



SYDNEY NORTH
Health Network

NEEDS ASSESSMENT

2019-20

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Introduction

Sydney North Health Network (SNHN), which operates the Northern Sydney Primary Health Network, officially launched on July 1st 2015, as a primary healthcare organisation established to:

- ◆ Increase the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes.
- ◆ Improve coordination of care to ensure patients receive the right care in the right place at the right time.

Identifying population groups that are most at risk of poor health outcomes is central to this SNHN Needs Assessment and will inform the subsequent planning and commissioning of services in the region.

The SNHN strategic vision of **‘achieving together – better health, better care’** will drive improved health outcomes in our community by the commissioning of appropriate services that respond to regional need. This will be achieved by planning, coordinating and facilitating the integration of services, bringing all parts of the primary health system together so that patients are best serviced. This will create a better connected primary health care service which responds to the local needs of the community. As part of this journey, SNHN is proactively understanding the health care needs of communities and working directly with general practitioners, other primary health care providers, secondary care providers and hospitals to ensure improved outcomes for patients.

SNHN will achieve this through the organisation’s strategic objectives of:

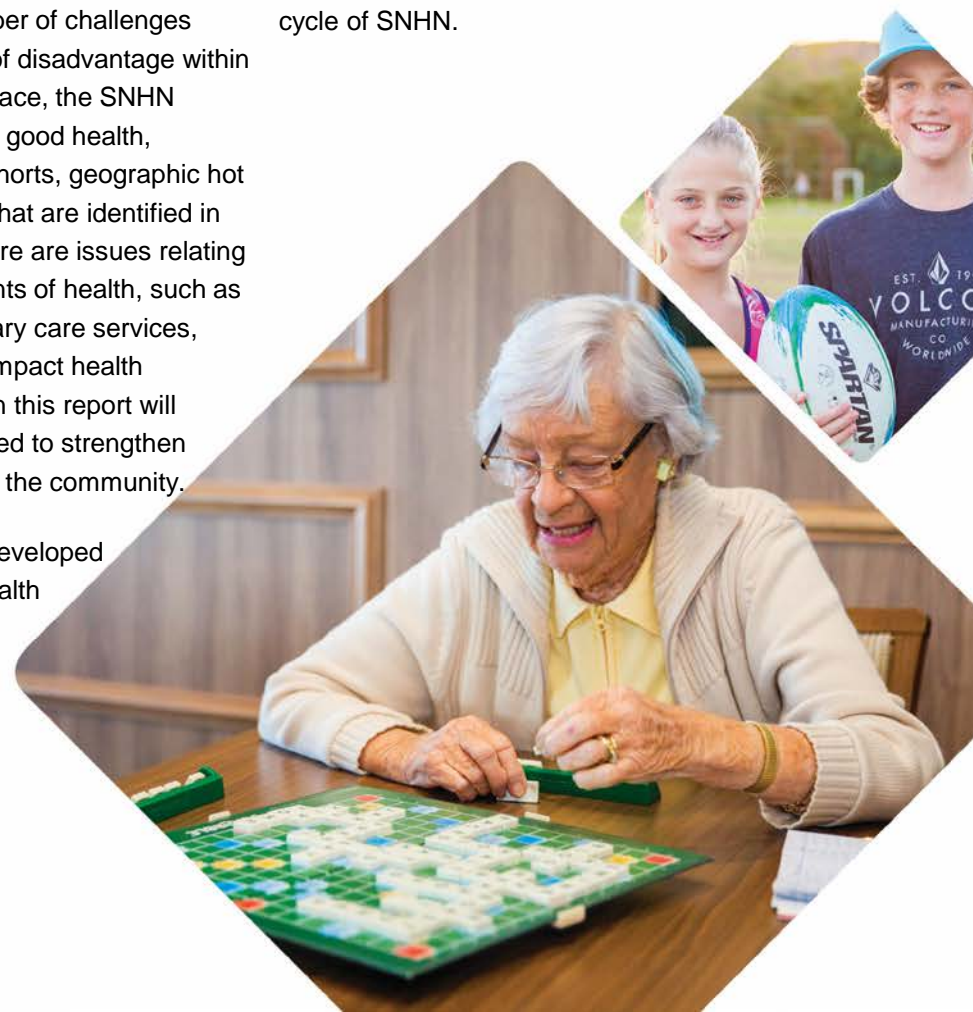
- ◆ Community Activation
- ◆ System Transformation
- ◆ Commissioning
- ◆ Member and Provider Support
- ◆ Organisational excellence

This SNHN Needs Assessment reveals a changing demographic which faces a number of challenges across age groups with pockets of disadvantage within a number of suburbs. On the surface, the SNHN region appears to enjoy relatively good health, however, there are population cohorts, geographic hot spots and specific health issues that are identified in this population health profile. There are issues relating to the impact of social determinants of health, such as access to and navigation of primary care services, stress and addiction, which can impact health outcomes. The issues identified in this report will inform the process and will be used to strengthen engagement between SNHN and the community.

The SNHN Needs Assessment developed a thorough general population health profile for the region, covering 75 separate areas to give a sound snap-shot of the region. Specific detailed investigation into Mental Health, Urgent Care and Health of Older People were identified by both preceding Medicare Local Needs Assessment’s, and

by our partner, the Northern Sydney Local Health District (NSLHD), as the top areas for health concern in the region and were confirmed by the SNHN Clinical and Community Councils for this round of activity.

The SNHN Need Assessment builds upon and compliments findings of the previous needs assessments submitted to the Department of Health and reflects the iterative process of the commissioning and planning cycle of SNHN.



Key Points

Specific points to note, in the order presented in the document (see summary sheets at the beginning of Mental Health, Urgent Care and Health of Older People chapters):

Demography

- ◆ The SNHN population aged 65+ years is projected to increase by 55.1% between 2016 and 2036 (1.1).
- ◆ Compared to NSW, a larger proportion of the SNHN population is born in countries culturally and linguistically diverse (CALD) from Australia (1.2).
- ◆ Over 4,000 people in the SNHN region identify as Aboriginal and/or Torres Strait Islander, however, the population appears to be significantly under-reported (1.4).

Population Health Drivers

- ◆ The SNHN population is relatively less socio-economically disadvantaged compared to NSW and Australia. Pockets of high disadvantage in the region are obscured by the overall high level of advantage in the region (2.1).
- ◆ The proportion of children living in welfare recipient families in the SNHN region is low compared to NSW, however, this still amounts to approximately 9,700 children in the region (2.4).

Population Health Outcomes

- ◆ The average life expectancy in the SNHN region is the highest in Australia, and the premature mortality rate is the lowest. Males have a lower life expectancy compared to females (3.1).

- ◆ Nationally, life expectancy for Aboriginal and Torres Strait Islander peoples is approximately ten years lower compared to non-Aboriginal people (3.5).

Population Risk Factors

- ◆ The SNHN population ranks relatively low on most risk factors, but still has an estimated 64,700 adult smokers and 123,000 adults who are obese (4.1, 4.3).
- ◆ Higher rates of risk drinking in the Northern Beaches LGA compared to the state and national average (4.2).

Long Term Conditions

- ◆ Within the SNHN region, 43.2% of the population has one or more chronic conditions (5.1).

Primary Healthcare

- ◆ GP attendances are lower in the SNHN region compared to NSW (6.3).

Hospitalisations

- ◆ Dental conditions, cellulitis and urinary tract infections make up approximately 40% of potentially preventable hospitalisations in the SNHN region (7.2).

Mental Health

- ◆ Within the SNHN region, 15.8% of people report having a long-term mental health condition (8.1).
- ◆ Intentional self-harm is the leading cause of death in young people aged 15-24 years in NSW (8.11).

- ◆ Self harm accounted for 32% of mental health related emergency department presentations in the SNHN region. Presentations relating to self harm are particularly prominent within the 15-19 year old age group in the SNHN region (8.10).
- ◆ High rates of self-harm among humanitarian entrants, socio-economically disadvantaged people, males aged 75+ years and lesbian, gay, bisexual, transgender and intersex (LGBTI) people (8.14).

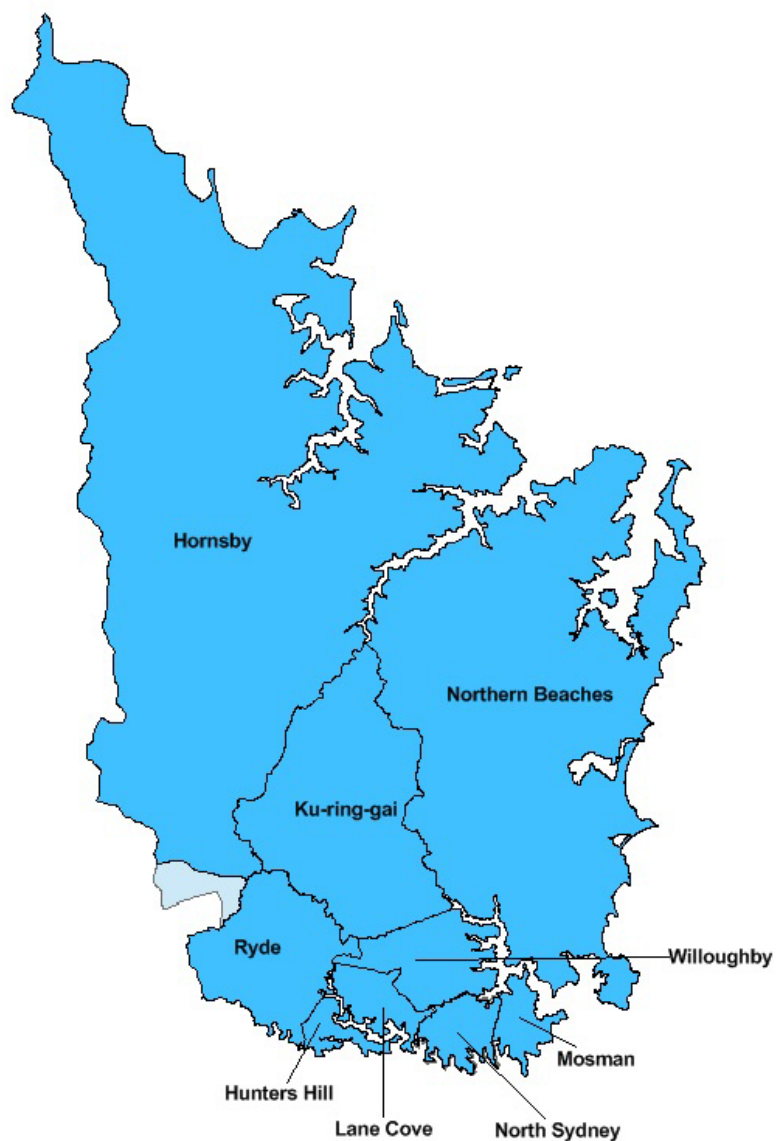
Urgent Care

- ◆ Within the SNHN region, the 0 to 4 years and 80+ years age groups had the highest rates of emergency department attendance of all age groups in the SNHN region (9.3).
- ◆ A third of all Aboriginal people attending emergency departments in the SNHN region came from LGAs outside the SNHN region; twice the rate of the non-Aboriginal population (9.7).
- ◆ The SNHN region has the highest rate of GP after-hours/emergency providers compared to comparator PHNs and the national rate (9.10).

Health of Older People

- ◆ An estimated 40% of SNHN residents aged 75+ years received a health assessment from their GP in the past 12 months (10.3).
- ◆ Falls-related hospitalisations for residents aged 65+ years is higher in the SNHN region compared to NSW. The rate of falls-related hospitalisations in the SNHN region has increased over the last ten years (10.6).

Sydney North Health Network Region



ABS Estimated Resident Population, 2018	
LGA	POPULATION
Hornsby	150,752
Hunters Hill	14,909
Ku-ring-gai	126,046
Lane Cove	39,486
Mosman	30,877
North Sydney	74,172
Northern Beaches	271,278
Ryde	127,446
Willoughby	80,339
SNHN	939,504

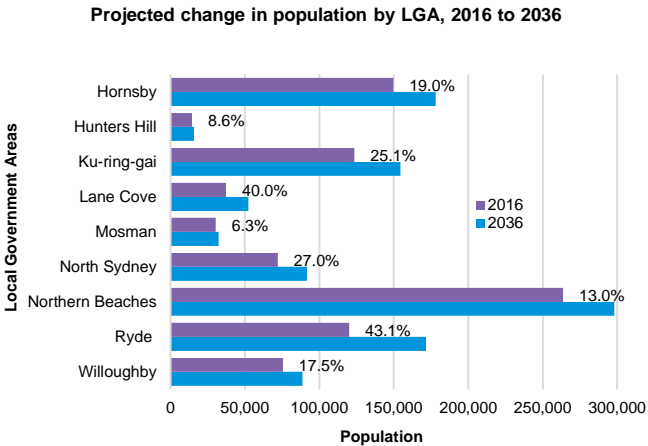
Note: In May 2016, the NSW Government announced the formation of new Local Government Area (LGA) boundaries within the SNHN region. The map presented includes the latest 2016 LGA boundaries, with 12.5% of the Hornsby LGA population now merged with Parramatta LGA, whilst remaining within the SNHN boundary. Manly, Pittwater and Warringah LGAs are now merged to form the Northern Beaches Council.



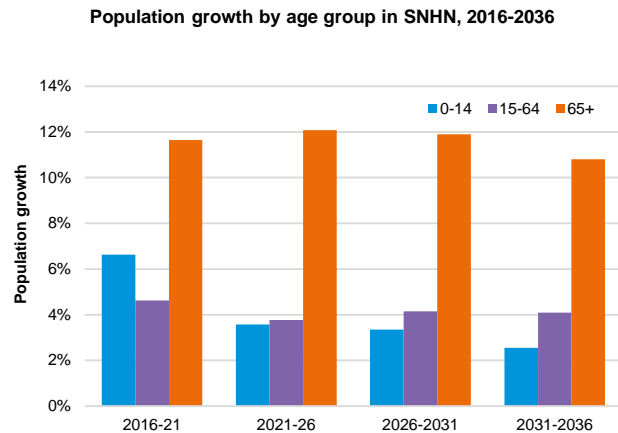
CHAPTER 1

Demography

Growth in the population aged 65 years and over will fuel healthcare demand



Source: NSW Department of Planning and Environment, 2016



Source: NSW Department of Planning and Environment, 2016

WHY IS THIS IMPORTANT?

Population size, and projected population growth in a region provides an indication of expected demand for health services in the future. This impacts health service facility and workforce planning as the PHN will need to consider how much more capacity will be required over the coming years and whether the appropriate workforce exists to meet the projected demand.

AVAILABILITY AND ACCURACY OF DATA

The Estimated Resident Population (ERP) is the official estimate of the Australian population. It is calculated by the Australian Bureau of Statistics (ABS), using population counts from the most recent census, adjusted for subsequent components of population growth including births, deaths and migration.

The Department of Planning and Environment calculate population projections based on the ERP supplied by ABS. The projections are not targets, and actual figures will vary, particularly at the LGA level. Projections are based on assumptions that take into account recent and current trends for births, deaths and migration.

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The SNHN region has a total ERP of 939,504 (2018). Between 2016-2036, the SNHN population is growing at a lower rate (23.5%) compared to NSW (28.1%). By 2036, the region is expected to have an additional 213,330 residents living in the area.

At the LGA level, Ryde is projecting the strongest proportional and numerical growth (43.1%) equating to an additional 51,700 residents by 2036. Mosman is projecting the lowest proportional growth (6.3%), equating to an additional 1,900 residents by 2036.

Growth is expected to be highest in the older age group. The population over 65 years of age is expected to increase in the SNHN region by 55.1% between 2016-2036, compared to 67.1% for NSW. Ryde (75%), North Sydney (64.3%) and Lane Cove (63.5%) LGAs are expected to have the largest proportional growth in the population over 65 years.

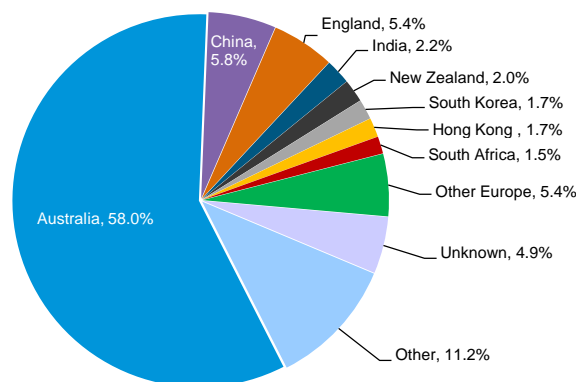
Aged care will become an increasing priority for the SNHN region.

Population growth in the SNHN region is lower than the NSW average

See related content: 10.1 Patient demographics

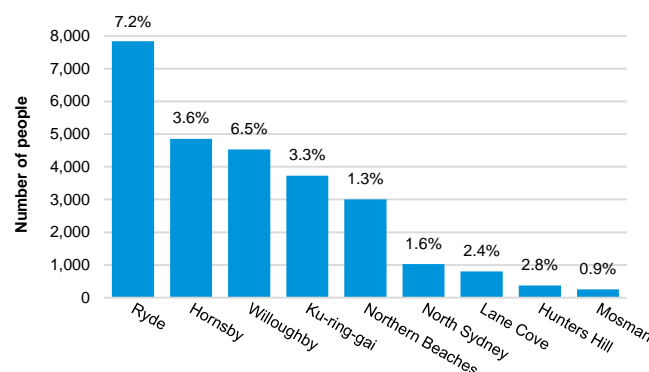
Compared to NSW, a larger proportion of the SNHN population is born in countries culturally and linguistically different from Australia

SNHN population by country of birth, 2016



Source: ABS, 2016

SNHN residents born overseas who do not speak English or do not speak English well, by LGA, 2016



Source: PHIDU, 2018

WHY IS THIS IMPORTANT?

Culturally and linguistically diverse (CALD) populations generally have poorer health outcomes than other population groups, suggesting a need for additional or better targeted health services. The ethnic composition of a population can provide insight into potential health service requirements.

AVAILABILITY AND ACCURACY OF DATA

Population and ethnicity figures are based on the 2016 Australian Census of Population and Housing.

Patient records are another source of demographic data. Data provided by General Practices will provide further information relevant to health service requirements in the future.

SYDNEY NORTH HEALTH NETWORK

The majority of the SNHN population (58%) were born in Australia, although a smaller proportion compared to NSW (65.5%) and Australia (66.7%).

The SNHN region has a larger proportion of people from culturally and linguistically diverse backgrounds (25.7%) compared to NSW (21%), increasing from 22.1% in the 2011 Census. Within SNHN, Ryde LGA has the highest proportion of people from CALD backgrounds (41.9%).

In 2016, 3.4% of the SNHN population born overseas reported that they did not speak English, or did not speak English well; a similar proportion to Australia (2.9%). This equates to more than 28,000 people in the SNHN region who report poor proficiency in English.

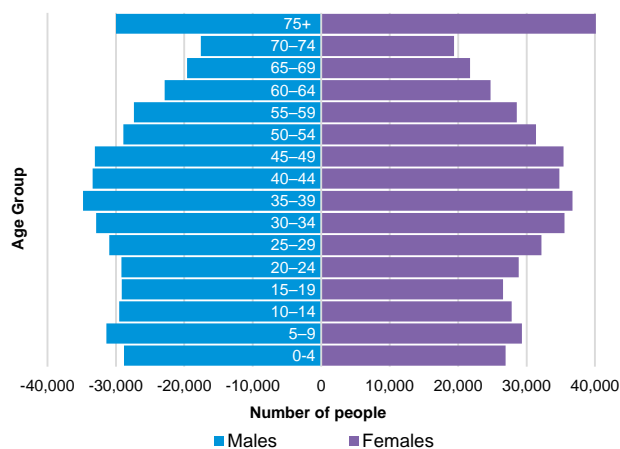
The largest number and highest proportion of people in the SNHN region with poor proficiency in English reside in Ryde LGA (7.2%). Hornsby LGA has the second highest number of people with poor English language skills, although this equates to only 3.6% of the population.

Over one in four people in the SNHN region speak a language other than English, increasing from 23.7% in 2011. Mandarin, Cantonese, Korean, Italian and Spanish are the most commonly spoken languages. Stakeholder consultations have identified refugee population within the region with significant and complex health issues. Further analysis and consultation is required to understand the diverse needs of multiple CALD groups with the region.

Ryde LGA has the largest percentage of residents reporting poor proficiency in English

The SNHN population has a similar age profile to the NSW population

Estimated Resident Population of SNHN region by sex, 2018



Source: ABS, 2019

WHY IS THIS IMPORTANT?

The age structure of a population provides insight into the expected level of need for healthcare services.

Demand for health services are generally highest in those under 5 and over 75 years of age. In planning health services, it is important to understand the age distribution of the population as well as trends and future estimates. This includes workforce capacity.

Understanding the age structure of the population and its implications on service utilisation is also crucial to ensuring service sustainability.

AVAILABILITY AND ACCURACY OF DATA

The Estimated Resident Population (ERP) for 2018, is the most recent population estimate available and has been used throughout this report. The ERP reflects a person's place of usual residence within Australia as indicated in the most recent Census.

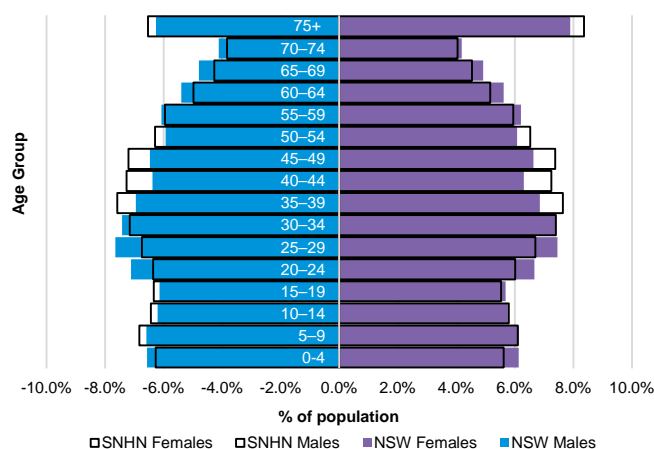
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There is a relatively equal proportion of males (48.9%) and females (51.1%) in the SNHN region with a similar age structure between males and females in all ages groups, except for those aged 75 years and over. Of the population over 75 years of age, 57.4% are female.

There is a smaller proportion of the population under 29 years in the SNHN region (37.3%) compared to NSW (39%). This is most significant in the 20 to 24 and 25 to 29 year age groups. Conversely, the SNHN region has a larger proportion of the population aged between 35 and 54 years (28.6%) compared to NSW (25.8%).

Overall SNHN and NSW have a similar age structure for persons over the age of 55 years, although there is a larger proportion of females in the SNHN region over 75 years compared to NSW.

Age structure comparison by sex for SNHN and NSW, 2018

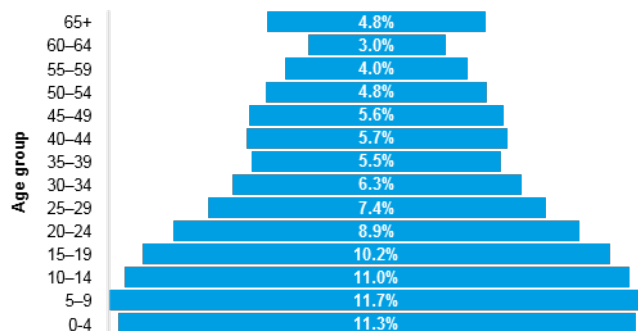


Source: ABS, 2019

See related content: 3.1 Mortality and life expectancy

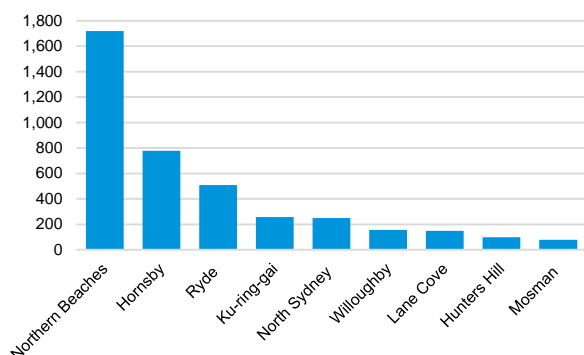
Over 4,000 people in the SNHN region identify as Aboriginal and/or Torres Strait Islander

Aboriginal population of Australia by age group, 2016



Source: PHIDU, 2018

Estimated Resident Population of SNHN Aboriginal Population by LGA, 2016



Source: PHIDU, 2019

WHY IS THIS IMPORTANT?

Aboriginal and Torres Strait Islander people have significantly poorer health outcomes than other population groups, indicating a need for additional, more appropriate or better targeted health services.

Health inequalities exist within the Aboriginal population with higher rates of mortality, lower life expectancy and higher incidence and prevalence of chronic disease.

Approximately 216,000 Aboriginal and/or Torres Strait Islander people were identified as living in NSW in the 2016 Census, indicating a substantial population at risk of poor health outcomes. Understanding the age and geographic distribution of the Aboriginal population is important for ensuring adequate and appropriate healthcare services and to inform the delivery of training and education to healthcare providers to ensure culturally safe healthcare services are available to all Aboriginal people in the SNHN region.

The term Aboriginal people has been used throughout this document to reflect all Indigenous Australians living in the SNHN region.

AVAILABILITY AND ACCURACY OF DATA

Latest data about Aboriginal/Torres Strait Islander status is available at the PHN and LGA level from the 2016 Census. Whilst this data is generally obtained from the Census, however, healthcare providers should also ask and record Indigenous status on individual medical records. Stakeholder consultations have indicated that this data is not consistently obtained or recorded, and that there may be a 'hidden' population of Aboriginal people in the SNHN region.

SYDNEY NORTH HEALTH NETWORK

Within the SNHN region, 4,080 people identify as Aboriginal representing 0.4% of the total population. Together with those Aboriginal people not currently identified, this is a large number of people living in the SNHN region who are at risk of poor health outcomes and low life expectancy.

While the proportion of people in the SNHN region identifying as Aboriginal is substantially lower than Australia (3.3%) and NSW (3.4%) as a whole, the poorer health outcomes and lower life expectancy of Aboriginal people necessitates targeted and culturally safe services, and dedicated efforts to achieve equity of access and improved health outcomes.

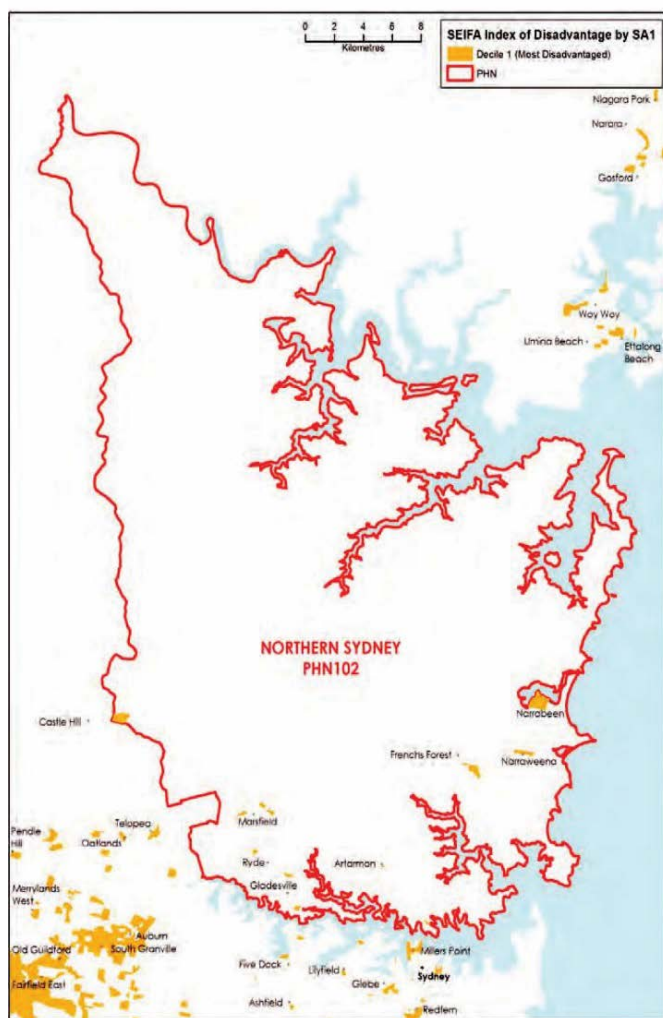
A large number of Aboriginal people, not currently identified, are believed to live in the SNHN region



CHAPTER 2

Population Health Drivers

Pockets of high socio-economic disadvantage are obscured by the high level of advantage in the SNHN region overall



Socio-Economic Indexes for Areas (SEIFA) by SA1 shows pockets of high socio-economic disadvantage in SNHN.

Source: Department of Health, 2018

WHY IS THIS IMPORTANT?

Socio-economic status points to the broader determinants of health in a population, and provides further insight into the level of need that exists and the type of services required.

The economic resources available impacts families in a number of ways. For example, a family's ability to afford healthy food can influence the nutrition of children.

AVAILABILITY AND ACCURACY OF DATA

The Index of Relative Socio-Economic Disadvantage (IRSD) assesses the level of disadvantage of residents in a geographic area. It is calculated from residents' employment, income and education status, family composition and English language competency.

A low score on the index indicates a higher proportion of relatively disadvantaged people in an area. All areas are ordered from lowest to highest scores. The lowest 10% of areas are given a decile number of 1 indicating greater socio-economic disadvantage whilst, the highest 10% of areas are given a decile of 10 highlighting socio-economic advantage.

The drawback of this approach is that pockets of relative disadvantage can be obscured by a high overall score.

Latest data is available from the 2016 Census.

SYDNEY NORTH HEALTH NETWORK

SNHN is ranked the least socio-economically disadvantaged PHN in Australia. Ryde is the most disadvantaged LGA in the SNHN region, scoring in the ninth or second highest decile in the NSW rankings. All other LGAs in SNHN are in the 10th, or least disadvantaged decile in both rankings.

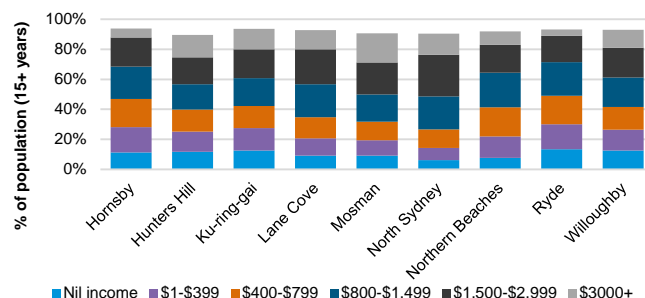
Within the SNHN region, however, there are pockets of high socio-economic disadvantage, falling in the lowest decile in Australia in the IRSD rankings of relative disadvantage. These are found within the suburbs of Artarmon, Allambie Heights, Brookvale, Gladesville, Kirribilli, Macquarie Park, Narrabeen and Narrabeen.

It is also noted that many residents rich in assets may not have a correspondingly high income.

While medical and allied services are plentiful in and around SNHN, bulk billed services are generally only available to concession card holders. This may restrict access to primary healthcare for those on lower incomes; particularly in those areas of high disadvantage.

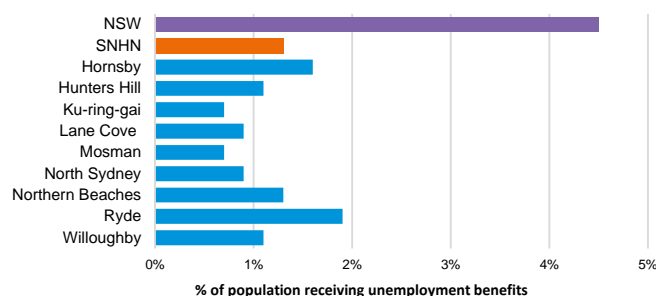
Income, education and employment patterns reflect the low level of socio-economic disadvantage across the SNHN region

Total weekly income of SNHN residents by LGA, 2016



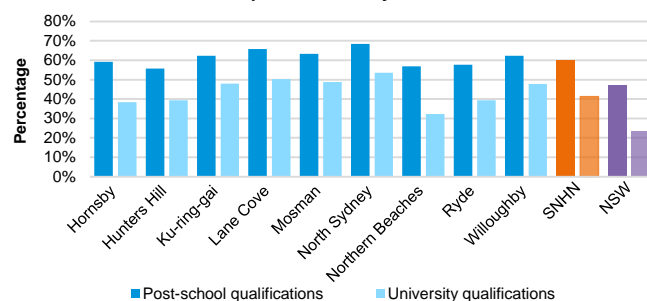
Source: ABS, 2016

Unemployment benefit recipients in the SNHN region, 2017



Source: PHIDU, 2019

SNHN population 15 years and over with post-school and university-level qualifications by LGA, 2016



Source: ABS, 2016

WHY IS THIS IMPORTANT?

Looking more closely at the elements comprising the IRSD scores can help identify population groups and geographies with potentially higher need for health services. Economic factors such as income, occupation and education are powerful determinants of health themselves, but also impact on health literacy and patient empowerment, and consumers' capacity to access appropriate services.

AVAILABILITY AND ACCURACY OF DATA

The 2016 Census provides a range of data on income, education and employment. Within the Census, income and employment related indicators are applicable to people aged 15 years and over. This is the most reliable source of data, however, employment and education status is highly variable. Public Health Information Development Unit (PHIDU) draws on data from the Department of Social Services and University Admissions Centre to provide an overview of the regional variation in education, income and employment.

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Income levels in the SNHN region are higher than the state average, with 9.7% of the population aged 15 years and over earning more than \$3,000 a week in 2016, compared with 3.5% state-wide. There is variation between LGAs with 4.4% of the population in Ryde earning in this income bracket compared to 19.4% in Mosman.

Within the SNHN region, 10.4% of the population reported nil income, compared to 9.3% in NSW. This is likely to be, predominately, self-funded retirees.

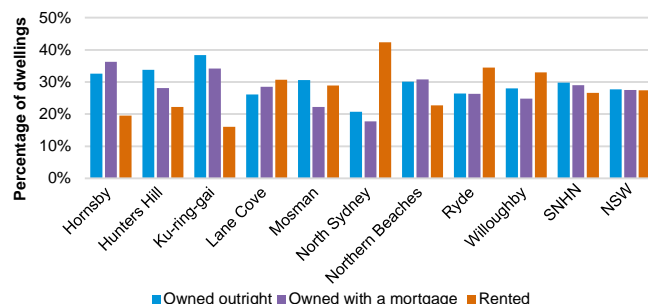
In 2016, 2.9% of the SNHN population were unemployed and looking for work, compared with 3.7% in NSW. There is variation within the catchment with unemployment rates ranging from 2% in Hunters Hill to 4% in Ryde.

The proportion of the population aged 16 to 64 years receiving unemployment benefits in June 2016 was low in the SNHN region (1.3%), less than half of the NSW average (4.5%). This suggests that many of those who are unemployed are not the sole or primary bread winner in the household.

Similar to the 2011 Census, education levels were high in the SNHN region at the 2016 Census with 60.1% of the population aged 15 years and over obtaining a post-school qualification, two-thirds of which were obtained at university level. This is substantially higher than the proportion of NSW residents aged 15 years and over with post-school (47.1%) and university level (23.4%) qualifications. Further, a higher proportion of 15 to 24 years-olds in the SNHN region were either earning or learning (92%) compared to NSW (85%) in 2016.

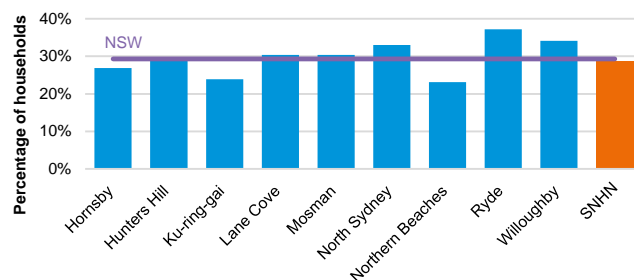
A quarter of low income households in the SNHN region are under financial stress from mortgage or rent

Home ownership rates in SNHN by LGA, 2016



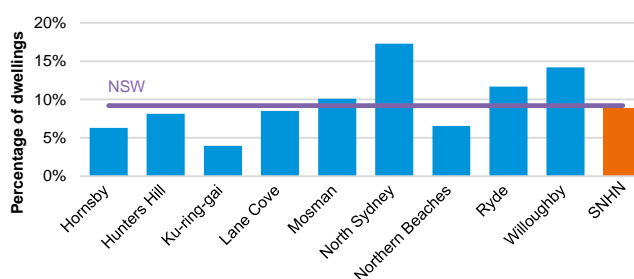
Source: ABS, 2016

Proportion of low income households under financial stress from mortgage or rent in SNHN by LGA, 2016



Source: PHIDU, 2018

Dwellings in SNHN with no motor vehicle by LGA, 2016



Source: PHIDU, 2018

WHY IS THIS IMPORTANT?

