Australian Government
Department of Health

phn
An Australian Government Initiative

Primary Health Networks Program Needs Assessment Template

Name of Primary Health Network

Brisbane North PHN (1 July 2022 – 30 June 2025)

Instructions for using this template

Overview

This template is optional for PHNs to use for submitting their Needs Assessment. If PHNs choose not to use this template, they are still required to include all the information requested in the *PHN Needs Assessment Completion Guide.*

Further information on Needs Assessments is provided on the Department's website (www.health.gov.au/PHN), including the *PHN Needs Assessment Policy Guide*, and the Drug and Alcohol Needs Assessment Tool and Checklist (via PHN secure site).

The information provided by PHNs may be used by the Department to inform program and policy development.

Format

The Needs Assessment template consists of the following:

Section 1 – Narrative

Section 2 – Outcomes of the health needs analysis

Section 3 – Outcomes of the service needs analysis

Section 4 – Opportunities and priorities

Section 5 – Checklist

If using this template, the Needs Assessment must be in a Word document and provide the information as specified in sections one to five. Limited supplementary information may be provided in separate attachments if necessary. Attachments should not be used as a substitute for completing the necessary information as required in each section.

While the PHN may include a range of material on their website, for the purposes of public reporting the PHN is required to make the tables in section two and section three publicly available on their website.

PHNs should select the most appropriate coding options from the drop-down list of categories (priority area and priority sub-category) for each prioritised need. This will be used to assist the Department in developing policy for the broader PHN Program.

Submission Process

The Needs Assessment must be submitted to the Department, via PHN Program Electronic Reporting System, on or before 15 November 2021.

Reporting Period

This Needs Assessment will be for a three year period and cover 1 July 2022 to 30 June 2025. It can be reviewed and updated as needed during this period. This refresh provides an update on the following sections: First Nations Health, Children's Health, Older Person's Health, After Hours, Norfolk Island and Women's Health.

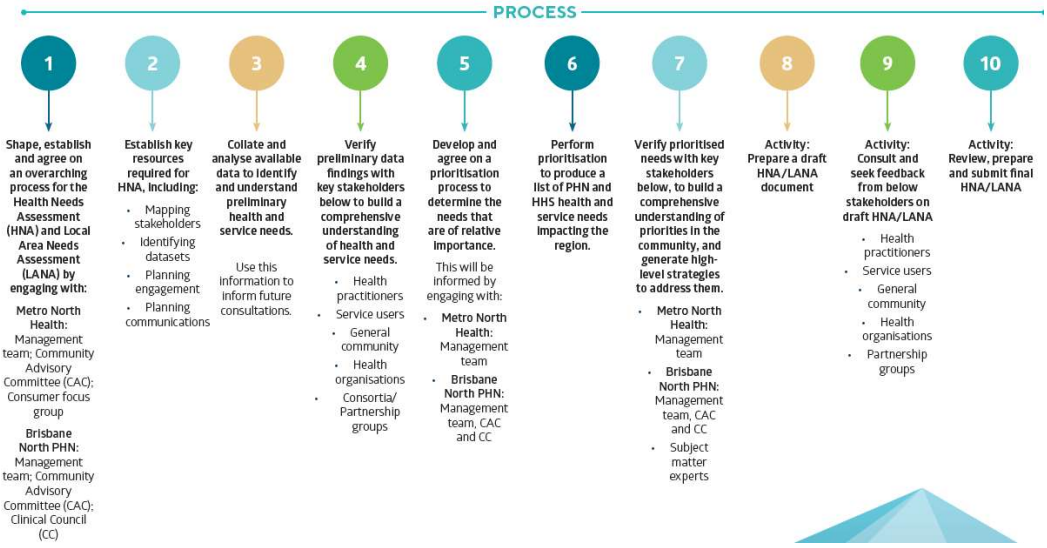
Section 1 – Narrative

This section provides PHNs with the opportunity to provide brief narratives on the process and key issues relating to the Needs Assessment.

HNA Development Process

Brisbane North PHN's process of undertaking the 2022/23 – 2024/25 Health Needs Assessment (HNA) substantially changed from previous years. In 2020, Queensland Health developed and released the Framework for their Local Area Needs Assessments (LANA), requiring each Hospital and Health Service (eg Metro North Health) to undertake the development of their LANA in partnership with their respective PHN. This HNA was therefore jointly undertaken with Metro North Health.

Given the partnership, a 10-step process was jointly developed and agreed upon with Metro North Health, outlining the overarching activities required to complete Brisbane North PHN's HNA and Metro North Health's LANA. These ten steps are outlined below:



Deviations from the plan occurred towards the end of the process, with other commitments, – most notably responding to the COVID-19 pandemic – impacting on the implementation of the final steps. Both Brisbane North PHN and Metro North Health are still committed to consulting broadly on the utility of the HNA and LANA, and will ensure this informs the final public-facing resource available for use by stakeholders and the broader community. The outputs from steps one through six have informed and contributed to the development of this HNA.

A joint HNA/LANA working group comprising of members from the PHN's Knowledge, Planning and Performance team and Metro North Health's Health Service Strategy and Planning team was established. The Working Group had operational responsibility for producing the HNA and LANA. The Metro North Health – *Health Service Strategy Steering Committee*, which

includes Executive Management representation from the PHN, provided oversight and guidance to the project.

Internal PHN processes that supported undertaking the HNA included the establishment of an internal HNA working group; engaging with teams to undertake data collection and consultation and using learnings from previous evaluations and needs assessments to inform assessment methodologies.

Consultation Processes

Extensive consultation with community and key stakeholders was undertaken by the PHN, as well as in collaboration with Metro North Health. Internal and external stakeholder mapping was undertaken to ensure that the HNA process was strategic and inclusive of the broader community. This provided guidance for consultations that were performed between May – August 2021.

Key stakeholders included Brisbane North PHN's Clinical Council and Community Advisory Committee, of whom were involved in the following activities:

- Review and endorsement of overarching HNA process
- Endorsement of consultation surveys for community and health practitioners
- Development of prioritisation process

In addition to this a suite of targeted surveys were developed and distributed to the region's general community, general practitioners, other health professionals, partnership groups and peak health agencies. The purpose of consulting with these stakeholders was to explore health and service barriers, community strengths and perceived health needs, as well as fill knowledge gaps that were expected to persist after analysis of existing data. Survey modality varied and were inclusive of delivery through an online engagement platform, phone interviews performed by an external consultant and during pre-existing meeting arrangements. Findings from the consultation process were aggregated and summarised into a report. A summary of the consultation reach is included below.

Consultation Piece	Target Audience	Methodology	Reach
Brisbane North PHN Market Research (conducted by Footprints Market Research)	General Practitioners	Online and phone-based survey	101
	Broader community members	Online survey	300
Targeted HNA Survey	Health Practitioners	Online survey using Engagement HQ	101
	Broader community members	Online survey using Engagement HQ	106
Brisbane North PHN Consortia and Partnership Groups	Community stakeholders as members of Consortia and Partnership Groups	Online survey following group discussion	7 groups
Metro North Health and Brisbane North PHN Key Stakeholder survey	Key stakeholder organisations	Online survey using Citizenspace	25 organisations

Consultation Piece	Target Audience	Methodology	Reach
Metro North Health Consultation	General community, including consumers and carers; Metro North Health staff	Consultation Hub	155

Service Mapping, Triangulation Prioritisation

Health and service analysis was performed following the collation of quantitative and qualitative data across multiple sources.

A minimum dataset was a key resource used as a foundation for quantitative data collection. The minimum dataset covered a breadth of topics including geography, social determinants, health behaviours, health status, service access and availability, and service utilisation. Data encompassed a range of public and privately published data, including data accessed from the Australian Institute of Health and Welfare, The National Mental Health Service Planning Framework, HealthMap, the HeaDS UPP tool and hospital data provided by Metro North Health. Information gained through targeted stakeholder consultation further complemented this quantitative dataset.

Generation and verification of health and service needs was undertaken using the triangulation matrix provided in the PHN Program HNA Policy Guide. Needs were subsequently prioritised by the PHN's internal working group and the executive team, whereby members measured each identified need against the following criteria: strategic direction, validation across data sources, magnitude, severity, and feasibility. Prioritisation against each issue was done collectively and performed using a 4-point scoring matrix (with exception to the strategic direction criteria) that was internally developed.

Following this methodology, the following priority areas were determined:

- Aboriginal and Torres Strait Islander Health
- Alcohol and other Drugs
- Children's health
- Mental health
- Older persons health
- Population Health
- Service system

Evaluating the HNA process will be undertaken by Brisbane North PHN in consultation with Metro North Health following the submission of the HNA. Whilst all aspects of the HNA process will be evaluated, specific areas that will be reviewed include: data collection, consultation methods, resourcing, and prioritisation methodology. Consultation with other PHNs will also be undertaken for consideration of their feedback and insights regarding approaches they implemented. The evaluation process and its findings will be document in full to inform future HNAs and any improvements that may be incorporated prior to the next submission or refresh.

Additional Data Needs and Gaps

Brisbane North PHN experienced some issues in obtaining and using data for the purpose of the HNA. Data gaps identified through this HNA process and the issues they raise are described below.

Alcohol and Other Drugs Treatment Services Minimum Dataset (AODTS NMD): data available through QLD Government and AIHW was not available for the most recent financial year or at a geographically granular level that allows for meaningful analysis. Without an alternative source of standardized information, this sector continues to have little visibility in health and service need analysis. In addition, the NMD is limited through its use of "closed treatment episodes" and is not an accurate reflection of the activity that occurs. In addition, there is limited visibility of the workforce that contributes to this sector, unlike other areas of health.

Health Workforce: The National Health Workforce Dataset is a good source for basic workforce information. The release of the Department's Health Demand and Supply Utilisation Patterns Planning (HeaDS UPP) Tool in 2020 however offers an alternative that is far more comprehensive and current. However, there continues to be challenges regarding the ability to publicly share the full extent of data available.

Aboriginal and Torres Strait Islander Health: Data relating to the health of Indigenous Australians at a PHN level is not widely available. The 2011 Australian Burden of Disease study is the most recent, comprehensive, and standardised source. While national and state level data is easily accessed through AIHW, its does not contribute greatly to the development of a HNA.

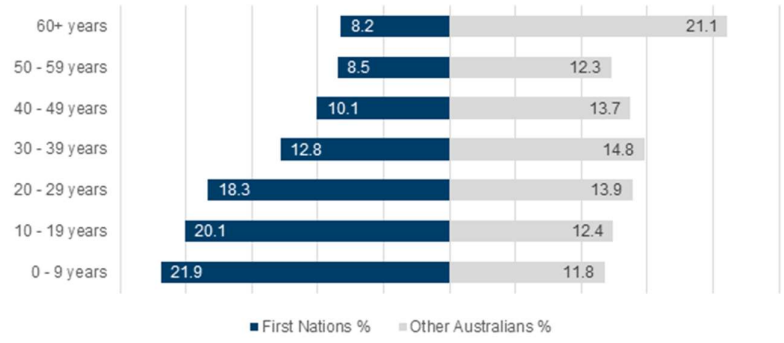
Additional comments or feedback

PHNs collectively are interested in further leveraging and improving the utility of Primary Health Insights (PHI). Collaboratively working across PHNs to have shared methods for data analysis would be highly advantageous in creating a more efficient environment in performing HNAs. Barriers or challenges are however preventing the progression in this space.

Section 2 – Outcomes of the health needs analysis

This section summarises the findings of the health needs analysis in the table below. For more information refer to 'Summarising the Findings' in the Needs Assessment Policy Guide on www.health.gov.au/PHN.

Additional rows may be added as required by clicking on a row and selecting the '+' at the far right of the table.

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
Aboriginal and Torres Strait Islander health	*Gap in health outcomes*	There is comprehensive evidence which demonstrates that Aboriginal and/or Torres Strait Islanders experience significantly higher rates of disease and poorer health outcomes, in comparison to their non-Indigenous counterparts. There is an estimated 28, 674 Aboriginal and Torres Strait Islanders who reside in the Brisbane North region as of October 2022 (QGSO, 2022). **Age** The age distribution of Aboriginal and Torres Strait Islander Peoples depicts a younger population compared with other Australians. 18.1% of the population are under the age of 19 years, 6.8% are aged between 20 – 29 years, 8.3% are adults aged 30 – 54 years, and 5.8% are older adults aged over 55 years (PHIDU, 2021). *Figure 1 Aboriginal and Torres Strait Islander proportion by age distribution group in Brisbane North PHN*  Source: PHIDU Torrens University 2022, Data workbooks, Social Health Atlas of Australia: Primary Health Networks **Life Expectancy and Mortality** As of 2020, First Nations residents in the Brisbane North region had a median age at death of 63 years (AIHW, 2021). For Aboriginal females this is 66 years, and for Aboriginal males this is 58 years. In Brisbane North, the median age at death for the total Brisbane North population is 91.3 years, approximately **30 years greater** than in First Nations peoples (AIHW, 2021). In Australia there continues to be a 'gap' in life expectancy between First Nations Peoples and Other Australians (AIHW, 2021). The life expectancy for First Nations people

people at birth in Australia is 75.6 years in females, and 71.6 years in males. This is approximately **7 years less** than the life expectancy for other Australians (AIHW, 2021).

Health

The top reported health conditions for Aboriginal and Torres Strait Islander peoples in Brisbane North are **Mental health** (4827 cases), **asthma** (4470 cases), and **other long term health conditions** (3169 cases). The age standardised rate per 100 people for mental health conditions, asthma and other long term health conditions respectively are 16.9, 15.8 and 11.3 cases per 100 in Brisbane North (PHIDU, 2021).

Table 1 Reported Chronic Conditions for Aboriginal and Torres Strait Islander Peoples in Brisbane North 2021

Health Condition	Number	Age standardised rate per 100
Mental health condition (including depression or anxiety)	4827	16.9
Asthma	4470	15.8
Other long term health conditions	3169	11.3
Arthritis	1966	7.4
Diabetes (excluding gestational diabetes)	1,481	5.5
Heart Disease (including heart attack or angina)	1,033	3.9
Lung condition (COPD or emphysema)	691	2.6
Cancer (including remission)	417	2
Kidney disease	311	1.2
Stroke	259	1
Dementia (including Alzheimer's)	95	0.4

Source: PHIDU Torrens University 2022, Data workbooks, Aboriginal and Torres Strait Islander data by Primary Health Network

In Queensland, the burden of disease experienced by First Nations peoples is **1.9 times higher** than in other Australians (Qld Health, 2017). For First Nations peoples the six leading contributors to disease burden are: **Mental Health Disorders, Cardiovascular Disease, Diabetes,** Chronic Respiratory Disease, Cancers, and Nervous and Sense Organ Disorders (Qld Health, 2017). Collectively, these health conditions contribute to more than **70%** of the disease burden for Aboriginal and Torres Strait Islander Peoples (Qld Health, 2017).

Of note: Cardiovascular Disease and Diabetes contribute **1.8 years and 1.7 years** respectively to the gap in life expectancy for First Nations peoples nationally (Qld Health, 2017).

Hospitalisations

In Brisbane North there were a total of 521,127 hospitalisations in 2018-19. The age standardised rate of hospitalisations in the region is 48,732 per 100,000 population. In Queensland, the age standardised rate of hospitalisations for Aboriginal and Torres Strait Islander peoples is 74,253. This is comparatively lower than the ASR for the total population of Brisbane North. The leading causes of hospitalisation for First Nations peoples in Queensland include **'injury and poisoning'** (5,741 per 100,000) **'mental and behavioural disorders'** (3,533 per 100,000) **'lifestyle related'** (2,504 per 100,000),

Outcomes of the health needs analysis		
		'coronary heart disease' (1,109 per 100,000), and **'pneumonia and influenza'** (665 per 100,000) (AIHW, 2021). **Consultation** – Consultation with First Nations people undertaken as a part of the SEQ FNHE Strategy indicated a strong desire for equal health outcomes for all Australians. First Nations community-led strategies were favoured, with emphasis on the healing of culture, spirituality, and kinship. Early intervention and prevention were identified as critical to reducing the burden of disease and chronic conditions currently leading to higher DALYs and mortality.
Aboriginal and Torres Strait Islander health	*Social Determinants of Health*	Social determinants are inextricably linked with health outcomes. For Aboriginal and Torres Strait Islander peoples, while there have been improvements across the social determinants of health, many remain comparatively worse than for other Australians. Subsequently, such determinants including incarceration rates, employment, education, and housing can help explain the 'gap' in health outcomes experienced by First Nations communities. These are outlined below: **Incarceration rates** In 2019-20, the rate of young First Nations people aged between 10-17 years under youth justice supervision on an average day was 191.9 per 10,000 population in Queensland. This is approximately 20 times the rate at which other Australians experienced incarceration at 9.5 per 10,000 population. For First Nations children this rate has decreased from 228 per 10,000 young people in the last year. **Employment** In Queensland, the labour force participation rate for First Nations is 65.2% as compared with 80.2% for other Australians in 2018/19[33]. This includes people who worked for at least an hour in the reference week, and people without work but are available to work and have actively sought work in the last month[30]. The unemployment rate for First Nations Queenslanders is about five times as high at 24.4% compared with other Australians who are unemployed (4.7%). Of First Nations peoples employed, 29.5% work full time, and 21.9% work part time. **Education** Education outcomes for young people differ for First Nations and other Australians. In Queensland, the retention rate of First Nations Queenslanders from years 7/8 to 10, 11, and 12 is 97.3%, 85.8% and 73.8% respectively. The retention rate of First Nations females for these years is consistently higher than First Nations males. The retention rate of First Nations Queenslanders in years 10 to 12 and years 11 to 12 is 74.9% and 82.5%. This compares to a retention rate of 88.8% and 91.2% in other Queenslanders in year 10 to 12 and years 11 to 12 respectively. The proportion of First Nations Queenslanders aged 20-24 years who attained a year 12 or equivalent, or AQF (Australian Qualifications Framework) Certificate II or above was 65.7%. For other Queensland, 91.4% had attained a year 12 or equivalent or Certificate II or above. First Nations Queenslanders over the age of 15 years have a higher population proportion who are currently studying as compared with other Australians (17.8% compared with 15.4%). Of the 17.8% of First Nations peoples studying, 7.4% are in secondary school, 5.6% in TAFE (Technical college/business college/industry skills centre), and 2.8% in university/other higher education. For the 15.4% of other Australians who are studying, 4.1% are in secondary school, 3.8% in TAFE, and 6.6% in university/other higher education.

Outcomes of the health needs analysis		
		The highest level of schooling for both First Nations and other Queenslanders aged 18 years and over was a year 12 or equivalent qualification[32]. The proportion of other Queenslanders who had completed year 12 or equivalent was higher (59.7%) than First Nations peoples (38.7%). **Housing** In Brisbane North, there are 13,773 private dwellings with Aboriginal households, where 189 (1.4%) are rented from a housing co-operative, community, or church group. 1,486 (10.8%) of Aboriginal households are social housing (rented) dwellings) and 6,634 (48.2%) are privately rented dwellings. In 2016, 11.7% of Aboriginal and Torres Strait Islander peoples lived in crowded dwellings, and 9.9 per 10,000 lived in severely crowded dwellings. In Queensland, 19.5% of First Nations peoples, as opposed to 3.7% of other Australians live in overcrowded households in 2018/19. For First Nations peoples, the proportion of those living in overcrowded households in Queensland has decreased in the last 10 years from 28.3% in 2008.
Alcohol and Other Drugs	*At-risk populations*	***Total episodes*** In Brisbane North there were 11,372 closed alcohol and other drug treatment episodes in 2020-21. This equates to 1,267.75 episodes per 100,000 people or 882.77 clients per 100,000 people. Brisbane North clients accounted for the second highest proportion (5.6%) of clients in Australia. (AIHW, 2022a) ***Client demographics*** Of the people accessing treatment services across Australia, there is greater diversity of clients in Brisbane North than in comparison to most PHNs. Compared with other PHN regions, Brisbane North had: • A higher percentage (15.79%) of clients identifying as neither female nor male. • (8.79%) of clients identify as Indigenous, or where Indigenous status was not stated (8.49%) • The highest percentage (15.6%) of clients aged 60 years and over (AIHW, 2022d) The AIHW have identified the following demographics as priority populations in requiring alcohol and other drug support across Australia: Indigenous Australians, people experiencing homelessness, older people, people from culturally and linguistically diverse backgrounds, LGBTIQ+, people with mental health conditions, younger people, and people who are in contact with the criminal justice system. (AIHW, 2020a)
Alcohol and Other Drugs	*Dual diagnosis*	***Estimating prevalence of dual diagnosis*** In 2019 the National Drug Strategy Household Survey (NDSHS) found evidence of the complex relationship that exists between mental health and alcohol and other drug use. The results of the survey revealed the following: • People who reported high or very high levels of psychological distress were at least twice as likely to report recent illicit drug use • People who had higher levels of psychological distress were more likely to report drinking more than four standard drinks on one occasion • People with a mental health condition were twice as likely to smoke daily (AIHW, 2020j) Data available at the Brisbane North region level is unable to demonstrate the same association between mental health and alcohol and other drug use. To estimate prevalence, risk factors identified from the NDSHS are described below.

