Cairns and Hinterland
Hospital and Health Service

OUR LOCAL HEALTH NEEDS

LOCAL AREA NEEDS ASSESSMENT 2022

Queensland Government

Accessability

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Aboriginal and Torres Strait Islander people are advised that this publication may contain words, names and descriptions of people who have passed away.

Cairns and Hinterland Hospital and Health Service (HHS) formally recognises the Australian South Sea Islanders as a distinct cultural group within our geographical boundaries. Cairns and Hinterland HHS is committed to fulfilling the Queensland Government Recognition Statement for Australian South Sea Islander Community to ensure that present and future generations of Australian South Sea Islanders have equality of opportunity to participate in and contribute to the economic, social, political and cultural life of the state.

Document history and approval

Contact enquiries about this report: chhhs_planning@health.qld.gov.au

Version No.	Date	Author	Description of change
1.00	7 December 2022	A. Armstrong, K.Layton	Final report

ACKNOWLEDGMENT OF OUR TRADITIONAL OWNERS

We acknowledge Aboriginal people and Torres Strait Islanders as this country's First Nations people.

We recognise First Nation people and communities as traditional and cultural custodians of the lands on which we work to provide safe and quality health services. We pay our respect to Elders past, present and emerging.

WORKING FOR OUR COMMUNITY

Board statement

With Far North Queensland's population booming and healthcare at the forefront of people's minds over the past two-and-a-half years, there has never been a better time for the Cairns and Hinterland Hospital and Health Service to map out the health priorities of our region.

This, together with our commitment to focus on improving the health and wellbeing of Queenslanders and continually assess the health needs of the community, is why this year we have undertaken a Local Area Needs Assessment (LANA).

The LANA entails a comprehensive data analysis, service profiling and consultation process carried out with community members, our health partners and our own staff across our diverse 142,900sq km region, which stretches from Tully in the South, Cow Bay in the north, and Croydon in the west.

The consultation process consisted of extensive data collection exercises, including 941 responses to online surveys and 278 attendees at face-to-face consultations. These included interviews with key stakeholders and partner agencies, and engagement with local councils. This data was then considered against existing health data, service profiling for health and care services in the region and other key data (such as evidence-based literature and government health direction).

The initial LANA process identified 58 needs for the region. After further consultation and assessment, this was whittled down to a shortlist of 34 health and service needs, encompassing all the needs identified throughout the LANA process. Four key themes from the identified health and service needs emerged:

- Access to services and care
- Care coordination/awareness of services
- Factors that influence health outcomes
- High rates of risky health behaviours.

Identifying our communities' health needs and planning for future clinical services is vital if we are to continue to meet the evolving and growing health needs. All of these identified priorities will inform our capital works planning, our models of care, our clinical service planning, and the priorities of our new Strategic Plan.

Because many hands make health happen, we are committed to continuing our work with our partners and key stakeholders to ensure the identified health needs and services continue to be a priority for our region and that we focus on providing world-class health care.

We will also continue to hear the voices of our communities, staff and patients as we work with our health partners to ensure the resources and functions of each service are effectively utilised.

Clive Skarott
Board Chair

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1.0 Executive summary

Queensland Health aims to improve health equity across the health system by transforming its approach and utilising a more comprehensive assessment of the health needs of a community to guide health service planning, models of care development and service commissioning. To do this, every Queensland Hospital and Health Service (HHS)[1] is completing a comprehensive assessment of community and health service needs: a local area needs assessment (LANA). A health needs assessment is a systematic method for reviewing the health issues facing a defined population and identifying the specific health needs of a population. It allows for the identification of health inequities and service gaps, which can then be assessed and prioritised to inform service development and funding allocations. As this is a holistic assessment, it encompasses all identified health and service needs, regardless of the sector responsible for providing health or related services. As such, some of the health and service needs identified fall outside of the scope of Queensland Health. The overall intent is to improve population health outcomes and improve the health and wellbeing of target populations, particularly the higher health needs groups such as First Nations people, people with mental health conditions, children and young people, and to reduce inequities[2].

The Cairns and Hinterland Hospital and Health Service (CHHHS) LANA was developed in line with the Department of Health LANA Framework and in partnership with the Northern Queensland Primary Health Network (NQPHN) (refer to Figure 1).

The CHHHS used Bradshaw's taxonomy of need[3] to validate the health and service needs through multiple frames of reference. The culmination of this process resulted in an identification of 58 needs for the region. These needs were assessed, consulted on, prioritised and validated via a second round of consultation, resulting in an endorsed shortlist of 34 health and service needs. Four broad themes emerged to understand why the health and service needs exist within the CHHHS region (noting they are not mutually exclusive).

Figure 1: CHHHS LANA process

Phase	Planning	Quantitative Analysis	Qualitative Analysis	Prioritisation	Confirmation / Finalisation
Steps Guided by the LANA Framework with support from System Planning Branch, the LANA Community of Practice and the NQ HNA/LANA Committee)	Establish steering committee for CHHHS LANA Develop project plan, gantt chart, risks and issues, terms of reference and governance structure Establish project team and support: • communications Team • casemix (data analysts) • epidemiologist • Health Equity Strategy (HES) team	Work with BHNQ and NQ HHSs (with consultant) to complete quantitative analysis Determine supplementary and other data sets Data set analysis and reporting Synthesis of data with data analysts and epidemiologist Identify areas of need and key findings	Stakeholder mapping Develop consultation and engagement plan and implementation plan Promotion of consultation (sessions and survey) Conduct consultation and service profiling across the HHS with HES Team and LANA sessions Identify themes and key findings	Literature scan completed Develop prioritisation methodology Apply the prioritisation methodology List of identified health needs validated and refined via second round of consultation Prioritised needs refined and endorsed	List of prioritised needs endorsed by LANA steering committee, CHHHS Executive and CHHHS Board Development of the CHHHS LANA Report: Inclusive of prioritised health and service needs Final LANA report submitted to the Department of Health Publication of the CHHHS LANA
Outputs	**Project Plan and supporting documents**	**Quantitative Report, technical paper and consultation handouts (data summary)**	**Consultation and Engagement Plan, Qualitative and Service Profile Report**	**Prioritisation Strategy, Prioritisation Report**	**Final LANA Report, publication of the LANA**

1 Please refer to Appendix 1 for a full list of abbreviations and terminology

2 Queensland Health Local Area Needs Assessment Framework 2021

3 Bradshaw J. (1972) 'A taxonomy of social need' in McLachlan G (ed.) Problems and progress in medical care. Seventh series NPHT/Open University Press.

These four themes are:

- Access to services and care
- Lack of coordination of care and awareness of services
- Factors that influence health outcomes (particularly impacting vulnerable people)
- High rates of risky health behaviours with limited resources for education, health promotion and need for system wide reform.

Overall, it was identified that in the CHHHS region the population has higher health risk factors, lower life expectancy, a higher prevalence of disease, and a higher number of potentially preventable hospitalisations compared to the rest of Queensland. The identified health and service needs (Table 1) were prioritised into three tiers. The first two tiers are listed in prioritised order and the third tier is listed in alphabetical order due to close alignment of final applied scores. It should be noted that the prioritisation process involved a range of perspectives, as well as sources of evidence (data, literature and consultation feedback) to help identify and prioritise needs. By doing this, needs were assessed in an iterative, informative way, examining individual and population-level needs. It was recognised by the steering committee that ***all*** of the identified needs were important and represented the local area health and service needs. The identified needs do not take into account trends over time or projected demand. Lower ranked needs do not mean that no action will be taken, and the CHHHS is committed to using the information obtained through the LANA to inform its future planning, inclusive of internal actions and focus areas for partnerships to improve health outcomes and services across the region.

Tier 1: Top 10 health and service needs for the region *(as identified through the prioritisation process)*

Table 1: Health and Services Needs

Identified need (summary)	Detailed description of need
Mental health and addiction services	Identified need for mental health and addiction services across the primary, community and acute care sectors, inclusive of residential facilities for mental health and addiction and a focus on coordination of care across services
Transport to enable access to health services	Identified need for transport services to enable access to health services, inclusive of the usability of the Patient Travel Subsidy Scheme as well as better coordination of appointments to reduce travel requirements
Access to GPs for patients to receive timely care	Identified need for timely access to GP services, inclusive of primary and preventative treatment, referrals to specialist services and management of chronic conditions
First Nations peoples' cultural safety (including workforce)	Provision of culturally safe services and First Nations peoples' representation in the health workforce (particularly for rural and remote areas) was described as a key barrier to access to health services by First Nations peoples.
Health workforce availability and capability	Identified need for health workforce attraction, retention and wellbeing and consideration of alternative workforce models to meet health service demand. Strong desire for Cairns University Hospital as an opportunity to assist by 'growing our own' and attracting and retaining health workforce in the region
Safe and appropriate care for culturally diverse and vulnerable people	Identified need for safe and people centred health care for culturally diverse and vulnerable people, particularly for First Nations peoples, refugees, people from CALD backgrounds, people with disabilities, people who identify as LGBTIQA+, and people with dementia, especially in the areas of mental health and sexual health services
Local health promotion, screening and prevention services	Identified need for increased health promotion, screening, and prevention that can be accessed locally by the community. Shift of focus in health care to wellness models and high value care delivered in the right setting
Aged care services, particularly in rural areas	Identified need for services to support better ageing, including home care and support services, residential aged care facilities and assessment services, particularly in rural and remote areas.
Prevention and management of Rheumatic Heart Disease	Identified need for prevention and management of acute rheumatic fever (ARF) and Rheumatic Heart Disease (RHD), particularly for First Nations peoples
Care coordination between services delivered by Cairns and Hinterland Hospital and Health Service and with other HHSs	Identified need for care coordination and easy sharing of information between services delivered by the CHHHS and between HHSs to improve patient experiences and outcomes.

Tier 2: Health and service needs for the region *(as identified through the prioritisation process)*

Identified need (summary)	Detailed description of need
Housing and education	Identified need for improved access to better quality, affordable housing (including social housing), homelessness services to meet demand and improved opportunities and pathways for education, particularly in rural and remote areas to achieve improved health outcomes
Rural and remote access to health services	Identified need for rural and remote access to health services with opportunities for alternative models of care, including workforce, use of technology, and locally co-designed models with communities
Community health and early intervention services	Identified need for community-based health services and early intervention services (both for maternal and child health, and chronic disease), particularly to prevent or slow disease progression
Care coordination between CHHHS and the primary care sector	Identified need for improved care coordination between the CHHHS and the primary care sector (and other health service providers), including sharing of information and different models of working together
Services and specialised services for people with disabilities, including National Disability Insurance Scheme (NDIS)	Identified need for services, including specialised services, for adults and children with disabilities, including NDIS services as well as improved care coordination between CHHHS and disability service providers
Diabetes and kidney disease prevention and early intervention	Identified need for diabetes and kidney disease prevention and early intervention to slow disease progression.

Tier 3: Additional health and service needs for the region

(as identified through the prioritisation process, listed in alphabetical order)

Ageing infrastructure in CHHHS rural facilities	Domestic violence support services and crisis accommodation	Renal dialysis services across the region
Cancer and haematology services	End of life care and services	Respiratory health and services
Cardiac health and services	Fresh food access in rural and remote areas	Rural and remote ambulance services and resourcing
Child health and services	Infectious diseases services	Rural and remote telecommunication and internet services
Chronic pain services	Maternal and antenatal health and services	Sexual health services, particularly in rural and remote areas
Dental health and services	Prisoner health and services	Specialised women's and men's health services

The CHHHS intends to use the LANA to inform its future planning, including infrastructure, workforce and models of care, clinical services[4], and strategic planning. It will also inform where partnerships need to occur to meet identified health and service needs, including the Northern Queensland Primary Health Network (NQPHN), Aboriginal Community Controlled Health Organisations (ACCHOs), non-government organisations (NGOs), local government, Queensland Ambulance Service (QAS), state government agencies, communities and other key stakeholders. It is recognised by the CHHHS that some of the needs identified are outside its sphere of control or resourcing. For these needs, the CHHHS intends to employ, where possible, an advocacy role to influence change and help improve access to health care services and health outcomes.

The Department of Health has advised it intends to collate the LANAs completed by the Queensland HHSs to develop a system-wide view to inform future planning.

4 Clinical services with projected growth beyond current service capacity will be factored in CHHHS clinical service planning e.g. renal dialysis and chemotherapy services.

2.0 Introduction and purpose

2.1 What is a local area needs assessment (LANA)?

The Local Area Needs Assessment (LANA) Framework (August 2021) defines a local area needs assessment as the foundation and first step in health service planning and incorporates the following components:

- Understanding the population and service environment - understanding the population and their health status (e.g. population growth, age groupings, cultural diversity and socio-economic status) and identifying population risk factors (e.g. obesity, smoking and excessive alcohol consumption) that contribute to various health issues. This information can be used to design strategies and services to prevent or slow the development of disease among targeted 'at risk' population groups.
- Understanding health service needs and the services the population accesses - understanding the population and the adequacy of existing services (public sector, private sector and other) in supporting health needs.
- Prioritising health service needs.

2.2 What is a local area needs assessment used for?

A health needs assessment is a systematic method for reviewing the health issues facing a defined population and identifying the specific health needs of a population. When combined with an assessment of existing service provision it allows for the identification of heath inequities and service gaps which can then be assessed and prioritised to inform service development and funding allocations.

The overall intent is to improve population health outcomes and improve the health and wellbeing of target populations, particularly the higher health needs groups in the population, such as First Nations peoples, people with mental health conditions, children and young people, and to reduce inequities[5].

The Cairns and Hinterland Hospital and Health Service (CHHHS) LANA is focused on residents of the CHHHS region. While it is recognised that the CHHHS provides health services to people outside of this region (particularly from the Torres and Cape Hospital and Health Service region (TCHHS), the TCHHS will have its own LANA detailing the health and service needs of the people in that region.

The CHHHS intends to use the LANA to inform its future planning initiatives, inclusive of infrastructure, workforce, models of care planning, clinical services and strategic planning. It will also inform where the CHHHS will partner to meet identified health and service needs (including NQPHN, ACCHOs, NGOs, local government, QAS, state government agencies, communities and other key stakeholders).

5 Queensland Health Local Area Needs Assessment Framework August 2021

3.0 Methodology

3.1 LANA framework

The LANA Framework (the Framework) outlines the process that must be employed by Hospital and Health Services (HHSs) when undertaking a LANA. It also includes the principles of prioritisation and the mandatory criteria to be applied by HHSs when prioritising the identified health and service needs of a region. The Framework specifies that HHSs must partner with their primary health network (PHN), Aboriginal Community Controlled Health Organisations (ACCHOs), non-government organisations (NGOs), communities, local government, Queensland Ambulance Service (QAS), state government agencies and other key stakeholders to enable an integrated health needs assessment.

The CHHHS followed the LANA process as prescribed by the Framework in the following ways:

- Establishing governance and stakeholder involvement
- Identification of needs (including quantitative and qualitative data analysis, literature scan and service profiling)
- Triangulation of needs
- Application of prioritisation methodology and finalisation of needs assessment
- Identification of limitations and 'lessons learnt'.

3.1.1 Governance and stakeholder involvement

The CHHHS established project governance via a senior responsible officer (SRO), steering committee and project team. The steering committee included representation from the Northern Queensland Primary Health Network, consumer representation and First Nations peoples' representation (Executive Director of Aboriginal and Torres Strait Islander Health) as well as relevant clinical and operational leads and an epidemiologist. The SRO reported to the CHHHS Executive Leadership Committee (ELC) and Health Service Chief Executive (HSCE). All deliverables of the project were endorsed by the steering committee and ELC, with HSCE approval. Key stakeholders, including health service providers, community members and others, were involved throughout the process. The CHHHS Board was kept informed of the project process and some members, including the Board Chair, were involved in the final round of consultation on the list of prioritised health and service needs for the region. The final CHHHS LANA report (this report), inclusive of the final prioritised health and service needs for the region, was endorsed by the steering committee and ELC and approved by the HSCE and CHHHS Board.

3.1.2 Identification of needs

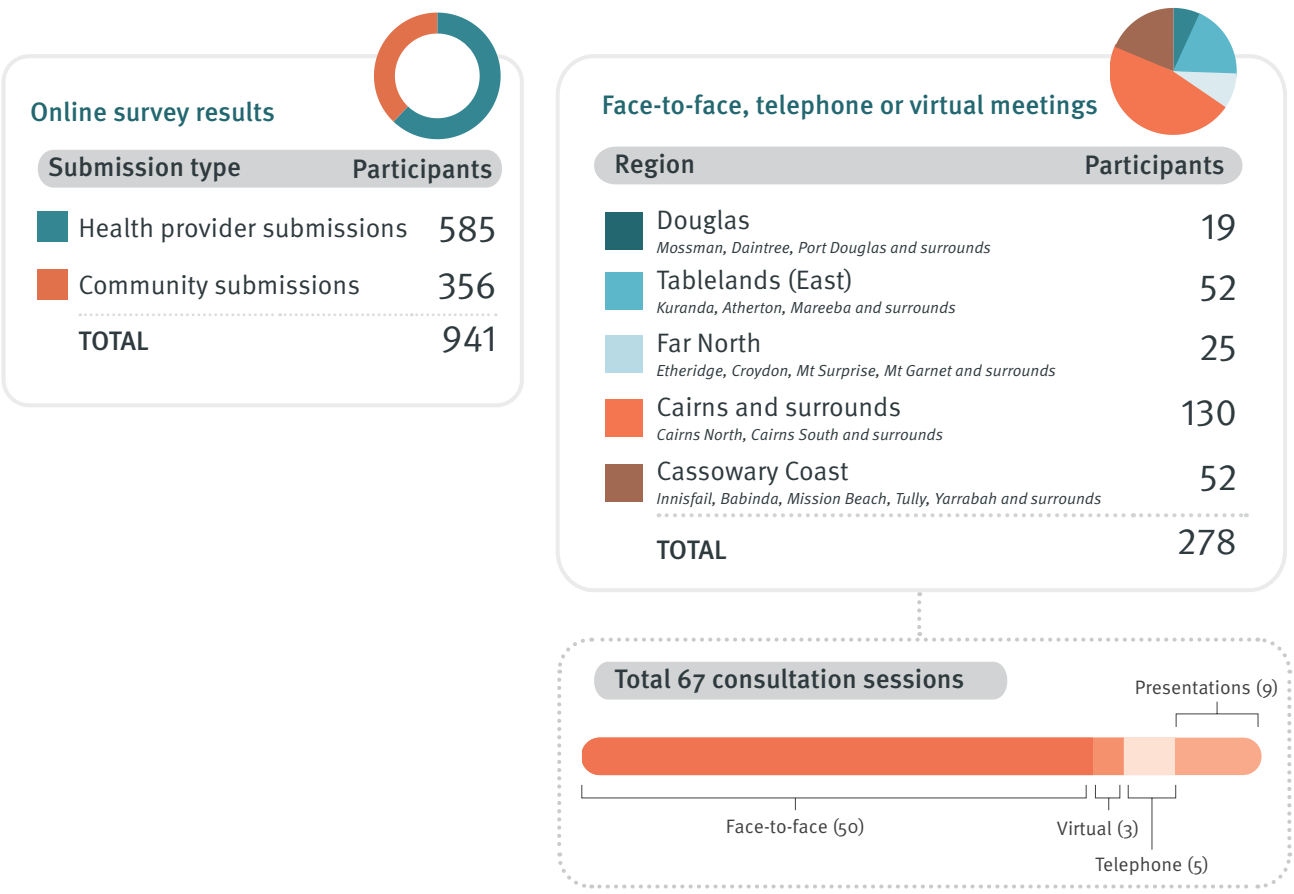
Health and service needs were identified via quantitative (data) analysis, qualitative analysis (consultation), literature scan and service profiling. Mandatory data sets were prescribed by the Framework for inclusion in the quantitative analysis. The CHHHS added additional data sets for Rheumatic Heart Disease (RHD) and end stage kidney disease (ESKD) as key areas of health need for this region. Refer to Appendix 2 for the full list of data sources used in this report. Please note all rates in this report are age-standardised rates (ASR) unless otherwise stated.

The initial data analysis informed the key areas for consultation, including targeted focus groups and geographical locations within the CHHHS region. Sessions were held with health service providers (both internal CHHHS staff and other providers within the sector) and community members. A survey was developed to enable participation of service providers and community members who could not attend consultation sessions. (Refer to Figure 2 for consultation details). Identified key stakeholders who had not been engaged during the process were sought to ensure comprehensive consultation. All prescribed stakeholders (as per the Framework) were engaged in the identification of health and service needs. They included:

- Northern Queensland Primary Health Network
- Aboriginal Community Controlled Health Organisations
- Non-government organisations
- Communities
- Local government
- Queensland Ambulance Service and Royal Flying Doctor Service (RFDS)
- State government agencies

Please refer to Appendix 3 for a full list of stakeholder groups engaged with to inform the LANA health and service needs.

Figure 2: LANA Consultation



A literature scan was undertaken to further examine health and service need. This included key Queensland Health or national strategies, plans or policies as well as position statements and other relevant literature.

A service profile scan was completed by geographical regions within the CHHHS. It included CHHHS services, other health services (such as those provided by NGOs, other government agencies or private businesses) and identified service gaps. This was cross referenced with the James Cook University (JCU) Northern Queensland Health Atlas (pilot).

3.1.3 Triangulation of needs

Data was synthesised and triangulated from the quantitative analysis, qualitative analysis, literature scan and service profiles. Health and service needs were grouped to enable application of the prioritisation process.

3.1.4 Prioritisation

A prioritisation methodology was applied, inclusive of the requirements of the Framework. The process included:

- validation of the need (triangulated need)
- ensuring the need aligned with government direction
- assessing according to 'risk of unmet need'
- assessing according to magnitude of need (extent of the need)
- balancing need and benefit (assessing if addressing the need would result in greatest population benefit)
- assessing feasibility/cost effectiveness of addressing the need
- application of an equity lens (assessment if addressing the need would improve health and reduce disparities in health associated with inequalities in wealth, income or level of education)
- assessment of urgency (risk of deferring action on the need)
- assessment of efficiency/effectiveness of addressing the need

The result of this process was a draft list of 58 identified health and service needs for the region. A second round of consultation was then conducted with staff, health service providers, community members and local councils to validate the prioritised health and service needs and ensure all needs had been captured. A final consolidation process was then applied, resulting in an endorsed shortlist of 34 health and service needs for the region, ranked into three tiers. The first two tiers were listed in prioritised order and the third tier was listed in alphabetical order due to close alignment of final applied scores.

It should be noted that the prioritisation process involved a range of perspectives, as well as sources of evidence (data, literature and consultation feedback) to help identify and prioritise needs. By doing this, needs were assessed in an iterative, informative way, examining individual and population-level needs. It was recognised by the steering committee that all of the identified needs were important and represented the local area health and service needs.

Lower ranked needs do not mean that no action will be taken. The CHHHS is committed to using the information obtained through the LANA to inform its future planning, inclusive of internal actions and focus areas for partnerships to improve health outcomes and services across the region.

3.1.5 Confirmation/finalisation

Once the final list of health and service needs for the region had been compiled, an endorsement and approval process was undertaken as per the governance structure of the CHHHS LANA.

3.1.6 Limitations

Limitations were observed in the undertaking of the inaugural CHHHS LANA.

Data limitations: variation in the breakdown of geographical areas (e.g. Indigenous Land Areas versus Statistical Areas vs Local Government Areas), led to challenges in understanding location of need and overlapping of data sets.

Date of some data sets and different methodologies used by original data sources meant that some results were not directly comparable, and some data was only available at a higher level (aggregated and then population weighted)[6] or at a lower level, resulting in challenges to comparing data from different geographical regions.

Due to the timing of the processes engaged during the LANA, quantitative analysis preceded qualitative analysis, resulting in limited time to investigate further potential data points to inform needs identified via consultation.

It is recognised that a more iterative process with interwoven quantitative and qualitative data capturing and analysis will be important for future processes.

Due to time constraints during the project to conduct a service profile scan, it is recognised that there may be health (or other care) services not captured in the service profiling, particularly for Cairns and surrounds.

Some identified gaps in the provision of data for needs resulted in limitations when applying prioritisation scores.

Evidence from the literature was particularly important to help assess these needs, however, the availability of contemporary comparative data is recognised as essential to improve the prioritisation process in future.

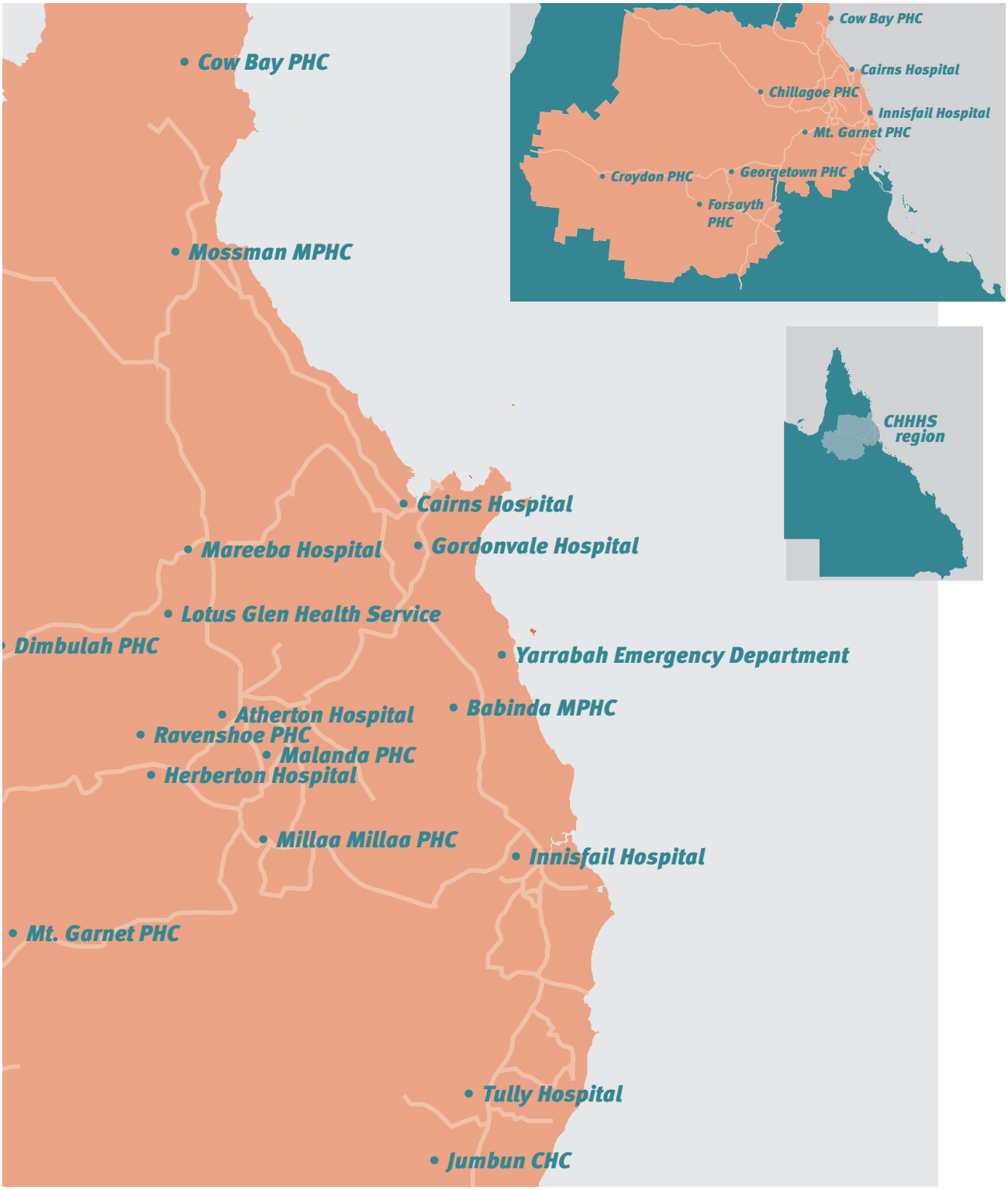
6 It is noted that this could have particular implications for the Babinda, Innisfail and Yarrabah Public Health Information Development Unit (PHIDU) data, and as such these results should be interpreted with caution.

4.0 Key background information

4.1 About our region

The Cairns and Hinterland Hospital and Health Service spans a large geographical area covering approximately 142,900sq km from Tully in the south, Cow Bay in the north and Croydon in the west (Figure 3). This is approximately 8% of the Queensland area.

Figure 3: Map of the CHHHS geographical region with CHHHS key facilities (refer to section 6.2 for all CHHHS facilities)



The Cairns and Hinterland Hospital and Health Service (CHHHS) region covers six SA3s[7] (statistical areas). The statistical areas are determined by the Australian Bureau of Statistics' Accessibility and Remoteness Index of Australia (ARIA). The six SA3 regions in CHHHS are Cairns North, Cairns South, Innisfail-Cassowary Coast, Port Douglas-Daintree, Tablelands (East)-Kuranda and Far North. According to the ARIA index, Cairns North, Cairns South, Innisfail–Cassowary Coast, Port Douglas–Daintree, and Tablelands (East)–Kuranda are classified as Outer Regional Australia. Furthermore, the Tablelands region that is included within the Far North SA3 area is also classified as Outer Regional Australia. The Cape York area within Far North SA3 is classified as Remote Australia and the Croydon-Etheridge area within Far North is classified as Very Remote Australia. It should be noted that for Cape York (in Far North) the percentage of this SA2 that is within the CHHHS region is 1.48% and for Tully (in the Innisfail-Cassowary Coast) that is within the CHHHS region is 81.46%. These proportions were considered in the data analysis. All other SA2 areas are 100% within the designated SA3 area for the CHHHS region.

Table 2 below outlines each SA3 for the CHHHS with its associated (smaller) SA2 areas, remoteness score and remoteness area, according to the ARIA.