Poor quality housing, including inadequate heating and cooling, constitutes a significant health risk particularly for children and older people. High housing costs can also trigger rental or mortgage stress and overcrowding.

Access to transport, public or private, is essential for ensuring residents are able to participate in society, remain active, and access appropriate healthcare services.

AVAILABILITY AND ACCURACY OF DATA

The Australian Census provides data on a range of indicators related to housing, living conditions and private transport, however, this data tends to focus on low income households. Data is not currently available to identify levels of financial or mortgage stress for higher income families, but given the high cost of housing in the SNHN region, this is a real possibility. Limited data exists too on homelessness, or the adequacy of public and community transport in all parts of the SNHN region.

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Rates of home ownership and housing rental in the SNHN region are very similar compared to NSW, however, the proportion of dwellings allocated to social housing is lower in the SNHN region (1.8%) compared to NSW (4%). A lack of public housing within the SNHN region has been identified by stakeholders as a potential concern and will need further investigation.

Overall, 7.3% of households (21,400) were receiving rental assistance in the SNHN region. Ryde had the highest proportion of households receiving rental assistance in June 2016 (12.2%) whilst Northern Beaches had the highest number (5,888).

In 2016, 28.8% of low income households in the SNHN region were under financial stress from mortgage or rent. This is similar to NSW (29.3%), but lower than the Greater Sydney average (33.8%). Ryde, Willoughby and North Sydney have the highest proportion of low income households under financial stress.

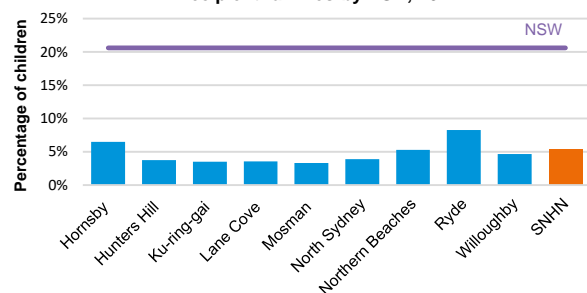
In the 2016 Census, 2,130 people were estimated to be homeless in the SNHN region with the largest numbers in Neutral Bay/Kirribilli and Macquarie Park/Marsfield (Statistical Area level 2).

The rate of motor vehicle ownership in the SNHN region is the same as other capital cities in Australia. In the SNHN region, 8.8% of dwellings do not own a motor vehicle, similar to 9.2% in NSW.

SNHN has an extensive bus service that operates throughout the region. The Sydney Metro train service opened in May 2019, providing train services from Chatswood to Rouse Hill. Improvements continue to be made to transport infrastructure and bus services in and around the Northern Beaches. Many of these link to the new Northern Beaches Hospital in Frenchs Forest which opened in 2018. It is unclear how well the public transport system meets the needs of all population groups in the SNHN region.

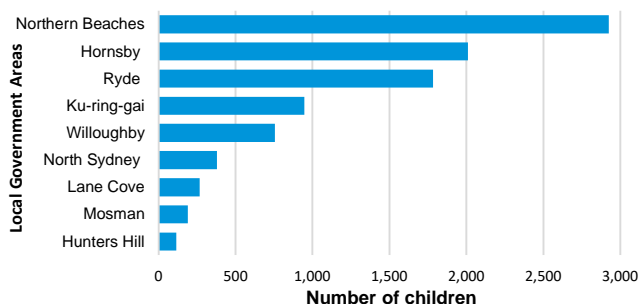
Approximately 9,700 children in the SNHN region were living in low income, welfare-recipient families in June 2017

Proportion of children in the SNHN region in low income, welfare-recipient families by LGA, 2017



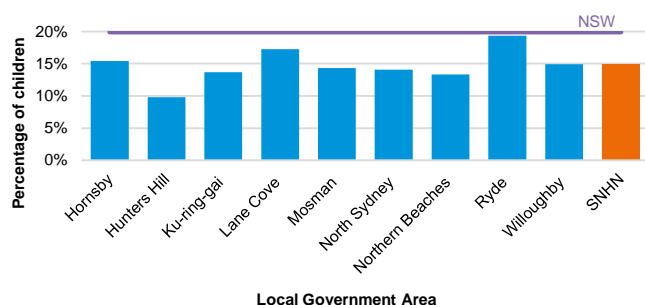
Source: PHIDU, 2019

Number of children in the SNHN region in low-income, welfare-dependent families by LGA, 2017



Source: PHIDU, 2019

Proportion of children in SNHN region in their first year of school who are developmentally vulnerable in one or more domains by LGA, 2018



Source: AEDC, 2019

WHY IS THIS IMPORTANT?

Early childhood experiences have been proven to be a critical driver of health, wellbeing and development over an individual's life. Children experiencing vulnerability and disadvantage are more likely to have low educational outcomes and fewer employment opportunities, and are at greater risk of poor health outcomes.

Poverty is likely to affect young children more than any other group, with all the health and personal consequences that flow from social and economic disadvantage.

AVAILABILITY AND ACCURACY OF DATA

Annual tax returns and family tax benefits have been used to identify children in low income, welfare-dependent families. The determination of low income is based on Poverty Lines: Australia, June Quarter 2016.

The 2018 Australian Early Development Census (AEDC) is a census of children's health and development in their first full year of full-time school providing a measure of children's physical health and wellbeing, social competence, emotional maturity, language and cognitive skills and communication skills and general knowledge. The AEDC presents scores at LGA and PHN level.

SYDNEY NORTH HEALTH NETWORK

The proportion of children in low-income, welfare-recipient families was substantially lower in the SNHN region (5.3%) than NSW (20.6%) in June 2017. This amounts to 9,724 children in the SNHN region living in low-income welfare recipient families; predominantly in Northern Beaches and Hornsby. Ryde has the highest proportion of children (8.2%) living in low-income welfare recipient families.

In 2016, 11.3% of families in the SNHN region with children under 15 years were single parent families, compared to 19.9% in NSW. The proportion of children living in jobless families is also markedly lower in the SNHN region (3.8%) compared to NSW (11.5%). The largest numbers of both single parent and jobless families were in Hornsby and Northern Beaches LGAs while the highest proportion of jobless families were in Ryde (6.1%). All LGAs in the SNHN region had a lower proportion of single parent and jobless families in 2016 compared to NSW.

Children in the SNHN region also score well in early development measures; 14.9% were developmentally vulnerable in 2018 in one or more categories, compared with 19.9% in NSW. Similar to NSW, SNHN children are least developmentally on track in social competence (93.7%) and communication skills and general knowledge (94.1%) and most developmentally on track in language and cognitive skills (97.6%).

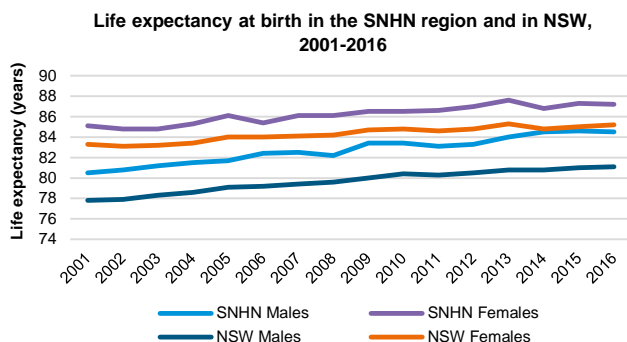
Ryde LGA has the largest proportion of developmentally vulnerable children in the region, requiring further investigation to understand implications for health.



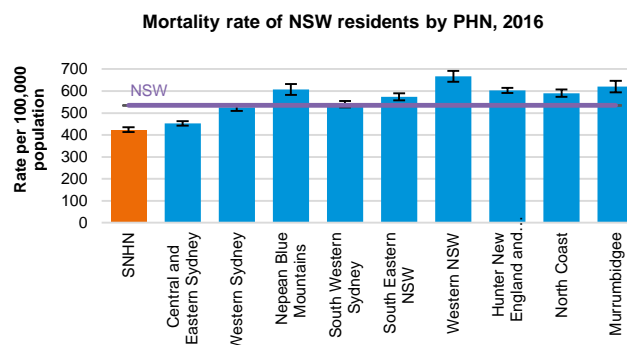
CHAPTER 3

Population Health Outcomes

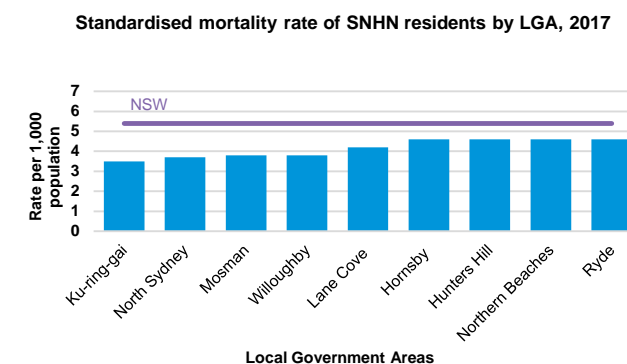
The average life expectancy in the SNHN region is the highest in Australia



Source: Centre for Epidemiology and Evidence, 2018



Source: Centre for Epidemiology and Evidence, 2018



Source: ABS, 2018

WHY IS THIS IMPORTANT?

Life expectancy is a summary indicator of long-term health outcomes. Life expectancy at birth is the average number of years, newborns would be expected to live if current mortality rates remain unchanged through their entire lifetimes. This is not a realistic assumption but gives a comparable summary measure of the current state of health of a population.

Mortality rate is another measure of health status for a population. Mortality rates are used to compare population groups and highlight inequalities in health status.

Age-standardised mortality rates have been used to compare death rates between the SNHN and other PHNs in NSW.

AVAILABILITY AND ACCURACY OF DATA

Life expectancy rates are available for the SNHN region through to 2016 from HealthStats NSW. Mortality rates for all causes for NSW and the SNHN region is available through to 2016.

The ABS age-standardised mortality rate by LGA for 2017 has also been used in this report.

SYDNEY NORTH HEALTH NETWORK

The average life expectancy in the SNHN region is the highest in Australia for both males and females. For residents living in the SNHN region, life expectancy at birth was 85.9 years in 2016, 2.8 years higher compared to the NSW average of 83.1 years in 2016.

Males in the SNHN region had a life expectancy of 84.5 years in 2016, 3.4 years higher than males across NSW. While the female life expectancy of 87.2 years is 2 years higher than for NSW females. Life expectancy is lower among people experiencing socio-economic disadvantage. In NSW, life expectancy for people in the most disadvantaged quintile (83 years) was 4.1 years lower compared to those in the least disadvantaged quintile (87.1 years).

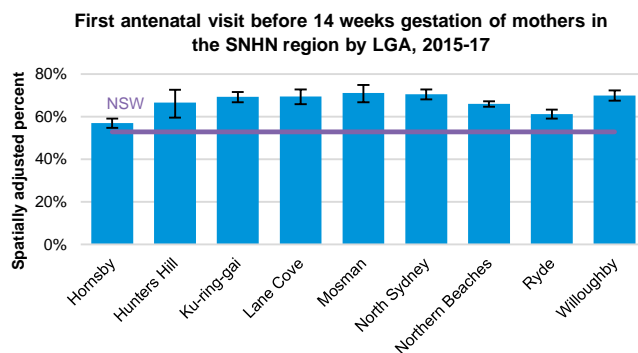
The overall mortality rate in the SNHN region is significantly lower (statistically) than all PHNs in NSW.

In 2016, SNHN had a mortality rate of 424 per 100,000 (95% CI: 413-436) compared to NSW which had a mortality rate of 535 per 100,000 (95% CI: 530-539).

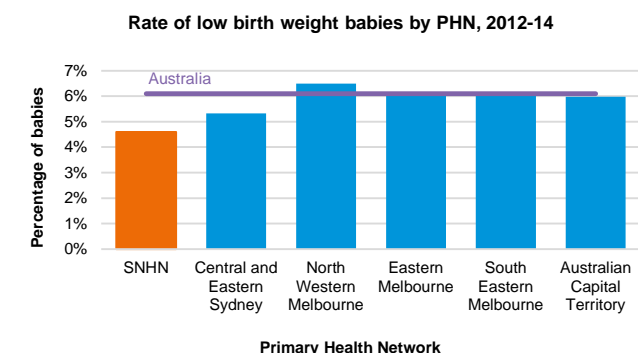
There is some variation in mortality rates between LGAs in the SNHN region. Ku-ring-gai has the lowest mortality rate in the SNHN region, and all LGAs have a lower mortality rate than NSW.

See related content: 3.1 Mortality and life expectancy

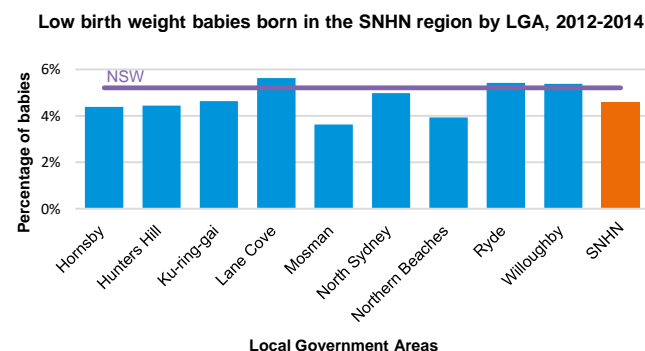
Infant and maternal health is high throughout the SNHN region



Source: Centre for Epidemiology and Evidence, 2018



Source: PHIDU, 2019



Source: PHIDU, 2019

WHY IS THIS IMPORTANT?

Infant mortality is a direct measure of infant health, but is also an indicator of the social wellbeing of an area. It provides insight into a child's social and environmental conditions and is used as a broad measure of population health.

The length of gestation and birth weight of a baby are considered key indicators of infant health, with pre-term birth and low birth weight being associated with poorer health outcomes. Babies born at less than 2,500 grams or before 37 weeks gestational age are at greater risk of neurological and physical problems.

Smoking in pregnancy is a recognised risk to infant health, increasing the likelihood of low birthweight, pre-term birth, foetal and neonatal death and sudden infant death syndrome (SIDS). Receiving antenatal care is also important in identifying and minimising risks to an infant's health.

AVAILABILITY AND ACCURACY OF DATA

The infant mortality rate is the number of deaths of live-born infants, aged less than one year, per 1,000 live births. Data on first antenatal visits by gestational age by PHN and LGA are available from HealthStats NSW for 2017. PHIDU provides data on infant mortality, low birth weight babies and smoking during pregnancy by PHN and LGA for 2010-14.

It is important to note that risk factors during pregnancy are self-reported and may be an underestimate of the true rates.

SYDNEY NORTH HEALTH NETWORK

The fertility rate is low throughout the SNHN region (1.50 compared to 1.66 in NSW in 2017) but birth outcomes and maternal health compare favourably with NSW as a whole and with comparable populations in other jurisdictions.

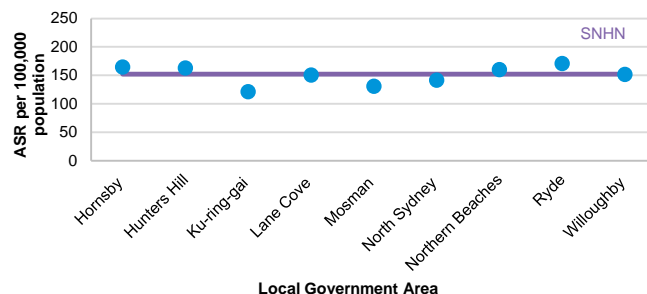
The average annual infant mortality rate between 2010-14 was 2.4 per 1,000 live births in the SNHN region compared to 3.3 in Sydney and 3.7 across NSW. There was some variation between LGAs in the catchment, however, the number of infant deaths in the SNHN region in this period is small making comparisons less meaningful.

In 2017, 80.8% of mothers in the SNHN region attended their first antenatal visit before 14 weeks of gestation compared to the NSW rate of 73.1%. The rate was also higher for mothers in SNHN (95.9%) attending their first antenatal visit by 20 weeks of gestation compared to NSW mothers (90.6%). Smoking during pregnancy is also relatively low in the SNHN region with only 1% of mothers smoking during pregnancy in 2016 compared to the NSW average of 8.3%.

Between 2012-14, 4.6% of babies born in the SNHN region had a low birth weight compared to 6.1% in Australia. The majority of pregnancies (93%) went full term with only 1% of babies delivered at 31 weeks or younger.

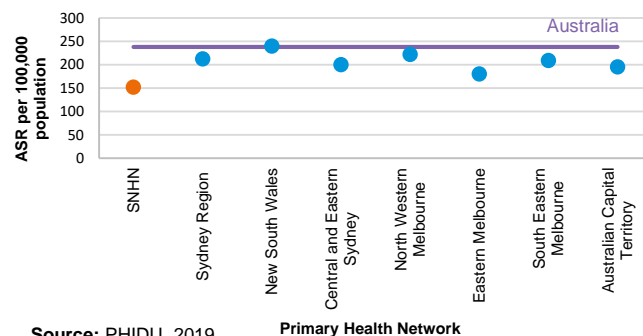
The SNHN region has the lowest rate of premature mortality in Australia

Average annual age-standardised mortality rate of SNHN residents 0-74 years by LGA, 2011-2015



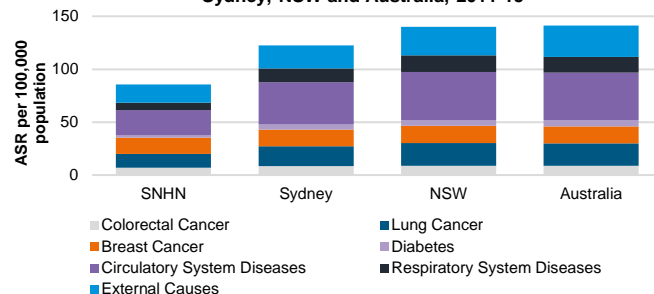
Source: PHIDU, 2019

Average annual age-standardised mortality rate 0-74 years by PHN, 2011-2015



Source: PHIDU, 2019

Premature mortality rate by selected causes in SNHN, Sydney, NSW and Australia, 2011-15



Source: PHIDU, 2019

WHY IS THIS IMPORTANT?

Premature mortality refers to deaths of people less than 75 years of age that might have been prevented if health promotion and/or health treatments had been more effective, or if people had accessed services earlier (either in primary care or in hospital). Premature mortality, also called avoidable or potentially preventable mortality, is often used to portray the overall performance of health services in a region.

AVAILABILITY AND ACCURACY OF DATA

Premature mortality rates are the average, annual, age-standardised rates of death from all causes, per 100,000 population, 0 to 74 years. Premature mortality rates for 2011-15 by LGA have been compiled by PHIDU from Cause of Death Unit Record Files and are indirectly age-standardised.

SYDNEY NORTH HEALTH NETWORK

SNHN residents have the lowest mortality rate within NSW for those aged under 75 years. For 2011-15, SNHN had a premature mortality rate of 152 per 100,000 (95% CI: 148-156) compared to 240 per 100,000 (95% CI: 238-241) for NSW. Each LGA within the SNHN region has a lower premature mortality rate compared to the NSW average.

The SNHN region has the lowest rate of premature mortality in each disease category; cancer, diabetes, circulatory system diseases, respiratory system disease and external causes.

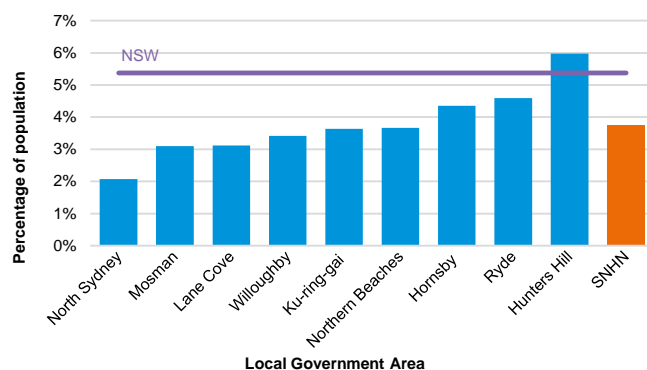
Males in the SNHN region have a higher rate of premature mortality (184 per 100,000; 95% CI: 178-190) compared to females (121 per 100,000; 95% CI: 116-126). The difference is highest in Mosman with a premature mortality rate of 174 per 100,000 (95% CI: 143-204) among males compared to 94 per 100,000 (95% CI: 72-115) among females.

Within the SNHN region, Ryde and Hornsby had the highest rates of premature mortality in 2011-15 at 171 (95% CI: 159-183) and 165 (95% CI: 155-174) per 100,000 respectively. Whilst Hunters Hill shows a high premature mortality rate, there is a degree of uncertainty around the true rate, due to the small number of deaths. Ku-ring-gai has the lowest premature mortality rate at 121 per 100,000 (95% CI: 112-130).

Similar to other PHNs, the main cause of premature mortality in the SNHN region for 2011-15 is cancer, followed by circulatory system diseases. Approximately 50% of premature deaths in the SNHN region could be attributed to cancer, with almost 20% of all premature deaths attributed to lung, colorectal and breast cancers.

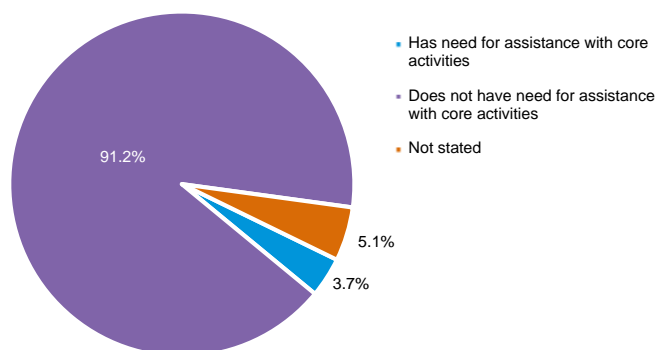
More than 27,000 people in the SNHN region have a profound or severe disability

Proportion of the SNHN population with a severe or profound disability by LGA, 2016



Source: ABS, 2016

SNHN residents reporting need for assistance with core activities, 2016



Source: ABS, 2016

WHY IS THIS IMPORTANT?

People with disability, and their families and carers, have specific, numerous and, often high-level, health and social care needs. This includes physical, intellectual and psychiatric disabilities whether temporary or long term. Disability affects almost one in five Australians. Understanding the prevalence and nature of disability in the SNHN population is essential for the planning and delivery of appropriate services.

AVAILABILITY AND ACCURACY OF DATA

The 'Core Activity Need for Assistance' variable was developed by the ABS to measure the number of people with a profound or severe disability, and to show their geographical distribution.

A person with profound or severe disability needs help or supervision to perform core activities (communication, mobility or self-care), as a result of a disability, long term health condition (last six months or more) and/or old age.

Latest data is available from the 2016 Census.

SYDNEY NORTH HEALTH NETWORK

In 2016, the SNHN region had the lowest rate of profound or severe disability in NSW (3.7%), with all LGAs other than Hunters Hill (6%) below the NSW average (5.4%). The proportion of those with profound or severe disability in SNHN has remained at the same level compared to the 2006 and 2011 Census.

Of the population under 65 years of age, SNHN has the lowest rate of profound or severe disability in Australia, including in Hunters Hill. The highest rate, in Hornsby (1.9%) and Ryde (1.9%) is still well below the state average of 2.9% and the Sydney rate of 2.5%.

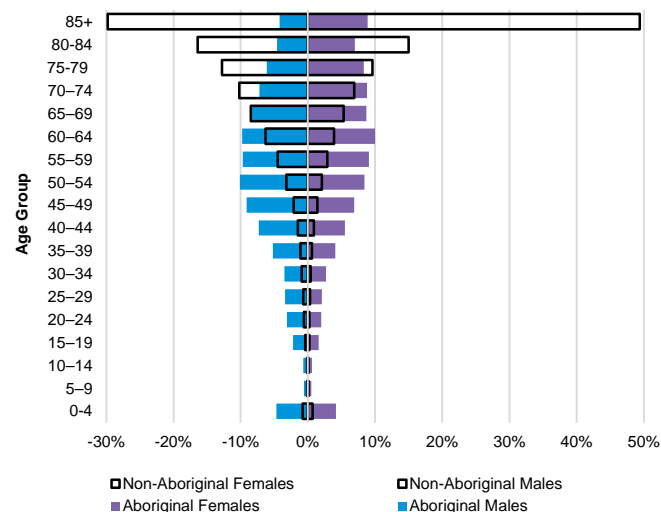
In 2017, SNHN also had the lowest level of disability pension at 2.0%, significantly lower than the NSW rate of 5.3%, and well below comparable PHNs in other jurisdictions.

While the rates of disability are low in comparison with other PHNs, over 32,683 people in SNHN have a profound or severe disability, including 10,500 under the age of 65 and more than 25,000 living in the community.

In addition, in the 2016 Census, more than 77,000 people in the SNHN region indicated that they had provided unpaid care, help or assistance to family members or others with a disability, long-term illness or problems related to older age in the two weeks prior to Census night.

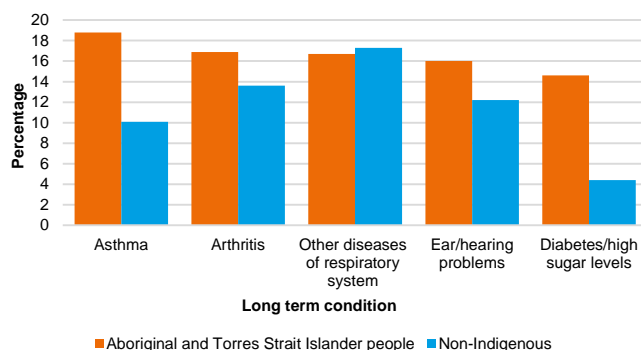
Life expectancy for Aboriginal people is ten years lower compared to non-Aboriginal Australians

Percentage of deaths by age group and sex of Aboriginal and non-Aboriginal Australians, 2011-15



Source: AIHW, 2018

Long-term conditions reported by Aboriginal and non-Aboriginal Australian, 2012-13



Source: ABS, 2014

WHY IS THIS IMPORTANT?

The health of Aboriginal people is considerably poorer than most other Australians; life expectancy is lower for Aboriginal people compared with other Australians, the prevalence of chronic disease is higher, as are the risk factors for chronic disease, and there is a high level of social and economic disadvantage among Aboriginal people. Understanding the health status of, and risk factors for, the Aboriginal population is critical to ensuring appropriate and adequate health services are provided, and to improving health outcomes for Aboriginal people in the SNHN region.

AVAILABILITY AND ACCURACY OF DATA

Extensive data is available on poor health outcomes of Aboriginal people for Australia and NSW, however there is very limited data for smaller geographies including for the SNHN region.

Australian Indigenous HealthInfo Net has prepared an Overview of Australian Indigenous Health in 2015 compiling data from reports published by the ABS and AIHW. Indigenous Health is also addressed in the Australian Institute for Health and Welfare's report on Australia's Health 2016 and Australia Burden of Disease Study 2011, however, SNHN will need to investigate further to better understand the health service needs of Aboriginal people living in the region.

SYDNEY NORTH HEALTH NETWORK

The life expectancy for Aboriginal and Torres Strait Islander people is approximately ten years lower than other Australians, and Aboriginal and Torres Strait Islander adults die at a higher rate at all ages until 70 years of age. In the 35-44 year age group in 2011-15, Aboriginal people died at six times the rate of non-Aboriginal people. The infant mortality rate is significantly higher for Aboriginal and Torres Strait Islander people compared to non-Aboriginal children, and children born to Aboriginal and Torres Strait Islander mothers are twice as likely to be born with low birth weight.

The leading causes of death in Aboriginal and Torres Strait Islander people are circulatory system diseases, cancer and external causes, all of which occur at a higher rate than in non-Aboriginal Australians.

Prevalence of chronic disease is also higher among Aboriginal and Torres Strait Islander people compared to non-Aboriginal Australians, and they occur at a younger age. Nationally, chronic diseases contribute to 64% of the disease burden among Aboriginal people and 70% of the gap in health outcomes between Aboriginal and non-Aboriginal people. In 2008, Aboriginal and Torres Strait Islander people under 65 years were more than twice as likely as non-Aboriginal Australians to have a disability requiring assistance with daily activities.

Lifestyle risk factors that can contribute to poorer health outcomes are also higher among Aboriginal people than non-Aboriginal Australians.

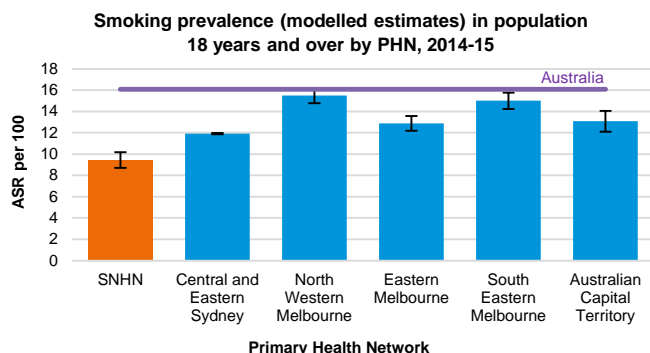
See related content: 4.1 Tobacco smoking, 4.5 Cancer Screening



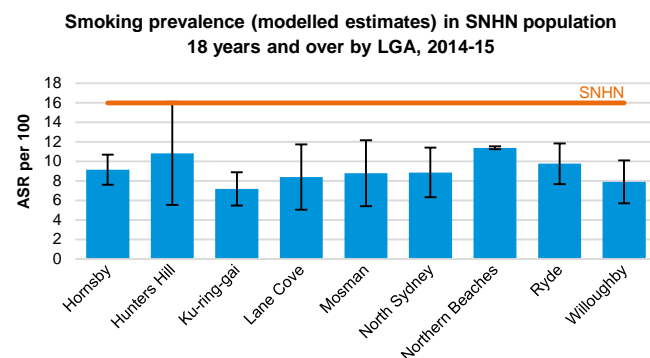
CHAPTER 4

Population Risk Factors

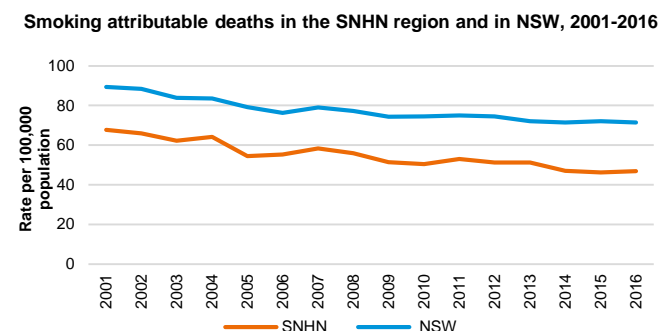
Smoking prevalence is lower in the SNHN region compared to NSW and comparator areas



Source: PHIDU, 2018



Source: PHIDU, 2018



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT?

Tobacco smoking remains the leading cause of preventable burden in Australia. In 2015 it was responsible for 9.3% of the total burden of disease and injury (AIHW, 2019). Smoking harms nearly every organ and system in the body. It is the main cause of lung cancer and chronic obstructive pulmonary disease (COPD) and a major cause of heart disease, stroke and other cancers.

Tobacco consumption in Australia continues to decline; falling from 19.4% of the population 14 years and over in 2001 to 13.8% in 2018 (AIHW, 2019a).

AVAILABILITY AND ACCURACY OF DATA

PHIDU provides modelled estimates (see Appendix B) of smoking prevalence based on the 2014-15 National Health Survey. Data on smoking attributable deaths in NSW and SNHN is presented from HealthStats for 2001-2016.

SYDNEY NORTH HEALTH NETWORK

An estimated 64,700 smokers in SNHN region, with a high prevalence of smoking in:

- ◆ Aboriginal people;
- ◆ Socio-economically disadvantaged people; and
- ◆ LGBTI people

Smoking prevalence in the SNHN region for those aged 18 years and over was estimated (ASR) at 9.5 per 100 (95% CI: 8.7-10.2). This is lower than the ASR for Australia (16.1 per 100; 95% CI: 15.9-16.3) and NSW (16 per 100; 95% CI: 15.6-16.3).

Smoking prevalence is higher in males (11.6 per 100; 95% CI: 10.7-12.5), compared to females (7.4 per 100; 95% CI: 6.8-8).

Within the SNHN region, Ku-ring-gai LGA has the lowest prevalence of smoking with an ASR of 7.2 per 100 (95% CI: 5.5-8.9). Northern Beaches has the highest prevalence of smoking with an ASR of 11.4 per 100 (95% CI: 11.2-11.5).

The rate of smoking attributable deaths in the SNHN region has decreased relatively consistently over time, declining from 67.7 per 100,000 (95% CI: 62.4-73.4) in 2001 to 46.9 per 100,000 in 2016 (95% CI: 43-51). The rate of smoking attributable deaths is lower for SNHN compared to NSW.

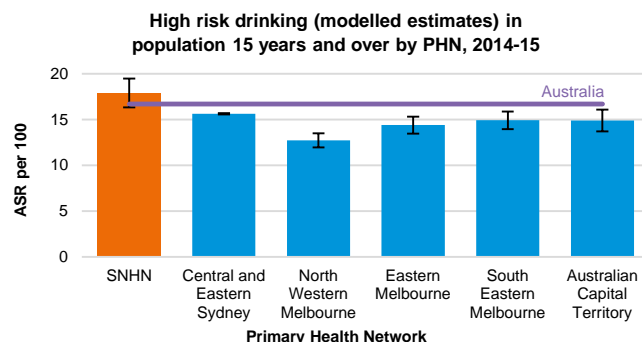
Whilst smoking prevalence is relatively low in the SNHN region, an estimated 64,700 people are current smokers (2014-15). Nationally, daily smoking prevalence is higher among Aboriginal people (27.4%) compared to non-Aboriginal people (11.9%).

There is also a high smoking prevalence among LGBTI populations, with 18.7% of LGBTI people smoking daily compared to 12.1% of non-LGBTI people.

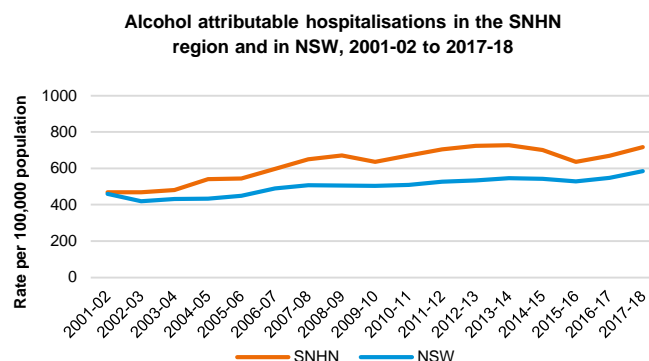
Nationally, prevalence is also higher among those socio-economically disadvantaged with 18.7% of people in the most disadvantaged quintile smoking daily compared to 6.6% in the least disadvantaged quintile.

Whilst smoking prevalence is relatively low in the SNHN region compared to NSW, it remains a public health issue as the leading preventable cause of death. Higher prevalence of smoking in Aboriginal, socio-economically disadvantaged and LGBTI populations highlights specific needs within vulnerable populations.