Outcomes of the health needs analysis		
		• In 2021, it is estimated that there were 106,132 Brisbane North residents above the age of 15 years with a mental health condition (including depression or anxiety. This equates to an age-standardised rate of 12.3 per 100,000 people. (PHIDU 2022) • In the same period, it is estimated that there were 160,000 Brisbane North residents above the age of 18 years who engaged in 'lifetime risky drinking' and 250,000 residents over 18 years of age who reported single occasion risky drinking at least monthly in 2020. This equates to 20.1% and 31.1% of Brisbane North population respectively who report risk levels of alcohol intake. (QLD Health, 2022) • In the same period, it is estimated that there were 70,000 Brisbane North residents above the age of 18 years who smoke daily. This equates to 8.7% of the total Brisbane North population. (QLD Health, 2022) Despite a lack of available data for the region, responses received through consultation from health practitioners and partnership groups identified the increasing incidence of dual diagnosis in the community. These are described below. **Consultation** – Dual diagnosis or the relationship between poor mental health and alcohol and other drug use was a health issue identified by community members, practitioners, and other stakeholders. Practitioners expressed an increase in prevalence of people presenting to mental health services with alcohol and other drug issues or vice versa in light of COVID-19.
Alcohol and Other Drugs	*Stigma and discrimination*	***Estimating prevalence of stigma and discrimination*** In 2018, the Queensland Mental Health Commission (2018) published a report titled "Changing attitudes, changing lives" describing the challenges posed by the experience of stigma and discrimination and its detrimental impact on the wellbeing of people facing alcohol and other drug issues. This report identified that stigma and discrimination were pervasive across multiple settings, including health care and public health, and can either be intended or non-intended through use of language, the environment, behaviour, or policy. Stigma and discrimination of any form can have negative impacts on clients and their families' ability to seek support and further compounded social disadvantage (QMHC, 2018) Evidence of stigma and discrimination in quantitative data is rarely found due to poor mechanisms in place that record or report on such occurrences. Despite a lack of available data, particularly for the Brisbane North region, responses received through consultation from the general community identified that stigma and discrimination were lived experiences for those who were facing drug and alcohol issues. **Consultation** – Stigma and discrimination were noted but not strongly conveyed in responses across all respondents during consultation. Of the few community members who were accessing alcohol and other drug issues, most identified that stigma and shame were barriers they experienced in accessing care.
Children's health	*Developmental vulnerability*	***Australian Early Development Census (AEDC)*** In Brisbane North, there were **22.4%** of children aged 4-5 years who were **developmentally vulnerable** on one or more domains. This was lower than the rate of developmental vulnerability in Queensland (24.7%), although exceeded the national rate of 22.0%. In Brisbane North there were **11.8%** of children who experienced developmental vulnerability on **two or more domains**, which is nearly half of children who were developmentally vulnerable for one or more domain. The proportion of children who were developmentally on track across all five domains, including physical health and wellbeing, social competence, emotional maturity,

<table>
<tr><th colspan="3">Outcomes of the health needs analysis</th></tr>
<tr><td></td><td></td><td>The proportion of children who were developmentally on track across all five domains, including physical health and wellbeing, social competence, emotional maturity, language, and cognitive skills (school-based), and communication skills and general knowledge was 54.2% in Brisbane North in 2021. This was comparatively higher than the Queensland proportion of 51.4%, although lower than the national proportion of 54.8%. Further detail for the Brisbane North PHN region is shown in the table below for the proportion of children in 2021 who were developmentally on track, vulnerable and at risk.

Table 2 Proportion of children (aged 4-5 years) who are developmentally on track, vulnerable or at risk across five domains in Brisbane North PHN 2021

<table>
<tr><td>AEDC Domains</td><td>Developmentally on track</td><td>Developmentally vulnerable</td><td>Developmentally at risk</td></tr>
<tr><td>Physical Health and Wellbeing</td><td>78.5%</td><td>10.5%</td><td>11.0%</td></tr>
<tr><td>Social Competence</td><td>75.2%</td><td>10.1%</td><td>14.6%</td></tr>
<tr><td>Emotional Maturity</td><td>74.8%</td><td>9.7%</td><td>15.4%</td></tr>
<tr><td>Language and Cognitive skills</td><td>83.9%</td><td>6.4%</td><td>9.6%</td></tr>
<tr><td>Communication skills and general knowledge</td><td>77.8%</td><td>7.7%</td><td>14.4%</td></tr>
</table>
Source: Australian Early Development Census (AEDC) 2022

Consultation – The need for greater support to address developmental vulnerability, including learning and behavioural difficulties, were aspects of children's health that were identified most prominently by stakeholder organisations, but also noted by community members and practitioners. Other consultation findings are described in service needs analysis for "Service Capacity".</td></tr>
<tr><td>Children's health</td><td>First 1000 days</td><td>Conception to two years of age (or the first 1,000 days) of a child's life is considered a critical period for their development and growth, and the foundation on which their future health is built upon.

Antenatal and perinatal indicators
Antenatal and perinatal indicators are measures that provide insights into the assessment, monitoring and evaluation of patient care known to affect the health outcomes for mothers and their babies. Measuring these can identify babies who may be predisposed to poorer health outcomes later in life or during birth.
In 2021 there were 12,108 births in Brisbane North. The number of births in Brisbane North has increased since 2020 from 11,357 births. Associated health risk factors for women who gave birth and their babies in Brisbane North include smoking during pregnancy, antenatal visits, obesity, maternal age, preterm births, and low birthweight. Indicators for these mothers, percentage and count, are as follows:
• Obese mothers: 19.4%, 2,217
• Smoked during pregnancy: 12%, 6,893
• Neonatal deaths: 2.9 per 1,000 births in 2017-2019
• Eight or more antenatal visits: 86.5%, 9,905
• Babies born pre-term: <37 weeks gestation 8.9%, 1,046
• Low birthweight: 7.2%, 846
• Older mothers: 25.7%, 2,982</td></tr>
</table>

Outcomes of the health needs analysis		
		In comparison to Queensland, mothers in Brisbane North were comparable or performed better across all indicators except for mothers aged 35 years and above, where Brisbane North had a higher percentage. Note: Immunisation rates are described under "Population health".
Mental Health	*Anxiety & depression*	***Estimating prevalence of anxiety and depression*** Estimating anxiety and depression in a community is challenging due to the complexities of accounting for people who do not seek care or report experiencing the condition. The National Mental Health Service Planning Framework (2022) estimates that 218,000 people in Brisbane North would experience anxiety and depression in 2021-22, of whom 83,000 required treatment (UQ, 2022). The COVID-19 pandemic has also been noted to increase demand for mental health services, likely driven by a rise in psychological distress in the community (AIHW, 20213) **Consultation** - Anxiety and depression was strongly relayed as an urgent health need by all stakeholders during consultation and was perceived as causing significant impact on the community. Anxiety and depression were reported as an existing health challenge for majority of community respondents and was considered as causing the highest impact on the wellbeing of patients reported by practitioners. Practitioners strongly expressed increased demand for mental health services due to increasing incidence of anxiety and depression in recent months which was associated with COVID-19.
Mental Health	*At-risk populations*	While it is estimated than nearly 1 in 2 Australian adults will experience a mental disorder in their lifetime, certain cohorts or demographics have been identified as being at higher risk of experiencing mental illness (AIHW, 2021m). In Australia, young people, Indigenous Australians, men, and Australian Defence Force veterans are at higher risk of suicide, while LGBTIQ+ and culturally and linguistically (CALD) diverse communities are considered priority populations (AIHW, 2021m) **Consultation –** A range of demographics were noted to be at higher risk of experiencing mental health issues or considered requiring more support by community members and some practitioners, while stakeholder organisations highlighted the need more frequently. At risk populations that were mentioned are inclusive of those mentioned above by AIHW, in addition to mothers, migrants, people who are intellectually impaired, and marginalised communities.
Mental Health	*Severe and Complex*	***Estimating prevalence of severe and complex mental illness*** Data from the National Health Survey in 2017-18 estimated that there were over 94,000 people with high or very high psychological distress (based on the Kessler 10 Scale) in Brisbane North (PHIDU, 2021). This equates to 9.3% of the population or 12.1 per 100 people and is slightly lower than the national and Queensland rates of 12.9 and 13.3 per 100 people, respectively. Comparing between genders, females were more likely to experience high of very high psychological distress than males, at a rate of 13.5 per 100 people (vs 10.7 per 100 people) (PHIDU, 2021). *ERP 2017 to calculate percentage. For more recent estimates, the National Mental Health Service Planning Framework (2019) estimates that in 2019-20, approximately 32,700 people would have a severe mental illness and would require treatment. **Consultation** – Community members and GPs nominated severe and complex mental health as a pressing health need in the community and perceived to cause a large impact on the wellbeing of patient cohorts. The health condition was similarly noted or raised by other practitioners or stakeholder organisations but were not as strongly conveyed in comparison to the former respondents.

Outcomes of the health needs analysis		
		impact on the wellbeing of patient cohorts. The health condition was similarly noted or raised by other practitioners or stakeholder organisations but were not as strongly conveyed in comparison to the former respondents.
Mental Health	*Physical health*	***Physical and mental co-morbidities*** The AIHW reports that there is a complex link between people with mental illness and physical illness (AIHW, 2020h). Due to the compounding factors and systemic barriers associated with mental illness, there is evidence to suggest that people with mental illness have an increased risk of developing physical illness or experiencing poorer physical health (AIHW, 2020h). While evidence is limited, data from the National Health Survey in 2017-18 found proportions of people experiencing a range of chronic conditions (including arthritis, back problems, and COPD) were nearly double in people with mental illness than in people without (AIHW, 2020h). Prevalence rates are described under "Chronic conditions" in the health needs analysis and "Complex and chronic care" in the service needs analysis. **Consultation –** Community members and practitioners were cognisant of the relationship between mental health and physical health in consultation. Specific examples were often used to highlight the importance of treating or managing both and the value of a holistic approach to care.
Mental Health	*Stigma and discrimination*	Experiences of stigma and discrimination are identified barriers in seeking treatment and support for people facing mental health issues (Productivity Commission, 2020). Stigma and discrimination have a detrimental impact on those with mental illness and can exacerbate social problems that are associated, including unemployment, social exclusion, homelessness, and poverty. Stigma and discrimination and their impact on mental health is described in detail by the Productivity Commission's inquiry into mental health (Productivity Commission, 2020). **Consultation** – Stigma and discrimination towards people experiencing mental illness was noted as an issue by community members and practitioners. Community members gave specific examples of their own experiences with stigma and discrimination in healthcare settings and its role as a barrier in receiving quality care and treatment.
Mental Health	*Suicide*	***Suicide as cause of death*** Between 2016-2020, suicide was the 9th leading cause of death in Brisbane North and in this period, there were 678 deaths by suicide (AIHW, 2022b). In 2020 there were 142 deaths by suicide in the Brisbane North region, which equates to 13.3 deaths per 100,000 people. The number and rate of deaths by suicide has increased since 2016, which reported 121 total deaths, at a rate of 12.1 deaths per 100,000 people (AIHW, 2021w). Between 2016 to 2020, this represents a 17.5% increase or an average annual increase of 4.3%. ***Prevalence in males*** Genders are unequally affected, with males more frequently dying by suicide at a higher age-standardised rate of 20.2 deaths per 100,000 males (AIHW, 2022w). This is in comparison to the 6.3 deaths per 100,000 people reported for females. ***Regional variation*** Within the region there is considerable variability in age-standardised rates for deaths by suicide (AIHW, 2021w). The following SA3 regions reported age-standardised rates higher than the whole of region: Redcliffe, Brisbane Inner, Strathpine, Bribie – Beachmere, Caboolture, Sandgate, and Narangba – Burpengary (AIHW, 202v1). Among

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		all SA3 areas in Brisbane North, age-standardised rates varied between 7.6 to 23.7 deaths per 100,000 people. ***Intentional self-harm hospitalisations*** Between 2019-20 in Brisbane North there were 1,907 intentional self-harm hospitalisations (AIHW, 2021v). This equates to 182.5 per 100,000 and most frequently occurred (42.4% and 34.7%) in the 0-24 and 25-44 year age groups respectively. In comparison, the rates for QLD and nationally are lower at 169.5 and 112.9 per 100,000 respectively (AIHW, 2021v). **Consultation –** Death by suicide was more frequently raised by community members than any other group involved in consultation and unanimously selected it as being among the top health needs in region. Support to address death by suicide through service provision and its implications on other aspects of health and welfare were shared sentiments.
Older people	*Ageism*	The Australian Human Rights Commission recognises ageism or age discrimination as a prevalent form of prejudice in Australia (AHRC, 2021). A recent report by the commission found that only 13% of people believed ageism was a problem when directed towards older people and that older Australian's were perceived to lack competence and have declining skills. These perceptions or attitudes towards older people can be prohibitive in a person fairly achieving **employment, housing, healthcare and receiving goods and services, ultimately impacting on their wellbeing** (AHRC, 2021). **Consultation** – Stigma towards caring for residents in aged care facilities was raised infrequently by key organisational stakeholders, but it was noted as impacting on the quality of care provided.
Older people	*Chronic disease*	Long term or chronic health conditions are a group of non-communicable disease which tend to be long lasting and require ongoing management. Prevalence of chronic conditions are an indicator for the overall health of a population. Due to the gradual development of chronic conditions, burden of disease becomes more common among older people. ***Prevalence of chronic conditions*** In 2016 the Coordination of Health Care Study found that approximately **74.1%** (or 239,334 people) of the Brisbane North population aged 45 years and above had a **long-term health condition** (AIHW, 2021e). This was out of a total population of 323,047 aged 45 years and above. Further to this nearly 1 in 3 were living with three or more conditions, indicating that most lived with multimorbidity. Of chronic conditions **hypertension (31.9%), arthritis (28.6%), other conditions or injuries (22.3%) and moderate or severe pain (19.7%)** were the most frequently reported among the cohort (AIHW, 2021e). Of all people who were living with a chronic condition 35.6% reported they were "limited a little" in performing daily activities due to their condition, while 22.2% reported they were "moderately limited" and a further **12.8% reported they were "limited a lot"** (AIHW, 2021e). Further prevalence rates of chronic conditions in the Brisbane North region are reported below:

<table>
<tr><th colspan="3">Outcomes of the health needs analysis</th></tr>
<tr><td></td><td></td><td>
NB: people reported in the number and rates below are not exclusive to people aged above 45 years.

Arthritis: 85, 387, or 8.7 people with arthritis per 100 people
Asthma: 92,729, or 8.9 people with asthma per 100 people
Chronic obstructive pulmonary disease (COPD): 20,028 or 2.1 people with COPD per 100 people
Diabetes (including gestational diabetes): 44,012 or 4.5 people with diabetes per 100 people
Heart disease (including heart attack or angina): 42,913, or 4.4 people with heart disease per 100 people
Stroke: 8,887, or 0.9 people with stroke per 100 people
Mental and behavioural problems: 111,556, or 10.6 people with mental/behavioural problems per 100 people

(PHIDU, 2022)

In comparison to Australia, Brisbane North residents had lower prevalence rates for arthritis, diabetes, and heart stroke or vascular disease. In comparison to Queensland, Brisbane North residents had lower prevalence rates for arthritis, asthma, COPD, and diabetes.

Chronic conditions which were leading contributors of mortality in Brisbane North PHN for older people are outlined in the table below. The change in proportion of mortality attributed to each cause is shown from 2019 to 2022:

Table 3 Leading causes of mortality for Older Adults in Brisbane North PHN region 2019 and 2022
<table>
<tr><th>Causes of mortality</th><th>2019</th><th>2022</th></tr>
<tr><td>Coronary Heart Disease</td><td>13.1%</td><td>11.2%</td></tr>
<tr><td>Dementia</td><td>8.8%</td><td>9.5%</td></tr>
<tr><td>Cerebrovascular disease</td><td>7.7%</td><td>6.7%</td></tr>
<tr><td>Lung cancer</td><td>5.4%</td><td>5.6%</td></tr>
<tr><td>COPD</td><td>4.3%</td><td>4.5%</td></tr>
</table>
Source: AIHW Deaths in Australia 2022

Consultation – A substantial proportion of community members who were involved in consultation were experiencing one or more health challenges, some of which were diagnosed conditions, and others being risk factors that predisposed them to developing a chronic condition. The importance of therefore addressing chronic conditions as a health need was demonstrated by its nomination as priority in the community, by both community respondents and GPs. The circumstance of experiencing co-morbidities was particularly apparent, through suggestions of improved preventative care and management.
</td></tr>
<tr><td>Older people</td><td>Dementia</td><td>Dementia is a term used to describe a suite of symptoms that are associated with cognitive decline that typically presents in older people. Dementia negatively impacts on a range of functions including memory and cognition and has the potential to substantially interfere with daily living.</td></tr>
</table>

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		Dementia as cause of death Dementia is the **second leading** cause of death in the region, having caused a total of 2,754 deaths in 2015-19 (AIHW, 2022q). This equates to 9.5% of all causes of death in the region, and an age-standardised rate of 46.1 deaths per 100,000 people. This contrasts with Queensland and Australian rates which are comparably lower at 42 and 56 deaths per 100,000 people. In addition, dementia has a rate ratio of 1.11, which highlights the increased risk of death from dementia in the region relative to Australia (AIHW, 2021p). Notably, females are at **higher risk** of dying due to dementia in Brisbane North with an age-standardised rate of 71.2 deaths per 100,000 people (AIHW, 2022q). Queensland and Australia have lower female age-standardised rate at 70 deaths per 100,000 people respectively. ***Prevalence in residential aged care*** Of people using permanent residential care in Brisbane North on June 2020, 52.8% had a diagnosis of dementia in 2021 (AIHW GEN Aged Care, 2022d). This equates to approximately 4,000 people in residential care. **Consultation –** Dementia as a health need was noted by few respondents in consultation. Community members and GPs noted that certain aspects of care or services needed improvement in the community. Aspects included the lack of available or appropriate services, better standards of care, and improvements to working conditions for those who work in this area or in nursing/residential care.
Older people	*Frailty*	Frailty is a clinically recognised state of increased physiological vulnerability associated with functional decline experienced by older people. People who are considered frail are at greater risk of adverse health outcomes. ***Commonwealth Home Support Program (CHSP)*** To be eligible for CHSP, clients must be considered a frail person who is aged at least 65 years (or 50 years for Aboriginal and Torres Strait Islanders), has difficulty in performing activities of daily living and must live in the community (DoHAC, 2018). In Brisbane North home support is accessed at a rate of 382.2 recipients per 1,000 people aged 70 years and above (AIHW, 2021g). This is equivalent to approximately 40,000* people or 38% of the population aged 70 years and above. *Population estimate calculated from PHIDU. ***Accidental Falls*** Death, injury and hospitalisation due to accidental falls are associated with frailty and pose a serious risk in people aged 65 years and above. Rates of hospitalised fall injury cases substantially increase with age in both men and women, and across Australia has seen an estimated 2.7% average annual increase in 2008-09 to 2016-17 (AIHW, 2017) *Admitted hospital patients* In 2018/19 there were over 9,308 hospitalisations in Brisbane North for people aged 65 years and above due to falls. Females accounted for majority (62.6%) of these hospitalisations. Hospitalisations for those aged 85 years and above were also higher and accounted for 42.7% of hospitalisations in this cohort (QLD Health, 2021a). In 2019-20 total hospitalisations due to falls in this age cohort increased to over 10,000. While females continued to account for majority of these hospitalisations, the distribution of hospitalisations has slightly shifted to younger age groups, indicating the falls injuries or risk of frailty are developing sooner (QLD Health, 2021a).

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		Deaths In Brisbane North accidental falls was the 14th leading cause of death in 2016-2020, with a total count of 411 deaths in this period* (AIHW, 2022q). This equates to an age-standardised rate of 8 deaths due to accidental falls per 100,000 people. In comparison, accidental falls was the 10th leading cause of death in Australia in 2020 and calculates to an age-standardised rate of 9.7 deaths per 100,000 people (AIHW, 2022q). Within Brisbane North, 10 of 18 SA3 regions had accidental falls in their list of top 20 leading causes of death (AIHW, 2021q). Notably Sandgate, North Lakes and Caboolture had age-standardised rates above the national rate. However, Redcliffe, Sandgate, and Kenmore – Brookfield – Moggill had higher crude rates (>10 deaths per 100,000 people) that coincide with populations that have greater proportions of older people. * Deaths are across all age groups. **Consultation –** Practitioners were respondents that frequently raised frailty (and ageing related conditions) as being among the top health needs in the region. Healthcare providers highlighted the breadth of professions involved in the care of frail people and the quality of care or improved access to services required to maintain their wellbeing. There was general support for patients remaining in community or in-home settings and the need for services to adapt to this client preference.
Older people	*Mental health*	Mental health in older Australians is a key aspect of healthy ageing. Whilst prevalence of mental health disorders generally decreases with age, particular cohorts of older Australians are more susceptible to poorer mental health (AIHW, 2018b). This includes people who are suffering from chronic disease, people who are hospitalised, people with dementia, and people living in supported accommodation (AIHW, 2018b). Capturing prevalence and mental health service use in older Australians is challenging due to the diverse services available and the settings in which older Australian's access these services. Data that may indicate mental illness prevalence through service use is presented below. ***Self-reported prevalence*** The Coordination of Health Care Study estimates that in 2016 there were 46,953 people aged over 45 years who were experiencing a long-term mental health condition, including anxiety disorders, depression, or bipolar disorders (AIHW, 2021e). This is approximately 14.5% of the total (n=323,047) population aged above 45 years. ***Medicare-subsidised services*** In 2020-21 there were 189,818 and 7,874 patients aged 65 years and above who access Medicare-subsidised GP and allied mental health services, respectively in Australia (AIHW, 2022d). This is from a total population of 2,518,973 people who access Medicare subsidised mental health specific services, namely through general practitioners and other allied health providers. Among these patients, a total of 13,993,965 services were accessed, majority (29%) of which were through general practitioners in 2021-21 (AIHW, 2022g). Across this age cohort, this equates to 19.6 mental health services per 100 people and is marginally higher than the national rate of 18.0 services per 100 people. In comparison, across all age cohorts in Brisbane North, mental health care provided by GPs and allied health professionals equates to 38.2 services per 100 people (AIHW, 2022d). ***Emergency department presentations*** In 2018/19 there were 1,567 emergency department presentations for mental and behavioural disorders in those aged 65 years and over (PHIDU, 2022). Between 2014-15 to 2019-20, mental health-related emergency department presentations for people

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		aged 65 years and above increased from 1,231 presentations to 1,855 presentations, or by 52.2% in Brisbane North (AIHW, 2021o). In contrast, total emergency department presentations for people aged above 65 years only increased by 22.4%, indicating that mental health issues have increased in this cohort substantially more than total presentations. In 2019-20, this age cohort of patients accounted for 12.6% of total mental health-related presentations (AIHW, 2021o). ***Admitted hospital patients*** In 2019-20, over 6,000 people aged 65 years and above were hospitalised for mental and behavioural disorders in Brisbane North (QLD Health, 2021a). Hospitalisations declined with age, whereby 35.1% of hospitalisations were in the 65-69 year age cohort and gradually decreased down to 13.8% in the 85 years and above age group. This pattern has persisted since 2017-18, which saw over 5,000 hospitalisations for mental and behavioural disorders in this cohort of people (QLD Health, 2021a). ***Mental health-related prescriptions*** In 2019-20 there were 50,710 patients aged above 65 years with mental health-related prescriptions in Brisbane North (AIHW, 2021p). These patients accounted for 1 in 4 total patients with mental health-related prescriptions and accounted for 27.5% (or 505,751) of prescriptions dispensed in the region. Since 2014-15 patients and dispensed prescriptions have increased by 12.3% and 14.0% respectively, demonstrating that use of mental health-related prescriptions is aligned with growth in patients, or vice versa (AIHW, 2021p). As with mental health-related hospitalisations, the number of patients and prescriptions dispensed decline with age. **Consultation –** Older people were identified by stakeholder organisations as a demographic that required further mental health support in the community.
Older people	*Social isolation*	The AIHW considers social isolation as "the state of having minimal contact with others" and a distinct challenge from loneliness (AIHW, 2021t). Several risk factors have been identified as contributors to social isolation, including living in a lone person household or not having the transport or means to travel to places for social engagement. In 2015 the Survey for Disability, Ageing and Carers (SDAC) found that majority of older Australians living in households had participated in social and community activities at home (98%) or away from home (94%) in the previous 3 month), and that 3 in 4 (77%) older persons had participated in recreational activities away from home, including attending a movie, concert, or visiting a library or museum in the previous 12 months (ABS, 2018). In light of the COVID-19 pandemic and lockdown restrictions that were enforced from March 2020 onwards, reports of social isolation have increased, particularly in older people. The use of the Adult Social Care Outcomes Toolkit (ASCOT) in a sample of 732 CHSP clients (serviced by the healthy@home consortium) in 2019-20 found that 29.7% of respondents reported they had adequate social contact with people, while 14.2% had some social contact with people but not enough, and a further 4% had little contact with people and feel socially isolated (Brisbane North PHN, 2020). While these results are not likely to capture the full impact of COVID-19, it raises that older persons receiving home support were at risk or already experiencing social isolation previously. This is supported by results found from the Personal Social Services Adult Social Care Survey (England, 2018-19) that found older persons living in the community had a higher likelihood of feeling socially isolated than those living in residential or nursing care.