Table 2: CHHHS SA3 areas, SA2 areas, remoteness score and Remoteness Area ARIA index

SA3 name	SA2 name	Remoteness Score (2016)	Remoteness Area
Cairns - North	Brinsmead	3	Outer Regional Australia
Cairns - North	Clifton Beach - Kewarra Beach	3	Outer Regional Australia
Cairns - North	Freshwater - Stratford	3	Outer Regional Australia
Cairns - North	Redlynch	3	Outer Regional Australia
Cairns - North	Trinity Beach - Smithfield	3	Outer Regional Australia
Cairns - North	Yorkeys Knob - Machans Beach	3	Outer Regional Australia
Cairns - South	Bentley Park	3	Outer Regional Australia
Cairns - South	Cairns City	3	Outer Regional Australia
Cairns - South	Earlville - Bayview Heights	3	Outer Regional Australia
Cairns - South	Edmonton	3	Outer Regional Australia
Cairns - South	Gordonvale - Trinity	3	Outer Regional Australia
Cairns - South	Kanimbla - Mooroobool	3	Outer Regional Australia
Cairns - South	Lamb Range	3	Outer Regional Australia
Cairns - South	Manoora	3	Outer Regional Australia
Cairns - South	Manunda	3	Outer Regional Australia
Cairns - South	Mount Sheridan	3	Outer Regional Australia
Cairns - South	Westcourt - Bungalow	3	Outer Regional Australia
Cairns - South	White Rock	3	Outer Regional Australia
Cairns - South	Whitfield - Edge Hill	3	Outer Regional Australia
Cairns - South	Woree	3	Outer Regional Australia
Far North	Cape York	4	Remote Australia
Far North	Croydon - Etheridge	5	Very Remote Australia
Far North	Tablelands	3	Outer Regional Australia
Innisfail - Cassowary Coast	Babinda	3	Outer Regional Australia
Innisfail - Cassowary Coast	Innisfail	3	Outer Regional Australia
Innisfail - Cassowary Coast	Johnstone	3	Outer Regional Australia
Innisfail - Cassowary Coast	Tully	3	Outer Regional Australia
Innisfail - Cassowary Coast	Wooroonooran	3	Outer Regional Australia
Innisfail - Cassowary Coast	Yarrabah	3	Outer Regional Australia
Port Douglas - Daintree	Daintree	3	Outer Regional Australia
Port Douglas - Daintree	Port Douglas	3	Outer Regional Australia
Tablelands (East) - Kuranda	Atherton	3	Outer Regional Australia
Tablelands (East) - Kuranda	Herberton	3	Outer Regional Australia
Tablelands (East) - Kuranda	Kuranda	3	Outer Regional Australia
Tablelands (East) - Kuranda	Malanda - Yungaburra	3	Outer Regional Australia
Tablelands (East) - Kuranda	Mareeba	3	Outer Regional Australia

7 SA3s are often the functional areas of regional towns and cities with a population in excess of 20,000 or clusters of related suburbs around urban commercial and transport hubs within the major urban areas. The regional breakups have been designed to reflect regional identity. Australian Bureau of Statistics

4.2 Demographic information

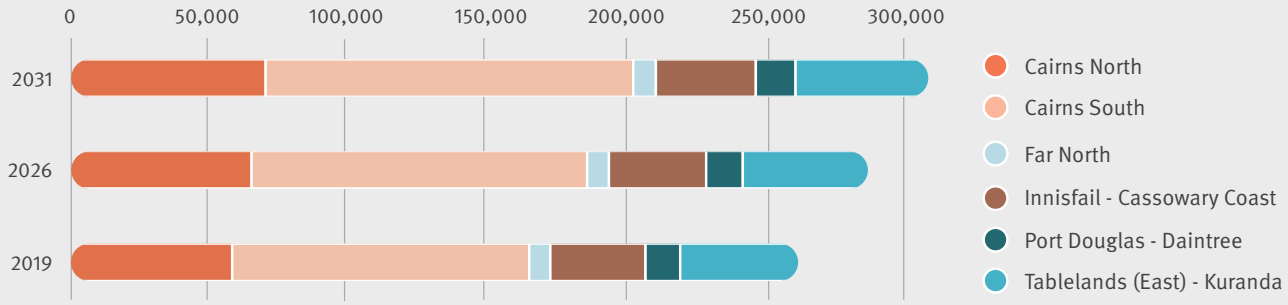
4.2.1 The population of our region

The Cairns and Hinterland HHS region has a population of approximately 259,000 people, 16.2% of whom are aged 65+ (slightly higher than the Queensland proportion of 15.7%) and 19.6% of whom are aged 0-14 (similar to the Queensland proportion 19.4%). There is a higher proportion of First Nations people in the CHHHS region compared to Queensland (11.6%, Queensland 4.6%).

The population is expected to grow by 10% over the next 7 years (1.3% average annual growth and by 2031, it is projected that there will be approximately 306,000 people in this region. All areas within the CHHHS region (except for the Cairns South area) are growing at a lower rate than Queensland. The area with the highest anticipated growth is the Gordonvale–Trinity area (within Cairns South), with a projected annual growth of 6.8% from 2021 to 2031 (refer Figure 4 below).

The majority of the CHHHS region population reside in the Cairns South area (106,100 people, 41%), followed by the Cairns North area (57,250 people, 22%). The resident population in the CHHHS region is more socio-economically disadvantaged compared to Queensland (58% in the lowest two socio-economic quintiles vs 37% in Queensland).

Figure 4: Population composition of Cairns and Hinterland Hospital and Health Service 2019, and projected 2026 and 2031



Refer to Figure 5 for population by age breakdown for the CHHHS region (total), Figure 6 for population age breakdown by SA3s (whole population), and Figure 7 for population age breakdown by SA3s (First Nations peoples).

Figure 5: 2019 population composition by age bracket within CHHHS region

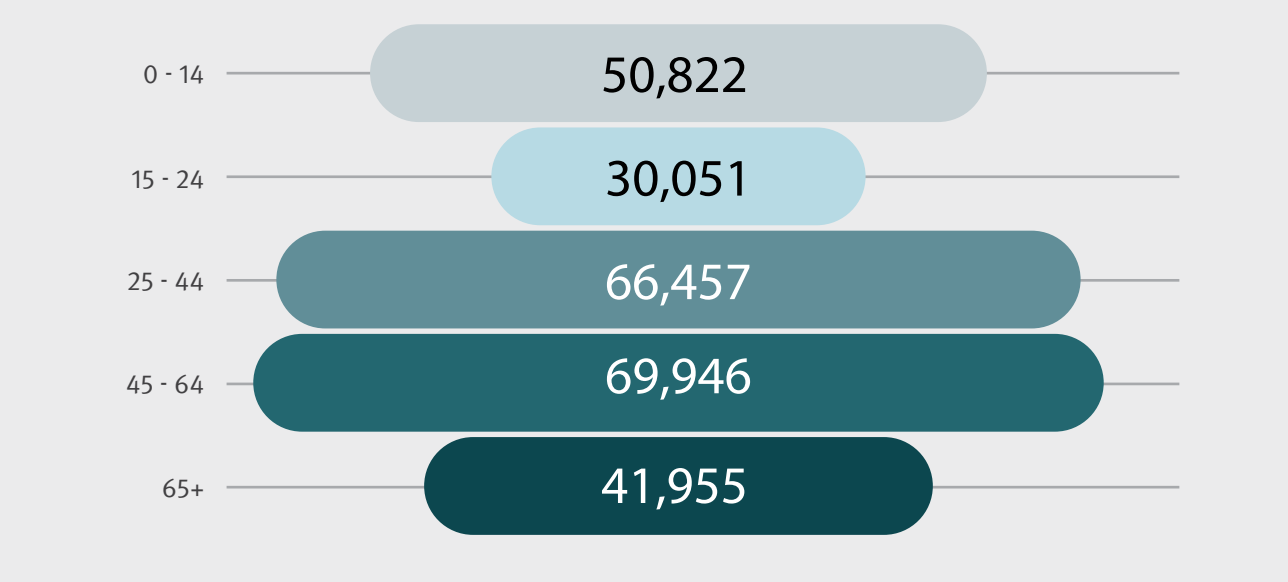


Figure 6: 2019 population age breakdown by SA3s (whole population)

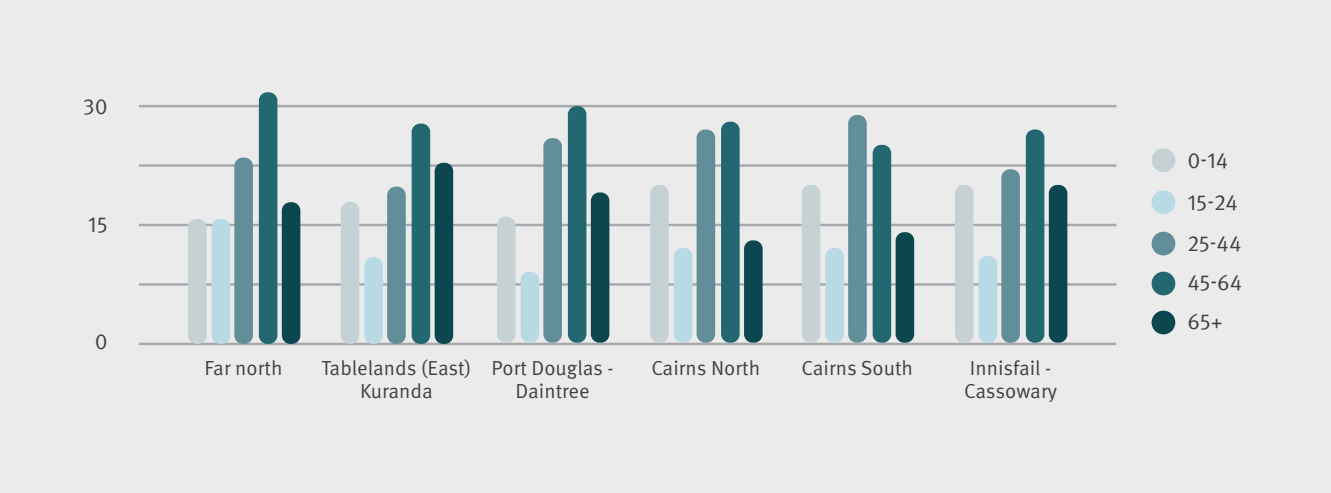
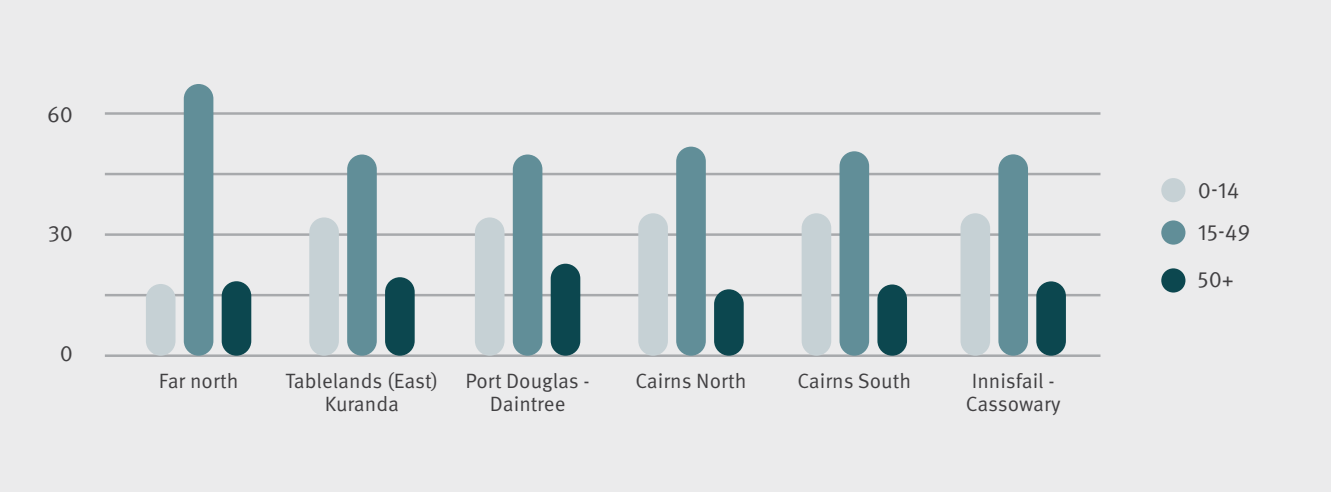


Figure 7: population age breakdown by SA3s (First Nations peoples)



4.2.2 Children and youth (0-14 years)

The proportion of people in the CHHHS region who are aged 14 and under is 19.6% (50,822 people), similar to Queensland. The area within the CHHHS region with the highest *number* of people aged 0-14 is Cairns South, particularly the SA2 areas of Edmonton (2918 people), Bentley Park (2322 people), Kanimbla-Mooroobool (2234 people) and Gordonvale-Trinity (2145 people). The other SA2 areas with high numbers of people aged 0-14 are Redlynch (3306 people) and Trinity Beach-Smithfield (3297 people) in the Cairns North area and Atherton (2218 people) and Mareeba (2297 people) in the Tablelands (East)-Kuranda area. Areas with the highest *proportion* of people aged 14 and younger are Yarrabah (33.9%, 982 people), Bentley Park (27.1%, 2322 people) and Edmonton (25.9%, 2918 people).

The fertility rate in the CHHHS region is 1.96 per 1000 compared to the Queensland average of 1.81. The birth rate *overall* for the CHHHS region is similar to Queensland (11.3 per 1000 vs 11.6). The birth rate is much higher for First Nations people (20.7 per 1000 vs First Nations peoples Queensland 13.4). The SA2s with the highest birth rates across the total population are White Rock (19.5 per 1000), Yarrabah (18.6 per 1000, noting that nearly 100% of the population in Yarrabah identify as First Nations Peoples), and Manunda (18.1 per 1000). The SA2s with the highest birth rates across the First Nations population are Manunda (38.8 per 1000), White Rock (34.4 per 1000) and Mareeba (29.3 per 1000). Nearly 3000 babies were born in the CHHHS region in 2019 (CHHHS residents counted only). CHHHS has a much higher *proportion* of First Nations babies compared to the rest of Queensland. Approximately 21.1% of births in the CHHHS are First Nations babies (Queensland 5.3%)

4.2.3 Older people (65+ years)

The proportion of people who are aged 65+ is 16.2% (41,955 people), which is slightly above the Queensland proportion of 15.7%. Additionally, 43.2% are aged over 45, compared to the state proportion of 40.3%, which indicates a growing older population compared to Queensland. The highest *number* of people aged 65+ reside in the Cairns South region (14,426 people), followed by Tablelands (East)-Kuranda (9724 people). The other SA2 areas with high numbers of people aged 65+ are Clifton Beach-Kewarra (2061), Tully (2012) and Innisfail (1932). Areas with the highest *proportion* of people aged 65+ are the SA2 areas of Malanda–Yungaburra (26.3%, 2262 people), Herberton (24.7%, 1396 people) and Atherton (23.6%, 2218 people) within the Tablelands (East)–Kuranda region.

4.2.4 First Nations peoples

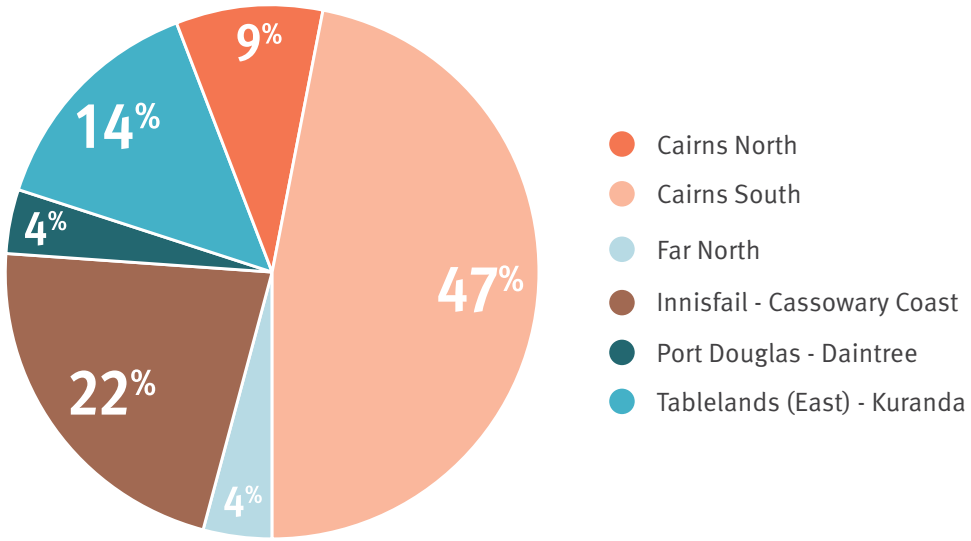
The proportion of people who identify as First Nations peoples is 11.6% (29,960 people), which is significantly higher than the Queensland proportion of 4.6%. There is one discrete Indigenous community located in Yarrabah and we recognise that there are high populations of First Nations Peoples in other communities across our region.

The largest *number* and *proportion* of First Nations peoples population in the CHHHS region reside in the Cairns South area (47%). The top three SA2 areas with the highest number of people who identify as First Nations peoples are Yarrabah (98.1%, 2847 people), Innisfail (20.1%, 1931 people) and Edmonton (15.7%, 1766 people). The top three SA2s with the highest proportion of people who identify as First Nations peoples (compared to the total population in the SA2) are Yarrabah (98.1%, 2847 people), Manoora (27.2%, 1722 people) and Manunda (21.9%, 1210 people). Refer to Figure 8 for percentage of First Nations population by SA3.

First Nations peoples aged 50+ account for 17.7% of the First Nations population, which is 2% higher than the Queensland First Nations peoples' proportion. The area with the highest *proportion* of older First Nations peoples (compared to the First Nations population) is Port Douglas-Daintree. The other SA2 areas with the highest proportion of older First Nations peoples aged 50+ are Babinda (29.1%, 112 people) and Cairns City (27.8%, 299 people).

The *proportion* of First Nations peoples aged 0-14 is 32.7%, which is slightly lower than the Queensland First Nations peoples' proportion (by 2.0%). The SA2 areas with the highest proportion of First Nations peoples aged 0-14 (compared to the First Nations population) are Gordonvale–Trinity (45.9%, 465 people), Port Douglas (43.1%, 69 people) and Mount Sheridan (41.3%, 787 people).

Figure 8: Percentage of CHHHS First Nations population by SA3



4.2.5 People living with a disability

It is estimated (for Queensland) that 29.3% of individuals with need for assistance for 1-4 activities have unmet need with assistance for at least one activity. This includes 20.9% with unmet need for assistance with personal activities and 25% with unmet need for assistance with property maintenance (further breakdown of data by region is currently not available).

For people classified as having a profound or severe disability, the CHHHS region has a lower population rate compared to other HHS areas for people living in the community (4.32%, 10,729 people). This rate increases when including people living in long term accommodation, including nursing homes (4.79%,11,906 people), but is still lower when compared to other HHSs. Details of the total number of people with a moderate or mild disability are not available.

	Profound or severe disability (Living in community)	Profound or severe disability (Including in long term accommodation)
0-64 years	2.81%	2.85%
65+ years	12.06%	14.75%

The highest *number* of people with profound or severe disability aged 0-64 (2,587 people living in the community and additional 55 in long term accommodation) and aged 65+ (1,871 people in community and additional 565 in long term accommodation) is in the Cairns South region. The highest *proportion* of people with profound or severe disability aged 0-64 (1,033 people in community and long term accommodation) and for those aged 65+ (1,082 people in community and additional 202 in long term accommodation) are located in the Tablelands (East) Kuranda region at 6.2%

The lowest rates for profound or severe disability are in the Far North region (living in the community and in long-term accommodation) for people aged 0-64 (0.88%) and for those aged 65+ (7.5%), as well as the Port Douglas-Daintree region (living in the community and in long-term accommodation) for people aged 0-64 (2.07%) and for those aged 65+ (7.82%). *Note: This could be caused by limited availability of services and need to relocate for care, hence this data should be interpreted with caution.*

4.2.6 Culturally and linguistically diverse people (CALD) and refugees

The CHHHS region has a total proportion of 18.9% of residents who were born overseas. This is slightly lower than the Queensland proportion of 21.6%. The proportion of people born overseas in a non-English speaking country is relatively similar to the state overall (10.7% for the CHHHS compared to 11.1% for the state). The SA2 areas where the most residents were born in non-English speaking background countries are Cairns City (24.6%, 2705 people), Westcourt–Bungalow (20.2%, 1214 people) and Manunda (18.2%, 914 people). Across the CHHHS region the languages most commonly spoken other than English are Italian (spoken by 2764 people), Japanese (spoken by 2605 people) and Australian Indigenous languages (spoken by 1852 people).

The Cairns and Hinterland HHS region is an area that accepts refugees and has recently (July 2021 – June 2022) accepted 66 refugees[8].

4.2.7 Lesbian, gay, bisexual, transgender & gender diverse, non-binary, intersex, queer and asexual (LGBTIQA+)

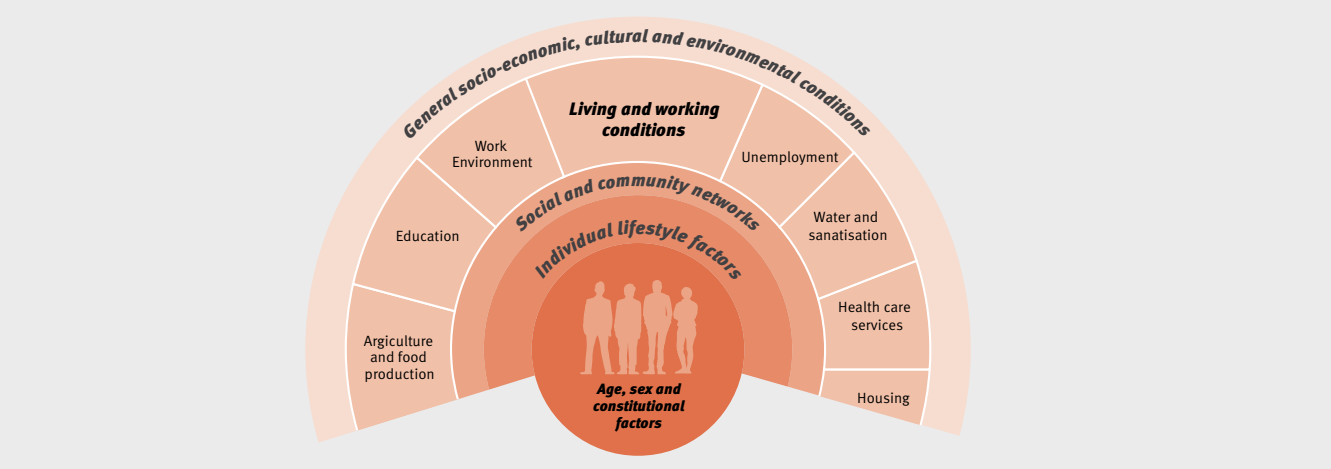
In international and Australian research, 3-4% of the population report identifying as gay, lesbian or bisexual. This figure is higher among people younger than 25 in Australia, being 4% for males and around 7% for females. Further breakdown of data by region is currently not available.

4.2.8 Socio-economic profile of the region

Social determinantes of health

Social determinants of health (SDoH) are defined by the World Health Organisation (WHO) as 'the conditions in which people are born, grown, work, live and age, and the wider set of forces and systems shaping the conditions of daily life'. These determinants have a direct influence on health outcomes.

Figure 9: Dahlgren and Whitehead (1991) model of the determinants of health[9]



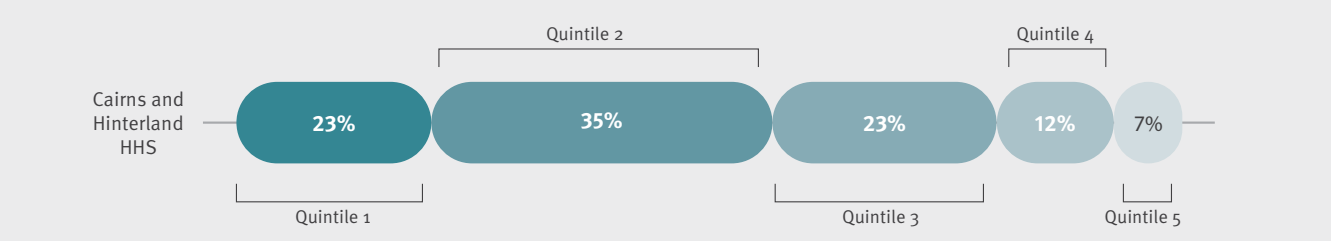
According to the WHO, most of the differences in health status between and within countries is due to the SDoH. It has been estimated that 20% of the modifiable variation in health outcomes are the result of clinical care, 40% due to social and economic determinants, 30% to health behaviours and 10% to environmental factors[10].

Socio-economic disadvantage is the largest indicator of burden of disease. The Australian Bureau of Statistics (ABS) uses a summary of social and economic data from the census to produce the Socio-Economic Indexes for Area (SEIFA). Census respondents are classified into quintiles based on their usual place of residence, ranging from quintile 1 (most disadvantaged) to quintile 5 (least disadvantaged).

Overall, the CHHHS region has a higher proportion of the population in the lowest SEIFA quintile (23%) compared to Queensland (18%) (see Figure 10). Over half of the population of the Cairns and Hinterland HHS region are in the lowest two SEIFA quintiles, indicating higher levels of socio-economic disadvantage.

8 Queensland Settlement Data - Refugee Health Network Queensland (refugeehealthnetworkQueensland.org.au).
9 Dahlgren, G. and Whitehead, M. (1991). Policies and Strategies to Promote Social Equity in Health. Stockholm: Institute for Futures Studies.
10 Queensland Health: Health Needs Framework - Social Determinates of Health.

Figure 10: Percentage of CHHHS population in SEIFA quintiles



The index of relative socio-economic disadvantage similarly shows the CHHHS region as an area of lower socio-economic profile compared to the rest of Queensland. The range of scores for the most disadvantaged SA2s in the CHHHS region is 518 – 854 (refer Table 3 below). Yarrabah is the second most disadvantaged SA2 area in the whole of Queensland.

Table 3: Top 5 most disadvantaged SA2 in CHHHS by index of relative socio-economic disadvantage[11]

SA2 - Top 5 most disadvantaged	Index of relative socio-economic disadvantage
Yarrabah	518
Cape York	783
Manoora	795
Manunda	829
Westcourt - Bungalow	854

In the CHHHS region, the least disadvantaged SA2s by index of relative socio-economic disadvantage are Brinsmead (1074), Redlynch (1065) and Freshwater–Stratford (1046). The range of scores for the least disadvantaged SA2s in CHHHS is 1037 - 1074, compared to the state range for the least disadvantaged SA2s, which is 1115 - 1127[12] (top five SA2s).

Employment: The unemployment rate for the HHS region (6.5%) is slightly lower than the Queensland rate (7.3%), however, there are much higher levels of unemployment in some SA2 areas, — Yarrabah at 49.5%, Cape York at 21.1%, Manoora at 14.2%, Manunda at 12.8%, and Westcourt–Bungalow at 11.6%.

Housing: In the CHHHS region 6.5% of people live in social housing, which is greater than the Queensland rate of 3.4%. There is a higher rate of people living in crowded dwellings (8.4% vs 5.7% for Queensland). This is exacerbated for First Nations peoples with more than one in four (29.4%) people living in crowded dwellings (vs 18.8% First Nations peoples Queensland rate). The SA2 areas of Babinda, Innisfail and Yarrabah have the highest rates of First Nations residents living in crowded dwellings (48.3%).

Internet access: Internet connectivity within people's homes is less available compared to the Queensland average, with 17.3% of households not able to access the Internet within their dwelling (vs state rate of 13.6%). The SA2 areas with the highest proportion of dwellings with no Internet are: Yarrabah (50.9%, 3.7 times the state proportion), Cape York (32.2%, 2.4 times the state proportion) and Manoora (27.9%, 2.1 times the state proportion).

Motor vehicle access: The CHHHS region has a higher percentage of dwellings with no motor vehicle (7% vs 6% Queensland). This rate is much higher for the remote Far North region (21%) and for the SA2 areas of Manunda, Manoora, Westcourt-Bungalow and Woree (16.1%), Cairns City and Whitfield-Edge Hill (11.6%) and Babinda, Innisfail and Yarrabah (10.5%). There are also SA2 areas with higher rates of difficulty accessing transport, including Manunda, Manoora, Westcourt-Bungalow (rates of 7.6 per 100 people vs Queensland rate of 3.8), followed by Innisfail, Babinda and Yarrabah (rate of 5.9 per 100).

Homelessness: The proportion of the population accessing homelessness services in the CHHHS region is more than double that of Queensland (1.9% vs 0.8% Queensland).

Education: In the CHHHS region, the proportion of people whose highest level of schooling is below year 11 is 36.0% for non-First Nations people and 41.6% for First Nations peoples (similar to the Queensland proportion). The top three SA2 areas with the highest *proportion* of the overall population who have not completed schooling in year 11 are Croydon-Etheridge (59.4%), Herberton (51.4%) and Babinda (49.4%). The top three SA2 areas with the highest *proportion* of First Nations peoples who have not completed schooling in Year 11 (or above) are Babinda (56.6%), Yarrabah (54.3%) and Atherton (54.1%).

Household composition: In the SA2 areas of Cairns City and Westcourt–Bungalow, there is a high rate of First Nations lone-person households (38% and 31% respectively), which is higher than both the Queensland rate of 14% and the HHS rate of 17% (for First Nations peoples). 26% of households in Yarrabah are multiple family households, followed by Cape York (10%) and Kuranda (9%). The Queensland rate for First Nation multiple family households is 5%. Whilst the overall HHS rate of single parent families is only slightly higher than Queensland, certain areas have significantly higher rates. These include Yarrabah (45%), which is almost three times the state rate of 16.5%. Other SA2 areas with high rates of one parent families include Manoora (39.0%, 2.4 times the state rate), Woree (30.7%, 1.9 times the state rate) and Manunda (29.7%, 1.8 times the state rate).

Domestic violence: Domestic violence is grouped with kidnapping, stalking and offences against the person. In this 'reported offences' category the CHHHS region has a higher rate per 100,000 people compared to Queensland (2685.8 vs 1715.3).

11 A lower score indicates higher socio-economic need.

12 A higher score indicates lower socio-economic need.

5.0 Health status

5.1 Health of the region

5.1.1 Population health status

The population health status of the CHHHS region indicates that the population has higher health risk factors, lower life expectancy, a higher prevalence of disease, and a higher number of potentially preventable hospitalisations compared to the rest of Queensland.

