	10
Decrease separations -20%		8	9	10

Table A -50: Gosford Hospital Surgery and Interventional Adult Acute summary demand testing -day only

Gosford Hospital	Surgery and Interventional Adult Acute - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	10	11	12	13
Increase occupancy -5%		11	11	12
Decrease separations -5%		10	11	12
Decrease separations -10%		10	11	11
Decrease separations -20%		9	9	10

Wyong Hospital – adult acute admitted – day only

Table A -51: Wyong Hospital Medical Adult Acute summary demand testing - day only

Wyong Hospital	Medical Adult Acute - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	9	10	11	12
Increase occupancy -5%		9	11	12
Decrease separations -5%		9	10	12
Decrease separations -10%		9	10	11
Decrease separations -20%		8	9	10

Table A -52: Wyong Hospital Surgery and Interventional Adult Acute summary demand testing - day only

Wyong Hospital	Surgery and Interventional Adult Acute - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case	11	12	13	14
Increase occupancy -5%		11	13	14
Decrease separations -5%		11	12	14
Decrease separations -10%		11	12	13
Decrease separations -20%		9	10	11

Patients aged over 70 Demand Testing

Gosford Hospital – adult acute admitted patients aged over 70 -overnight

Table A -53: Gosford Hospital Medical Adult Acute patients over 70 summary demand testing -overnight

Gosford Hospital	Medical Adult Acute over 70 - Overnight Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case - patients over 70	132	134	142	154
Increase ALOS -10%		148	157	170
Increased demand –5%		141	149	162
Decrease separations -10%		121	128	139
Decrease separations -20%		107	114	123

Table A -54: Gosford Hospital Surgery and Interventional Adult Acute patients over 70 summary demand testing –overnight

Gosford Hospital	Surgery and Interventional Adult Acute over 70 - Overnight beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case - patients over 70	62	66	71	76
Increase ALOS -10%		73	78	83
Increased demand –5%		69	75	80
Decrease separations -10%		59	64	68
Decrease separations -20%		53	57	61

Wyangong Hospital – adult acute admitted patients aged over 70 -overnight

Table A -55: Wyong Hospital Medical Adult Acute patients over 70 summary demand testing –overnight

Wyong Hospital	Medical Adult Acute over 70 - Overnight Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case - patients over 70	89	98	108	119
Increase ALOS -10%		108	119	131
Increased demand –5%		103	114	125
Decrease separations -10%		88	97	107
Decrease separations -20%		79	87	95

Table A -56: Wyong Hospital Surgery and Interventional Adult Acute patients over 70 summary demand testing –overnight

Wyong Hospital	Surgery and Interventional Adult Acute over 70 - Overnight beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case -patients over 70	18	18	20	21
Increase ALOS -10%		20	21	23
Increased demand –5%		19	20	22
Decrease separations -10%		16	18	19
Decrease separations -20%		14	16	17

Gosford Hospital –adult acute admitted patients aged over 70 –day only

Table A -57: Gosford Hospital Medical Adult Acute patients over 70 summary demand testing -day only

Gosford Hospital	Medical Adult Acute over 70 - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case -patients over 70	4	5	5	6
Decrease separations -10%		4	5	5
Decrease separations -20%		4	4	5
Increased demand –5%		5	6	6

Table A -58: Gosford Hospital Surgery and Interventional Adult Acute patients over 70 summary demand testing –day only

Gosford Hospital	Surgery and Interventional Adult Acute over 70 - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case -patients over 70	5	5	5	6
Decrease separations -10%		5	5	5
Decrease separations -20%		4	4	5
Increased demand –5%		5	6	6

Wyong Hospital – adult acute admitted patients aged over 70 – day only

Table A -59: Wyong Hospital Medical Adult Acute patients over 70 summary demand testing – day only

Wyong Hospital	Medical Adult Acute over 70 - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case - patients over 70	4	5	5	6
Decrease separations -10%		4	5	5
Decrease separations -20%		4	4	5
Increased demand –5%		5	5	6

Table A -60: Wyong Hospital Surgery and Interventional Adult Acute patients over 70 summary demand testing – day only

Wyong Hospital	Surgery and Interventional Adult Acute over 70 - Day only Beds			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case - patients over 70	5	5	6	7
Decrease separations -10%		5	6	6
Decrease separations -20%		5	5	6
Increased demand –5%		6	7	7

Women and children Demand Testing

Maternity

Table A -61: CCLHD Vaginal Delivery Separations summary demand testing

CCLHD	Maternity - Vaginal Delivery Separations			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case	2186	2,249	2,315	2,382
Increased demand -5%		2,362	2,430	2,501
Increased demand -10%		2,474	2,546	2,620
Decreased demand -5%		2,137	2,199	2,263

Table A -62: CCLHD Caesarean Delivery Separations summary demand testing

CCLHD	Maternity - Caesarean Delivery Separations			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base case	883	912	942	973
Increased demand -5%		958	989	1,022
Increased demand -10%		1,003	1,036	1,071
Decreased demand -5%		866	895	925

Paediatric ED presentations

Table A -63: Gosford Hospital Paediatric Emergency Department summary demand testing

Gosford Hospital	Paediatric ED Presentations			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case -0 to 4 Years	7,697	8,498	9,383	10,359
Base Case -5 to 15 Years	7,633	8,427	9,305	10,273
Base Case -Total	15,330	16,926	18,687	20,632
Increased presentations -5% -0 to 4 Years	7,697	8,923	9,852	10,877
Increased presentations -5% -5 to 15 Years	7,633	8,849	9,770	10,787
Increased presentations -5% -Total	15,330	17,772	19,622	21,664
Decreased presentations -5% -0 to 4 Years	7,697	8,073	8,913	9,841
Decreased presentations -5% -5 to 15 Years	7,633	8,006	8,839	9,759
Decreased presentations -5% -Total	15,330	16,079	17,753	19,601