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		higher likelihood of feeling socially isolated than those living in residential or nursing care. **Consultation –** Among all stakeholders engaged in consultation, partnership groups noted that social isolation was a pre-existing challenge for older persons and was exacerbated during COVID-19. The physical limitations imposed through lockdown restrictions reduced people's ability to connect with others and was particularly challenging for people who lived alone and who were not previously connected to social groups or activities.
Population health	*Dental / oral health*	Dental or oral ill-health refers to diseases that impact upon a person's teeth and gums, and the muscles or bones in their mouth. Oral health has significant implications on a person's wellbeing due to its role in daily functions including eating, speaking, and socialising (AIHW, 2021r) Data from the Patient Experience Survey reports that 18.6% of adults in Brisbane North in 2019-20 did not see or delayed visiting a dentist, hygienist, or dental specialist due to cost in the preceding 12 months (AIHW, 2020g). This percentage has varied within 3 percentage points since 2014-15. Majority of data regarding oral health has been previously collected through national studies consisting of surveys and dental examinations. Some oral health services are publicly funded and provided by Metro North Health in the Brisbane North region and are eligible for adults and young people who hold select concession cards may be eligible for such services. Publicly available data at a regional level for these dental services is only available via the Public Dental Waiting Time National Minimum Dataset. Findings from this source are described below. As of the 30 June 2022, across 7 public dental clinics in the Brisbane North/Metro North Hospital and Health Service region: • All people (13,226) on the general dental care (routine check-up and dental treatment) waiting list were within the desired time frame for the dental procedure (within 24 months) • There was a total of 427 people who were waiting in excess of 1 month for priority 1 dental treatments (which are ideally provided within 1 months) • There was a total of 1,437 people who were waiting in excess of 3 months for priority 2 dental treatments (which are ideally provided within 3 months) • There was a total of 2,455 people who were waiting in excess of 12 months for priority 3 dental treatments (which are ideally provided within 12 months) • There were no people on the waiting list for general anaesthetic category 1 dental procedures • There were 233 people who were waiting in excess of 3 months for general anaesthetic category 2 dental procedure (which are ideally provided within 3 months) • There were 225 people who were waiting in excess of 12 months for general anaesthetic category 80 dental procedure (which are ideally provided within 12 months) (Queensland Government, 2021) Dental conditions are also discussed under "Potentially preventable hospitalisations". **Consultation –** Dental or oral ill-health was prevalent as a health challenge experienced by community respondents, and dentists were reportedly a frequently accessed

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		profession. While it was prevalent, respondents did not necessarily raise it as an area of concern or priority, however some respondents did report needing to see a dentist but did not see one due to cost. Dental or oral ill-health was rarely mentioned by practitioners.
Population health	*Disability*	Persons with a profound or severe disability are people who require assistance with one or more core daily activity areas (self-care, communication, and mobility) due to a long-term health condition, disability, or old age (ABS, 2016). In Brisbane North, there were 43,533 persons (or 4.8% of the total population) in need of assistance due to a profound or severe disability as found by the 2016 Census (PHIDU, 2021). Majority of this cohort (90.7%) live in the community, while the remaining live in other arrangements including long-term accommodation. Across age cohorts nearly half (48% or 20,978) of people with severe or profound disability are aged 65 years and over. In comparison to Queensland (5.4%) and Australia (5.4%), the proportion of people with a profound or severe disability in Brisbane North is lower (PHIDU, 2021) Since 2016, further modelled estimates of disability have been derived from the 2018 Survey of Disability, Ageing and Carers. It is estimated that there were over 176,000 people with a disability of any severity living in Brisbane North households (ABS, 2020). People aged 65 years and over had higher representation at 7% of the total population with any disability, while younger 15-year age cohorts varied between 1-3%. There were an estimated 104,000 carers living in the same household providing support to this population (ABS, 2020). **Consultation –** Disability was a noted health condition among stakeholders. There were few community respondents who reported experiencing a physical or learning difficulty or provided support to someone experiencing any type of disability. Disability as a health need was not heavily conveyed, in contrast to the services available or the navigation of services for people with disability.
Population health	*Lifestyle risk factors*	Health lifestyle risk factors can affect an individual's quality of life and can signify an increased risk of developing a chronic condition. Prevalence of lifestyle risk factors in Brisbane North adults and children are described below, sourced from the Report of the Chief Health Officer Queensland. **Adults – Smoking** In 2020, 70,000 people (or 8.7%) aged 18 years and above were daily smokers in Brisbane North (QLD Health, 2020). This is in comparison to 10.3% in Queensland and a decrease of 2.2 percentage points from 10.9% in 2017. In the remaining population, 24.7% of people were ex-smokers and 62.2% of people had never smoked. Males are more likely to be daily (11.8%) or ex-smokers (30.3%) than females (8.9% and 23.7%, respectively) (QLD Health, 2020b) **Adults – Alcohol consumption** In 2020, 160,000 people (or 20.1%) aged 18 years and above had consumed alcohol at lifetime risky levels (QLD Health, 2020b). This has increased from 17.5% in 2017-18. Whereas 250,000 people (or 31.1%) had a single occasion of risky drinking at least monthly. In comparison 22.5% of Queenslanders consumed alcohol at lifetime risky levels, and 30.6% had single occasions of risky drinking at least monthly (QLD Health, 2020b). Males are more likely to drink at risky levels (both lifetime and on single occasions) than females (33.9% and 42.8% vs 11.5% and 18.9%, respectively). **Adults – Weight**

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		Adults – Weight Majority of residents (58.8% or 470,000) in Brisbane North are considered overweight or obese, while 23,000 people (or 2.8%) aged 18 years and above were considered underweight based on Body Mass Index (BMI) (QLD Health, 2020b). In comparison, 60.2% of Queenslanders are considered overweight/obese, and 2.7% underweight. Males are more likely to be overweight/obese (66.4% vs 54.1%) while females are more likely to be underweight (1.3% vs 4.1%) (QLD Health, 2020b). **Adults – Physical activity** There were 69,000 people (or 9.2%) aged between 18-75 years in Brisbane North who were inactive or not performing physical activity in 2020 (QLD Health, 2020b). A further 210,000 people (or 28.3%) spent insufficient time or sessions being physical active, meaning the remaining 62.5% (or 470,000 people) were performing sufficient physical activity in a week. Sufficient physical activity is considered over 150 minutes or over 5 sessions (QLD Health, 2020b). **Adults – Fruit and vegetable intake** In 2018-19, 430,000 (53.2%) and 65,000 (8.0%) people aged 18 years and above were eating recommended servings of fruit and vegetables, respectively (QLD Health, 2020b). **Adults – Sunburn** In 2020, 440,000 people (or 53.9%) of people had reportedly been sunburnt in the previous 12 months. Only 20.5% (or 170,000) used summer sun protection (QLD Health, 2020b). **Children – Weight** In 2020, majority of Brisbane North children aged 5-17 years (79.3 or 130,000) were healthy or underweight, while the remaining 20.7% (or 35.000) were obese/overweight (QLD Health, 2020b). There is a lower proportion of children overweight/obese in comparison to Queensland (27.0%). **Children – Physical activity** In 2020, only 43.0% of children (or 72,000) aged 5-17 years in Brisbane North were active every day of the past week (QLD Health, 2020b). This is lower compared to 45.7% of Queensland children. **Children – Fruit and vegetable intake** A higher proportion of children in Brisbane North were consuming recommended servings of fruit (70.3%, or 120,000) and vegetables (5.0%, or 8,400) in contrast to Queensland (68.4% and 4.6% respectively) (QLD Health, 2020b). **Children – Sunburn** Children in Brisbane North were more likely to have been sunburnt in the previous 12 months (51.0% or 86,000) than Queensland children (44.5%) (QLD Health, 2020b). **Consultation –** Lifestyle risk factors and risk modifiable health behaviours were frequently noted by community respondents as needing attention, through the provision of preventative programs or initiatives and capacity building. Community respondents recognised the relationship between lifestyle risk factors and development of chronic conditions and that the provision of education and guidance would empower individuals in making healthier decisions. Practitioners similarly relayed the benefits of

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		relayed the benefits of enhanced preventative community programs in giving patients the ability to actively manage their conditions and in keeping people healthy while living in the community.
Population health	*Potentially preventable hospitalisations*	Potentially preventable hospitalisations (PPHs) are hospitalisations for selected conditions that could have been appropriately addressed in primary care through early intervention and management (AIHW, 2020c). Rates of PPHs are therefore a proxy measure for the effectiveness of primary care for a range of chronic, acute, or vaccine-preventable conditions. PPHs highlight where care received by patients has been sub-optimal either due to poor care coordination or where barriers in accessibility (cost, supply, and location) were experienced. Other contributing factors to PPHs in the community can include socioeconomic status and health literacy. ***Potentially preventable hospitalisations*** In 2017-18 the conditions which contributed high rates of potentially preventable hospitalisations in Brisbane North are described below (AIHW, 2020c). The findings indicate that older people are more likely to be hospitalised for potentially preventable conditions and require further management in comparison to younger people. Pneumonia and influenza: Pneumonia and influenza are vaccine-preventable conditions which caused 2,843 PPHs in 2017-18. In Brisbane North there were 268 hospitalisations per 100,000 people (ASR) for these conditions and accounted for 20,498 hospital bed days. People aged 65 years and over were substantially more affected, demonstrated by their higher hospitalisation rate (1,195 hospitalisation per 100,000 people vs. 135 per 100,000 for under 65 age group), and contributing to 69% of total bed days, with an average length of stay of 8.4 days. Cellulitis: Cellulitis is an acute condition which caused 3,440 total PPHs in 2017-18. In Brisbane North there were 331 cellulitis hospitalisations per 100,000 people (ASR). While the condition accounted for 10,516 bed days, over 1 in 4 people (27.2%) were admitted and separated on the same day. Older Australians were likely to be hospitalised for twice as long than younger people (4.2 days vs 2.3 days, respectively), and also had a higher rate of 982 hospitalisations per 100,000 people (vs. 239 per 100,000 in younger people). Dental conditions: Dental conditions are acute conditions which caused 3,039 total PPHs in 2017-18. This equates to 304 hospitalisations per 100,000 people (ASR) in Brisbane North. Of all PPHs, dental issues had the highest (88.6%) percentage of same day admission and separations. People under 65 years of age accounted for 86.6% of hospitalisations. Urinary Tract Infections (UTIs): UTIs, including pyelonephritis (kidney infection) are acute conditions which caused the highest number (n=3,725) of hospitalisations among PPHs in Brisbane North. This equates to 351 hospitalisations per 100,000 people (ASR) and similarly to pneumonia and influenza, mostly affected persons aged over 65 years. The crude hospitalisation rate for people over 65 years was 1,323 per 100,000 people, whereas people aged below 65 years had a crude rate of 217 per 100,000 people. Older persons were also likely to stay in hospital for twice as long and occupied hospital beds for an average of 4.2 days. COPD: COPD is a chronic condition which caused 2,992 hospitalisations in Brisbane North, at a rate of 277 hospitalisation per 100,000 people (ASR). In volume, older Australians had 3.7 times the hospitalisations than younger people (2,367 hospitalisations vs 624 hospitalisations, respectively) which equates to a crude rate of 1,689 hospitalisations per 100,000 people. Only 15.7% of COPD hospitalisations were

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		same day separations, indicating that majority of patients required further hospital management over an average period of 5 hospital bed days. Of these conditions, rates of potentially preventable hospitalisations for dental conditions, UTIs, cellulitis and COPD have worsened since 2012-13 (AIHW, 2020c).
Population health	*Social determinants*	**Education** In the Brisbane North region, 189,447 or 23 per 100 population, left school at Year 10 or below, or did not go to school (PHIDU 2022). In the region, 683,583 people aged 15 years and older stated on the 2016 census that their highest level of schooling was: • 4.1 per cent (30,545 people) did not go to school or have a Year 8 or below equivalent education • 21.3 per cent (158,002 people) have a Year 9 or Year 10 or equivalent education • 66.82 per cent (495,036 people) have a Year 11 or Year 12 or equivalent education. Overall, the region has a higher rate of educational attainment for Year 11 or Year 12 or equivalent than the Queensland rate (66.8 per cent compared to 58.9 per cent). Residents of the region possess higher levels of post-secondary qualifications compared to Queensland, with 62.7 per cent of residents over the age of 15 possessing a post-secondary qualification, compared to 59.1 per cent. One in four people (25.5 per cent) in the region have a bachelor's degree or higher which is 1.4 times the Queensland rate of 18.3 per cent (QGSO, 2021) **Income** Median household income – Household income is a sum of the personal income of all household members aged 15 years and over. The median household income per annum in the region is nearly $90,000 and is more than the Queensland rate of $72,904 (QGSO, 2021). Median total family income – Family income differs to household income, as family income measures the total personal income of all family members aged 15 years and over within a household. The median total family income per annum in the region is $119,343 and is more than the Queensland rate of $105,248 (QGSO, 2022). In Brisbane North, most families (33.3%) had a total family income between $78,000 to $155,999 per year. Families with a total income of $33,800 to $77,999 per year accounted for 22.7% of families in the region, and 5.4% of families were low-income earners with a total income of less than $33,800 per year (QGSO, 2021). Financial stress – Rental or mortgage stress occurs when the household is in the bottom 40 per cent of income distribution spends more than 30 per cent of their income on mortgage repayments or rent. Within the region, nearly one-third of low-income households (39,123 or 32.9 per cent) experience rental or mortgage financial stress (PHIDU, 2021). **Employment** In the June quarter of 2021, the unemployment rate in Brisbane North was 4.2%, equivalent to 25,807 unemployed persons. This was marginally lower than the Queensland unemployment rate of 4.9% (QGSO, 2022).

In 2016, majority (13.5%) of employment in Brisbane North was for the health care and social assistance industry, followed by retail (9.3%), education and training (9.3%) (QGSO, 2021). There were also 10,146 families (or 10.7%) with children under 15 years of age and no parent employed (QGSO, 2021).

Index of Relative Socioeconomic Disadvantage (IRSD)

IRSD is a general socioeconomic index that summarises a range of information about the economic and social conditions of people and households within an area. The PHN region generally experiences low rates of socioeconomic disadvantage, with almost two in five people (37.1 per cent) residing in SA2s considered least disadvantaged (top quintile) (QGSO, 2021). However, one in eight people in the region (11.9 per cent) reside in areas considered as most disadvantaged (bottom quantile) and these areas are not evenly distributed across the region (QGSO, 2021). There tends to be clustering of areas of socioeconomic disadvantage in the northern parts of the region, particularly in Moreton Bay North and Redcliffe – North Lakes sub regions.

Housing – Homelessness

In 2016, there were an estimated 3744 people experiencing homelessness within the region (ABS, 2017). Between 2011 and 2016, the number of people experiencing homelessness increased by over 1000 people, from 2589 people in 2011. Of the population experiencing homelessness in 2016, the most common form of living arrangement was 'persons living on boarding houses' (1077 people or 28.8 per cent), followed by 'persons living in severely crowded dwellings' (885 people or 23.6 per cent) and 'persons in supported accommodation for the homeless' (846 people or 22.6 per cent) (ABS, 2017).

Diversity

Country of birth – As of the 2021 Census, over one in five people residing in the region were born overseas (299,460 people or 28.7 per cent), on par when compared with Queensland (28.6 per cent) (PHIDU, 2022). Of the population residing in the region who were born overseas, 116,357 people were born in a country where English is the first language, and 140,863 people were born in a country where English is not the first language (11.1 per cent and 13.5 per cent of the total population respectively) (PHIDU, 2022). In 2021, the largest population groups born overseas residing in the region came from England (4.2% people), New Zealand (3.9% people) and India (1.9% people)

Language spoken at home – In 2021, one in eight people (146,188 people or 13.7%) residing in the region spoke a language other than English at home (QGSO, 2021). Of this population, 131,839 people (12.4 per cent of the total population) speak English very well or well and 14,316 people (1.3 per cent of the total population) speak English not well or not at all (QGSO, 2021). The proportion of residents in the region that speak English not well or not at all is slightly lower compared to Queensland (1.8 per cent).

In 2021, Indo Aryan Languages were the most common languages spoken at home in the region other than English, with 2.4% of the population reporting that they speak Indo Aryan Languages at home (QGSO, 2021). This was followed by Chinese languages (2.1%) and Southeast Asian Austronesian languages (1.1% speakers). There are also large cohorts of people who speak Spanish (0.8% people) and Italian (0.5% people) (QGSO, 2021).

Outcomes of the health needs analysis		
		Crime and Justice In the region there were 91,219 reported offences in 2020-21, or 8,265 per 100,000 persons (QGSO, 2021). This is lower than the Queensland rate of 9,154 per 100,000. Offences against the person, or crime committed causing physical harm occurred at a rate of 667 per 100,000 people in Brisbane North, lower than the Queensland rate of 867 per 100,000 (QGSO, 2021). **Consultation –** A broad range of social determinants were identified through consultation including homelessness, domestic and family violence and geographic disparities in healthcare. However, among social determinants the affordability of healthcare was the most prominent and unanimous topic raised and could potentially reflect the socioeconomic position or factors that has negatively influenced the community's ability to achieve good health. This was also frequently raised as a barrier by GPs and practitioners who recognised the challenges faced by patients who could not afford treatment or management for a health condition. Suggestion for access for more affordable care was common among all respondents.

Outcomes of the health needs analysis – Norfolk Island		
Norfolk Island - Population Health	Risk factors	Brisbane North PHN began working with the Norfolk Island community and developing a health needs assessment in July 2022. **The below summarises the risk factors and health conditions prevalent in Norfolk Island** with data sourced through visits to Norfolk Island to connect with stakeholders from health, education, community services, advocacy groups and people living on the Island. Limited quantitative data was available therefore the emphasis was placed on the qualitative community consultation. Another consideration is that while Norfolk Island is governed by Commonwealth laws, not all apply. For example, the Island is exempt from certain taxes, and notable to this HNA is the tax exemption on tobacco products. Refer to the full Health Needs Assessment here. **Health literacy** In general, **health promotion initiatives from the mainland are not in place.** For example, the anti-smoking campaigns that have been implemented in Australia have never been delivered on Island. *Community Consultation* • The opportunity to build whole of community health literacy is recognised as critical to support and improve overall health and wellbeing. • Norfolk Islanders need support understanding their health conditions and the services available on-Island, on mainland and how these interact. **Alcohol and other Drugs** Harmful alcohol and other drug use among young people is high in the absence of a strong legislative environment. *Community Consultation* • Consultations indicated that binge drinking is an issue on the Island. The high use of vaping (particularly 20–30-year-olds) and cannabis for young people has been anecdotally reported. • The need for greater support in addressing harmful alcohol consumption was cited by several stakeholders.

		Food security Norfolk Islanders experience **poor food security** due to isolation and remoteness. *Community Consultation* • Food security underpins nutritional needs of especially vulnerable people. • Food grown on the Island is seasonal, so sometimes there will be a glut of one fruit or vegetable and then none. • Previously had more than five growers now only have three and they are older with no younger people moving into the market. • Weather events impacting fresh food availability. **Tobacco** A 2015 Health Services Survey of 335 residents found there were **57% of persons who had ever smoked in their life**, compared with 39% of people in Brisbane North PHN in the same year (R & S Muller Enterprise, 2015 & QSAS, 2022). *Community Consultation* • The community's request is to align with current Australian policy on taxation of tobacco products. **Road Safety** There is a high number of road-related injuries due to an inadequate legislative context. *Community and Health Practitioner Consultation (2022)* • GP reports seeing several young people for skin abrasions • High incidence of people injured reported to not be wearing helmets • Lack of disability parking spaces • Lack of footpaths impacting pedestrian safety – falls risk • Inadequate street lighting • Road safety campaigns run by the police have been well-received **Sedentary lifestyles** In 2015, 28% and 38% of the male and female population reported sedentary levels of exercise (R & S Muller Enterprise, 2015). Higher than the Brisbane North PHN population, in 2020 where 9.2% were inactive and 28.3% spent insufficient time on physical activity. *Community Consultation* • It is within the ageing population that sedentary lifestyles were raised as an area of concern. **Obesity (older people)** Data from Norfolk Island Health and Residential Aged Care Service (NIHRACS) suggests that the prevalence of a Body Mass Index (BMI) above 25 (overweight, obese, and morbidly obese) increases with age in the Norfolk Island population and is most common in adults above 50 years. In 2015 a Health Services survey found 40% and 23% of respondents were overweight and obese respectively (R & S Muller Enterprise, 2015). This compares with 33% and 21% of people who were overweight and obese in Brisbane North PHN in the same year (QSAS, 2015). *Community Consultation* • When addressing obesity, there is a need to acknowledge the underlying cultural issues and associated impacts of immigration changes and food security on conditions like obesity.