5.1.2 Health risk factors

The CHHHS region has a higher prevalence than Queensland for a range of health risk factors. Notably, this includes smoking (including smoking in pregnancy), consumption of alcohol and overweight persons (refer Table 4). Overall obesity rates for the CHHHS region are slightly better than Queensland (22.6% vs 25%). Similar to Queensland, nearly one-third of CHHHS residents do not get enough physical activity (29.3% vs 30.3%). In terms of fruit and vegetable intake, like Queensland, just over half of the population have the recommended fruit intake (52.1% CHHHS and Queensland) and approximately 8% of people have the recommended vegetable intake (7.8%, Queensland 8.4%). The rate of people in the CHHHS region with high blood pressure is 23 per 100, which is also similar to the Queensland rate. This equates to a large number of people in the region who have high blood pressure (approximately 45,000).

Table 4: Estimated prevalence of high health risk factors CHHHS region compared to Queensland

	Cairns and Hinterland HHS	Queensland
Daily Smokers	14.9%	10.8%
Risky lifetime drinking rate	26.4%	21.6%
Overweight Persons	35.8%	34.9%

Smoking: The proportion of daily smokers in the CHHHS region (14.9%) is higher than the Queensland proportion of approximately 11% with a notable stand out of the Far North region where 24.5% of adults reported smoking daily, followed by the Port Douglas-Daintree region at 16.8% (refer Table 5: Proportion of adults who smoke daily). Both the rate of First Nations mothers who smoke during pregnancy (48%) and non-First Nations mothers who smoke during pregnancy (11.5%) are higher than the Queensland state comparison of 42.6% and 9.0% respectively (refer Table 6).

Table 5: Proportion of adults who smoke daily

SA3	Daily smokers
Cairns - North	11.9%
Cairns - South	16.0%
Far North	24.5%
Innisfail - Cassowary Coast	14.4%
Port Douglas - Daintree	16.8%
Tablelands (East) - Kuranda	15.0%
HHS Total	**14.9%**
Queensland Total	**10.8%**

Table 6: Proportion of mothers who smoke during pregnancy

SA3	First Nations Peoples per 100	Non-First Nations Peoples per 100
Cairns - North		6.9
Cairns - South	48.5	13.1
Far North		
Innisfail - Cassowary Coast	50.4	13.0
Port Douglas - Daintree		
Tablelands (East) - Kuranda	51.7	13.4
HHS Total	**48.0**	**11.5**
Queensland Total	**42.6**	**9.0**

Alcohol consumption: The risky lifetime drinking rates in the CHHHS region are higher than the Queensland rate, 26.4% versus 21.6% respectively. Notably, the Port Douglas–Daintree region has 37.7% of adults who reported as lifetime risky drinkers, and all SA3 areas within the CHHHS (except for Tablelands (East)-Kuranda have higher rates than Queensland (refer Table 7 below).

Table 7: Lifetime risky drinking rating for adults CHHHS region

SA3	Lifetime risky drinking (2009 guidelines) - Risky lifetime
Cairns - North	24.6%
Cairns - South	28.3%
Far North	29.6%
Innisfail - Cassowary Coast	28.5%
Port Douglas - Daintree	37.7%
Tablelands (East) - Kuranda	18.6%
HHS Total	**26.4%**
Queensland Total	**21.6%**

Overweight and obesity: The CHHHS region estimated prevalence for obesity is 22.6% of the total population compared to the Queensland prevalence of 25%. The CHHHS region estimated prevalence for being overweight is 35.8% of the population compared to the Queensland prevalence of 34.9%. Whilst the overall prevalence is slightly lower than the state for obesity and similar for being overweight, this still indicates greater than one in five people who are obese and greater than one in three people who are overweight within the CHHHS region. The SA2 areas with the highest *rates* of obesity are Babinda, Innisfail and Yarrabah at 43.4 per 100, which is significantly higher than the Queensland rate of 32.7 per 100. Manoora, Manunda, Westcourt–Bungalow and Woree also had high rates of obesity of 42.5 per 100. Similar to the Queensland rate, one in three First Nations mothers (30.1 vs 30.7 p/100) and nearly one in five non-First Nations mothers (19 vs 21.4 p/100) are obese.

5.2 Preventative health actions

5.2.1 Antenatal care

Overall within the CHHHS region, 70.2% of First Nations mothers and 88.6% of non-First Nations mothers have eight or more antenatal visits compared to the Queensland average of 67.8% and 81.7% respectively, indicating better than state average attendance to eight or more antenatal visits. For non-First Nations people, all SA2 areas with the exception of Westcourt–Bungalow have a rate of eight or more antenatal visits greater than 80 per 100. Westcourt–Bungalow has a rate of 75 per 100 for non-First Nations people. For First Nations peoples there are some SA2 areas where the rates are lower than Queensland First Nations peoples average rates of eight or more antenatal visits. The lowest rating areas are Manoora (58.7 per 100), Westcourt-Bungalow (60.0 per 100) and Yarrabah (61.1 per 100).

5.2.2 Immunisation

Across the CHHHS region, the rates of children fully immunised by one and two years are lower than the Queensland rate (refer Table 8). For First Nations peoples, the rates of immunisation are similar to the state First Nations peoples rate (refer Table 9). For non-First Nations people, Kuranda and Mareeba were significantly below the Queensland percentage of children fully immunised at the one, two and five year mark. For First Nations peoples, the Indigenous Areas (IARE) of Atherton, Cairns - Southern Hinterlands and Mareeba were the only areas significantly below the Queensland total percentage. By five years of age childhood immunisation rates for the CHHHS region are similar to Queensland rates and rates for First Nations children are above the Queensland First Nations children rate and also above the target.

Table 8: Immunisation rates in children (total population)

	Total population		
Region	**Proportion of children fully immunised by 1 year**	**Proportion of children fully immunised by 2 years**	**Proportion of children fully immunised by 5 years**
CHHHS Total	92.6%	91.9%	94.5%
Queensland Total	94.7%	94.7%	94.6%
Target	95.0%	95.0%	95.0%

Table 9: Immunisation rates in First Nations children

	First Nations		
IARE	**Proportion of children fully immunised by 1 year**	**Proportion of children fully immunised by 2 years**	**Proportion of children fully immunised by 5 years**
CHHHS Total (First Nations)	92.2%	89.0%	98.0%
Queensland Total (First Nations)	92.3%	88.7%	97.1%
Target	95.0%	95.0%	95.0%

5.2.3 Cancer screening

Cancer screening rates are reported for breast cancer, cervical cancer and bowel cancer. Across the CHHHS region, the breast cancer screening rate for the 50-74 age group (56.6%) is slightly higher than the Queensland rate (54.8%). The cervical screening rate for the CHHHS region (47.5%) is slightly higher than the Queensland rate (46.0%). The bowel screening rate for the CHHHS region (41.0%) is similar to the Queensland rate (41.9%). Whilst the CHHHS region screening rates are slightly better or comparable to the Queensland rates, there remains over one in two not screened for cervical cancer and bowel cancer and nearly one in two not screened for breast cancer. In particular, the Far North region screening rates are much lower than the Queensland rates (46% breast cancer, 39.9% cervical cancer and 27% bowel cancer).

5.3 Life expectancy and prevalence of disease

5.3.1 Life expectancy

The median life expectancy for females in the CHHHS region between 2017 and 2019 was 84.3 years. The median life expectancy for males in the CHHHS region during the same period was 78.2 years. Comparatively, in Queensland females and males had a median life expectancy of 84.8 years and 80.3 years respectively. The Far North region has the lowest life expectancy rates for the CHHHS at 76.5 for males and 81.2 years for females. First Nations people in the CHHHS region have a median life expectancy of 61.3 years.

5.3.2 Children's health

Neonatal outcomes: Neonatal outcomes for the CHHHS region are typically poorer than the Queensland average for indicators such as infant mortality, premature births and low birthweight. The infant mortality rate for the HHS (5.8 per 1000) is higher than the Queensland rate (4.9 per 1000). The preterm birth rate for the HHS (10.1%) is also slightly higher than the Queensland rate of 9.3%. This is particularly pronounced in Gordonvale–Trinity where 13.3% of births in the population are preterm births. The preterm birth rate in the region for First Nations peoples is 14.6%, which is higher than the Queensland rate of 12.3%. The low birthweight rate in the region is slightly higher than the Queensland rate for both First Nations peoples (12.8% vs 11.2% Queensland First Nations peoples) and the total population (8.4% vs 7.5% Queensland total). This is particularly pronounced in Yarrabah where 20.4% of all births are low birthweight.

The high birthweight rate in the HHS is lower than the Queensland rate for both First Nations peoples (7.3% vs 8.9% Queensland First Nations peoples) and the total population (9.5% vs 9.7% Queensland).

The rate of mothers aged 35 years or more is significantly higher in the Tablelands (East)–Kuranda region for non-First Nations peoples (39.5%) compared to the Queensland non-First Nations people rate (21.3%).

Developmental vulnerability: Whilst the proportion of children in the CHHHS region who are developmentally vulnerable across one or two or more domains is similar to the Queensland rate (refer to Table 10), there are some SA2 areas with considerably higher rates. In particular, the Far North region has 40.4% of children who are developmentally vulnerable across one domain (vs 25.9% Queensland) and 26.4% across two or domains (vs 13.9% Queensland).

Table 10: proportion of developmentally vulnerable children across one or two or more domains

Region	One or more domains (developmentally vulnerable) Proportion of children identified among children assessed (%)	Two or more domains (developmentally vulnerable) Proportion of children identified among children assessed (%)
CHHHS	26.2%	14.2%
Queensland Total	25.9%	13.9%

5.3.3 Older people's health

Arthritis and Osteoporosis: Similar to Queensland, there is a high prevalence in the CHHHS region of arthritis, which is a disease that generally affects older people. There are approximately 33,740 people in the region with this condition, the second highest incidence of a condition in the region (after mental health problems). The SA2 areas of Bentley Park and Mount Sheridan have the highest arthritis prevalence rate of 15.0 per 100 (vs Queensland 13.9). There are similar prevalence rates of osteoporosis in the region compared to Queensland (3.8 per 100). The SA2 areas with the highest rate of osteoporosis are Clifton Beach–Kewarra Beach, Trinity Beach–Smithfield, Yorkeys Knob–Machans Beach, and the Port Douglas-Daintree area with a rate of 4.0 per 100.

Dementia: Unstratified (crude data) rates for the number of people living with dementia across the CHHHS region is 3547. The distribution of people with dementia is represented in Table 11.

Table 11: Unstratified rates of people living with dementia in the CHHHS region (2020)

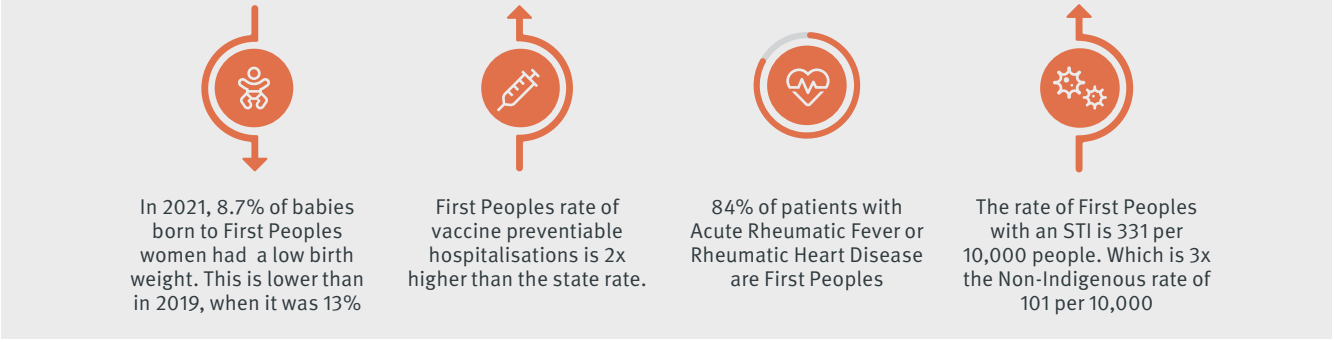
Region	People living with dementia
Cairns North	561
Cairns South	1264
Far North	106
Innisfail-Cassowary Coast	591
Port Douglas-Daintree	180
Tablelands (East)-Kuranda	845
CHHHS TOTAL	**3547**

Australian statistics on dementia prevalence advise that approximately 65% of people with dementia live in the community and more than two-thirds of aged care residents have moderate to severe cognitive impairment. With an ageing population nationally, the prevalence of dementia is increasing (noting that dementia can also impact younger people). The prevalence of dementia in Australia is 15.1 per 1000 people increasing to 83.0 per 1000 for Australians aged 65+. The prevalence of dementia is three to five times higher among Australia's First Nations peoples compared to national estimates for all Australians[13]. Further breakdown of dementia data for the CHHHS region is not available.

5.3.4 First Nations peoples' health

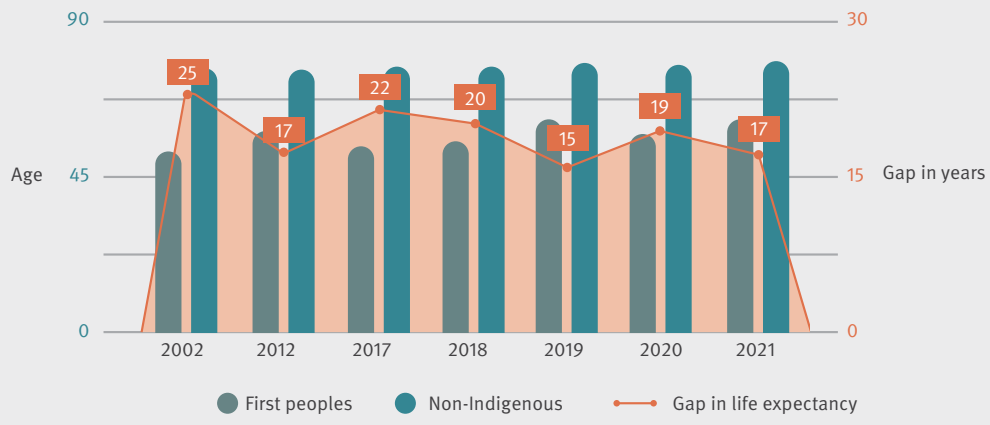
Prevalence of health conditions: The First Nations peoples in the CHHHS region experience higher preterm birth rates, more low birthweight rates and higher prevalence of diabetes, respiratory conditions, circulatory system disease, cancer and end-stage kidney disease. First Nations peoples also disproportionally experience higher rates of acute rheumatic fever/Rheumatic Heart Disease, sexually transmitted infections, and potentially vaccine preventable hospitalisations (refer Figure 11).

Figure 11: First Nations peoples' health status CHHHS[14]



Premature mortality: First Nations peoples in the CHHHS region experience a lower life expectancy compared to non-First Nations people. Whilst the gap is trending down, it is still an average of 17 years (refer Figure 12)[15]. In Yarrabah, premature mortality from diabetes (90.2 per 100,000) is more than four times the Queensland First Nations peoples rate (23.7) and 12 times the Queensland total rate (7.2).

Figure 12: CHHHS median life expectancy gap for First Peoples and non-Indigenous population[16]



13 Thompson, F, Russell, S, Quigley, R, et al (2022). Potentially preventable dementia in a First Nations population in the Torres Strait and Northern Peninsula Area of North Queensland, Australia: A cross sectional analysis using population attributable fractions. The Lancet Regional Health - Western Pacific 2022,26:100532 https://doi.org/10.1016/j.lanwpc.2022.100532

14 CHHHS First Peoples Health Equity Strategy.

15 CHHHS First Peoples Health Equity Strategy.

16 Cairns and Hinterland Analytical Intelligence (CHAI) as per the CHHHS First Peoples Health Equity Strategy

5.3.5 LGBTIQA+ people's health

The Australian Institute of Health and Welfare (AIHW) reports evidence from small-scale LGBTI targeted studies, and some larger population-based surveys, that LGBTI people face disparities in terms of their mental health (ABS 2008), sexual health (KI 2017) and rates of substance use. The 2016 National Drug Strategy Household Survey found that adults who identified as homosexual or bisexual or not sure/other sexual orientation reported higher levels of psychological distress than heterosexual adults. The most recent National Survey of Mental Health and Wellbeing estimated that almost one in three (32%) homosexual/bisexual people aged 16 and over in Australia met the criteria for an anxiety disorder in the previous 12 months compared with one in seven (14%) heterosexual people (ABS 2008). Similarly, almost one in five (19%) homosexual/bisexual people met the criteria for an affective disorder in the previous 12 months compared with one in 17 (6.0%) heterosexual people. While national suicide data by diverse sex, gender and sexual orientation are not available, there is evidence that LGBTI people are at a higher risk of suicidal behaviours (Skerrett et al 2015) and have the highest rates of suicidality compared with any population in Australia (Rosenstreich 2013)[17].

5.3.6 Prevalence of disease and premature mortality

The population health status of the CHHHS region indicates that there is a higher prevalence of disease, and a higher number of potentially preventable hospitalisations compared to the Queensland rate. The conditions that impact the highest number of people in the CHHHS region are mental health problems, arthritis, asthma and diabetes (refer to Table 12).

Conditions that impact people in the CHHHS region are listed below in alphabetical order.

Table 12: Conditions that impact the highest number of people in the CHHHS region

Condition	CHHHS region number of people impacted (2017-2018)
Mental and behavioural problems	55,443
Arthritis	33,745
Asthma	28,447
Diabetes	15,175

Acute rheumatic fever/Rheumatic Heart Disease (ARF/RHD)

Acute rheumatic fever/Rheumatic Heart Disease affects 2.3% of First Nations individuals (unstratified rate) compared to 0.05% of non-First Nations individuals (unstratified rate) within the CHHHS, 46 times higher among First Nations persons compared to non-First Nations persons. No data was available on the SA2 areas for acute rheumatic fever/Rheumatic Heart Disease prevalence. Socio-economic factors, such as overcrowded housing, are often a risk factor for infectious diseases, and the proportion of non-First Nations people and First Nations peoples in crowded or severely crowded residences is higher than the Queensland average. In the CHHHS region in 2021, 863 people were impacted by acute rheumatic fever/Rheumatic Heart Disease, with 712 of these being First Nations peoples. The region has the highest number of individuals with ARF/RHD in Queensland. 36% of the patients with RHD are under 25 years of age and just under two-thirds (63%) of the patients are female (with associated risk of complications of RHD in pregnancy). The number of people with RHD in the region is growing year on year, with higher growth from FY2020 to FY2021 for both First Nations peoples and non-First Nations people.

Cancer

Incidence: In the CHHHS region there is overall a similar incidence rate of cancer (all cancer types) to Queensland[18]. The Far North region and the Port-Douglas-Daintree region have a higher incidence of lung cancer compared to the Queensland incidence rate.

Premature mortality: Cancer was the highest cause of premature mortality in the CHHHS region based on the available data, with lung cancer mortality a key contributor[19]. Premature mortality rates for cancer in the region range from 103.5-143.9 per 100,000 people compared to the Queensland rate of 102.4.

The rate of premature mortality from *all cancers combined* is highest in the SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree (rate of 143.9 per 100,000 people vs 102.4 Queensland). The rate of premature mortality from lung cancer is highest in the SA2 areas of Manoora, Manunda, Westcourt – Bungalow and Woree (rate of 39.3 per 100,000 people vs 22.4 Queensland), with high rates also in the Far North region, Port Douglas-Daintree region and select SA2 areas in the Innisfail-Cassowary Coast region (range from 32.9-37.1 per 100,000 people). The rate of premature mortality from breast cancer is highest in the SA2 areas of Kuranda and Mareeba (rate of 27.8 per 100,000 vs 15.2 Queensland). The rate of premature mortality from colorectal cancer is highest in the SA2 areas of Edmonton, Gordonvale–Trinity and White Rock (rate of 13.6 per 100k vs 9.4 Queensland).

For First Nations peoples, the rate of premature mortality caused by *all cancers* in the IARE of Eacham, in the SA2 of Malanda–Yungaburra, is 266.6 per 100,000, more than three times the First Nations peoples Queensland rate (83.5) and more than double the Queensland rate (102.4).

17 AIHW data: aihw-aus-221-chapter-5-5.pdf.aspx

18 for the time period of 2010-2014

19 Data on cancer premature mortality is only available for *all cancers combined*, colorectal, lung and breast cancer. Data on other cancers (e.g. prostate and melanoma) is not available

Circulatory system diseases

Prevalence: For heart, stroke and vascular disease, the SA2 areas in CHHHS have prevalence rates similar to or lower than Queensland, with the exception of Johnstone and Tully in the Innisfail-Cassowary Coast region, which have a higher prevalence rate of 5.1 per 100 (vs 4.7 Queensland).

Premature mortality: Most areas in the CHHHS region (except for the Cairns North area and select areas within Cairns South) have higher rates of premature mortality from circulatory system diseases compared to Queensland (range 44.6-75.4 per 100,000 people compared to the Queensland rate 44). The rate of premature mortality from circulatory system diseases is well above the Queensland rate in the SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree (75.4 per 100,000 vs 44 Queensland). For First Nations peoples, the rate of premature mortality caused by circulatory system diseases in the IARE of Cairns – Far North Coast, (Port Douglas-Daintree region) is nearly three times the First Nations peoples Queensland rate (167.8 per 100,000 vs 62.6) and nearly four times the Queensland rate (44).

Ischaemic heart disease accounts for 51% of premature deaths relating to circulatory system diseases. The rate of premature mortality from ischaemic heart disease is highest in the Far North region (43.8 per 100,000 people), closely followed by the SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree (42.9 per 100,000 people), compared to the Queensland rate of 23.3.

Diabetes

Prevalence: All SA2 areas within the CHHHS region (with the exception of the Cairns North area) have a higher prevalence of diabetes compared to Queensland (range 5.3 - 7.6 per 100 people vs Queensland 4.7). The SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree have the highest rate of 7.6. This is followed by the SA2 areas of Babinda, Innisfail and Yarrabah with a rate of 7.4.

Premature mortality: All SA2 areas within the CHHHS (with the exception of the Cairns North areas and select SA2 areas in Cairns South - Edmonton, Gordonvale–Trinity and White Rock), have a higher premature mortality rate for diabetes compared to Queensland (range 8.5 - 29.3 per 100,000 people vs Queensland 7.2). The rate of premature mortality from diabetes is highest in the Far North region (29.3), greater than four times the Queensland rate.

For First Nations people the rate of premature mortality caused by diabetes in the IARE of Yarrabah is 90.2 per 100,000, more than four times the First Nations peoples' Queensland rate (23.7) and more than 12 times the Queensland rate (7.2). And for the IARE of Cairns (which maps to the Cairns South and Cairns North areas) the rate is 37.7 per 100,000, more than five times the Queensland rate.

End stage kidney disease (ESKD)

In 2018 in the CHHHS region, 0.6% (unstratified rate) of First Nations peoples had end-stage kidney disease (ESKD) compared to the non-First Nations' proportion of 0.09% (unstratified rate). The proportion of First Nations people with ESKD in the region is disproportional to the First Nations peoples population in the region (close to 50% of people with ESKD vs 11.6% of the population). No data is available on the SA2 areas on ESKD prevalence or a Queensland rate. In terms of incidence, 372 people in 2018 in the CHHHS region were impacted by ESKD.

External causes

External causes[20] were the second most common cause of premature death in the CHHHS region. Of these, 45.3% were due to suicide and self-inflicted injuries (refer also to mental health section below). There were high rates of premature mortality from external causes in select areas of Cairns South (Manunda, Manoora, Westcourt-Bungalow and Woree (67.2 per 100,000 vs 33.4 Queensland rate) and the Far North area (60.8 vs 33.4 per 100,000).

Mental health and rates of suicide

Prevalence: In general, both males and females in the CHHHS region experience higher rates of high psychological distress compared to Queensland. The SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree experienced the highest prevalence for males (16.4 per 100 versus 11.4 Queensland) and the highest prevalence for females (19.2 per 100 versus 14.5 Queensland). This is followed by Babinda, Innisfail and Yarrabah, with a prevalence of 14.7 for males and 18.1 for females.

For prevalence of mental and behavioural problems, the SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree have the highest rate of 29.7 per 100 (vs 22.7 Queensland). This is followed by the SA2 areas of Babinda, Innisfail and Yarrabah with a prevalence rate of 29.2.

Within the CHHHS region, in terms of numbers of people impacted by health conditions, mental health prevalence is higher than any other condition, impacting 53,550 people (more than one in five residents of the region).

20 Definition of external causes: Commonly described as deaths from accidents and injury, are deaths caused by environmental events and circumstances that are external to the body. External causes of death can be classified as 'unintentional', such as transport accidents (the largest number in this category), falls, and accidental drowning or poisoning; 'intentional', such as suicides (the largest number in this category) and homicides; and those which occur due to the complications of medical and surgical care (commonly referred to as 'adverse events').

Premature mortality: The suicide rate across all CHHHS SA3 areas exceeds the Queensland rate (15.4 per 100,000), particularly in Tablelands (East)–Kuranda, where the rate is nearly double the Queensland rate (26.8). Refer to Table 13 for the SA3 rates.[21] The rate of premature mortality from suicide and self-inflicted injuries is highest in the SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree (within the Cairns South area) (27.1).

Table 13: Age standardised rates of suicide - 2015-19 - CHHHS

SA3	Age standardised rate (per 100k)
Cairns - North	22.7
Cairns - South	21.0
Far North	22.0
Innisfail - Cassowary Coast	15.9
Port Douglas - Daintree	n.p.
Tablelands (East) - Kuranda	26.8
HHS Total	**-**
Queensland Total	**15.6**

Respiratory system diseases (including COPD) and asthma

Prevalence: The prevalence rates for asthma and chronic obstructive pulmonary disease (COPD) are similar to Queensland (asthma range 9.9%-13.4% vs 11.8% Queensland and COPD range 3.1-4.4% vs 3.5% Queensland). However, in terms of numbers of people, asthma is the third highest impacting condition for people in the CHHHS region (nearly 28,500 people). The SA2 areas of Babinda, Innisfail and Yarrabah have the highest asthma prevalence rate of 13.4 per 100. COPD impacts just under 9000 people in the CHHHS, with the majority of people impacted in Manunda, Manoora, Westcourt-Bungalow and Woree (4.4% of people).

Premature mortality: There are higher rates of premature mortality in all SA2 areas (except for the Cairns North region and Earlville–Bayville Heights, and Kanimbla–Mooroobool areas) compared to Queensland (range 19.2 - 42.5 vs 16.6 Queensland per 100,000). The rate of premature mortality from respiratory system diseases is highest in the SA2 areas of Manoora, Manunda, Westcourt–Bungalow and Woree (42.5).

For First Nations peoples the rate of premature mortality caused by respiratory system diseases in the IARE of Kuranda - Croydon, (Tablelands (East)-Kuranda and Far North) 64.9 per 100,0000, is nearly three times the First Nations peoples' Queensland rate (24.9) and nearly four times the total Queensland rate (16.6).

All areas (except for the Cairns North area) within the CHHHS region have higher rates of premature mortality from COPD compared to Queensland (range 10.8-28.2 per 100,000 vs 10.7 Queensland). The SA2 areas with the highest rates of premature mortality from COPD are Manunda, Manoora, Westcourt-Bungalow and Woree (28.2).

Sexually transmitted infections (STIs)

The sexually transmitted infections rate for the CHHHS region is 101 per 10,000 (unstratified rate) for the total population and 331 per 10,000 for First Nations peoples (unstratified rate). The rate of STIs disproportionately affect First Nations peoples compared to the total population. The rates for STIs within the region were trending down for both the total population and First Nations population from 2017 to 2019. Chlamydia is the most prevalent infection for both the whole population and the First Nations population. No data is available at SA2 level for sexually transmitted infections and no Queensland rate is available.

21 The ASR per 100K is slightly different (15.6 vs 15.4) due to the time period for the two different data points. The 15.4 rate is for 2014-2018, the 15.6 rate is for 2015-2019. The 2015-2019 data breakdown does not have SA2 level detail, hence the two different data points have been used.

6.0 Health services for the region

6.1 Primary care and other relevant care sectors

6.1.1 GP services, ACCHOs and primary care utilisation

GP and ACCHO services

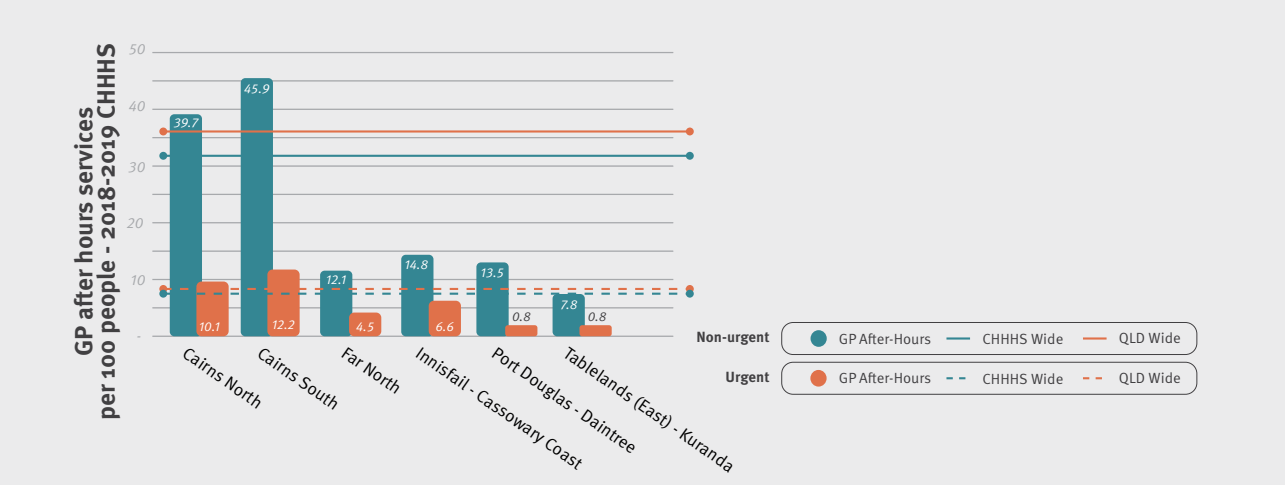
In 2021, there were 80 GP clinics located within the CHHHS region, approximately 66% of which were bulk-billing enabled[22]. This included five registered Aboriginal Community Controlled Health Organisations (ACHHOs). These are: Apunipima Cape York Health Council, Gurriny Yealamucka, Mamu Health Service Limited, Mulungu Aboriginal Corporation Primary Health Care Service and Wuchopperen Health Service Limited.