Table A -64: Wyong Hospital Paediatric Emergency Department summary demand testing

Wyong Hospital	Paediatric ED Presentations			
	Financial Year (FY)			
	Base year	2025-26	2030-31	2025-36
Base Case -0 to 4 Years	6,392	6,988	7,640	8,353
Base Case -5 to 15 Years	7,405	8,096	8,851	9,677
Base Case -Total	13,797	15,084	16,492	18,030
Increased presentations -5% -0 to 4 Years	6,392	7338	8022	8771
Increased presentations -5% -5 to 15 Years	7,405	8,100	8,856	9,682
Increased presentations -5% -Total	13,797	15,438	16,879	18,453
Decreased presentations -5% -0 to 4 Years	6,392	6639	7258	7936
Decreased presentations -5% -5 to 15 Years	7,405	7,691	8,409	9,193
Decreased presentations -5% -Total	13,797	14,330	15,667	17,129

Appendix G: High-level Demand Modelling – Sources and Method

Emergency Department Demand Testing

Data Source

Base year: NSW Ministry of Health Activity Projections 2023 method. 3-year average admitted-non-admitted, % patients attending from 6am to 12 midnight, average time in ED, 2018-19, 2019-20, 2020-21 from ED AA

Projections: NSW Ministry of Health Activity Projections 2023 method. CAGR from HealthApp 2021-2036 for presentations

Method

Base Case	<ul style="list-style-type: none"> NSW Ministry of Health Activity Projections 2023 method
UCC –10% reduction	<ul style="list-style-type: none"> 10% reduction applied to proportion of Base Case Category 4 and Category 5 ED presentations Subsequent ED presentations projections calculated using Base Case CAGR
UCC –5% reduction	<ul style="list-style-type: none"> 5% reduction applied to proportion of Base Case Category 4 and Category 5 ED presentations Subsequent ED presentations projections calculated using Base Case CAGR
UCC –10% reduction and additional 5% in 2026	<ul style="list-style-type: none"> 10% reduction applied to proportion of Base Case Category 4 and Category 5 ED presentations 2026 ED presentations calculated using Base Case CAGR 5% reduction applied to 2026 projection Subsequent ED presentations projections calculated using Base Case CAGR
UCC –5% reduction and additional 5% in 2026	<ul style="list-style-type: none"> 5% reduction applied to proportion of Base Case Category 4 and Category 5 ED presentations 2026 ED presentations calculated using Base Case CAGR 5% reduction applied to 2026 projection Subsequent ED presentations projections calculated using Base Case CAGR
Implementation of community based services –20% reduction	<ul style="list-style-type: none"> 20% reduction applied to proportion of Base Case Category 4 and Category 5 ED presentations Subsequent ED presentations projections calculated using Base Case CAGR
Decrease presentations –25%	<ul style="list-style-type: none"> 25% reduction applied to proportion of Base Case Category 4 and Category 5 ED presentations Subsequent ED presentations projections calculated using Base Case CAGR

Assumptions

- Exclusions: ED presentations excluding departed did not wait and registered in error
- Proportion of ED presentations Category 4 (Semi-urgent) and 5 (Non-urgent): 37.9% (NSW average)⁸⁷
- ED treatment space formula –Admitted: (((Number of presentations (admitted) x % presentations between 6-12 midnight))-365)-(18-average time in ED hours))-occupancy at 85%)
- ED treatment space formula -Non admitted: (((Number of presentations (not-admitted) x % presentations between 6-12 midnight))-365)-(18-average time in ED hours))-occupancy at 85%)

⁸⁷ AIHW, Proportion (%) of Emergency presentations by triage category, states and territories, 2021-22, <https://www.aihw.gov.au/reports-data/myhospitals/sectors/emergency-department-care>

Adult acute admitted Demand Testing

Data Source

Base year: NSW Ministry of Health Activity Projections 2023 method. 3-year average 2018-19, 2019-20, 2020-21 from FlowInfov21

Projections: NSW Ministry of Health Activity Projections 2023 method. CAGR from HealthApp 2021-2036 applied to separations; Bed days derived from ALOS from HealthApp applied to separations

Method

Base Case	<ul style="list-style-type: none"> NSW Ministry of Health Activity Projections 2023 method
Decrease ALOS (overnight) -5%	<ul style="list-style-type: none"> 5% reduction applied to Base Case ALOS projections Beddays calculated using Base Case projections separations Beddays converted into beds using formula and inputs outlined below under Assumptions
Decrease ALOS (overnight)-10%	<ul style="list-style-type: none"> 10% reduction applied to Base Case ALOS projections Beddays calculated using Base Case projections separations Beddays converted into beds using formula and inputs outlined below under Assumptions
Increase occupancy -5%	<ul style="list-style-type: none"> Additional 5% added to occupancy in the beds formula outlined below under Assumptions Beds calculated using Base Case beddays, and the beds formula
Decrease separations -5%	<ul style="list-style-type: none"> 5% reduction applied to Base Case separations Subsequent separations projections calculated using Base Case CAGR Separations converted into beds using formula and inputs outlined below under Assumptions
Decrease separations -10%	<ul style="list-style-type: none"> 10% reduction applied to Base Case separations Subsequent separations projections calculated using Base Case CAGR Separations converted into beds using formula and inputs outlined below under Assumptions
Decrease separations -20%	<ul style="list-style-type: none"> 20% reduction applied to Base Case separations Subsequent separations projections calculated using Base Case CAGR Separations converted into beds using formula and inputs outlined below under Assumptions