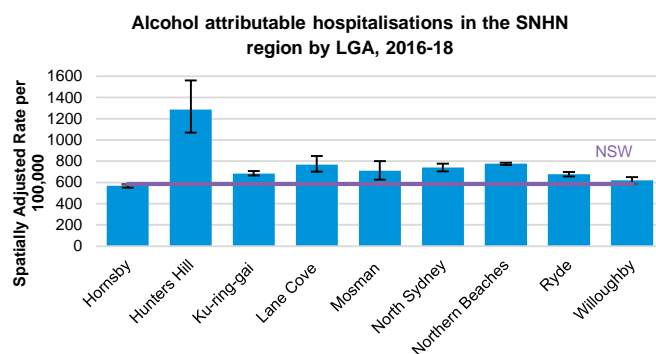
The SNHN region has a higher rate of alcohol attributable hospitalisations compared to NSW



Source: PHIDU, 2018



Source: Centre for Epidemiology and Evidence, 2019



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

Alcohol is responsible for a considerable burden of death, disease and injury in Australia. Excessive alcohol consumption is a major risk factor for conditions such as liver disease, pancreatitis, diabetes and cancer, and is the major cause of road and other accidents, domestic and public violence, crime, and brain damage (NHMRC, 2015).

Alcohol is also associated with social and emotional harms such as family violence, and social dysfunction. Foetal alcohol spectrum disorders may occur when mothers consume alcohol during pregnancy.

AVAILABILITY AND ACCURACY OF DATA

PHIDU provides modelled estimates (see Appendix B) of high-risk drinking, defined as consumption of more than two standard drinks per day on average. Data on alcohol attributable hospitalisations are provided by HealthStats NSW. Further analysis is required to understand the impact of private healthcare utilisation in the region on the rate of alcohol attributable hospitalisations.

SYDNEY NORTH HEALTH NETWORK

The ASR for high-risk drinking among the SNHN population aged 18 years and over for 2014-15 was 17.9 per 100 (95% CI: 16.4-19.5), similar to the rate for Australia (16.7 per 100; 95% CI: 16.5-17) and NSW (16.7 per 100; 95% CI: 16.3-17.2) but higher than comparator PHN populations.

An estimated 128,800 people aged 15 years and over in the SNHN region drink alcohol at levels hazardous to their health.

The SNHN region has a higher rate of alcohol attributable hospitalisations (717 per 100,000; 95% CI: 700-733) compared to NSW (584 per 100,000; 95% CI: 579-589) in 2017-18.

For the past 15 years, the rate of alcohol attributable hospitalisations in the region has been consistently higher than NSW.

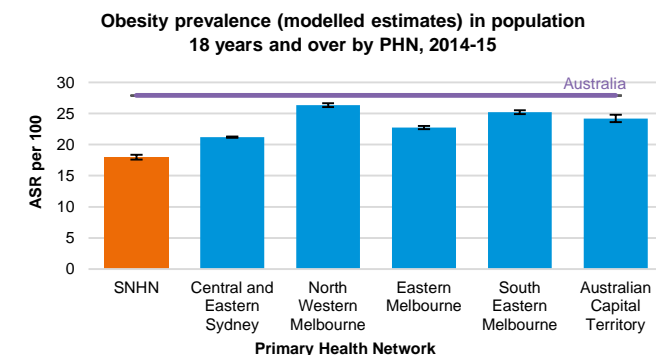
SNHN males (828 per 100,000; 95% CI: 802-854) and females (614 per 100,000; 95% CI: 593-635) have the highest rate of alcohol attributable hospitalisations in NSW.

While Hunters Hill LGA shows the highest rate of alcohol attributable hospitalisations in the SNHN region (1,285 per 100,000; 95% CI: 1,070-1,560), there is a degree of uncertainty around the true rate due to the small population size in Hunters Hill and the underlying method of calculating the spatially adjusted rate.

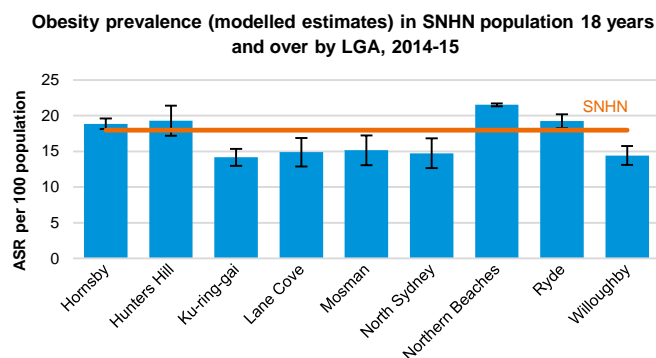
Alcohol attributable hospitalisations are particularly high in Lane Cove and Northern Beaches LGAs compared to NSW. In 2016-18, the spatially adjusted rate for alcohol attributable hospital admissions for Northern Beaches was 777 per 100,000 (95% CI: 766-787) and for Lane Cove was 769 per 100,000 (95% CI: 702-848), compared to NSW (584 per 100,000; 95% CI: 579-589).

In 2017-18, men and women in the SNHN region had the highest rate of alcohol attributable hospitalisations in NSW. Further analysis is required to understand causes of alcohol attributable hospitalisations to support a reduction in rates.

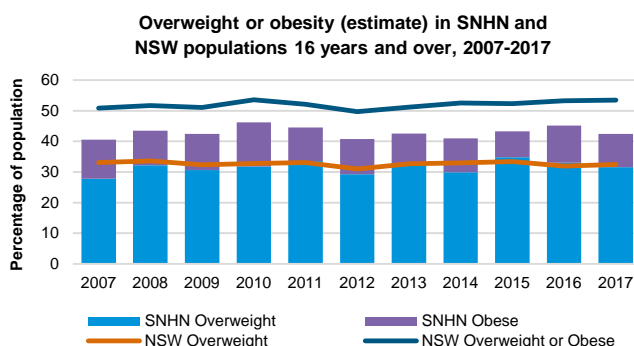
Obesity prevalence is lower in the SNHN region compared to NSW and comparator areas



Source: PHIDU, 2018



Source: PHIDU, 2018



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT?

Rates of overweight and obesity are increasing in Australia with 63% of Australian adults (11.2 million people), and more than one in four children aged 5-17 years (27%) being overweight or obese in 2014-15 (AIHW, 2016).

At a population level, there is a strong association between BMI and health risk. Excess weight is a major risk factor for chronic diseases such as cardiovascular diseases, type 2 diabetes, musculoskeletal conditions and some cancers. Childhood obesity has both immediate and long term impacts on health and wellbeing. Being underweight can also be a health risk, particularly if associated with an eating disorder.

AVAILABILITY AND ACCURACY OF DATA

Data on population height and weight is collected in the 2014-15 National Health Survey. Height and weight are directly measured, allowing body mass index (BMI) (kg/m²) to be calculated for participants and modelled to smaller geographies by PHIDU (see Appendix B).

Obesity is defined as a BMI of 30 or more, overweight a BMI of 25 to 29.9 and a BMI of 18 to 24.9 a healthy weight. A BMI less than 18 is considered underweight. With a BMI of 30+ the risk of harmful health effects increases significantly. Data on childhood obesity or underweight children at the SNHN level is limited.

SYDNEY NORTH HEALTH NETWORK

- ◆ An estimated 123,000 obese adults in SNHN population
- ◆ Higher prevalence of obesity in Northern Beaches LGA

In 2014-15, an estimated (ASR) 18 per 100 (95% CI: 17.6-18.4) of the SNHN population 18+ years were obese, lower than Australia (27.9 per 100; 95% CI: 27.9-28) and comparator PHNs at the 95% confidence level.

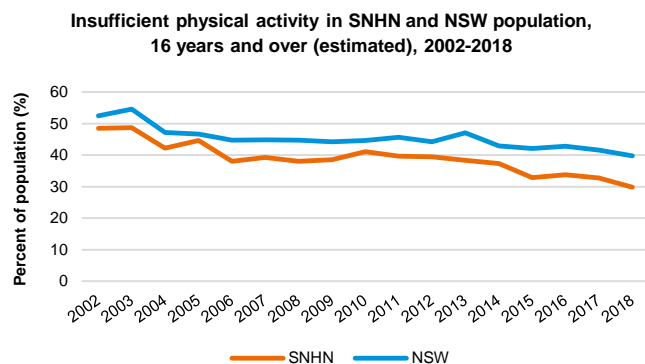
Northern Beaches LGA had the highest prevalence of obesity, with an ASR of 21.5 per 100 (95% CI: 21.3-21.7). This rate however, is lower compared to Australia.

Obesity prevalence for males in the SNHN region (ASR of 18.5 per 100; 95% CI: 18.1-18.9) is higher than females (ASR of 17.4 per 100; 95% CI: 17-17.8). The greater prevalence of obesity in males in the SNHN region is consistent with other PHNs and NSW overall.

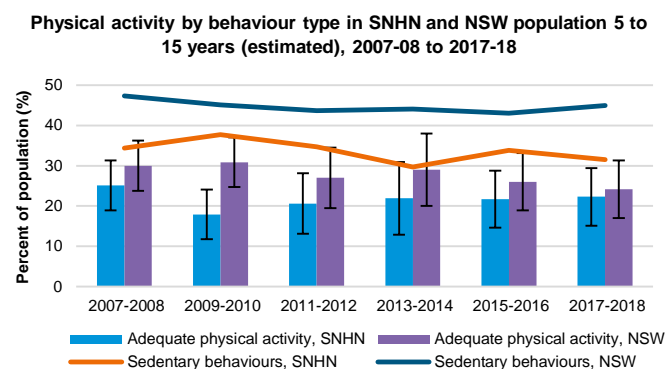
In contrast to the increasing NSW rate, rates of overweight or obesity in the SNHN region show small but not significant fluctuations in rates between 2002 (40.6%; 95% CI: 36.4-44.7) and 2017 (42.4%; 95% CI: 38.3-46.5).

Whilst the prevalence of obesity is comparatively low in the region, it remains a public health issue. A higher prevalence of obesity within Northern Beaches LGA indicates geographic hotspots within the SNHN region, requiring further analysis.

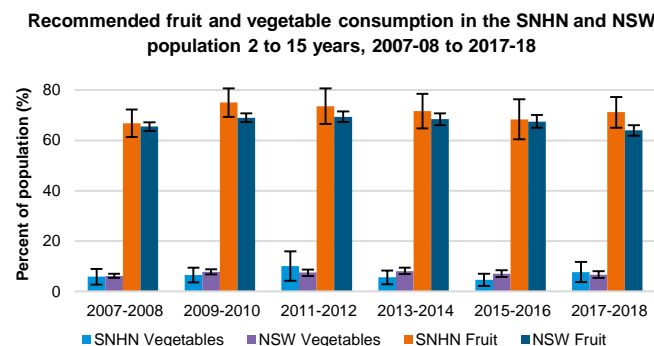
Eight in ten children in the SNHN region are not getting enough exercise



Source: Centre for Epidemiology and Evidence, 2019



Source: Centre for Epidemiology and Evidence, 2019



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

Regular physical activity has many health benefits and plays an important role in promoting healthy weight. Inadequate physical activity is associated with poorer health outcomes and is a risk factor for chronic health conditions such as heart disease, stroke and high blood pressure.

Inadequate physical activity is a key risk factor contributing to disease burden in Australia (AIHW, 2019b). Poor diet with insufficient nutrients and/or excess energy increases the risk of chronic disease including coronary heart disease, stroke, high blood pressure, some forms of cancer, type 2 diabetes and dental caries.

AVAILABILITY AND ACCURACY OF DATA

Adequate physical activity for persons aged 18 to 64 years is defined as the undertaking moderate intensity exercise for a total of at least 150 minutes per week over 5 separate occasions. Adequate nutrition is defined as two or more serves of fruit and five or more serves of vegetables a day for adults.

SYDNEY NORTH HEALTH NETWORK

- ◆ 29.8% of adults do not undertake adequate physical activity;
- ◆ 1 in 3 children have a sedentary lifestyle;
- ◆ Less than 50% of adults and 71% of children have the recommended intake of fruit; and
- ◆ Only 7% of adults and 8% of children have the recommended intake of vegetables

An estimated 29.8% of persons aged 16 years and over (95% CI: 26-33.6) in the SNHN region do not undertake adequate physical activity, lower compared to the NSW average of 39.8% (95% CI: 38.4-41.2) in 2017-18.

One in five children (22.3%; 95% CI: 15.1-29.4) in the SNHN region aged 5 to 15 years were estimated to be undertaking sufficient physical activity in 2017-18. The average for NSW is estimated at 24.2% (95% CI: 21.8-26.6).

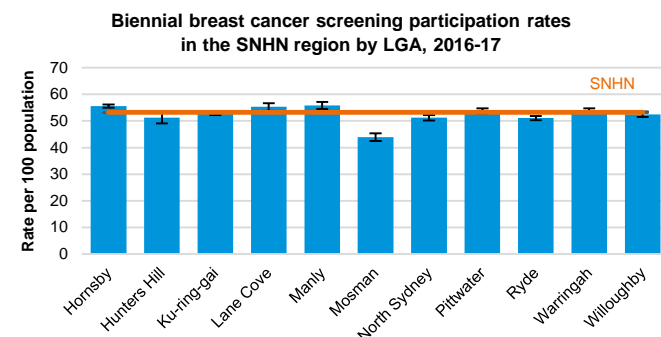
The rate of sedentary behaviour in children aged 5 to 15 years in the SNHN region has remained comparable to NSW over time. In 2007-08, 34.4% (95% CI: 28-40.7) of children in SNHN displayed sedentary behaviour compared to the NSW rate of 47.3% (95% CI: 45.2-49.3). In 2017-18, 31.5% (95% CI: 23.7-39.3) of children in the SNHN region displayed sedentary behaviour compared to the NSW rate of 44.9% (95% CI: 42.2-47.6).

Within the SNHN region in 2017-18, 47.9% of adults (95% CI: 43.8-51.9) and 71.2% of children (95% CI: 65-77.3) have the recommended intake of fruit each day.

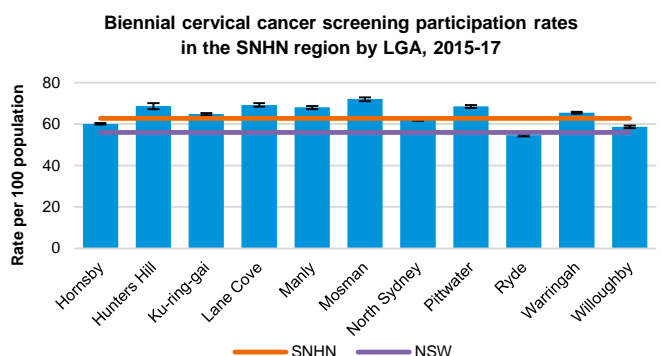
Vegetable consumption in the SNHN region is low, with 6.7% of adults (95% CI: 4.6-8.7) and 7.7% of children (95% CI: 3.7-11.7) consuming the adequate intake of vegetables.

Within the SNHN region, a large proportion of the population do not undertake adequate physical activity and/or consume the recommended daily intake of fruits and vegetables. Lack of sufficient exercise and/or healthy diet has both immediate and long term impacts on the health and wellbeing of adults and children in the SNHN region.

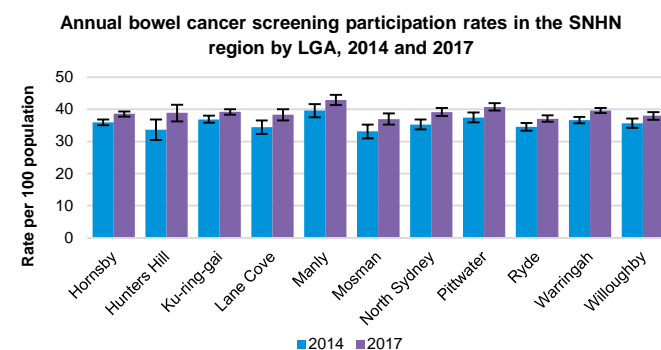
Less than 4 in 10 people in the targeted population participated in the National Bowel Cancer Screening Program in 2017



Source: Cancer Institute NSW, 2018



Source: Cancer Institute NSW, 2018



Source: Cancer Institute NSW, 2018

WHY IS THIS IMPORTANT?

Cancer is a leading cause of death in Australia, responsible for more than 45,000 deaths in 2016 (AIHW, 2019c). Screening rates for breast, bowel and cervical cancers are national headline indicators informing the PHN program.

Cancer has a significant social and economic impact on individuals, families and the community (AIHW, 2019c). Effective cancer screening programs in the population can help to reduce the incidence of late stage cancers and subsequently the social and economic impact (Cancer Australia, 2019)

AVAILABILITY AND ACCURACY OF DATA

Cancer screening rates for the SNHN region have been provided by the Cancer Institute NSW in the Reporting for Better Cancer Outcomes (RBCO) Performance Report 2018 for Northern Sydney PHN.

SYDNEY NORTH HEALTH NETWORK

- ◆ Low breast cancer screening rates in CALD and Aboriginal women
- ◆ Low bowel cancer screening rates

One in two eligible women in the SNHN region participate in biennial breast cancer screening, with a rate of 53.2 per 100 (95% CI: 52.9-53.4) which is similar to screening rates in NSW (53.1 per 100; 95% CI: 53-53.2) in 2016-17. Mosman LGA has the lowest breast cancer screening rate (43.9 per 100; 95% CI: 42.5-45.3) in the SNHN region.

Breast cancer screening rates are lower for women from CALD backgrounds in Pittwater and Mosman LGAs. The rates among CALD women in Pittwater and Mosman were 36.2 per 100 and 38.3 per 100 respectively, compared to SNHN (51 per 100; 95% CI: 50.4-51.6) and NSW (46 per 100; 95% CI: 46.1-46.5) in 2016-17.

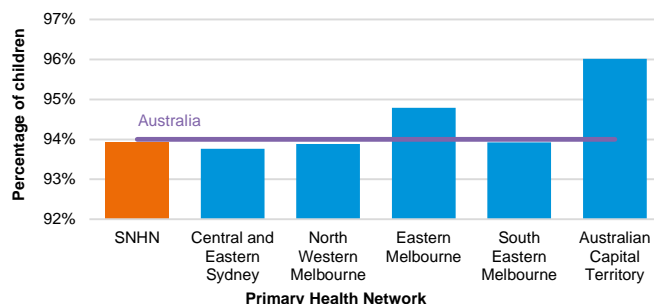
Screening rates for breast cancer among Aboriginal women in SNHN (32.5 per 100; 95% CI: 27.1-37.9) is lower than Aboriginal women in NSW (40.3 per 100; 95% CI: 39.5-41) and for all women aged 50-74 years in NSW (53.1 per 100; 95% CI: 53-53.2) in 2016-17.

SNHN women aged 20-69 years have the highest cervical cancer screening rates in NSW (2015-17). Women in the SNHN region have cervical cancer screening rates of 62.7 per 100 (95% CI: 62.5-62.9) compared to 55.9 per 100 (95% CI: 55.8-55.9) in NSW. There is regional variation in cervical cancer screening rates in the SNHN region.

In 2017, bowel cancer screening rates in the targeted ages of 50, 55, 60, 64, 65, 70, 72 and 74 years were higher in the SNHN region (39 per 100; 95% CI: 38.6-39.3) compared to NSW (36.8 per 100; 95% CI: 38.6-39.3). The proportion of the targeted population participating in the screening is low. Further analysis is required to understand the impact of colonoscopy on bowel cancer screening rates.

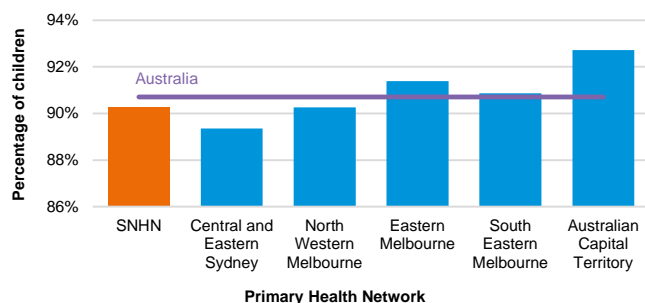
Children in the SNHN region are immunised at lower rates than the national aspirational target of 95%

Children fully immunised at one year of age by PHN, 2018



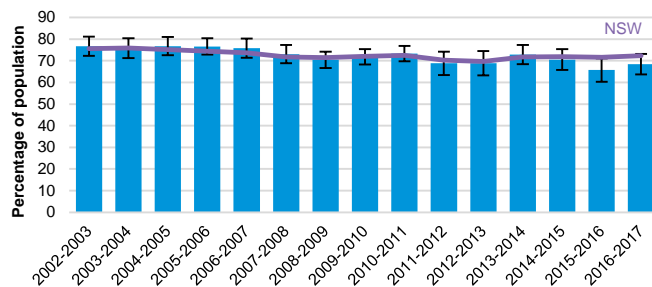
Source: PHIDU, 2019

Children fully immunised at two years of age by PHN, 2018



Source: PHIDU, 2019

Influenza immunisation rates in the SNHN population over 65 years from 2002-03 to 2016-17



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT?

Immunisation can prevent the spread of viruses and bacteria that cause illness and disease. Immunisation creates an immune response in individuals, that builds their resistance to the infectious diseases for which they have been immunised. This can include measles, diphtheria, hepatitis, meningococcal C, and influenza.

Australia has a national aspirational target of 95% immunisation. Measuring childhood immunisation coverage provides a measure of how protected populations are against vaccine-preventable diseases.

AVAILABILITY AND ACCURACY OF DATA

Immunisation rates for children are available for 2018 at PHN and LGA level from PHIDU. HealthStats NSW provides immunisation rates by PHN for influenza and pneumococcal disease for the population over 65 years of age.

SYDNEY NORTH HEALTH NETWORK

- Childhood immunisation rates in SNHN are lower than the national aspirational target of 95%

Immunisation rates of children aged one year in the SNHN region (93.9%) are similar to national (94.0%) and NSW rates (94.0%) for 2018. Mosman (90.0%), Northern Beaches (93.0%) and Ku-ring-gai (93.5%) LGAs had the lowest immunisation rates in the SNHN region in 2018.

Within SNHN, immunisation rates of children at two years of age in 2018 was 90.3% compared to the national and NSW immunisation rates of 90.7% and 90.2% respectively. Immunisation rates were lower in Willoughby (89.4%), Mosman (89.5%) and North Sydney (89.8%) compared to the region, state and national average.

Children aged five years in the SNHN region (92.5%) were fully immunised at a lower rate compared to Australia (94.7%) and NSW (94.6%). Mosman (88.6%) and North Sydney (89.5%) had the lowest immunisation rates. Hunters Hill had the highest rate at 95.3%, however, higher rates may be attributed to variation within Hunters Hill's small population.

Immunisation rates for influenza in those aged 65 years and over are similar to NSW rates and trends over time. 68.4% (95% CI: 63.7-73.2) of people aged 65 years and over in SNHN were immunised for influenza in 2016-17, similar to 72.3% for NSW (95% CI: 70.9-73.6).

Immunisation rates for pneumococcal disease in the SNHN region have also followed the NSW trend, although rates are lower compared to influenza immunisation rates. Less than half the population over 65 years was immunised for pneumococcal disease in 2015-16 (43%; 95% CI: 37.4-48.5), similar to NSW (47%; 95% CI: 45.2-48.8).

Immunisation rates for children aged one, two and five years in the SNHN region vary by age group and geography, but all rates are below the national aspirational target of 95%.

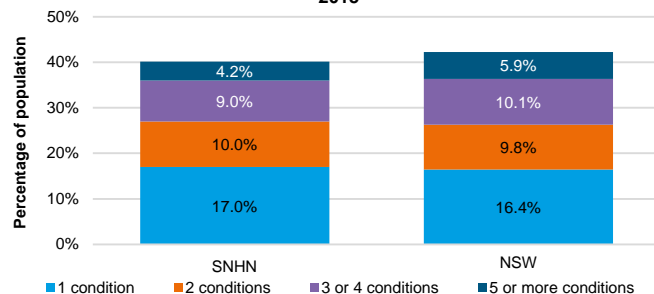


CHAPTER 5

Long Term Conditions

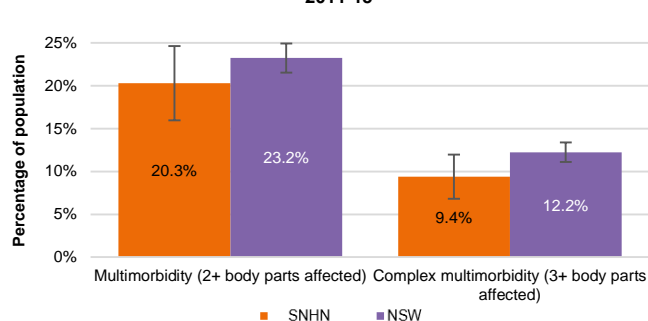
40% of the SNHN population has one or more chronic conditions

The number of chronic conditions of SNHN and NSW residents, 2011-2015



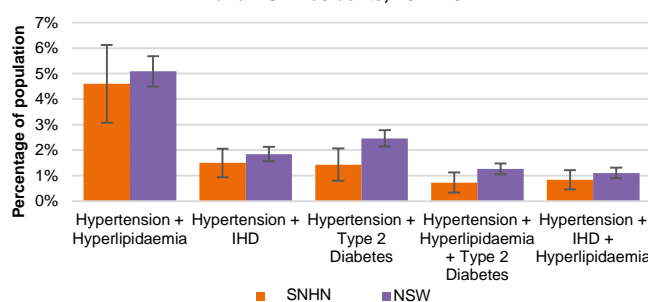
Source: BEACH, 2015

The prevalence of types of multimorbidity in SNHN and NSW residents, 2011-15



Source: BEACH, 2015

The prevalence of multimorbidities in SNHN and NSW residents, 2011-15



Source: BEACH, 2015

WHY IS THIS IMPORTANT?

Chronic diseases are, by definition, long-term health conditions requiring ongoing management. The most common chronic diseases in Australia are cardiovascular diseases, cancers, respiratory diseases, kidney diseases and diabetes.

These conditions often coexist and are largely attributable to four behavioural risk factors; smoking, insufficient physical activity, poor nutrition, and high-risk alcohol consumption.

Chronic diseases are the leading cause of disability and death in Australia and associated with most of the burden of ill health. Approximately one in two Australians has a chronic disease with one in five affected by multiple chronic diseases (AIHW, 2015a).

Comorbidities are associated with poorer health outcomes, more frequent use of health services, and higher healthcare costs (AIHW, 2015a); this includes preventable hospitalisations.

AVAILABILITY AND ACCURACY OF DATA

BEACH program estimates of comorbidities prevalence in the SNHN population have been used in this chapter, together with PHIDU's modelled estimates of prevalence for specific chronic conditions.

The BEACH program estimates are calculated from data provided by a sample of GPs (see Appendix B). PHIDU's modelled estimates (see Appendix B) are calculated based on the Australian Health Survey (2011-12). Due to the different methods of collection and analysis, variations in prevalence estimates are inevitable.

Each method is consistent, however, providing valuable comparisons with other geographies.

SYDNEY NORTH HEALTH NETWORK

In 2016-17, AIHW estimated that 43.2% of adults in the SNHN region had a long-term health condition, similar to comparator PHNs (range: 41.9%-47.9%) and lower than the national average of 48% (95% CI: 47.3-48.7).

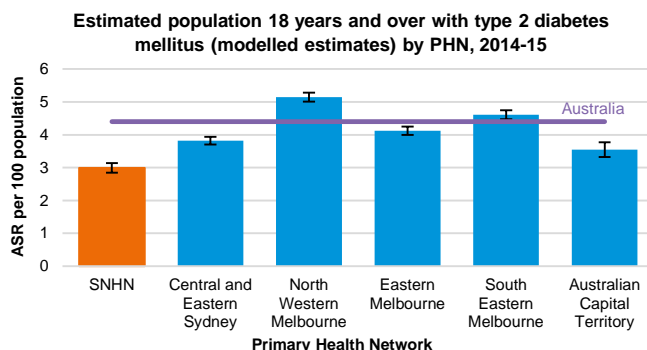
An estimated 4.2% of the SNHN population has five or more chronic conditions compared with 5.9% of the NSW population. This includes complex multimorbidities, where three or more parts of the body are affected; 9.4% of the SNHN population has complex multimorbidity compared with 12.2% in NSW.

The prevalence of common patterns of multimorbidity in the SNHN region and NSW include; 4.6% of the SNHN population with both hypertension and hyperlipidaemia compared with 5.1% for NSW. The prevalence of hypertension with ischaemic heart disease and hypertension with type 2 diabetes multimorbidities are lower compared to hypertension with hyperlipidaemia for the SNHN population and NSW.

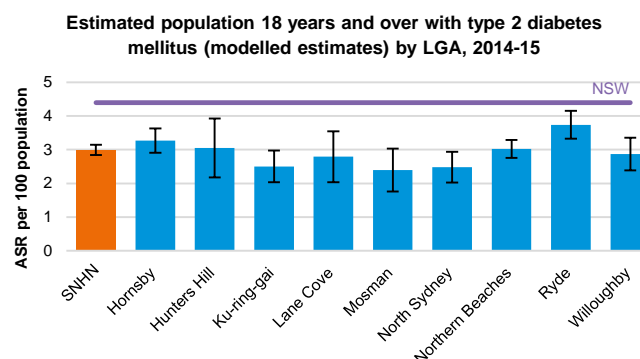
Within the SNHN region, analysis indicates males have higher rates of chronic disease compared to females and are more likely to die from a chronic condition before the age of 75 years.

The prevalence of specific chronic conditions are discussed in the following pages using estimates from the National Health Survey (2014-15) and mortality rates for chronic conditions. These indicators highlight a lower prevalence of chronic disease in the SNHN region compared to NSW.

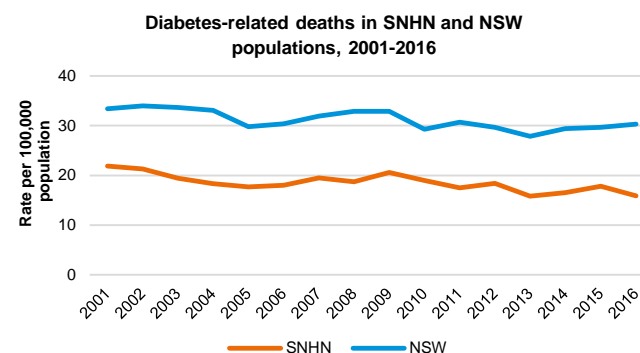
Approximately 26,000 people in the SNHN region are registered as having type 2 diabetes



Source: PHIDU, 2019



Source: PHIDU, 2019



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT?

Diabetes is the fastest growing chronic condition in Australia and a leading cause of kidney failure. It is the leading cause of blindness in working age adults and increases the risk of heart attacks and stroke by up to 4 times.

Type 1 diabetes is an auto-immune condition that cannot be prevented. Type 2 diabetes is a progressive condition associated with modifiable lifestyle risk factors. It is the most common form of diabetes, and is largely preventable by maintaining a healthy lifestyle.

The risk of diabetes-related complications can be reduced with early diagnosis and optimal treatment and management. Understanding the prevalence of known risk factors, as well as the prevalence of diabetes, can assist in the planning and delivery of appropriate services.

AVAILABILITY AND ACCURACY OF DATA

PHIDU provides modelled estimates of the age-standardised prevalence of type 2 diabetes based on self-reported type 2 diabetes mellitus; as informed by a health professional.

Diabetes Australia maintains a register of people diagnosed with diabetes accessing the National Diabetes Services Scheme (NDSS). This data is updated quarterly; however it is only a measure of registrants; it does not include unregistered diabetics, or people with undiagnosed diabetes. Estimates from HealthStats NSW include high blood glucose and are therefore not directly comparable.

SYDNEY NORTH HEALTH NETWORK

In January 2019, more than 30,000 SNHN residents are registered with the NDSS, equal to 3.4% of the population. This is substantially lower than the national rate of registration of 5.1%.

Estimates of diabetes prevalence from the BEACH Program are similar; type 2 diabetes is estimated at 3.3% of the population (95% CI: 2.2%-4.4%) and type 1 diabetes at 0.2% (95% CI: 0-0.4%). PHIDU and HealthStats NSW estimate diabetes prevalence at a similar rate.

Within the SNHN region, 82.6% of the diabetic population registered with the NDSS has type 2 diabetes compared with 87.1% in Australia. There is a higher rate of type 1 diabetes in the SNHN region (12.6%) compared to Australia (9.2%).

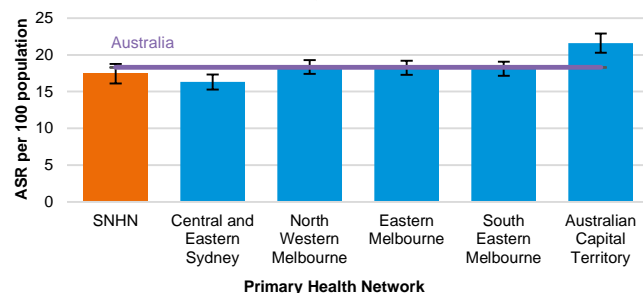
In 2016, 15.9 deaths per 100,000 population in the SNHN region were attributed to diabetes as the principle cause of death, compared to 30.3 deaths per 100,000 for NSW.

In 2014-15, the SNHN population has the lowest estimated population 18 years and over with type 2 diabetes mellitus (3.0 per 100 population; 95% CI: 2.8-3.1) compared to comparator PHNs and Australia (4.4 per 100 population; 95% CI: 4.3-4.4).

Ryde LGA has the largest proportion of the population estimated to have type 2 diabetes mellitus with 3.7 per 100 population (95% CI: 3.3-4.2).

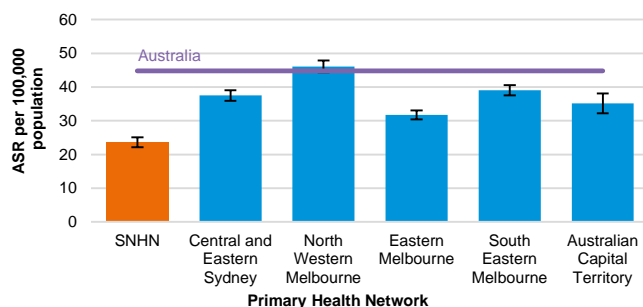
The mortality rate from circulatory system diseases has fallen in the SNHN region by over 30% in the ten years to 2015-16

Circulatory system diseases in population (modelled estimates) by PHN, 2014-15



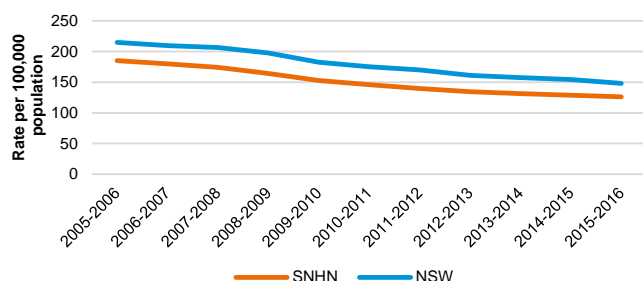
Source: PHIDU, 2019

Deaths from circulatory system diseases in the population 0 to 74 years by PHN, 2011-15



Source: PHIDU, 2019

Deaths from circulatory system diseases in the SNHN and NSW populations, 2005-06 to 2015-16



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT?

Circulatory system diseases, otherwise known as cardiovascular disease (CVD), encompass a range of conditions affecting the heart and blood vessels; most commonly coronary heart disease (CHD), stroke and heart failure.

CVD accounted for over 1 million hospitalisations (11%) in 2016-17 and almost 14% of Australia's total burden of disease in 2015 (AIHW, 2019d).

Lifestyle risk factors including overweight and obesity, tobacco smoking, high blood pressure, high blood cholesterol, insufficient physical activity, poor nutrition and diabetes increase the risk of developing CVD.

AVAILABILITY AND ACCURACY OF DATA

PHIDU provides modelled estimates of the prevalence of CVD, as well as rates of premature mortality attributable to CVD, based on the 2014-15 National Health Survey. These have been age-standardised to the average estimated resident populations at 2011.

HealthStats NSW provides mortality data from 2001-02 to 2015-16 by LGA, for deaths attributable to CVD, based on the NSW Combined Admitted Patient Epidemiology Data.

SYDNEY NORTH HEALTH NETWORK

The estimated aged-standardised rate (ASR) for prevalence of CVD in the SNHN region in 2014-15 was 17.4 per 100 (95% CI: 16.1-18.8), compared to the rate for Australia (18.3 per 100; 95% CI: 18.1-18.5) and for most comparator PHNs.

Premature mortality from CVD in 2011-15 was significantly lower in the SNHN region (23.7 per 100,000; 95% CI: 22.2-25.1) compared to all comparator PHNs and the national average.