		• Healthy food options are not reliably available and have a pronounced impact on food choice in the context of low health literacy. **Social disconnection (Young and Older people)** More people on Norfolk Island live in single-person households (37.9%) when compared with the rest of Australia (25.6%) (ABS, 2021) *Community Consultation (2022)* • Many residents experience mental distress on account of isolation from extended family and friends who may be residing on mainland Australia or in other countries. • Community members highlighted the impact of social isolation on young people who do not have as many opportunities for extra-curricular activities, after-school employment, links to tertiary education or trades.
Norfolk Island - Population Health	Health conditions	**Mental Health and wellbeing (young people)** The Norfolk Island population reported **slightly higher levels of 'High' to 'Very High' psychological distress compared to the Brisbane North PHN** population (13% vs. 12.1%, respectively) and the Australian benchmarks at the time (R & S Muller Enterprise, 2015, PHIDU, 2017). Of diagnosed disorders, the Norfolk Island Hospital Enterprise, 2015, indicated 'anxiety disorders' and 'mood disorders' were the most reported (R & S Muller Enterprise, 2015). *Community Consultation (2022)* There is a need for more education and services that provide a sustainable approach to delivering a stepped model of primary mental health care services across the life span and a range of community and health services. The community has raised the need for greater support with suicide prevention and life skills for young people. Support pathways and mentoring programs that support young people and provide resilience and life skills are critical to reduce suicide rates and mental health concerns. **Cardiovascular disease (older people)** Rates of **cardiovascular disease (CVD) are higher (4.8%) than the rest of Australia (3.9%)** (ABS, 2021). In Bellis (2009), the authors found significant risk factors present in the community for CVD. *Community Consultation* Sedentary behaviour has been recognised as a contributing factor to CVD in residents. Refer to Risk Factors. **Diabetes (older people)** The known prevalence of diabetes was reported at similar levels to the Australian community (ABS, 2021), but a high number of undiagnosed cases were identified in the sampled population. An ageing population on-Island, coupled with food security concerns and high rates of obesity, means the number of residents at-risk for diabetes is high. *Health Practitioner Consultation (2022)* • Doctors indicated a high level of glaucoma in the community. • Doctors indicated issues with foot care and no stable podiatry service. • Health literacy, self-management and monitoring must be improved. • Currently there is no visiting diabetes educator

		Dementia (older people) Data from the Census revealed proportionately **more people on Norfolk Island are living with dementia (1.1%)** compared with the rest of Australia (0.7%). This is likely an artefact of the ageing population on-Island, where more than 50% of residents are over the age of 50. *Community Consultation (2022)* • Dementia Services Australia (DSA) have observed that the people on Norfolk Island (NI) seem unsure of what Australian services they can access independently and separately from NIHRACS. • People need much encouragement to contact an "off-Island" Health service. • Due to low household income, clients are seeking services without fees or with Medicare subsidies. Some clients state that they do not always believe that services will continue as they have witnessed several services not following up. **Kidney disease (older people)** The ABS 2021 Census revealed a slightly higher proportion of residents on Norfolk Island living with chronic kidney disease (CKD) (1.1%) compared with the rest of Australia (0.9%). A substantial proportion of people aged 15+ years have a chronic kidney disease risk factor. This includes smoking, diabetes, hypertension, obesity, and cardiovascular disease (CHO, 2020). *Health Practitioner Consultation (2022)* • There are varying levels of kidney disease management activities conducted for the population that are diagnosed with CKD. • Additional support services for kidney disease are required from Metro North Health **Sexual Health (Young people)** A 2015 survey conducted by the Norfolk Island Hospital Enterprise found that **76% of sexually active adults were not using contraception** (R & S Muller Enterprise, 2015). Data from NIHRACS indicates that most of the sexually active patient population on Norfolk Island have not been screened for STIs in recent years, however of those screened, active infections included chlamydia, gonorrhoea, hepatitis, syphilis, and HIV. *Health Practitioner Consultation* Consultation with local health professionals indicated that the **sexually transmitted infections (STIs) were the main communicable disease concern on-Island.** One of the barriers to screening for young people is the high visibility and confidentiality of the NIHRACS clinic. In the survey by Norfolk Island Hospital Enterprise (2015), 56% of respondents said that accessing contraception was embarrassing. (R & S Muller Enterprise, 2015). **Cancers (Older people)** Data from the Census, revealed that **more people on Norfolk Island (3.4%) are living with cancer** when compared with the rest of Australia (2.9%). This is likely an artefact of the ageing population on-Island, where more than 50% of residents are over the age of 50. *Community Consultation (2022)* • Skin cancer was named as a common disease experienced by people on Norfolk Island. Skin cancer check rates need to be determined.

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There are low rates of activity health screening for bowel, breast, and cervical cancer on island, although this can also be attributed to data collection issues.
Bowel cancer collection methods are not appropriate for Norfolk Island, as by the time it arrives via the post, the sample is often invalid. NIHRACS has offered a work around so that samples arrive on time but unsure of uptake.

Behavioural and developmental disorders (children and families)
A significant proportion (20.7%) of the Norfolk Island population are under age 19 (ABS, 2021). There are approximately 290 students in primary and secondary school years. Of this number, more than 50% of students have a personalised learning plan to manage a behavioural or developmental disorder.
Health Practitioner Consultation (2022)
There is a lack of specialists available to work with this cohort, including GPs, occupational therapists, psychologists, and paediatricians. Further, there is limited assistance for applying to the NDIS due to lack of assessment services, diagnoses, and intervention availability.
Currently the Early Learning Centre is the only place on-Island available to undertake this work, however they have indicated they need more support to diagnose developmental delays – prior to children starting prep.
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<tr>
<td>Women’s Health</td>
<td>Mental Health</td>
<td>
A snapshot of Women’s Health in Brisbane North PHN was completed in 2023, read the full document here:
In Brisbane North PHN females (13%) show a greater prevalence of mental health conditions compared to males (9%) (AIHW, 2021). The Women’s Health snapshot highlighted some key areas of mental health that affects women disproportionally. These are namely psychological distress, intentional self-harm hospitalisations, and eating disorders.
Table 4 Prevalence of high or very high psychological distress in females and males in Brisbane North 2017-18
<table>
<tr><th>Psychological distress</th><th>Brisbane North PHN</th></tr>
<tr><td>Females</td><td>13.5</td></tr>
<tr><td>Males</td><td>10.7</td></tr>
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Source: AIHW 2021
Girls or young females aged 0-24 years in the PHN region are more than three times as likely to be hospitalised for self-harm when compared to their male counterparts aged 0-24 years.
Table 5 Rate of Intentional Self-harm Hospitalisations for females and males aged 0-24 years in Brisbane North
<table>
<tr><th>Rate of intentional self-harm hospitalisations, by age and sex 0-24 years</th><th>Brisbane North PHN</th><th>Queensland</th></tr>
<tr><td>Females</td><td>502.2</td><td>383.1</td></tr>
<tr><td>Males</td><td>148.4</td><td>127.6</td></tr>
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Source: AIHW 2021
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Table 6 Eating disorders are estimated to have a higher prevalence in the Brisbane North PHN region

Estimated rate of prevalence of eating disorders (Deloitte-Access-Economics-2019-Eating-Disorders-and-PHNs)	**Brisbane North PHN**	**Australia**
Females	5.27%	5.03%

Source: AIHW 2021

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<tr><td>Women's Health</td><td>Violence against women</td><td>

Domestic and Family Violence disproportionately affects women in Australia, and in our region. In 2022-23 so far **85% of Domestic Violence Order (DVO) breaches were male offenders**, 77% of all DVOs were to protect a female aggrieved, **DVO breaches increased by 16% in 2022** (QPS, 2023):

Table 7 Victims of sexual violence in Brisbane North, females and males 2022-23

Victims of sexual violence 2022	**Brisbane North PHN Female**	**Brisbane North PHN Male**
Rate per 100,000	**462**	81

Source: Queensland Police Service 2022-23

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<tr><td>Women's Health</td><td>Endometriosis</td><td>

Endometriosis is an inflammatory condition that can be painful, affect fertility and lead to reduced participation in school, work and sporting activities. It is estimated endometriosis cost $7.4 billion in Australia in 2017-18, due to reduced quality of life and loss in productivity (Ernst & Young, 2019).

Around **17% of the population** assigned female at birth **have been diagnosed with endometriosis** in Brisbane North PHN, compared to **11% of the total Australian female at birth population** (Australian Longitudinal Study on Women's Health, 2020).

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Section 3 – Outcomes of the service needs analysis

This section summarises the findings of the service needs analysis in the table below. For more information refer to ' Summarising the Findings' in the Needs Assessment Policy Guide on www.health.gov.au/PHN

Additional rows may be added to the table as needed.

Outcomes of the service needs analysis

Identified Need	Key Issue	Description of Evidence
Aboriginal and Torres Strait Islander healthcare	Equity in care	***MBS 715 Health Assessments*** In 2020-21 First Nations residents of Brisbane North were achieving comparable rates of MBS 715 health checks in comparison to Queensland and Australia, with 36.2% of the population receiving the service for these respective years (AIHW, 2022j). Despite comparable rates for the entire region, SA3 regions demonstrated considerable variation. Areas in the northern region such as Caboolture (45.1%), Redcliffe (43.1%), and Narangba – Burpengary (44.9%), and were achieving > 40% uptake by the population. In contrast, western regions such as Brisbane Inner – West (14.0%), Sherwood – Indooroopilly (14.0%), and Kenmore – Brookfield – Moggill (13.4%), had less than 20% of the Indigenous population access a 715 health check (AIHW, 2022j). *Table 8 : MBS 715 Annual Health Checks in 2020-21 by SA3 and SA4 in Brisbane North PHN region*

SA4	SA3	Patients	Population	Per cent
Brisbane - North	Bald Hills - Everton Park	243	813	29.9%
	Chermside	610	1,814	33.6%
	Nundah	380	1,120	33.9%
	Sandgate	689	1,961	35.1%
	The Gap - Enoggera	284	1,159	24.5%
		2,206	**6,867**	32.1%
Brisbane - West	Kenmore - Brookfield - Moggill	36	269	13.4%
	Sherwood - Indooroopilly	58	415	14.0%
	Brisbane Inner - North	333	1,356	24.6%
	Brisbane Inner - West	87	620	14.0%
		514	**2,660**	19.3%
Brisbane Inner City	Brisbane Inner	339	1,158	29.3%
	Bribie - Beachmere	425	1,286	33.0%
	Caboolture Hinterland	158	835	18.9%
	Redcliffe	1,009	2,340	43.1%
		1,931	**5,619**	34.4%

Moreton Bay - North	Caboolture	2,071	4,587	45.1%
	Narangba - Burpengary	1,258	2,803	44.9%
	The Hills District	390	1,440	27.1%
	North Lakes	1,052	2,724	38.6%
	Strathpine	616	1,559	39.5%
		5,387	**13,113**	41.1%

Source: AIHW, Indigenous health check rates by telehealth status and Statistical Area Level 3 (SA3), 2020–21

While health checks are likely to be delivered in parts of the region where majority of the Indigenous population reside, it poses a gap for the remaining population that live elsewhere.

Medicare-subsidised services

In 2020-21, over 70,000 patients were provided a Medicare subsidised service by a Practice Nurse/Aboriginal Health Worker (AIHW, 2021g). Over this period 132, 103 services were provided. Across the entire Brisbane North region, this equates to 6.59% of the population receiving the service, or 12.42 services per 100 people.

Within the region there are areas that are achieving above and below the total proportion of the region. Areas including Bribie – Beachmere, Redcliffe, Caboolture, Caboolture Hinterland, Narangba – Burpengary, Strathpine, Sandgate, and North Lakes have greater than 6.59% of the Indigenous population accessing these services. Areas where less than 6.59% of the population received Medicare-subsided services from a Practice Nurse/Aboriginal Health Worker include Brisbane Inner – West, Sherwood – Indooroopilly, The Gap – Enoggera, Brisbane Inner – North, Kenmore – Brookfield – Moggill achieve below that figure (AIHW, 2021g).

Distribution of identified health workforce and services

There are six Aboriginal and Torres Strait Islander Community Controlled Health Services (ATSICHs) operating in the Brisbane North region, all of which are in the SA3 regions of Strathpine, Redcliffe, Nundah, Narangba – Burpengary and Caboolture. Further, there is only a reported six identified Indigenous health practitioners currently registered and practising in Brisbane North as of 2020, in the SA3 regions of Nundah and Narangba – Burpengary (DoH, 2022b).

Identified Indigenous patients in primary care

A Quality Improvement Measure (QIM) that is collected as part of the Practice Improvement Program includes a measure that identifies the proportion of regular clients aged 15 years and over with their Indigenous status recorded in their GP record. As of July 2022, practices across Brisbane North PHN had 1.5% of patients identified as Indigenous, 70.6% identified as non-Indigenous, and 27.9% not stated (AIHW, 2022s). This "not stated" status is higher than the Australian statistic of 23.1%.

Consultation – A minority of consultation respondents identified as an Aboriginal and/or Torres Strait Islander person. While they constitute a small count of respondents, equity of care was demonstrated in their responses. Of those who identified they reported that their care was coordinated 'poorly' or 'average'. Respondents were also experiencing multiple health challenges and self-reported having 'poor' to 'average' physical and mental health.

Outcomes of the service needs analysis		
		Consultation undertaken as a part of the SEQ FNHE Strategy emphasised that service delivery pathways must be flexible to accommodate First Nations preferences. It was reflected that care systems need to be holistic to meet cultural values, accountable and reciprocal in reporting of what has worked and what hasn't, and community-led where possible.
Alcohol and Other Drugs	Coordination and integration	***Dual Diagnosis*** There is growing evidence of the increasing prevalence of people experiencing dual diagnosis of mental health and alcohol and other drug issues, both nationally and in the Brisbane North region (AIHW, 2022b) (See 'dual diagnosis' in health needs analysis). Coordination between health services who provide mental health and alcohol, and other drug support or treatment is therefore critical in improving the wellbeing of this cohort of people. AOD service provision is predominantly through government or specialist non-government agencies and cover the breadth of needs outlined in the Queensland AOD Treatment Service Delivery Framework (TSDF) (Leitch et al, 2015). This framework spans prevention and early intervention, intervention, and maintenance and after care. In addition, the AOD sector also encompasses primary health care providers including GPs. The challenge therefore posed by distinct service systems is to ensure that care is provided in a collaborative manner. **Consultation –** While community members and practitioners noted issues in the coordination and integration of AOD services, stakeholder organisations strongly relayed the need to improve this aspect of care. This aspect is in light of the growing recognition of dual diagnosis, and the need to provide comprehensive and unified care across health and welfare systems.
Alcohol and Other Drugs	Services	As of 11 November 2022, there are 35 AOD services in the Brisbane North PHN region, according to Queensland Network of Alcohol and Other Drug Agencies' (QNADA) service finder. These treatment services include both non-government and government services, and are inclusive of psychosocial intervention, residential treatment, detoxification, and harm reduction providers (QNADA, 2022). ***Treatment service patterns (AIHW, 2022d):*** In 2020-21, there were 11,372 closed treatment episodes for people accessing alcohol and other drug (AOD) services in Brisbane North. The number of closed treatment episodes have increased by 5.8% since 2016-17, equating to a 1.45% average annual increase. Counselling was the most frequently (35.77%) accessed AOD treatment type, followed by withdrawal management (6.91%), assessment only (29.81%), and information and education (1.58%). Between 2016-17 to 2020-21 in Brisbane North, substantial percentage increases occurred for the following treatment types: • Support and case management, grew 325%, equating to 81.1% average annual increase • Rehabilitation, grew 120.1%, equating to 30.0% average annual increase • Counselling, grew 35.1%, equating to 8.8% average annual increase • Assessment only, grew 20.5% equating to 5.1% average annual increase In contrast the following treatment types experienced a decline over the same period: • Information and education, decreased by 69.2%, equating to a 17.3% average annual decline

Outcomes of the service needs analysis		
		• Withdrawal management, decreased by 35.2%, equating to an 8.8% average annual decline • Pharmacotherapy, decreased by 7.7%, equating to a 1.9% average annual decline ***Principal drug of Concern, own drug use (AIHW, 2022d):*** Change in treatment types has potentially occurred due to a gradual change in the principal drug of concern being addressed. In 2016-17 the most common principal drugs of concern were: alcohol (36.2%), cannabis (27.3%) and amphetamines (19%). Alcohol and cannabis have since increased to accounting for 42.6% and 23.7% of total treated principal drugs of concern respectively, while amphetamines accounts for 21.7%. In 2020-21 the principal drug of concern in the region, for clients who had a closed treatment episode for their own drug use were: • Alcohol, 42.6% of total principal drug of concern • Cannabis, 23.7% of total principal drug of concern • Amphetamines, 21.7% of total principal drug of concern Between 2016-17 to 2020-21 in Brisbane North, the following principal drugs of concern have had substantial percentage increases: • Other sedatives and hypnotics, 2000% • Cocaine, 146% • Alcohol, 23.7% • Amphetamines, 18.8% ***Source of referral (AIHW, 2021c):*** In 2020-21 referrals for closed treatment episodes were mostly from health services: • A health service, 33.15% • Self/family, 15.57% • Corrections, 7.43% • Diversion, 1.33% **Consultation –** Increased service capacity was frequently or urgently raised as a need by community members, practitioners, and stakeholder organisations. An influx in demand has reportedly caused reduced access or longer wait times to AOD services in the region due to limited resourcing, including shortages in skilled and trained workforce.
Alcohol and Other Drugs	Support for carers	Supporting the wellbeing of carers who care for people with drug and alcohol issues and providing skills and resources to them is important for several reasons. Firstly, carers and their relationship with the people they support can be stressful and cause a significant negative impact on their wellbeing. Providing support to carers ensures they minimise or prevent this impact or gain the skills that will increase their capacity to manage or cope (Orford et al, 2010). Secondly, carers have been shown to contribute to strong positive outcomes in the people they care for, through the provision of social support and encouraging positive behaviours such as adherence to treatment. The need to support carers is therefore warranted and adjunct in addressing the healthcare needs of people with problematic alcohol and other drug use (Orford, 1994). **Consultation** – Few community members briefly noted that they provided supports to those who experience drug and alcohol issues, and in some cases were experiencing AOD issues themselves. This indicates that there may be opportunities to provide support to carers directly to assist in their ability to care for others.
Alcohol and Other Drugs	Workforce	There is limited data available on the AOD workforce in the Brisbane North region. Data across Queensland and Hospital and Health Services (HHS) are however available from Queensland Health's Alcohol and other Drug Final Report, published in 2015.

Outcomes of the service needs analysis		
Alcohol and Other Drugs	Workforce	There is limited data available on the AOD workforce in the Brisbane North region. Data across Queensland and Hospital and Health Services (HHS) are however available from Queensland Health's Alcohol and other Drug Final Report, published in 2015. The report estimates that across Queensland the AOD workforce consists of 10.8 FTE AOD in state services, and 5.8 FTE in non-government organisations (NGO), per 100,000 people. Between HHS and NGO services, professions in the workforce consist of (per 100,000 people) (Leitch et al 2015): • 5.0 FTE nurses • 2.8 FTE admin and domestic staff • 2.5 FTE other health professionals • 2.4 FTE allied health professionals • 2.2 FTE needle and syringe program, harm reduction & AOD workers • 0.9 FTE Indigenous health • 0.8 FTE medical officers Location of the AOD workforce also varies whereby metropolitan regions have 8.4 FTE per 100,000 people in comparison to rural regions that have 47.5 FTE per 100,000 people. The National Health Workforce Dataset reports that were 119 nurses who worked in the job area of "drug and alcohol" in the region in 2021 (DoH, 2022). Nine medical practitioners who had a primary specialist of "addiction medicine' were reported in 2020. In 2017, Queensland Health released a framework which reports on the current challenges experienced in mental health alcohol and other drug workforce planning and development (Macbean et al, 2015). This report, in addition to a workforce capacity improvement evaluation report developed in partnership between QNADA, Brisbane North PHN and Brisbane South PHN have identified focus areas (QNADA, 2019). Focus areas include training, education and professional development, scope of practice, recruitment, and retention. Each of these compound the ongoing capacity issues of the AOD sector in being able to match demand with supply. The specialist AOD sector also only accounts for a portion of the workforce and does not consider generalist professions or occupation groups who also contribute to reducing AOD-related harm. These professions or groups include police, corrections, education, health and welfare workers, mental health practitioners, pharmacy workers and emergency medical services. (NCETA, 2014). **Consultation –** Partnership groups and stakeholder organisations noted the deficits in the AOD workforce and the need to expand the workforce to increase the capacity of the service system. There is demand for the front-line specialist workforce in community services, and resources to support professional development and supervision in the workplace. The community sector is recognised as experiencing a shortage in skilled workers in an environment that has consistently high caseloads, with patients who have increasingly complex needs. Care provided by GPs and pharmacists are also identified as professions who would benefit from education in building skills to respond to presenting patients with AOD concerns.