Assumptions

- Overnight beds formula: beddays-365 days-85% occupancy
- Day only beds formula: beddays-240 days-170% occupancy
- Beds formula inputs:

Occupancy-overnight	<ul style="list-style-type: none"> 85%
Occupancy-day only	<ul style="list-style-type: none"> 170%
Increased Occupancy-overnight	<ul style="list-style-type: none"> 90%
Increased Occupancy-day only	<ul style="list-style-type: none"> 175%

Patients aged over 70 Demand Testing

Data Source

Base year: NSW Ministry of Health Activity Projections 2023 method. 3-year average 2018-19, 2019-20, 2020-21 from FlowInfov21

Projections: NSW Ministry of Health Activity Projections 2023 method. CAGR from HealthApp 2021-2036 applied to separations; Bed days derived from ALOS from HealthApp applied to separations

Method

Base Case	<ul style="list-style-type: none"> NSW Ministry of Health Activity Projections 2023 method
Base case -patients over 70	<ul style="list-style-type: none"> Proportion historical CCLHD separations for patients over 70 applied to Base Case separations Beddays calculated using Base Case ALOS projections Separations converted into beds using formula and inputs outlined below under Assumptions
Increase ALOS -10%	<ul style="list-style-type: none"> 10% increase applied to Base Case ALOS projections Beddays calculated using Base Case projections separations Beddays converted into beds using formula and inputs outlined below under Assumptions
Increased demand -5%	<ul style="list-style-type: none"> 10% reduction applied to Base Case separations Subsequent separations projections calculated using Base Case CAGR Separations converted into beds using formula and inputs outlined below under Assumptions
Decrease separations -10%	<ul style="list-style-type: none"> 20% reduction applied to Base Case separations Subsequent separations projections calculated using Base Case CAGR Separations converted into beds using formula and inputs outlined below under Assumptions
Decrease separations -20%	<ul style="list-style-type: none"> 5% increase applied to Base Case separations Beddays calculated using Base Case ALOS Separations converted into beds using formula and inputs outlined below under Assumptions

Assumptions

- Proportion of 70+ years in CCLHD Adult Acute Separations, 2020-21, 48%
- Overnight beds formula: beddays-365 days85% occupancy
- Day only beds formula: beddays-240 days-170% occupancy
- Beds formula inputs:

Occupancy -overnight	<ul style="list-style-type: none"> 85%
Occupancy -day only	<ul style="list-style-type: none"> 170%

Women and children Demand Testing

Maternity

Data Source

Base year: NSW Ministry of Health Activity Projections 2023 method. Base year an average of 3 years (2018-19, 2019-20, 2020-21) with 5% added for private flows to public (reflecting actual historical trends)

Projections: NSW Ministry of Health Activity Projections 2023 method. Projected growth HealthApp CAGRs (2021-2036) applied to base year to project separations

Method

Base Case	• 5% reduction applied to NSW Ministry of Health Activity Projections 2023 method separations
Increased demand -5%	• NSW Ministry of Health Activity Projections 2023 method for separations (projections are inclusive of an additional 5% demand)
Increased demand -10%	• 10% increase applied to Base Case separations
Decreased demand -5%	• 5% decrease applied to Base Case separations

Assumptions

- A CCLHD view has been used for Maternity. For Maternity, most births occur at Gosford Hospital. Births ceased at Wyong Hospital during COVID and have not recommenced. Maternity and outpatient clinics are being developed at Wyong Hospital.

Occupancy -overnight	• 85%
Occupancy -day only	• 170%
Increased Occupancy -overnight	• 90%
Increased Occupancy -day only	• 175%

Paediatric

Data Source

Base year: NSW Ministry of Health Activity Projections 2023 method. 3-year average admitted-non-admitted, % patients attending from 6am to 12 midnight, average time in ED, 2018-19, 2019-20, 2020-21 from ED AA

Projections: NSW Ministry of Health Activity Projections 2023 method. CAGR from HealthApp 2021-2036 for presentations

Method

Base Case - Total	• NSW Ministry of Health Activity Projections 2023 method for base year paediatric ED presentations • Subsequent ED presentation projections calculated using all age ED projections Base Case CAGR
Increased presentations -5% - Total	• 5% increase applied to Base Case ED presentations
Decreased presentations -5% - Total	• 5% decrease applied to Base Case ED presentations

Assumptions

- ED presentations excluding departed did not wait and registered in error
- Paediatric is defined as patients aged 0 to 15

Appendix H: Best Practice Exemplars

Exemplar 1: Frailty Taskforce: Agency for Clinical Innovation

Model Overview	Led by an Executive team, and supported by a Community of Practice, the Frailty Taskforce focuses on how to improve care for people living with frailty or at high risk of becoming frail. This includes strengthening a more integrated approach to frailty, ageing well and end of life care.
Cohort or Pathway	<p>The Frailty taskforce explores and advises on all aspects of the frailty spectrum.</p> <p>It takes a phased approach and incorporates the care continuum before, and beyond the inpatient setting. It recognises primary and community care as integral components in a patient's journey and the importance of transitions between settings for people living with frailty. Interventions and actions across these care settings may have the following focus areas:</p> <ol style="list-style-type: none"> 1. Identification of frailty and those at high risk of frailty; 2. Shared care planning and shared decision making that includes a process for goal setting, including advance care directives; 3. Early and ongoing mobilisation and physical activity; 4. Polypharmacy and de-prescribing inappropriate therapies, and 5. Optimising nutrition for people living with frailty or at risk of frailty <p>Elements of Frailty Model also include:</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Utilisation of screening and assessment tools for frailty, considering a person's physical performance, nutritional status, cognition, mental health and health supports <p>Management:</p> <ul style="list-style-type: none"> • Consideration for over-diagnosis and over-treatment in the frail elderly • Medication reviews • Health eating to stay strong and independent
Consideration for CCLHD	This model was raised as an exemplar for consideration during the Surgery and Anaesthetics stakeholder consultation. It was noted that CCLHD has a high rate of hip fractures in the community, and that frail patients generally have poorer post-surgical outcomes than average. A model of care to support frail patients who are at risk of fractures should be considered to promote hospital avoidance.
Information Source	Desktop Review About the Frailty Taskforce Agency for Clinical Innovation (nsw.gov.au)