Approximately one in three GP clinics are located within the Cairns South area. There is only one bulk-billed enabled GP within the Far North area — the Royal Flying Doctor service (RFDS). All GP catchment areas in 2021 (except for Cairns) were a GP Distribution Priority Area in 2021[23].

The average number of GP attendances in the CHHHS region is lower than the Queensland rate (5.7 visits per person versus Queensland rate of 6.4 visits per person in 2018-19). In particular, the Far North has an average of only 3.4 visits per person. In addition, the proportion of residents who did not see a GP is higher in the region compared to Queensland (12.4% compared to 11.6% Queensland). This was also the highest in the Far North, where an estimated 33.1% of residents did not see a GP. The SA3s of Port Douglas–Daintree and Tablelands (East)–Kuranda also had higher proportions of individuals who did not see a GP (17.8% and 16.2% respectively).

All areas within the CHHHS, except for Cairns South and Cairns North accessed less after-hours GP services (urgent and non-urgent) compared to the rest of Queensland (refer to Figure 13).

Figure 13: GP after hours services per 100 people - 2018-19 - CHHHS



The CHHHS region rate of utilising GP telehealth services is low (0.30 services per 100 people), similar to the Queensland rate (0.32), however, all SA3 areas (except Cairns South and Cairns North) used GP telehealth services more than the Queensland average. The region of Tablelands (East)–Kuranda has twice the GP telehealth utilisation rate compared to Queensland (refer Table 14).

Table 14: GP Telehealth (patient end support) - 2018-19 - CHHHS

GP telehealth (patient end support) MBS billable item	
SA3	**Services per 100 people**
Cairns - North	0.11
Cairns - South	0.08
Far North	0.58
Innisfail - Cassowary Coast	0.67
Port Douglas - Daintree	0.32
Tablelands (East) - Kuranda	0.74
HHS Total	**0.30**
Queensland Total	**0.32**

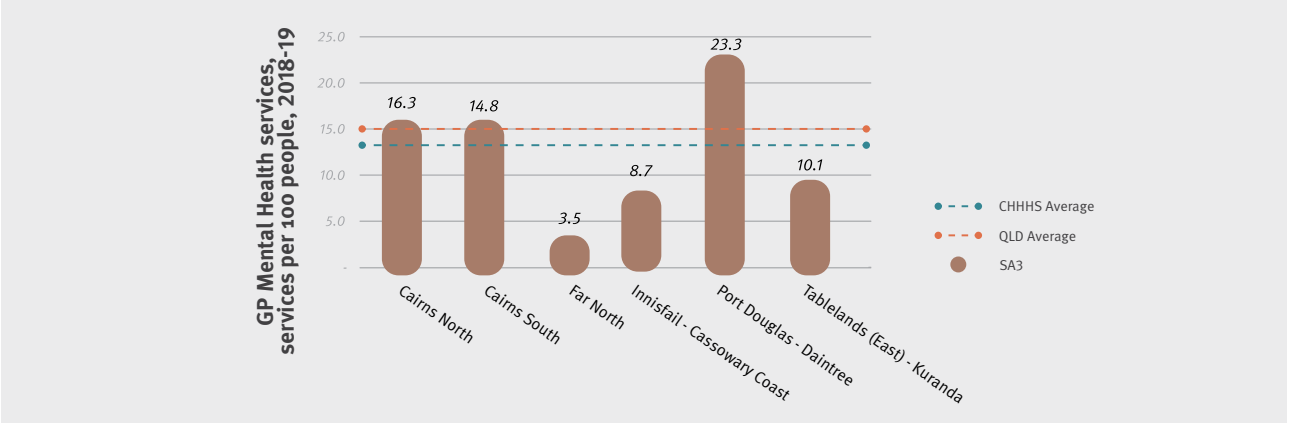
22 This consists of General Practice Clinics, including ACCHOs, registered with the National Health Service Directory (NHSD) only. Bulk-billing enabled status is based on service payment types 'bulk billing only' and 'fees and bulk billing'.

23 Recognition that the area has lower than benchmark access to GP services.

Mental health care plans

There is a lower utilisation of (MBS billable) mental health care plans for some SA3 areas within the CHHHS region, with an average of 13.6 mental health care plans per 100 people compared to the Queensland average of 15.4 (refer to Figure 14). The Port Douglas-Daintree area has a higher utilisation of mental health care plans compared to the state average (23.3 per 100 people).

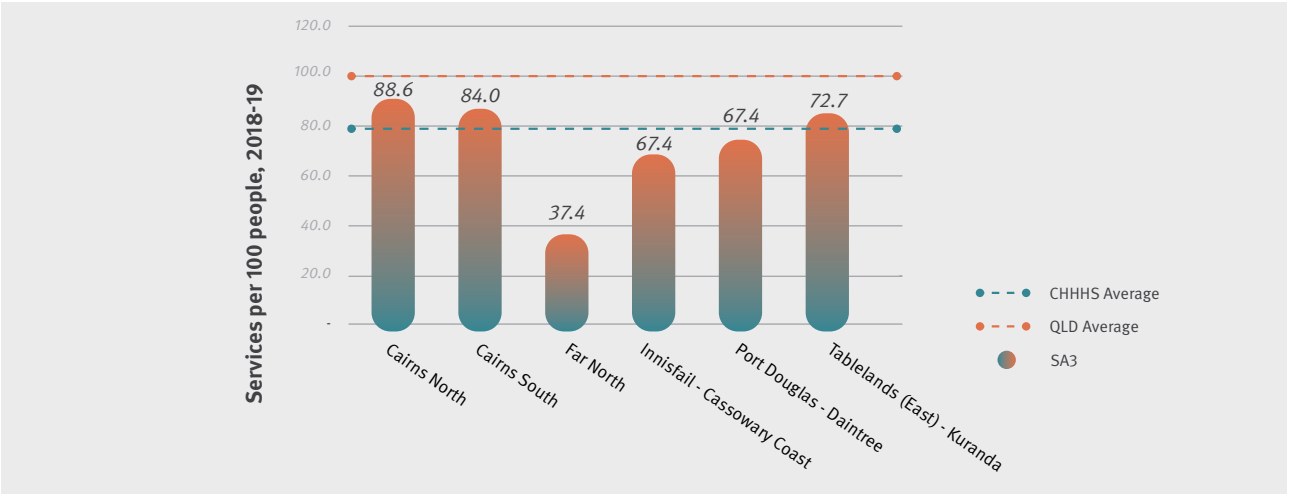
Figure 14: Mental health care plans per 100 people 2018-19 CHHHS



Allied health

Access to allied health services (MBS billable items) was lower for all SA3 areas, compared to the Queensland average (refer to Figure 15). There is a significantly lower volume of utilisation of allied health services in the Far North SA3, with 37.4 services per 100 people.

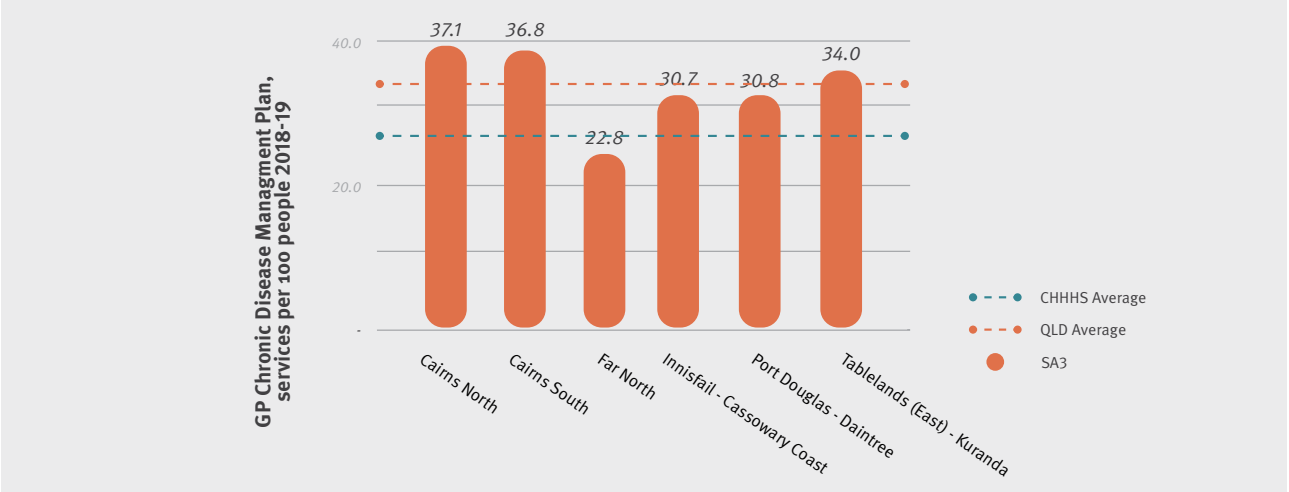
Figure 15: Services delivered by allied health professionals per 100 people - 2018-19 - CHHHS



GP chronic disease management plans

The utilisation rate of GP Chronic Disease Management Plan MBS codes is lower for all SA3 areas within the CHHHS region compared to Queensland (refer to Figure 16). It is particularly low for the Far North, with a rate of 22.8 services for every 100 people, compared to 39.1 services in Queensland.

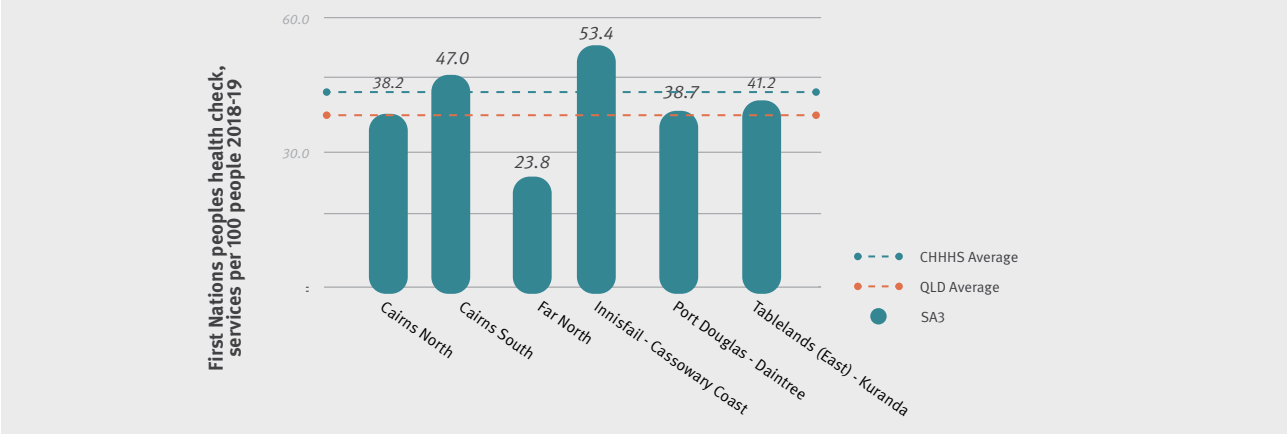
Figure 16: Chronic disease management plan services per 100 people - 2018-2019 - CHHHS



First Nations peoples' health checks

There is better utilisation of First Nations peoples' health checks (MBS billable items) in the CHHHS region compared to Queensland (refer to Figure 17). (Noting: this is disproportional to the percentage of First Nations people in the region compared to Queensland, being 2.5 times higher)

Figure 17: GP First Nations Peoples' Health Check services per 100 people - 2018-19 - CHHHS



6.1.2 The aged care sector

CHHHS has a total of 2257 residential aged care places, 96 restorative care places and 17 home care package providers. 50% of the residential aged care places are located in the Cairns South region. Redlynch (as an SA2 area) has the highest number of residential aged care places at 338. Cairns City has no residential aged care places but does have 96 restorative care places. (Refer to Figure 18 for location of residential aged care facilities within the region.)

Figure 18: Residential Aged Care Facilities Locations by Modified Monash Model (2019)

6.1.3 The disability sector

The CHHHS region has 3984 National Disability Insurance Scheme (NDIS) participants (2021). Overall, the region has a lower participation rate in the NDIS compared to Queensland (15.4 per 1000 vs 17.4 Queensland). The participation rate is substantially higher in Manunda (25.6 per 1000), Woree (23.0 per 1000) and Bentley Park (22.8 per 1000). There are lower rates of NDIS participants in the Far North region and the SA2 area of Port Douglas, however, given the limited services in these regions, these figures should be interpreted with caution.

6.2 Cairns and Hinterland HHS Health facilities

Services are provided at a range of facilities across the HHS, including a large tertiary hospital in Cairns and smaller facilities in the rural and remote areas. The facilities in CHHHS include:

	Hospitals	Primary Health Centres	Community Health Centres	Other
Cairns North			• Cairns North Community Health Centre • Smithfield Community Health Centre	
Cairns South	• Cairns Hospital • Gordonvale Hospital		• Edmonton Community Health Centre • Cairns South Health Facility	Community residential mental health: • Community care unit • Adult step up step down • Youth step up step down
Far North		• Croydon Primary Health Centre • Forsayth Primary Health Centre • Georgetown Primary Health Centre • Chillagoe Primary Health Centre		
Innisfail – Cassowary Coast	• Babinda Multi-Purpose Health Centre • Innisfail Hospital • Tully Hospital		• Jumbun Community Health Centre • Innisfail Community Health Centre • Mission Beach Community Health Centre	• Yarrabah Emergency Service and other CHHHS services
Port Douglas - Daintree	• Mossman Multi-Purpose Health Centre	• Cow Bay Primary Health Centre	• Mossman Community Health Centre	
Tablelands (East) - Kuranda	• Atherton Hospital • Mareeba Hospital • Herberton Hospital	• Dimbulah Primary Health Centre • Malanda Primary Health Centre • Millaa Millaa Primary Health Centre • Ravenshoe Primary Health Centre • Mount Garnet Primary Health Centre	• Atherton Community Health Centre • Mareeba Community Health Centre	• Lotus Glen Health Service

6.3 Cairns and Hinterland HHS health services

The Clinical Services Capability Framework (CSCF) applies to both public and licensed private health facilities for the provision of safe and quality services. Facilities are allocated an overall CSCF score from 1-6, with 6 being the most complex tertiary hospital service. Within the CHHHS region, Cairns Hospital is overall a Level 5 CSCF hospital. The Mareeba, Atherton, Innisfail and Mossman Hospitals are Level 3 facilities. Babinda and Tully Hospitals are Level 2 facilities. The CSCF level can help to understand the complexity of hospital type services that can safely be provided and the accessibility of different types of clinical services in a geographical region. The CHHHS CSCF can be found here: CSCF public hospitals | Queensland Health and provides a good overview of the range of clinical services and CSCF complexity of services available at CHHHS facilities.

6.4 Health activity profile

6.4.1 Emergency department

In 2020-21 there were 175,432 Emergency Department (ED) presentations to facilities within the CHHHS[24]. Almost 50% of these presentations were to Cairns Hospital; 1.7% of arrivals to Cairns Hospital were through some form of aeromedical ambulance. Across all ED presentations at CHHHS facilities in FY2020-21, about 30% could be considered as potential GP-type ED presentations[25]. In particular, 50% of ED presentations at Mareeba could be considered as potential GP-type ED presentations. In terms of primary care in this area, there are low rates of GP after-hours services, both urgent and non-urgent, within the Tablelands (East)–Kuranda region, and only two bulk-billing enabled GP clinics in the Mareeba SA2. Cairns Hospital has the lowest rate of potential GP-type ED presentations, with 15% of ED presentations meeting this criterion. This may be driven by higher rates of GP after-hours services, both urgent and non-urgent, within both Cairns North and Cairns South, as well as the availability of GP clinics in the Cairns area.

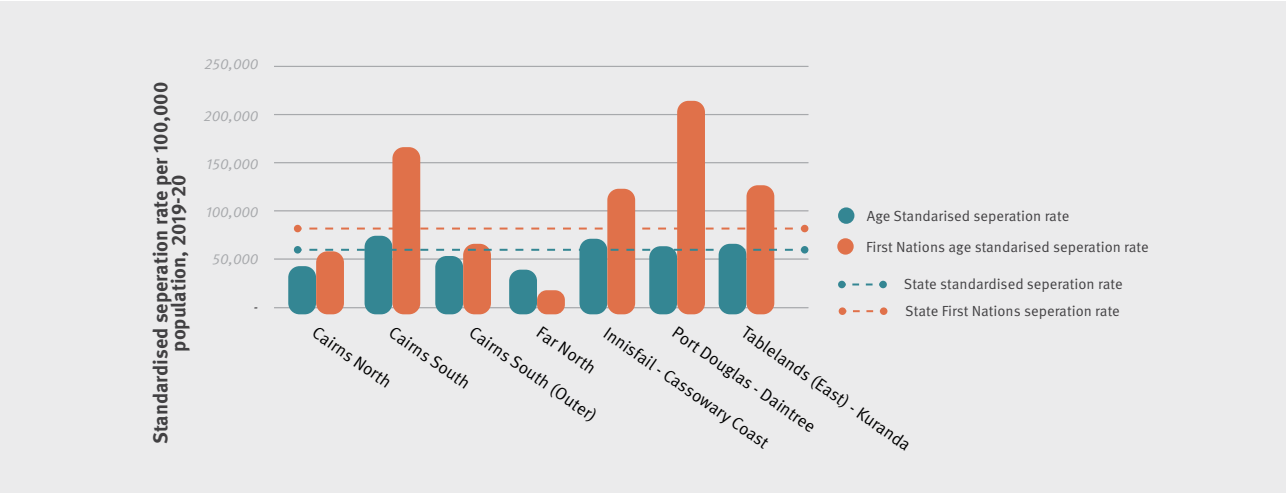
24 Total presentations to all Emergency Departments (including Yarrabah) reported in Cairns and Hinterland Analytical Intelligence (CHAI)

25 The AIHW and Australian College of Emergency Medicine's definitions of GP-type presentations were used as the basis to determine the presentations that relate to potentially unnecessary ED presentations, given the available variables. GP-type presentations are taken to be ED presentations that: Did not arrive by ambulance, police or correctional vehicle, were not admitted to hospital or referred to another hospital following their ED presentation, medical consultation time less than one hour, allocated a Triage category of 4 or 5, and did not die.

6.4.2 Inpatient (same day and overnight) and Hospital in the Home (HITH)

The CHHHS experiences higher hospitalisation rates compared to the Queensland average[26]. Hospitalisation rates can be measured by number of separations (hospital attendances). Across the planning regions, the separation rate is highest for the regions of Cairns South and Innisfail-Cassowary Coast. Nearly a quarter (23%) of hospital admissions are First Nations people, who represent 11.6% of the population. The First Peoples' rate of hospital separations is double that of the whole population. In addition, the First Nations peoples' separation rate is more than twice the population separation rate in Cairns South, and more than three times the population separation rate in Port Douglas–Daintree. Refer to Figure 19 for separation rates by planning regions[27]. There are lower separation rates for the Far North region, which need to be interpreted with caution due to their remote location and accessibility to services.

Figure 19: Inpatient age standardised separation rate by planning region - 2019-20 - CHHHS



Overnight separations: The top three clinical classification reasons (by number of separations) for overnight medical separations are respiratory medicine, obstetrics, and gastroenterology. The top three clinical classification reasons (by number of separations) for overnight intervention[28] separations are orthopaedics, interventional cardiology, and non-subspecialty surgery. For overnight admissions immunology and infections are within the CHHHS top 10 reasons for admission, but not within Queensland's top 10 reasons for overnight admissions.

Same day separations: The top three clinical classification reasons (by number of separations) for same day medical separations are renal dialysis, chemotherapy, and haematology. The top three clinical classification reasons (by number of separations) for same day intervention separations are diagnostic GI endoscopy, ophthalmology, and gynaecology. Within the top 10 reasons for same day admission, CHHHS has cardiology, neurology, and drug and alcohol, which are not included in the Queensland top 10 reasons for same day admissions.

Hospital in the Home (HITH): The Cairns Hospital operates two forms of HITH. The HITH model that operates as a component of the Emergency Department and provides a service in a person's home instead of as an inpatient in hospital saw the majority of patients for three reasons: cellulitis (minor complexity), cellulitis (major complexity) and kidney and urinary tract infections (major complexity).

The separation rate for the CHHHS is increasing year on year from 2017-18 to 2019-20.

6.4.3 Self-sufficiency and relative utilisation

Self-sufficiency: Self-sufficiency refers to the proportion of people from a region who can receive hospital care within their region. The CHHHS operates at a self-sufficiency of approximately 95%[29]. The majority of patients across the region were treated at Cairns Hospital.

Relative utilisation: Relative Utilisation refers to the ratio of the number of admissions for residents of a geographical region, regardless of where they were admitted, to the expected number of admissions based on the state admission rate adjusted for sex and age[30]. ***Relative utilisation can be an indicator of population need but should not be considered in isolation.*** The CHHHS continues to operate public hospital services at a high relative utilisation compared to the Queensland average, operating overall at 113% for 2019-2020 and 114% for 2020-2021.

The relative utilisation of public hospital services (same day and overnight) by residents of each SA3 region for 2020-21 is listed in Table 15:

26 The hospitalisation rates included in this report are only for CHHHS residents and do not account for hospitalisations for people who live outside of the CHHHS but receive hospital services in the CHHHS.

27 The CHHHS has seven planning regions and six SA3s. The SA3 of Cairns South includes the additional planning region of Cairns South outer.

28 Intervention separations refer to surgical separations for which the AR-DRG belonged to the surgical partition of the AR-DRG classification (involving an operating room or procedure) as defined by AIHW.

29 Queensland Health Planning Portal self-sufficiency by place of residence, counting all age groups, stay types, intervention/medical, SRG and emergency status (Cairns and Hinterland)

30 A relative utilisation greater than one indicates that the number of admissions for residents is greater than the expected number of admissions based on the state admission rate adjusted for age and sex.

Table 15: relative utilisation of public hospital services in CHHHS

SA3	Public hospital relative utilisation 2020-2021 all status[31]
Cairns South (includes Cairns South Outer planning region)	116%
Cairns North	86%
Innisfail-Cassowary Coast	137%
Port Douglas-Daintree	115%
Tablelands (East)-Kuranda	132%
Far North	85%
Total	**114%**

Clinical areas of note:

Drugs and alcohol (addiction services): There are high rates of relative utilisation for the clinical classification of drugs and alcohol (same day and overnight admissions) for four of the CHHHS planning regions - Cairns South, Innisfail-Cassowary Coast, Port Douglas-Daintree and Tablelands (East)-Kuranda, and also for same day admissions for Cairns South outer and Cairns North. Refer to Table 16 for details. The proportion of people coming to hospital for drug and alcohol reasons in the CHHHS region is one and a half to two times higher than the Queensland average utilisation rate – noting that fewer people come to hospital for drug and alcohol reasons (compared to other health conditions). The CHHHS has the highest separation rate for drug and alcohol clinically classified conditions (same day and overnight combined) for Queensland, with Tablelands (East)-Kuranda having the highest rate.

Table 16: Drug and alcohol relative utilisation (public hospital) overnight and same day by CHHHS planning region

Planning Region	Drug and Alcohol (SRG) Relative utilisation and no. of separations same day	Drug and Alcohol (SRG) Relative utilisation and no. of separations overnight
Cairns South	397% (648)	160% (243)
Cairns South outer	190% (206)	
Innisfail-Cassowary Coast	139% (116)	192% (154)
Port Douglas-Daintree	158% (48)	200% (59)
Tablelands (East)-Kuranda	151% (154)	176% (175)
Cairns North	222% (316)	

Immunology and infectious diseases (such as cellulitis, viral illnesses and other infectious diseases): There are high rates of relative utilisation for conditions clinically classified as 'immunology and infections' (public hospital admission and overnight stays) within CHHHS. There are also high rates of relative utilisation for these conditions for (public hospital admission) for same day admissions in Innisfail-Cassowary Coast, Port Douglas-Daintree, Tablelands (East)-Kuranda and the Far North regions (refer to Table 17). Whilst the overall number of separations is not as high as some other clinical areas, it should be noted that the relative utilisation is up to more than six times the Queensland relative utilisation average.

Table 17: Immunology and infectious diseases relative utilisation (public hospital) overnight and same day by CHHHS planning region

	Planning region	Stay type	Relative utilisation and no. of separations
Immunology and infections	Cairns South	Overnight	192% (636)
	Cairns South outer	Overnight	170% (341)
	Far North	Same Day	237% (27)
		Overnight	136% (58)
	Innisfail-Cassowary Coast	Same Day	648% (333)
		Overnight	232% (449)
	Port Daintree-Douglas	Same Day	166% (30)
		Overnight	207% (141)
	Tablelands (East) - Kuranda	Same Day	410% (267)
		Overnight	205% (523)

31 Emergency and non-Emergency.

Mental Health services: There is a high rate of relative utilisation for overnight public mental health separations compared to the Queensland average, operating overall for the CHHHS at 121% for 2020-2021. This is strongly contributed to by the Cairns South region at 195% relative utilisation for mental health separations. The CHHHS has the highest separation rate for public mental health clinically classified conditions (same day and overnight combined) for Queensland, with Cairn South having the highest rate.

6.4.4 Potentially preventable hospitalisations (PPH)

PPH can be an indicator of the effectiveness of non-hospital care. The rate of PPH in a local area may reflect access to primary care, as well as socio-demographic factors and health behaviours[32].

PPH overall: In FY2020, the CHHHS region had a total potentially preventable hospitalisation rate (per 100 episodes of care) of 7.9. The rate was slightly higher for the First Nations population of CHHHS at 8.0. Comparatively, Queensland's total potentially preventable hospitalisation rate was lower at 7.7 for the total population and higher at 9.6 for the First Nations peoples' population.

In general, for the total population, the rate of total preventable hospitalisations across the SA2 areas were in line or slightly higher than the Queensland rate, with the notable exceptions of Babinda (at 11.9) and Mareeba (at 11.0).

For the First Nations population, there were some areas with particularly high rates of potentially preventable hospitalisations. These include Babinda (20.4%), Brinsmead (18.9%), and Tablelands (16.9%) which are all well above the Queensland rate of 9.6% for First Nations peoples.

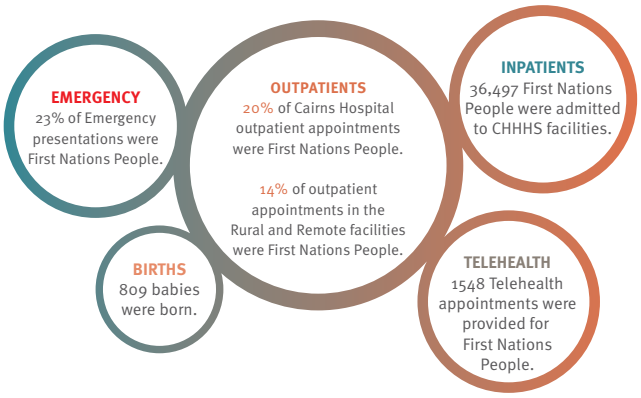
PPH dental-related conditions: The rate of acute dental conditions in the CHHHS region was lower overall compared to Queensland for the whole population (4.8 per 1000 versus 5.4 Queensland). However, there are some SA2 areas with higher rates, such as Tablelands (8.3), Kuranda (7.9), and Trinity Beach–Smithfield (7.8). For the First Nations population, Mareeba has a much higher rate of potentially preventable acute dental conditions than the Queensland First Nations peoples' rate (9.4 per 1000 people vs 1.8 Queensland).

PPH vaccine preventable diseases: The CHHHS rate of vaccine preventable diseases was lower than the Queensland rate (5.0 per 1,000 people vs 5.7 Queensland). However, there are some SA2 areas that have much higher rates of vaccine preventable hospitalisations across the whole population, including White Rock (11.7), Yarrabah (10.1) and Bentley Park (9.5). The CHHHS First Nations peoples' rate of vaccine preventable hospitalisations is higher than Queensland (8.7 per 1000 vs 4.7 Queensland). This is driven by First Nations vaccine preventable hospitalisations in White Rock (37.9), Mount Sheridan (27.5) and Bentley Park (23.5).

6.4.5 First Nations peoples' considerations

Across the CHHHS planning regions, the separation rate[33] for First Nations peoples is highest for Cairns South and Innisfail–Cassowary Coast. Additionally, the First Nations separation rate is more than twice the population separation rate in Cairns South, and more than three times the population separation rate in Port Douglas–Daintree. For First Nations peoples, the top three reasons for overnight hospital admissions are respiratory, obstetrics and gastroenterology. The top three reasons for overnight hospital admission for Queensland for First Nations peoples are obstetrics, respiratory medicine and mental health. The top three reasons for same day admissions for First Nations peoples in the CHHHS region are for renal dialysis, obstetrics and chemotherapy.

Figure 20: First Peoples service access and activity for CHHHS 2020-20[34]



The drug and alcohol separation rate for First Nations peoples is nearly twice the First Nations Queensland rate for Tablelands (East)–Kuranda and is higher than the Queensland average for Cairns North, Cairns South and Port Douglas–Daintree. The First Nations peoples' rate for mental health admissions is higher than the general population rate. In particular, the rate of First Nations peoples' mental health hospitalisations is 2.2 times the HHS rate within Tablelands (East)–Kuranda.

32 Australian Institute of Health and Welfare (Falster & Jorm 2017).

33 Separation rate refers to episodes of care, rather than individuals, e.g. a person may come more than one time for a condition. Each time they attend (i.e. same day or overnight) is referred to as a 'separation'.

34 Cairns and Hinterland Analytical Intelligence (CHAI) as per the CHHHS First Peoples Health Equity Strategy.

6.4.6 Oral health services

In CHHHS, the proportion of the eligible population accessing public oral health care is higher than Queensland (15% versus 12.8%), noting that this is still a small proportion of the eligible population. Around a third of the public dental services in the CHHHS region are provided at the Cairns North Dental Clinic.

6.4.7 Workforce

The data on workforce is taken from the Australian Health Practitioner Registration Authority (AHPRA) registrations, with significant limitations, including actual hours of clinical practice (i.e. fulltime vs part time workers) and where services may be provided.[35]

Nursing and midwifery: The rate of nurses and midwives in the CHHHS region is similar to Queensland (14.77 headcount vs 14.15 per 1000 population for Queensland), however, this is largely due to the high rate in Cairns South of 26.0 per 1000. The rates in the remaining SA3 areas are substantially lower than the state.

Medical practitioners: the rate of medical practitioners in the CHHHS region is slightly higher than Queensland (4.29 headcount vs 4.13 per 1000 population for Queensland) however, this is largely due to the high rate in Cairns South of 7.88 per 1000. The rates in the remaining SA3 areas are substantially lower than the state.