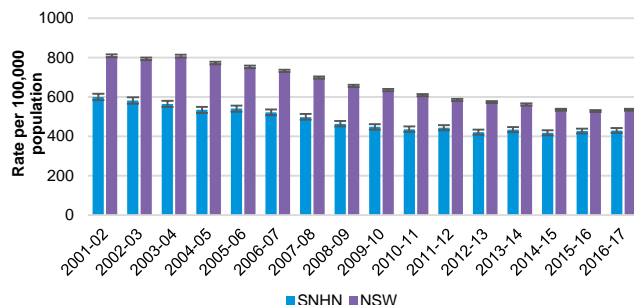
Similar to other PHNs, males in the SNHN region in 2015-16 had a significantly higher mortality rate (137 per 100,000; 95% CI: 130-144) from CVD compared to females (115 per 100,000; 95% CI: 110-121).

There is considerable variation in the premature mortality rate from CVD within the SNHN region. Ryde LGA had the highest rate of premature mortality at 30.5 per 100,000 (95% CI: 25.6-35.4), while Mosman had the lowest rate at 16.1 per 100,000 (95% CI: 9.8-22.4) in 2011-2015.

Similar to NSW, the mortality rate from CVD has declined significantly in the SNHN region, with both male and female deaths falling by approximately 32% between 2005-06 to 2015-16.

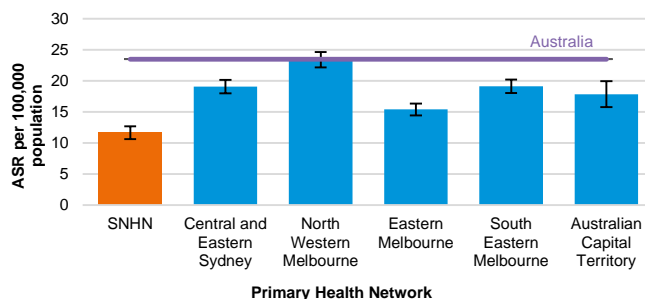
SNHN has the lowest rate of premature mortality from coronary heart disease of all PHNs

Coronary heart disease hospitalisations in the SNHN and NSW populations, 2001-02 to 2016-17



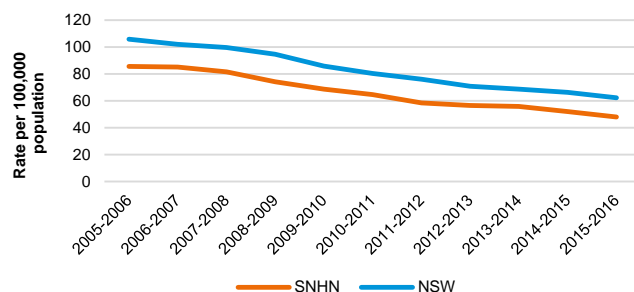
Source: Centre for Epidemiology and Evidence, 2018

Deaths from coronary heart disease in the population 0 to 74 years by PHN, 2011-15



Source: PHIDU, 2019

Deaths from coronary heart disease in the SNHN and NSW populations, 2005-06 to 2015-16



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT?

Coronary heart disease (CHD) refers to a blockage or interruption of blood supply to the heart due to a build up of plaque in the coronary arteries. Heart disease is the leading single cause of death in Australia, responsible for over 18,000 deaths in 2017 (Heart Foundation, 2018).

A complete blockage of blood supply to the heart can cause a heart attack while a narrowing of the arteries can cause angina.

Males, Aboriginal people and people with a family history of heart disease have an increased risk of CHD. The risk increases with age.

As for all CVDs, lifestyle risk factors including overweight and obesity, tobacco smoking, insufficient physical activity, poor nutrition and excessive alcohol consumption increase the risk of developing CHD (AIHW, 2019d).

AVAILABILITY AND ACCURACY OF DATA

Estimates of the prevalence of CHD in the SNHN region, 2011-2015, are available from the BEACH Program. HealthStats NSW provides mortality data for CHD for NSW from 2001-02 to 2015-16 while PHIDU has provided a modelled estimate of premature death from CHD for all PHNs in 2011-15.

Other risk factors which help determine the risk of CHD in the SNHN region have been addressed earlier in this report.

SYDNEY NORTH HEALTH NETWORK

The prevalence of CHD in the SNHN region is estimated at 2.3% (95% CI: 1.57-3.03) for 2011-15, lower but not statistically different from NSW in the same period (2.9%; 95% CI: 2.56-3.31). Hospitalisation rates for CHD in SNHN, however, are statistically significantly lower than NSW over recent years.

The morality rate from CHD in 2015-16 in the SNHN region (47.9 per 100,000; 95% CI: 45.3-50.6) is also significantly lower than NSW (62.2 per 100,000; 95% CI: 61.1-63.3). Mortality rates in comparator PHNs is not available.

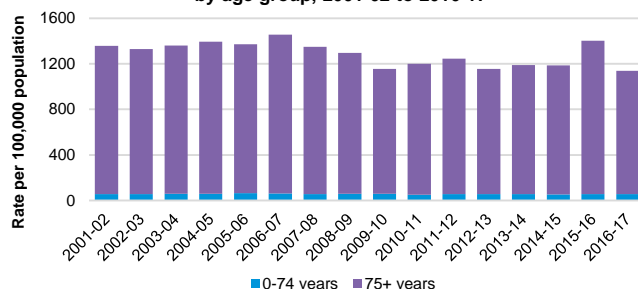
The premature mortality rate from CHD in the SNHN region is lowest of all PHNs. The average annual ASR in the SNHN region in 2011-15 was 11.7 per 100,000 (95% CI: 10.6-12.7), significantly lower than all comparator PHNs, NSW and Australia at the 95% confidence level.

Within the SNHN region, Ryde LGA had the highest age-standardised rate of premature mortality in 2011-2015 (14.2 per 100,000; 95% CI: 10.8-17.6). Mosman had the lowest rate at 5.8 per 100,000 (95% CI: 2.0-9.5).

Similar to NSW, CHD mortality rates are declining in the SNHN region and mortality rates for females are significantly lower than males.

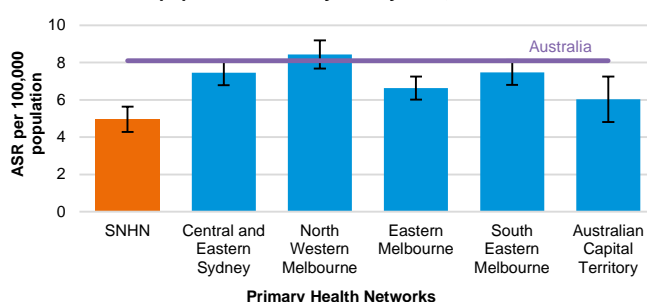
The SNHN region has the lowest rate of premature mortality from stroke of all PHNs

Stroke hospitalisations in the SNHN population by age group, 2001-02 to 2016-17



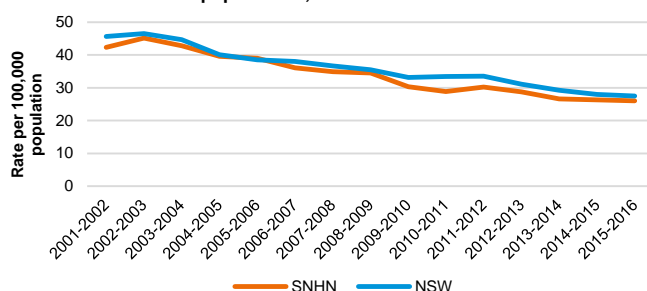
Source: Centre for Epidemiology and Evidence, 2018

Deaths from cerebrovascular diseases in the population 0 to 74 years by PHN, 2011-15



Source: PHIDU, 2019

Deaths from stroke in the SNHN and NSW populations, 2001-02 to 2015-16



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT?

Cerebrovascular disease includes any disorders of the blood vessels supplying the brain or its covering membranes. The major form of cerebrovascular disease is stroke. A stroke is caused by a blocked or ruptured blood vessel in the brain and can cause paralysis, speech problems and other symptoms such as difficulties with swallowing, vision and thinking. A stroke can also lead to death.

Cerebrovascular disease is a form of CVD and thus is affected by the same lifestyle risk factors; smoking, high total cholesterol, high blood pressure, diabetes, physical inactivity and overweight and obesity.

The rate of stroke deaths is falling in Australia, the rate fell by 22% between 2001 and 2016. However, the number of stroke events is increasing with the ageing population. In 2016, there were more than 100 stroke events every day in Australia (AIHW, 2019d).

AVAILABILITY AND ACCURACY OF DATA

Estimates of the prevalence of stroke or cardiovascular incidents have been calculated from patient data collected through the BEACH program from April 2011 until March 2015. HealthStats NSW provides mortality data for stroke from 2001-02 to 2015-16, while PHIDU has provided age standardised modelled estimates of premature mortality from cerebrovascular disease for all PHNs between 2011-15.

SYDNEY NORTH HEALTH NETWORK

The rate of hospitalisations for stroke (all ages) was markedly lower in the SNHN region (116 per 100,000; 95% CI: 110-123) in 2016-17 compared to NSW (144 per 100,000; 95% CI: 142-147). Similar to NSW, there is greater burden in those aged 75 years and over within SNHN region.

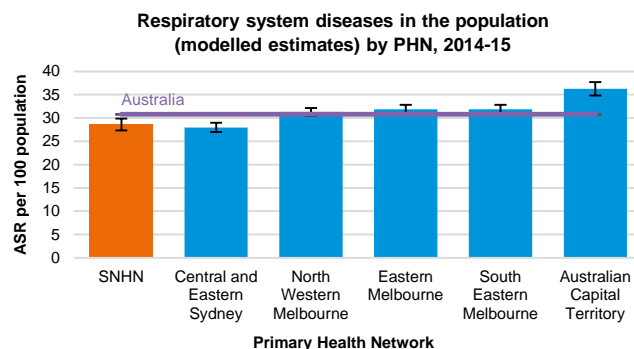
However, the estimated prevalence of stroke survivors in the SNHN population in 2011-15 (0.9%; 95% CI: 0.5%-1.4%) is similar to NSW 0.9% (95% CI: 0.8%-1.1%).

The morality rate from stroke in the SNHN region in 2015-16 (26 per 100,000; 95% CI: 24.1-28) is also comparable with the morality rate for NSW (27.5 per 100,000; 95% CI: 26.8-28.2).

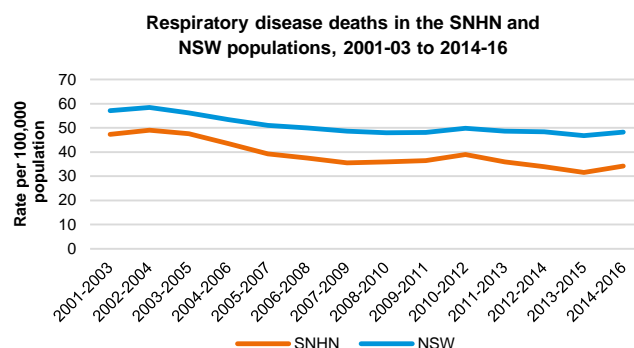
There is a significantly lower rate of premature mortality from cerebrovascular diseases in the SNHN region among persons under the age of 75 years. The rate in SNHN is 5 per 100,000 (95% CI: 4.3-5.6) compared to 8.1 per 100,000 (95% CI: 7.9-8.2) in Australia. This is consistent with the low rate of hospitalisations for stroke in those under 75 years of age.

Death from stroke occurs fairly evenly between males and females in the SNHN region and has been declining in the SNHN region at a similar rate to NSW. Data is not available to determine the distribution of stroke survivors within the SNHN region.

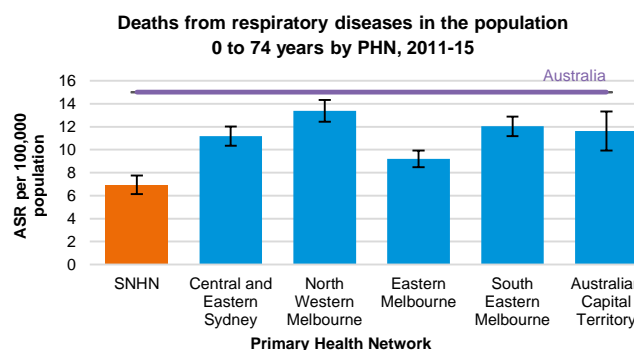
Mortality rates for respiratory system diseases are significantly lower in the SNHN region compared to NSW



Source: PHIDU, 2019



Source: Centre for Epidemiology and Evidence, 2018



Source: PHIDU, 2019

WHY IS THIS IMPORTANT?

Respiratory conditions affect the airways, including the lungs. Obstructive lung diseases including asthma and chronic obstructive pulmonary disease (COPD) restrict the flow of air into and out of the lungs.

Other chronic respiratory conditions include pneumoconiosis, an occupational lung disease, cystic fibrosis (CF) and non-CF bronchiectasis, and lung cancer. Acute respiratory conditions include influenza, pneumonia, bronchitis and pneumonitis. All can cause ill health, disability and death.

Respiratory conditions are the most commonly treated condition in general practice and affect an estimated 7.4 million (31%) Australians (AIHW, 2019e).

Tobacco smoke is the single largest preventable cause of chronic respiratory disease although genetics and environment may increase risk or exacerbate pre-existing conditions.

AVAILABILITY AND ACCURACY OF DATA

Modelled estimates for prevalence of respiratory disease in the SNHN region, including asthma and COPD, is available from PHIDU. Premature death is determined from government records. The BEACH program also provides estimates of COPD and asthma, and respiratory disease in general, in the SNHN region. HealthStats NSW provides data on respiratory disease deaths by PHNs for 2001 to 2016.

SYDNEY NORTH HEALTH NETWORK

The average annual age-standardised estimate of respiratory disease prevalence in the SNHN region for 2014-15 (28.6 per 100; 95% CI: 27.3-29.9) is lower than Australia (30.8 per 100; 95% CI: 30.6-31), and similar to than comparator PHNs.

Mortality rates for respiratory system diseases in the SNHN region have been lower than NSW since 2001-03. In 2014-16, the rate in SNHN was 34.2 per 100,000 (95% CI: 32.4-36.1) compared to 48.2 per 100,000 (95% CI: 47.4-49) in NSW.

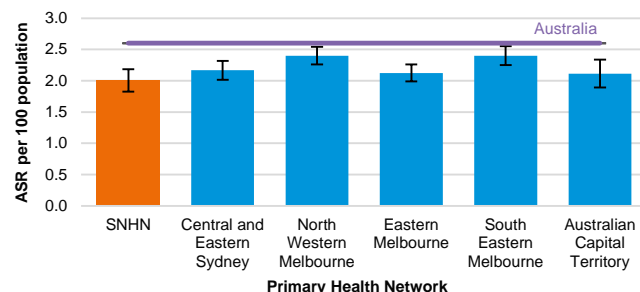
Premature mortality for respiratory system diseases was also significantly lower in the SNHN region in 2011-15 (6.9 per 100,000; 95% CI: 6.1-7.7) compared to Australia and comparator PHNs.

Premature mortality rates for respiratory system diseases varied across the region in 2011-15, ranging from 3.7 per 100,000 (95% CI: 2.1-5.2) in Ku-ring-gai to 8.8 per 100,000 (95% CI: 7.2-10.5) in Northern Beaches LGA. Premature mortality rates were also higher in Hunters Hill (8.3 per 100,000; 95% CI: 1.5-15.1) however there is uncertainty around the estimate owing to its small population.

Males in the SNHN region have a higher mortality rate from respiratory system diseases than females, similar to other jurisdictions.

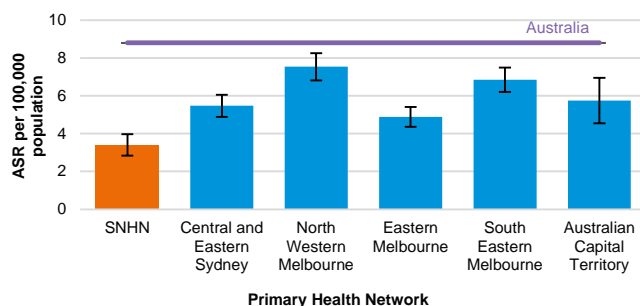
The SNHN region has the lowest rate of premature mortality from COPD of all PHNs

COPD in the population (modelled estimates) by PHN, 2014-15



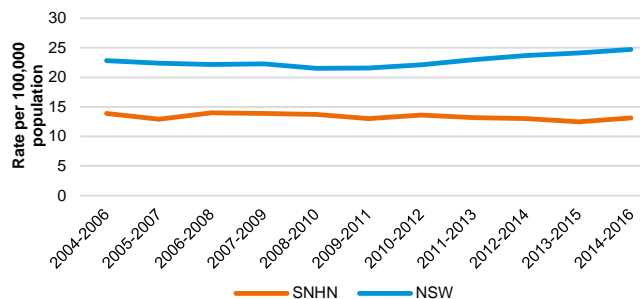
Source: PHIDU, 2019

Deaths from COPD in the population 0-74 years by PHN, 2011-15



Source: PHIDU, 2019

COPD deaths in the SNHN and NSW populations, 2004-16



Source: Centre for Epidemiology and Evidence, 2018

WHY IS THIS IMPORTANT

Chronic obstructive pulmonary diseases (COPD) is a serious long-term lung disease that restricts airflow to the lungs. It worsens over time and the lung tissue destroyed by COPD cannot ever fully repair.

COPD is a major cause of mortality, illness and disability, making it a leading cause of disease burden in Australia. In 2015, COPD was the third leading cause of total disease burden in Australia. The prevalence of COPD among Aboriginals is 2.5 times higher than the prevalence for non-Aboriginal Australians (AIHW, 2019e).

Environmental, genetic and occupational factors may also contribute to the development of COPD. COPD was the fifth highest cause of death in Australia in 2013 and responsible for 6% of all hospitalisations for the population aged over 55 years (AIHW, 2015a).

AVAILABILITY AND ACCURACY OF DATA

One of the difficulties in determining the prevalence of COPD is the different definitions used for different data sets. COPD is an umbrella term that includes emphysema, chronic bronchitis and chronic asthma which isn't fully reversible, and the terms can be used interchangeably (AIHW, 2015a).

Further, COPD is often not diagnosed until moderately advanced leading to a likely under-estimation of its prevalence. The reliance on self-reporting is also likely to lead to variation in estimates (AIHW, 2015a). Data from PHIDU, the BEACH program and HealthStats NSW have been used in this section as the best available data.

SYDNEY NORTH HEALTH NETWORK

Over 18,000 residents in the SNHN region were estimated to have COPD in 2014-15. This equates to an age-standardised rate of 2.0 per 100 population (95% CI: 1.8-2.2), similar to Australia (2.6 per 100) and comparator PHNs.

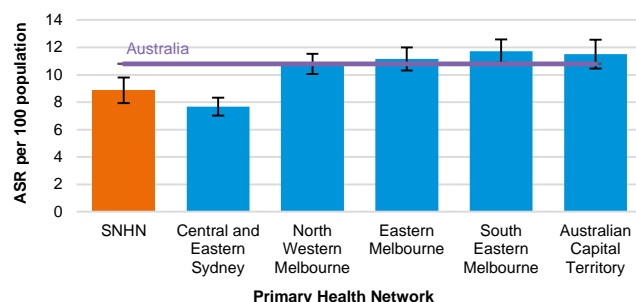
The premature mortality rate from COPD in 2011-15 was significantly lower in the SNHN region (3.4 per 100,000; 95% CI: 2.8-4.0) compared to Australia (8.8 per 100,000; 95% CI: 8.6-9.0) and NSW (9.0 per 100,000; 95% CI: 8.7-9.4). The mortality rate in the SNHN region was lower than all PHNs.

There is some variation in the rates of premature mortality by LGA, however, the numbers are too small to draw any valid conclusion. The data does not differentiate between males and females suggesting no significant statistical difference.

The mortality rate from COPD has remained at the same level in the past 10 years, and remains significantly lower than NSW.

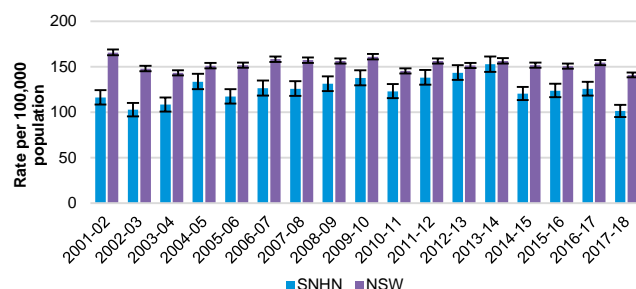
5 to 34 year olds in the SNHN region have lower rates of hospitalisation for asthma compared to NSW

Asthma in the population (modelled estimates) by PHN, 2014-15



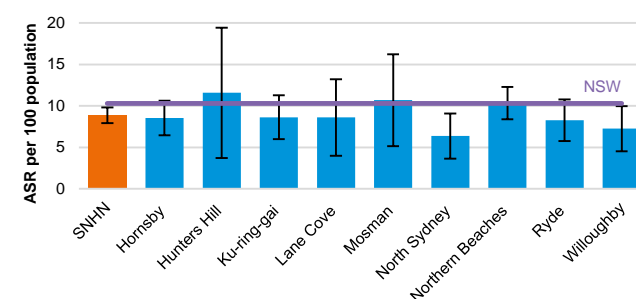
Source: PHIDU, 2019

Asthma hospitalisations in the SNHN population, 2001-02 to 2017-18



Source: Centre for Epidemiology and Evidence, 2019

Asthma in the SNHN population (modelled estimates) by LGA, 2014-15



Source: PHIDU, 2019

WHY IS THIS IMPORTANT?

Asthma is a chronic inflammation of the air passages that makes them more sensitive to allergens and irritants including exercise, viral infections, tobacco smoke and pollutants.

Asthma can affect people of all ages, but is most commonly developed during childhood. The major risk factors for asthma include a family history of asthma and a genetic predisposition to allergic reactions. Under 15 years of age, the prevalence of asthma is higher in boys than in girls. However, asthma is more common in females than males aged 15 years and over (AIHW, 2018).

Maternal smoking during pregnancy and exposure to environmental tobacco smoke during infancy are linked to the onset of asthma. Asthma poses the highest non-fatal burden of disease on 0 to 5 year olds and the seventh highest for all age groups (AIHW, 2015b).

Asthma is associated with a reduced quality of life, particularly for those with poorly controlled asthma. Effective management is key to improved quality of life and a reduced risk of death from asthma.

AVAILABILITY AND ACCURACY OF DATA

The estimated prevalence of asthma in the SNHN region is provided by PHIDU, the BEACH program and NSW HealthStats. Data is also available for NSW on asthma hospitalisations.

SYDNEY NORTH HEALTH NETWORK

In the SNHN population aged 2 to 15 years of age, the estimated prevalence of asthma in 2016-17 was 15.6% (95% CI: 10.1-21.2) compared to 12.9% for NSW (95% CI: 11.3-14.4).

For all age groups, however, the estimated age-standardised rate of asthma in the SNHN region in 2014-15 was significantly lower than Australia; 8.9 per 100 (95% CI: 7.9-9.8) in the SNHN region, 10.3 per 100 (95% CI: 10.0-10.6) in NSW and 10.8 per 100 (95% CI: 10.3-11.0) in Australia.

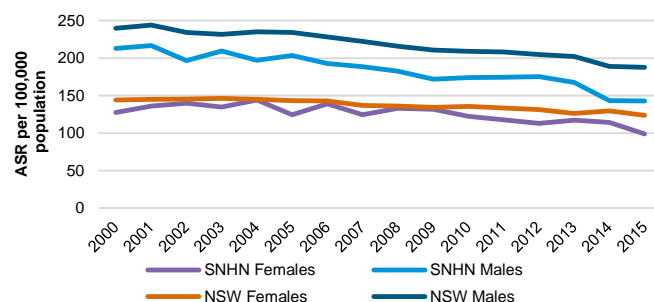
In the younger demographic (5 to 34 years), and in the whole population, SNHN residents were hospitalised for asthma at a lower rate compared to NSW. In the 5 to 34 years age group, 102 per 100,000 (95% CI: 92-113) people in the SNHN region were hospitalised for asthma in 2017-18 compared to 139 per 100,000 (95% CI: 139-135) for NSW.

Across all age groups in SNHN, the rate of hospitalisations (101 per 100,000; 95% CI: 94.7-108) was significantly lower than NSW (141 per 100,000; 95% CI: 139-144).

This suggests that asthma is comparatively well managed in the community in the SNHN region, particularly in the younger age groups.

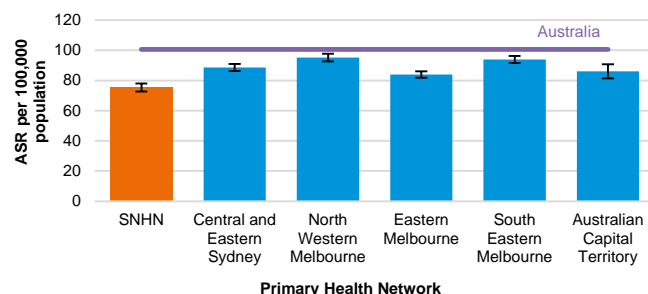
The SNHN region has the lowest premature mortality from cancer in Australia

Deaths from cancer in the SNHN and NSW populations, 2000 to 2015



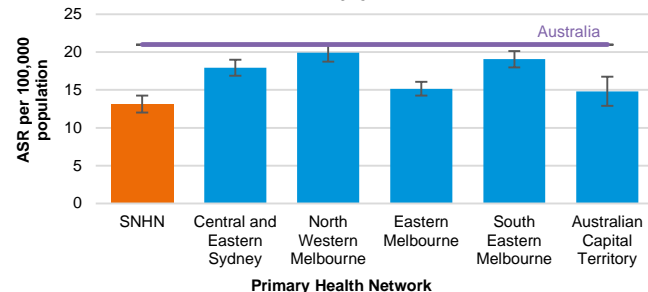
Source: Cancer Institute NSW, 2019

Deaths from cancer in the population 0-74 years by PHN, 2011-15



Source: PHIDU, 2019

Deaths from lung cancer in the population 0-74 years by PHN, 2011-15



Source: PHIDU, 2019

WHY IS THIS IMPORTANT?

Cancer is a major cause of illness with a significant physical and emotional impact on patients and their families. Despite a decline in cancer mortality, it remains one of the most preventable causes of morbidity and mortality in Australia.

Cancer is the leading cause of mortality in Australia, responsible for 3 in every 10 deaths in 2016 (AIHW, 2019c). The incidence of cancer is also high; 1 in 2 Australian men and women will be diagnosed with cancer by the age of 85 (Cancer Council Australia, 2019). Almost 50,000 deaths from cancer are estimated for 2019 and an estimated 150,000 new cases of cancer will be diagnosed in Australia by 2020 (AIHW, 2019c).

AVAILABILITY AND ACCURACY OF DATA

The Cancer Institute NSW has produced the RBCO 2018 for the Northern Sydney PHN, providing summary data on cancer incidence, morality and risk factors for the SNHN region.

PHIDU data includes premature morality rates for lung, breast and colorectal cancers, based on the Cause of Death Unit Record Files from 2011-15. Cancer Institute NSW provides morality rates for the SNHN region from 1972 to 2015. The data is sourced from NSW Cancer Registry's Annual NSW cancer incidence and morality data set, 2015. Estimates of cancer prevalence in the SNHN region is also available from the BEACH Program.

NORTH HEALTH NETWORK

The prevalence of cancer in the SNHN region is estimated at 2.9% (95% CI: 1.9%-3.9%) in 2011-15

Mortality rate for cancer in the SNHN region was lower compared to NSW. Similar to NSW, mortality rates in SNHN are higher among males (143 per 100,000) compared to females (99 per 100,000).

Premature mortality for all cancers was also significantly lower in the SNHN region (75.3 per 100,000; 95% CI: 72.7-78.0) compared to Australia (101 per 100,000; 95% CI: 99.9-101), NSW (102 per 100,000; 95% CI: 101-103) and to all PHNs. The highest rate of cancer morality within the SNHN region was in Ryde and Hornsby LGAs.

Breast cancer had the highest premature mortality rate of all cancers in 2011-15 (15.5 per 100,000 females; 95% CI: 13.2-17.2). The rate was similar to Australia, NSW and other comparator PHNs.

Whilst lung cancer caused the highest number of deaths in the SNHN region of all cancers, the premature morality rate for lung cancer was significantly lower (13.1 per 100,000; 95% CI: 12.0-14.2) compared to Australia (21.0 per 100,000; 95% CI: 20.7-21.2) and all comparator PHNs.

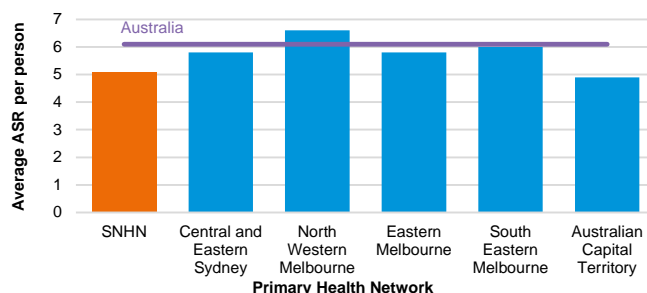


CHAPTER 6

Primary Healthcare

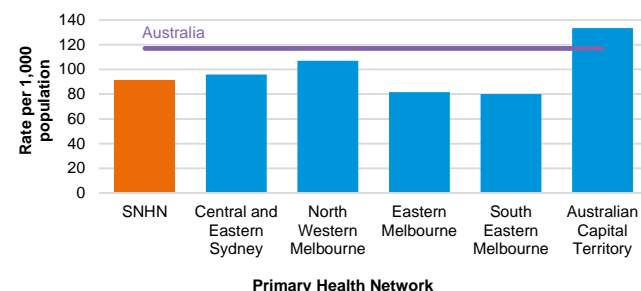
SNHN residents access 12% of primary healthcare services outside the SNHN region

Average number of GP attendances per person by PHN, 2016-17



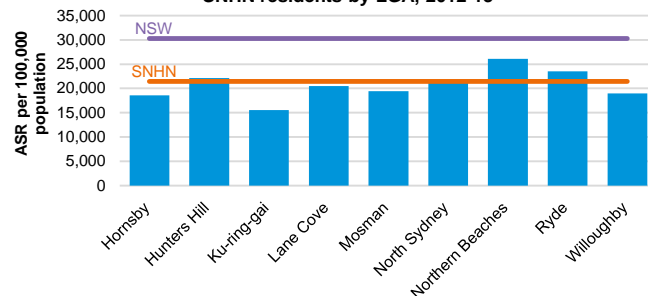
Source: AIHW, 2018

Emergency Department presentations for lower urgency care (triage category 4 & 5) by PHN, 2017-18



Source: AIHW, 2019

Emergency Department presentations of SNHN residents by LGA, 2012-13



Source: PHIDU, 2018

WHY IS THIS IMPORTANT?

Primary healthcare (PHC) is the first level of contact people have with the healthcare system. It is community-based, multidisciplinary care that supports the prevention of illness and disease, promotes wellness, and provides treatment and management for chronic and acute conditions.

PHC encompasses a large range of providers and services, most commonly general practitioners (GPs), practice nurses and allied health professionals.

In addition to the availability of services, access to PHC is dependent on the affordability and cultural appropriateness of services, as well as physical access such as facilities for people with disabilities and transport services.

PHC is predominately funded by the Australian Government through the Medicare Benefits Schedule (MBS) and the Pharmaceutical Benefits Scheme (PBS), and through patient co-payments. Together the MBS and PBS are intended to provide universal access to PHC for all Australians.

Timely and coordinated PHC is associated with better health outcomes, higher patient satisfaction and reduced healthcare cost.

AVAILABILITY AND ACCURACY OF DATA

Data from AIHW and PHIDU on GP attendances per person and Emergency Department (ED) presentations reflects access to PHC services in the SNHN region compared to comparator PHNs.

No data has been identified to determine the cultural competency of the PHC workforce, or adequacy of public transport in the SNHN.

SYDNEY NORTH HEALTH NETWORK

SNHN appears to have an adequate supply of health professionals to ensure sufficient availability of primary healthcare services. However, GP attendances are relatively low in the SNHN region with an age-standardised rate of 5.8 attendances per person in 2016-17. This is lower than all comparator PHNs, excluding ACT.

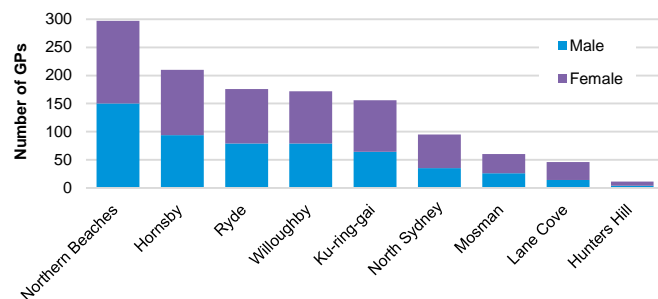
However, metropolitan populations are mobile and will access PHC services wherever convenient. Data from the BEACH Program suggests that approximately 15% of GP services in the SNHN region are provided to people from outside the catchment, while 12% of services to SNHN residents are accessed out of area.

Where access to PHC services is inadequate, ED presentations and PPH are often high. Rates for both indicators are low in the SNHN region suggesting reasonable access to PHC services for most of the population. Rates for ED presentations for lower urgency care (triage category 4 & 5) in the SNHN region (90.8 per 1,000 population) were lower than the national rate (117 per 1,000) in 2017-18. This suggests the SNHN population has good access to PHC.

Limited data is available to identify barriers to accessing services for vulnerable population groups. Stakeholder consultations have identified limited access to culturally appropriate services and potential financial barriers to accessing services in the SNHN region (see Appendix A). Further investigation needed to identify service needs within specific vulnerable population groups.

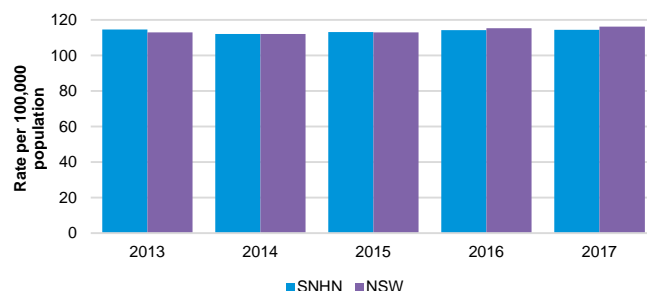
The GP workforce in the SNHN region has a similar age structure to NSW

Number of GPs practising in the SNHN region
by LGA and by sex, 2017



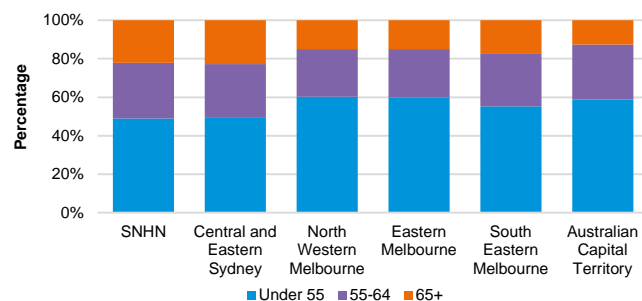
Source: Health Workforce Data Tool, 2019

Full time equivalent GP workforce per 100,000 in
SNHN and NSW, 2013-17



Source: Health Workforce Data Tool, 2019

GP workforce by age group and by PHN, 2017



Source: Health Workforce Data Tool, 2019

WHY IS THIS IMPORTANT?

General practice, and GPs in particular, are at the centre of primary healthcare, providing a base from which a patient's care is coordinated and from where patients are linked with the wider health system including medical specialists, allied health professionals and community services.

GPs play a key role in the prevention and management of illness and disease and often have a long-term professional relationship with a patient and his/her family enabling continuous care over many years.

GPs are generalists with a broad perspective and local knowledge, allowing the GP to consider a patient's specific personal, economic and social circumstances.

Easy access to a GP is associated with improved health outcomes including less hospitalisation, less utilisation of specialist services and lower cost.

AVAILABILITY AND ACCURACY OF DATA

Data on the number of GPs and full time equivalent (FTE) GP workforce in the SNHN region in 2017 is available from the Health Workforce Data Tool. The data is aggregated by age, gender and LGA. A headcount of the GPs in the SNHN region is also available from ChilliDB, an in-house database.