Exemplar 2: Survivorship Model: Clinical Oncology Society Australia

Model Overview	<p>Model Overview Historically, the emphasis of follow-up care for cancer survivors has focused on monitoring for cancer recurrence and second primary cancers, with little attention given to the late effects of cancer and its treatment, other chronic illnesses, or modifiable risk factors.</p> <p>However, it is well recognised that the number of people surviving for long periods after a cancer diagnosis have increased. Not only are the numbers increasing, so is the proportion of the population affected.</p> <p>Cancer survivors experience increased rates of comorbid, chronic health conditions, and while their healthcare needs are complex they are likely amenable to change.</p>
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Outcomes	<p>The US Institute of Medicine defined the essential components of survivorship care as including:</p> <ol style="list-style-type: none"> 1. Prevention of recurrent and new cancers, and of other late effects; 2. Surveillance for cancer spread, recurrence, or second cancers; assessment of medical, physical and psychosocial acute and late effects; 3. Intervention for consequences of cancer and its treatment, for example: medical problems such as lymphoedema and sexual dysfunction; symptoms, including pain and fatigue; psychological distress experienced by cancer survivors and their caregivers; disabilities of function in daily living; and concerns related to social participation including employment and insurance; 4. Coordination between specialists and primary care providers to ensure that all of the survivor's health needs are met
Consideration for CCLHD	<p>This model was raised for consideration as an exemplar model during the Cancer Services stakeholder consultation. It was noted that this is currently a gap in service delivery, and is critical for supporting patients in the long-term, and to provide ongoing continuity of care; particularly in the Medical Oncology setting.</p>
Information Source	<p>Desktop Review cosa-model-of-survivorship-care-full-version-final-20161107.pdf</p>

Exemplar 3: SPaRTa Model: Queensland Health

Model Overview	<p>The Specialist Palliative Care Rural Telehealth (SPaRTa) focuses on palliative care patients and their local health care providers in rural and remote regions of Queensland where tertiary level specialist palliative care services are not readily accessible due to local workforce availability and/or geographical isolation.</p> <p>Palliative Care Australia acknowledges that hospitalisation is inappropriate for many people at the end of life and is a potential indicator of sub-optimal care. Telehealth consultations have been successfully used to provide culturally appropriate cancer care services for Indigenous Australians and in RACFs for medication management.</p> <p>Aim:</p> <ul style="list-style-type: none"> • To establish a state-wide Specialist Palliative Care Telehealth service to provide comprehensive multi-disciplinary telehealth to patients in rural and remote Queensland; • To improve patient access to specialist palliative care in their local community; and • Increase the knowledge and skills of the rural and remote workforce in providing palliative care.
Cohort or Pathway	<ul style="list-style-type: none"> • Use of the Multi Purpose Health Service (MPHS) or GP videoconferencing equipment in areas where there are infrastructure issues or where patients do not have access to video enabled communication devices. • Ongoing and frequent contact with primary healthcare providers has enabled several Indigenous patients to remain on country for End of Life Care. Preparing the patient and family about death and dying issues leads to a better understanding of what matters most to the patient. Advising local providers on symptom management is a significant contributor to hospital avoidance.
Outcomes	<ul style="list-style-type: none"> • The project has vastly improved access to specialist palliative care services in rural and remote Queensland. • End of life care has been achieved in the location of the patients choice. This improves quality of life by reducing travel away from home and country. • Over 300 rural clinicians have participated in education provided by the hub sites.
Consideration for CCLHD	<p>This model was raised as an exemplar service for consideration during the <i>Palliative Care</i> stakeholder consultation. It was noted that this model has been effective in providing Telehealth medical consultations to Palliative Care patients through a planned approach.</p>
Information Source	<p>Desktop Review: Specialist Palliative Care Rural Telehealth Improvement Exchange Clinical Excellence Queensland Queensland Health</p>

Exemplar 4: Home Dialysis & Vascular Access: Illawarra-Shoalhaven Local Health District