All other health practitioner workforce headcount per 1000 population is lower than Queensland (refer to Table 18 for details).

Table 18: Registered AHPRA practitioner headcount by profession and SA3 (headcount per 1000 population 2019 within CHHHS)

Health profession	CHHHS region	Queensland
Medical practitioners	4.29	4.13
Nurses and midwives	14.77	14.15
Dental practitioners	0.86	0.87
Psychologists	0.83	1.02
Pharmacists	0.88	1.02
Physiotherapists	0.89	1.15
Occupational therapists	0.7	0.79

Workload: Workforce workload is based on full time equivalent hours self-identified by clinicians in a survey conducted by AHPRA. There is some evidence of high workload for health professionals, spanning across different positions. In the CHHHS region, 19% of medical practitioners worked an FTE greater than 1.25 but less than 1.625. This was particularly pronounced in Innisfail-Cassowary Coast where 30.6% and Tablelands (East)-Kuranda where 21% of staff reported working an FTE greater than 1.25 but less than 1.625.

15% of paramedicine practitioners worked an FTE greater than 1.25 but less than 1.625. This was particularly pronounced in Innisfail-Cassowary Coast where 31.9% of staff reported working an FTE greater than 1.25 but less than 1.625. In Innisfail-Cassowary Coast, over 20% of occupational therapists, pharmacists and physiotherapists reported working an FTE greater than 1.25 but less than 1.625

35 AHPRA registrations cover all registered health workforce, in the region regarless of workplace.

7.0 Regional profiles

Regional profiles have been developed to geographically demonstrate the pertinent population, health status and service availability for the SA3 regions wihtin the CHHHS.[36]

7.1 CHHHS regional profiles

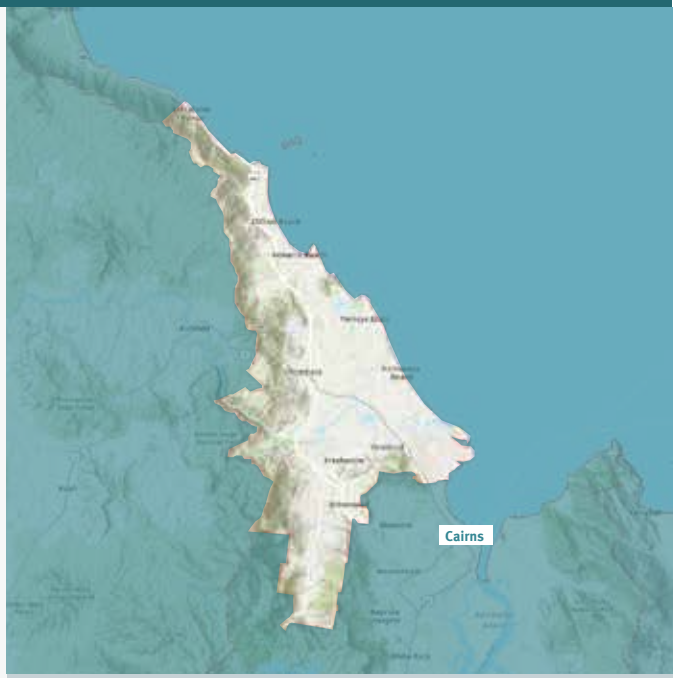
7.1.1 Cairns North

Key population demographics and service access

Cairns North has a population of approximately 57,000 people (22% of the total CHHHS population). This is projected to increase by 14% to 65,400 people by 2031.

The Cairns North region has the lowest proportion of people aged 65+ years within the CHHHS.

- **Regional classification:** Outer Regional Australia
- **Population aged 0 – 14 years:** 20%
- **Population aged 65+ years:** 13%
- **Population that identifies as First Nations people:** 4.7%
- **Population that does not see a GP:** 11% (below Queensland average)
- **Closest Acute Facility:** Cairns Hospital



- Brinsmead
- Clifton Beach
- Kewarra Beach
- Freshwater - Stratford
- Redlynch
- Trinity Beach - Smithfield
- Yorkeys Knob - Machans Beach

Region specific health need highlights 2019-20

The Cairns North region has the lowest prevalence of disease and premature mortality rates of all regions serviced by CHHHS however engagement in risky health behaviours remained higher than Qld averages.

25% of adults were risky lifetime drinkers compared to 22% in Qld, and 12% were daily smokers which is slightly higher than the Qld average of 11%.

34% of adults in the Cairns North region report insufficient engagement levels in physical activity.

The rate of GP chronic disease management services per 100 people was the highest in the CHHHS and just below the Qld average.

Higher utilisation of hospital services for drug and alcohol reasons for the population of this region compared to Qld utilisation.

Screening for cancer (breast, bowel and cervical) for persons aged 50 – 74 years is higher than the Qld and CHHHS averages.

Age Standardised Rate (ASR) of suicide for Cairns North (22.7 per 100,000 population) exceeded the Qld rate.

When compared to Queensland, the Cairns North region has higher rates of mortality for cancer, external causes and suicide and self-inflicted injury. Rates of mortality are higher in some Cairns North areas for lung cancer and road injuries.

36 Percentages have been rounded up/down to the nearest whole number where possible in the regional profiles for ease of comparison.

7.1.2 Cairns South

Key population demographics and service access

Cairns South has a population of approximately 106,100 people (41 % of the total CHHHS population). This is projected to increase by 24.5% to 132,100 people by 2031. Within the region, the Gordonvale–Trinity area has a projected annual growth rate of 6.8% and White Rock 1.7% (2021-2031). These are the only two areas in the CHHHS that have above the Queensland projected annual growth rate (1.6%). Nearly half of the entire First Nations population of CHHHS live in the Cairns South region and 25% of people in the *Cairns City* area were born in non-English speaking countries.

- **Regional classification:** Outer Regional Australia
- **Population aged 0 – 14 years:** 20% (highest volume in the CHHHS)
- **Population aged 65+ years:** 14% (highest volume in the CHHHS)
- **Population that identifies as First Nations people:** 13%
- **Population in lowest quintile of disadvantage:** 27% (above Queensland average)
- **Population that does not see a GP:** 10% (below Queensland average)
- **Closest Acute Facility:** Cairns Hospital

- Cairns City
- Bentley Park
- Earlville - Bayview Heights
- Edmonton
- Gordonvale - Trinity
- Kanimbla - Mooroobool
- Lamb Range
- Manoora
- Manunda
- Mount Sheridan
- Westcourt – Bungalow
- White Rock
- Whitfield – Edge Hill
- Woree

Region specific health need highlights 2019-20

Cairns South is home to nearly half of the regions First Nations people and is socio-economically disadvantaged. Both groups experience poorer health outcomes. Culturally appropriate and affordable access to support and services is a priority for this region.

28% of adults were risky lifetime drinkers compared to 22% in Queensland, and 16% were daily smokers compared to 11% in Qld.

⅓ of the adult population of the Cairns South region were overweight and 40% engaged in insufficient levels of physical activity.

48.5% of First Nations mothers and 13% of non-First Nations mothers smoke in pregnancy – both exceed Qld averages.

Compared to Qld, more of the total population and First Nations people live in crowded dwellings and more dwellings do not have a motor vehicle.

Compared to Qld, Cairns South has a higher prevalence of diabetes, especially among First Nations people.

Higher utilisation of hospital services for same day and overnight reasons for the population of this region compared to Qld utilisation

Rates of premature mortality vary by area within the Cairns South region. When compared to Qld, rates are higher for some Cairns South areas for cancer, lung cancer, suicide and self-inflicted injury, heart and lung conditions, and diabetes.

7.1.3 Cairns South Deep Dive:
Manunda, Manoora, Westcourt-Bungalow and Woree

Demographics

Compared to CHHHS, a high proportion of the population in these areas identify as First Nations people and are aged between 0 - 14 years. **Culturally appropriate services and a focus on mothers and early years are key health needs.**

- Combined, these areas are home to nearly 23,000 people, equating to **9% of the CHHHS population.**
- **21% of the population identify as First Nations people** – the populations of Manoora and Manunda have the 2nd and 3rd highest *proportion* of First Nations people within CHHHS (after Yarrabah).
- **Children aged 0 – 14 years account for 36% of the population,** compared to 20% for the rest of CHHHS.

Socio-economic status and indicators

People in this area also experience poorer socio-economic status. **A focus on the social determinates of health including affordable housing and transportation is necessary to improve health** outcomes and access.

- **31% of the First Nations population in these areas live in crowded dwellings**, compared to 25% of the First Nations population of Cairns South and 20% of the Queensland First Nations population.
- These areas have the **highest percentage of the population in the lowest socio-economic decile in the CHHHS** (ranging from 81-90% of the population), joined only by Herberton (89%) and Yarrabah (100%).
- **Higher rates of unemployment** (ranging from 11 - 14%) when compared to the rest of Qld (7%).
- 61% of First Nations people and 47% of non-First Nations **people are receiving rental assistance** compared to 29% of the Qld First Nations population and 26% of the Qld non-First Nations population.
- Between 24 – 28% of **dwellings do not have access to the internet compared** to 14% of Qld dwellings.
- **Higher rate of one parent families** ranging between 24 - 39% compared to 17% of Qld families.

Burden of disease profile

Compared to Queensland, **children in this area experience a poorer start to life and poorer health outcomes**, reiterating the importance of focusing on maternal and early childhood health especially for First Nations people.

- **More First Nations mothers in this area smoke in pregnancy** (48.5%) when compared to the First Nations population of Qld (42.6%) and access less than 8 antenatal visits (60% vs Qld 68%).
- 32% of **children identified as developmentally vulnerable** in one domain compared to 26% of Qld children and 18% of children identified as developmentally vulnerable in two domains compared to 14% of Qld children.

The adult population have **high rates of obesity, diabetes, psychological distress and suicide, and disability**. A whole of community approach is critical, including community-based services focused on early and crisis intervention.

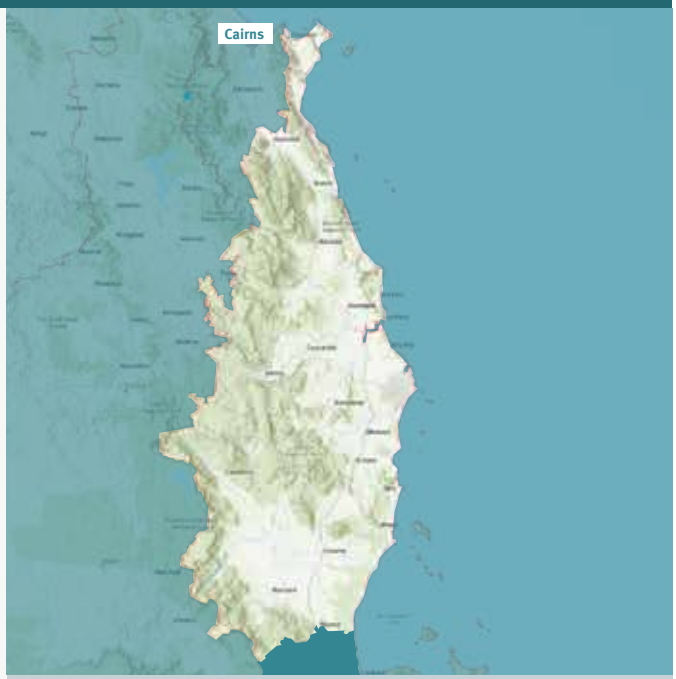
- **43% of adults are obese** compared to 25% of Qld adults and the rate of **premature mortality due to diabetes is three times higher than that of Qld.**
- This area has the **highest proportion of individuals aged 65+ years with profound or severe disability within CHHHS** – this includes those in long-term accommodation (22% vs Qld 17%).
- Males and females within these areas experience **higher rates of psychological distress** (16 and 19 per 100,000 population) when compared to Qld (11 and 14 per 100,000 population).
- These areas have the **highest rate of premature mortality from all cancers in the CHHHS** (ASR of 144 per 100,000 population), as well as the **highest rate of premature mortality for respiratory system disease** (ASR of 43 per 100,000 population) and suicide and self-inflicted injury (ASR 27 per 100,000 population)
- The rate of **premature mortality for circulatory system diseases is also high** and well above the Qld rate with an ASR of 75 per 100,000 population compared to 44 per 100,000 population for Qld.

7.1.4 Innisfail-Cassowary Coast

Key population demographics and service access

The Innisfail-Cassowary Coast region has a population of 34,049 people (13% of the total CHHHS population). This is projected to increase by 3% to 35,113 in 2031. This is the second lowest rate of growth in the CHHHS. The Yarrabah SA2 is located within the Innisfail-Cassowary Coast region and has the highest proportion of First Nations peoples (98%) of all SA2s within the CHHHS catchment.

- **Regional classification:** Outer Regional Australia
- **Population aged 0 – 14 years:** 20%
- **Population aged 65+ years:** 20%
- **Population that identifies as First Nations people:** 19% (highest *proportion* of First Nations peoples in the CHHHS)
- **Population in lowest quintile of disadvantage:** 34% (above Queensland average)
- **Population that does not see a GP:** 12% (above Queensland average)
- **Closest Acute Facility:** Innisfail Hospital and Tully Hospital, Babinda Multipurpose Health Centre, and Yarrabah Emergency Centre



- Babinda
- Innisfail *(Jumbin)*
- Johnstone
- Tully (81.5%) *(Mission Beach)*
- Yarrabah
- Wooroonooran

Note: *areas in italics are not SA2s but reflect how services are provided in the region.*

Region specific health need highlights 2019-20

When compared to Qld, the Innisfail – Cassowary Coast region has higher rates of engagement in risky health behaviours, an overall higher burden of disease, high utilisation of hospital services and low utilisation of GP services. Increased and targeted access to services in the right setting is a priority.

14% of adults were daily smokers compared to 11% in Qld and 29% engaged in lifetime risky drinking compared to 22% in Qld.

31% of adults in the region were obese which is the highest in the CHHHS and 48% engaged in insufficient levels of physical activity.

Higher utilisation of hospital services compared to Qld utilisation and lower utilisation of GP services than Qld and the CHHHS.

50% of First nations mothers smoked during pregnancy and 13% of non-First Nations mothers smoked during pregnancy, compared to 9% of Qld mothers.

13% of the population lived in crowded dwellings - Babinda, Innisfail and Yarrabah have the highest rates of First Nations people living in severely crowded dwellings.

Rates of psychological distress were higher than Qld with less use of GP mental health services - Babinda, Innisfail and Yarrabah have some of the highest rates of distress in the CHHHS.

Rates for premature mortality were higher than Qld for most causes including cancer, lung cancer, lung and heart diseases, external causes, road injuries and diabetes. Suicide and self-inflicted injuries were higher for some Innisfail-Cassowary areas.

7.1.5 Yarrabah Deep Dive

Demographics

Yarrabah has the highest proportion of First Nations people and children of all areas servcied by the CHHHS. **Culturally appropriate services and a focus on mothers and early years are key health needs.**

- **Yarrabah is the only discrete Indigenous community within the CHHHS region and has a population** of 2,847 people and the **highest proportion of First Nations people** in the CHHHS (98.1%).
- Yarrabah also has the **highest proportion of children** aged 0 - 14 years (34%) and the **highest annual birth and fertility rates** in the CHHHS.

Socio-economic status and indicators

The Yarrabah community is socio-economically disadvantaged. **A focus on the social determinates of health including affordable housing and transportation** is necessary to improve health outcomes and access.

- Yarrabah is the **most socio-economically disadvantaged** region within the CHHHS and the second most socio-economically disadvantaged SA2 in Qld - the unemployment rate in Yarrabah is 50%.
- **Rates of overcrowding in Yarrabah are the highest in the CHHHS and exceed Qld averages** – 48% of dwellings in Yarrabah are classified as overcrowded compared to 18% in Qld, and 12% of dwellings are severely overcrowded compared to 2% in Qld.
- Yarrabah also has the **highest proportion of households (50%) with no internet access** in the CHHHS and significantly exceeds the proportion of Qld dwellings without internet access (14%).
- There are **high rates of offences against the person** (including domestic violence) as well as homicide and physical harm.
- There is a high percentage of social housing (nearly 20%) and almost half (45%) of families are one parent families compared to 19% of Qld families.

Burden of disease profile

The Yarrabah community experiences the poorest health outcomes in the CHHHS. Targeted intervention and a whole of community approach is at the core of the health equity agenda and is critical to improving health access and health outcomes for the Yarrabah people.

- **Low birth weight** is the highest in Yarrabah (20.4% compared to Qld First Nations 11.2%, Qld 7.5%. Less mothers received 8 or more antenatal visits. A high proportion of **mothers smoke during pregnancy** 50.4% vs Qld First Nations rate 42.6%.)
- People living in Yarrabah experience **obesity** at a higher rate than the rest of Qld with an ASR of 43 per 100,000 population compared to an ASR of 33 per 100,000 population for the rest of Qld.
- People living in Yarrabah experience **diabetes** at a higher rate than the rest of Qld with a prevalence of 7% compared to 5% for Qld.
- People living in Yarrabah experience **high blood pressure** at a higher rate than the rest of Qld with ASR of 24 per 100,000 population compared to an ASR of 23 per 100,000 population for the rest of Qld
- People living in Yarrabah experience **premature mortality from diabetes** at the second highest rate in CHHHS and higher than the Qld average with an ASR of 23 per 100,000 population compared to an ASR of 7 per 100,000 population for the rest of Qld.

7.1.6 Tablelands (East)-Kuranda

Key population demographics and service access

The Tablelands (East)–Kuranda region has a population of approximately 42,124 people (16% of the total CHHHS population). This is projected to increase by 8% to around 45,451 in 2031.

- **Regional classification:** Outer Regional Australia
- **Population aged 0 – 14 years:** 18% (Atherton and Mareeba have one of the highest volumes of children 0 - 14 years in the CHHHS)
- **Population aged 65+ years:** 23% (highest proportion in the CHHHS and second highest volume in the CHHHS)
- **Population that identifies as First Nations people:** 10%
- **Population in lowest quintile of disadvantage:** 41% (above Queensland average)
- **Population that does not see a GP:** 16% (above Queensland average)
- **Closest Acute Facility:** Atherton Hospital and Mareeba Hospital

- Atherton
- Herberton
- Kuranda
- Malanda - Yungaburra
- Mareeba
- *Ravenshoe and Mount Garnett*

Note: *areas in italics are not SA2s but reflect how services are provided in the region.*

Region specific health need highlights 2019-20

The Tablelands (East)-Kuranda region population has the highest proportion of older people in the CHHHS, and a high burden of disease including complex co-morbidities. Access to primary care is a priority with high utilisation of acute services including for GP type activitiy.

15% of adults were daily smokers and 33% were overweight (both are higher than Qld) and 50% did insufficient levels of physical activity which is the highest in CHHHS.

The region has the highest *proportion* of people living with dementia in the CHHHS.

18% of children are developmentally vulnerable in two or more domains compared to 14% of Qld children.

ASR of suicide for this region is the highest in the CHHHS (27 per 100,000 population) and much higher than the Qld ASR (16 per 100,000 population).

While a low volume, the rate of hospitalisations for mental health for First Nations people in this region were more than twice the rate of the total CHHHS population.

Higher utilisation of hospital services compared to Qld utilisation and lower utilisation of GP servcies than Qld.

Rates for premature mortality were higher than Qld for most causes including cancer, breast cancer, lung and heart diseases, external causes, road injuries, suicide and self-inflicted injuries and diabetes.

7.1.7 Port Douglas-Daintree

Key population demographics and service access

The Port Douglas –Daintree region has a population of approximately 12,000 people (5% of the total CHHHS population). This is projected to increase by 6% to around 13,000 in 2031.

The Port Douglas–Daintree population has the second highest proportion of people aged 65+ years in the CHHHS. The region also has a higher percentage of older First Nations peoples compared to the Queensland distribution.

- **Regional classification:**
  Outer Regional Australia
- **Population aged 0 – 14 years:**
  16%
- **Population aged 65+ years:**
  19% (above the CHHHS and Queensland averages)
- **Population that identifies as First Nations people:**
  9% (highest *proportion* of First Nations people aged 50+ years in the CHHHS)
- **Population that does not see a GP**
  18% (above Queensland average)
- **Closest acute facility:**
  Mossman Multipurpose Health Centre (MPHC)

- Port Douglas
- *Mossman*
- Daintree

Note: *areas in italics are not SA2s but reflect how services are provided in the region.*

Region specific health need highlights 2019-20

Compared to CHHHS, the Port Douglas – Daintree region has a higher proportion of older people, including for First Nations people. There is high engagement in risky health behaviours and challenges with primary care access with nearly half of presentations to Mossman Multi Purpose Health Centre ED considered GP-type activity.

38% of adults were risky lifetime drinkers which is higher than Qld and the highest rate in the CHHHS, and 17% smoked daily which is second highest in CHHHS.

37% of adults in the Port Douglas – Daintree region were overweight compared to 25% in Qld and the ASR of high blood pressure was higher than Qld.

The Daintree and Port Douglas SA2s have the highest rates of osteoporosis in the CHHHS (4.0 per 100,000 population).

Double the rate of premature mortality from cerebral vascular disease compared to Qld and the highest within the CHHHS.

High premature mortality rate for First Nations people for circulatory system diseases- nearly three times the rate for Qld First Nations people.

The rate of GP chronic disease plans per 100 population was lower than Qld and the CHHHS averages, while the rate of GP mental health care plans was much higher.

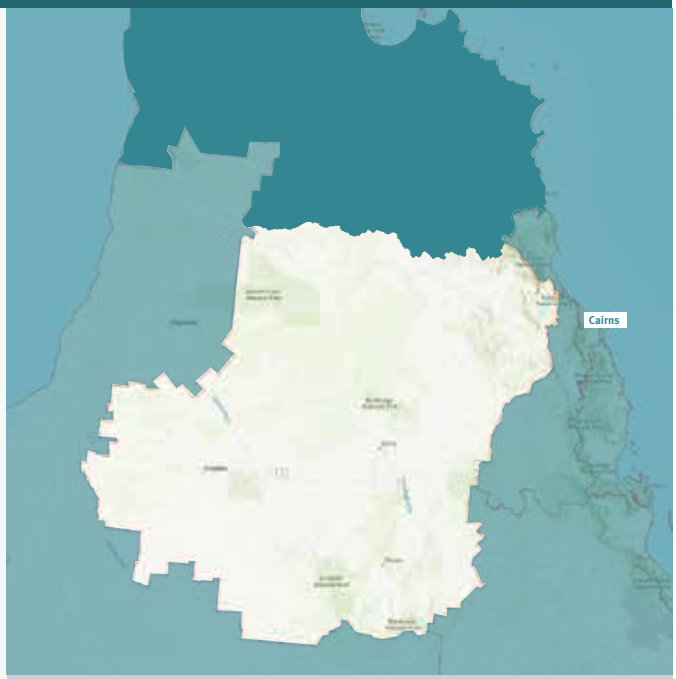
Compared to Qld, rates for premature mortality were higher for all causes with the exception of suicide and self-inflicted injury (lower rate), and road traffic injuries and diabetes where data was suppressed for privacy.

7.1.8 Far North

Key population demographics and service access

The Far North region has a population of 7464 people (approximately 3% of the total CHHHS population), which is the smallest number of absolute people for an SA3 in the CHHHS. This is projected to increase by 1% to 7562 in 2031. Compared to the rest of CHHHS, the Far North population has a much higher proportion of people falling within the lowest socio-economic quintile of disadvantage and there is no acute care facility within the region. More than 33% of residents did not visit their GP, which is nearly three times the Queensland average of 11%.

- **Regional classification:**
  This region has SA3's classified as Very Remote Australia, Remote Australia, and Outer Regional Australia
- **Population aged 0 – 14 years:**
  16% (lowest proportion of the population aged 0 – 14 for First Nations peoples in the CHHHS)
- **Population aged 65+ years:**
  18% (higher than the CHHHS)
- **Population that identifies as First Nations people:**
  16%
- **Population in lowest quintile of disadvantage:**
  70% (above Queensland average)
- **Population that does not see a GP:**
  33% (above Queensland average)
- **Closest acute facility:**
  Atherton Hospital and Mareeba Hospital



- Cape York (1.5%)
- *Croydon - Etheridge Forsayth*
- *Gorgetown*
- *Tablelands (West)*
- *Mount Suprise*

Note: *areas in italics are not SA2s but reflect how services are provided in the region.*

Region specific health need highlights 2019-20

As a region, the Far North experiences some of the poorest health outcomes in the CHHHS and is socio-economically disadvantaged. Utilisation of health services across the spectrum is lower than Qld and the lowest in the CHHHS, indicating that increased and targeted access to services across the spectrum, is a priority.

25% of adults smoked (the highest in CHHHS and double Qld), 30% engaged in lifetime risky drinking (compared to 22% of Qld).

48% of adults undertook insufficient levels of physical activity compared to 30% of Qld adults.

Highest proportion of First Nations (41%) and non-First Nations (26%) people living in crowded dwellings within the CHHHS.

Higher rates of suicide than Qld and lowest rates in the CHHHS for admission for mental health and drugs and alcohol services and GP mental health services.

Highest percentage of children (26%) in the CHHHS developmentally vulnerable in two or more domains and nearly twice the Qld rate (14%).

Life expectancy below Qld and the lowest in the CHHHS. The highest cause of premature mortality was cancer – cancer screening rates are the lowest in CHHHS and below Qld.

Compared to Qld, rates for premature mortality were higher for all causes with the exception of colorectal cancer (lower rate) and breast cancer where data was suppressed for privacy.

7.2 Key insights for the regions

Place	Population	Health status	Service access
CHHHS overall	• Population of approximately 259,000 people • 16.2% aged over 65 (17.7% for First Nations peoples) • 19.63% aged 0-14 (32.7% for First Nations peoples) • 11.6% of the population identify as First Nations peoples (4.6% Queensland) • 10.7% population born overseas in non-English speaking countries (11% Queensland) • Nearly 3,000 births per year, over one in five births are First Nations peoples (5.3% Queensland) • Over half the population is in the lowest two SEIFA quintiles and over a quarter in the lowest SEIFA quintile. (37.4% lowest two quintiles, 18% in lowest quintile in Queensland) • 8.4% of people live in crowded dwellings (more than Queensland 5.7%) (29.4% First Nations peoples in the CHHHS, more than Queensland 18.8%) • Higher proportion of dwellings do not have access to the Internet (17.3% CHHHS vs 13.6% Queensland) or their own vehicle (7% CHHHS vs 6% Queensland)	**Children:** • Higher fertility rate (2.0) and higher proportion of First Nations births (21.1%) compared to Queensland (1.8 and 5.3%). Higher rates of smoking in pregnancy (11.5% vs 9% Queensland), First Nations mothers (48% vs 42.6% Queensland) • More low birth weight babies (8.4% vs 7.5% Queensland), (12.8% vs 11.2% First Nations babies) • More premature births (10.1% vs 9.3% Queensland), (14.6% vs 12.3% First Nations babies Queensland) • Higher infant mortality (5.8 vs Queensland 4.9 per 1000) **General population:** • Higher rates of smoking (14.9% vs 10.8%), higher risky lifetime alcohol rates (26.4% vs Queensland 21.6%) and being overweight (35.8% vs 34.9%) • Nearly one in three people get insufficient physical activity (similar to Queensland). • A large proportion of the population has high blood pressure (23%), higher rates of psychological distress in most areas in the CHHHS (11.0% - 16.4%) • Approximately half the population is screened for breast cancer (56.5%), cervical cancer (47.5%) and bowel cancer (41%) (similar to Queensland) • Every area (except Cairns North) has a higher rate of diabetes compared to Queensland (5.3-7.6% vs Queensland 4.7%). • There is a higher incidence of all cancers (ASR 103.5 – 143.9) (vs Queensland 102.4) • The condition that impacts the most people is mental health problems (53,550 people.18-29%, Queensland 22.7%) • **Higher rates of premature mortality** in most areas for circulatory system diseases, respiratory system diseases, diabetes, suicide and external causes, and higher rates in all areas of cancer. These rates are higher for First Nations peoples, especially for diabetes - more than three times and cancer and circulatory system diseases one and a half times[37] **First Nations people:** • Six times more likely than the rest of the population in this region to have end stage kidney disease. • CHHHS has the highest number of people with Rheumatic Heart Disease in Queensland (46 times higher for First Nations peoples than the rest of the population) • A higher proportion of people are impacted by sexually transmitted infections (3 times the population rate in CHHHS).	• More people do not see a GP (12.4%, Queensland 11.6%) • There are five ACCHOS in the region • Less MBS utilisation of allied health services (80.7 vs 100 p/100 people Queensland) and GP mental health services, compared to Queensland. (13.6 vs 15.4 p/100) • Less people accessing NDIS services compared to the Queensland average • Overall nearly 30% of 'GP type' presentations to ED (2020-21)[38] • Most people come to hospital (overnight) for respiratory, obstetric or gastroenterology reasons • CHHHS has year on year growth of episodes of overnight care, with similar lengths of stay for patients *(indicative of increased demand for services)* • First Nations peoples rate of hospitalisations is double that of the whole population • More potentially preventable hospital admissions 7.9 per 100,000 compared to Queensland 7.7 per 100,000 • CHHHS has a higher relative utilisation of public same day and overnight hospitalisations compared to the Queensland average (*can be indicative of higher health needs for the population compared to the Queensland average)* • CHHHS has a high self-sufficiency rate (around 95%) (people who can receive their care in this area)

37 Range of premature mortality rates: cancer (103.5-143.9 vs Queensland 102.4 p100K ASR), circulatory system disease (35.3-75.4 vs Queensland 44 p 100K), respiratory system diseases (10.1-42.5 vs Queensland 16.6 p100K), diabetes (3.7-29.3 vs 7.2 p/100K), suicide (10.3-27.1 vs Queensland 15.4 p100K), external causes (26.7-67.2 vs Queensland 3.4 p100K)

38 The AIHW and Australian College of Emergency Medicine's definitions of GP-type presentations were used as the basis to determine the presentations that relate to potentially unnecessary ED presentations, given the available variables. GP-type presentations are taken to be ED presentations that: Did not arrive by ambulance, police or correctional vehicle, were not admitted to hospital or referred to another hospital following their ED presentation, medical consultation time less than one hour, allocated a Triage category of 4 or 5, did not die.