SYDNEY NORTH HEALTH NETWORK

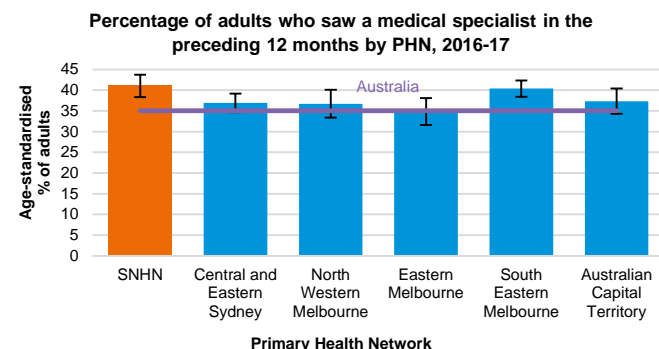
In 2017, an estimated 1,223 GPs were practising within the SNHN region. This equated to an FTE GP workforce of 1,061 or approximately one FTE GP for every 873 people. This is similar to the GP to population ratio in NSW (1 FTE GP per 860 people). The headcount of GPs is similar to counts from SNHN's internal database. These GPs work in 295 general practices in the SNHN region, with an average of five individual GPs per practice in 2019.

In 2017, the GP workforce in the SNHN region had a larger proportion of female GPs (55.4%) compared to NSW (44.4%), and a similar proportion (51.1%) of GPs aged over 55 years, compared to NSW (50.7%).

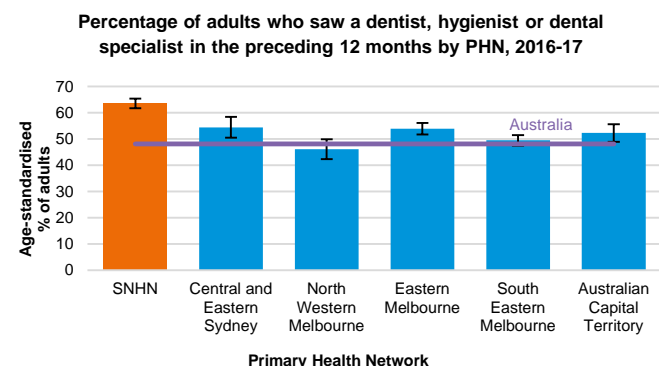
The proportion of GPs over 65 years in the SNHN region (22.2%) was similar to Central and Eastern Sydney (22.8%) comparator PHN (see Appendix B), but higher than the Victorian and ACT PHNs (range: 12.6% - 17.1%).

By most measures, the GP workforce is of adequate size for the SNHN population. In 2017, the rate of FTE GPs varied across LGAs within the SNHN region (range: 19.9 – 9.7 per 10,000 population). Areas around Dural-Wisemans Ferry, Asquith, Bayview-Elanora Heights and Terrey Hills-Duffy's Forest are considered as District of Workforce Shortage for general practice. These are areas of need with lower access to Medicare subsidised services compared to the national average (Department of Health, 2018a).

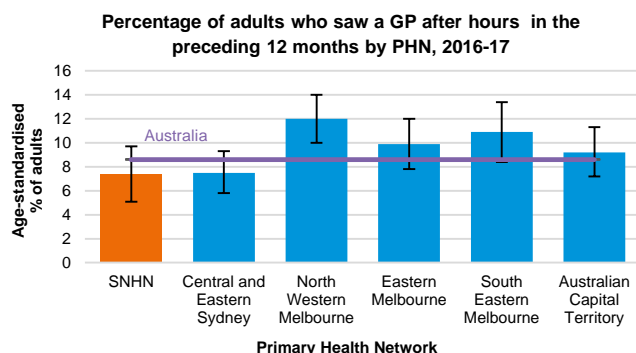
GP attendances are lower in the SNHN region compared to NSW



Source: AIHW, 2018



Source: AIHW, 2018



Source: AIHW, 2018

WHY IS THIS IMPORTANT?

The utilisation of PHC services is a good indication of their accessibility.

Patterns of utilisation by different population groups and in different geographies can be used to identify barriers to access, while the nature and number of services provided relative to the size and health status of the population can help determine the adequacy and appropriateness of available services, and of services provided.

AVAILABILITY AND ACCURACY OF DATA

AIHW provides data by PHN from the 2016-17 Patient Experience Survey conducted by the Australian Bureau of Statistics in addition to data on GP attendances and MBS expenditure.

The Department of Health provides claims data on MBS item 715 (annual Indigenous health checks) by PHN from 2012-17.

The BEACH Program provides an estimate of the types of GP services provided from 2011 to 2015, including MBS billing items and incentive payments.

SYDNEY NORTH HEALTH NETWORK

In 2016-17, GP attendances per person in the SNHN region were the lowest in NSW. SNHN region had an age-standardised rate of 5.1 attendances per person compared to 6.1 attendances per person in NSW. Females in SNHN region had a higher rate of GP attendance with 6 GP visits per person compared to 4.7 visits per person for males.

Attendances at a medical specialist was high in the SNHN region with 41% (95% CI: 38.3-43.7) of adults in the SNHN region seeing a medical specialist in the preceding 12 months in 2016-17. This was higher compared to the national average (35%; 95% CI: 34.2-35.7) and to comparator PHNs (range: 34.9% - 40.4%).

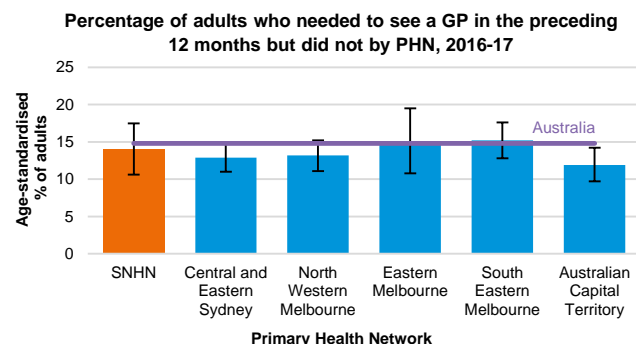
Attendances at a dentist, dental hygienist or dental specialist was highest in the SNHN region nationally. In the SNHN region, 63.6% (95% CI: 61.8-65.4) of adults saw a dentist, hygienist or dental specialist in the preceding 12 months compared to 48.1% (95% CI: 47.2-48.9) nationally.

After hours GP attendances in the SNHN region were lower or similar to comparator PHNs. In 2016-17, 7.4% (95% CI: 5.1-9.7) of adults in the SNHN region saw a GP after hours in the preceding 12 months compared with Australia (8.6%; 95% CI: 8.2-9.2) and comparator PHNs (range: 7.5%-12.0%).

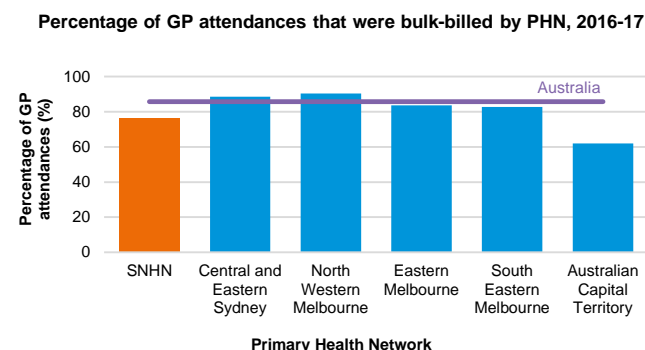
From April 2011 to March 2015, almost all GP encounters (98%) in the SNHN region were direct patient encounters; similar to NSW. From these encounters, 1.9% (95%CI: 1.5%-2.3%) were conducted in a residential aged care facility and 1% (95%CI: 0.8%-1.1%) in the patient's home or another institution.

There is a lower proportion of Aboriginal population receiving the MBS 715 health checks in the SNHN region (4.2%) compared to NSW (25.1%) and Australia (29.8%) in the 2017-18 financial year; highlighting the need for access to and utilisation of culturally appropriate services.

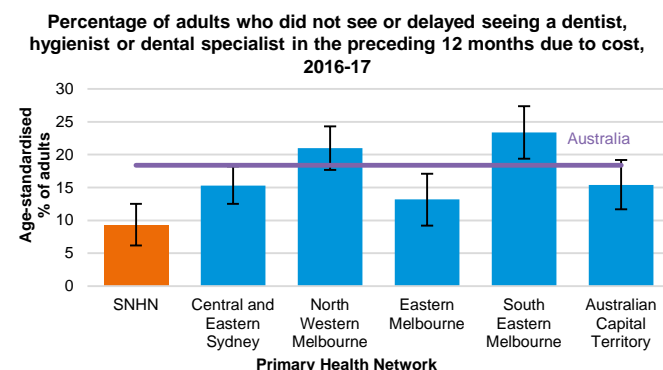
17% of adults in the SNHN region waited longer to see a GP than they felt was acceptable



Source: AIHW, 2018



Source: AIHW, 2018



Source: AIHW, 2018

WHY IS THIS IMPORTANT?

Considering the importance of timely PHC to an individual's health and wellness, identifying any barriers to accessing appropriate services is crucial to achieving positive health outcomes. Access can impact health outcomes of vulnerable and hard to reach groups-Aboriginal people, LGBTI people, older people, people with mental illness or disability, and those with low income.

Barriers can include inadequate availability of services, but equally important is the affordability and appropriateness of those services that are available.

AVAILABILITY AND ACCURACY OF DATA

There is a range of data available from the BEACH program and the AIHW reflecting access to General Practice and other PHC services provided in the SNHN region, including cost barriers and waiting times for GP appointments.

No data has been identified, however, to determine the cultural appropriateness of available services or any physical impediments to accessing PHC services in the SNHN region.

Similarly, there is little recent data on barriers to accessing mental health or other allied health services. Access to mental health services is an important issue in the SNHN region and is discussed in detail in Chapter 8.

SYDNEY NORTH HEALTH NETWORK

Adults in the SNHN mostly saw a GP when they needed to. While 17% of adults in the SNHN region (95% CI: 13-21) felt that they had to wait longer than acceptable for an appointment in 2013-14, this is lower than all comparator PHNs (range 20% to 28%).

In 2016-17, only 3.4% of adults in the SNHN region (95% CI: 1.8-1.4) were delayed or prevented from seeing a GP because of cost. However, there was a lower proportion of bulk-billed GP attendances in the SNHN region (76.2%) compared to Australia (85.7%) and most comparator PHNs. North Sydney-Mosman (Statistical Area 3) had the lowest rate of bulk-billed GP attendances (57.8%) in the SNHN region, significantly lower than Ryde-Hunters Hill (Statistical Area 3) where 88.3% of GP attendances were bulk-billed in 2016-17. Lower rates of bulk billing can result in practitioners charging higher gap fees creating a financial barrier to accessing services especially in populations experiencing socio-economic disadvantage.

Prescriptions were affordable for most adults in the SNHN region 2016-17 with only 3.4% of adults (95% CI: 1.5-5.3) indicating that they had delayed or avoided filling a prescription due to cost in the preceding 12 months, compared to the national average of 7.3% (95% CI: 6.9-7.8).

Cost was a more significant barrier to dental and specialist medical services. In 2016-17, 9.3% (95% CI: 6.2-12.5) of adults in the SNHN region delayed or did not receive dental care in the previous 12 months due to cost. This is significantly lower than the national average of 18.4% (95% CI: 17.7-19.1).

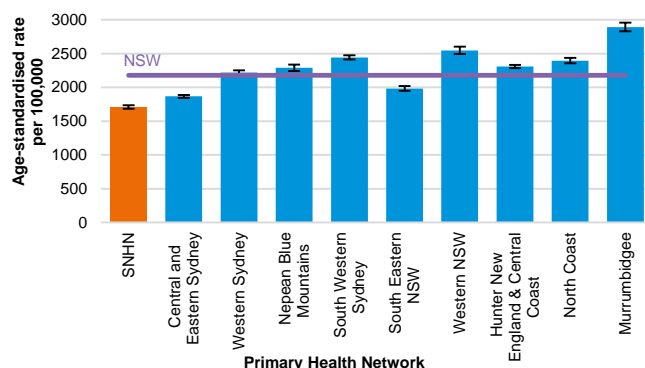


CHAPTER 7

Hospitalisation

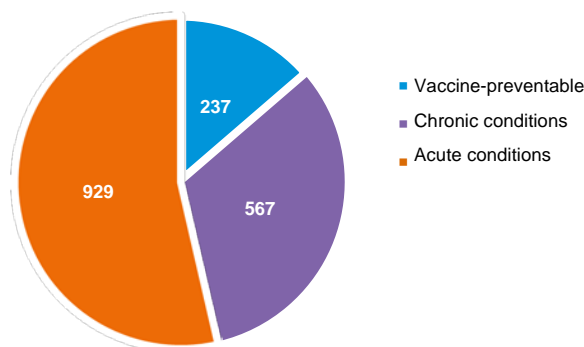
SNHN had the lowest rate of potentially preventable hospitalisations in NSW for 2017-18

Potentially preventable hospitalisations in NSW by PHN, 2017-18



Source: Centre for Epidemiology and Evidence, 2019

Potentially preventable hospitalisations in the SNHN population by category (age-standardised) per 100,000 population, 2017-18



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

Potentially preventable hospitalisations (PPH) are hospital admissions that may have been avoided with appropriate preventative health interventions and early disease management - usually delivered in a primary care or community setting by GPs, medical specialists, dentists, nurses and allied health professionals.

A high incidence of PPH may be indicative of barriers to accessing appropriate primary care services, or inadequate or ineffective care.

Analysing the conditions that are giving rise to PPH in the SNHN region could help identify opportunities for targeted interventions.

PPH for acute, chronic and vaccine-preventable conditions are national headline indicators informing the PHN program.

AVAILABILITY AND ACCURACY OF DATA

PPH data for the SNHN region for 2017-18 for a range of chronic, acute and vaccine preventable conditions is available from HealthStats NSW, based on the NSW Combined Admitted Patient Epidemiology data. PPH data from AIHW's 2016-17 analysis of the National Hospital Morbidity Database is also presented in this section. The conditions are defined using the ICD codes (International Statistical Classification of Diseases and Related Health Problems) specified under the National Health Care Agreement (AIHW, 2019g).

SYDNEY NORTH HEALTH NETWORK

SNHN region had the lowest rate of PPH compared to all PHNs in NSW in 2017-18. The rate of PPH was 1,711 per 100,000 (95% CI: 1,685-1,737) in SNHN compared to 2,192 per 100,000 (95% CI: 2,182-2,202) for NSW.

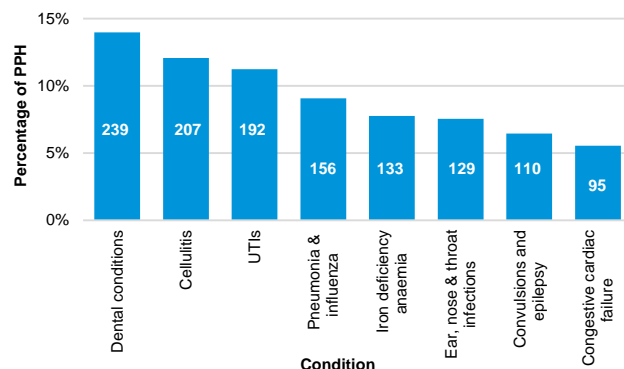
In 2017-18, acute conditions comprised more than half of all PPH (53.6%) in the SNHN region compared to 44.3% in NSW. In the SNHN region, chronic conditions and vaccine-preventable conditions accounted for 32.7% and 13.7% of all PPH respectively. For NSW, 42.7% of all PPH were attributed to chronic conditions and 13% to vaccine-preventable conditions.

Based on AIHW's analysis of the National Hospital Morbidity Database, whilst, vaccine-preventable conditions accounted for a small proportion of PPH admissions, the admissions were associated with a higher average length of stay (14.2 days) in 2016-17 compared to acute (3.8 days) and chronic (4.5 days) conditions.

By considering the causes of potentially preventable hospitalisations the ability of primary healthcare to support individuals in the community could potentially be strengthened.

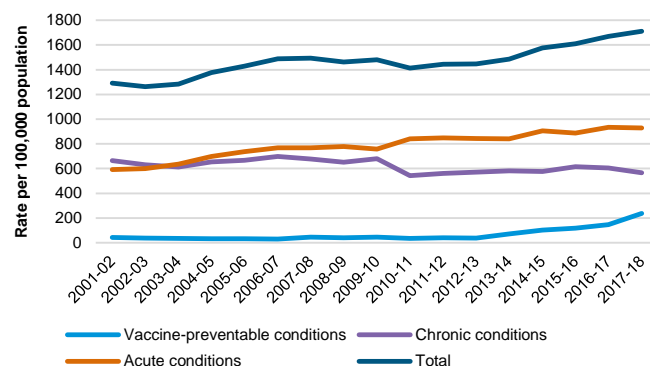
Dental conditions, cellulitis and UTIs make up approximately 40% of potentially preventable hospitalisations in the SNHN region

Potentially preventable hospitalisations in SNHN by condition, 2017-18



Source: Centre for Epidemiology and Evidence, 2019

Potentially preventable hospitalisations in SNHN by category, 2001-02 to 2017-18



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

Potentially preventable hospital admissions may be an indicator of the availability and effectiveness of primary healthcare services.

Studies have shown an association between PPH and poorer self-reported access to medical care. Lower socio-economic status, ethnicity including Aboriginality and mental illness have also been identified as potential risk factors for PPH.

Vulnerable population groups have higher rates of PPH. Trends in PPH by sex, age group, geography and disease type can help identify population groups and risk factors for PPH and can be used to inform strategies to reduce PPH.

AVAILABILITY AND ACCURACY OF DATA

2019 National Healthcare Agreement lists 22 separate conditions for which hospitalisation is considered potentially preventable (AIHW, 2019g). Age-standardised data by PHN for these conditions for 2017-18 is available from NSW HealthStats and is presented in this section. AIHW's analysis of National Hospital Morbidity Database 2015-16 is also included.

SYDNEY NORTH HEALTH NETWORK

PPH in the SNHN region in 2017-18 were predominantly for acute conditions, with eight conditions responsible for over 70% of all PPH in this period.

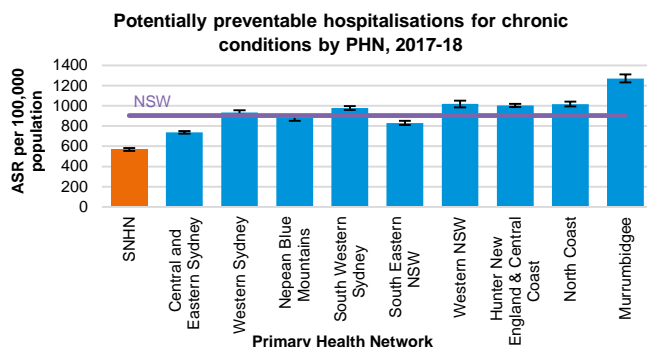
Dental conditions, cellulitis and urinary tract infections were conditions for which people in the SNHN region were most likely to be admitted for a PPH. These conditions accounted for 37.3% of all PPH and 41.5% of all bed days in the SNHN region in 2017-18.

Pneumonia and influenza (vaccine preventable), iron deficiency anaemia, ENT infections, convulsions and epilepsy and congestive cardiac failure together accounted for 36.4% of all PPH and 58.5% of all bed days.

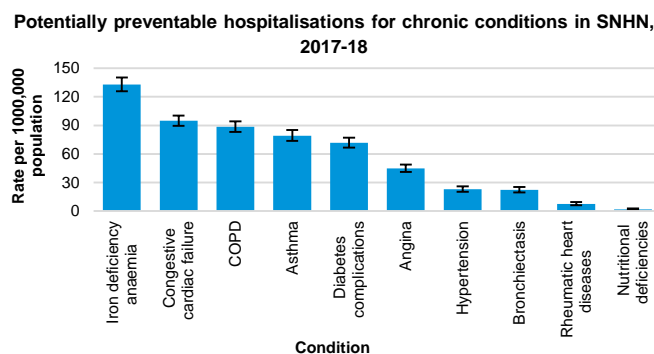
For all acute conditions that presented as a PPH, dental conditions had the highest proportion of same day discharges, with 87.3% of dental presentations discharged the same day in 2016-17.

The rate of PPH has increased from 1,447 per 100,000 (95% CI: 1,422-1,472) in 2012-13 to 1,710 per 100,000 (95% CI: 1,685-1,736) in 2017-18. Changes in the rate of PPH is driven by a range of factors including prevalence of disease, coding standards for hospitalisations and access to primary healthcare. Further analysis is required to ascertain underlying reasons for and extent of increase in PPH in the SNHN region.

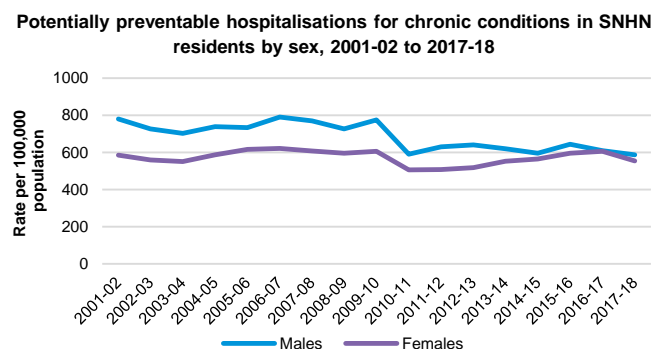
Rates of potentially preventable hospitalisations for chronic conditions has remained stable in the SNHN region since 2010-11



Source: Centre for Epidemiology and Evidence, 2019



Source: Centre for Epidemiology and Evidence, 2019



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

As discussed in Chapter 5, many chronic diseases including type 2 diabetes, circulatory system diseases, stroke and cancer are associated with modifiable lifestyle risk factors including overweight and obesity, tobacco smoking, insufficient physical activity and poor nutrition.

Chronic disease can potentially be managed in the community, therefore, hospitalisation for chronic disease complications can indicate inadequate or ineffective primary healthcare services, or difficulty in accessing appropriate PHC services.

Hospitalisation for chronic disease also represents a significant opportunity cost for the health system as hospital treatment is generally more expensive than community-based primary healthcare.

AVAILABILITY AND ACCURACY OF DATA

Age-standardised PPH data for key chronic conditions, by condition and by PHN, are available from AIHW and NSW HealthStats for 2017-18. PPH for conditions is not currently available by LGA.

SYDNEY NORTH HEALTH NETWORK

The rate of PPH for chronic conditions in the SNHN region (567 per 100,000; 95% CI: 553-581) was lowest of all PHNs in NSW (range: 737-1,271 per 100,000) and significantly lower than the NSW average (896 per 100,000; 95% CI: 890-903).

While iron deficiency anaemia had the highest rate of PPH of all chronic conditions, a greater number of bed days was associated with congestive cardiac failure. This implies that congestive cardiac failure is a greater burden among SNHN residents. Hospitalisations for all chronic conditions however, were significantly lower in the SNHN region compared to NSW.

Males are hospitalised more for chronic conditions and for PPH than females in the SNHN region, which is similar to NSW trends.

The rate of PPH for chronic conditions in the SNHN region has remained quite stable since 2010-11. This indicates more effective management of chronic conditions in the community.

See related content: Chapter 5 Long Term Conditions



CHAPTER 8

Mental Health

Mental Health - Key Points

At a glance: The SNHN population has a relatively lower prevalence of mental health disorders than other parts of NSW, yet has a relatively high supply of mental health services. While access to services appears good, there is an identified concern for youth (ages 15-24), including high risk behaviours (particularly alcohol) and self harm.

Further investigation of these topics would improve understanding and opportunities for intervention. Mental health is a key priority area for the PHN.

8.1 For the SNHN population 15.8% report having a mental health and behavioural condition, which is lower than the NSW average. In 2016-17, 8.3% of the population within the SNHN region accessed MBS subsidised mental health services.

8.3 The 12-24 year old age group in the SNHN region had the highest use of MBS mental health related services compared to NSW and Australia where the 35-44 age group had the highest use of MBS mental health related services.

8.4 The SNHN region has a lower rate of GP MBS mental health related patients across all age-groups compared to NSW and Australia.

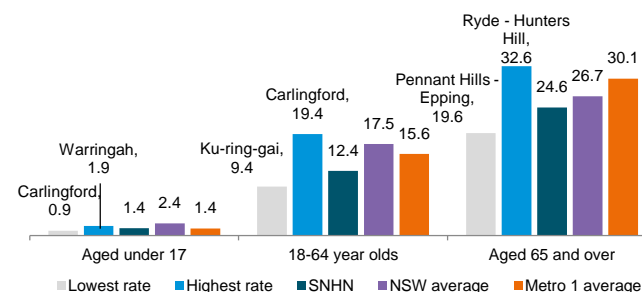
8.5 The SNHN region has a higher rate of psychiatrists per population compared to NSW and a higher rate of patients accessing MBS subsidised mental health related services provided by psychiatrists.

8.6 The SNHN region had a higher rate of patients accessing clinical psychologist MBS mental health related services across all age-groups compared to NSW.

8.7 Depression and anxiety are the most common mental illness diagnoses in the SNHN region, yet the prevalence in the SNHN region is lower than across Australia.

8.8 There is up to two-fold variation within the SNHN region in the level of antipsychotic medication prescribing. Rates in the older population appear high.

Number of antipsychotic medication prescriptions dispensed per 100 people



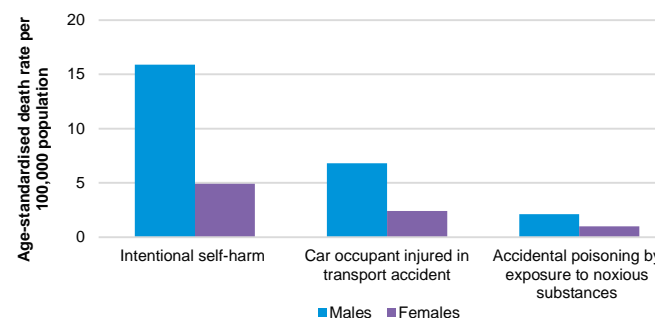
Source: EY analysis of 2013-14 Australian Atlas of Healthcare Variation data

8.9 The average out of pocket cost for all MBS mental health related services is highest in SNHN compared to NSW and Australia.

8.10 Of all mental health related ED presentations in the SNHN region, 32% were a result of self harm.

8.11 Intentional self-harm is the leading cause of death in 15-24 year olds in NSW and, combined with suicidal ideation, the greatest cause of mental illness-related ED presentations.

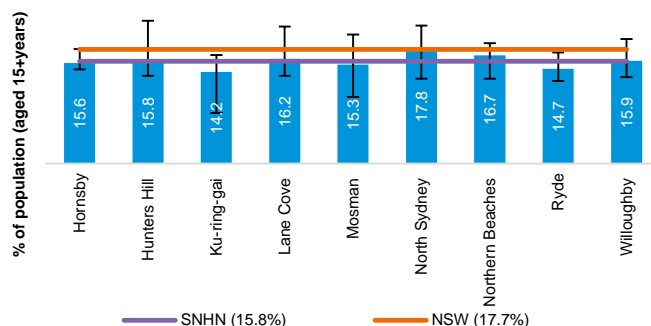
Underlying cause of death in 15-24 year olds in NSW, 2017



Source: ABS, 2018

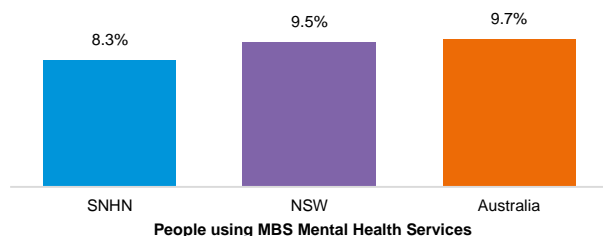
The SNHN region has a lower level of reported mental health conditions than NSW, with a similar proportionate level of MBS services

Proportion of people reporting mental and behavioural problems, 2014-15



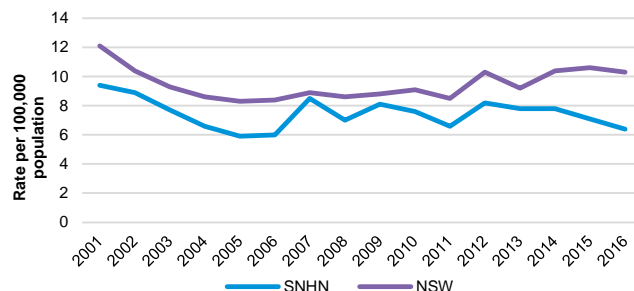
Source: PHIDU, 2019

Proportion of the population using MBS mental health services, 2016-17



Source: Department of Health, 2017

Suicide rates in SNHN and NSW, 2001-16



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

The number of people reporting a mental health problem and deaths caused by suicide gives an indication of the level of mental illness and hence need for mental health services. These indicators allow an estimate that is not influenced by service supply.

AVAILABILITY AND ACCURACY OF DATA

As part of the National Health Survey 2014-15, people were asked to report on their long-term mental health conditions and psychological distress. A long-term mental health condition is defined as a condition that is current and has lasted, or is expected to last, for six months or more and includes behavioural or emotional disorders; dependence on drugs or alcohol; feeling anxious or nervous; and depression, and feeling depressed. Psychological distress was measured using the Kessler Psychological Distress Scale-10 (K10).

This was compared to people using mental health services, using MBS claims for mental health services. These services include GP, psychiatrist, psychologist, and relevant allied health services.

Deaths caused by suicide and self-inflicted injury were identified using ICD codes.

SYDNEY NORTH HEALTH NETWORK

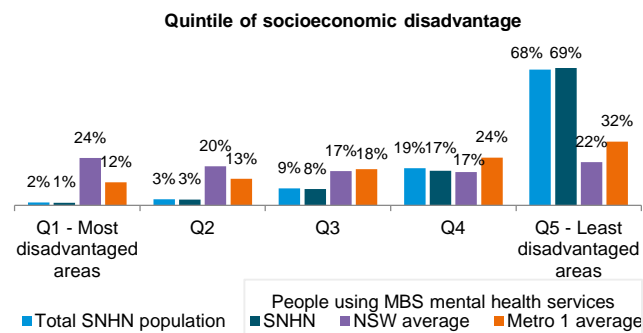
In the SNHN region, 15.8% of the population report having a long-term mental health condition, 7.3% of adults report high or very high psychological distress, while 8.3% of the population used MBS services to treat mental health conditions in 2016-17. These are lower compared to NSW. Services for mental health conditions may not be specifically identified as such (not recorded as a mental health service claim), and some will be self-managed.

Suicide rates in the SNHN region have remained stable over the past 10 years, similar to NSW trend, but suicide remains the highest cause of death for young people in the SNHN region (see 8.11). In 2016, 59 deaths occurred in the SNHN region due to suicide, averaging one death every six days. Limited availability of local data to identify burden across age groups.

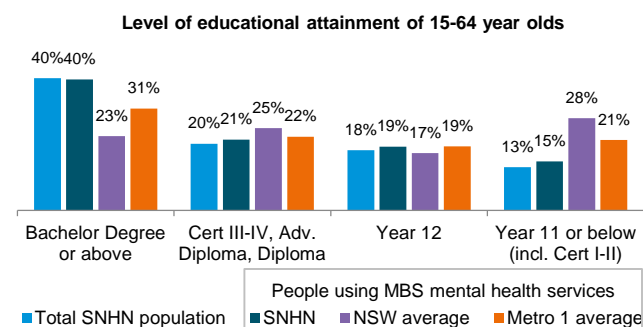
	SNHN	NSW	Australia
People reporting mental and behavioural problems	15.8% (95% CI: 14.9-16.8)	17.7% (95% CI: 17.4-18)	17.5% (95% CI: 17.3-17.7)
High or very high psychological distress (18+ years)	7.3% (95% CI: 6.8-7.7)	11% (95% CI: 10.8-11.2)	11.7% (95% CI: 11.6-11.8)
People using MBS mental health services	8.3%	9.5%	9.7%
Suicide death rates per 100,000	6.4 (95% CI: 4.9-8.2)	10.3 (95% CI: 9.6-11)	-

8.3% of people (around 77,000) living in the SNHN region using MBS subsidised mental health services in 2016-17

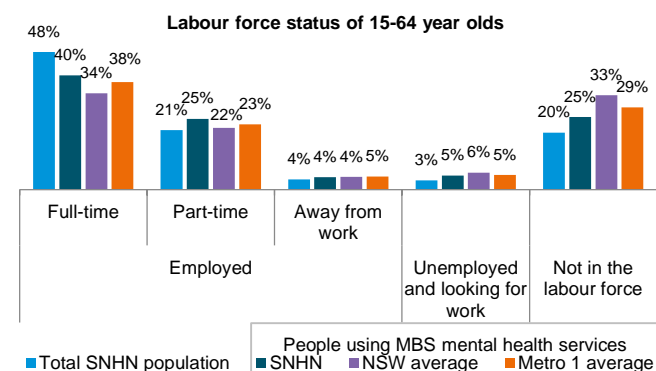
60.8% of people using MBS mental health services in the SNHN region are female



Source: EY analysis of ABS 4329, 2011



Source: EY analysis of ABS 4329, 2011



Source: EY analysis of ABS 4329, 2011

WHY IS THIS IMPORTANT?

Experiencing a mental illness can make it difficult for individuals to complete their education and maintain regular employment. Lower levels of education can make it difficult for people to access health services and access to mental health services provided in the private sector can be impacted by income.

AVAILABILITY AND ACCURACY OF DATA

People using mental health services have been identified by determining who has claimed MBS subsidies for mental health services. These services include GP services, psychiatrists, psychologists, and relevant allied health services. Stratification of the population into different 'needs groups', ranging from whole of population needs for mental health promotion and prevention, through to those with severe, persistent and complex conditions is important in understanding the different service responsibilities within the stepped care approach (Department of Health, 2016a).

SYDNEY NORTH HEALTH NETWORK

The male to female ratio of users of MBS subsidised mental health services in the SNHN region is similar to their peers in Metro 1 and to the NSW average (1:2). 60.8% of mental health service users are female (47,000 out of 77,200).

Of the population using MBS mental health services in the SNHN region, the proportion of the population with a bachelor degree or above is higher than the NSW or Metro 1 average, likely linked to the higher level of socioeconomic advantage in the SNHN region.

Of the population using MBS mental health services in the SNHN region, the level of fulltime and part-time employment is higher than the NSW or Metro 1 average. This is consistent with a general employment level in the SNHN region that is above average. It is likely that the ability to pay for services increases the level of services provided.

Applying national estimates to the SNHN population, an estimated 39.9% of the total population have a mental health need pertaining to current or prior illness. This translates to approximately (Department of Health, 2016g):

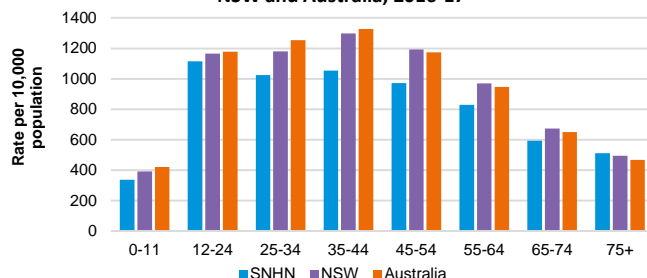
- ◆ 23.1% (217,025) of SNHN population with previous illness, risk of relapse or at early stage of developing illness.
- ◆ 9.1% (85,495) with mild mental illness.
- ◆ 4.6% (43,217) with moderately severe mental illness.
- ◆ 3.1% (29,125) with severe mental illness

The SNHN region users of MBS mental health services cannot be differentiated on the basis of socioeconomic status or education from the general population.