<p>Model Overview</p>	<p>Model Overview Home Dialysis: The Renal Home Dialysis Training Unit provides training, education, support, follow-up care, home visits and 24hr emergency on-call service for patients who perform a home dialysis therapy such as Peritoneal Dialysis or Home Haemodialysis. This service extends to carers of home dialysis patients as well as hospital and nursing home staff.</p> <ul style="list-style-type: none"> • Virtual care is utilised ad hoc to support home dialysis. • Particularly used as part of the Kidney Supportive Care program. • It is provided to patients where there is preference that they remain in the comfort of their home. • ISLHD has a number of automated peritoneal dialysis machines. • These machines provide clinicians with data regarding outcomes of a patients dialysis; allowing for remote monitoring and assessment. • Shoalhaven Hospital has plans to implement a new home dialysis training unit within the next 5 years. <p>Vascular Access:</p> <ul style="list-style-type: none"> • The primary focus of this model is to capture patients before surgical intervention is required, and to provide long-term surveillance. The service is offered Monday through Friday, and The MDT meets on a quarterly (and ad hoc) basis to discuss challenging cases and service improvements, and the surgeons are well engaged throughout this process.
<p>Cohort or Pathway</p>	<p>Home Dialysis</p> <ul style="list-style-type: none"> • All training programs are comprehensive and specific to the type of Dialysis e.g. Peritoneal Training takes on average 5 days, and Haemodialysis training can take a few months. • Patients who are approaching dialysis are regularly followed up in clinic with education, investigations and assessments until they need to start dialysis. • Comprehensive care is provided as part of each visit (including detailed, patient-specific education regarding dialysis).
<p>Considerations</p>	<p>Home Dialysis</p> <ul style="list-style-type: none"> • Ideally, ISLHD hopes to offer Home Dialysis training at each LHD Hospital, to ensure improved accessibility for all patients. • Effective home dialysis programs require technicians to be available to support machine repairs. • It is important to ensure staff have a skill mix in both Peritoneal and Haemodialysis, particularly within a small team.
<p>Staffing Profile</p>	<p>Vascular Access</p> <ul style="list-style-type: none"> • ISLHD has a Vascular Access CNC, who works closely with surgeons to coordinate and maintain access. • This CNC has a strong relationship with ISLHD Surgeons, which is critical for ensuring the delivery of a successful model. • The Vascular Access CNC covers the entire LHD, and has several Registered Nurses on the ground to provide support.
<p>Consideration for CCLHD</p>	<p>This model was raised as an exemplar service during the Renal Services stakeholder consultation. It was noted that vascular access across CCLHD is currently challenging for patients, and that home dialysis should also be considered for enhancements.</p>
<p>Source</p>	<p>ISLHD Consultation</p>

Exemplar 5: Community Engagement, Chronic Disease Management: Illawarra Shoalhaven Local Health District

Model Overview	Virtually enhanced Community Care (VeCC) is a multidisciplinary service that supports patients to better self-manage their health conditions in the community, improving patient health outcomes whilst prioritising patient safety and reducing potentially preventable hospital admissions. VeCC provides both face-to-face and virtual care in the community including remote monitoring, care navigation, care coordination and health coaching.
Cohort or Pathway	<p>The VeCC currently supports the following programs:</p> <ul style="list-style-type: none"> • ED to Community <ul style="list-style-type: none"> – Supports patients with chronic health or social needs who have high emergency department presentation rates through: care coordination, care navigation and health coaching. • Chronic Disease Management <ul style="list-style-type: none"> – Supports patients with life-limiting chronic illness by providing patient-centred care, care coordination, care navigating and health coaching interventions empowering patients in their health care conditions. – Patients may also be provided with remote monitoring of their blood pressure, temperature, blood glucose levels, weight, and symptoms allowing real-time assessments by clinicians. • Virtual Hospital Ward <ul style="list-style-type: none"> – Supports patients who would otherwise remain in hospital requiring sub-acute care at home. – The VHW provides patients with access to remote monitoring of their blood pressure, oxygen levels, temperature, blood glucose levels, weight, and symptoms allowing real-time assessments by clinicians. <p>The VeCC clinician will contact the patient to do an initial assessment in the home or over the phone. This may include video calls, telephone calls, home visits, case conferencing and development of shared care plans.</p> <p>The length of time a patient will be involved in the VeCC is patient-specific and dependent on their needs (this can be a few weeks to a few months)</p>
Outcomes	<p>The purpose of the VeCC is to support patients to:</p> <ul style="list-style-type: none"> • Learn more about their health, Better manage their health, Work towards health goals, Talk with their doctor and other health services and organisations, Understand how to take their medications and why they need to take them, Link with other services to help them manage their condition, Receive care in the community and to reduce unplanned hospital admissions and ED presentations. <p>The program has objectively decreased ED presentations and Length of Stay for chronic patients at ILSHD.</p>
Considerations	<ul style="list-style-type: none"> • Workforce: Robust communication with Nursing Teams was required regarding recruitment. The VeCC was seen as an attractive initiative for staff, and therefore it was important to notify all services that their staff may be interested in these roles • Access to Equipment: There is a lot of equipment required; it is critical to order early to ensure availability on commencement • Community engagement: Patients were targeted initially based on their willingness to comply with the program • ILSHD uses the Engage system for virtual technology; which has been effective in supporting the VeCC program
Staffing Profile	It is important to identify the staffing mix early into planning. Social Work and Psychology are noted to be critical in the program's effectiveness
Consideration for CCLHD	This model was raised as an exemplar for consideration during the <i>Chronic Disease</i> stakeholder consultation.
Source	Consultation

Exemplar 6: In-reach Rehabilitation: South Western Sydney Local Health District

Model Overview	<p>SWSLHD is currently developing their model for In-reach Rehabilitation and Rehabilitation in the Home, due for completion at the end of 2023.</p> <p>Rehabilitation is provided to a highly complex and diverse patient group; with almost half of patients returning home after in-reach rehabilitation</p>
Cohort or Pathway	<p>Approach:</p> <ul style="list-style-type: none"> • Patient-focused goals and treatment plans • Education & insight-building • Multi-disciplinary • Adapt to acute environment
Outcomes	<p>Objectives:</p> <ul style="list-style-type: none"> • Optimise function of patients receiving acute medical care • Reduce secondary complications • Facilitate timely progression along appropriate rehab pathways • Support safe and timely discharge home <p>Outcomes:</p> <ul style="list-style-type: none"> • Reduce length of stay and ED presentations, Timely discharge
Staffing Profile	<ul style="list-style-type: none"> • Physiotherapies (daily / twice daily therapy) • Occupational Therapists (daily therapy; discharge planning) • Therapy Assistants (supporting PT & OT) • Social Workers (supportive counselling; discharge planning) • Rehab Nurse (CNS) (program coordination; acute ward liaison; patient & carer education) • Rehab Consultant / Rehab Registrar (shared care with medical team)
Consideration for CCLHD	This model was raised as an exemplar for consideration during the Rehabilitation consultation.
Information Source	Consultation & Desktop Review Inreach Rehabilitation Outcomes (nahc.com.au)