Place	Population	Health status	Service access
Far North and surrounds	• Smallest population for an SA3 region in the CHHHS • Largest and most remote geographic area for an SA3 region in the CHHHS • Higher proportion of people 65+ (18%) • More people identify as First Nations peoples (16%) • High level of socio-economic disadvantage with nearly 70% of the population in this region in the lowest SEIFA quintile (Queensland18%).	• 25% of the adult population smoke (highest rate in CHHHS) • The screening rates for all types of cancers is the lowest in the Far North compared to the rest of the CHHHS and well below the state-wide rates for screening • Life expectancy is lower for males, and females compared to the Queensland average and is the lowest for the CHHHS • Higher premature mortality for cancer, circulatory system disease, respiratory system diseases, COPD, external causes, road traffic injuries and suicide • High rate of premature mortality for diabetes - four times the Queensland rate.	• Less people see a GP (33%) – lowest in CHHHS • Lowest use of (MBS billable) allied health, First Nations peoples' health checks, chronic disease and mental health care plans in the CHHHS • People go to hospital (overnight) the most for obstetrics, orthopaedic or respiratory reasons • Overall, this region has the lowest relative utilisation of the public and private sector for same day and overnight admissions for the CHHHS[39].
Cairns and surrounds (Cairns South and Cairns North)	• Just over 60% of CHHHS *total population* live in *Cairns and surrounds* • Biggest growth of the CHHHS population is projected to be in Cairns South • Nearly half of the First Nations population in the CHHHS live in the Cairns South region • Highest *volume* (number) of children and young people (0-14) and older people (65+) live in Cairns South • High levels of socio-economic disadvantage in Manunda, Manoora, Westcourt-Bungalow and Woree where 81-90% of people are in the lowest SEIFA quintile (Queensland 18%).	• Cairns South has a higher incidence of premature mortality for cancer, circulatory system disease, respiratory disease, suicide and diabetes compared to Queensland • Higher risk factors for obesity in some areas and insufficient physical activity (over 40%) • In Cairns South, more mothers smoke during pregnancy (nearly 50% for First Nations mothers) • Manunda, Manoora, Westcourt-Bungalow and Woree are the highest areas of concern in the Cairns South region with high rates of obesity (42.5% vs Queensland 25%), higher prevalence of diabetes (ASR 7.6, CHHHS 5.6, Queensland 4.7) and three times the rate of premature mortality due to diabetes. Also the highest rates of suicide in the CHHHS (27.1 vs 15.4 Queensland per 100K).	• Almost 50% of Emergency Department presentations for the CHHHS are to Cairns Hospital • Cairns South people go to hospital the most (overnight) for respiratory, mental health and obstetric reasons. Cairns North people go to hospital the most (overnight) for obstetrics, general surgery and orthopaedics • Cairns South has the highest rate of people going to hospital (overnight) in the CHHHS, with First Nations peoples rate double the rest of the population • Cairns South has a higher relative utilisation of same day and overnight hospitalisations compared to the Queensland average *(this can be indicative of higher health needs)* • There is higher *rate* of use of same day (both Cairns South and Cairns North) and overnight hospitalisations (Cairns South) for drugs and alcohol compared to the Queensland average.[40]
Innisfail-Cassowary Coast and surrounds	• Higher proportion of people aged 65+ (20%) • More people identify as First Nations peoples (19.2%) • High level of socio-economic disadvantage with over a third of the population in the lowest socio-economic quintile (34.4%) (Queensland 18%) • More people live in crowded dwellings (13%) • First Nations communities in Jumbun and Yarrabah (discrete community) • Yarrabah has the highest proportion of First Nations peoples in the CHHHS (100%) • Yarrabah has the lowest SEIFA score for the CHHHS (and the second lowest in Queensland).	• Higher incidence of premature mortality due to cancer (esp. lung cancer), circulatory system disease, respiratory disease, COPD, road traffic injuries and diabetes than Queensland. • Yarrabah is a high area of concern with high risk factors for babies and higher prevalence of diabetes. Premature mortality rates high for diabetes (three times Queensland rate for First Nations peoples, 10 times the rate for total population) as well as much higher rates of premature mortality for respiratory system diseases, COPD, lung cancer and road traffic injuries compared to Queensland.	• Lowest use of (MBS billable) allied health, chronic disease and mental health care plans (except for Far North) • Approximately 42% of ED presentations at Innisfail Hospital could be considered GP type presentations • People go to hospital (overnight) the most for respiratory, gastroenterology and general surgery reasons • There is a much higher *rate* of use of same day and higher *rate* of overnight hospitalisations for immunology and infections[41] compared to the Queensland average.

39 Given the very low number of services available in this region, it is likely that this is indicative of difficulties with accessing care rather than an indicator of low need of health services

40 It is important to note that whilst the *rate* of hospitalisations for drugs and alcohol for Cairns and surrounds is high compared to the Queensland average rate, the actual number (volume) of hospitalisations is low.

41 It is important to note that whilst the *rate* of hospitalisations for immunology and infections are high compared to the Queensland average rate, the actual number (volume) of hospitalisations is low.

Place	Population	Health status	Service access
Tablelands-Kuranda and surrounds	• Highest proportion of people 65+ (23%) • High level of socio-economic disadvantage with just over 40% of the population in the lowest SEIFA quintile (Queensland 18%)	• Higher risk factors for babies and children (smoking in pregnancy and developmentally vulnerable) • More people do not get enough exercise (50% worst in CHHHS) • Worst rates for suicide in the CHHHS • Higher premature mortality from cancer (especially breast cancer), circulatory system disease, respiratory system disease, COPD, external causes, road traffic injuries and diabetes than Queensland • Also much higher rates of premature mortality for First Nations peoples from circulatory system disease, cancer and external causes than Queensland	• Less people see a GP (16%) • Half the ED presentations to Mareeba Hospital and 44% at Atherton Hospital could be considered GP type presentations • People go to hospital (overnight) the most for respiratory, cardiology and gastroenterology reasons • The *rates* of mental health and drug and alcohol hospitalisations (same day and overnight) are high (highest in CHHHS for drug and alcohol)[42] • There is a much higher rate of use of same day hospitalisations for immunology and infections compared to the Queensland average[43]
Port Douglas-Daintree and surrounds	• Higher proportion of people 65+ (18.5%) • Highest proportion of older First Nations peoples • Includes First Nations community in Mossman Gorge	• More developmentally vulnerable children • Highest rate of risky lifetime drinkers in the CHHHS (nearly double the state rate) • High rates of premature mortality for cancer, circulatory system diseases, respiratory system diseases, COPD and external causes • Double the rate of premature mortality from cerebral vascular disease compared to Queensland (highest in CHHHS) • High rate of premature mortality for First Nations people for circulatory system diseases (nearly three times the rate for Queensland First Nations peoples)	• Less people see a GP (17.8%) • Nearly half the ED presentations (45%) to Mossman Multi-Purpose Health Centre ED could be considered GP type presentations • People go to hospital (overnight) the most for respiratory, general medical and gastroenterology reasons

42 It is important to note that whilst the *rate* of hospitalisations for mental health, drugs and alcohol is high in Tablelands (East)-Kuranda compared to the Queensland average rate, the actual number (volume) of hospitalisations is highest for Cairns South.

43 It is important to note that whilst the *rate* of hospitalisations for immunology and infections are high for Tablelands (East)-Kuranda compared to the Queensland average rate, the actual number (volume) of hospitalisations is low.

8.0 The voice of our community

The CHHHS undertook extensive consultation to explore the health and service needs of the region. Key data insights and regional profiles were used to help frame the conversation on health and service needs.

During the consultation, four strong themes emerged as to why the region experiences a higher burden of disease and poorer health outcomes. These were:

- Access to services and care
- Lack of coordination of care and awareness of services
- Factors that influence health outcomes (particularly impacting vulnerable people)
- High rates of risky health behaviours with limited resources for education, health promotion and a need for system-wide reform

> *There are 2 baskets - ED in 4 hours or GP in 2 weeks. Need another basket.*
> *- Tablelands resident*

The key findings from consultation with both community and health service provider stakeholders are shown below.

Availability of GPs

Every region identified challenges with accessing GPs due to long waits for appointments (sometimes three to eight weeks), GPs not accepting new referrals, GPs only open on some days of the week or part time hours, limited after hours availability of GPs and a widespread lack of bulk billing.

Mental Health and addiction care and services

Challenges were identified with accessing mental health services, particularly outside of the Cairns South and Cairns North region. This included difficulty accessing a GP for a mental health care plan and accessing a psychologist (particularly for bulk billing). Limited access to drug and alcohol detoxification facilities was identified, resulting in travel to Cairns for adult services or to Townsville for some adolescent services.

Health workforce and availability of services for a range of health conditions and people groups

Challenges with timely access to health services was identified. Difficulties were identified in attracting the workforce to rural and remote areas and in building relationships with a transient health workforce. A contributing factor to workforce attraction and retention was the availability of accommodation, particularly rental accommodation. Sustainability of the health workforce was raised, with a strong desire to 'grow our own' and ensure adequate training pipelines for the future health workforce.

Primary health care (including prevention and health promotion) and in-home and community health services

Prevention and health promotion for health conditions was identified as a priority in the region. This included a focus on improved education and health literacy. There was a strong sentiment to refocus the health system on more prevention, health promotion and locally based community-type services (including home visiting services) across the region. The focus for these types of services would be on early intervention and chronic disease management to prevent the need for acute hospital care.

> *Prevention for a lot of these conditions is a no brainer.*
> *-Cairns resident*

Availability of services for areas outside the immediate Cairns region

Difficulties were identified due to limited availability of health services (particularly outside of Cairns) and reported as a contributor to poorer health outcomes. There was an expressed sentiment of loss when needing to access health care away from family and friends.

Difficulties with access to transport for health care (compounded by lack of Internet connectivity to enable alternative models of care)

Situations were identified where there were limited or no options for transport for health care. Patient Travel Subsidy Scheme limitations were raised. Issues were identified with use of telehealth (as an alternative to travel) to access care due to challenges with Internet connectivity.

> *The doctors are really good that we have here. It's just getting them here.*
> *-Innisfail resident*

Care coordination and awareness of services available to meet health needs

Limitations in public knowledge of existing health and care services and a lack of information sharing across the health care sector was identified as a problem. This included challenges with repetition of medical history or presenting condition. Care coordination across health care service providers (both internally within CHHHS services and across different providers) was challenging for the community.

Culturally appropriate care and services

Barriers to accessing care were identified due to lack of cultural safety and the need to design models of care that are appropriate and welcoming to people from diverse backgrounds.

Social determinants of health

Overcrowding of homes and homelessness were identified as issues in the region. Lack of physical activity (and mechanisms to enable this) and access to fresh food were also identified as issues impacting people's ability to live healthier lives.

Services for refugees and vulnerable people

It was identified that the Cairns and Tablelands regions have had (and are anticipated to have) an increase in refugee arrivals. It was identified that future health service planning needed to consider the special needs of this cohort and be able to cater for this in health service design and delivery. Domestic violence was also raised as a concern in several areas, including the subsequent impacts on health.

Comprehensive and systematic data availability and analysis

Issues were raised with existing data availability and analysis to accurately understand health and service needs and plan for future health services.

A summary of the themes from the identified health needs are captured in Figure 21.

Figure 21: A summary of the themes from the identified health needs

1

Access to care

- Aged care and disability support and services
- CHHHS services (including conditions with a higher burden of disease)
- Community care, GPs and primary care
- Culturally appropriate care
- Mental health and addiction support and services
- Services outside of Cairns (particularly rural and remote)
- Transport

2

Care coordination/awareness of services

3

Factors that influence health outcomes
(particularly impacting vulnerable people)

4

High rates of risky behaviours with limited

- Resources for education, health promotion and need for system-wide reform

9.0 Service Profiling

In addition to the data analysis in Section 5, further service profiling was completed for the regions of the CHHHS to identify existing health services and where there were potential gaps[44].

Reduced service availability outside of the immediate Cairns area:

- **Availability of GP practices** (particularly no or very limited after-hours GP service provision outside of Cairns), very limited bulk-billing services, some areas with no GP and/or long wait lists to see a GP, and very limited availability of GPs to provide in-home palliative care.
- **Limited NDIS service providers and aged care service providers** (rural areas experienced limited or no NDIS services, with difficulty accessing expert NDIS providers for specialist needs or conditions, similar for aged care services, contributed to by lack of staffing).
- **Limited mental health services** in the primary care setting and limited (to no) after hours mental health services. CHHHS mental health services in the Far North region available via telehealth only.
- **Limited transport to access services**, with no train line, minimal public bus services outside of Cairns (with some areas having no public transport option at all) and limited supply of taxi or similar services. Patient transport services also had limitations on availability, frequency and immediacy of availability (i.e. unable to accommodate urgent or unplanned travel).
- **Limited (to no) availability of allied health, sexual health, home visiting services** and community health/primary care type services in some areas. Limitations on existing services for areas such as antenatal care, child health and Indigenous Liaison Officers.
- **Limitations to Queensland ambulance services** (i.e. number of ambulances available, if manned 24/7 or on-call and operating models).
- **Public dental health service** waiting lists and some areas with a total lack of private dental services.
- **Domestic violence services** (including residential accommodation).
- **Medical imaging services** (public and private), particularly for services other than x-ray.
- ***Residential* Alcohol and Other Drugs (including safe detoxification) services:** One NGO drug and alcohol residential centre for First Nations peoples located on the Tablelands. No other residential centres for adults or any for youth are available. No detoxification facility outside of Cairns (Cairns Hospital).
- **ACCHOs:** Small number of Aboriginal Community Controlled Health Organisations for the First Nations population in the region.
- **CHHHS infrastructure limitations for rural and regional facilities**: Some facilities lack physical space to provide services, or ageing infrastructure is not fit for purpose, which constrains provision of services.
- **Minimal health services available in very remote areas:** For the remote Far North SA3 region there are very limited health (or care) services. RFDS provides GP and other medical services on an outreach basis (weekly, fortnightly or other depending on the area). Mental health services are mostly limited to telehealth. No skin screening (skin check) or diagnostic service available in the region. There are minimal to no aged care, or NDIS services in this region due to lack of staffing. Home based palliative care is provided by the local primary health centre staff, but is limited in the range and availability of services (due to workforce constraints).

44 Note: there may be health (or other care) services in the region not captured in the service profiling, particularly for Cairns and surrounds.

10.0 Findings

There are a number of ways to determine health and service needs. Bradshaw's 'taxonomy of needs'[45] is a method of identifying patterns of converging evidence where similar issues/needs are supported by multiple indicators or from multiple sources.

Figure 22: Bradshaw's Taxonomy of Need

	**Normative Need**	Need that is defined by experts. Normative needs are not absolute and there may be different standards laid down by different experts.	▸ Clinical standards ▸ Best practice guidelines ▸ Standards for health or healthcare ▸ Clinical Engagement
	**Felt need**	Need perceved by an individual. Felt needs are limited by individual perceptions and knowledge of services	▸ Community expectations ▸ Patient experience measures
	**Expressed need**	Felt needs turned into action. Help seeking	▸ Service usage data
	**Comparative need**	Needs identified by comparing the services	▸ Comparison of a community/area to a similar community/area ▸ Also explores socio-demographic and epidemiological data

10.1 CHHHS LANA identified health and service needs

A total of 34 health and service needs were identified by the CHHHS LANA process. It is recognised that many of the needs overlap and intersect, and each need should be considered in the context of all of the identified needs. Key themes were identified as to why the region experiences a higher burden of disease and poorer health outcomes. These were:

- Access to services and care
- Lack of coordination of care and awareness of services
- Factors that influence health outcomes (particularly impacting vulnerable people)
- High rates of risky health behaviours with limited resources for education, health promotion and a need for system-wide reform

The identified health and service needs have been prioritised into three tiers. The first two tiers are listed in prioritised order and the third tier is listed in alphabetical order due to close alignment of final applied scores. Refer to Table 1: Health and Services Needs

45 Bradshaw J. (1972) 'A taxonomy of social need' in McLachlan G (ed.) Problems and progress in medical care. Seventh series NPHT/Open University Press.

10.2 Tier 1: Top 10 identified health and service needs

(as identified though the prioritisation process)

1 Mental health and addiction services

Supporting data:

- High rates of smoking (14.9% vs 10.8% Queensland), including smoking in pregnancy (11.5% vs 9% Queensland non-First Nations peoples and 48% vs 42.6% Queensland First Nations peoples) and risky alcohol intake (16.1% vs 13.2% Queensland) for the region.
- Higher prevalence of psychological distress for males and females and higher prevalence of mental and behavioural problems in select areas within the CHHHS region.
- High prevalence of mental health and behavioural problems. This condition impacts the most people in the CHHHS region: 53,550 people - over one in five people in the population.
- High utilisation of CHHHS public mental health (overnight) and drug and alcohol services compared to the Queensland average. CHHHS has the highest public separation *rate* (for same day and overnight public hospital stays) for mental health and drug and alcohol reasons in Queensland (indicative of a higher need for services compared to the average Queensland use of services). Lower use of mental health care plans compared to the Queensland average *(possibly contributed to by ability to access a GP and ability to access mental health services)*
- Higher rates of suicide in nearly all areas of the CHHHS compared to Queensland, worst in the region of Tablelands (East)-Kuranda and the areas of Manunda, Manoora, Westcourt-Bungalow and Woree (nearly double the Queensland rate).

Service gap:

- Identified service gaps for mental health and addiction services in the primary care, community health and specialist setting (including availability of bulk-billed services) resulting in long waitlists or no availability of services. This is inclusive of services focused on health promotion and prevention of substance abuse, addiction, and mental health problems. No residential care unit for mums and bubs, no dedicated acute mental health beds for adolescents, no drop-in crisis support for adolescents, no rehabilitation unit for youth and adolescents.

Felt need:

- Challenges identified in workforce recruitment and retention and coordination of care across services. Impacts are felt especially for First Nations peoples, people living in rural and remote areas and children and young people in the region

Identified need for mental health and addiction services across the primary, community and acute care sectors, inclusive of residential facilities for mental health and addiction and a focus on coordination of care across services.

> *Not enough doctors, not enough mental health support*
>
> *-Cairns South resident*

2 Transport to enable access to health services

Supporting data:

- Lower socio-economic profile for the region (over 50% of the population in the lowest two SEIFA quintiles).
- More dwellings with no motor vehicle compared to Queensland (7% vs 6%), with some areas much higher (e.g. the Far North region 21% and for the SA2 areas of Manunda, Manoora, Westcourt-Bungalow and Woree 16.1%).
- There are also SA2 areas with higher rates of difficulty accessing transport, including Manunda, Manoora, Westcourt-Bungalow (rates of 7.6 per 100 people vs Queensland rate of 3.8), followed by Innisfail, Babinda and Yarrabah (rate of 5.9 per 100).

Service gap:

- Identified significant gaps in availability of public transport in all areas outside of Cairns, inclusive of taxis and similar services.

Felt need:

- Difficulty accessing transport makes it difficult to access health services, particularly in rural and remote areas. There are compounding issues with coordination of appointments to minimise unnecessary travel, accommodation accessibility and car parking availability. Limitations in the Patient Travel Subsidy Scheme (PTSS) accessibility criteria and challenges with awareness and navigation of the service. Impacts are felt especially by First Nations peoples, older people and socio-economically disadvantaged people.

Identified need for transport services to enable access to health services, inclusive of the usability of the Patient Travel Subsidy Scheme, as well as better coordination of appointments to reduce travel requirements.

My neighbour relies on me a lot to drive her to get to Innisfail for doctor appointments.

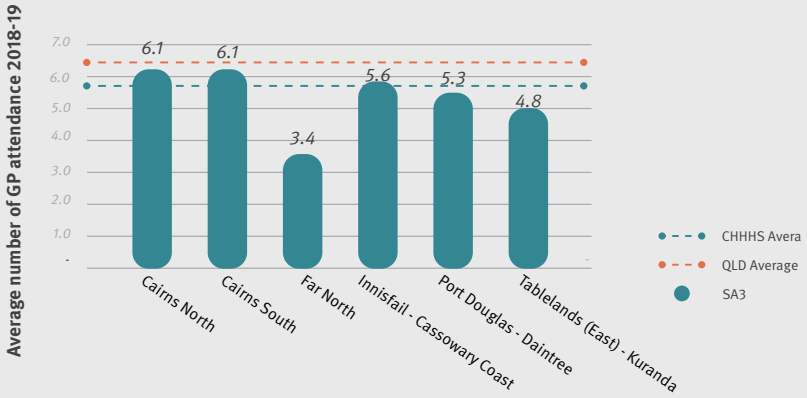
> Shifted up from Trinity Beach to the Tablelands. Unable to find a GP that will take new patients.

3 Access to GPs for patients to receive timely care

Supporting data:

- All areas within the CHHHS (except for Cairns) identified as a GP distribution priority area *(recognised as insufficient GP services per population)*.
- There are less people who see a GP, 12.4% vs 11% Queensland; this rate is much higher for the Far North region (33.1%).
- There are less GP attendances per person within the CHHHS compared to Queensland (5.7 visits per person per year vs 6.4 Queensland *(this could be attributed to limited availability of services)*.
- Lower utilisation of chronic disease management plans (range of 22.8-37.1 per 100 people vs 39.1 Queensland) and mental health care plans (13.6 per 100 people vs 15.4 Queensland). *This could be contributed to by inability to access a GP and associated care services.*
- High 'GP-type' presentations to Emergency Departments across the CHHHS (around 30%), with the highest proportion for Mareeba Hospital (close to 50% of ED presentations.

Table 19: SA3 regions proportion of people who see a GP and number of attendances



Service gap:

- Service gaps identified in the number of GP clinics in areas outside of Cairns (several practices reported as closing within the last 12 months across the CHHHS), the availability of after-hours GP services, days of the week and hours of the day that practices are open, availability of bulk-billing and long wait times to be seen by a GP. For the regional primary health care centres, RFDS clinics are available once per week, fortnight or less frequently depending on location. For CHHHS facilities that provide GP services, these can have challenges due to workforce issues, resulting from prioritising acute hospital services.

Felt need:

- Delays to access GP services are felt broadly across the CHHHS region. Impacts are felt especially by those people requiring longitudinal care to manage chronic health conditions.

Identified need for timely access to GP services, inclusive of primary and preventative treatment, referrals to specialist services and management of chronic conditions.

> Not enough doctors, not enough mental health support.

> I heard of people driving to Cairns to see a GP. -Port Douglas resident

4 First nations peoples' cultural safety (including workfoce)

Supporting data:

- Higher proportion of First Nations peoples in the CHHHS (11.6%) compared to Queensland (4.6%).
- Higher preterm birth rates, more low birthweight babies, and higher diabetes, respiratory conditions, circulatory system disease, cancer and end stage kidney disease prevalence rates. First Nations peoples also disproportionally experience higher rates of acute rheumatic fever/Rheumatic Heart Disease rates, sexually transmitted infections and vaccine preventable potentially preventable hospitalisations.
- Higher premature mortality experienced by First Nations peoples compared to non-First Nations people in the CHHHS region. Whilst the gap is trending down, it is still an average of 17 years below non-First Nations people.
- Higher utilisation of acute hospital services, with double the separation rate (hospital attendance) for the Cairns South region and three times the separation rate for Port Douglas-Daintree for First Nations people compared to non-First Nations people. Higher utilisation of mental health and drug and alcohol services, with more than double the separation rate for Tablelands (East)-Kuranda for mental health hospitalisations and higher separation rates compared to Queensland for drugs and alcohol in the Tablelands (East)–Kuranda, Cairns North, Cairns South and Port Douglas–Daintree areas compared to non-First Nations people.

Service gap:

- The CHHHS First Peoples Health Equity Strategy (HES) identifies First Nations peoples' workforce as a priority area (delivering sustainable, culturally safe and responsive health care services). There are five recognised ACCHOs in the region to provide health services for close to 30,000 people.

Felt need:

- Provision of culturally appropriate services and First Nations peoples' representation in the health workforce (particularly for rural and remote areas) described as a key reason for reduced use of health services by First Nations peoples.

Identified need for improved First Nations peoples' cultural safety in health care service provision, inclusive of increased representation of First Nations peoples in the workforce (parity with population rates).

> We sit there at (health service) waiting for people to rock up, wrong approach for the First Nations group - we need to get out of our service and go further around the region.
>
> -Health worker CHHHS

5 Health workforce availability and capability

Supporting data:

- Lower than Queensland average headcount by profession for nurses and midwives, doctors and other health professions for all areas in the CHHHS (except for Cairns[46]) (as per AHPRA registrations).
- Recognised higher workload levels experienced by the workforce. AHPRA survey results indicate nearly 20% of the medical workforce in the CHHHS region work greater than a full-time role (with higher rates for the Innisfail-Cassowary region and Tablelands (East)-Kuranda region). 15% of paramedics in the CHHHS region reported working greater than a full-time role, with higher rates for the Innisfail-Cassowary Coast region (32%), and more than 20% of occupational therapists, pharmacists and physiotherapists in the Innisfail-Cassowary Coast region reported working greater than a full time role.

Service gaps:

- Increased pressure for housing availability, especially for rural and remote areas. Status of CHHHS nurses' quarters and availability of job opportunities for partners/family members.

Felt need:

- Identified challenges to attract and retain all types of health workforce (specialists, nurses and midwives, allied health and dental health) contributed to by the use of temporary contracts as well as challenges for the workforce to meet fluctuating service demands from tourists.
- Identified need to support the health and wellbeing (including mental health) of the health workforce.
- Potential opportunities for training models and engagement with training providers to attract local workforce. Opportunity for Cairns Hospital to become Cairns University Hospital as a vehicle to attract and retain workforce (including further embedding of research and education into clinical practice and provision of increased complex services) and opportunity to develop innovative models of care (inclusive of allied health or nurse-led services) supported by locally based workforce.

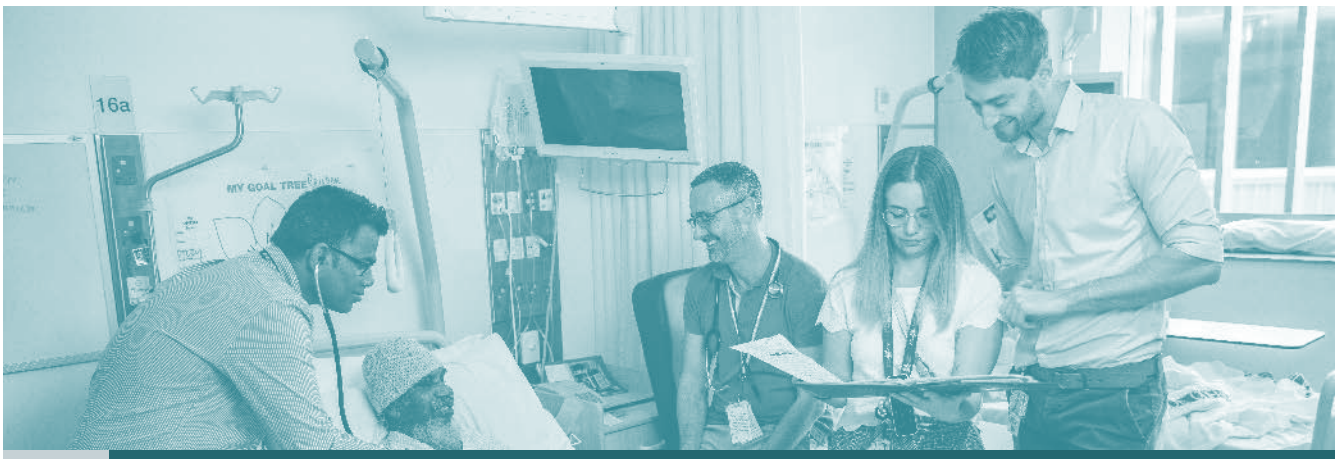
Identified need for health workforce attraction, retention and wellbeing and consideration of alternative workforce models to meet health service demand. Strong desire for Cairns University Hospital as an opportunity to assist by 'growing our own' and attracting and retaining health workforce in the region.

Workforce and staffing is an issue.

No rental properties available – 73 applicants for one rental property.

We need to look at a pipline; training positions for sustainability.

46 AHPRA registrations are by headcount not FTE and do not account for providers who may be based in Cairns but provide services elsewhere (for example outreach services)



6 Safe and appropriate care for culturally diverse and vulnerable people

Supporting data:

- Close to 11% of people in the CHHHS region are from a non-English speaking country. The most common languages spoken other than English are Italian, Japanese and Australian Indigenous languages.
- The CHHHS region is an area that accepts refugees and has recently (July 2021 – June 2022) accepted 66 refugees[47].
- Australian statistics indicate that the CHHHS region has 3-4% of people who identify as LGBTIQA+.
- Australian statistics indicate that the CHHHS region has approximately 1.5% of people with dementia, rising to 8.3% for those aged 65+.
- The First Nations peoples in the CHHHS experience a higher burden of disease and premature mortality rate compared to non-First Nations people in the area (refer to need 4).

Service gaps:

- The CHHHS First Peoples Health Equity Strategy identifies 'actively eliminating racial discrimination and institutional racism within the service'.

Felt need:

- Health literacy and interpreter service access (including processes particularly for telehealth) for culturally and linguistically diverse (CALD) and First Nations peoples. Provision of culturally safe and unbiased care for culturally and linguistically diverse people (including First Nations peoples) and people who identify as being LGBTIQA+, or people with dementia. Challenges identified included provision of appropriate resources, education materials, length of appointments and mode of service delivery. Impacts are felt especially for mental health services and sexual health services.

Identified need for safe and appropriate health care for culturally diverse and vulnerable people, particularly for First Nations peoples, refugees, people from CALD backgrounds, people who identify as LGBTIQA+ and people with dementia, especially for the areas of mental health and sexual health services.

> *Racial inequality is on so many levels – recognise the health need, trying to access the service, not being turned away, it's so broad the barriers at every step of the way. The whole system is geared against those who don't fit the mould.*

47 Queensland Settlement Data - Refugee Health Network Queensland (refugeehealthnetworkQueensland.org.au).

Climate change is an enormous health issue.