See related content: 2.2 Income, education and employment, 8.7 Frequent mental health diagnoses

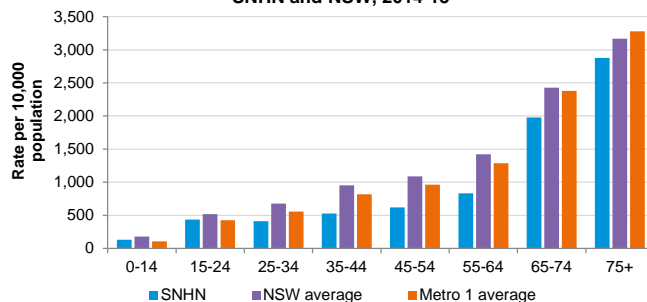
12-24 year olds in the SNHN region have the highest use of MBS subsidised mental health services

Number of people using MBS mental health related services in SNHN, NSW and Australia, 2016-17



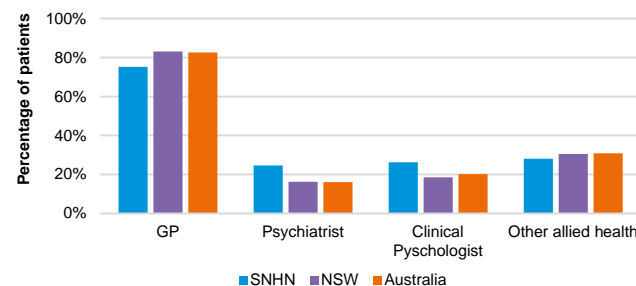
Source: Department of Health, 2017

Number of people using PBS listed mental health-related medications in SNHN and NSW, 2014-15



Source: EY analysis of ABS cat no. 4329, 2011 PBS data

The proportion of MBS mental health patients seen by different providers in SNHN and NSW, 2016-17



Source: Department of Health, 2017

WHY IS THIS IMPORTANT?

The Medical Benefits Scheme (MBS) and the Pharmaceutical Benefits Scheme (PBS) are the key mechanisms used by the Australian Government to fund primary healthcare services. The two schemes are lists of approved services or medications and the corresponding amounts the government will fund.

MBS mental health specific services are provided by psychiatrists, GPs, clinical psychologists and other allied health professionals. Comparing MBS and PBS usage across regions provides insight to the mental health care needs of Australians and is one indicator of the ability of people to access mental health-specific services.

In 2016-17, a total of \$9.1 billion was spent on mental health in Australia with 4.2 million Australians receiving mental-health related prescriptions (AIHW, 2019h).

AVAILABILITY AND ACCURACY OF DATA

The Department of Health provides MBS claims data for mental health related services by PHN from 2011-12 to 2016-17. Data from the Pharmaceutical Benefits Scheme published by the ABS is also presented.

MBS claims data is aggregated by the patients' place of residence. MBS claims data is dependent on prevalence of mental illness, availability and accessibility of mental health related services within the region.

SYDNEY NORTH HEALTH NETWORK

Most age groups in the SNHN region used fewer MBS mental health related services in 2016-17, and fewer PBS listed mental health related medications in 2014-15, compared to both the NSW and Metro 1 averages.

Exceptions are:

- 75+ year olds used MBS mental health services at a marginally higher rate in the SNHN region (512 per 10,000 population) compared to the NSW average (494 per 10,000 population) in 2016-17.
- The 0-14 and 15-24 age groups used PBS listed mental health related medications at a higher rate in the SNHN region (131 per 10,000 population) compared to the Metro 1 average (105 per 10,000 population) in 2014-15.

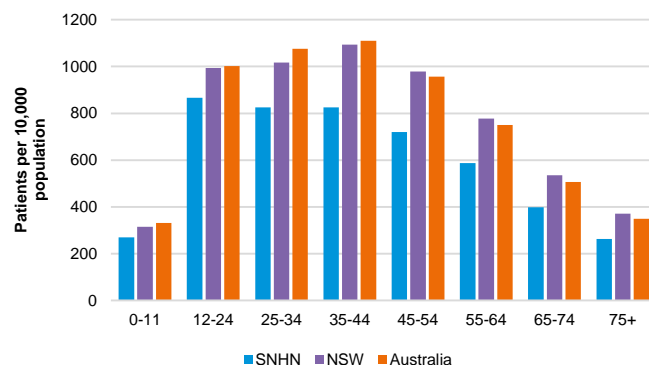
MBS mental health related service usage is higher in females than males across all age groups in SNHN and NSW in 2016-17. The population aged 12-24 years in the SNHN region had the highest rate of people using MBS mental health related services (1,116 per 10,000 population) in 2016-17. This was lower than the NSW rate of 1,165 per 10,000.

The rate of people aged 75 years and over using PBS listed mental health related medication was the highest in the SNHN region (2,877 per 10,000 population) in 2014-15, this was lower than the NSW (3,168 per 10,000) and Metro 1 average (3,278 per 10,000).

GPs saw the highest proportion of MBS mental health related patients in the SNHN region (75%), slightly lower compared to rates in NSW (83%) and Australia (83%) in 2016-17.

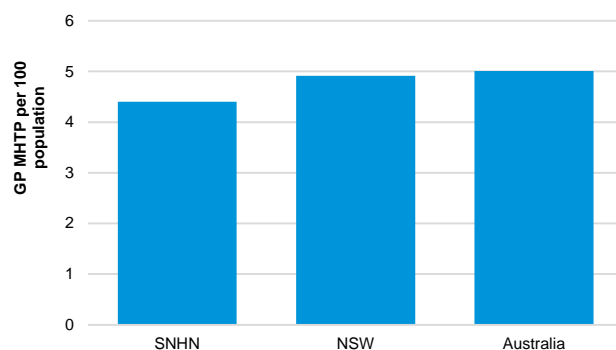
The SNHN region has a lower rate of GP MBS mental health related patients across all age-groups compared to NSW and Australia

Rate of patients accessing GP MBS mental health services by age in SNHN, NSW and Australia, 2016-17



Source: Department of Health, 2017

Rate of GP Mental Health Treatment Plans in SNHN, NSW and Australia, 2016-17



Source: Department of Health, 2017

WHY IS THIS IMPORTANT?

As the gatekeeper to healthcare in Australia, General Practitioners (GPs) are often an individual's first point of contact with the health system. The use of MBS mental health related services and GP Mental Health Treatment Plan (GPMHTP) MBS items provides an insight into how the population is using GPs for treatment and management of mental health conditions.

GPMHTP MBS items provide rebates for GPs providing mental health treatments by undertaking early intervention, assessment and management of patients with mental disorders. This may include referring the patient to appropriate treatment and services provided by psychiatrists, clinical psychologists or allied mental health workers. The GPMHTP incorporates a model for best practice of primary health treatment of patients with mental disorders.

Under a GPMHTP, a patient may receive up to ten individual or group mental health services delivered by allied health professionals per calendar year. The number of GPMHTP MBS claims is one indicator of the level of mental healthcare that is being managed by GPs.

AVAILABILITY AND ACCURACY OF DATA

The Department of Health provides MBS claims data for mental health related services by PHN from 2011-12 to 2016-17. Data is aggregated by PHN, service provider – GP, psychiatrist, clinical psychologist and other allied health professionals – and patient age.

The rate of GP MBS mental health patients per population was calculated using the 2017 ERP from ABS. The rate of GPMHTPs was calculated using identified MBS items (2700, 2701, 2715 and 2717) from the Department of Health MBS claims data for PHNs in the 2016-17 financial year.

SYDNEY NORTH HEALTH NETWORK

In 2016-17, the SNHN region had a lower rate of GP MBS mental health related patients across all age-groups compared to NSW and Australia. SNHN had the highest rate of GP mental health related patients in the 12-24 years age group (867 per 10,000 population). The highest rate of GP mental health related patients in NSW and Australia was in the 35-44 years age group (1,093 and 1,110 per 10,000 population respectively).

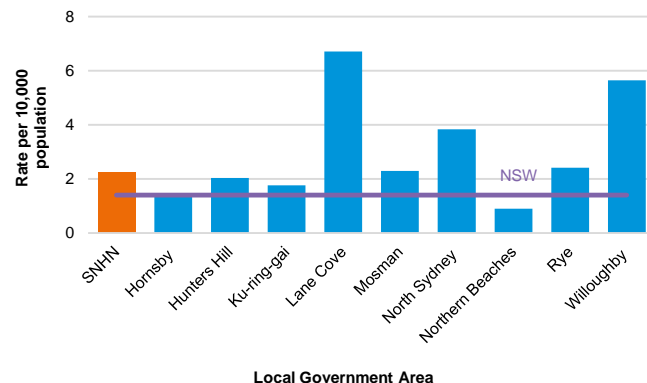
The proportion of GP services delivered in the SNHN region that are specific to mental health is 1.9% compared to 2.2% in NSW and 2.5% in Metro 1. BEACH data for 2011-2015 for the SNHN region show 5.2% of GP encounters are related to psychological concerns, compared to 5.8% across NSW.

The number of GPMHTP in the SNHN region (4.4 per 100 population) is lower than the NSW and national averages (4.9 and 5.0 respectively) in 2016-17. The rate of GPMHTP claims has increased steadily from 3.4 per 100 population in the 2012-13 financial year, similar to trends in NSW and Australia over the same period.

Further investigation is required to determine if increases in GPMHTP claims is attributed to changes in the claiming behaviours of GPs or an increasing need of mental health services in the SNHN region and throughout Australia. The rate of mental health related MBS claims may be an underestimate of the true rate, as GPs may provide mental health services while providing additional treatment and therefore claim alternative MBS items.

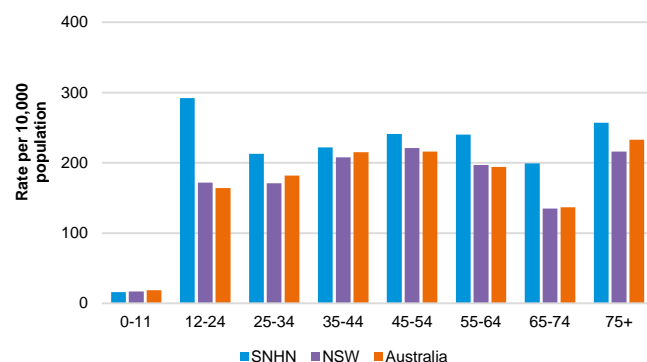
In 2017, SNHN had a higher rate of psychiatrists per population than NSW

Number of psychiatrists per 10,000 population in SNHN, 2017



Source: Health Workforce Data Tool, 2019

Rate of patients accessing MBS mental health services delivered by psychiatrists in SNHN, NSW and Australia, 2016-17



Source: Department of Health, 2017

WHY IS THIS IMPORTANT

The key objective of PHNs is to improve the co-ordination of care to ensure patients receive the right care in the right place at the right time. One aspect of this is ensuring alignment between clinical need and the professional groups providing care. Comparisons can be made between the type of mental health professionals providing services and the proportion of services being provided.

AVAILABILITY AND ACCURACY OF DATA

Data on the number of psychiatrists in the SNHN region in 2017 by LGA was obtained from the National Health Workforce Dataset available from the Health Workforce Data Tool.

The Department of Health provides MBS claims data for mental health related services by PHN from 2011-12 to 2016-17. Data is aggregated by PHN, service provider – GP, psychiatrist, clinical psychologist and other allied health professionals – and patient age.

The rate of patients who accessed psychiatrist MBS mental health services per population by age in SNHN, NSW and Australia was calculated using the 2017 ERP obtained from ABS combined with the Department of Health Population Report 2016 for the population aged 0 to 24 years.

SYDNEY NORTH HEALTH NETWORK

SNHN has the highest proportion of services provided by psychiatrists (24.6%) compared to the NSW (16.3%) and national (16.1%) averages. SNHN has a higher proportion of psychiatrists per population (2.2 per 10,000) compared to NSW (1.4 per 10,000). There is a large variation in the proportion of psychiatrists per population across LGAs in the SNHN region. Lane Cove LGA has the highest proportion of psychiatrists (6.7 per 10,000 population) compared to Northern Beaches (0.9 per 10,000 population).

In 2016-17, the SNHN region had a higher rate of patients accessing psychiatrist MBS mental health related services across all age-groups, except for 0-11 years, compared to NSW and Australia. SNHN had the highest rate of patients accessing psychiatrist MBS mental health related services in the 12-24 years age group (292 per 10,000 population). In NSW and Australia, the rate of patients accessing mental health services is highest in people aged 45-54 years, with 221 per 10,000 population in NSW and 216 per 10,000 population in Australia.

The SNHN region has a higher number of older people (75 years and over) accessing psychiatrist MBS mental health services with 257 per 10,000 population accessing psychiatrist MBS mental health services compared to NSW (216 per 10,000) and Australia (233 per 10,000).

As seen in 8.1, the prevalence of mental health conditions was lower in the SNHN region compared to NSW. Further investigation is required to determine whether service utilisation is concentrated in geographies within the SNHN region.

See related content: 8.1 Need for mental healthcare, 8.4 GP Mental Health MBS Services & Treatment Plans, 8.6 Use of clinical psychologist services

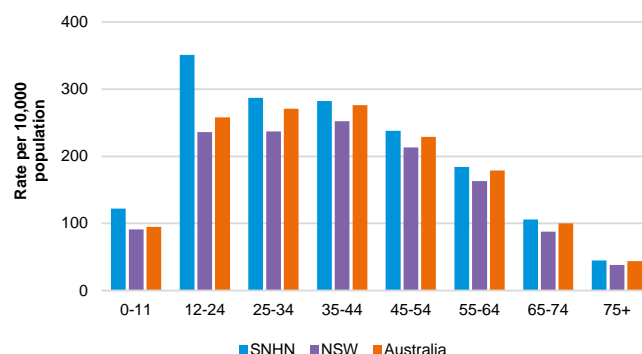
In 2017, SNHN had a higher rate of psychologists per population than NSW

Number of psychologists per 10,000 population in SNHN, 2017



Source: Health Workforce Data Tool, 2019

Rate of patients accessing MBS mental health services delivered by clinical psychologists in SNHN, NSW and Australia, 2016-17



Source: Department of Health, 2017

WHY IS THIS IMPORTANT

The key objective of PHNs is to improve the co-ordination of care to ensure patients receive the right care in the right place at the right time. One aspect of this is ensuring alignment between clinical need and the professional groups providing care. Comparisons can be made between the type of mental health professionals providing services and the proportion of services being provided.

AVAILABILITY AND ACCURACY OF DATA

Data on the number of psychologists in the SNHN region in 2017 by LGA was obtained from the National Health Workforce Dataset available from the Health Workforce Data Tool.

The Department of Health provides MBS claims data for mental health related services by PHN from 2011-12 to 2016-17. Data is aggregated by PHN, service provider – GP, psychiatrist, clinical psychologist and other allied health professionals – and patient age.

The rate of patients who accessed clinical psychologist MBS mental health services per population by age in SNHN, NSW and Australia was calculated using the 2017 ERP obtained from ABS combined with the Department of Health Population Report 2016 for the population aged 0 to 24 years.

SYDNEY NORTH HEALTH NETWORK

SNHN has the highest proportion of services provided by clinical psychologists (26.3%) compared to the NSW (18.6%) and national (20.2%) averages. SNHN also has a higher rate of psychologists per population (14.3 per 10,000) compared to NSW (11 per 10,000). There is some variation in the rate of psychologists per population across LGAs within the SNHN region, ranging from 8.8 psychologists per 10,000 population in Hunters Hill LGA to 28.1 psychologists per 10,000 population in North Sydney LGA.

In 2016-17, the SNHN region had a higher rate of patients accessing clinical psychologist MBS mental health related services across all age-groups compared to NSW. SNHN had the highest rate of patients accessing clinical psychologist MBS mental health related services in the 12-24 years age group (351 per 10,000 population). In NSW and Australia, the highest rate of patients accessing clinical psychologist MBS mental health related services was in the 35-44 years age groups. NSW had a rate of 252 per 10,000 population compared to 276 per 10,000 population in Australia.

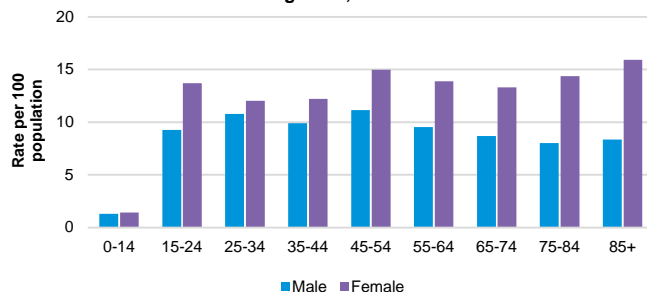
The rate of MBS mental health services claimed is dependent on prevalence, availability, accessibility and claiming behaviours of health professionals in SNHN and regions across Australia over time.

SNHN had the highest rate of patients accessing clinical psychologist MBS mental health related services in the 12-24 years age group

See related content: 8.1 Need for mental healthcare, 8.4 GP Mental Health MBS Services & Treatment Plans, 8.5 Use of psychiatrist services

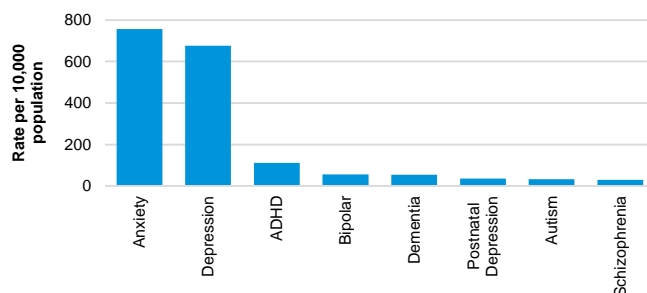
Depression and anxiety are the most common mental disorders diagnosed, yet prevalence in the SNHN region is lower than across Australia

Rate of mental health diagnosis in the SNHN population by age and gender, 2019



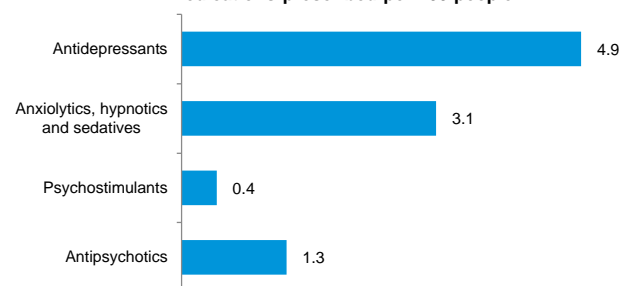
Source: PATCAT, 2019

Mental health diagnosis prevalence per 10,000 population in the SNHN region, 2019



Source: PATCAT, 2019

Individuals in the SNHN region who have PBS mental health medications prescribed per 100 people



Source: EY analysis of ABS cat 4329, 2011 PBS data for PHN102

WHY IS THIS IMPORTANT?

The level of MBS or PBS service usage is an indicator of the level of services being provided, but does not allow analysis on the conditions being treated.

AVAILABILITY AND ACCURACY OF DATA

This page presents analysis of PATCAT data extracted in September 2019 (see Appendix B). Within the SNHN region PATCAT is used to collect clinical data for 634, 971 patients from 168 different practices. This represents approximately 66.1% of the population in the SNHN region. When recording patient details in PATCAT, the doctor may select multiple diagnoses for a single individual. Potential limitations of this data include:

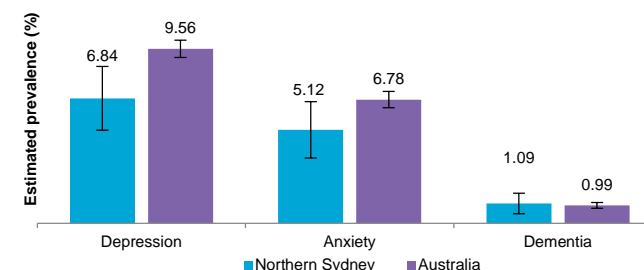
- ◆ Duplication of patients attending multiple practices;
- ◆ No information on patients who have not sought care or been diagnosed;
- ◆ Patients cannot be differentiated by residential location (within or external to the PHN).

BEACH data for 2011-2015 specific to the SNHN region was also examined. BEACH is a detailed ongoing study of general practice consultations across Australia – see Appendix B for further details.

SYDNEY NORTH HEALTH NETWORK

The age and gender profile of people diagnosed with mental health conditions is in line with what would be expected from the profile of people accessing MBS mental health services.

Estimated prevalence of selected mental health conditions in SNHN and Australia



Source: BEACH, 2015

The mental disorders with the highest rates of diagnosis in the SNHN region are depression, and anxiety, reflected in both the PATCAT and BEACH data.

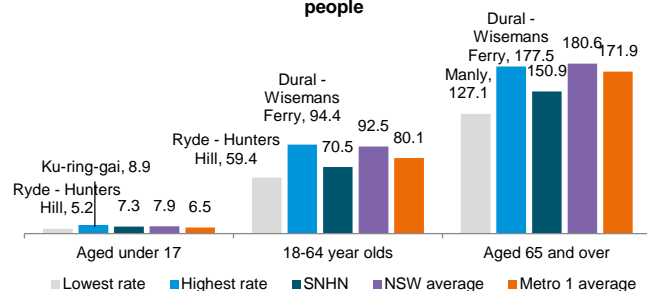
Prescriptions for PBS mental health medications is higher than the rate of diagnosis for depression, bipolar and schizophrenia. This may be due to diagnosis prevalence in the sample population being less than the true prevalence in the SNHN region, or due to off-label prescribing.

The rate of antidepressant prescribing is slightly higher than might be expected based on the prevalence of depression estimated by PATCAT and BEACH data

See related content: 8.3 Usage of MBS and PBS for mental health, 8.8 Prescription medication use

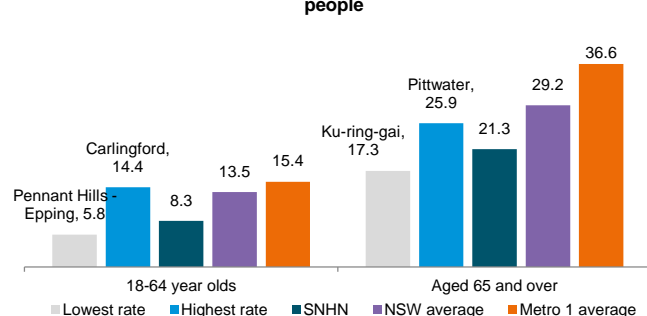
There is significant variation within the SNHN region (up to two-fold) in the level of mental health related medication prescribing

Number of antidepressant medication prescriptions dispensed per 100 people



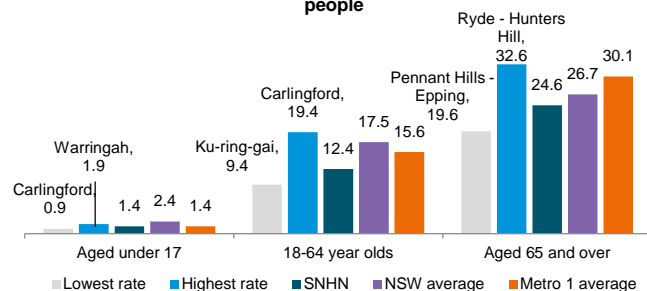
Source: EY analysis of 2013-14 Australian Atlas of Healthcare Variation data

Number of anxiolytic medication prescriptions dispensed per 100 people



Source: EY analysis of 2013-14 Australian Atlas of Healthcare Variation data

Number of antipsychotic medication prescriptions dispensed per 100 people



Source: EY analysis of 2013-14 Australian Atlas of Healthcare Variation data

WHY IS THIS IMPORTANT?

The number of medications dispensed is one indicator of the level of need for services, but must be interpreted carefully. For example not all people diagnosed with depression will require medication, and other types of treatment are available. Note also that over-treatment is possible.

AVAILABILITY AND ACCURACY OF DATA

Age standardised PBS data captures dispensing information for medications listed on the PBS but does not include non-PBS listed prescriptions. This may underestimate the number of patients receiving prescription medications. Note that, the data relates to prescriptions rather than persons—a rate of 25/100 could be 25 scripts for 1 person, or 25 people getting one prescription, or something in-between. The geographies shown for each group are the statistical area level 3 with the lowest and highest dispensing rates in the SNHN region respectively.

BEACH data for 2011-2015 specific to the SNHN region was also examined. BEACH is a detailed ongoing study of general practice consultations across Australia – see Appendix B for further details.

SYDNEY NORTH HEALTH NETWORK

On average the dispensing rates of medications for mental disorders in the SNHN region is lower than the NSW average or the Metro 1 average. There is however variation within the SNHN geographies. For example:

- Antidepressant prescribing in patients aged 18-64 is higher in Dural—Wisemans Ferry than the NSW average
- Antipsychotic prescribing in patients aged 18-64 is high in Carlingford.
- Antipsychotic prescribing in patients aged 65 and over seems high.

The lower average prescribing rates shown in SNHN PBS data is confirmed with BEACH data which shows 5.6 psychological agents prescribed per 100 encounters compared to the national average of 8.4. For antidepressants and anxiolytics the prescribing rates are 3.1 and 0.9 for the SNHN region, again lower than the 4.4 and 1.9 for Australia.

Medication usage rates seem in line with prevalence data, indicating lower disease rates in the SNHN region. Potential overuse of anti-psychotic medication in the management of dementia symptoms in the elderly could be examined in more detail.

On average, prescribing rates of mental health related medications in the SNHN region are lower than across NSW and Metro 1

See related content: 8.7 Frequent mental health diagnoses

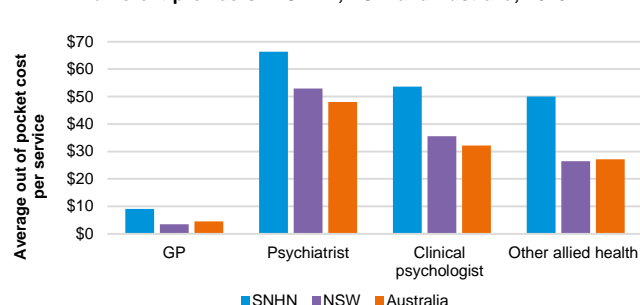
The average out of pocket cost for all MBS mental health services is higher in SNHN compared to NSW and Australia

Average fee charged per MBS mental health related service for different providers in SNHN, NSW and Australia, 2016-17



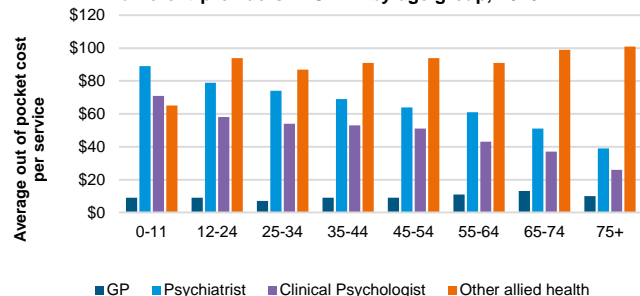
Source: Department of Health, 2017

Average out of pocket cost per MBS mental health related service for different providers in SNHN, NSW and Australia, 2016-17



Source: Department of Health, 2017

Average out of pocket cost per MBS mental health related service for different providers in SNHN by age group, 2016-17



Source: Department of Health, 2017

WHY IS THIS IMPORTANT?

In comparison to some other chronic diseases, people diagnosed with a mental health condition often require a higher frequency of ongoing care. There is also the potential that during the acute phase of a mental health diagnosis, the individual will have difficulty maintaining regular work. The combination of these factors can mean that the ongoing costs of care become a barrier to accessing care.

AVAILABILITY AND ACCURACY OF DATA

The Department of Health provides MBS claims data for mental health related services by PHN from 2011-2017. The data presents the sum of fees charged and benefits paid for MBS mental health related services for different providers. Data is aggregated by patient age, PHN and service provider.

The average out of pocket cost per service was obtained by calculating the difference between the fee charged and the benefits paid per service. The out of pocket cost provides an accurate reflection of the up-front cost borne by the patient for the service received.

SYNDEY NORTH HEALTH NETWORK

On average, residents in the SNHN region pay more per MBS mental health related service than the NSW or national average. Psychiatrists charge the highest fee of all providers. SNHN has a higher fee charged per psychiatrist MBS mental health related service of \$234 compared to the NSW (\$208) and national (\$194) average.

Higher fees are charged per psychiatrist MBS mental health service for younger age groups across SNHN, NSW and Australia. This could be attributed to the increased complexity of treating younger people. SNHN has higher out of pocket cost for psychiatrist MBS mental health services (\$66 per service) compared to NSW (\$53 per service) and Australia (\$48 per service).

Despite the higher out of pocket costs for MBS mental health related services in the SNHN region, the rate of people accessing psychiatrist and clinical psychologist MBS mental health related services in the SNHN region is relatively higher compared to NSW and Australian averages.

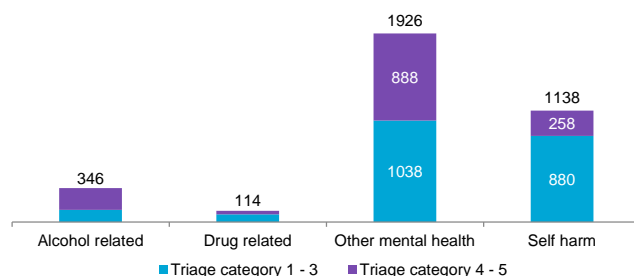
The average fee charged by GPs shows the least variation across SNHN, NSW and Australia. Further investigation is required to understand the impact on high out of pocket costs on the accessibility of services for cohorts within the region.

Higher mental health service costs in the SNHN region do not appear to reduce the rate of people using services.

See related content: 8.5 Use of psychiatrist services, 8.6 Use of clinical psychologist services

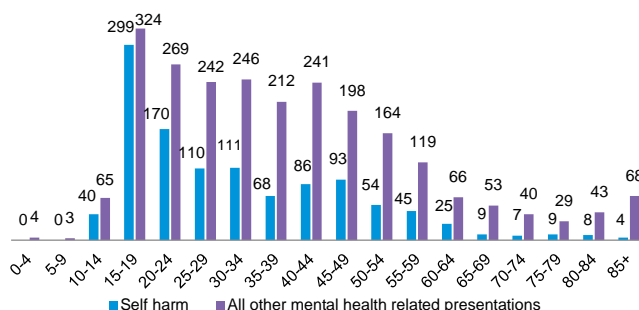
32% of all mental health related ED presentations in the SNHN region were a result of self harm

Number of ED presentations identified as relating to mental health, drug or alcohol use



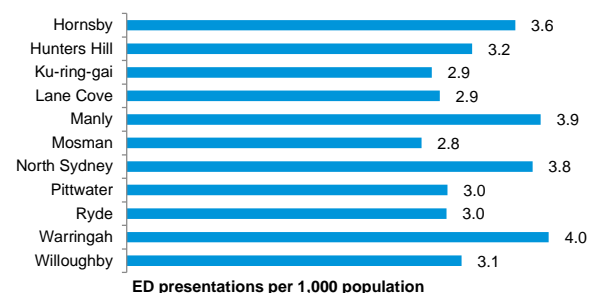
Source: EY analysis of SNHN ED presentation data, January-June 2014

Number of ED presentations identified relating to mental health, drug and alcohol use



Source: EY analysis of SNHN ED presentation data, January-June 2014

Patient LGA of residence for ED presentations relating to mental health conditions, drug and alcohol use, per 1,000 population



Source: EY analysis of SNHN ED presentation data, January-June 2014

WHY IS THIS IMPORTANT

Although most people diagnosed with mental health conditions are effectively treated in the community, they may present to emergency departments (EDs) prior to diagnosis and treatment commencement and at times of crisis. Patients presenting to ED may indicate need for primary or community care that may not be fully met.

AVAILABILITY AND ACCURACY OF DATA

Presentations to EDs at Hornsby, Manly, Mona Vale, Royal North Shore and Ryde from 1 Jan to 30 Jun 2014 were examined. Mental health related presentations were identified from the presenting problem and the ICD10 description. The self harm category includes cases of self harm, threatened self harm, and patients who have attempted suicide. The categories of drug and alcohol use include any drug and alcohol use regardless of the patient also being identified as having a mental health related presentation. As this data is for EDs within the SNHN region, it does not capture people from the SNHN region who present at other hospitals or patients who are referred and admitted to hospital without using the ED. The number of patients re-attending within the period cannot be determined.

NSW level statistics on mental health related ED presentations are based on identification of presentations with a principal diagnosis of ICD10 codes F00-F99. This is different to how the SNHN region presentations have been identified and NSW level information is presented as an initial indicator, not a direct comparator.

SYDNEY NORTH HEALTH NETWORK

In NSW, ED presentations relating to mental and behavioural disorders accounted for 3.2% of ED presentations in 2014-15 (AIHW 2015d, cat no. HSE 168, Table 4.4).

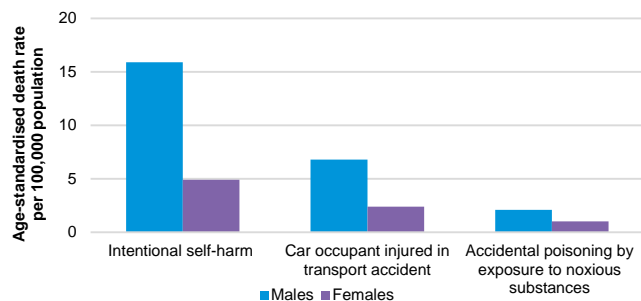
Over the first six months of 2014 mental health related presentations accounted for 3.7% of all ED presentations in the SNHN region. The major single identifiable mental health related cause of people presenting to EDs is self harm, making up 32% of mental health related presentations. Urgency was also high, with 77% of self harm presentations falling into triage categories 1-3.

Presentations relating to suicide and self harm are particularly prominent within the 15-19 year age group where it accounts for almost half (48%) of the mental health related ED presentations.

Of the ED presentations related to mental health, three out of ten are aged 15-24 and half occur in the 15-34 year age bracket. Presentations by LGA within the SNHN region vary from 2.8 per 1,000 population in Mosman to 4.0 in Warringah. This is despite Warringah having a lower proportion of the population reporting mental health problems and a lower numbers of psychiatrists and clinical psychologists than the SNHN region average.

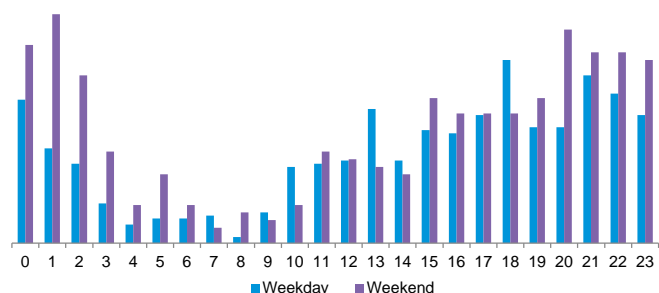
Intentional self-harm is the leading cause of death in 15-24 year olds in NSW

Underlying cause of death in people aged 15-24 years in NSW, 2017



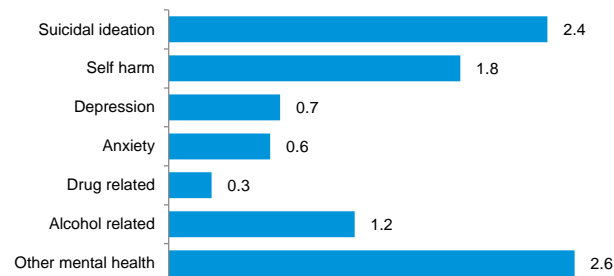
Source: ABS, 2018

Average number of hourly ED presentations for mental health, drug or alcohol programs in 15-24 year olds



Source: EY analysis of SNHN ED presentation data, January-June 2014

Reason for mental health, drug or alcohol related ED presentations per 1,000 population aged 15-24



Source: EY analysis of SNHN ED presentation data, January-June 2014

WHY IS THIS IMPORTANT?

Youth mental health is a priority area within the SNHN region. Appropriate and timely access to services is paramount.

AVAILABILITY AND ACCURACY OF DATA

The ABS provides data on the causes of death in NSW from deaths registered from 2008 to 2017. Information on the underlying causes of death is collated by the ABS based on information provided on individuals death certificates. Information about the cause of death is supplied by the medical practitioner or coroner who certifies the death. Due to time lags in the registration of deaths with state and territory registries, not all deaths are registered in the year that they occur. Age-standardised death rates are calculated using registered deaths and the 2017 ERP.

The ED presentation data (see section 8.10 for detailed analysis) has been further examined by time of presentation on weekdays and weekends. The presenting complaint was used to further differentiate reasons for presentation as much as was possible with the free text nature of the data field. It is likely that many underlying causes were not reported in the text summary - e.g. alcohol, depression and anxiety will be under-reported.