Outcomes of the service needs analysis		
Children's health	Coordination and integration	Care coordination is care delivered with an emphasis on strategic relationships between providers in facilitating patient-centred care that is planned and comprehensive. Care coordination and integration in particular addresses barriers that are presented by fragmented systems and can bridge inefficiencies through shared use of resources (Antonelli et al, 2009). In 2017-2018 the most reported long-term conditions reported in Australian children were **asthma (10%), hay fever and allergic rhinitis (10%), anxiety disorders (5.7%), problems of psychological development (5.7%) and food allergy (5.5%)** (AIHW, 2022b). While these may not necessarily coincide with each other, it is apparent that a variety of health conditions can impact children at an early age. MBS 2020-21 data indicate that children in the Brisbane North region aged 0-14 years use specialist and allied attendances **at half the rate** of the rest of the region's population at **44.4 and 51.18 services per 100 people**, respectively (AIHW, 2022g). Rates of GP service use are much greater whereby children have **370.43 GP attendances per 100 people**, in comparison to the region's 657.46 attendances per 100 people. This is despite children only accounting for 18.2% of the total population. **Consultation –** There is growing recognition for the need to coordinate and integrate services in Brisbane North to improve the wellbeing of children. Practitioners were cognisant that certain aspects of health and wellbeing were often interrelated or influenced by each other and that a holistic approach was required to ensure children were receiving comprehensive, patient-centred care. Examples that were often provided was the need to ensure that schools were involved in coordinating care for children identified as having behavioural or learning difficulties, and how this health challenge is often related to mental health too.
Children's health	Perinatal and child mental health	***Perinatal Mental Health*** In Australia research undertaken in 2010 through the Australian National Infant Feeding Survey estimates that 20% of women are likely to experience depression in the perinatal period. Mothers who were most likely to experience perinatal depression were women who reported being younger (under 25 years), were smokers, came from lower income households, spoke English at home, were overweight or obese, or had an emergency caesarean section (AIHW, 2012). Of women who are diagnosed with depression, most **(73.4%) were diagnosed prior to pregnancy**, while 18.8% were diagnosed in the year after the birth of their child (AIHW, 2012). The survey found that 16% did not seek treatment (in those who were diagnosed during pregnancy or after birth), but for those who did they sought care from a GP (69.7%), psychologist (28.2%), midwife or nurse (19.9%), a counsellor (18.2%) or psychiatrist (14.5%). Experience of support varied among women (AIHW, 2012). Most women perceived that they received a lot of support from family (61.9%), while most considered they received no support from mothers and babies' groups (60.6%), support groups (79.9%) or other communities (47.7%) which includes GPs, nurses, hospital, and community health centres. More recent international research also finds that **anxiety** in the perinatal period is also common, and to lesser extents other forms of mental illness including **psychosis**. (PANDA, 2021).

Outcomes of the service needs analysis		
		Children's Mental Health The National Mental Health Service Planning Framework (2019) estimates that in 2019-20, there would be **over 49,300 children aged between 0-17 years who would experience a mental illness**. Of these over 35,500 are expected to require treatment. Children in Brisbane North use Medicare-subsidised mental health care services at a slightly higher rate than nationally or other metropolitan regions. In 2020-21 children aged 0 to 14 years accessed GP mental health services at a rate of 7.09 services per 100 people (AIHW, 2021g). Mental health services provided by allied health professions including psychologists were accessed at 18.64 services per 100 people, whilst psychiatrists were accessed at 2.13 services per 100 people (AIHW, 2021g). In Brisbane North there were 658 presentations for **mental and behavioural disorders** to emergency departments by children aged 0 to 14 years in 2018-19. This is an age-standardised rate of 337.4 presentations per 100,000 people and is higher than the Australian and Queensland rates of 247.9 and 275.5 presentations per 100,000 people, respectively (PHIDU, 2021). Girls or young females aged 0-24 years in Brisbane North are **more than three times as likely to be hospitalised for self-harm** when compared to their male counterparts than boys and young men aged 0-24 years (AIHW, 2022v). In 2020-21, there were 834 and 255 hospitalisations for self-harm by females and males aged under 24 years, respectively. Among all age cohorts, young people aged 0 to 24 years are hospitalised for self-harm at higher rates (322.3 per 100,000 people) than the region (213.5 per 100,000 people) or any other age group (AIHW, 2022v). In Australia, suicide was the **leading cause of death** in young people aged 15-24 years, while it was the **fifth leading cause** for children aged 1 to 14 years between 2017-19 (AIHW, 2022q). **Consultation –** The mental health of children and young people was a consistently identified priority among both community members and practitioners and was also noted by stakeholder organisations as an increasing need. Respondents identified growing mental health concerns for children in the community and the consequences of childhood trauma in later years of life. Given the context provided by respondents there were shared sentiments in the region for greater access to mental health assessments and treatments through community allied health professions, as well as through long-term specialist services.
Children's health	Service capacity	***Medicare-subsidised allied and specialist attendances*** Since 2013-14 the use of Medicare-subsidised allied health services by children aged 0 to 4 years in Brisbane North have **steadily increased** from 40.59 services per 100 people to **56.82 services per 100** people in 2018-19 (AIHW, 2020g). This is a change of 70,795 services to 108,151 services, or an annual average increase of 8.8%. The services that contributed the most related to mental health or optometry. This growth in allied health is mirrored in the rest of the population in the region, however, is far higher than the average annual increase of 2.8% or 3.9% in GP attendances in the 0 to 14 year cohort and total Brisbane North population (AIHW, 2022g).

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		In contrast, the rate of specialist attendances in children has remained relatively stable since 2013-14 at 43 attendances per 100 people. While the volume of specialist attendances has increased in this time, it has coincided with the growth in population. **Consultation –** Community members frequently expressed the need to have greater access to affordable child-specific healthcare including allied health professions and specialists particularly to address developmental vulnerability and mental health concerns. The affordability and availability of existing services were perceived as being inadequate in meeting the needs of children and their families, especially in the provision of assessment and intervention. A respondent also highlighted that there are geographic disparities in the availability of services, particularly in the Moreton Bay Region which should be addressed to prevent delay of routine care.
Children's health	Workforce capability	The National Health Workforce Data reports that in 2020 there were a total of **91 medical practitioners** in the region with a primary specialist of **"paediatrics and child health".** This number has **decreased** from 109 practitioners in 2013 (DoH, 2022b). In same period there were **227 nurses and midwives** who described working in the job area of "paediatrics", which has also **declined from 543 practitioners** in 2013. In comparison, 39 nurses and midwives worked in the job area of maternal child and family health in 2021, which has also **declined** from 94 nurses and midwives in 2013 (DoH, 2022b). **Consultation –** Respondents noted a lack of professions in the community that specifically addressed children's needs. Across practitioner respondents, there were calls to increase the availability of allied health professions (including audiologists, speech pathologists, dietitians, and occupational therapists) that specialised in caring for children.
Mental health	Crisis support	Crisis support is immediate care that seeks to provide emotional or mental health services to persons experiencing a stressful situation that may put them or others at higher risk of harm. Numerous crisis support organisations exist at a national level including helplines such as Lifeline, Kids Helpline and Beyond Blue. In light of COVID-19, these supports reported an increase in service demand for the months following March 2020 and continued to fluctuate for the remainder of the year. In the period of June 2020, all helplines experienced between 5.4% to 21.5% increases in comparison to 2021 (AIHW, 2021m). While volume has somewhat declined in June 2021, Lifeline answered 11,526 calls, Kids Helpline answered 2,262 calls and Beyond Blue answered 2,362 calls from Queensland residents (AIHW, 2021m). **Consultation –** Stakeholder organisations noted that families were a cohort of people that often presented to crises services, unaware of supports that are available in preventing or managing circumstances. However, the lack of availability and long wait lists have been barriers in providing services to those who do seek counselling or support. Community members also noted the need for increased community crisis supports and that client follow-up should be a feature of these services. The circumstances in which people also present in crisis were identified as those experiencing housing challenges or homelessness, and those who arrive from countries in conflict.

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Mental health	Lived experience leadership	Peer participation refers to people (consumers and carers) with lived experience of mental health, actively participating in the development and delivery of mental health services. The Productivity Commission published an Inquiry Report into Mental Health in 2020 which recognised the increasingly important role of peer workers in the sector and the positive contribution they can make in patient-centred and led care. The inquiry found that consumer outcomes benefit from peer workers and that peer workers are also valued for the support they provide (Productivity Commission, 2020). Whilst there is evidence that positively supports the inclusion of peer support in the mental health workforce, there remains barriers in incorporating peers into services (Productivity Commission, 2020). The inquiry found that insufficient recognition, inadequate support and supervision, poor professional development and advancement and lack of a representative agency are barriers in fully engaging and utilising peer workers. **Consultation** –Practitioners briefly mentioned the value of expanding the mental health workforce to routinely include peer workers in contributing to the non-clinical supports provided to patients. One respondent highlighted the peer workers would benefit from funding to contribute towards developing pathways for this profession.
Mental health	Psychosocial supports	For people experiencing a severe and complex mental illness, clinical intervention and support is only one aspect of the treatment needed. Psychosocial supports provide wrap-around care to the individual, offering more practical support such as assistance to maintain daily activities, to connect with housing, legal or financial aids, or to access the physical and medical care needed to facilitate a healthier lifestyle. As our understanding of 'recovery' and 'functioning' evolves, the need for psychosocial supports is ever-growing. Estimates from the National Mental Health Service Planning Framework (2019) suggest that about 7,613 people with mental illness would benefit from some type of psychosocial support in 2019. The Productivity Commission suggests that while the NDIS supports people with the highest needs, a significant gap continues to persist in people who require psychosocial support but are not eligible for the insurance scheme (Productivity Commission, 2020). (Percentage of clients with psychosocial disability and accessing NDIS described under "NDIS"). Mental health community support services are also provided through 4 programs by Queensland Health while other non-government psychosocial supports are largely provided by community mental health organisations (QLD Health, 2020a). While services exist to support people with psychosocial needs, funding arrangements complicate and present challenges for consumers and providers alike. The Productivity Commission identified that funding arrangements impact upon access and eligibility, continuity of care or service provision, and staffing. **Consultation –** The need for non-clinical supports for people living with mental health illness was mentioned by stakeholders in consultation. It was identified that those particularly with complex mental health or carers would benefit from supports outside of the clinical setting, and that peer workers were a potentially avenue for leading this area.

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		outside of the clinical setting, and that peer workers were a potentially avenue for leading this area.
Mental health	Services	***Mental health-related MBS services and patients*** Between 2015-16 to 2020-21, the number of Medicare-subsidised mental health-specific services and patients receiving these services in Brisbane North have grown by 38.9% and 38.8% respectively (AIHW, 2022n). In 2020-21 there were 183,838 mental health care related services provided by Brisbane North GPs (AIHW, 2022n). This equates to 26.3% of all Medicare-subsidised mental health specific services. Notably, female GPs more frequently provided this service than their male counterparts. The people who received these services were mostly (63.3%) female and were (40.3%) between the ages of 25 – 44 years (DoH, 2021c). In Brisbane North from 2014-15 to 2020-21 there was a 3.9% average annual increase in the rate of mental health-related presentations to the emergency department (AIHW, 2021o). This was an increase from 122.1 per 100,000 to 138.0 per 100,000. This increase in rate for total emergency department presentations was comparatively higher, with an average annual rate increase of 8.2% (AIHW, 2021o). In Brisbane North from 2014-15 to 2020-21 the magnitude in the annual average change in volume of presentations was smaller for mental health-related presentations (6% annual increase) in contrast to all emergency department presentations (10.4% annual increase) (AIHW, 2022o). In 2015-2016 to 2019-20, the average annual change in ED presentations was comparatively higher for mental health-related presentations (5.2%) as compared to all ED presentations (3.2%) (AIHW, 2021o). ***Mental health-related emergency department presentations*** Over this same period, the volume of presentations across all age cohorts and for Indigenous Australians substantially increased. Most notably for: • Children aged 0-4 years, 516% increase • Adults aged 65+ years, 52% increase • Indigenous Australians, 60% increase (AIHW, 2021o) ***Mental health-related prescriptions*** Between 2014-15 to 2020-21, the number of prescriptions dispensed and patients for mental health-related prescriptions in Brisbane North have grown by 30.0% and 22.8% respectively (AIHW, 2022p). This equates to an average annual increase of 5.0% and 3.8% for number of prescriptions and patients accessing mental health-related prescriptions, accordingly. In 2020-21 there were 1,904.2 prescriptions dispensed per 1,000 people and 19.9 patients per 100 mental health-related prescriptions (AIHW, 2022p). **Consultation –** Consultation from all stakeholders saw overwhelming support and demand for increased access, affordability, and quality of mental health care services in the region. Support for types of services covered the breadth of mental illness severity (anxiety to severe, crisis and suicide prevention) and healthcare settings including hospital- and community-based services. The need for tailored mental health services was also raised, in addition to ensuring that appropriate services were available for a cohort of patients considered the "missing middle". This support and demand for mental health services was described in the context of a saturated mental health system, whereby patients incurred long wait times, challenges

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		This support and demand for mental health services was described in the context of a saturated mental health system, whereby patients incurred long wait times, challenges in meeting eligibility criteria, poor experiences and capped sessions that were not sufficient in meeting needs.
Mental health	Service navigation	Service navigation in the mental healthcare system is made complex by the fragmentation in the public or private services available, the eligibility criteria of programs, in addition to the severity of the illness a patient is presenting with. These complexities are challenges for both practitioners and patients alike, who need to determine services that are of relevance to the needs of the patient and pursue an appropriate referral pathway. The Productivity Commission determined that the development of a new person-centred pathway to care was of extreme importance in providing multiple gateways for people to enter the mental healthcare system (Productivity Commission, 2020). This gateway would enable patients to seek care or support that is accessible, affordable, and effective, in addition to providing the opportunity for patient choice in the services that are accessed. **Consultation –** The challenges of navigating the health care system as a patient or a carer supporting someone with mental illness was made clear by community respondents in consultation. Knowing what services were available was a major barrier in preventing community from accessing services and was similarly a challenge experienced by practitioners when making or receiving referrals. Practitioners reported the impact of inappropriate referrals in delaying patient care and lack of follow-up to ensure that the service is suitable by GPs. Other challenges included the changing of eligibility criteria to curb demand, referrals and wait times, yet also needing tailored mental health services to better suit patient needs.
Mental health	Support for carers	Carers play a key role in supporting people with mental health illness or issues. The AIHW reports that the most commonly recorded (28%) primary medical condition for which a person received Carer Payment, was for providing support to someone with a psychological or psychiatric condition (AIHW, 2021k). Care recipients were more likely to be aged 16 years and under, and this trend of psychological or psychiatric conditions in care recipients generally declined with age (AIHW, 2021k). As of the end of the June 2022 quarter, there were a reported 22,536 people receiving Carer Allowance, or a rate of 2.6 persons per 100,000 people in Brisbane North (QGSO, 2022). The Productivity Commission (2020) also recognised the role of carers and the positive impact they had on their care recipients, in addition to their own challenges in maintaining health and wellbeing. The Commission reports that more than one in ten people were a mental health carer in 2018 (Productivity Commission, 2020). As a priority the Commission recommended that carers and families be considered by mental health service providers in the recovery of mental health patients, and that practices should be carer-inclusive. Further, given the challenges experienced by carers, further support to ensure they are achieving and meeting their own needs was another area needing continuous improvement (Productivity Commission, 2020) **Consultation –** A substantial number of community respondents reported providing or needing support from a carer for their mental illness or issue. In general, respondents reported that having a support network or person were considered as helpful in accessing care, while a lack of support from a carer was a barrier that prevented accessing care. Further, GPs consistently noted that a lack of a carer or support person

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		was the second highest reason why they had chosen the mental health related conditions as a priority. Practitioners noted the need to provide both clinical and non-clinical support to carers as part of tailored service provision. Other responses from community and practitioners, while not directly related to mental health, revealed the desire to empower both the patient and carers though education and training. Empowering carers would similarly reduce barriers that are often experienced by patients in navigating care system, delaying care or comprehending health information.
Mental health	Workforce	Given the substantial increase in demand for mental health services in Brisbane North in recent years, the ability for the workforce to adapt in capability and capacity is critical in meeting the needs of people who require mental health support or treatment. The National Health Workforce Dataset reports that there were 1,877 psychologists working in Brisbane North in 2020 (DoH, 2022b). This is a 4.9% average annual increase from 2013, which is between the national and Queensland annual increase of 4.6% and 5.4%, respectively. Psychologists accounted for 5.8% of the health workforce in the region, and were the third highest count of professions, preceded by nurses and midwives, and medical practitioners (DoH, 2022b). This equates to 176.2 psychologists per 100,000 people in the region. Medical practitioners whose primary speciality was psychiatry accounted for 279 people in the workforce (DoH, 2022b). This means there are 26.1 psychiatrists per 100,000 people. Since 2013, psychiatrists have increased by a count of 49 or 21.3%, which equates to an average annual increase of 2.6%. In comparison, Australia's and Queensland's average annual increase are 3.3% and 3.9% respectively. In addition to this, there were 1,188 nurses working in the job area of "mental health" in 2022 and equates to approximately 105.3 mental health nurses per 100,000 people (DoH, 2021b). This has steadily increased from 907 nurses in 2013. **Consultation –** The capability of the mental health workforce was a noted area of concern by all stakeholders throughout consultation. Consumers unanimously noted the need or demand for better quality and safer mental health care in the region, inclusive of care provided by GPs. There was support to increase the types of mental health practitioners who could be subsidised by Medicare, in addition to alternative care settings to support people who are in crisis or experience complex mental health conditions. Practitioners similarly suggested increasing the capability of the workforce through inclusion of other practitioners. This was considered a potential solution to the saturation of the system and address the limitations that are in place around maximum attendances. Further to this, partnership groups noted a lack of specialised or tailored mental health care for specific demographics or populations.
Older people	Coordination and integration of health and age care	People aged above 65 years are a cohort of the community that are likely to interact with both aged and health care systems. While linking data from aged care and health care datasets reveal the interactions between the systems, it is unavailable at a local level. National data from the AIHW report "Interfaces between aged care and health systems in Australia – first results" is provided below, in addition to data that describes or demonstrates aged and health care use in people above 65 years of age. ***Interfaces between the aged care and health systems in Australia – first results***

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		Interfaces between the aged care and health systems in Australia – first results
		GPs – Nationally, people living in residential care had more GP attendances per person in 2016-17, than people using community-based care or no aged care. On average people using home support, home care, and residential care visited the GP 17, 16 and 25 times in a year, respectively (AIHW, 2019c).
		
		Specialists – People in residential care are less likely to see a specialist at least once in comparison to community-based care recipients or people who did not use aged care. Only 32% of residential care recipients attended a specialist, in comparison to 74%, 65% and 58% of home support, home care and no aged care users, respectively. However, of residential care recipients those living in larger facilities had a higher median number of specialist attendances (AIHW, 2019c).
		
		Prescriptions – Across all aged care types, people had a similar number of different medicines dispensed, except for non-aged care users. People in community-based care had a median number of 10 medications, people living in residential care had 11 medications, while people who had never used aged care had 6 medications dispensed (AIHW, 2019c).
		
		Hospital – People using community-based aged care had a higher likelihood of presenting to ED or have a hospital separation, in comparison to people who used residential care. People who did not use aged care had the lowest percentages of ED presentations and hospital separations. Pain, injuries and problems with the heart or breathing were main reasons for going to ED, however percentages do vary depending on the type of aged care the patient received. Same day separations were most commonly for health services including dialysis, while reasons for overnight hospital separations varied (AIHW, 2019c).
		
		GP attendances to RACFs (HeaDS UPP)
		In 2020-21 GPs provided 83,440 services to RACF residents (DoH, 2022c). This is a decrease from 2019-20 which saw 169,304 RACF attendances by GPs. Of all services provided, 64% were for female patients. Volume of GP services increased with patient age, where over 44,000 services were provided to those aged 85+ years (DoH, 2022c).
		
		Primary health care services
		Of all GP services provided to those aged 65+ years in 2018-19, enhanced primary care and general consultations were most frequently accessed or provided (based on reported service groups) (AIHW, 2021g). As people aged the rate of service use also increased, shown below:
		• Enhanced Primary Care: Chronic Disease Management Plans
		  ○ 65-79 years: 9102.65 services per 100 people
		  ○ 80+ years: 140.01 services per 100 people
		• GP Standard (Level B) Consultation
		  ○ 65-79 years: 724.86 services per 100 people
		  ○ 80+ years: 1,068.45 services per 100 people
		• GP Long (Level C) Consultation
		  ○ 65-79 years: 170.15 services per 100 people
		  ○ 80+ years: 247.12 services per 100 people
		
		For comparison the rest of the region uses chronic disease management plans, standard and long consultations at a rate of 33.64, 388.22 and 85.85 services per 100 people, respectively (AIHW, 2021g)

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		For comparison the rest of the region uses chronic disease management plans, standard and long consultations at a rate of 33.64, 388.22 and 85.85 services per 100 people, respectively (AIHW, 2021g) Allied health care was similarly accessed at high rates. People aged 65-79 years accessed 201.70 allied health services per 100 people. This increased to 364.45 services per 100 people in those aged 80 years and over (AIHW, 2021g). Within allied health attendances, optometry was used at similar rates between the 65-79 and 80+ year age group (84.92 vs 88.98 services per 100 people respectively). Notably, rates of other allied care services including physical health care and other services that are inclusive of podiatry, audiology and dietetics varied. For physical health care people aged 65-79 accessed 46.99 services per 100 people, compared to 34.61 services per 100 people for those aged 80 years and above. In contrast "Other" services doubled, whereby services were accessed at a rate of 57.32 services per 100 people aged 65-79 years, compared to 132 services per 100 people for people aged 80 years and above (AIHW, 2021g). **Consultation –** In consultation it was recognised and emphasised how practitioners and their patients valued maintaining wellbeing while living in the community. The narrative around the integration between health and aged care therefore predominantly focussed on in-home care or support and the need to have better healthcare available to older persons in their respective care setting, but more pointedly in the community. Practitioners highlighted the need to have better access to geriatricians in the community who performed in-reach and afterhours services in addition to greater numbers of nursing or clinical staff at RACFs. Inclusion of allied health services into subsidised care plans was also advocated for, in addition to improved coordination between GPs, pharmacists and specialist care providers (ie. Rehabilitation).
Older people	Service capacity	***Aged care services*** In June 2020 the Brisbane North region has 85 residential aged care facilities (RACFs), 105 home care service providers and 117 home support outlets (AIHW, 2021g). Across the region there were 2,741 people accessing home care packages, 5,767 people accessing residential care, and 997 people receiving transition care in 2020-21. In total 14,632 people were accessing a form of aged care, not including home support (AIHW, 2022f). In comparison to June 2016, there were 8,901 people using aged care, equating to a 12.8% annual growth (AIHW, 2022f). Clinical supports for CHSP clients indicate complexity – with more nursing and allied health and less domestic assistance over time. Clients are increasingly needing social support services to address isolation as well. Rate of aged care service use are described below. • Brisbane North had 81.7 places in residential care per 1,000 people aged 70 years and older in 2017-20. In 2020, RACFs had 87.7% occupancy. The PHN has a rate of 70.4 residential care recipients per 1,000 people aged 70 years and above, higher than Queensland (64.0 per 1,000 people) and national (65.6 per 1,000 people) rates. Residential aged care recipients account for approximately over 7,600 people in the region, or 7% of the population aged above 70 years. • The PHN has a rate 42.7 home care recipients per 1,000 people aged 70 years and above, lower than Queensland (46.4 per 1,000 people) and national (48.2 per 1,000 people) rates. Home care recipients account for approximately over 4,600 people in the region, or 4% of the population aged above 70 years.