7 Local health promotion, screening and prevention services

Supporting data:

- Lower socio-economic profile for the region (over 50% of the population in the lowest two SEIFA quintiles).
- Higher health risk factors, lower life expectancy, a higher burden of disease, and a higher number of potentially preventable hospitalisations compared to Queensland rates.
- High rates of smoking (14.9% vs 10.8% Queensland), including smoking in pregnancy (11.5% vs 9% Queensland non-First Nations people and 48% vs 42.6% Queensland First Nations peoples) .
- High rate of risky lifetime drinking (26.4% vs 21.6% Queensland) for the region.
- Higher rates of people being overweight (35.8% vs 34.9 Queensland). One third of people do not get enough physical exercise. Just over half the population have the recommended fruit intake and approximately 8% of people have the recommended vegetable intake, and 23% of people have high blood pressure.
- For cancer screening rates, over one in two people (for cervical cancer and bowel cancer) and nearly one in two people (for breast cancer) are not screened, with the Far North screening rates much lower than the state rates (especially for bowel cancer).
- Strong strategic intent from national health and Queensland Health to increase the focus on prevention and preventative health (National Preventative Health Strategy 2021-2030, Future Focussed Primary Health Care: Australia's primary health care 10-year plan 2022-2032, Queensland Health Prevention Strategic Framework 2017-2026, QH Cancer Screening Strategic Framework 2019-2026).

Service gaps:

- Refer to need 3 for GP service gaps and utilisation of MBS chronic condition care plans, allied health, mental health care plans and First Nations peoples' health checks. Refer to need 1 for mental health primary care gaps. Limitations to the Public Health Service (PHS) identified. Limited range of primary health care services outside of the Cairns North and Cairns South areas identified.

Felt need:

- Need to increase the focus in health care to prevention and health promotion services, particularly focusing on breaking the cycle of health poverty and increasing healthy lifestyle education. Health of the population should also be considered in terms of impacts of climate change. Opportunity to shift the approach to health care to a 'lifestyle medicine' approach (focus on high value health care and wellness model).

Identified need for increased health promotion, screening, and prevention that can be accessed locally by the community. Shift of focus in health care to wellness models and high value care delivered in the right setting.

They are so accustomed to being sick that it seems they just don't care anymore.

It is 'normal' and 'expected' for children to develop skin sores so they don't see it as a big deal.

Lack of awareness of their own bodies and lack of awareness of what feeling good actually feels like.

A new and dynamic approach needs to be developed to reach people in a primary care setting and with a focus on preventative education and community led initiatives.

8 Aged care services, particularly in rural areas

Supporting data:

- More older people (65+) in the CHHHS compared to Queensland 16.2% (41,955 people), (Queensland 15.7%). Additionally, 43.2% are aged over 45, compared to the state rate of 40.3% (indicating a growing older population compared to the state).
- Highest *proportion* of 65+ residents are in the Tablelands (East)–Kuranda region. The highest *number* of people aged 65+ reside in the Cairns South region (14,426 people).
- Higher prevalence of arthritis in the region compared to Queensland (impacting around 13% of the population).
- Australian statistics indicate that the CHHHS region has approximately 1.5% of people with dementia, rising to 8.3% for those aged 65+.

Service gap:

- CHHHS has a total of 2257 residential aged care places, 96 restorative care places and 17 home care package providers. 50%of the residential aged care places are located in Cairns South. There are no residential aged care facilities in the Far North region; the closest is at Herberton. Community aged care service provision, particularly for some rural and remote areas is limited, with some areas having no service provision. Community care providers can have workforce challenges resulting in inability to provide aged care services or long waits for services. There is limited support for carers.

Felt need:

- Focus needed on health promotion and prevention services for older people, including exercise and education programs. Identified challenge with accessing and navigating My Aged Care.

Identified need for services to support better ageing, including home care and support services, residential aged care facilities and assessment services, particularly in rural and remote areas.

9 Prevention and management of Rheumatic Heart Disease

Supporting data:

- Acute rheumatic fever (ARF) and Rheumatic Heart Disease (RHD) affect 2.3% of First Nations individuals (unstratified rate) compared to 0.05% of non-First Nations individuals (unstratified rate) within the CHHHS, which is 46 times higher among First Nations persons compared to non-First Nations persons.
- More people live in crowded or severely crowded dwellings (total population) compared to Queensland (6.5% vs Queensland rate of 3.4%). More than one in four First Nations peoples reside in crowded dwellings. The areas of Babinda, Innisfail and Yarrabah have the highest rates of First Nations residents living in crowded dwellings (48.3% versus state rate of 18.8%). Socio-economic factors such as overcrowding are often a risk factor for infectious diseases.
- The CHHHS region has the highest number of individuals with ARF/RHD in Queensland; 36% of people with RHD are under 25 years of age and just under two-thirds (63%) of the patients are female (with associated risk of complications of RHD in pregnancy).
- The number of people with RHD in the CHHHS region is growing year on year, with higher growth from FY2020 to FY2021 for both First Nations people and non-First Nations people.

Service gap:

- Queensland Health has an 'Ending Rheumatic Heart Disease: Queensland First Nations Strategy 2021-2024' for implementation. ARF/RHD awareness raising and intent to improve life expectancy is an action in the CHHHS First Peoples Health Equity Strategy. Identified need for improved data reporting to help target service provision and measure outcomes.

Felt need:

- Need to focus attention on ARF/RHD to reduce the number of people impacted by this condition.

Identified need for prevention (including overcrowding of houses and early treatment of preceding condition) and management of acute rheumatic fever (ARF) and Rheumatic Heart Disease (RHD), particularly for First Nations peoples.

10 Care coordination between services delivered by CHHHS and with other Hospital and Health Services (HHSs)

Service gap:

- Sharing of health information limitations due to inconsistent use of electronic medical record across CHHHS facilities and use of different electronic systems (or paper charts) for record keeping.
- The National Health Reform Agreement has a shared intent towards long-term reforms in health technology, value and outcomes. The Queensland Health Rural and Remote Wellbeing Strategy (2022-2027) has goals to be digitally enabled and to provide integrated person-centred care.

Felt need:

- Gap in community and health staff awareness of local health service provision (including access criteria and funding eligibility), particularly for vulnerable people, to improve access to services and health outcomes.
- Gap in coordination of care across services and improving the patient experience (for example coordination of appointments and joining multiple aspects of care at a single appointment where possible).
- Challenge with signage and wayfinding at Cairns Hospital to assist with navigating the hospital, that is also culturally appropriate.
- Opportunity to coordinate care between Hospital and Health Services (for example North West HHS and Torres and Cape HHS areas close to the CHHHS region borders) to improve access to care for people in those areas as well as the larger metropolitan or Townsville HHS to improve super-speciality service access to reduce the need for patients to travel to Brisbane.

Identified need for care coordination and easy sharing of information between services delivered by the CHHHS and between HHSs to improve patient experiences and outcomes.

> *The system isn't flexible to meet the needs of the community.*

> *Big barriers around transfer of information, we need to invest in that space, it's a brave shift.*

10.3 Tier 2: identified health and service needs

(as identified though the prioritisation process)

11 Housing and Education

Supporting data:

- Lower Socio-economic profile for the region (over 50% of the population in the lowest two SEIFA quintiles), 6.5% of people live in social housing (3.4% Queensland rate).
- Proportion of the population accessing homelessness services in the CHHHS (1.9%) is more than double the state rate of 0.8%.
- More people live in crowded or severely crowded dwellings (total population) compared to Queensland (6.5% vs Queensland rate of 3.4%). More than one in four First Nations peoples reside in crowded dwellings. The areas of Babinda, Innisfail and Yarrabah have the highest rates of First Nations residents living in crowded dwellings (48.3% versus state rate of 18.8%). Socio-economic factors such as overcrowding are often a risk factor for infectious diseases.
- Education and health are intrinsically linked, with the level of educational attainment strongly associated with life expectancy, morbidity and health behaviours.[48] The proportion of people in the CHHHS region whose highest level of schooling is below year 11 is 41.6% for First Nations peoples and 36.0% for non-First Nations people (similar to the Queensland proportion). Croydon-Etheridge, Herberton and Babinda all have higher proportions of people whose highest level of schooling is below year 11 (49% and above). Babinda, Yarrabah, and Atherton all have higher proportions of First Nations peoples whose highest level of schooling is below year 11 (54%).

Felt need:

- Limited social housing and challenges with the population accessing adequate housing (given the socio-economic profile of the region). Need for increased youth education and training (including vocational training) opportunities, particularly for First Nations peoples and particularly in rural and remote areas.

Identified need for improved access to social housing, homelessness services to meet demand and improved opportunities and pathways for education, particularly in rural and remote areas, to achieve improved health outcomes.

48 The Lancet Public H. Education: a neglected social determinant of health. The Lancet Public Health. 2020;5(7):e361.

12 Rural and remote access to health services

Supporting data:

- Lower than Queensland average headcount by profession for nurses and midwives, doctors and other health professions for all areas in the CHHHS (except for Cairns[49]) (as per AHPRA registrations).
- Strategic intent from Queensland Health to improve health outcomes for rural and remote people QH Advancing Rural and Remote Service Delivery Through Workforce and the QH Rural and Remote Wellbeing Strategy 2022-2027.
- **Service gaps:** Identified for health services outside of the Cairns area, including availability of GPs (refer to need 3), aged care service providers (refer to need 8) , NDIS providers (refer to need 15), mental health and addiction services (refer to need 1), dental health services, allied health services, maternal and child health services. There can be long waits for services. Outreach services (from Cairns) to rural areas can be cancelled (for CHHHS provided services) due to workforce challenges.

Felt need:

- Challenges to access local services in rural and remote areas due to unavailability of service or wait lists. Opportunities for locally based services, visiting services or increased utilisation of telehealth (with support at the local end) and clarity needed regarding funded programs and availability of services. Identified opportunity to investigate utilisation of Herberton Hospital for primary health care and outpatient services.
- Impacts felt particularly in relation to lack of access to GPs, mental health and addiction services, maternal and child health, pathology services, oral health and skin check services (particularly in the remote Far North area).

Identified need for rural and remote access to health services, with opportunities for alternative models of care, including workforce, use of technology, and locally co-designed models with communities.

49 AHPRA registrations are by headcount not FTE and do not account for providers who may be based in Cairns but provide services elsewhere (for example outreach services).

13 Community health and early intervention services

Supporting data:

- Strong strategic intent in the National Health Reform Agreement with a shared intent towards prioritising prevention and empowering people through health literacy and prevention and wellbeing, including joint planning and funding at a local level. The Queensland Health Rural and Remote Wellbeing Strategy (2022-2027) has a strategic objective for goal integrated, person-centred care.

Service gaps:

- Identified for areas where limited community-based services are provided (including Mission Beach and Babinda) and other areas where no community services are provided (e.g. Gordonvale and Port Douglas). Gaps identified in public health services and community-based services to provide prevention and early intervention services (e.g. for maternal and child health and for chronic disease).

Felt need:

- Identified opportunity for investigation of child health community services in the Cairns South region (due to growing population of child and youth), particularly for an early intervention and high-risk infant service and for Mossman maternal and child health community-based services. Opportunity for investigation into new models of care focused on provision of services in the home.
- Impact particularly felt for vulnerable and First Nations people, with need for 'wrap around' multi-disciplinary care models.

Identified need for community-based health services and early intervention services (both for maternal and child health and chronic disease), particularly to prevent or slow disease progression.

> *Prevention for a lot of these conditions is a no brainer*

> *A new and dynamic approach needs to be developed to reach people in a primary care setting and with a focus on preventative education and community-led initiatives.*

14 Care coordination between CHHHS and the primary care sector

Supporting data:

- The National Health Reform Agreement has a shared intent towards long-term reforms in health technology, value and outcomes. The Queensland Health Rural and Remote Wellbeing Strategy (2022-2027) has a goal of digitally enabled and integrated person-centred care.

Service gap:

- Sharing of health information limitations due to use of different (electronic) systems for record keeping and electronic sharing of investigation results limitations.

Felt need:

- Health services (across the primary care and acute care setting) are siloed, resulting in community dissatisfaction and/or poorer health outcomes. Impacts are felt especially for people with chronic conditions and mental health problems.
- Identified opportunity to coordinate and streamline care, share information and partner to improve access to care, including across government, non-government, private and other organisations (inclusive of education and the Queensland police).
- Identified opportunity to investigate medical collaboration between GPs, *ACCHOs* and specialists as well as streamlining processes between CHHHS and RFDS (such as pathology ordering and medication script processes) to improve health outcomes.

Identified need for improved care coordination between the CHHHS and the primary care sector (and other health service providers), including sharing of information and different models of working together.

> *Deprived of services based on where you live. Need to work better across organisations.*

15 Services and specialised services for people with disabilities, including National Disability Insurance Scheme (NDIS)

Supporting data:

- It is estimated (for Queensland) that 29.3% of individuals with need for assistance for one to four activities have unmet assistance need for at least one activity. This includes 20.9% with unmet need for assistance with personal activities and 25% with unmet need for assistance with property maintenance.
- There are 11,906 people (4.79%) in the CHHHS classified as having a profound or severe disability. The highest number of people with profound or severe disability live in the Cairns South area. The highest proportion of people with profound or severe disability (compared to the area population) live in the Tablelands (East)-Kuranda area.
- There are currently (in 2021) 3984 participants of the NDIS in the CHHHS. It is projected that in the service district of Cairns the number of active NDIS participants will increase to 5600 by June 2023.
- There are lower rates of NDIS participants in the Far North region and the SA2 of Port Douglas, however, given the service limitations in these regions, these figures should be interpreted with caution.

Service gaps:

- It has been identified in disability service provision (both for NDIS participants and non-NDIS), particularly for some rural and remote areas with no (or very limited) service coverage, that lack of access to services possibly reduces the number of people with severe or profound disability living in these regions.

Felt need:

- For care coordination between CHHHS and NDIS service providers, as well as the ability to access disability support services (including those with knowledge for specialised care), specialised equipment and culturally appropriate disability support.

Identified need for services (including specialised services) for adults and children with disabilities, including NDIS services, as well as improved care coordination between CHHHS and disability service providers.

16 Diabetes and kidney disease prevention and early intervention

Supporting data:

- Higher prevalence of diabetes in the CHHHS region compared to Queensland (rates vary from 5.3- 7.6 per 100 people vs Queensland 4.7). The highest rates of diabetes are in the Cairns South area followed by the Innisfail-Cassowary Coast area.
- Higher premature mortality rate for diabetes in the CHHHS compared to the rest of Queensland; this is highest in the Far North area (29.3 per 100,000 vs 7.2 Queensland), greater than four times the state rate.
- First Nations peoples have a disproportional premature mortality rate for diabetes, especially Yarrabah (90.2 per 100,000 vs Queensland First Nations rate of 23.7) nearly more than four times the First Nations peoples' rate and more than 12 times the Queensland premature mortality rate. First Nations peoples in the Cairns area experience a premature mortality rate more than five times the Queensland rate (37.7 per 100,000).
- End Stage Kidney Disease (ESKD) disproportionally impacts First Nations peoples in the CHHHS. While comprising only 11.6% of the region's population, First Nations peoples account for more than 50% of ESKD cases.

Felt need:

- Need for an increased focus on prevention and early intervention for diabetes and kidney disease, particularly for improved outcomes for First Nations peoples.

Identified need for diabetes and kidney disease prevention and early intervention to slow disease progression.

> *There are so many resources to support one person in home dialysis - it would be better spent in preventing 10 kids ending up with diabetes and kidney disease.*

10.4 Tier 3: identified health and service needs

(as identified though the prioritisation process)

Ageing infrastructure in CHHHS rural facilities

Service gap:

- Components of CHHHS health facilities in the rural and regional areas are aged and impacting on ability to provide contemporary health services.

Felt need:

- for improved infrastructure for CHHHS rural facilities, including sound proofing of rooms for confidentiality, sufficient physical capacity for visiting or additional services and negative pressure rooms for patient isolation.

Identified need for improved infrastructure for CHHHS rural facilities to maximise efficient and effective health care.

Cancer and haematology services

Supporting data:

- In general, people in the CHHHS region experience a higher prevalence of cancer compared to the rest of Queensland (this varies by area and cancer type).
- First Nations peoples in the CHHHS region experience higher prevalence rates of cancer compared to non-First Nations people.
- Cancer is the highest cause of premature mortality in the CHHHS (based on the available data), with lung cancer mortality rates a key contributor.
- Projected increased demand for chemotherapy, with significant growth above population growth out to 2032[50].

Service gap:

- Rural hospitals (Atherton and Innisfail) at capacity (in part due to workforce limitations) for chemotherapy services, resulting in significant travel for rural patients needing chemotherapy in Cairns. No chemotherapy service is available at Mossman or Mareeba Hospitals.

Felt need:

- Difficulties with accessing care when multiple treatments required per day/week, particularly when living outside of Cairns. Opportunity for a survivorship clinic for cancer care patients, and increased range of services.

Identified need for enhanced cancer and haematology services to meet the needs of the community, including in rural areas.

50 Projections taken from the Queensland Health System Planning Portal using the chemotherapy projections

Cardiac health and services

Supporting data:

- High prevalence rate of people with high blood pressure (a precursor to circulatory system health needs) in the CHHHS (23%).
- Prevalence of heart, stroke and vascular disease is similar to Queensland (with the exception of Johnstone and Tully in the Innisfail-Cassowary Coast area, which has a higher prevalence, 5.1 per 100 vs 4.7 Queensland).
- For the entire CHHHS region, premature mortality rates for cardiovascular disease are higher than the Queensland rate.
- First Nations peoples experience higher rates of circulatory system disease and in some areas in the CHHHS experience higher rates of premature mortality for circulatory system diseases.
- Projected increased demand for interventional cardiology, with significant growth above population growth out to 2032[51].

Felt need:

- Identified opportunity for interventional cardiac services (including electrophysiology sustainability), particularly with a change in clinical practice towards increased use of catheterisation labs instead of operating theatres to manage circulatory system diseases.

Identified need to influence cardiac health outcomes via prevention, health promotion and early intervention, as well as enhanced interventional cardiology.

51 Projections taken from the Queensland Health System Planning Portal using the interventional cardiology projections.

Child health and services

Supporting data:

- Higher fertility rate (1.96 per 1000 vs Queensland 1.81) for the total population. Although the birth rate *overall* for the CHHHS region is similar to Queensland (11.3 per 1000 vs 11.6), the birth rate is much higher for First Nations people (20.7 per 1000 vs First Nations peoples Queensland 13.4).
- Very high proportion of First Nations peoples' births compared to Queensland (21.1% vs 5.3% rate for Queensland).
- The rate of First Nations mothers who smoke during pregnancy (48%) and Non-First Nations mothers who smoke during pregnancy (11.5%) are higher than the Queensland state comparison of 42.6% and 9.0% respectively.
- There are some areas in the CHHHS where First Nations people have lower than the Queensland rate of eight or more antenatal visits (Manoora 59%, Westcourt-Bungalow 60% and Yarrabah 61%).
- The rates of children fully immunised by one and two years are slightly lower than the state rate.
- Neonatal outcomes at the HHS level are typically poorer than the Queensland average for indicators such as infant mortality, premature births and low birthweight, with First Nations peoples having higher rates of premature births and low birthweight babies compared to non-First Nations people in the CHHHS.
- There are some areas in the CHHHS with a higher proportion than Queensland of children who are developmentally vulnerable. In particular, the Far North area has 40.4% of children who were developmentally vulnerable across one domain (25.9% Queensland) and 26.4% across two or more domains (13.9% Queensland).
- Strategic intent to focus on children's health outcomes (inclusive of the National Action Plan for the Health of Children and Young People 2020-2030 and Queensland Health Statewide Plan for Children and Young Peoples' Health services to 2026.

Service gap:

- Limited range of primary health care services available outside of the Cairns North and Cairns South areas. Limited community-based services in some areas (including Mission Beach and Babinda) and no community health services for some areas (e.g. Gordonvale and Port Douglas). Gaps in existing public health and community health services for provision of prevention and early intervention services or maternal and child health. Gap in availability of childcare and after school care for rural and remote areas.

Felt need:

- Local access to community-based child health services. Also need for access to timely diagnostic services, child and family psychology/psychiatry and parenting skills/support, including family planning and education.

Identified need for greater localised access to child health services to improve long-term health outcomes.

Chronic pain services

Supporting data:

- Chronic pain affects one in five Australians aged 45 and over and chronic pain hospitalisations are 1.7 times as likely in the lowest socio-economic areas compared with the highest.[52]

Service gap:

- Very limited availability for chronic pain services, especially for rural and remote areas. There is only a limited chronic pain service available at Cairns North Community Health Centre (with telehealth component). No service for women's chronic pelvic pain.

Felt need:

- Impacts particularly felt for women with chronic pelvic pain, people with a disability and general persistent pain management.

Identified need for locally accessible chronic pain management services, including a pelvic pain service for women.

52 AIHW: Chronic pain in Australia Chronic pain in Australia, Summary - Australian Institute of Health and Welfare (aihw.gov.au)

Dental health and services

Supporting data:

- Proportion of the eligible population accessing public oral health care is higher than Queensland (15% versus 12.8%), noting that this is still a small proportion of the eligible population. Around a third of public dental services in the region are provided at the Cairns North Dental Clinic. School dental services (public) are available, either on site or via visiting dental van service.
- Strategic intent to improve the health and wellbeing across the Australian population by improving oral health status and reducing the burden of poor oral health (Healthy mouths, Healthy lives: Australia's National Oral Health Plan 2015-2024).

Service gap:

- Limited number of public dental chairs for the population in Atherton and Southern Cairns (inclusive of Gordonvale and Babinda) and long waitlists for public oral health services in all areas in the CHHHS region. Limited dental service availability (no private services) in remote areas Croydon, Forsayth and Georgetown. No water fluoridation in the region.

Felt need:

- Impacts particularly felt by people on lower incomes, especially in rural and regional areas where access to dental services is challenging.

Identified need for further public dental services for better oral health outcomes.

Domestic violence support services and crisis accommodation

Supporting data:

- Domestic violence is grouped with kidnapping, stalking and offences against the person. In this 'reported offences' category, the CHHHS region has a higher rate per 100,000 compared to Queensland (2685.8 vs 1715.3).
- Family, domestic and sexual violence is a major health and welfare issue in Australia, occurring across all socio-economic and demographic groups but predominantly affecting women and children. These types of violence can have a serious impact on individuals, families and communities, and can inflict physical injury, psychological trauma and emotional suffering. These effects can be long-lasting and can affect future generations.[53]
- Strategic intent to reduce domestic and family violence (Domestic and Family Violence prevention strategy 2016-2026).

Felt need:

- For greater domestic violence support services, including safe houses outside of Cairns to meet the existing and reportedly increasing need, especially for vulnerable people.

Identified need for greater domestic violence support services and crisis accommodation to reduce health impacts.

53 AIHW: family, domestic and sexual violence Family, domestic and sexual violence - Australian Institute of Health and Welfare (aihw.gov.au)

End of life care and services

Supporting data:

- Strategic intent to strengthen the capacity of Queensland Health services to respond to the needs of those with a progressive life-limiting illness (at any life stage) through the delivery of services that prioritise patient goals for quality of life as key components of care (Statewide strategy for end-of-life care 2015, Queensland health care at the end-of-life campaign).

Service gap:

- No palliative care hospice in Northern Queensland, limited GP services for in-home palliative care in rural and remote areas. Limited home-based CHHHS palliative care service in regional centres (e.g. Mareeba, Mossman, Atherton, Innisfail) often via NGO contracts. Challenges with NGO service provision due to limitations with workforce availability.

Felt need:

- Home-based palliative care services, especially in rural and remote areas and 24/7 models of care. Need for palliative care hospice option and bereavement-support services.

Identified need for more end-of-life care services, particularly to support people to die at home where possible.

Fresh food access in rural and remote areas

Supporting data:

- In terms of fruit and vegetable intake, similar to Queensland, just over half of the population in CHHHS have the recommended fruit intake (52.1% CHHHS and Queensland) and approximately 8% of people have the recommended vegetable intake (Queensland 8.4%).
- A healthy diet helps to prevent and manage health risk factors such as overweight and obesity, high blood pressure and high cholesterol, as well as associated chronic conditions, including type 2 diabetes, cardiovascular disease and some forms of cancer. Diet-related chronic conditions are among the leading causes of death and disability in Australia.[54]

Service gap:

- Access to fresh food (fruit and vegetables) can be limited in rural and remote areas (food delivery once per week in remote areas and no fresh food store in Yarrabah). Hard to grow fresh food in remote areas like Chillagoe due to lime in the water.

Felt need:

- Access to fresh food in rural and remote areas needed to enable healthy eating and prevent development of diabetes (and other conditions), especially for First Nations peoples. Need for access to fresh food in Yarrabah and food security due to unreliable infrastructure (reliable fresh water and electricity).

Identified need for fresh food access in rural and remote areas, inclusive of food security in the Yarrabah region, to encourage healthy eating and improved health outcomes.

54 AIHW: Australia's health 2018 (4.9 diet) 4.9 Diet, Chapter 4 Determinants of health (Australia's health 2018) (AIHW)

Infectious diseases services

Supporting data:

- Whilst the amount of public hospital use of immunology and infectious diseases services is not as high as other clinical areas, the utilisation of these services, particularly for some areas in the CHHHS region, is much higher than expected compared to Queensland.
- The proportion of people coming to hospital for immunology and infectious diseases reasons is two to six times higher than the Queensland average utilisation rate. The highest areas for same day admissions are Innisfail-Cassowary Coast (over six times the Queensland expected rate) and Tablelands (East)-Kuranda (over four times the Queensland expected rate) and overnight admissions for Innisfail-Cassowary Coast, Port Douglas-Daintree and Tablelands (East)-Kuranda (all more than twice the state expected rate).
- One of the top 10 reasons for an overnight hospital stay in CHHHS is because of a clinical condition related to immunology and infections.
- The recent COVID-19 pandemic has brought increased scrutiny on the need for public health measures, isolation practices and measures to be taken in health care settings (in particular) to effectively control the spread of the disease. These measures are applicable to other infectious diseases.

Felt need:

- For sustainable infectious disease and immunology services, inclusive of infection prevention and control.

Identified need for sustainable infectious disease services to meet the current and future needs of the population living in a tropical environment.

Maternal and antenatal health and services

Supporting data:

- Higher fertility rate compared to Queensland (1.96 per 1000, Queensland 1.81), with high birth rates for the total population in White Rock, Yarrabah and Manunda.
- The First Nations peoples birth rate is significantly higher compared to the Queensland First Nations rate (20.7 per 1000 vs 13.4 Queensland) with the highest First Nations birth rates in Manunda, White Rock and Mareeba.
- Approximately 21.1% of births in the CHHHS region are First Nations peoples compared to the Queensland First Nations peoples average of 5.3%.
- The rate of First Nations mothers who smoke during pregnancy (48%) and non-First Nations mothers who smoke during pregnancy (11.5%) are higher than the Queensland state comparison of 42.6% and 9.0% respectively.
- There are some areas in the CHHHS where First Nations peoples have lower than the Queensland rate of eight or more antenatal visits (Manoora 59%, Westcourt-Bungalow 60% and Yarrabah 61%).
- Neonatal outcomes at the HHS level are typically poorer than the Queensland average for indicators such as infant mortality, premature births and low birthweight, with First Nations peoples having higher rates of premature births and low birthweight babies compared to non-First Nations people in the CHHHS.

Service gaps:

- Limited range of primary health care services available outside of the Cairns North and Cairns South areas. Limited community-based services in some areas (including Mission Beach and Babinda) and no community health services for some areas (e.g. Gordonvale and Port Douglas). Gaps in existing public health and community health services for provision of prevention and early intervention services for maternal and antenatal health. Gap in availability of childcare and after-school care for rural and remote areas.

Felt need:

- Women can be away from home (for rural and remote areas) for long periods (up to two months) for birthing, particularly if they are a high-risk pregnancy. Identified opportunity for locally based antenatal and child health services in the Port Douglas-Daintree area, including coordination of care across facilities and organisations.

Identified need to improve maternal and neonatal outcomes, particularly for vulnerable families, including greater localised access to services.

Prisoner health and services

Supporting data:

- Health services provided by CHHHS to residents at Lotus Glen Correctional Facility (LGCF), located in the Tablelands (East)-Kuranda area.
- Strategic intent that by 2026 the health and wellbeing of people in prison is measurably improved, which contributes to the health, wellbeing and safety of the Queensland community (reducing barriers to health and wellbeing: the Queensland Prisoner Health and Wellbeing Strategy 2020-2025).

Service gap:

- Substantial increase in inmates at LGCF without an increase in resourcing for health service provision to this population.

Felt need:

- For prisoner health and services inclusive of people in contact with the justice system, especially mental health, sexual health and chronic disease management.

Identified need for improved health outcomes for prisoners (and people in contact with the justice system) especially mental health, sexual health and chronic disease.

Renal dialysis services across the region

Supporting data:

- Projected increased demand for renal dialysis with significant growth above population growth out to 2032.[55] Detailed analysis anticipates growth, particularly for the Tablelands (East)-Kuranda region and for the Cairns South region.
- Diabetes can be a precursor to kidney disease, which can result in the need for renal dialysis. There is a higher prevalence of diabetes in the CHHHS region compared to Queensland (rates vary from 5.3- 7.6 vs Queensland 4.7 per 100 people). The highest rates of diabetes are in the Cairns South area followed by the Innisfail-Cassowary Coast area.
- There is a high burden of disease for end stage kidney disease (ESKD) in the CHHHS area. First Nations peoples are disproportionally impacted compared to the population rate (close to 50% of people with ESKD in the CHHHS are First Nations peoples).
- In 2018 there were 372 people in the CHHHS area impacted by ESKD.
- Renal dialysis services are provided across a range of areas within the CHHHS (Innisfail, Atherton, Mossman, Yarrabah and Cairns-multiple sites). Home dialysis is also available to suitable candidates in suitable dwellings.
- The CHHHS has the highest number of renal dialysis chairs (compared to other HHSs) in Queensland.

Felt need:

- Need to explore opportunities to provide renal dialysis in Mareeba and Tully for the people of those regions to reduce the need to travel for dialysis.

Identified need to grow renal dialysis services across the region to meet existing and future need.

55 Projections taken from Queensland System Planning Portal using Renal Dialysis Projections.

Respiratory health and services

Supporting data:

- The proportion of daily smokers in the Cairns and Hinterland HHS (14.9%) is higher than the Queensland proportion of 11% with a notable stand out of the Far North SA3, where 24.5% of adults reported smoking daily, followed by Port Douglas-Daintree at 16.8%.
- Similar prevalence rates for asthma and chronic obstructive pulmonary disease (COPD). Asthma is the third highest impacting condition on people in this region (over 28,000 people), with the highest prevalence in the Innisfail-Cassowary Coast area. COPD impacts just under 9000 people in the CHHHS, with the highest prevalence in the Cairns South area.
- Higher premature mortality rates for respiratory diseases and COPD in the CHHHS region compared to Queensland, particularly for select areas within Cairns South. The First Nations peoples rates are also higher (particularly in Tablelands (East)-Kuranda and the Far North area) compared to Queensland.
- In terms of hospital utilisation, the most common reason for overnight hospitalisations is a respiratory problem.