SYDNEY NORTH HEALTH NETWORK

The leading cause of death in 15-24 year olds in NSW for both males and females is intentional self-harm with the rate for males (15.9 per 100,000) three times the rate for females (4.9 per 100,000). The rate of intentional self-harm as a cause of death per person in NSW (10.5 per 100,000) is more than double the rate for death caused by a motor vehicle injury (4.7 per 100,000). Accidental poisoning by exposure to noxious substances was the third highest cause of death in NSW in 2017, with a rate of 1.6 deaths per 100,000 people.

Three quarters of all identified mental health and drug and alcohol-related emergency department presentations occurred out of hours for 15-24 year olds, in line with the pattern for other reasons in this age group (data not shown).

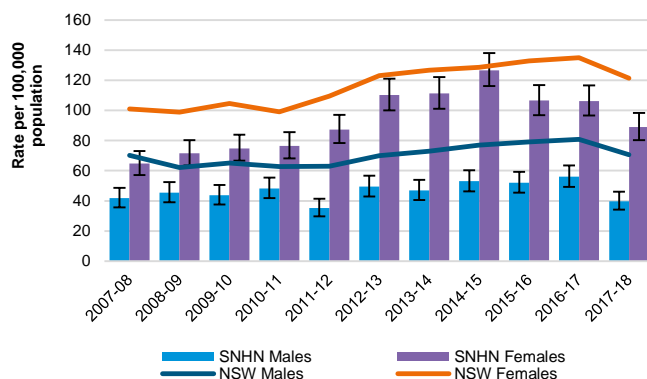
Child and youth preventive mental health service provision was identified by key respondents as an area that would benefit from further resource being deployed in the SNHN area, including improving preventive mental health programs and improving pathways for navigating different services.

While females present with self-harm to ED at twice the rate of males, males are three times as likely to die from intentional self-harm

See related content: 8.3 Use of MBS and PBS for mental health, 8.10 ED presentations

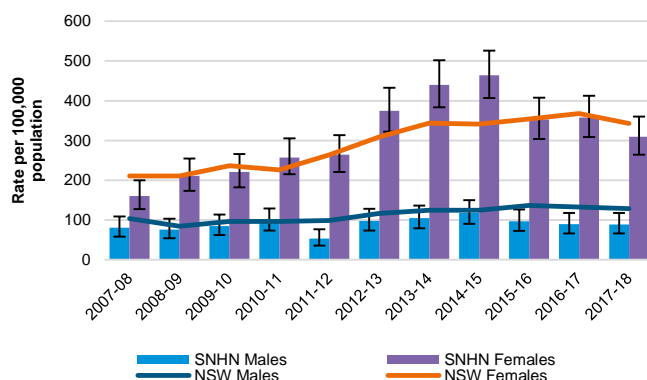
In the SNHN region the rate of hospitalisation for intentional self-harm is higher in females than males

Hospitalisation rates for intentional self-harm in all ages in SNHN and NSW, 2007-18



Source: Centre for Epidemiology and Evidence, 2019

Hospitalisation rates for intentional self-harm in 15-24 year olds in SNHN and NSW, 2007-18



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT

The subset of self-harm-related ED presentations that are admitted to hospital may represent more serious illness. While prevention is still key, admission to hospital can provide additional intervention options, and discharge planning with community support can reduce the chance of re-presentation.

AVAILABILITY AND ACCURACY OF DATA

HealthStats provides data on the number and rate of hospitalisations as a result of intentional self-harm from 2001-2018. Data is presented by age, sex and available by PHN.

Intentional self-harm includes purposely self-inflicted poisoning or injury or attempted suicide with intent. This indicator only includes people who are admitted to hospital after self-harm, and does not include people who only attended the emergency department. This data is not a direct measure of the number of people in the SNHN and NSW populations who make suicide attempts. Data is based on the persons place of residence, rather than where they were treated.

SYDNEY NORTH HEALTH NETWORK

In the SNHN region, there is a higher rate of hospitalisations for intentional self-harm in those aged 15-24 years compared to all age groups with a pronounced burden on females.

In 2017-18, the rate of hospitalisation for intentional self-harm for all ages in the SNHN region (64 per 100,000; 95% CI 58.8-69.6) was significantly lower than NSW (95.5 per 100,000; 95% CI: 93.3-97.7). Males in the SNHN region (39.8 per 100,000; 95% CI: 34.1-46.1) have the lowest rates of hospitalisation for intentional self harm of all NSW PHNs. The rate of hospitalisations for intentional self-harm for females (89 per 100,000; 95% CI: 80.2-98.4) in the SNHN region was significantly higher than males in 2017-18, however it was lower than most PHNs in NSW. The rate of hospitalisations for intentional self harm in the SNHN region and in NSW have remained consistent over time for both males and females.

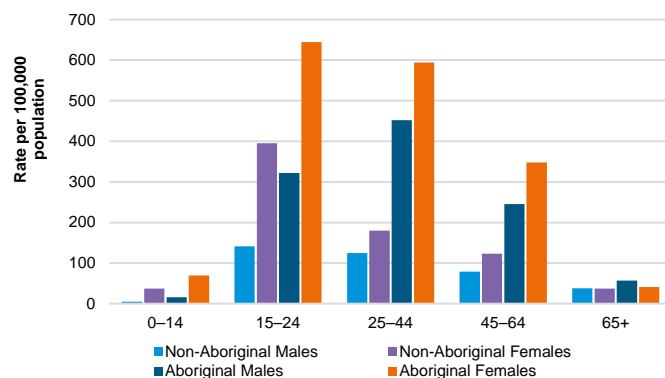
The rate of hospitalisation for intentional self-harm in the 15-24 year old age group in the SNHN region (196 per 100,000; 95% CI: 171-224) is slightly lower compared to the NSW rate (234 per 100,000; 95% CI: 224-243). Males in the SNHN region (89 per 100,000; 95% CI: 66.1-117) have a lower rate of hospitalisations compared to NSW males (128 per 100,000; 95% CI: 119-139). Females in this age group in the SNHN region (309 per 100,000; 95% CI: 264-360) have a significantly higher rate of hospitalisations for intentional self-harm compared to the male cohort in SNHN (89 per 100,000; 95% CI: 66.1-117). However, the rate for SNHN females is lower than the average for females in NSW (343 per 100,000; 95% CI: 327-360).

Similar to ED presentations, females are hospitalised at a higher rate than males, yet males are more likely to die from intentional self-harm.

See related content: 8.10 ED presentations, 8.11 Youth experiences of mental health

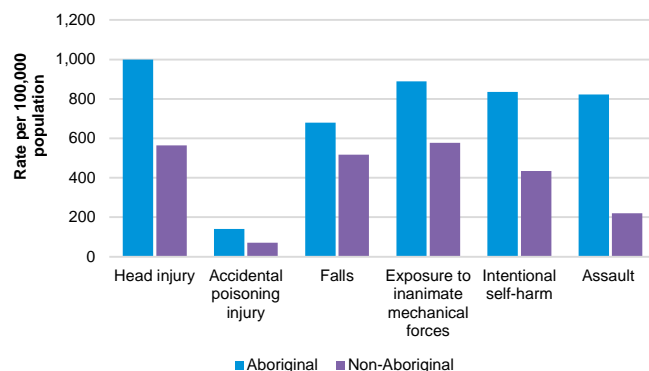
The Aboriginal population has a higher rate of hospitalisation due to intentional self-harm compared to the non-Aboriginal population across all age groups

Rate of hospitalisation for intentional self-harm in Aboriginal and non-Aboriginal Australians by age and sex, 2011-2016



Source: AIHW, 2019

Rate of hospitalisations by causes of injury in Aboriginal and non-Aboriginal Australians aged 15-24 years living in major cities, 2011-2016



Source: AIHW, 2019

WHY IS THIS IMPORTANT?

The impacts of Stolen Generations, poor access to preventative health care and higher rates of social disadvantage, impact the mental health and wellbeing of Aboriginal people. Understanding the burden of mental health issues and the nature of hospitalisations in the Aboriginal population is crucial to understanding where targeted interventions need to be directed.

DATA AVAILABILITY AND ACCURACY

The Australian Aboriginal and Torres Strait Islander Health Survey 2012-13 uses modified Kessler Psychological Distress (K5) Scale as a measure of non-specific psychological distress in individuals aged 18 years and over.

AIHW provides data on the hospitalisations of Aboriginal and Torres Strait Islander people in Australia in 2011-2016. Data is presented by cause of hospitalisation, patient age and remoteness of usual residence. HealthStats provides data on hospitalisations for mental health disorders by aboriginality and PHN for 2016-17.

SYDNEY NORTH HEALTH NETWORK

Across Australia, there is a higher rate of psychological distress among Aboriginal people compared to non-Aboriginal people, with 23.3% (95% CI: 16.7-29.9) of the Aboriginal population in Australia reporting high or very high psychological distress compared to 14.9% (95% CI: 13.8-15.9) of non-Aboriginal people. High rates of distress illustrate the need for targeted interventions to prevent subsequent hospitalisations and suicide.

In NSW, suicide rates are higher among Aboriginal people (16.3 per 100,000; 95% CI: 13.4-19.6) compared to non-Aboriginal people (9.9 per 100,000; 95% CI: 9.6-10.2) in 2012-16.

While data around suicide is not available by PHN, rates of hospitalisations for mental health disorders among Aboriginal people (3,662 per 100,000; 95% CI: 2,947-4,487) in the SNHN region is higher compared to non-Aboriginal people (2,060 per 100,000; 95% CI: 2,031-2,090) in 2016-17, highlighting the gap in health outcomes that exist.

Across Australia, the rates of hospitalisation for intentional self-harm in 15-24 year olds was higher in Aboriginal people (479 per 100,000) compared to non-Aboriginal people (265 per 100,000). Aboriginal females aged 15-24 years have the highest rates of hospitalisation due to intentional self harm with 645 per 100,000 population compared to non-Aboriginal females aged 15-24 years (395 per 100,000).

If the rates in the SNHN region are similar to the Australian rates for major cities, the Aboriginal population would have significantly higher rates of hospitalisation due to intentional self-harm compared to their non-Aboriginal counterparts. Intentional self harm is a leading cause of hospitalisation for Aboriginal Australians aged 15-24 years (836 per 100,000 population) living in major cities, compared to their non-Aboriginal counterparts (435 per 100,000 population).

For 15-24 year olds living in major cities, the rate of hospitalisation caused by self-harm is almost 2 times higher for Aboriginals than the non-Aboriginal population.

LGBTI people are 2.5 times more likely to use illicit drugs

WHY IS THIS IMPORTANT?

An understanding of the needs of vulnerable populations is crucial to ensuring appropriateness and efficiency in health service planning and delivery to reduce health inequalities.

Population groups:

- ◆ People experiencing socio-economic disadvantage
- ◆ LGBTI people
- ◆ Women experiencing perinatal depression
- ◆ People with intellectual disability
- ◆ People experiencing or at risk of homelessness
- ◆ Older people
- ◆ People from CALD backgrounds
- ◆ Aboriginal and Torres Strait Islander people
- ◆ Children and young people

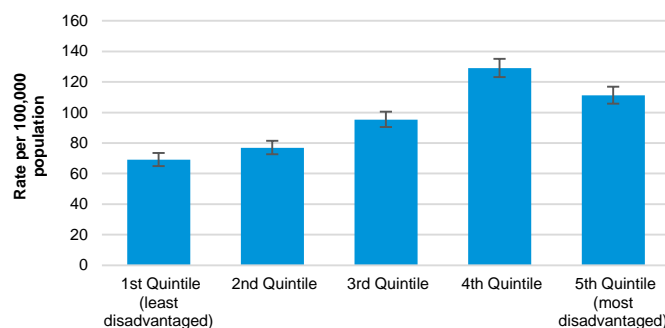
HOW IS IT MEASURED?

This section presents data from NSW HealthStats, National Drug Strategy Household Survey 2016 and results from a literature review to provide a comprehensive overview of the needs of vulnerable population groups identified above.

Socio-economic disadvantage

People in the most disadvantaged quintile in NSW have higher rates of hospitalisations for intentional self-harm (111 per 100,000; 95% CI: 106-117) compared to those in the least disadvantaged quintile (69.2 per 100,000; 95% CI: 65-73.6).

Rate of hospitalisations for intentional self-harm in NSW by socio-economic status, 2017-18



Source: Centre for Epidemiology and Evidence, 2019

LGBTI people

An estimated 23,500 LGBTI people live within the region, with specific lifestyle behaviours and health issues (ACON).

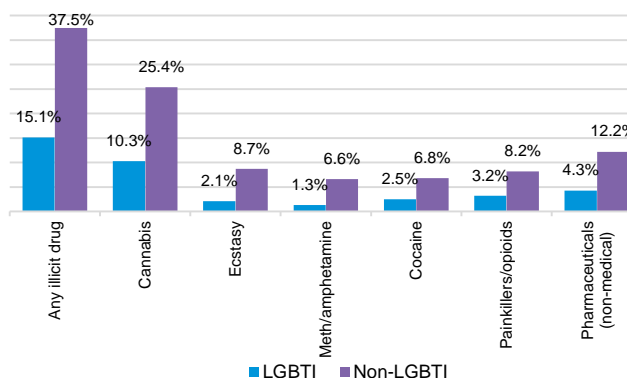
There is a high risk of HIV and Hepatitis C among LGBTI people due to high risk sexual practices as well as drug usage patterns. Nationally, male-to-male sex continues to be the major HIV risk exposure in Australia (Kirby Institute, 2018), with 78% (216) of newly diagnosed HIV infections in NSW among men who have sex with men (NSW Department of Health, 2018). Cancer and STI screening behaviours were also poorer among homosexual women.

LGBTI people are 1.7 times more likely to experience major depression and 4.1 times more likely to attempt suicide (Ritter et al, 2012). Suicidal ideation is higher among young LGBTI people, partly due to impacts of higher rates of violence and harassment (beyondblue, 2010). There is also a higher prevalence of risky drinking and illicit drug use. Across Australia, 28.4% of LGBTI people reported engaging in risky drinking behaviours compared to 17.1% of non-LGBTI people and 37.5% reported using illicit drugs in the past 12 months:- 2.5 times higher than non-LGBTI people (15.1%).

Perinatal depression

In Australia, 20% of mothers experience perinatal depression, with a greater risk among young mothers (mothers under 25 years), mothers who smoke and mothers from low-income households (AIHW, 2012).

Illicit drug use in the past 12 months in Australia in LGBTI and non-LGBTI population



Source: AIHW: National Drug Strategy Household Survey, 2016

Intellectual disability

Across Australia, 3% of people are diagnosed with intellectual disability (AIHW, 2008). Comorbidity with mental disorders, mainly psychiatric and mood disorders is very common (Simpson, 2012).

Homelessness

Across NSW, 32.4% of people accessing the specialist homelessness service had a mental health problem. Similar to NSW, a snapshot of homelessness in the region by the Northern Sydney District Homelessness Project identified 38% of contacts seeking a homeless service related to mental health issues.

Older people

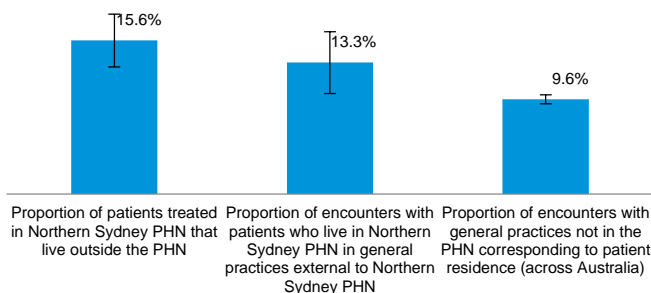
According to AIHW (2013), approximately 50% of older people living in residential aged care facilities report mild, moderate or severe symptoms of depression.

CALD

Humanitarian entrants have a higher risk of suicide, with overrepresentations in ED due to greater stigma related to mental health, limited knowledge about available services as well as language and cultural barriers (MHIMA, 2014).

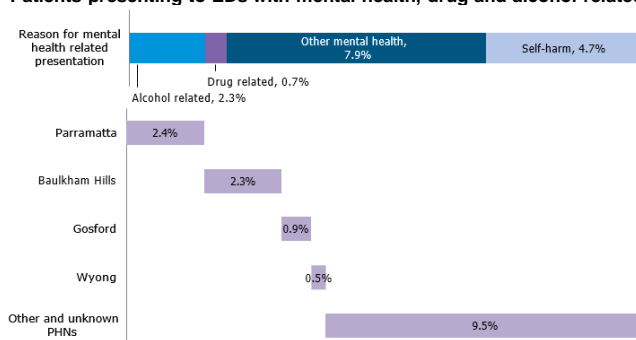
16% of mental health-related ED presentations in the SNHN hospitals are for residents of other PHNs

Proportion of patients attending general practices in other PHNs



Source: BEACH, 2015

Patients presenting to EDs with mental health, drug and alcohol related



Source: EY analysis of SNHN ED presentations, January-June 2014

Hospital	Parra-matta	Baulkham Hills	Gosford	Wyong	Other	Total
Hornsby	1%	9%	4%	1%	9%	25%
Manly	0%	1%	1%	0%	14%	15%
Mona Vale	0%	0%	0%	0%	2%	3%
Royal North Shore	2%	2%	1%	1%	28%	35%
Ryde	12%	3%	0%	0%	7%	23%

Source: EY analysis of SNHN ED presentations, January-June 2014

WHY IS THIS IMPORTANT?

In considering the number of services to be provided in the SNHN region, it is not just the need of the residents within the SNHN region that need to be considered but also whether the patient inflow or outflow is larger. If the patient inflow is larger there are opportunities to work with providers in the major source regions. Conversely, if patient outflows are larger, it may indicate that people are experiencing barriers to accessing services close to home.

AVAILABILITY AND ACCURACY OF DATA

By using data collected from patients across Australia, the BEACH dataset reveals whether patients are receiving GP services within their PHN of residence or from providers in alternate PHNs. This data is only available at the total patient level, rather than being restricted to patients mental health related services (see Appendix B).

The ED mental health related presentations for patients residing in LGAs not within the SNHN region have been analysed as an indicator of patient inflow, including the hospital of care. Presentations analysis is limited to patient inflows and should be balanced against the outflows of residents within the SNHN region to other hospitals.

SYDNEY NORTH HEALTH NETWORK

Patients may consider a number of factors when choosing their provider including length of waiting list, convenience of service delivery location, reputation of provider, experience or specialisation of service provider and comfort with the provider.

In examining the flow of patients using GP services, it appears that more patients are coming into the SNHN region (16% of consultations) than are residents within the SNHN region receiving services from providers in alternate PHNs (13% of all SNHN consultations)—so a net inflow.

Of the identified mental health related ED presentations, 16% are for people residing in LGAs not within the SNHN region—in line with the GP consult inflow. There may be an opportunity for providers of mental healthcare in the SNHN region to strengthen and support the services being provided in neighbouring areas, especially Parramatta and Baulkham Hills, with the aim of reducing ED presentation rates. Based on the hospitals patients are presenting to, it is likely that this would have the greatest impact on mental health related ED presentations at Ryde and Hornsby hospitals.

More patients appear to be coming into the SNHN region for GP services than are residents within the SNHN region receiving services out of the area.



CHAPTER 9

Urgent Care

Urgent Care – Key Points

At a glance: the SNHN region has a relatively lower use of after hours care and ED compared to other parts of NSW, despite relatively high numbers of after-hours providers. Some residents have difficulty accessing after hours primary care, ending up in ED instead. In addition a high number of lower acuity presentations to ED in normal working hours may indicate difficulties in getting same day appointments in general practice.

9.1 Previous work by the areas Medicare Locals looked to improve access to primary care after hours. A lack of community awareness of service availability had been noted, along with limited access to community/ public transport services after hours. Low use of the GP Helpline phone service was noted. Access for children and older people were of particular concern. Responses included funding for rapid response teams for aged care facilities, and grants for medical deputising services to expand after hours services into areas of need. An increase in calls to the National Home Doctor service was noted over 2014.

9.3 ED attendance rates in the SNHN region from 2010 - 2014 were lower than the attendance rates across NSW. People in age groups 0 to 4 years and 80 years+ had the highest rates of ED attendance of all age groups in the SNHN region. ED attendances from Warringah and Hornsby LGAs account for a third of all ED attendances in the SNHN region. However, the rate of ED attendance relative to the population size of the LGA was highest in Pittwater and Manly.

9.5 Over a third of all ED attendances in the SNHN region were at Royal North Shore (RNS) Hospital. Hornsby Hospital received the second highest proportion of ED attendances (almost 20%).

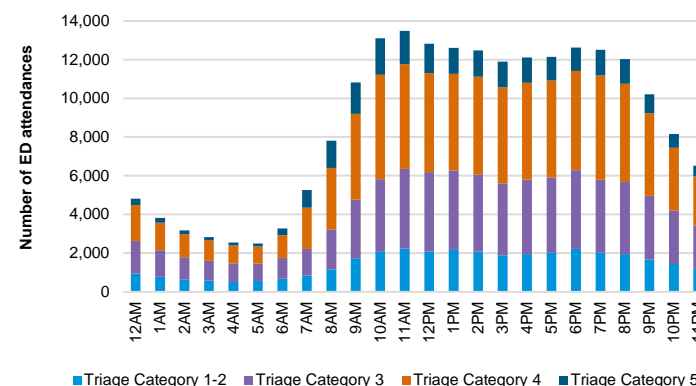
9.6 In the SNHN region, while absolute numbers were low, most age groups within the Aboriginal-identified population had a higher ED attendance rate than their non-Aboriginal counterparts.

9.7 Lane Cove LGA had the highest rate of ED attendances of Aboriginal people in the SNHN region. Almost a third of all Aboriginal people attending EDs in the SNHN region came from LGAs outside the SNHN region; twice the rate of the non-Aboriginal population.

9.8 The proportion of ED attendances that occurred after hours from 2010 to 2014 remained close to 60% . Age groups 0 to 4 and 15 to 19 had the highest proportion of after hours ED attendances (66%), while age groups 80+ had the lowest proportion of after hours attendances (48%).

9.9 The busiest hours were between 10AM to 2PM, with 30.8% of all ED attendances occurring during these hours.

ED attendances by time of presentation and triage category in the SNHN region, 2017-18



Source: AIHW, 2019

9.10 In 2016-17 the SNHN region had the highest rate of registered GP after-hours/emergency providers compared to comparator PHNs and Australia. The SNHN region also had the highest average fee charged for an after hours GP service compared to comparator PHNs and Australia.

SUMMARY OF NORTHERN SYDNEY MEDICARE LOCAL NEEDS ASSESSMENT (2011)

The SNHN region covers the area of two former Medicare Locals (ML): Northern Sydney ML (NSML) and Sydney North Shore and Beaches ML. In 2011, NSML undertook a whole-of-region needs assessment, including reviewing utilisation and provision of after hours services. This identified the priority gaps as being:

- ◆ Lack of community awareness of after hours services available in NSML area
- ◆ Increasing trends to present at ED instead of accessible after hours services
- ◆ Low awareness of after hours services for over 65 year olds in Hunters Hill LGA, as well as Ku-ring-gai, Ryde and Hornsby LGAs
- ◆ Lack of awareness of after hours services for new mothers and families from a Culturally and Linguistically Diverse (CALD) background in Ryde LGA

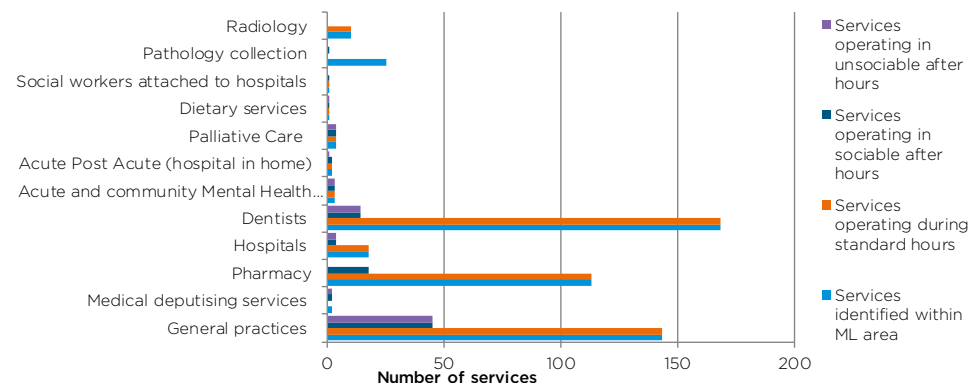
Increasing trend of 16-24 year olds presenting to local EDs in the Hornsby LGA
Findings in relation to utilisation of after hours services included:

- ◆ Limited access to community/public transport services may present as a barrier to accessing after hours services for patients who rely on community transport
- ◆ Hunters Hill and Ku-ring-gai LGAs had below average after-hours claims

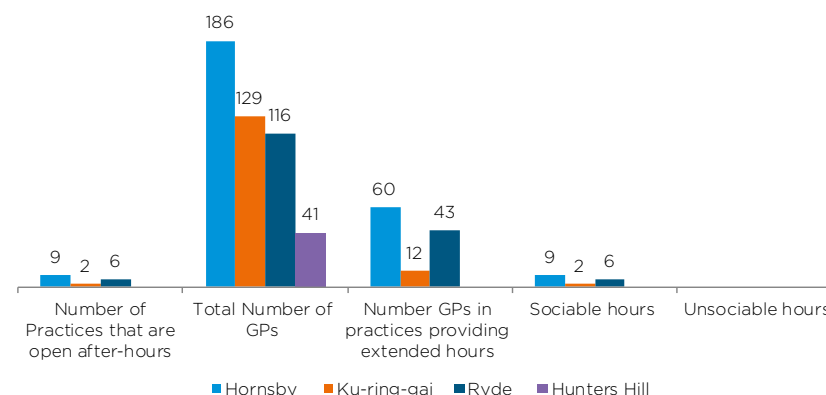
The state of provision of after hours services in NSML in 2011 is shown below.
Service provider summary for the NSML area:

# of General Practices	# of practices providing after hours care	Medical deputising services (MDS)	% of practices providing after hours through an MDS	# of practices providing their own after hours care
143	45	2	80%	30

Service capacity mapping: Service provider information summary



The assessment also provided a summary of the number of practices that were open for extended hours by LGA. The two medical deputising services provided after hours services to practices in all four LGAs.



It was proposed by the providers of the National After Hours GP Helpline that awareness of the service in NSW was low. The below breakdown of calls made to the Helpline by LGA between July to December 2011 indicates NSML usage.

LGA	Number of calls	Population	% of population
Hornsby	545.6	164,034	0.3%
Ryde	429.6	106,289	0.4%
Ku-ring-gai	428.6	114,142	0.4%
Hunters Hill	119.0	14,591	0.8%

Barriers to provision of after hours services were noted to include inadequate remuneration, difficulty recruiting staff, and low participation rates of GPs.

SUMMARY OF NSML AFTER HOURS PROGRAM IMPLEMENTATION REPORT (2013)

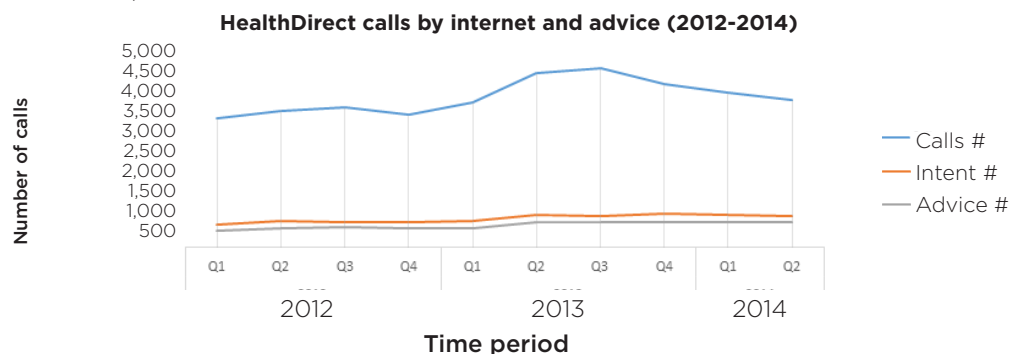
Following the after hours assessment in 2011, implementation of the 3 year after-hours plan commenced in August 2013. The implementation report included an assessment of the current state of service provision in NSML in 2013:

# of General Practices	# of practices offering 24 hour access to care	Medical deputising services (MDS)	% of practices providing after hours through an MDS	# of practices providing their own after hours care
147	53	4	75	14

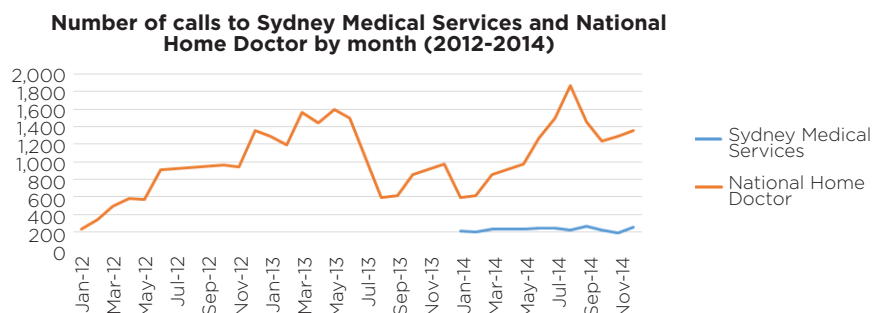
- ◆ Of 103 pharmacies, 23 offered extended hours but none were open 24 hours
- ◆ Pathology and radiology services were only available in hospital settings outside normal business hours
- ◆ NSLHD funded 2 rapid-response teams that offer additional support for after hours urgent care needs in Residential Aged Care Facilities

The implementation report also identified the key players providing after hours care in NSML as: the Healthdirect helpline, GPs, medical deputising services, ambulance, and hospital EDs.

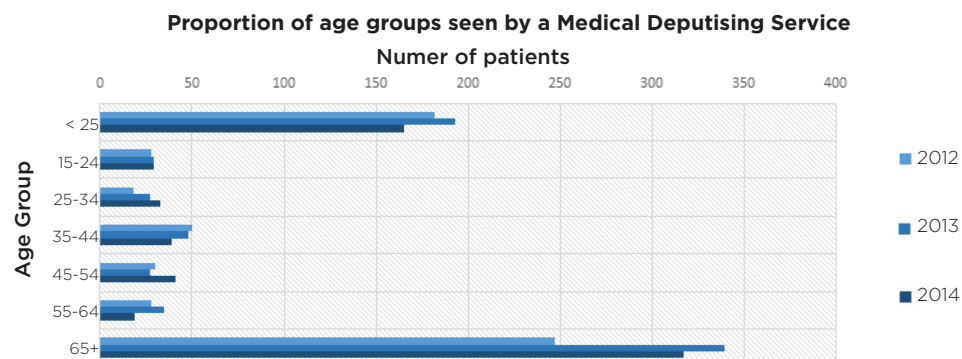
The implementation report details the action and outputs defined to meet objectives of the after hours plan. For instance, the trend of uptake of the Healthdirect GP Helpline was one indicator used to demonstrate access to triage and community based services. An analysis of the number of calls received by Healthdirect from 2012-14 showed an increase in call numbers in mid-2013, and an overall increase from 2012.



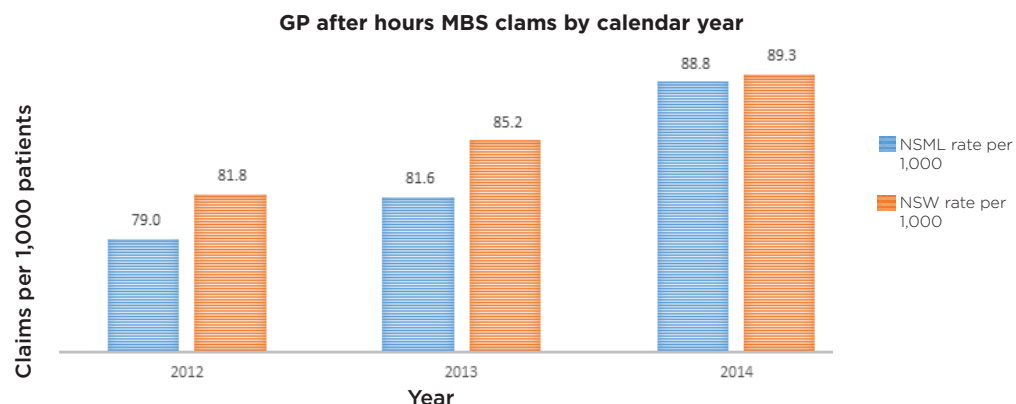
Grants were offered to medical deputising services to expand after hours services into areas of need. The graph below shows a large increase in calls to the National Home Doctor service from January to August 2014.



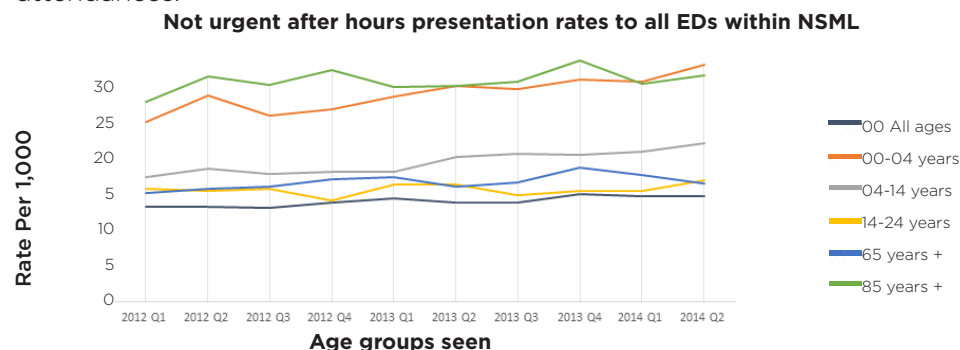
The below breakdown of the proportion of age groups seen by a medical deputising service shows that patients aged under 15 and over 65 were the largest users of this service.



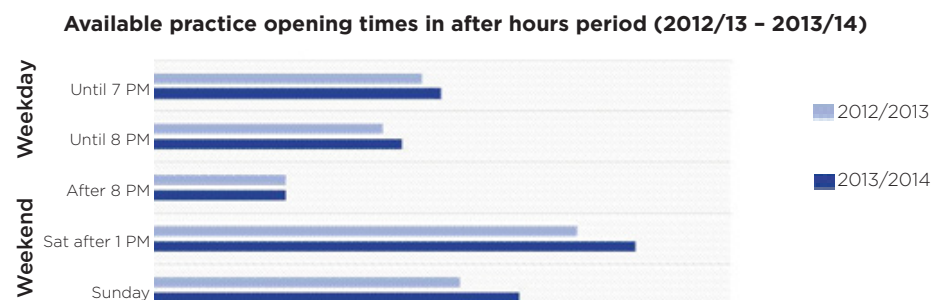
The implementation report found that, the rate of GP after hours claims in NSML were lower than the rate of claims across NSW. However, the gap has reduced and NSML and NSW were claiming almost equal rates by 2014.