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		1,000 people) rates. Home care recipients account for approximately over 4,600 people in the region, or 4% of the population aged above 70 years. • The PHN has a rate of 382.2 home support recipients per 1,000 people aged 70 years and above, higher than Queensland (339.8 per 1,000 people) and national (389.9 per 1,000 people) rates. Home support recipients account for approximately over 41,500 people in the region, or 38% of the population aged above 70 years. (AIHW, 2021g) *Using Estimated Residential Population (ERP) of 2020, for people aged 70 years above = 108,778 (PHIDU) **Consultation –** The need for greater access to aged care was noted by all stakeholders, but more prominently by practitioners. Consumers noted the limited availability and difficulty in accessing both aged care places and in-home care. This was echoed by practitioners who further reinforced that the availability of services was prohibited by a shortfall in resourcing, including a lacking workforce. Greater access and availability of domestic assistance was particularly highlighted.
Older people	Navigation and appropriate care	*Movement between aged care types* – Determining appropriate living and care arrangements for older persons is important in maintaining their wellbeing and ensuring better quality of life. Data below describes clients who are admitted or exit from residential, home and transition care. ***Residential Aged Care*** Between 2019-20 there were a total of 5,412 admissions into residential aged care (AIHW, 2022f) These were evenly distributed between permanent and respite care, which each saw majority of admissions (46%) from persons aged 80-89 years. 10% and 58% of people being admitted into permanent residential aged care and respite care respectively, had previously been admitted to the service. Overall, majority (3,195 people or 59%) of admissions were for female residents, and majority (5,360 people or 99%) of admissions were for non-Indigenous Australians. Notably, of the Indigenous Australians admitted, there more likely to be in the younger age cohorts (55.7% aged <74 years). Majority (54%) of RACF admissions were in the Brisbane North planning region (AIHW, 2022f). In 2020-21 there were a total of 5,494 people who were discharged from residential aged care for the following reason (AIHW, 2022h): • Death: 2,257 or 41.1% • Return to community: 1,491 or 27.0% • To hospital: 241 or 4.4% • To other residential care or for other reasons: 1505 or 27.4% Persons were more likely to be discharged for any reason at the age of 85-89 years. Patterns in reason for discharge, length of stay in service and the age of the patient differed based on care type. Residents living in permanent residential aged care were more likely to be de discharged due to death but were also likely to have been in the service on average for nearly 3 years. In contrast, those discharged to hospital or to return to community were only in care for 2 and 1 years respectively (AIHW, 2022h). ***Home Care*** Between 2019-20, 2,326 people received a home care package in Brisbane North (AIHW, 2022f). Of home care package recipients in the region 26.7% (or 622 people) where on level 1 packages, 47.3 (or 1,101 people) were on level 2 packaged, 17.6% or 411 people)

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		where on level 1 packages, 47.3 (or 1,101 people) were on level 2 packaged, 17.6% or 411 people) were on level 3 packaged, and 8.2% (or 192 people) were on level 4 care package. Of those who received a home care package, 5.4% had previously received one. Notably of this cohort, majority (54.7%) received a level 3 or 4 package. Age distribution of care package recipients are similar across package levels. Majority (54%) of home care package recipients were in the Cabool planning region (AIHW, 2022f) In the same period there were a total of 1,273 people discharged from home care for the following reasons (AIHW, 2022h): • Death 421, 33.1% • Residential care 726, 57% • To hospital 18, 1.4% • Other 108, 8.5% Discharge due to death in home care was most frequent in persons aged 90-94 years (slightly older than residential care) and was more likely for persons in the Cabool planning region. Persons in Brisbane North were more frequently discharged to residential care at an older age (85+ years) than those in Cabool (AIHW, 2022h). ***Transition Care*** Between 2019-20, 1,016 people were recovering from a hospital stay and received transition care (AIHW, 2022f). Notably, a higher proportion of people receiving transition care were below the age of 60 years (18%), in comparison to other care types (ie. Residential care or home care). All transition care was for residents in the Brisbane North planning region (AIHW, 2022f) In the same period there were a total of 1,023 people were discharged from transition care for the following reasons (AIHW, 2022h): • Death 10, 1% • Return to home/community 569, 55.6% • Residential care 99, 9.6% • To hospital 241, 23.5% • To other transition care or for other reasons 104, 10% **Consultation –** Consumers and carers noted challenges experienced in the access and use of MyAgedCare in being able to navigate aged care services. Challenges often presented as inefficiencies in receiving assessments and in the allocation or negotiation of provided services. Practitioners advocated for greater availability of information regarding the aged care space and that consumers and their carers would likely benefit from peer support. Integration of aged care services across different providers was also a suggested solution for providing more holistic and equitable care across the region.
Older people	Support for families and carers	Support provided to older persons and their carers or families can help them with understanding and managing living with age-related conditions or disease, including how to best adapt to changes that impact on activities of daily living and wellbeing. Carer support is available through different avenues. The Carer Gateway is an online government resource which offers information and advice to carers in navigating services available to them, including counselling, self-guided coaching, support groups or skills courses (DoSS, 2021). State-wide organisations such as Carers Queensland are also available in addition local services which are offered by community organisations (Carers QLD, 2021).

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		also available in addition local services which are offered by community organisations (Carers QLD, 2021). **Consultation –** Support for carers and families of older people was mostly raised by GPs in consultation. GPs noted that the reason for chronic disease among older people is identified as a priority is because patients have no support network or person, which is presumed to negatively impacts on their ability to stay healthy. Most GPs also noted that non-compliance to treatments or interventions was another barrier that supported the need to address older persons health in the community. Other practitioners alternatively offered that carers required better communication with service providers and assistance in also navigating the aged care space. Specific support was particularly mentioned for those who are frail or diagnosed with dementia.
Older people	Specialist and geriatric services	Disease incidence across the life continuum may mean that specialist care is necessary, particularly towards older age when people are more likely to live with one or more health conditions. The involvement of specialist and geriatric care for older persons mean that patients receive care that is specific to their health needs. With an ageing population in the region, the availability and access to specialist and geriatric services is therefore important. In Brisbane North, 59% and 60% of people aged 65-79 years and 80 years and above accessed specialist services in 2018-19 (AIHW, 2021g). This equates to over 110 services per 100 people for both age cohorts. In comparison to national rates, older persons aged 65 years and over in Brisbane North access specialists less frequently. **Consultation –** Geriatricians and gerontology community services was perceived as a gap in older persons healthcare by practitioners. Practitioners noted that a greater presence of geriatricians was required, particularly for in-reach or emergency care in RACFs. Services for dementia patients was another specialty area that was noted as needing greater access for the community.
Older people	Workforce	Data on the workforce that service older Australians in the Brisbane North region is scarce or dated. However, anecdotal information and consultation reveals that the workforce that care for older people are facing challenges that are reflected in the findings of the Aged Care Royal Commission (DoAG, 2021). These challenges continue to impact the ability of the sector to meet capacity issues and ensure skills and capability match the needs of clients. The royal commission found that the workforce is understaffed, undertrained, and underpaid, particularly for in home and residential care. The number of staff employed and providing direct care are not sufficient to provide quality and safe care, and that the skills mix are not suited to the diversity of people needing care. It highlights the need for increased efforts in workforce planning and development, in addition to improving the working conditions in the sector and attracting more employees into roles (DoAG, 2021). ***Nurses*** In the aged care sector, the workforce consists of 1,883 total nurses (1,374 registered nurses and 509 enrolled nurses). Of these total nurses 1,678.6 are full-time equivalents. Nurses work an average of 33 weekly hours (DoH, 2022c). **Consultation –** The aged care workforce in addition to the clinical professions that cared for this cohort received attention from across all stakeholders in consultation.

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		Consultation – The aged care workforce in addition to the clinical professions that cared for this cohort received attention from across all stakeholders in consultation. Comments generally highlighted the need for more adequately staffed RACFs, in addition to further improving the training and working conditions for the aged care workforce. Similarly, some respondents noted that GPs required improvement in providing older persons care, in addition to an increased GP workforce that performed in-reach services to RACFs.
Population health	*Geographic areas of need*	In the Brisbane North region, there is substantial evidence for geographic disparities that exist in the social determinants, health status and subsequent health outcomes of the community. Moreton Bay North has approximately 197,000 residents in the region. When looking at their health and welfare, people living in this region have (in comparison to the rest of the region): **Higher age-standardised rates (ASR) per 100,000 of premature mortality (persons aged under 75) in 2020** • Caboolture: 277.3 • Caboolture Hinterland: 247.3 • Sandgate: 219.5 • Redcliffe: 217.5 • PHN region: 179.2 (AIHW, 2022q) **Higher ASR per 100,000 people of potentially avoidable deaths in 2020** • Caboolture Hinterland: 170.1 • Caboolture: 143.6 • Redcliffe: 118.4 • Bribie – Beachmere: 105.7 • PHN region 88.7 (AIHW, 2022q) **Higher ASR per 100,000 people of potentially preventable hospitalisations (2017-18)** • Caboolture: 4,492 • Caboolture Hinterland: 3,752 • North Lakes: 3,709 • PHN region: 3,100 (AIHW, 2020d) **Higher rate of chronic disease management plans per 100 people (2020-21)** • Bribie – Beachmere 70.22 • Caboolture Hinterland 62.66 • Redcliffe 60.89 • PHN region: 36.08 (AIHW, 2022g) **Consultation –** Geographic disparities in the provision and availability of care was noted by few stakeholders in consultation. Services that were perceived as inadequate ranged from after hours care, sexual health, mental health, and child health. While some responses were not specific to a region, those that were specific were notably regarding the North Moreton Bay area.
Population health	Genomics	Genomics refers to the use of genome technology to enhance and tailor healthcare to an individual. Healthcare through genomics bridges research and clinical care by using genetic information to predict the risk of disease, in addition diagnosis and disease

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		using genetic information to predict the risk of disease, in addition diagnosis and disease management. Genomics is a highly personalised approach that is expected to transform the delivery of healthcare (Genomics Queensland, 2020) While genomics has not been adopted widely across Australia, advances in its use and the attention given to developing a national framework lays the foundations for integration genomics into the healthcare system (Stark et al, 2019). Given that genomics is expected to constitute healthcare in the future, preparing the community, practitioners and services will be critical.
Population health	Patient activation / empowerment	Patient activation or empowerment refers to the degree to which patients are engaged in their healthcare decision making and increasing their ability to self-manage their conditions to achieve their desired care or health outcomes. Consumers Health Forum of Australia (2019) undertook a survey to measure patient activation in Australians with chronic illness against the Patient Activation Measure (PAM) tool in 2019. Of the 1,703 survey participants, consumer experience as well as perceived health status was positively associated with degrees of patient activation. Other associations that were noticed was that levels of engagement were related to health literacy, service utilisation and experiences of care with health providers (CHF, 2019). Typically, higher levels of engagement demonstrated better satisfaction and/or health outcomes in respondents. The implications of patient activation and empowerment is important and has the potential to influence the delivery of different models of care. Clinicians need to be supported to encourage the development of these skills in patients (CHF, 2019). **Consultation –** Among community members there was commentary to support being better educated, informed, and empowered with managing and prevention health condition. Most respondents considered being able to understand health information and being educated in their respective health conditions as a strength. Suggestions to develop or have access to a range of community-based preventative or management programs was therefore an expressed need that was similarly reflected in practitioner responses.
Population health	Screenings	Australia's cancer screening program consists of three screening programs that is aimed at detecting signs of cancer or pre-cancerous conditions in defined target populations. The purpose of the programs is to achieve early detection to subsequently undertake early intervention and treatment in those with a positive screening test. Each program's activity is measured by the number of participants who have completed screening as a proportion of the total population who were eligible in the time period (AIHW, 2022d). **National Bowel Cancer Screening Program (NBCSP)** Men and women between the age of 50-74 years are eligible for the NBSCP. In 2019-20, 42.0% of 188,856 invited participants in Brisbane North undertook a bowel cancer screening test. This is a gradual increase from 39.1% in 2014-15. The most recent participation rate is comparable to the Australian and Queensland rate of 43.8% and 41.1%, respectively (AIHW, 2022d). There is approximately 10 percentage points between the highest and lowest participation rates in Brisbane North. Areas including Bribie – Beachmere, Kenmore – Brookfield – Moggill and Caboolture Hinterland, achieved the highest rates (48.2%,

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		45.2% and 43.9%, respectively), while Brisbane Inner, Brisbane Inner – North and Caboolture had the lowest (38.7%, 39.3% and 40.5%. respectively) (AIHW, 2022d). **National Cervical Screening Program (NCSP)** Women between the age of 25-74 years are eligible for the NCSP. In 2018-19, 47.2% of 280,909 eligible women in Brisbane North participated in the NCSP. Participation peaked in the 55-59 year age cohort at 52.8%. Due to a change in screening protocol, there are no comparisons for previous years' participation rates. The PHN region achieved a higher participation rate than Australia (46.5%) and Queensland (46.1%) (AIHW, 2022d). There is approximately 18 percentage points between the highest and lowest participation rates in Brisbane North. Kenmore – Brookfield – Moggill, Brisbane Inner – West and Brisbane Inner – North, achieved participation rates of 55.8%, 54.3% and 50.1%, respectively. This is in comparison to areas including Caboolture, Bribie – Beachmere and Redcliffe which demonstrated lower participation rates of 37.1%, 39.6% and 41.9%, respectively (AIHW, 2022d). **BreastScreen Australia** Women between the age of 50-74 years are eligible for breast cancer screening. In 2018-19, 49.5% of women participated in a breast screen, out of a possible 136,730 who were eligible. This a decrease from 54.3% in 2014-15. Participation peaked in the 65-69 year age cohort, at a rate of 53.3%. In comparison to Australia (46.5%) and Queensland (51.1%), Brisbane North is achieving lower participation rates (AIHW, 2022d). There is approximately 14 percentage points between the highest and lowest participation rates in Brisbane North. Areas such as Bribie – Beachmere, Caboolture and Sandgate were achieving the highest rates at 57.5%, 56.7% and 56.5%, respectively. While areas such as Brisbane Inner – West, Brisbane Inner and Sherwood – Indooroopilly were demonstrating the lowest participation rates at 43.2%, 43.2% and 43.5%, respectively (AIHW, 2022d).
Population health	Vaccinations	***Australia's National Immunisation Program (NIP)*** The NIP is aimed at achieving high vaccine coverage of the population to effectively prevent and reduce the burden of vaccine-preventable diseases. ***Childhood Immunisation Program*** Australia has a national coverage target of 95% for childhood immunisations. As of 30 June 2022, overall immunisation rates for the PHN region are 95.75% for children aged one year, 94.99% for children aged two years, and 95.21% for children aged five years (DoH, 2022a). Within the region, childhood immunisation rates for children aged one year ranged from 92.74% in Narangba - Burpengary to 98.06% in Sherwood – Indooroopilly. Immunisation rates for children aged two years tended to be lower when compared to other age groups, and this is consistent with national rates. Bribie – Beachmere and Narangba-Burpengary had the lowest immunisation rates for two year old's, at 91.67% and 92.84% respectively. The proportion of children aged five years who were fully immunised ranged from 91.37% in Bribie-Beachmere to 96.54% in Chermside (DoH, 2022a) ***Aboriginal and Torres Strait Islander Children*** In the PHN, Aboriginal and Torres Strait Islander children as of 30 June 2021 were immunised at comparable rates to non-Indigenous children. Immunisation rates were

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		Aboriginal and Torres Strait Islander Children In the PHN, Aboriginal and Torres Strait Islander children as of 30 June 2021 were immunised at comparable rates to non-Indigenous children. Immunisation rates were 91.69% for children aged one year, 93.71% for children aged two years, and 96.71% for children aged five years (DoH, 2022a). ***Notifiable Conditions*** All diseases that are prevented by childhood immunisations are notifiable to the region's (Metro North) Public Health Unit. Data extracted from Queensland Health's notifiable disease register demonstrates low (<20) to no cases of diphtheria, measles, mumps, poliomyelitis, rubella, and tetanus in the region since 2018. Other communicable diseases prevented by childhood immunisations such as pertussis (whooping cough), rotavirus and varicella (chicken pox/shingles) have seen varying levels of activity since 2016. In 2020, there were 97 cases of pertussis, 47 cases of rotavirus, and 2,355 cases of varicella. This compares to only 6 pertussis, 410 rotavirus and 1773 varicella cases in 2022 (QLD Health, 2022c). ***Influenza*** Data on influenza vaccination in the PHN region are not publicly available. However, cases of lab confirmed Influenza are also presented in Queensland Health's notifiable disease register and can give some indication of the extent in which the disease was spread among the community. In 2022, there were 10,114 notified cases of Influenza, which was a substantial drop in comparison to previous years. In 2021 there were 56 notified cases, 1487 notified cases in 2020, and 14,175 notified cases in 2019 (QLD Health, 2022c).
Service System	After hours	After hours care refers to healthcare provided outside the hours of 8am to 6pm on weekdays, and outside the hours of 8am to 12 Saturday, and all-day Sunday and public holidays. Brisbane North PHN undertook a detailed After Hours Needs Assessment in 2023 which is available to view in detail here: Eight key findings that impact the demand for access to AHPHC were identified: 1. Growing health and mental health needs within Brisbane North PHN. 2. High and increasing cost of in hours services. 3. Limited options and availability of in hours services. 4. Limited knowledge and understanding of services available in the community. 5. Social determinants disproportionately impacting the needs of priority populations. 6. System constraints and challenges negatively impact the provision of services. 7. Services do not meet the needs of priority populations. 8. The relative need for AHPHC services was quantified and analysed at SA3 level. The analysis shows that Narangba-Burpengary SA3 has the greatest need, followed by Caboolture Hinterland, then Caboolture. ***Quantitative*** ***Medicare-subsidised after hours care*** In 2018-19, a total of 463,806 after hours GP services were provided to 234,735 patients residing in the PHN region. This indicates that over 22% of the population accessed after hours GP or medical deputising service (MDS). Within the Brisbane North PHN, females were more likely to use after hours GP services than males, accounting for 55.6% of service usage (AIHW, 2020g).

North PHN, females were more likely to use after hours GP services than males, accounting for 55.6% of service usage (AIHW, 2020g).

Whilst after hours GP services are being used by all age demographics, adults aged 25-44 years and adults aged 45-64 years were the largest age groups for total after hours services claimed, accounting for 29.1% and 21.3 per cent of total services respectively (AIHW, 2020g). This is a slight change in usage patterns from 2017-18, which had showed children aged 0-14 years being the second highest recipients of after hours care.

The trend in service use varies slightly once services are classified as non-urgent or urgent attendances. For urgent attendances, children represent 35.7% of service use, whilst persons aged 25 to 44 years remain the most frequent claimants (29.0%) of non-urgent attendances (AIHW, 2020g).

In terms of regional trends, Caboolture has the highest percentage of total after hours GP services claimed among the Brisbane North regions (AIHW, 2020g). Other regions that had high use of non-urgent after hours services were North Lakes, Narangba-Burpengary, Strathpine and Redcliffe.

GPs providing after hours care

In 2019-20 GPs provided 638,011 after-hours care in Brisbane North (DoH, 2021c). This accounts for 8.5% of total GP services provided in the region in this period. Notably, 32.5% of these services were provided by non-vocationally registered GPs. The patients who most frequently accessed the service were children aged 0-4 years, and adults aged 25 – 34 years.

There are 51 General Practices with opening hours after 6:00pm, and 26 after 7:00pm at least one night per week. This spread is variable across the region. Few after hours services exist in outer parts of the catchment, notably the Moreton Bay North region.

Emergency department low acuity presentations

Low acuity emergency department presentations are defined as emergency presentations at formal public hospital where the patient had a triage category 4 (semi-urgent) or 5 (non-urgent), did not arrive by ambulance or police or correctional vehicle, and was not admitted to the hospital, not referred to another hospital or did not die.

In 2018–19 there were a total of 116,847 ED presentations to facilities in Metro North that were triaged as low acuity (AIHW, 2020i). Of these low acuity presentations, over 48% (or 56,743 presentations) occurred during the after hours period.

Low-acuity, after hours patients in Brisbane North were predominantly young people under 24 years of age, comprising 54.8% of total patients (AIHW, 2020i). Children aged 0 to 4 years were the highest presenting group in this cohort (11/7%), followed closely by the 20 to 24 age group (10.7%).

13 HEALTH

From July 2018 to September 2019, 13 HEALTH received a total of 48,414 calls from the Brisbane North PHN region in the after hours period (QLD Health, 2019). Of these phone calls 2,099 were from people who were of Aboriginal and/or Torres Strait Islander descent. The most frequent after hours users of 13 HEALTH are identified as being for young children (0 to 4 years of age) accounting for 30.5% of phone calls, followed by adults aged 25 to 34 years (17.8 %). Patients were more likely to be female, comprising 57.2% of total callers. There is a general trend of decline in the usage of 13 HEALTH as people age, demonstrated in the low percentage of use among people aged 75 to 84 years (2.3%), and 85 years and above (1%) (QLD Health, 2019). Of the most frequent reasons for calling 13 HEALTH, almost a third were related to fever, cough, vomiting or irritability in infants and toddlers.

<table>
<tr><th colspan="3">Outcomes of the service needs analysis</th></tr>
<tr><td></td><td></td><td>frequent reasons for calling 13 HEALTH, almost a third were related to fever, cough, vomiting or irritability in infants and toddlers.

People who call 13 HEALTH after hours are more likely to call between 6:00 pm and 9:00 pm, with a third of calls being made in this period. The second busiest after-hours period is from 9:00 pm to 12:00 am, with almost a quarter (22.3 per cent) of calls falling in this period. Usage of the service gradually reduced to 6.6 per cent between the hours of 3:00 am to 6:00 am. Of total after hours calls received by 13 HEALTH, 44 per cent occur during Saturday and Sundays

Some of the trends captured in the consultation presented in the After Hours Needs Assessment (BNPHN, 2020) include:
• for access to primary health and after hours services the busiest period is in the evening up until around 9:00 pm, with it tending to drop off considerably after midnight.
• There was variation regarding the types of reasons for calling a Medical Deputising Service, but common presentations included fevers, nausea, vomiting across age groups.
• Difficulties for MDS accessing all areas across the region is the number of call outs that they may consistently receive in these locations.
• High level of need in Caboolture with many services available in the after hours.</td></tr>
<tr><td>Service System</td><td>Chronic pain</td><td>Chronic pain in Australia (AIHW)
The AIHW has identified that older females, those with long-term conditions, those who stay long in hospital and those who report limitation to daily activities are more likely to experience chronic pain (AIHW, 2020c).