Outcomes	Admission and Outcome Data	Westmead In-reach Rehab (mean)	*National (mean)
	Days in hospital prior to rehab	26.1	12
	Rehab LOS	12.4	17
	Admission FIM	66.5	88
	Discharge FIM	85	107.5
	FIM Change	18.8	19

Exemplar 7: In-reach Rehabilitation: NSW Health Model

Model Overview	In-reach to acute rehabilitation: Early rehabilitation intervention by an MDT in the acute setting
Cohort or Pathway	<ul style="list-style-type: none"> • Early intervention –potential to maintain function. • Integrated medical and rehabilitation MDT. • Comprehensive assessment. • Shared care model between medical specialist groups. • Can treat acute illness and provide rehabilitation services in parallel.
Outcomes	<ul style="list-style-type: none"> • Enhanced coordination of patient’s journey –MDT approach, case conferencing. • Enables early discharge planning. • Patient independence and an enablement model of care in the acute setting. • Prevention of functional decline during acute hospitalisation • Integrated assessment of patients in an interdisciplinary environment. • Enhanced effectiveness in the patient journey as measured by: reduction in re-admissions, decrease in ALOS, decrease in patients requiring a sub-acute inpatient stay, reduction in nursing home placement waiting times. • Reduction in discharge delays due to early assessment and discharge planning .
Considerations	<ul style="list-style-type: none"> • Admission & discharge criteria are required to describe eligible patients in the acute sector who require and will benefit from in-reach rehab. • In reach services need to be set up in a manner that prevents acute beds turning into sub-acute beds. • Protocols regarding adequate workforce provision to rehabilitation services will assist to ensure patient care and intensity of therapy aligns with best practice. • Implementation of in-reach services involves collaboration and liaison with acute medical and nursing staff & the provision of information for the acute care staff to enable successful integration.
Information Source	Desktop Review Rehabilitation Redesign Project: Final Report (nsw.gov.au)
Case Studie	<p>Case Studies:</p> <ul style="list-style-type: none"> • Acute Care Rehabilitation Team (Wollongong) • Acute Care of the Elderly (ACE) Model (NSLHD) • Comprehensive Geriatric Medicine Service (Westmead)

Exemplar 8: Frailty Screening: South Western Sydney Local Health District

Model Overview	<p>SWSLHD is currently developing their Frailty Screening model. This model will be underpinned by the SWSLHD Older Persons & Rehabilitation Plan.</p> <p>This model will be implemented in late 2023, and SWSLHD representatives have noted that more information can be provided to CCLHD on implementation and evaluation (including: Patient cohort, criteria, care setting and the staffing profile).</p> <p>Frailty can affect up to 10% people aged 65+ years and over which equals to 12,233 people in SWS and around 25% to 50% of those 85+ which equals up to 7,470 people in SWS. Even higher rates of frailty are observed in older admitted patients. There is a clear evidence that frail older people are at increased risk of acute illness; medical instability, slow or incomplete recovery from diseases, surgery and hospitalisation; delirium; iatrogenic harm; falls, injuries; disability, dependency and institutionalisation. Frailty is complex and multifaceted and varies in onset, progression and recovery. Studies have shown that 48 % of people over 85 years of age die within one year of a hospital admission, and ten days in a hospital bed leads to the equivalent of ten years ageing in the muscles of people over 80 years of age. As a result, frailty is associated with high mortality and high healthcare utilisation.</p>
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Cohort or Pathway	<p>It is of paramount importance to identify frailty earlier and respond proactively, as preventative and coordinated care can modify frailty severity, reduce stressors and improve outcomes.</p> <p>Screening and assessment for frailty should consider a person's physical performance, nutritional status, cognition, mental health, health assets and a person's goals and cultural context. By recognising frailty and providing timely and coordinated interventions in the community will result in long term benefits for older people who can live well with frailty. There is a need for standardised validated tools to be in-built into routine care of older patients to enable healthcare providers to recognise and assess frailty.</p>
Outcomes	There is proven benefit in performing a comprehensive geriatric assessment and 75+ GP's health assessment with interventions such as exercise, nutrition support, vaccination, managing polypharmacy and falls risk.
Consideration for CCLHD	This model was raised as an exemplar for consideration during the Surgery and Anaesthetics stakeholder consultation. It was noted that CCLHD has a high rate of hip fractures in the community, and that frail patients generally have poorer post-surgical outcomes than average. A model of care to support frail patients who are at risk of fractures should be considered to promote hospital avoidance.
Information Source	Consultation & Desktop Review: SWSLHD Older Persons & Rehabilitation Plan DRAFT_DISCUSSION_PAPER-_08102020.pdf (nsw.gov.au)