Service gap

- Number of sleep service overnight beds (two) for the size of the population (particularly with consideration of acute service provision for Torres and Cape residents).

Identified need for improved respiratory health outcomes, including a focus on prevention, health promotion and chronic disease management, and a more sustainable sleep service.

Rural and remote ambulance services and resourcing

Supporting data:

- The Queensland Ambulance Service (QAS) operates as a state-wide service within Queensland Health. It is accountable for the delivery of pre-hospital ambulance response services, emergency and non-emergency pre-hospital patient care and transport services, inter-facility ambulance transport, casualty room services, and planning and coordination of multi-casualty incidents and disasters. In addition, the QAS works in partnership with approximately 150 Local Ambulance Committees, whose members volunteer their time to support the local ambulance service[56].
- Strategic intent to deliver timely and appropriate patient-focused ambulance services to the Queensland community (Queensland Ambulance Service Strategy 2022-2027).

Service gap

- Service models for remote areas (and some regional areas) generally operated on-call by the local primary health care centre nurse and sometimes supported by volunteer drivers. This results in the PHCC (single nurse station) not being staffed during business hours when the ambulance is in use, or can result in fatigue for the nurse if the ambulance is required out of hours. Additionally for the regional hospitals, a nurse escort from the hospital can be required for ambulance transfers to a higher acuity hospital. This can impact on the local facility resourcing for routine clinical service delivery. Reported increased demand for ambulance services due to challenges with timely access to a GP and lack of access to transport.

Felt need

- Ambulance operational arrangements and resources are insufficient for rural and remote areas. Identified opportunity to improve the processes between CHHHS and QAS, inclusive of consideration of scope of roles and referral pathways.

Identified need for additional resourcing for rural and remote ambulance services.

56 Queensland Ambulance Service: Queensland Ambulance Service - About QAS

Rural and remote telecommunication and Internet services

Supporting data:

- Internet connectivity within people's homes is less available in the CHHHS region compared to Queensland, with 17.3% of homes with no Internet vs Queensland rate of 13.6%. The areas with the highest proportion of dwellings with no internet are Yarrabah (50.9%, 3.7 times the Queensland rate), Cape York (32.2%, 2.4 times the Queensland rate) and Manoora (27.9%, 2.1 times the Queensland rate).

Service gap:

- Number of 'black spots' across the region for internet (and phone) connectivity, particularly in the Far North region. Reported internet connectivity and speed impacted by fluctuating tourist numbers in rural and remote areas.

Felt need:

- Impact especially felt in regard to access to telehealth services and My Aged Care services.

Identified need for improved rural and remote telecommunication and internet services to enable access to health care and other services.

> *Need regional management of issues with black spots and escalation of this. In disasters we really feel the pinch around poor telecommunications*

Sexual health services, particularly in rural and remote areas

Supporting data:

- Sexual health is a state of physical, mental and social wellbeing in relation to sexuality (WHO 2019a).
- Measures of sexual health include the prevalence of sexual difficulties and sexually transmissible infection rates. Sexually transmitted infections (STIs) are a subset of communicable diseases known to be transmitted through sexual contact. More than 30 different viruses, bacteria and parasites are known to be transmitted sexually (WHO 2019b). While some STIs can be cured, a person can have an STI without symptoms of disease. If left untreated, these infections can have serious consequences for long-term health.[57]
- Within the CHHHS there is a higher STI rate for First Nations peoples compared to non-First Nations people (more than three times). Chlamydia is the most prevalent infection for both the whole population and the First Nations population.
- Strategic intent for all Queenslanders to experience optimal sexual and reproductive health (Queensland Sexual Health Framework).

Service gap:

- Sexual health services outside of the Cairns North Community Health facility, particularly for young people and for rural and remote areas.

Felt need:

- Challenges accessing appropriate and confidential sexual health services in rural towns and remote areas. Significant population need for sexual health services in southern Cairns. Identified opportunity to improve super specialty service access to gender-transition services for pre-pubescent youth.

Identified need for improved access to sexual health services, particularly in southern Cairns and rural and remote areas.

57 AIHW sexual health: The health of Australia's males, Sexual health - Australian Institute of Health and Welfare (aihw.gov.au)

Specialised women's and men's health services

Supporting data:

- Strategic intent for men's health, that every man and boy in Australia is supported to live a long, fulfilling and healthy life (National Men's Health Strategy 2020-2030). Also strategic intent to improve the health and wellbeing of all women and girls in Australia, providing appropriate, equitable and accessible prevention and care, especially for those at greatest risk of poor health (National Women's Health Strategy 2020-2030).

Service gap:

- Women's pelvic pain service (refer to need for chronic pain services) and incontinence service as well as postnatal mental health (refer to need 1). Limited specific and tailored health services for men.

Felt need:

- Improve navigation of termination of pregnancy (TOP) services, particularly for vulnerable women.
- Identified opportunity to provide appropriate services for men's health that are easily accessible across the CHHHS, particularly for First Nations men to improve access to services.

Identified need for appropriate men's health services and specialised women's health services.

11.0 Future planning

11.1 Next steps

In terms of developing responses and actions to identified health needs, the CHHHS will develop internal plans as well as partner across the sector to influence changes that result in better health and service outcomes.

It is recognised that needs are not mutually exclusive and that actions may influence change across multiple needs.

For all responses and actions, the key themes for why the region experiences a higher burden of disease and poorer health outcomes should be considered:

- Access to services and care (incorporating a range of different services)
- Lack of coordination of care and awareness of services
- Factors that influence health outcomes (particularly impacting vulnerable people)
- High rates of risky health behaviours with limited resources for education, health promotion and need for system-wide reform.

11.2 Partnerships and collaboration

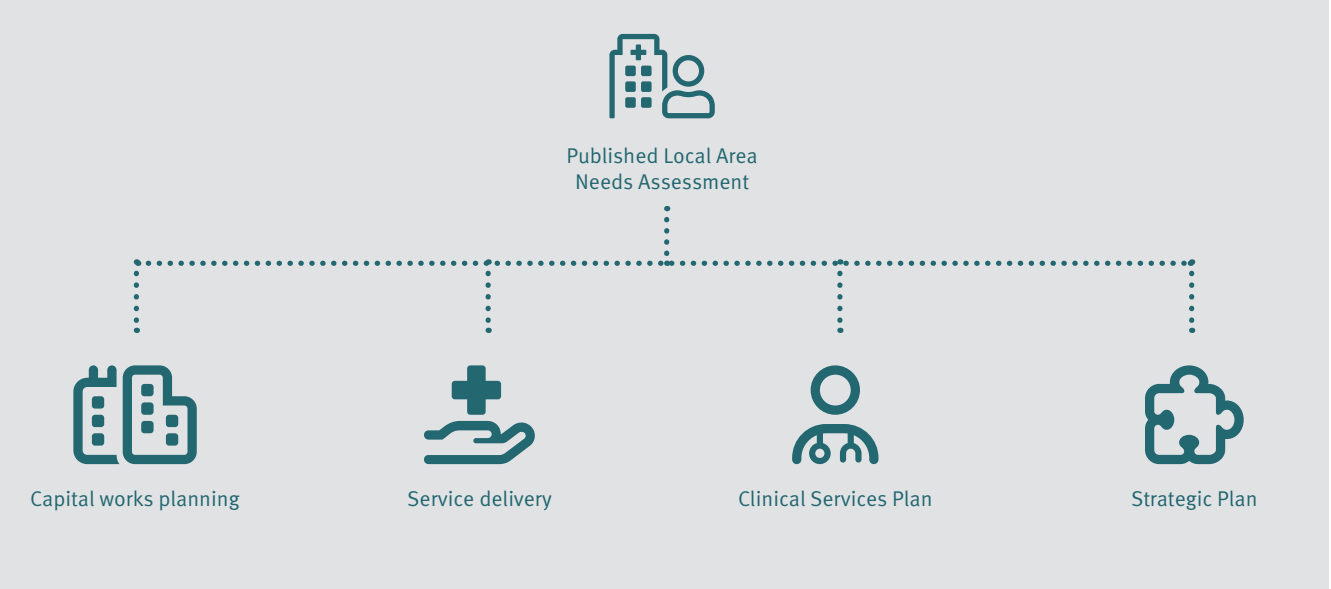
The Cairns and Hinterland Hospital and Health Service (CHHHS) and Northern Queensland Primary Health Network (NQPHN) share similar priority areas for future health planning and agree that a regional health plan that encompasses both organisations' identified health and service needs is a positive way forward. The CHHHS and NQPHN will seek to share information, examine common health and service priorities, and look for opportunities to partner and share investment to meet the health and service needs of the community.

The CHHHS will look to incorporate the identified health and service needs into its future planning (refer to section 11.3) and seek to partner with Aboriginal Community Controlled Health Organisations, non-government organisations, communities, local government, Queensland Ambulance Service, state government agencies and other key stakeholders to share information and look for opportunities to collaboratively meet the health and service needs of the community. The CHHHS will also seek to advocate for identified health and service needs outside of its prescribed remit (for example, provision of GP services, transport, housing and education).

11.3 CHHHS future planning

The CHHHS will seek to integrate the identified health and service needs into its future planning. This includes infrastructure planning for existing and future health facilities, workforce and models of care planning (ensuring consideration of the key identified themes), clinical service planning (future service planning to meet identified and projected needs) and strategic planning (considering the organisation's priorities in the context of identified health and service needs).

Models of care



12.0 Appendicies

12.1 Appendix 1: Abbreviations and terminology

ACHHO	Aboriginal Community Controlled Health Organisation
ABS	Australian Bureau of Statistics
AHPRA	Australian Health Practitioner Registration Authority
AIHW	Australian Institute of Health and Welfare
ARF	Acute rheumatic fever
ARIA	Accessibility Remoteness Index of Australia
ASR	Age-standardised rate
BHNQ	Better Health North Queensland
CALD	Culturally and linguistically diverse
CHAI	Cairns and Hinterland Analytical Intelligence
CHHHS	Cairns and Hinterland Hospital and Health Service
COPD	Chronic obstructive pulmonary disease
CSCF	Clinical Service Capability Framework
ED	Emergency Department
ELC	Executive Leadership Committee
ESKD	End stage kidney disease
FTE	Full time equivalent
GP	General Practitioner
HES	Health Equity Strategy
HHS	Hospital and Health Service
HITH	Hospital in the Home
HSCE	Health Service Chief Executive
IARE	Indigenous Area
JCU	James Cook University
LANA	Local Area Needs Assessment
LGA	Local government area
LGBTI	Lesbian, gay, bisexual, transgender & gender diverse, non-binary, intersex
LGBTIQA+	Lesbian, gay, bisexual, transgender & gender diverse, non-binary, intersex, queer and asexual
MBS	Medicare Benefits Schedule
NDIS	National Disability Insurance Scheme
NGO	Non-government organisation
NQPHN	North Queensland Primary Health Network
PHIDU	Public Health Information Development Unit
PHN	Primary Health Network
PPH	Potentially preventable hospitalisation
QAS	Queensland Ambulance Service
QH	Queensland Health
QHAPDC	Queensland Health Admitted Patient Data Collection
RFDS	Royal Flying Doctor Service
RHD	Rheumatic Heart Disease
SA2	Statistical Area Level Two
SA3	Statistical Area Level Three
SDoH	Social determinants of health
SEIFA	Socio-Economic Indexes for Areas
SRO	Senior responsible officer
STI	Sexually Transmitted Infections
TCHHS	Torres and Cape Hospital and Health Service
WHO	World Health Organisation

12.2 Appendix 2: Data sources

All data accessed through the Queensland Health Planning Portal unless otherwise stated.

Report Section	Name	Source	Date/ period
3.1.2	James Cook University (JCU) Northern Queensland Health Atlas (pilot)	Accessed through Northern Queensland Health Atlas - Pilot - Overview (arcgis.com)	Accessed September 2022
4.1 7	Geographical Area (square kilometres)	ABS Catalogue 1270.05.5.001 – Australian Statistical Geography Standard (ASGS) Volume 1 – Main Structure and Greater Capital city Statistical Areas (2016)	Accessed September 2022
4.1	Remoteness Areas	Concordance file sourced from Queensland Government Statisticians Office (QGSO) – released July (2016)	Accessed September 2022
4.2.1	Total estimated and projected resident population	Government Statistician's Office (QGSO) – ABS consultancy for QGSO, September 2020.	2011 - 2031
4.2.1 4.2.2 4.2.3 7	Population by age	Government Statistician's Office (QGSO) – ABS consultancy for QGSO, September 2020.	2011-2031
4.2.1-4.2.4 7	First Nations population	Australian Bureau of Statistics Catalogue No. 3235.0. ABS source data modified and rebased by Government Statistician's Office (QGSO) – ABS consultancy for QGSO, September 2020. ABS/QGSO	2012-2019
4.2.2 7	Annual births and fertility rates	Australian Bureau of Statistics (ABS) Births, Australia. Previous catalogue number 3301.0	2017, 2018, 2019
4.2.5	Estimates of unmet needs for assistance 1-4 activities	Australian Bureau of Statistics (ABS) 44300DO003_2018 Disability, Ageing and Carers, Australia: Queensland. Table 26.1 Persons aged 65 years and over, living in households, needing assistance, extent to which need met, by activity type-2018, estimate.	2018
4.2.5	Disability	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas (Disability tab).	2016
4.2.6	Country of birth and languages spoken	Australian Bureau of Statistics: Category G09 Australian Bureau of Statistics: Category G13 Public Health Information Development Unit (PHIDU) material from: Social Health Atlas of Australia: Population Health Area.	2016
4.2.6	Queensland Settlement Data	Accessed through: Queensland Settlement Data - Refugee Health Network Queensland (refugeehealthnetworkQueensland.org.au)	July 2021 – June 2022
4.2.7	Research matters: How many people are LGBTIQ? A fact sheet by Rainbow Health Victoria	Accessed through: researchmatters-numbers-lgbtiq.pdf (rainbowhealthvic.org.au)	Accessed September 2022
4.2.8 7	SEIFA	Australian Statistical Geography Standard (ASGS 2016) Australian Bureau of Statistics, 20330.55.001 Socio-Economic Indexes for Australia (SEIFA) 2016	2016
4.2.8	Unemployment rates	Small Area Labour Markets (SALM), March Quarter 2021. Labour Market Information Portal (lmip.gov.au) Australian Bureau of Statistics: 6202.0 Labour Force, Australia. Table 25. Underutilised persons by State, Territory and Sex (expanded analytical series).	Unemployment: 2021 (March) Underemployment: 2019-2021
4.2.8	Access to Internet	Australian Bureau of Statistics: Category: G37 Dwelling Internet Connection (a) by Dwelling Structure	2016
4.2.8	Highest level of schooling	Australian Bureau of Statistics: Category: G16 Highest Year of School Completed.	2016

Report Section	Name	Source	Date/ period
4.2.8	Social housing	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas (Housing Transport tab). Households in Dwellings receiving Rent Assistance: 2020, Households (First nations) in Dwellings receiving Rent Assistance: 2016, Social Housing; Rented Dwellings and Persons in Rented Dwellings: 2016	2020 2016
4.2.8 7	Crowded dwellings	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas (Housing Transport tab).	2016
4.2.8	Household composition	Australian Bureau of Statistics: Category: I12 Household and Family Composition by number of persons usually resident or by First Nations status, of household (Lone persons, One family household, Multiple family household, Group family household).	2016
4.2.8	One parent families	Australian Bureau of Statistics: Category: G25 Family Composition (One parent families, other families, couple family with children/no children)	2016
4.2.8	Dwellings with no motor vehicle	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas (Housing Transport tab)	2016
4.2.8	Domestic and Family Violence	Queensland Police Service: Reported crime trend data	2020
5.1.2 7	Estimated Risk Factors (Daily smoking, lifetime risky drinking, obesity, overweight, vegetable and fruit consumption)	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Estimates Risk Factors Adults tab. Queensland Health. The Health of Queenslanders 2020. Report of the Chief Health Officer Queensland. Queensland Government. Brisbane 2020.	PHIDU: 2017-18 CHO: 2019-20
5.1.2	Nutrition	Queensland Health. The Health of Queenslanders 2020. Report of the Chief Health Officer Queensland. Queensland Government. Brisbane 2020. Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Adequate fruit intake. Estimates Risk Factors Adults tab.	CHO: 2019-20 PHIDU: 2017-18
5.1.2	Substance use	Queensland Health. The Health of Queenslanders 2020. Report of the Chief Health Officer Queensland. Queensland Government. Brisbane 2020.	2019-20
5.2.1	Antenatal care	Queensland Perinatal Data Collection (QPDC), Statistical Services Branch, Queensland Health.	2017, 2018, 2019
5.2.2	Immunisation rates	Public Health Information Development Unit (PHIDU) material from: Social Health Atlas of Australia: Population Health Areas (Child Youth Health tab) Public Health Information Development Unit (PHIDU) material from: Social Health Atlas of Australia: Indigenous Areas (Immunisation tab)	2018
5.2.3 7	Cancer screening	Australian Institute of Health and Welfare analysis of National Cancer Screening Register data (NCSR RDE 3.4 16/10/2020), for people aged 50 to 74, 2018-19. Cancer Screening Programs Quarterly data report April 2021. Australian Institute of Health and Welfare analysis of Breast Screen data, for target age group 50 to 74. Cancer Screening Programs Quarterly data report April 2021. Australian Institute of Health and Welfare analysis of National Cancer Screening Register data (NCSR RDE 3.4 16/10/2020), for people aged 25 to 74, 2018-19. Cancer Screening Programs Quarterly data report April 2021.	2018-19
5.3.1	Life expectancy	Australian Bureau of Statistics (ABS). Table 2.1 Life tables, Statistical Area Level 4 - 2010-2012 to 2017-2019 First Nations: Public Health Information Development Unit (PHIDU): Social Atlas of Australia: Indigenous Areas (median age death tab). 2014-2018.	2010-2012 TO 2017-2019 2014-2018

Report Section	Name	Source	Date/ period
5.3.2 7	Infant mortality		2014-18
5.3.2 7	Low birthweight	First Nations: Public Health Information Development Unit (PHIDU): Social Atlas of Australia: Indigenous Areas (medial age death tab). 2014-2018.	ABS: 2017, 2-18, 2019
5.3.2	High birthweight	Australian Bureau of Statistics (ABS) Births, Australia. Previous catalogue 3301.0; Table 2: Births, summary, Statistical Areas level 2 - 2019 to 2019. Queensland Perinatal Data Collection (QPDC), Statistical Services Branch, Queensland Health.	ABS: 2017, 2-18, 2019
5.3.2	Children developmentally vulnerable	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Derived from Australian Early Development Census (AEDC): Developmentally Vulnerable, Developmentally On track, Developmentally at Risk.	2018
5.3.2 7	Premature births	Australian Bureau of Statistics (ABS) Births, Australia. Previous catalogue 3301.0; Table 2: Births, summary, Statistical Areas level 2 - 2019 to 2019. Queensland Perinatal Data Collection (QPDC), Statistical Services Branch, Queensland Health.	ABS: 2017, 2-18, 2019
5.3.3 5.3.4 5.3.6 7	Incidence/prevalence of selected diseases and conditions	Public Health Information Development Unit (PHIDU) material from: Social Health Atlas of Australia: Population Health Areas (Estimates Chronic Disease tab) Public Health Information Development Unit (PHIDU) material from: Social Health Atlas of Australia: Population Health Areas (Cancer Incidence Persons tab) Accessed through HHS Data: Queensland Department of Health. Acute Rheumatic Fever/ Rheumatic Heart Disease ESKD prevalence – ESKD HHS Data STI Notifications Data 2011-2020	PHIDU Chronic Conditions: 2017-18 PHIDU Cancer: 2010-14 RHD: 2021 ESKD: 2018
5.3.3	Dementia Statistics – key facts and statistics	Accessed through: Dementia statistics | Dementia Australia	2022
5.3.3	Dementia in Australia	Dementia in Australia, Summary - Australian Institute of Health and Welfare (aihw.gov.au)	2020
5.3.5	Australia's Health 2018 – Lesbian, gay, bisexual, transgender and intersex people	aihw-aus-221-chapter-5-5.pdf.aspx	2022
5.3.6 7	Premature mortality	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas Premature Deaths tab. Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Indigenous Areas Premature Deaths tab.	2014-18
5.3.6 7	Rates of suicide	Accessed through AIHW: Australian Institute of Health and Welfare (AIHW) Suicide & self-harm monitoring. 2020 National Mortality Database – Suicide (ICD-10 X60-X84, Y87.0). Table NMD S11. Accessed: https://www.aihw.gov.au/getmedia/47de5d8a-b550-4df2-b938-d9bf3f6cd3e3/2020-aihw-suicide-and-self-harm-monitoring-nmd-suicide-icd-10-x60-x84-y87-0.xlsx.aspx	2020

Report Section	Name	Source	Date/ period
5.3.6 7	Leading causes of death	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas Premature Deaths tab. Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas Years of life Lost tab. Accessed through ABS: Australian Bureau of Statistics (ABS). 3303.0 Causes of Death, Australia, 2017. Table 12.8 Underlying causes of death, Leading causes by Aboriginal and Torres Strait Islander status, Queensland, 2017.	PHIDU: 2014-18 ABS: 2017
5.3.6	Avoidable deaths	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas Avoidable Deaths tab. Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Indigenous Areas Avoidable Deaths tab.	2014-18
6.1.1	Number of GP clinics	Underlying source: National Health Service Directory, Health Map.	24 September 2021
6.1.1	Number of ACHHOS	National Aboriginal Community Controlled Health Organisation, extracted 13 August 2021	2021
6.1.1 7	Average number of GP attendances per person	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1	Percentage of population that did not see GP	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1	After-hours GP usage rates	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1 7	Services delivered by GP clinics	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1	Services delivered by allied health professionals	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1	Telehealth utilisation	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1 7	Mental health care plans	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1 7	Chronic disease plans	Australian Institute of Health and Welfare, Data tables: Medicare-subsidised GP, allied health and specialist health care across local areas: 2018-19. Accessed 15 July 2021.	2018-19
6.1.1 7	First Nations People's health checks	Australian Institute of Health and Welfare, Data tables: Indigenous-specific health checks: 2018-19. Accessed 22 July 2021.	2018-19
6.1.2	Aged care	Australian Institute of Health and Welfare – GEN: Providers, services and places in aged care. Extracted 27 September 2021.	30 June 2020
6.1.3	NDIS participation	National Disability Insurance Scheme, Participants by SA2 data. Released 31 March 2021. Accessed 20 June 2021.	March 2021
6.4.1 7	Emergency department presentations	Accessed through HHS Data: ED data extracted from Cairns & Hinterland Analytical Intelligence (CHAI) as this includes presentation to Yarrabah which is not captured in SPR	2018-19, 2019-20, 2020-21
6.4.2 6.4.5 7	Total admitted patient hospital episodes	Queensland Admitted Patient Data Collection, Years 2017/18, 2018/19 and 2019/20.	2017/18, 2018/19 and 2019/20.

Report Section	Name	Source	Date/ period
6.4.3	Virtual (HITH) bed separations	Accessed through HHS Data: Data provided by CHHHS Casemix Team	2020-21
6.4.3 7	Relative utilisation of public and private hospital services and separation rates	Queensland Admitted Patient Data Collection, Years 2017/18, 2018/19 and 2019/20. Separation rates 2019/20 and 2020/2021	2017/18, 2018/19 and 2019/20.
6.4.3 7	Service-related groups by total relative utilisation	Queensland Admitted Patient Data Collection, Years 2017/18, 2018/19 and 2019/20.	2017/18, 2018/19 and 2019/20.
6.4.3	Local hospital self-sufficiency rates	Queensland Admitted Patient Data Collection, Years 2017/18, 2018/19 and 2019/20.	2019/20
6.4.3 7	Mental health hospitalisations	Queensland Admitted Patient Data Collection, Years 2017/18, 2018/19 and 2019/20. Accessed through HHS Data: ED data extracted from SPR	2017/18, 2018/19 and 2019/20
6.4.3 7	Drug and alcohol hospitalisations	Queensland Admitted Patient Data Collection, Years 2017/18, 2018/19 and 2019/20.	2017/18, 2018/19 and 2019/20
6.4.4	Potentially preventable hospitalisations	Queensland Hospital Admitted Patient Data Collection (QHAPDC), Statistical Services Branch, Queensland. Further details on definition of PPH: https://meteor.aihw.gov.au/content/index.phtml/itemId/698904	2018-19, 2019-20
6.4.6	Oral health	Queensland Health Oral Health Services, Prepared by the Office of the Chief Dental Officer, August 2021.	2017-18, 2018-19, 2019-20
6.4.7	Registered health workforce by population	Open Data Portal – Commonwealth Department of Health: National Health Workforce Dataset (NHWDS). Data extracted and prepared March 2021 by Department of Health, Workforce Strategy Branch.	2019
6.4.7	Workforce FTE	Accessed through HHS Data: Data provided by CHHHS Casemix Team	CHHHS: 2018-19, 2019-20, 2020-21
6.4.7	District of workforce shortage for GPs	Accessed through Health Workforce Locator, Department of Health : https://www.health.gov.au/resources/apps-and-tools/health-workforce-locator/health-workforce-locator	Accessed 5 October 2021
6.4.7	Staff experience	Accessed through HHS Data: Working for Queensland survey, CHHHS, cairns-and-hinterland-hospital-and-health-service-2020-working-for-queensland.pdf	2020
7	Physical activity (adult)	Queensland Health. The Health of Queenslanders 2020. Report of the Chief Health Officer Queensland. Queensland Government. Brisbane 2020. Clearinghouse for Sport: AusPlay results. Queensland data tables – July 2019 to June 2020.	CHO: 2019-20 Clearinghouse for sport: 2019-20
7	Reported offences and incarceration	Queensland Police Service – Reported crime trend data.	2020
7	Difficulty accessing transport	Public Health Information Development Unit (PHIDU) material from: Social Health Atlas of Australia: Population Health Area.	2014
7	Mental and psychological distress	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: High or very high psychological distress. Estimates Risk Factors Adults tab.	2017-18
7	Years of life lost	Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Population Health Areas Years of Life Lost tab. Public Health Information Development Unit (PHIDU) from: Social Health Atlas of Australia: Indigenous Areas Years Life Lost tab.	2014-18

12.3 Appendix 3: List of agencies and groups consulted for the CHHHS LANA

CHHHS staff	First Nations Peoples & communities	Community groups and representatives	Government Services	Private services and NGOs
CHHHS Clinical Council	Mt Garnet HES meeting with Community	CentaCare / Refugee Health	North Queensland Primary Health Network	North West Remote Health
Rural and Remote Services	Chillagoe HES meeting with community	Cairns Regional Council	Better Health North Queensland	RFDS
CHHHS Executive Leadership Committee	Cairns North Community HES meeting	Croydon Shire Council	Queensland Ambulance Service	Headspace
CHHHS Board	Croydon HES meeting with community	Etheridge Shire Council	Department of Health (including System Planning Branch)	North Queensland Climate Health Group
CHHHS Clinical Streams (including Medical, Allied Health, Nursing)	Jumbun HES meeting with community	Cairns South Coalition	Children's Health Queensland	JCU (Connect to Wellbeing Research Reference Group)
ICU, Women's Perioperative Services	First Nations Consumer Consultation Committee	Babinda/Gordonvale Region	Office of Rural and Remote Health	GPs via GPLO network
Integrated Medicine, ED, Child Youth Services	Regional Health Partnership	Mareeba Region	Croydon Police	James Cook University
CHHHS Primary Health Care staff (Croydon, Georgetown, Forsayth, Mt Garnet, Ravenshoe, Chillagoe, Dimbulah, Jumbun)	Mulungu Aboriginal Corporation Primary Health Care Centre	Atherton Region	Georgetown State School	
CHHHS Hospital staff (Cairns, Gordonvale, Innisfail, Babinda, Tully, Mossman, Mareeba, Atherton, Herberton)	Gurriny Yealamucka Health Service	Mossman Region		
Clinical Services (Mental Health & ATODS, RHD, Diabetes, Older Persons Health, Oral Health, Cardiology, Immunology, People with a Disability, Infectious Diseases, Paediatrics & Child Health, ESKD, Neonatal, Maternity, Women's Health, Public Health, Cancer Care & Haematology, Respiratory)	Mamu Health Service	Innisfail Region		
	Apunipima Cape York Health Council	Consumer Advisory Group		
	Wuchopperen (at Regional Health Partnership meeting and from the HES Team)	Cassowary Coast Community Consultation Committee		
		Hinterland Community Consultation Committee		
		Trinity Community Consultation Committee		

Regional Health Partnership consultation attendees: Wuchopperen, QHAIC, Torres and Cape HHS, Cairns and Hinterland HHS, RFDS, NQPHN, CheckUp, NATSIHA, Apunipima. HES-Health Equity Strategy

Contributors

Cairns and Hinterland Hospital and Health Service (CHHHS) acknowledges the following people and units that assisted in the development and preparation of this inaugural Local Area Needs Assessment report:

- Queensland Health System Planning Branch
- Tropical Public Health Services (Cairns)
- Rheumatic Heart Disease coordinators and sexually transmitted infections (STI) coordinators
- CHHHS Casemix team
- CHHHS Communications and Engagement team
- CHHHS Health Equity Strategy team
- Better Health North Queensland – Joint North Queensland LANA/Health Needs Assessment group
- Queensland Health LANA Community of Practice
- Ernst & Young (EY)
- Community members, CHHHS staff and other service providers
- The CHHHS LANA Steering Committee
  - CHHHS Health Service Chief Executive
  - Clinical Council Representative
  - Executive Director Aboriginal and Torres Strait Islander Health
  - Executive Director Rural and Remote Services
  - Clinical Leads: Executive Director of Medical, Nursing and Allied Health
  - Executive Director Cairns Services
  - Tropical Public Health Services Representative
  - Ms Barnes, Consumer Representative
  - North Queensland Primary Health Network Representative
  - Director Strategy and Planning
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