Nationally, the following health conditions are associated with higher rates of chronic pain in 2016: arthritis (61.4%), high blood pressure (48%), other long-term health condition or long-term injury (39.4%), mental health condition (24.8%) and osteoporosis (24.1%). However, when considering rate ratios, people with dementia (or Alzheimer's), arthritis, osteoporosis, mental health condition had a higher comparative risk (>2.5 percentage rate ratio) of reporting chronic pain, than with those without (AIHW, 2020c).

Estimated 2021 prevalence of the above conditions for Brisbane North are described below (PHIDU, 2022):
• Arthritis: 85, 387 people
• High blood pressure: 165,829 people
• Mental and behavioural problems: 111,565 people
• Osteoporosis: 36,357 people

In addition, in 2015-16 people with chronic pain were 3 times more likely to have opioids and other analgesics dispensed, than in those without chronic pain. Drug use is explored further below.

Of chronic pain hospitalisations across Australia in 2017-18, the most common principal diagnoses in patients were as follows (AIHW, 2020c):
• Diseases of the musculoskeletal system and connective tissue – 42.2%
• Symptoms, signs and abnormal clinical and laboratory findings – 11.5%
• Cancer: 7.1%
• Mental and behavioural disorders – 7.0%</td></tr>
</table>

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		Coordination of Health Care Study In 2016, the Coordination of Health Care Study estimates 63,735 people (or 19.7%) of people aged 45 years and over experienced moderate of severe pain lasting longer than six months as a current long term health condition (AIHW, 2021e). This was higher than the national estimate of 18.7%. ***Drug Use*** Pharmaceutical opioids are prescription medications used to treat pain. Nationally there has been a marginal decline in the age-standardised rate of dispensed prescription opioids between 2015-16 and 2019-20, from 58,485 per 100,000 to 53,427 respectively (AIHW, 2021c). This decline is similarly reflected for the same period in Brisbane North, in the number of closed treatment episodes for patients with pharmaceutical opioids as the principal drug of concern. Closed treatment episodes for codeine, morphine, and oxycodone each had an annual average decline of 13%, 7%, 2% respectively, while buprenorphine increased by 15% (AIHW, 2021c). In 2019, the AIHW also identified the growing use of cannabis for medicinal purposes via the National Drug Strategy Household Survey (AIHW, 2019a). Nationally, 1 in 2 people who used cannabis for medical purposes had chronic pain, and that older people (people aged 60 years and over) were more likely than younger people to use cannabis only for medical purposes. In addition, people who used cannabis only for medical purposes were far more like to have a mental illness, very high levels of psychological distress, hypertension, or poor/fair self-reported health. In 2019-20, cannabis accounted for 22.2% (or 2,452) of all closed treatment episodes in Brisbane North (AIHW, 2021c). ***Pain Workforce*** In 2020, there were a reported 16 medical practitioners in Brisbane North who had a primary specialist of “pain medicine” (DoH, 2022b). In addition, considering that pain is associated with musculoskeletal disease, there were 854 physiotherapists in the region for the same period. **Consultation –** Chronic pain was a health condition that was prevalent amongst community respondents and was often accompanied by other health conditions. Practitioners frequently raised the challenges of treating or managing pain, and the need for a multidisciplinary approach or specialist teams in complex patients. Barriers of poor coordination between medical and allied health professions however prevented care. Some practitioners also noted that GPs required education or training for this condition, in numerous aspects of care, including educating patients in allied health entitlements, the need for ongoing reviews or on-referral, the role of imagining, and the association between chronic pain and poorer mental health. A stakeholder organisation also reported patients having poor experiences in care and challenges with medications and mental health.
Service System	Complex and chronic care	***Coordination of Health Care Study*** Between 2014-15 the Australian Bureau of Statistics undertook a national survey looking to gain information on patient experiences of coordination and continuity of care, particularly in those aged 45 years and above with chronic conditions (AIHW, 2021e). Findings of the survey from participants sampled in the Brisbane North region are described below.

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		In 2016 there were over 325,000 people aged 45 years and above in the Brisbane North region (AIHW, 2021e). It is estimated that majority (77.4%) had a long-term health condition. Of those who reported having a long-term condition, high blood pressure (31.9%), arthritis (28.6%), other condition or injury (22.3%) and moderate or severe pain lasting longer than six months (19.7%) were the most commonly reported (AIHW, 2021e). *GP Access* Of the participants, majority (97.2% or an estimated 316,432 people) had a usual GP, most of whom (66.5%) had been a regular patient with their usual GP for 5 years or more (AIHW, 2021e). Over half (53.2%) saw a GP between 2 to 5 times, whilst a further 25.2% saw a GP 6 to 11 times for their own health in the last 12 months. When asked whether the participant's usual place of care has a GP available to visit or talk at a range of after-hours period, 34.4% of respondents reported that a GP was not available for any of those periods (AIHW, 2021e). Of the 21.9% who needed to see a GP but did not go, 40.2% and 25.3% reported that their reason was because they could not get an appointment when needed to and because of the cost of the appointment, respectively (AIHW, 2021e). An "other" response was provided by 50.9% of people as the reason they did not see GP when needed to. Higher quality of care optimises a patient's likelihood of reaching desired health outcomes. Several responses to survey questions in the study potentially demonstrate aspects of poorer coordinated, patient-centred, and holistic care in the management or treatment of complex and chronic conditions. Holistic Care • When asked whether the participant's usual GP asked about things in work or life that affect health, most (31.8%) patients reported that their usual GP always asked, as opposed to usually (26.8%), sometimes (25.6%) or never (16%). • When asked whether the participant spoke to a GP about their own emotional or psychological health in the last 12 months, 76.4% had not spoken to a GP, while the remaining 23.9% had spoken to a GP about their own emotional or psychological health in the last 12 months (AIHW, 2021e) Coordinated Care • There were an estimated 65,510 participants (or 19.2%) of participants who had been to an emergency department for their own health in the last twelve months. Of these people 12.2% reported that their usual GP did not seem informed of follow up needs or medication changes after their last ED visit, while a further 7.8% did not know until the participant told them. • There were an estimated 139,899 participants (or 43.0%) of people who had received care from a health professional for physical health in the last 12 months. Of these, 28.2% of people reported that their usual GP was never informed about care provided by allied health professionals for physical health. • There were an estimated 232,869 participants (or 71.9%) of people who were taking at least 1 or more different medications on a regular and ongoing basis. Of these, 22.3% of people reported that had a health professional did not review all medications in the last 12 months. (AIHW, 2021e) Patient-centred Care • There were an estimated 133,512 participants (or 58.2%) of participants who considered that they were "always" involved in decisions about care or treatment for their own long-term condition, as opposed to participants who reported said "usually", "sometimes", or "never" at rates of 20.5%, 8.4% and 9.9%, respectively. • There were an estimated 139,592 participants (or 61.1%) of participants who received help to make a treatment plan for their long-term condition(s) that could

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		be done in daily life. The remaining 39.1% did not receive help or did not know I they received help. (AIHW, 2021e) ***Patient Experiences Survey*** The Patient Experience Survey is a survey that has been conducted every financial year since 2013-14 and collects self-reported measures of experience across the health care system in people aged 15 years and over (AIHW, 2020g). The survey found that 16% of Brisbane North adults saw three or more health professionals for the same condition in the preceding 12 months in 2019-20 (AIHW, 2020g). This gradually increased from 13.9% in 2014-15. The national percentage for this measure has remained relatively stable at 16-17%. *Estimated number of people not provided. **2019-20 GP Services** In 2019-20 there were 333,963 chronic disease or complex care management services provided by GPs in Brisbane North (DoH, 2021c). The patients who predominantly received these services were the following age groups: • 42,644 services or 13% of total, 45-54 years • 56,557 services or 17% of total, 55-64 years • 75,020 services or 22% of total, 65-74 years • 58,622 services or 18% of total, 75-84 years • 23,066 services or 7% of total, 85+ years In total, persons aged 45+ years received 70% of total chronic disease or complex care management services from Brisbane North GPs. Trend in accessing chronic disease or complex care management from GPs peaks in the 65-74 year cohort but is lower in younger and older age cohorts (DoH, 2021c). **Potentially preventable hospitalisations** Potentially preventable hospitalisations occur at a higher rate for people aged above 45+ years. In Brisbane North in 2017-18 there were 5,079 hospital admissions for potentially preventable conditions for those aged 45 to 64 years (PHIDU, 2021). This equates to 2,305.7 admissions per 100,000 people. The Brisbane North admission rate is between the national and Queensland rate for this age cohort which were 2,164.9 and 2,599.5 per 100,000 people, respectively (PHIDU, 2021). People aged 65 years and above accounted for 10,383 hospital admissions for potentially preventable conditions. This equates to 8,175.2 admissions per 100,000 people and is higher than the national and Queensland rate of 6,842.2 and 7,675.4 admissions per 100,000 respectively (PHIDU, 2021).
Service System	Coordination and integration	The consistent lack of coordination and integration across specific health areas throughout this HNA highlights the need for this aspect of care to be stronger and reinforced across the entire service system, and between sectors in Brisbane North. This gap was apparent across nearly all health areas, including children's health, alcohol and other drugs, mental health, and care for older people. There is consistent evidence of a lack of communication between service among providers between public and private systems, in addition to within and between primary and tertiary care. **Consultation –** Consultation with stakeholders revealed the ongoing communication gap between patients and their providers, and the challenges in managing their care across various health settings. Community members noted the burden incurred as patient if this gap existed, and how this further exacerbated challenged in navigating the systems and being able to achieve holistic care. In addition, other opportunities of bridging gaps were also evident between health care and social or welfare systems, including the police,

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Service System	Cost of care	***Out-of-pocket costs for non-hospital Medicare services*** Across Brisbane North in 2016-17, 54.7% of residents incur out-of-pocket costs for non-hospital Medicare services and pay an average cost of $163 (AIHW, 2018c). These incurred costs are higher than the 49.8% of Australians who pay an average out-of-pocket cost of $139 and 48.1% of metropolitan residents who pay an average of $150. Within the region there is considerable variability in the percent of patients with costs and the average payment cost. Brisbane Inner – West has the highest proportion (73.6%) of patients who pay out-of-pocket costs and pay the highest average cost ($266). In comparison, 30.3% of Caboolture patients incur out-of-pocket costs and pay an average cost of $64 (AIHW, 2018c). The percentage of the population incurring out-of-pocket costs and the average cost value is relatively aligned with socioeconomic status (SES) and remoteness. Generally, lower SES or regional areas have a lower percent of patients with costs, while higher SES or inner or western regions have a higher percent of patients with cost. This trend is similarly observed for average and median total cost per patient (AIHW, 2018c). ***Bulk billed GP services*** In 2016-17, 80.5% of all GP attendances were bulk-billed in the Brisbane North region (AIHW, 2018a). Whilst this has gradually increased from 77.4% in 2013-14, Brisbane North has a lower percentage of GP attendances bulk billed in comparison to 85.7% of Australia. ***Out-of-pocket costs for GP, Specialists, Obstetrics and Diagnostic Imaging.*** In 2016-17, 43.2%, 72.6%, 50% and 23.3% of patients incurred out-of-pocket costs for GP attendances, specialist attendances, obstetric attendances, and diagnostic imaging services respectively (AIHW, 2018c). For GP attendances and diagnostic imaging services, a greater proportion of Brisbane North residents pay out-of-pocket costs compared to Australia (33.8% vs 23.5% respectively), while fewer or comparable proportions of Brisbane North residents pay for specialist and obstetric services to Australia (71.9% and 44.2% respectively) (AIHW, 2018c). **Consultation –** Community members, practitioners and stakeholder organisations alike frequently recognised cost or the affordability of health services as a challenge or barrier in accessing care. Bulk billing of GPs and access to allied healthcare through subsidised services, particularly for mental health practitioners, were raised specifically.
Service System	GP care	***GP attendances*** GP attendances have steadily increased between 2016-17 to 2019-20 (AIHW, 2021m). On average in 2019-20 a Brisbane North resident saw a GP 7.1 times a year. This an increase from an average of 5.6 GP attendances in 2013-14. In 2019-20, GPs provided 7,449,378 services to people in Brisbane North. Standard consultations were the most frequent services provided by GPs, accounting for 52.1% of total services. Long consultations, after hours care, and chronic disease management account for 11.7%, 8.6% and 4.5% respectively (AIHW, 2021m). Notably trends in GP attendances correspond with particular communities. Higher GP attendances are demonstrated in areas of lower socioeconomic status (SES) or regional areas and, lower GP attendances are observed in the higher SES or inner-city areas. This trend has persisted from previous years (AIHW, 2021m).

Outcomes of the service needs analysis		
		In the 2018-19 period, 14.2% of Brisbane North residents did not claim a GP attendance. Within the region, areas with the highest percentage of people who did not claim a GP attendance were from Sherwood – Indooroopilly (30.6%), Brisbane Inner – North (26.6%) and Brisbane Inner (24.5%). Conversely, areas with the lowest percentage of people who did not claim a GP attendance were in the following areas: Strathpine 4.9%, Bribie – Beachmere 5.6%, Redcliffe 6.1% (AIHW, 2020h).Conversely, areas with the lowest percentage of people who did not claim a GP attendance were in the following areas: Strathpine 4.9%, Bribie – Beachmere 5.6%, Redcliffe 6.1% (AIHW, 2020h). ***Performance in Quality Improvement Measures (QIMs)*** Of the 10 QIMs that are recorded as part of the Practice Incentives Program, collectively Brisbane North GPs performed poorer in 7 measures in comparison with Australia (AIHW, 2021s). These QIMs relate to: • Blood glucose monitoring in diabetes patients • Smoking status • Height, weight, and BMI • Influenza vaccination in older patients • Influenza vaccination in diabetes patients • Cardiovascular disease risk factors • Blood pressure monitoring in diabetes patients NB: Identified First Nations patients described in "Gap in health outcomes" for Aboriginal and Torres Strait Islander health needs. **Consultation –** GPs were considered positive healthcare providers by community members, however there were concepts that were raised by all those consulted in how GPs influenced a patient's trajectory of seeking or receiving specialist care. This influence is due to a GPs role in providing education and effective management of a patient's health condition, understanding the relationship between co-morbidities, awareness of and referral to appropriate services, and their ability to perform comprehensive health checks. Each of these were all aspects that were raised as lacking to some extent across specific health areas, including older persons support, mental health, and chronic pain.
Service System	Health literacy	Health literacy refers to the skills a person possesses that allows them to comprehend and use health information to benefit their wellbeing. Literature has found that lower health literacy skills result in poorer health outcomes and is strongly associated with some social determinants in health and health inequalities (ABS, 2019). Measuring health literacy in a population is challenging due to varying definitions that exist. This data gap was addressed by the Australian Bureau of Statistics when they undertook the Health Literacy Survey in 2018. The survey aimed to measure Australia's perception of their health literacy skills across 9 domains. The survey found that majority (89%) of Australians found it easy or usually easy to discuss health concerns and actively engage with their healthcare providers (ABS, 2019). Further, 25% of people strongly agreed that they felt socially supported in managing their health, and a 26% of people found it always easy to navigate the healthcare system. Of those who reported lower or poorer perceptions of managing or navigating the healthcare system were people with three or more long-term health conditions or very high levels of psychological distress. (ABS, 2019).

Outcomes of the service needs analysis		
		Further to this, a Queensland Clinical Senate Meeting Report (2018) identified that health literacy was a major identified driver for potentially preventable hospitalisations in Queensland and its variation across regions. An outcome of this forum identified health literacy as an area of action that could be addressed in preventing PPHs.
Service System	Lack of available services	Given service capacity has been identified across several health areas, the lack of availability or access to services across the service system is an issue that encompasses all healthcare provision in the region. Like anywhere in Australia, healthcare provided in Brisbane North region includes those that are funded by national or state governments, health insurance funds, or by individuals and are accessed through tertiary care in hospitals, primary health care services, allied healthcare services, and specialist services. For a community to be healthy, services must therefore be accessible, meaning they are available at the right place and time, and are affordable to those who need it. Due to the evolving COVID-19 environment and its burden on the health and welfare of Australian's, the impact on healthcare use and its subsequent effect on the capacity and ability for the service system to respond in the long-term is still not fully understood. However, prior to the impact of COVID-19, service access had already seen steady average annual growth since previous years in the Brisbane North region: • Alcohol and other drug treatment services: 2.6% increase, since 2015-16 (AIHW, 2021c) • Mental health (MBS subsidised) services: 4.9% increase, since 2015-16 (AIHW, 2021n) • Aged care services: 12.8% increase, since 2016 (AIHW, 2021f) • Total GP attendances: 3.3% increase, since 2015-16 (AIHW, 2021m) **Consultation –** Across all stakeholders who participated in consultation, the lack of availability and access to healthcare services was a frequently identified issue that persisted in all areas of health. Among GPs, 31% identified that a lack of other necessary services was the reason they had nominated a health need. Consumers in contrast, had nominated a lack of appointments available as the top reason which prevented them from accessing care in the community. This barrier of access availability and access was similarly recognised by practitioners and stakeholder organisations alike and was notably attributed to a saturated healthcare system, particularly for services that addressed mental health and alcohol and other drug needs.
Service System	NDIS	The National Disability Insurance Scheme (NDIS) is a support and funding scheme provided to Australians who have a permanent or significant disability. As of 30 June 2021, there where 17,349 people participating in the NDIS in the Brisbane North PHN region (NDIS, 2021). Due to restrictions in public data available further details of participant plan management types, diagnosis, demographics, and accommodation are only available for Brisbane and Caboolture/Strathpine service districts. These service districts do not reflect the Brisbane North PHN region, however, can provide some indication of the people accessing NDIS. Between the Brisbane and Caboolture/Strathpine service districts, there were 26,965 active participants (NDIS, 2021). This is a 150% increase since March 2019 when the two service districts had a total of 10,758 active clients.

Outcomes of the service needs analysis		
		Of these active participants majority (64.0%) reside in the Brisbane service district. The most common diagnosis that participants had were autism (33.9%), intellectual disability (16.2%) and psychosocial disability (11.2%). In total, participants were likely to be children (0-14 years) or adults (45-64 years), accounting for 40.0% and 23.7% respectively. Specialist disability accommodation was accessed by 316 participants, most of whom were Brisbane service district clients. A larger count of participants (n=1,256) lived in supported independent living arrangements (NDIS, 2021). Most participants (50.7%) had their plans managed by a registered provider, whilst 28.8% chose to self-manage plans fully. This is compared to 7.6% who chose to self-manage their plans partly and 12.8% who chose to have the NDIA manage their plans. In the quarter ending 30 June 2021, there were 1,872 active NDIS providers in the Brisbane and Caboolture/Strathpine service districts across all support classifications and disability groups. In total there were 4,215 service providers that have ever provided support to NDIS participants in this same region (NDIS, 2021). **Consultation –** Consumers stated the difficulty of navigating the NDIS environment for people with complex and chronic health conditions and young people with disabilities. This was supported by practitioners who noted that the difficulties arise from fragmented funding sources and duplication of services across programs.
Service System	Palliative care	In 2020, there were a reported 17 medical practitioners in the Brisbane North region with a primary specialty of 'palliative medicine", of which 15.5 were FTE (DoH, 2021b). Health practitioners who reported "palliative care" as their job area consisted of 151 nurses and 3 physiotherapists, which accounted for 132.7 and 3 FTE professions, respectively. Palliative in-patient services are located out of 4 public hospitals in the region, in addition to a community service that supports patients in outpatient or home care settings (QLD Health, 2021b). Alternatively, palliative care is also provided out of private hospitals and by community organisations that offer care in facilities (RACFs and hospices) or in-home. **Consultation –** One stakeholder organisation identified the need for experienced palliative care nurses, and education for family and carers, as well as greater access to home/hospice based palliative care that supports a person's preferred place of dying
Service System	Service navigation	Service navigation refers to the knowledge or resources that support consumers and practitioners in promoting or accessing appropriate and available services that meet a patient's entitlements or eligibility. The healthcare system is complex and can be difficult for both consumers and practitioners, particularly considering the growing incidence of co- or poly-morbidity and social inequity in the community (Carter et al, 2018). The purpose of service navigation is therefore to remove the barriers that exist in the fragmentation and gaps in service delivery. While GPs and primary care are the intended first point of contact with the healthcare system, the responsibility of service navigation remains unclear (Carter et al, 2018) **Consultation –** All stakeholders involved in consultation frequently raised the challenges and ongoing barriers associated with service navigation and considered it a priority for the community. Community members believed they were not knowledgeable of the services available or lacked the support needed to seek out appropriate care. Similarly,

Outcomes of the service needs analysis		
		knowledgeable of the services available or lacked the support needed to seek out appropriate care. Similarly, GPs and practitioners expressed poor experiences with navigation of services, and its impact on the referral pathways of patients. These challenges were not exclusive to one health need, but across many health areas.
Service System	Tele- and digital health	In light of the COVID-19 pandemic, the implementation and greater accessibility of services through tele- and digital health has been important in supporting the wellbeing of the Brisbane North community. Changes to the Medicare Benefit Schedule enabled telehealth consultations to ensure continuity of care and address emerging barriers in accessing services. Between March to August in 2020, 30% of GP attendances across Australia were delivered digitally (AIHW, 2020f). Attendances for other medical practitioners, specialists, obstetrics and allied via telephone and videoconference accounted for 26%, 22%, 11% and 19% of total attendances respectively (AIHW, 2020f). **Consultation –** In consultation with community members, questions were asked regarding their preferences in the use of telehealth to receive care. While responses varied, the narrative around telehealth was generally positive, and accepted in some circumstances (ie scripts, or follow up consultations). Responses from other stakeholders also varied, where respondents shared the value and the challenges associated with telehealth and supported the use of mixed models of service delivery. Some noted opportunities where telehealth could be better implemented.
Service System	Workforce	***Distribution*** As of 2020, Brisbane North had a total of 226,232 health practitioners employed and working in a registered profession (DoH, 2021b). Nurses and midwives contributed majority of the total (54%) while medical practitioners contributed to 17.5% of the total workforce. The proportion of psychologists, physiotherapists, pharmacists, occupational therapists, and dental practitioners fell in the range of 3-5%, while all other health professions were lower (DoH, 2021b) Within the region, majority of practitioners (47.8%) were located in the Inner Brisbane City sub region, followed by Brisbane North (22.5%). Redcliffe – North Lakes, Moreton Bay North, Brisbane West, and Pine Rivers account for the remaining 9.9%, 8.9%, 6.7% and 4.0% respectively (DoH, 2021b). At an SA3 level, it is more apparent that the distribution of the workforce is not equitable, nor account for populations with higher health and service needs. ***GP Workforce*** In 2019-20 there were a total count of 2,293 GPs in Brisbane North of whom 46.7% are female (DoH, 2021c). Of this total count there were 1,322.4 full time equivalents (FTE), 42.4% of whom are female. This total count equates to 1.3 FTE GPs per 1,000 residents or 57% of GPs in our region and is lower compared to the national (77%) and Queensland (71.6%) proportion of full time GPs. The GP workforce is ageing. Majority (614.9 FTE) or 46.4% of GPs are aged between 40-54 years. A further 34.5% (or 456.6 FTE) are above 55 years (DoH, 2021c). **Consultation –** A stakeholder organisation asserted the geographic disparity in health outcomes that exist in Moreton Bay North. It was noted how numerous aspects of the community in that region, including poorer health literacy, poor transport options, and a growing population all contributed to poorer health outcomes.