Exemplar 9: Virtual Kids: Sydney Children's Health Network

Model Overview	<p>Australia's first paediatric-specific virtual healthcare service, virtualKIDS is located at the Virtual Care Centre or "Kids HQ: Command Centre for Kids".</p> <p>During COVID-19, the service provided healthcare, virtually and in person, to children who tested positive for the virus, but were well enough to be cared for at home.</p> <p>Virtual healthcare, which includes telehealth, safely connects patients with health professionals to deliver care when and where it is needed by offering a range of services via phone, video conferencing or remote monitoring, and allows clinical information to be stored or sent electronically.</p> <p>The first VCC located at Westmead, was completed in late 2021. It replaced the temporary facility in the old Emergency Department, and is the first clinical building project in The Children's Hospital at Westmead Stage 2 Redevelopment.</p> <p>Westmead's Virtual Care Centre services the whole Network for the time being, however, a Virtual Care Centre will also be delivered at Randwick as part of the SCH Stage 1 /CCCC redevelopment with targeted completion in 2025. The virtual care centres will be a co-located space between a number of departments including virtualKIDS, Kids GPS, Integrated Care, facilitate SCHN's Disaster Response and coordination of Emergency Operation Centre (EOC) activities, and support broader hospital operations, providing workspaces for patient flow, after hours nurse managers, bed manager, and nurse staffing.</p>
Outcomes	<p>Virtual health care, facilitated by Virtual Care Centres (VCC), make it simpler and easier for patients and carers in remote and rural areas to connect to their clinicians, and enable shared care with local services.</p> <p>And with a growing consumer acceptance for virtual care, even families who live close to hospitals will be able to opt in, ensuring health care continuity for patients who are too unwell for an in-person appointment, who prefer the convenience of a virtual care appointment, or when COVID restrictions are in place.</p> <p>Virtual Kids:</p> <ul style="list-style-type: none"> • During the peak of COVID-19, more than 1000 positive children received specialist care in the comfort of their own home.
Staffing Profile	Staffed by a multidisciplinary team including medical staff, social workers, dieticians, infectious disease specialists, and child life and music therapists, virtualKIDS provides the highest level of support and care to children and their families from across the state.

Consideration for CCLHD	This model was raised as an exemplar service for consideration during the Maternity & Paediatrics stakeholder consultation. It was noted that the service is currently considering strategies to provide virtual care for patients presenting to the Emergency Department.
Information Source	Desktop Review: Virtual Care Centre - Westmead Kids Project (nsw.gov.au) Caring for children with COVID-19 Sydney Children's Hospitals Network (nsw.gov.au)

Exemplar 10: Safe Haven: NSW Health

Model Overview	<p>The Safe Haven initiative provides a calm, culturally sensitive and non-clinical alternative to hospital emergency departments, for people experiencing distress or suicidal thoughts.</p> <p>Safe Havens are staffed by peer-support workers, and you can be connected to other mental health professionals.</p> <p>There are 19 Safe Havens across NSW. These Safe Havens will be based on, or near, hospital grounds, with suicide prevention staff and mental health clinicians on hand to offer emotional support and provide information on available services.</p> <p>People with lived experience of suicide are helping to co-design models of care for Safe Havens that are tailored to their communities and local health districts.</p> <p>If urgent medical attention is needed there is a nearby emergency department available.</p>
Outcomes	<p>Safe Havens aim to:</p> <ul style="list-style-type: none"> • provide immediate, personalised, and compassionate care • connect people to support services to address the underlying factors in their distress • reduce pressure on hospital emergency departments • reduce self-harm, suicide attempts and deaths by suicide.
Consideration for CCLHD	This model was raised for discussion for consideration as an exemplar model of care during the Emergency Department stakeholder consultation process.
Information Source	Desktop Review: Safe Haven - Towards Zero Suicides (nsw.gov.au)

Exemplar 11: Renal Supportive Care, CKD Education: South Eastern Sydney Local Health District

Model Overview	<p>SESLHD provides support for patients living with chronic kidney disease or end stage kidney disease (from initial diagnosis to end of life).</p> <p>The program has been running since 2009, with state-wide funding received in 2014.</p>
Cohort or Pathway	<p>The following patients are supported through this program:</p> <ul style="list-style-type: none"> • Patients who are receiving end-stage care, however are struggling with symptom management and quality of life. • Elderly patients with a number of co-morbidities, where it is not recommended they go on dialysis. <p>Holistic care is provided to patients with support being provided for: Psychosocial management, symptom management and family care. The service runs two clinics per week and a regular inpatient service. The service also maintains strong links with community palliative care and Hospice.</p> <p>Education is provided to patients through a number of mechanisms, and the education provided is always patient specific.</p> <p>This is provided to both patients and families and is focused on empowering patients and providing them knowledge on their disease so they can make informed decisions.</p> <ul style="list-style-type: none"> • No classes are offered, instead patients have the opportunity to chat to nurses in a casual, informal manner. <p>Patients are provided with the opportunity to call a CKD CNC should they have any questions regarding their disease, and can access several resources via the SESLHD website.</p>
Staffing Profile	<p>The healthcare team includes specialist Doctors (Nephrologists and Palliative Care Physicians), Nurses, Allied Health (Social Work, Dieticians, Pharmacy, Occupational Therapy) and administration staff.</p>
Consideration for CCLHD	<p>This model was raised as an exemplar service for consideration during the Renal Services stakeholder consultation. It was noted that at CCLHD, Renal supportive care and CKD education must be enhanced to ensure that patients are empowered with knowledge regarding their treatment choices, and the associated social factors for treatment. Staffing enhancements for supportive care were noted for consideration, particularly to ensure a comprehensive range of specialties are involved.</p>
Information Source	<p>Consultation</p>