Outcomes of the service needs analysis – Norfolk Island		
Identified Need	Key Issue	Description of evidence
Service navigation, coordination, and integration (Whole of population)	Service navigation, coordination and integration is essential for sustainable delivery of quality health services on the Island.	**Community Consultation (2022)** • There is a lack of consistency in referring facility/provider on mainland and their integration with NIHRACs. There is a desire for consistency particularly for common procedures in both planned and emergency care situations. There are agreed referral and patient-centred pathways, however there is a need to document and communicate these back to community. • Shared health records have been identified as a barrier in achieving a coherent health service system. • There is no clear services framework. This includes an identification of the services that exist alongside services that are missing and their modality (online or in person) • There is difficulty for the private sector in establishing an on-Island business given the small market, position, and broad scope of services through NIHRACS (KPMG, 2019).
Aged Care support and services	There is a great need for financial support to provide complex services, home based therapy, and retirement options for older people.	**Quantitative** The proportion of older people living on Norfolk Island is vastly higher than that of mainland Australia, and the rest of Brisbane North PHN. Of the population who have actively seen a GP on Norfolk Island in the last 3 years, over 50% are aged 50 years and above (ABS, 2021). **Community Consultation (2022)** There is currently no supported living/independent living accommodation as an additional option prior to resorting to residential care. The community values "aging in place" and the ability to maintain active lifestyles and independence. Currently, older people are often moved away from their community to residential care on mainland Australia. A significant gap voiced by community is an on-Island retirement village: it is either managing at home or the RACF and nothing in between.
Perinatal support for families + 1st 2000 days (Infants, children and Families)	Options and support for birthing, newborns and infants are not available and greatly needed.	**Community Consultation (2022)** Whilst the community acknowledges it is necessary that births take place off island, several people reported the strain this puts on family dynamics. Women are eager to return home soon after birth often considering elective induction, increasing their risk of further intervention in birth, caesarean section, impacting breastfeeding and post-partum recovery outcomes. **Health Practitioner Consultation (2022)** Women have communicated their concerns about lack of continuity of care due to seeing a different doctor on every visit to the GP Clinic. This is stressful for pregnant woman and can result in poor outcomes e.g., reports not being followed up, medical and social history having to be constantly repeated, and results and reports not always being sent to, and available to their chosen hospital on the mainland. Elsewhere in Australia mothers and their newborn receive up to 6 home visits post-partum. The community acknowledges the Child Health Nurse and Midwife offer

		home visits on a needs basis however offering visits as standard care for all families promotes physical, social and mental health and positively impacts on the success of breastfeeding.
Workforce (whole of population)	A need to better manage workforce capability and performance to ensure delivery of quality services to the community	**Health Practitioner Consultation (2022)** Retention of health workforce is difficult due to the remoteness of the community. Subsequently NIHRACS experiences high staff turnover, which results in poor continuity of care. There is insufficient availability of accommodation for new staff/agency/locums which contributes to high staff turnover.
Access to National Disability Insurance Scheme (Whole of population)	Few people on Norfolk access the NDIS due to limited assessment and service options.	**Quantitative** Norfolk Island Hospital Enterprise (2015) reported that 24% of the population had mobility restrictions, and a physical disability was one of the most reported health conditions (R & S Muller Enterprise, 2015). Currently only 2% of the population living on Norfolk Island have current NDIS plans (NDIA, 2023), revealing a significant gap between individuals likely to qualify for the Scheme and the actual number currently accessing. **Health Practitioner Consultation (2022)** • On Norfolk Island, there is no NDIS partner in the community • Lack of regular GP and paediatrician presence (continuity of care) • Lack of ongoing therapy providers on the Island: occupational therapy, speech therapy, psychology, and physiotherapy. • Lack of early childhood supports for children identified with developmental delay that may meet the criteria for early childhood NDIS access. • General lack of understanding of NDIS and the processes for access and thereafter as well as the role of other agencies on the Island in relation to NDIS. • Communication challenges exist, for example with telehealth appointments, as there is often poor internet and phone coverage.
Disease Prevention (older people)	Screening for all cancers must be implemented and recorded consistently.	**Community Consultation (2022):** • There are reportedly low rates of activity related to health screening for bowel, breast, and cervical cancer on island (some of this is a data collection issue rather than low screening rates). • It has not been possible to determine rates of skin cancer checks, however it is reported as low by residents. • Mammogram equipment is now on the Island. Bowel cancer collection method is inappropriate for Norfolk Island due to postal delays

Palliative care **(Whole of population)**	There are no palliative care options available on-Island.	**Community Consultation (2022):** There is no palliative care provided on Island. This means that Norfolk Islanders can only access appropriate end-of-life care away from home on the mainland. Community has noted that from a visiting GP/specialist perspective, there needs to be greater awareness of traditional customs and community supports on island related to palliative care.
Quality data (Whole of population)	Poor data quality is reducing the visibility of community need	**Quantitative** Census data reveals high rates of missing data and/or invalid responses to core items. This has limited the interpretability of the population-level data. Similarly, the NIHRACs data does not match either the Census data, or the community-reported rates of disease morbidity. Unfortunately, the lack of quantitative data has negatively affected the reportability and advocacy for most of the health and service needs identified in this report. **Community Consultation (2022)** Feedback in the Health Needs Assessment Workshop (Dec 2022) indicated that the Census and General Practice quantitative data presented was not accurate of several conditions and health needs. Community expressed challenges in maintenance of privacy and confidentiality in the delivery of health and community services. Residents and practitioners are not comfortable disclosing and recording data that could be re-identified. Inconsistent data entry processes in health and community services were also noted.

As relevant, a short summary of how a particular health need is being addressed by current services, highlighting where:

- ***PHNs currently fund services that address the identified health need***
- ***while specific health needs might have been identified within the PHN region, it will not translate into a priority as it is already adequately addressed by other existing non-PHN funded services.***

Currently, Brisbane North PHN utilises the funding available through the PHN Program to address many of the areas identified as health and/or service needs through this HNA. These include:

- Mental health;
- Alcohol and other drugs;
- Older person's health;
- Aboriginal and Torres Strait Islander health;
- Workforce capacity and capability building;
- Quality improvement in primary care; and
- Support navigating the service system

However, the increased demand for support across many areas exceeds what is currently available for the Brisbane North community. Of note, this was particularly apparent in the following areas:

- The need for greater access to affordable quality health services (across all the areas)
- The need for improved workforce capability (across all the areas)
- The need for greater support to navigate the service system (across all the areas)
- The need for improved coordination and integration of services, particularly for those with chronic and complex conditions

Needs identified in this HNA which will not be prioritised are those related to dental and oral ill-health, and disability and NDIS. These are considered outside of scope for the PHN program.

Section 4 – Opportunities and priorities

This section summarises the priorities arising from the Needs Assessment, their coding, and the opportunities for how they will be addressed. This could include priorities that:

- *may be considered in the development of the Activity Work Plan, and supported by PHN flexible funding*
- *may be undertaken using program-specific funding, or*
- *may be led or undertaken by another agency.*

Please note that the pre-provided coding options should be used wherever possible in the first instance.

If 'Other' must be used for either of the priority area or priority sub-category coding, please include your alternative in bold at the top of the expected outcomes column.

Additional rows may be added as required by clicking on a row and selecting the '+' at the far right of the table.

Opportunities and priorities – Aboriginal and Torres Strait Islander Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Gap in health outcomes	*Aboriginal and Torres Strait Islander Health*	*Social determinants*	Reduced gap in health outcomes that Aboriginal and Torres Strait Islander peoples continue to experience. Work together across sectors to Close the Gap by 2032.	Institute for Urban Indigenous Health; Metro North HHS Other Government Preventative Health Agencies Health Equity Steering Committee
Equity in care	*Aboriginal and Torres Strait Islander Health*	*Appropriate care (including cultural safety)*	Improved equity (of access, quality, and experience) for Aboriginal and Torres Strait Islander people in health and community services	Institute for Urban Indigenous Health; Metro North HHS Other Government Preventative Health Agencies Health Equity Steering Committee

Opportunities and priorities – Alcohol and Other Drug				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Dual diagnosis	*Alcohol and Other Drugs*	*Care coordination*	Reduced harm associated with alcohol and other drug use, particularly for those with comorbid mental illness	Alcohol and Drug Partnership Advisory Group
At-risk groups	*Alcohol and Other Drugs*	*Vulnerable population (Non-First Nations specific)*	Equitable access to AOD services for vulnerable populations, in particular older people, children and young people, people from culturally and linguistically diverse communities, and people from LGBTIQ communities	Alcohol and Drug Partnership Advisory Group
Stigma and discrimination	*Alcohol and Other Drugs*	*Safety and quality of care*	Reduced stigma and discrimination experienced by people who access AOD services	Alcohol and Drug Partnership Advisory Group
Support for carers	*Alcohol and Other Drugs*	*Other*	Improved wellbeing of family and carers supporting people who use alcohol and other drugs	Alcohol and Drug Partnership Advisory Group

Opportunities and priorities – Children's Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Developmental vulnerability	*Population Health*	*Early intervention and prevention*	Ensuring the service system is addressing child-specific needs	Health Alliance
First 1000 days	*Population Health*	*Early intervention and prevention*	Ensuring the service system is addressing child-specific needs	Health Alliance
Perinatal and child mental health	*Mental Health*	*Vulnerable population (Non-First Nations specific)*	Reduced burden of mental illness on children, families and young people	Infant, Child & Youth Mental Health Partnership Group; Women's and Newborn Collaborative

Opportunities and priorities – Mental Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Anxiety and depression	*Mental Health*	*Allied health*	Reduced burden of mental illness through improved access to quality mental health services targeting anxiety and depression	Strategic Coordination Group; Psychological Therapies Partnership Group
Lived experience leadership	*Mental Health*	*Workforce*	Increased lived experience leadership	Strategic Coordination Group; Peer Participation in Mental Health Services (PPIMS); Lived Experience Representatives
Crisis support	*Mental Health*	*Emergency response*	Improved access to quality supports for people experiencing situational crises	Strategic Coordination Group Suicide Prevention Strategic Partnership Group Collaboration in Mind
Suicide	*Mental Health*	*Appropriate care (including cultural safety)*	Improved access to quality supports for people at risk of suicide	Strategic Coordination Group; Suicide Prevention Strategic Partnership Group
Stigma and discrimination	*Mental Health*	*Safety and quality of care*	Reduced stigma and discrimination experienced by people experiencing mental illness	Strategic Coordination Group
At-risk population	*Mental Health*	*Vulnerable population (Non-First Nations specific)*	Reduced burden of mental illness for vulnerable populations, in particular older people, children and young people, people from culturally and linguistically diverse communities, and people from LGBTIQ communities	Strategic Coordination Group
Severe and complex mental illness	*Mental Health*	*Care coordination*	Reduced burden of mental illness through improved access coordinated supports for people experiencing severe mental illness	Strategic Coordination Group; Collaboration in Mind
Physical health	*Mental Health*	*Multi-disciplinary care*	Greater focus on holistic care to ensure improved physical health of people experiencing mental illness	Strategic Coordination Group; Collaboration in Mind

Opportunities and priorities – Mental Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Psychosocial supports	*Mental Health*	*Access*	Reduced burden of mental illness through improved access to psychosocial supports	Strategic Coordination Group; Collaboration in Mind Psychological Therapies Partnership Group
Support for carers	*Mental Health*	*Other*	Improved wellbeing of family and carers supporting people experiencing mental illness	Strategic Coordination Group; Peer Participation in Mental Health Services (PPIMS); Lived Experience Representatives

Opportunities and priorities – Older Person's Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Ageism	*Aged Care*	*Safety and quality of care*	Reduced barriers associated with ageism	Healthy@Home Consortium
Chronic disease	*Aged Care*	*Chronic conditions*	Supported healthy ageing in the community through improved access to quality health care for older people experiencing chronic disease	The Health Alliance Team Care Coordination Service and Service Navigation; Metro North Health
Dementia	*Aged Care*	*Chronic conditions*	Supported healthy ageing in the community through improved access to quality health care for people and their families and carers, experiencing dementia	Healthy@Home Consortium; Regional Assessment Service Consortium; Metro North Health Peak Bodies e.g. Dementia Australia; Team Care Coordination Service
Frailty	*Aged Care*	*Early intervention and prevention*	Supported healthy ageing in the community through Improved access to quality health care for people and their families and carers, experiencing frailty	Healthy@Home Consortium; Regional Assessment Service Consortium; Peak Bodies e.g. Dementia Australia; Team Care Coordination Service
Mental health	*Aged Care*	*Access*	Supported healthy ageing in the community through improved access to mental health services	Team Care Coordination Service and Service Navigation Psychological Therapies Partnership Group
Social isolation	*Aged Care*	*Access*	Supported healthy ageing in the community	Healthy@Home Consortium; Team Care Coordination service;

Opportunities and priorities – Older Person's Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
			through improved access to activities to reduced social isolation	Regional Assessment Service Consortium
Specialist and geriatric services	*Aged Care*	*Access*	Improved access to specialist and geriatric services for older people	Health Care Plan for Older People Steering Committee; Healthy@Home Consortium; RACF Collaboratives; Metro North Health
Support for carers	*Aged Care*	*Other*	Improved wellbeing of family and carers supporting for older people	Health Care Plan for Older People Steering Committee; Regional Assessment Service Consortium; Healthy@Home Consortium

Opportunities and priorities – Population Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Lifestyle risk factors	*Population Health*	*Social determinants*	Improved health status of the community through a reduction of lifestyle risk factors	Brisbane North PHN; Health and Wellbeing Qld; My Health for Life
Geographic areas of need	*Population Health*	*Social determinants*	Improved health status of the community through appropriate targeting of vulnerable geographic areas	Brisbane North PHN; Clinical Council; Community Advisory Committee
Patient activation and empowerment	*Population Health*	*Health literacy*	Improved health literacy and agency of the community to address their own health	Brisbane North PHN; Community Advisory Committee Team Care Coordination Service
Screenings	*Population Health*	*Early intervention and prevention*	Improved health status of the community through appropriate screening	Brisbane North PHN; Clinical Council; Community Advisory Committee Queensland Health – Prevention Division (Cancer Screening Programs)

Opportunities and priorities – Population Health				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Social determinants	*Population Health*	*Social determinants*	Improved health status of the community through addressing social determinants of health	Brisbane North PHN; Clinical Council; Community Advisory Committee
Vaccinations	*Population Health*	*Immunisation*	Improved health status of the community through appropriate vaccinations	Brisbane North PHN; Clinical Council; Community Advisory Committee
Genomics	*Population Health*	*Appropriate care (including cultural safety)*	Improved availability of genomics in health care	Brisbane North PHN; Clinical Council; Community Advisory Committee; Clinicians Advisory Group
Potentially preventable hospitalisations	*Population Health*	*Potentially preventable hospitalisations*	Reduction of potentially preventable hospitalisations	Brisbane North PHN; Metro North HHS and PHN Collaborative; Brisbane North PHN & Metro North HHS GPLO Program

Opportunities and priorities – Service System				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
~~After hours~~	~~*Population Health*~~	~~*After hours*~~	~~Improved availability of healthcare, particularly after hours~~	~~Brisbane North PHN;~~ ~~General Practices;~~ ~~Commissioned Providers~~
Chronic pain	*Population Health*	*Multi-disciplinary care*	Improved access to quality health care for people with chronic and complex conditions	Brisbane North PHN; Team Care Coordination Service
Complex and chronic care	*Population Health*	*Chronic conditions*	Improved access to quality health care for people with chronic and complex conditions	Brisbane North PHN; Team Care Coordination Service and Service Navigation; Collaboration in Mind; Strategic Coordination Group
Cost of care	*Population Health*	*Access*	Improved availability of healthcare	Brisbane North PHN; The Health Alliance

Opportunities and priorities – Service System				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
Primary care	*Population Health*	*Practice support*	Improved capability of the health workforce	Brisbane North PHN; Clinical Council; Community Advisory Committee; Brisbane North PHN & Metro North HHS GPLO Program
Health literacy	*Population Health*	*Health literacy*	Improved health literacy and agency of the community to address their own health	Brisbane North PHN Community Advisory Committee; Team Care Coordination Service
Palliative care	*Population Health*	*Palliative care / End of life care*	Improved access to quality palliative care	Brisbane North PHN; Brisbane North Community Palliative Care Collaborative; Peak bodies e.g. Palliative Care Queensland; Metro North Health RACF Collaboratives
Tele- and digital health	*Digital Health*	*Access*	Ongoing availability of digital health in the community	Brisbane North PHN; Brisbane North PHN & Metro North HHS GPLO Program
Service capacity	*Population Health*	*Access*	Improved availability of healthcare	Brisbane North PHN; The Health Alliance
Systems coordination	*Population Health*	*Care coordination*	Improved coordination between health service providers	Brisbane North PHN; Brisbane North PHN & Metro North HHS GPLO Program; The Health Alliance
Systems integration	*Population Health*	*System integration*	Improved integration between health service providers	Brisbane North PHN; Integration Collaborative; Caboolture Hospital Collaborative; Redcliffe Hospital Collaborative; Metro North HHS and PHN Collaborative
Systems navigation	*Population Health*	*Access*	Improved awareness of, and access to, appropriate pathways to care	Brisbane North PHN – Service Navigation functions; HealthPathways
Systems workforce	*Workforce*	*Workforce*	Improved capability of the health workforce	Brisbane North PHN; Healthy@Home Consortium

Opportunities and priorities – Service System				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
				Queensland Network of Alcohol and other Drug Agencies (QNADA) Queensland Alliance for Mental Health (QAMH) Metro North Health

Opportunities and priorities – Service System				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
After hours	*Population health*	*Virtual ED*	The Virtual ED (Metro North HHS) provides individuals with digital access to treatment using a device that enables consultation via telehealth. It provides GPs, QAS and other health care clinicians with access to specialist emergency medicine assessment for individuals.	Metro North HHS, Brisbane North PHN
		Safe Spaces and community mental health	Safe Spaces, Head to Health, headspace and additional services offer individuals support to manage mental and emotional distress either in a physical location or remotely, easing pressure on the ED to address these issues.	Safe Spaces, Head to Health, headspace, Brisbane North PHN
		RADAR and RACF	RADAR (Metro North HHS) operates as a multidisciplinary health team available to RACF residents requiring acute care in place, without physical admission to an ED.	Metro North HHS, Brisbane North PHN, B
		General practice and other mainstream services	General practice and mainstream services are critical for managing chronic conditions and providing continuity of care within the community, combating the risk of issues becoming crises and requiring admission to an ED.	General Practice
		Medical deputising services	MDSs provide individuals with care in place in the after hours period. They are designed to be used typically as a first port of call for episodic conditions that can be managed without presentation to an ED.	General Practitioners, Medical deputising organisations

Opportunities and priorities – Service System				
Priority	Priority area	Priority sub-category	Expected Outcome	Potential lead agency and/or opportunities for collaboration and partnership
		13 HEALTH and other phone-based services	Phone and web-based navigation services for the community and service providers are critical for ensuring the development of health literacy within the region. Services including Head to Health, healthdirect and 13YARN provide the opportunity to understand where a condition can be most appropriately addressed and can ease pressure on EDs by operating as a starting point for individuals requiring care.	Brisbane North PHN, Healthdirect, 13 YARN
		Medicare UCCs & Minor Illness and Injury Clinics (satellite hospitals)	Future Medicare UCCs and Metro North HHS Minor Illness and Injury Clinics in the region are designed to ease pressure on EDs by providing an after hours walk-in care service for non-life threatening situations and episodic care	Metro North HHS, Brisbane Noth PHN
		Digital health and data	Emerging trends in data are presenting service providers with the opportunity to manage the health of individuals more efficiently and holistically, while creating linkages between different services to ensure care needs are met. Likewise, new ways of delivering digital health care allows individuals to stay in place to receive care and avoid unnecessary ED presentations.	Metro North HHS, Brisbane North PHN

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Section 5 - Checklist

This self-assessment checklist can be used to confirm that the key elements of the NA process have been undertaken. PHNs must be prepared, if required by the Department, to provide further details regarding any of the requirements listed below. Refer to the PHN Needs Assessment Policy Guide and the PHN Needs Assessment Completion Guide for further information.

Requirement	✓
Provide a brief description of the PHN's Needs Assessment development process and the key issues discovered.	✓
Outline the process for utilising techniques for service mapping, triangulation and prioritisation.	✓
Provide specific details on stakeholder consultation processes.	✓
Provide an outline of the mechanisms used for evaluating the Needs Assessment process.	✓
Provide a summary of the PHN region's health needs.	✓
Provide a summary of the PHN region's service needs.	✓
Summarise the priorities arising from Needs Assessment analysis and opportunities for how they will be addressed.	✓
Appropriately cite all statistics and claims using the Australian Government Style Manual author-date system.	✓
Include a comprehensive reference list using the Australian Government Style Manual.	✓
Use terminology that is clearly defined and consistent with broader use.	✓
Ensure that development of the Needs Assessment aligns with information included in the PHN Needs Assessment Policy Guide.	✓