Exemplar 12: Heart Failure Clinic: St Vincent's Hospital Sydney

Model Overview	<p>The St Vincent's Hospital (SVH) Sydney Heart Failure Clinic provides care to patients with Chronic Heart Failure in the community setting.</p> <p>The clinic's model of care is part of a greater SVH Model of Care focused on care for patients with Chronic disease. The Heart Failure model then has more specific criteria and pathways that are specific to the illness.</p>
Cohort or Pathway	<p>The clinic provides care for patients from 18 years old to end of life. This broad age spectrum is important to ensure that patients of all ages can access specialised care, particularly for patients under 65 years where they are not covered by the NDIS.</p> <p>The Heart Failure service has established MDT clinics onsite for patients who can access the hospital. The purpose of these clinics will be to ensure patients have access to a comprehensive care pathway (E.g. when a patient is discharged from hospital, they can utilise the clinic services in their sub-acute phase, and can access the community-home based services in a more chronic illness phase as needed).</p> <p>The Heart Failure service is also establishing preventative clinics which provide the opportunity for patients to be empowered with self-management strategies, education and care coordination regarding their Heart Failure. This is providing a more comprehensive, holistic journey for SVH patients.</p>

Considerations	Heart Failure Clinics and Care must not be a siloed service. There must be established and comprehensive pathways to access different care types depending on the patients needs (E.g. Allied Health). The clinic provides care within a specific catchment to ensure there is capacity to provide care for a certain caseload.
Staffing Profile	1 FTE Nurse Practitioner (and Allied Health –Physio, OT, Exercise Physiology, Social Work)
Consideration for CCLHD	This model was raised for consideration as an exemplar service during the Cardiology Services consultation. It was noted that CCLHD should consider expanding the current Heart Failure Clinic, particularly with more community and advanced heart failure support.
Information Source	Consultation

Exemplar 13: In-Reach Stroke: National Stroke Rehabilitation Framework

Model Overview	Stroke rehabilitation may occur on a comprehensive stroke unit that manages acute stroke care and provides up to several weeks of rehabilitation on the one ward. Stroke (or neurological) specific rehabilitation services may be used. There are a number of models of care currently used in rehabilitation of stroke services. These include: Inpatient: <ul style="list-style-type: none"> • Mixed rehabilitation • Specialised inpatient sub-acute care • In-reach into acute care • Outreach.
Cohort or Pathway	Inpatient rehabilitation may involve an in-reach to acute model. Such services consist of: <ul style="list-style-type: none"> • Early rehabilitation intervention by a specialised MDT in the acute care setting. • Early intervention –potential to maintain and improve function. • Specialised MDT. • Comprehensive assessment. • Shared care model between acute and rehab medical specialist. • Can treat acute illness and provide rehabilitation services in parallel.
Consideration for CCLHD	This model was raised as an exemplar for consideration during the Neurology Services stakeholder consultation.
Information Source	Desktop Review stroke-rehabilitation-framework-2022-update-final.pdf (strokefoundation.org.au)

Exemplar 14: Tele-Rehabilitation: Various – Journal Articles

Model Overview	The delivery of medical or rehabilitative care to persons with rehabilitation needs via telecommunication or the internet. The use of telerehabilitation is paramount in terms of ensuring a sustainable and just future for people around the world; however, it has taken significant time for telerehabilitation programs to be established.
Cohort or Pathway	Telerehabilitation is an excellent way to ensure access to health care in both economically privileged large city environments as well as in remote, economically challenged environments. It is especially beneficial for people with disabilities who may live with mobility impairments, impairments in activities of daily living, sensory, motor and cognitive dysfunctions, and have the most difficulty traveling to appointments.

Outcomes	<p>Telerehabilitation is environmentally sound and the decrease in travel time may help improve quality of life.</p> <p>A systematic review and meta-analysis on synchronous telerehabilitation for MSK conditions concluded that when compared with conventional care, telerehabilitation may yield superior outcomes for improvement on physical function, reduced disability, and similar improvement of pain. Specifically, there is strong evidence in support of the diagnosis and management of conditions including osteoarthritis (OA) of the hand, knee, and hip as well as pathologies of the shoulder and spine through telerehabilitation provided to patients at home and remote facilities.</p>
Consideration for CCLHD	This model has been identified for consideration as an exemplar model during the Maintenance Patients Stakeholder Consultation. The model was noted to complement rehabilitation in the home through integration of technology.
Information Source	<p>Desktop Review</p> <p>Introduction – ScienceDirect</p> <p>Telerehabilitation for Musculoskeletal Injuries – ScienceDirect</p>

Exemplar 15: Respiratory Comprehensive Care Program: South Eastern Sydney Local Health District

Model Overview	<p>Provision of care for people with long-term lung conditions such as asthma, chronic obstructive pulmonary disease, bronchiectasis, pulmonary fibrosis, and other lung conditions.</p> <p>Provision of education, information, exercise plans, and support to help patients better manage their long-term lung problem at home.</p>
Cohort or Pathway	<p>A comprehensive assessment is undertaken with patients to understand their health and to provide a personalised plan to help them manage their condition and improve their quality of life.</p> <p>Home visits are provided for patients who are in both acute stages of their illness as well as maintenance stages of their illness.</p>
Outcomes	Aims to reduce re-presentation to emergency departments, admissions to hospital and length of stay.
Considerations	<p>For patients on this program who are admitted to hospital, the provision of care in the community supports them to be discharged earlier.</p> <p>This model also supports the provision of care for patients in the community who have respiratory drains.</p> <p>SESLHD is considering implementation of a Telehealth model (and remote monitoring) as part of this program, as well as expanding with Palliative Care support.</p>
Staffing Profile	<p>The staffing profile consists of: Consultant (support role), Registrars, Nursing and Physiotherapy. The staffing profile used in this model is specialist and not generalist.</p> <p>Nurses Physiotherapists and Registrars see patients in their home.</p>
Consideration for CCLHD	This model was raised as an exemplar for consideration service during the <i>Mental Health Services</i> stakeholder consultation. It was noted to be an effective in supporting patients who may be frequently re-presenting to hospital with long-term management strategies. Additional support in the community to provide assessments, follow up consultations and referrals was discussed as an important consideration for CCLHD.
Information Source	Consultation