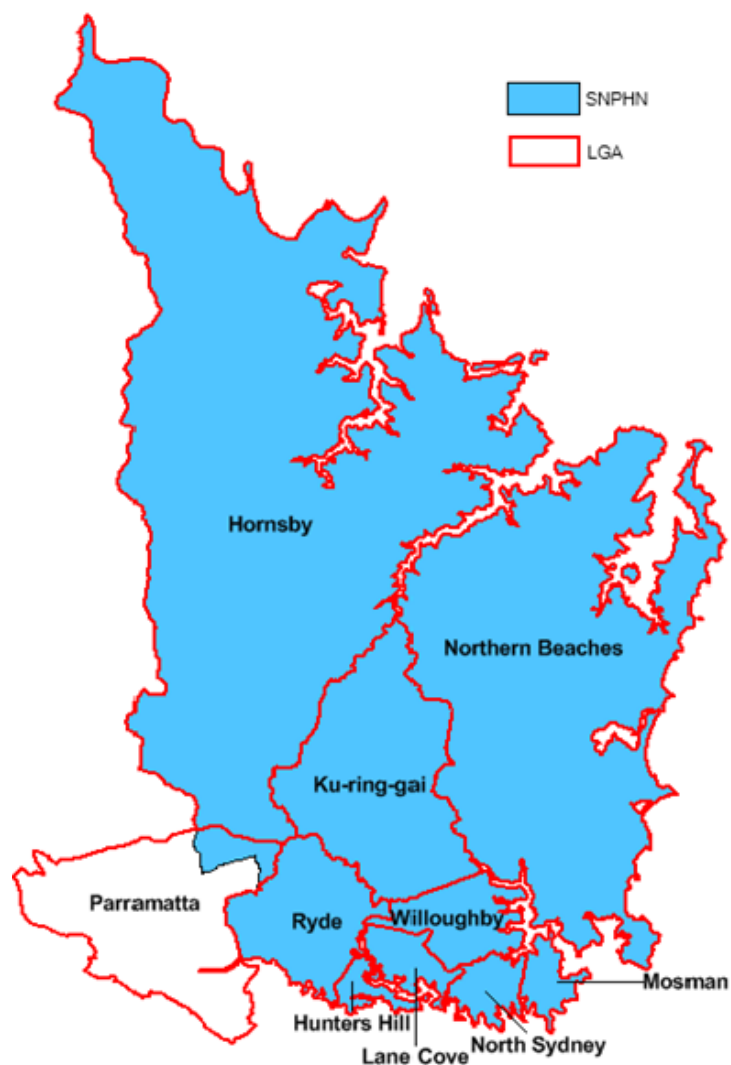
The implementation report presents an analysis of paediatric and elderly ED presentations that fell into less urgent triage categories (triage 4 and 5). It notes that patients aged 0-4 and 85+ had the highest rate of less-urgent ED attendances.



The implementation report notes that NSML was awarded \$380,000 in funding to assist health services with extending after hours coverage. A graph is provided in the report, showing the resultant increase in after hours services available.



Local Government Area (LGA) boundaries in SNHN, 2016



Source: Sydney North Health Network, 2018

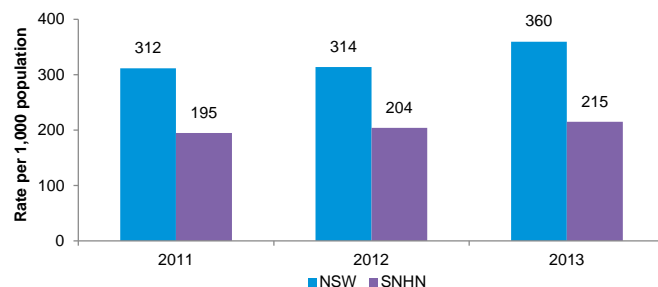
Hospitals within the SNHN region



Source: Sydney North Health Network, 2019

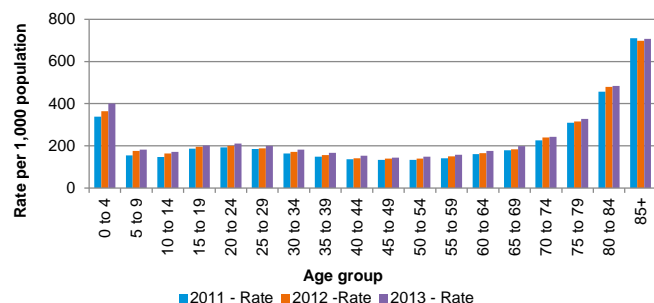
The SNHN region has a lower rate of ED attendance than NSW

ED attendance rate per 1,000 people in NSW and SNHN, 2011-13



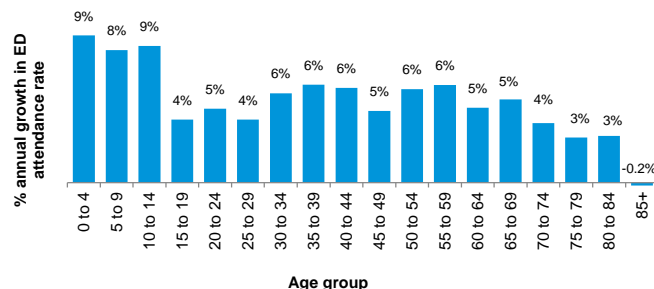
Source: EY analysis of SNHN ED data, 2015

Rate of ED attendances by age group in Northern Sydney LHD per 1,000 people



Source: EY analysis of SNHN ED data (2011-13)

Growth in ED attendance rate per 1,000 people (2011-13)



Source: EY analysis of SNHN ED data (2011-13)

WHY IS THIS IMPORTANT?

A disproportionately high utilisation of emergency care services may indicate that there are opportunities to improve primary care services. Understanding the profile of patients who attended emergency departments (ED) in the SNHN region will highlight any sections of the demographic that may require targeted intervention.

AVAILABILITY AND ACCURACY OF DATA

Data was obtained from Northern Sydney LHD for all attendances to public hospital EDs recorded from July 2010 to June 2014. There were 709,313 ED attendances available for analysis. Note that ED data counts repeat attendances by a single patient as a separate record. The data does not capture outflows of patients who leave the SNHN region to attend hospitals elsewhere. To calculate ED attendance rate, an age breakdown of the population of the SNHN region was obtained from the Department of Health population data for years 2011 to 2013.

SYDNEY NORTH HEALTH NETWORK

From 2011-2013, the ED attendance rate in the SNHN region was lower than the NSW rate.

From July 2010 to June 2014 the 0 to 4 years and 85 years and over age groups had the highest number of ED attendances in the SNHN region than any other age group (~20% of all attendances). These age groups, as well as the 80-84 years age group, had the highest age-specific rates of ED attendance within the SNHN region.

In 2013 there were 707 ED attendances per 1,000 people aged 85 years and over, 484 per 1,000 for those aged 80 to 84 years and 401 attendances per 1,000 people aged 0 to 4 years. This is consistent with the findings in the NSML After Hours Report (see 9.1), which also noted that the 0-4 and 85 years and over age groups had the highest rate of less-urgent ED attendances in NSML.

All age groups except 85 years and over experienced growth in ED attendance rates from 2011 to 2013.

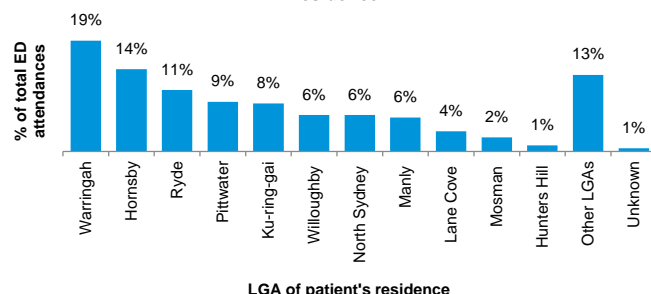
Across NSW ED attendance in the 0-4 year age group was the equivalent of 63% of the total 0-4 year population, whilst ED attendance for those aged 85 years and over was the equivalent of 92% of the total population over 85 years of age (AIHW, Emergency department care 2014-15, Table 3.1). While ED attendance rates in the SNHN region amongst the 0 to 4 years and over 85 year age groups are lower than NSW rates, further analysis could reveal opportunity for intervention.

The 0-4 years and 85 years and over age groups had the highest number of ED attendances of all age groups

See related content: 1.3 Age structure, 8.4 GP Mental Health MBS Services & Treatment Plans, Chapter 10 Health of Older People

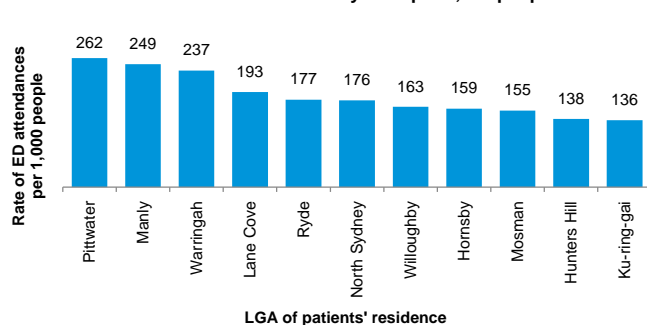
Rates of ED attendance were highest in Pittwater and Manly LGAs

Proportion of total patients who attended ED by LGA of patient's residence



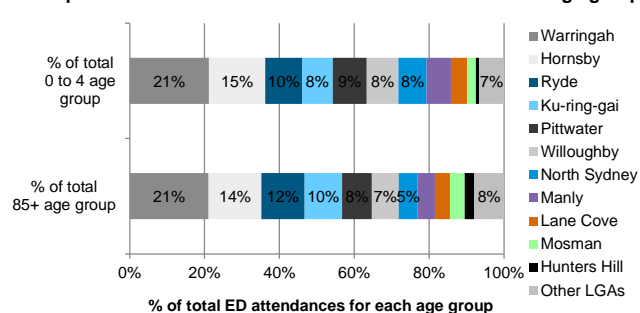
Source: EY analysis of SNHN ED data (July 2010-June 2014)

Rate of ED attendances by LGA per 1,000 people



Source: EY analysis of SNHN ED data (January-December 2013)

LGA profile of ED attendances which were in the 0-4 or 85+ age groups



Source: EY analysis of SNHN ED data (July 2010-June 2014)

WHY IS THIS IMPORTANT?

Geographic differences in ED attendance rates may indicate the need for more or improved urgent primary care services for residents in those regions, particularly given the relatively high triage category 4 and 5 patient load.

AVAILABILITY AND ACCURACY OF DATA

Data was obtained from Northern Sydney LHD and analysed for all attendances to public hospital EDs based on the LGA of residence of the patient for the latest complete calendar year available (2013). This analysis is of 'ED attendances' and not 'patients' - a single patient may have attended ED multiple times in a time period. Note that the data does not include outflows of patients who leave the SNHN region to attend hospitals in another PHN area.

Population data for each local government area (LGA) was obtained from PHIDU (Social Health Atlas NSW and ACT, November 2015).

SYDNEY NORTH HEALTH NETWORK

ED attendances from Warringah and Hornsby LGAs accounted for a third (33%) of all ED attendances in the area. However, the rate of ED attendance relative to the population size was highest in Pittwater and Manly LGAs in 2013, where there were 262 and 249 ED attendances per 1,000 people respectively. Lower numbers of GPs per head in Pittwater and Manly than the SNHN region average may be a contributing factor to the higher volume of ED attendances in these areas, though other LGAs have lower concentrations of GPs without the higher rates of ED attendances, suggesting that other factors may also contribute to Pittwater and Manly having a high ED attendance rate. It may be possible to identify models of care in the lower utilisations areas that could be transferred to high use areas.

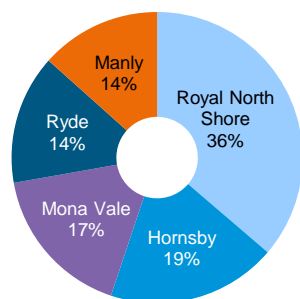
Patterns of ED attendances in the highest visiting age groups '0 to 4' and 'over 85' generally reflected the LGA demographics.

Patients from Warringah and Hornsby LGAs accounted for a third of all ED attendances in the SNHN area

See related content: 9.5 Hospitals receiving ED attendances in the SNHN region

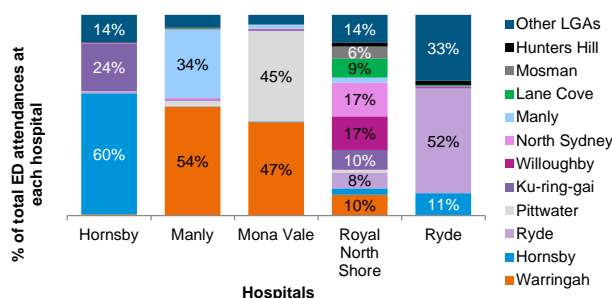
Royal North Shore Hospital has a third of all ED attendances in the SNHN region, with the greatest spread of residential LGAs

Proportion of total ED attendances by hospital



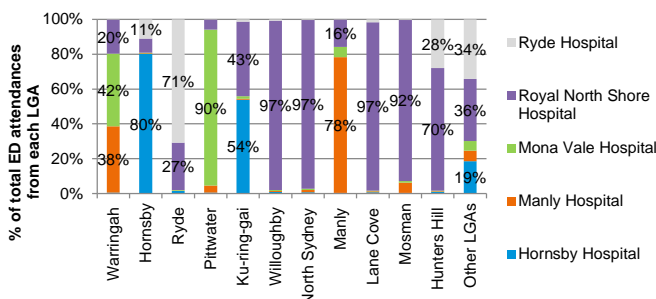
Source: EY analysis of SNHN ED data (July 2010-June 2014)

LGA profile of ED attendance by hospital



Source: EY analysis of SNHN ED data (July 2010-June 2014)

Hospital profile of ED attendances by LGA



Source: EY analysis of SNHN ED data (July 2010-June 2014)

WHY IS THIS IMPORTANT?

Analysis of the hospitals attended by patients for emergency services illustrates patterns of usage by patients within a region. Disproportionately high ED attendance in a single hospital may indicate potential for improvements in primary and integrated care services in the hospital's local area.

AVAILABILITY AND ACCURACY OF DATA

This analysis was conducted using the data obtained from Northern Sydney LHD for all attendances to public hospital EDs recorded from July 2010 to June 2014, using all available 709,313 records. A small number of records (0.5%) did not have an LGA recorded or the recorded LGA was 'unknown'. These have been included as part of the 'other LGAs' category.

SYDNEY NORTH HEALTH NETWORK

Royal North Shore (RNS) received over a third of all ED attendances in the area. Together, RNS and Hornsby Hospital covered 50% of ED attendances. Except for RNS all others received the majority of presentations at ED from neighbouring areas. For RNS patients, travel from across the SNHN region and from outside the PHN, to attend RNS, likely related to the tertiary and trauma services provided.

The majority of ED attendances came from local suburbs. People living in Warringah and Ku-ring-gai went to multiple hospitals, reflecting the location of the hospitals near them.

Hornsby Hospital received the second highest proportion of ED attendances, at almost 20%, most from the Hornsby LGA. Per the analysis on page 9.3, Hornsby LGA had a relatively low rate of ED attendance of 163 per 1,000 people.

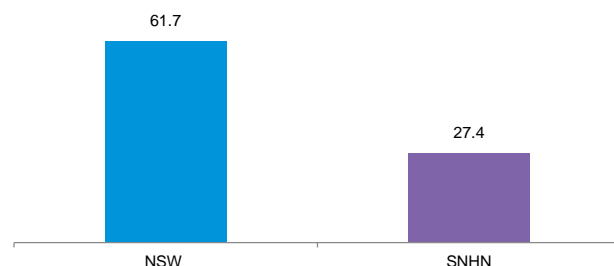
Pittwater and Warringah residents tended to use Mona Vale and Manly Hospitals for ED attendances - their relatively high rate of attendance may be worth exploring further.

The majority of patients attended their local or neighbouring ED

See related content: 9.4 ED attendances by LGA

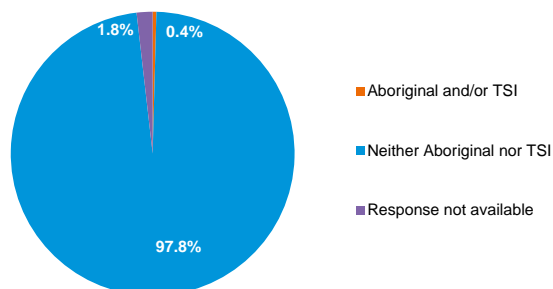
The Aboriginal population aged 15 years and over had higher ED attendance rates than their non-Aboriginal counterparts

Aboriginal ED attendance rate per 100 Aboriginal people in SNHN and NSW



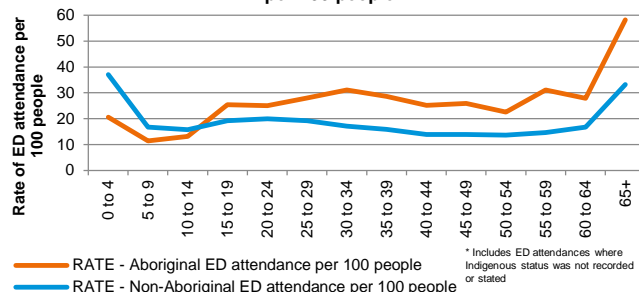
Source: EY representation of NSW Health data (2013)

Proportion of total ED attendances that were Aboriginal or Torres Strait Islander



Source: EY analysis of SNHN ED data (July 2010-June 2014)

Rate of ED attendance in SNHN by Indigenous status and age groups per 100 people



Source: EY analysis of SNHN ED data (July 2010-June 2014); ED attendance averaged over 4 year period; rate calculated over 2013 ERP population obtained from PHIDU data, June 2015

WHY IS THIS IMPORTANT?

Patients identifying as Aboriginal and/or Torres Strait Islander (henceforth 'Aboriginal') may have particular patterns of service utilisation that could present opportunities for targeted intervention.

AVAILABILITY AND ACCURACY OF DATA

Analysis was conducted using data from Northern Sydney LHD of all attendances to public hospital EDs from June 2010 to June 2014. Analysis was conducted across all available 709,313 records. To calculate the rate of ED attendance per 100 people in the SNHN region, population data was obtained from PHIDU (November 2014) and the Department of Health Population Report. ED attendance numbers amongst the Aboriginal population across NSW was obtained from 'AIHW Australian Hospital Statistics 2013-14: emergency department care'. The Aboriginal populations in the SNHN region and NSW were obtained from PHIDU (June 2015), which published the Aboriginal population as at 2013 ERP.

SYDNEY NORTH HEALTH NETWORK

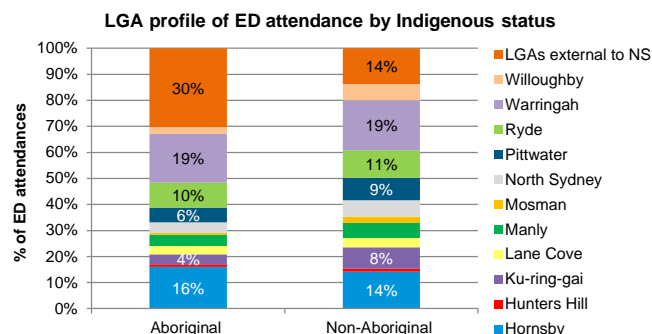
ED attendance rates for the Aboriginal population in the SNHN region is significantly lower than the NSW average, however the Aboriginal population in the SNHN region is very small and results relating to this data should be interpreted with caution. In 2013, across NSW there was an ED attendance rate of 62 per 100 Aboriginal people compared to only 27 in the SNHN region.

From July 2010 to June 2014 there were 3,006 ED attendances in the SNHN region where the patient was identified as Aboriginal, 0.4% of all presentations. Adult age groups within the Aboriginal population (i.e. over 15 years of age) had higher ED attendance rates than their non-Aboriginal counterparts. Interestingly the rates were lower in children.

The large gap between ED attendance rates of Aboriginal and non-Aboriginal across most age groups in the SNHN region presents an opportunity for targeted intervention.

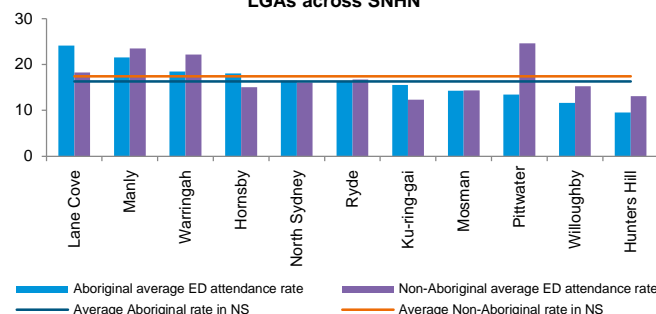
See related content: 9.7 Aboriginal ED attendances: suburb and receiving hospitals, 9.8 After hours ED attendances: Patient age and hospital

The Aboriginal ED attendance rate was higher than non-Aboriginal rates in 3 LGAs – Lane Cove, Hornsby & Ku-ring-gai



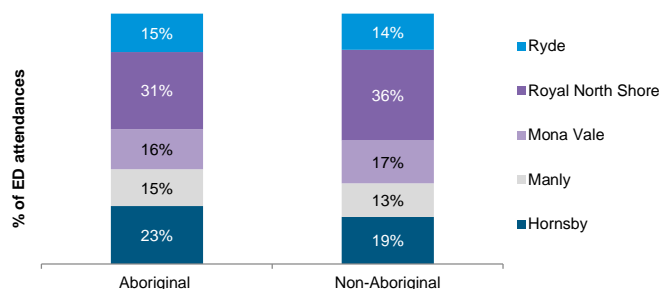
Source: EY analysis of SNHN ED data (July 2010-June 2014)

Rate of Aboriginal and non-Aboriginal ED attendances per 100 people in LGAs across SNHN



Source: EY analysis of SNHN ED data (July 2010-June 2014); ED attendance averaged over 4 year period; rate calculated over 2013 ERP population obtained from PHIDU data, June 2015

Proportion of ED attendances by Indigenous status and hospital



Source: EY analysis of SNHN ED data (July 2010-June 2014)

WHY IS THIS IMPORTANT?

Patients identifying as Aboriginal and/or Torres Strait Islander may have particular health needs or patterns of service utilisation that could present opportunities for targeted intervention.

AVAILABILITY AND ACCURACY OF DATA

This analysis was conducted using the data obtained from Northern Sydney LHD for all attendances to public hospital EDs recorded from July 2010 to June 2014. Analysis was conducted across all available 709,313 records.

ED attendances where Indigenous status was not recorded or provided were grouped together with those who were not Aboriginal, into a single group of all ED attendances that were not Aboriginal.

The Aboriginal populations in the SNHN LGAs were obtained from PHIDU (June 2015), which published the Aboriginal population by LGA as at 2013 ERP.

SYDNEY NORTH HEALTH NETWORK

Amongst both Aboriginal and non-Aboriginal ED attendances, a third of all ED attendances came from Warringah and Hornsby. However, a greater proportion of Aboriginal attendances came from LGAs outside the SNHN region (30%). The LGA with the highest Aboriginal ED attendance rate per 100 Aboriginal population was Lane Cove, followed by Manly. In only 3 LGAs, the Aboriginal ED attendance rate was higher than the non-Aboriginal attendance rate (Lane Cove, Hornsby and Ku-ring-gai). The relatively high non-Aboriginal rate appears to be driven by the high visit rates for non-Aboriginal 0-14 year old's.

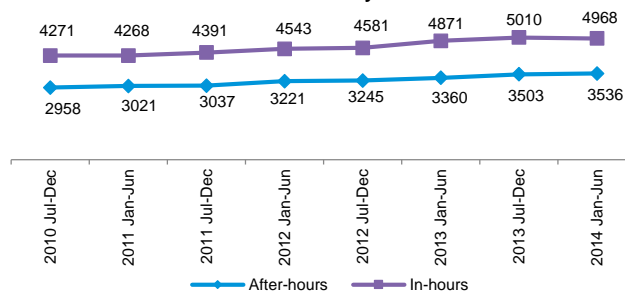
The specific hospitals used by Aboriginal residents was similar to their non-Aboriginal counterparts. The slightly greater proportion of Aboriginal ED attendances going to Hornsby Hospital is likely to be due to the higher proportion of Aboriginal ED attendances that came from Hornsby LGA and the Bungee Bidge Aboriginal health unit based at Hornsby Hospital.

Almost a third of all Aboriginal ED attendances came from LGAs outside the SNHN region, compared to only 14% of non-Aboriginal ED attendances

See related content: 9.4 ED attendances LGA, 9.6 Aboriginal ED attendances: Rate of attendance and age

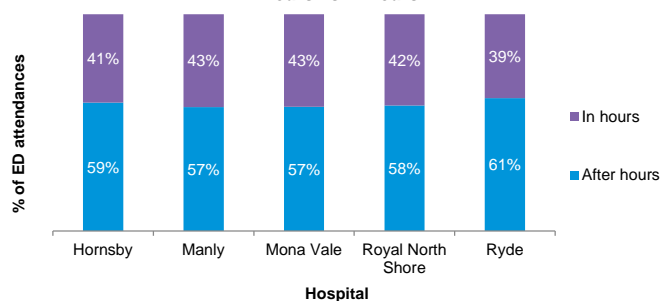
Whilst the majority of ED attendances occurred after hours, there was a higher per hour rate of attendances between 9am and 5pm

Number of ED attendances that occurred per hour after-hours and in-hours over 4 years



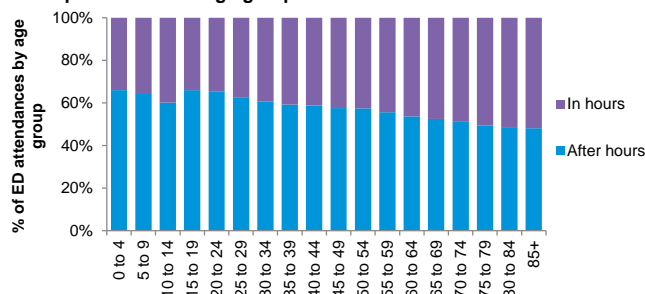
Source: EY analysis of SNHN ED data (July 2010-June 2014)

Proportion of ED attendances received by each hospital that was after hours vs in hours



Source: EY analysis of SNHN ED data (July 2010-June 2014)

Proportion of each age group that attended ED after hours vs in hours



Source: EY analysis of SNHN ED data (July 2010-June 2014)

WHY IS THIS IMPORTANT?

A disproportionately high utilisation of after hours services may be indicative of opportunities or need to improve availability of, or access to, primary care services. Understanding the profile of patients who attended emergency departments (EDs) in the SNHN region after hours may highlight sections of the demographic that may require targeted intervention.

AVAILABILITY AND ACCURACY OF DATA

This analysis was conducted using the data obtained from Northern Sydney LHD for all attendances to public hospital EDs recorded from July 2010 to June 2014. Analysis was conducted across all available 709,313 records. 'In-hours' was defined as 9.00am to 4.59pm Monday to Friday.

SYDNEY NORTH HEALTH NETWORK

From July 2010 to June 2014, the majority (58%) of ED attendances in the SNHN region occurred after-hours. However, a higher number of attendances occurred per hour during standard work hours than after hours.

The number of attendances overall, while lower than the NSW average seems high compared to the state of health generally. This perhaps reflects access problems for primary care, in particular in obtaining same-day consultations.

Younger age groups had a greater proportion of ED attendances occurring after hours, with those in the '0 to 4' age group the highest at 66% - perhaps related to parental availability.

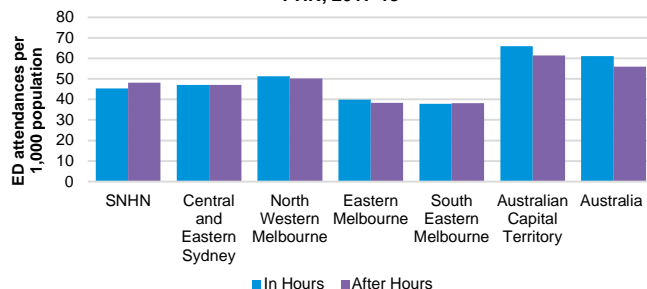
Older patients are more likely to attend in-hours. This is consistent with the findings in the NSML After Hours Report. This potentially raises an opportunity to improve accessibility of primary care services for these patients. To this point, the NSML Whole of Region's Needs Assessment Report noted that some suburbs had limited access to community transport, which could hinder those (particularly older people and/or disabled) patients who relied upon community transport. Two rapid response teams for residential aged care residents were also instigated by the ML to improve after hours responsiveness.

Children had the highest proportion of after-hours ED attendances

See related content: 9.3 Age profile of patients attending ED, 9.9 After hours ED attendances: Time and triage category

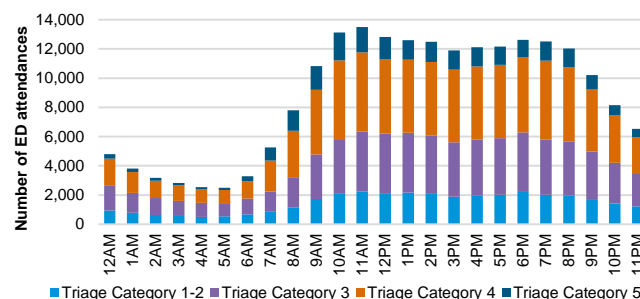
Over 50% of all ED attendances in SNHN were for lower urgency care

ED attendances in-hours and after-hours for lower urgency care by PHN, 2017-18



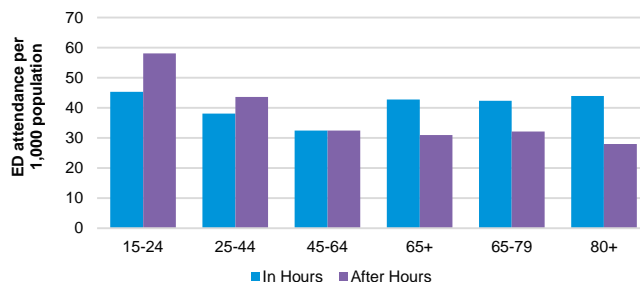
Source: AIHW, 2019

ED attendances by time of presentation and triage category in the SNHN region, 2017-18



Source: AIHW, 2019

ED attendances in-hours and after-hours for lower urgency care by age in SNHN, 2017-18



Source: AIHW, 2019

WHY IS THIS IMPORTANT?

Some presentations to emergency departments for lower urgency care may be avoidable with the provision of alternative primary health care services. In 2017-18, one in three emergency department (ED) presentations in Australia were for lower urgency care (AIHW, 2019f).

A disproportionately high utilisation of after hours ED may be indicative of opportunities or need to improve availability of, or access to, after hours primary health care services.

Understanding the volume and triage category of presentations, provides insight into periods of time of high usage and patterns in presentations. This can indicate areas for further exploration or opportunity for improved services.

AVAILABILITY AND ACCURACY OF DATA

AIHW provides data on use of emergency departments for lower urgency care by PHN for 2017-18. Data is analysed from the National Non-admitted Patient Emergency Department Care Database (NNAPEDCD) 2017-18.

Lower urgency care are ED presentations at a formal public hospital ED where the patient did not arrive by an emergency services vehicle, was assessed as needing semi-urgent (triage category 4) or non-urgent care (triage category 5), and was discharged without referral to another hospital (AIHW, 2019f).

Data does not include all emergency or urgent care provided as data is restricted to formal public hospital emergency departments. Emergency department presentations are by place of residence.

SYDNEY NORTH HEALTH NETWORK

In 2017-18, there was a higher rate of ED attendances for lower urgency care after-hours (48.1 per 1,000 population) compared to in-hours (45.3 per 1,000 population) in the SNHN region. This trend varies from ED attendances in Australia and comparator PHNs. In Australia, there were fewer ED attendances for lower urgency care after-hours (56 per 1,000) compared to in-hours (61.1 per 1,000). Comparator PHNs had an equal distribution of ED attendances for lower-urgency care in-hours and after-hours in 2017-18.

There is some geographical variation within the SNHN region. Hornsby has the highest rate of ED attendances for lower urgency care after hours (61.6 per 1,000 population) compared to the SNHN region (48.1 per 1,000) and Australia (56.0 per 1,000). Dural-Wisemans Ferry has the lowest rate of ED attendances for lower urgency care after hours (34.3 per 1,000 population) in the SNHN region.

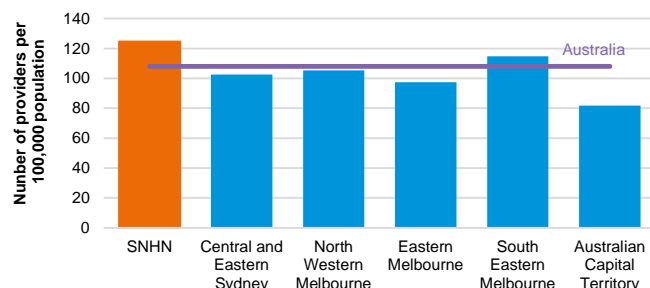
The highest proportion of total ED attendances in the SNHN region were triage category 4 (41%). The number of ED attendances in the SNHN region for lower urgency care (triage category 4-5) were highest between 10AM and 12PM in 2017-18.

Residents aged 15-24 years in the SNHN region have the highest rate of both in-hours (45.3 per 1,000) and after-hours (58.1 per 1,000) ED attendances for lower urgency care. The rate of after-hours ED attendances for lower urgency care decreases with age.

Rates of presentations to ED are influenced by coding standards and availability and accessibility of after hours services. Further investigation is required to understand the underlying causes of after hours lower urgency care presentations to ED within the SNHN region.

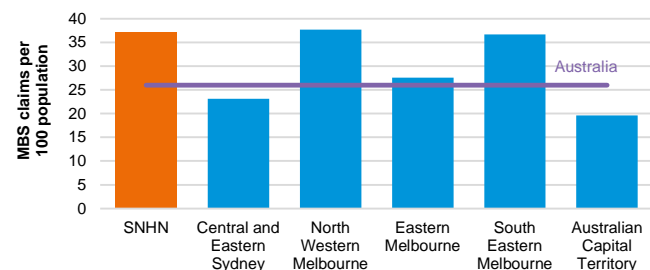
SNHN has a higher proportion of GP after-hours/emergency service providers compared to Australia

GP after hours/emergency service providers by PHN, 2016-17



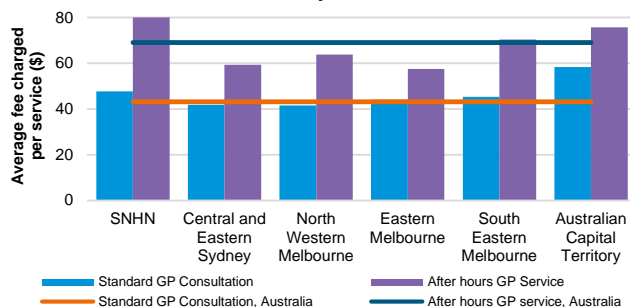
Source: Department of Health, 2018

Patients who claimed MBS Item GP after hours/emergency attendance by PHN, 2016-17



Source: Department of Health, 2018

Average fee charged for standard GP consultation and after hours GP services by PHN, 2016-17



Source: Department of Health, 2018

WHY IS THIS IMPORTANT?

Comparing utilisation and provision of GP after-hours services in the SNHN region with comparator PHNs and with Australia is important for understanding the relative level of service provision and uptake in the SNHN region. Very low or very high volumes of utilisation or service provision may indicate an area of opportunity for further analysis and targeted intervention.

Fees charged and out of pocket costs for standard GP consultations and after hours GP services can provide insight into possible barriers to the uptake of such services.

AVAILABILITY AND ACCURACY OF DATA

The Department of Health provides data on the Medicare Benefits Schedule (MBS) claims processed by PHN from 2012/13 to 2016/17. MBS claims processed from 2016/17 for MBS Groups A11, A22 and A23 have been analysed and presented by PHN for MBS Item GP after hours/emergency GP attendances. Standard GP consultations (<20 minutes) were defined as MBS item number 23.

Rates were calculated using the ERP for 2016 obtained from the Department of Health Population Report 2012-2016 ERP. MBS claims data is influenced by need, availability, accessibility and claiming behaviours of GPs.

SYDNEY NORTH HEALTH NETWORK

In 2016-17, the SNHN region had the highest rate of registered GP after hours/emergency service providers (125 per 100,000) compared to comparator PHNs (range: 82-115 per 100,000) and Australia (108 per 100,000).

In SNHN, the rate of patients accessing MBS Item 'GP after hours/emergency attendance' in 2016-17 was 37 per 100 population. This was higher than the national average of 26 per 100, and higher than most comparator PHNs except for North Western Melbourne and South Eastern Melbourne which had similar rates of 38 and 37 per 100 population respectively.

The average number of GP after hours/emergency services claimed per patient in the SNHN region (1.7) was lower than the national average (1.9). Only one comparator PHN, Australian Capital Territory, had a lower rate of services per patient (1.6).

In 2016-17, SNHN had the highest average fee charged for after hours GP services (\$81.80) and the second highest for standard GP consultations (\$47.70), compared to the national average (\$69.10 for after hours GP services, and \$43.10 for standard GP consultation). The average out of pocket cost for after hours GP services in SNHN was \$3.07, which was the third highest out of pocket cost across comparator PHNs (range: \$8.10-\$2.07).

Hotspots within the region with lower availability of after-hours providers concentrated in Dural-Wisemans Ferry SA3 (Department of Health, 2018b). Further investigation is required to understand the impact of higher out of pocket costs on the accessibility of after hours and emergency GP services.



CHAPTER 10

Health of Older People

Health of Older People – Key Points

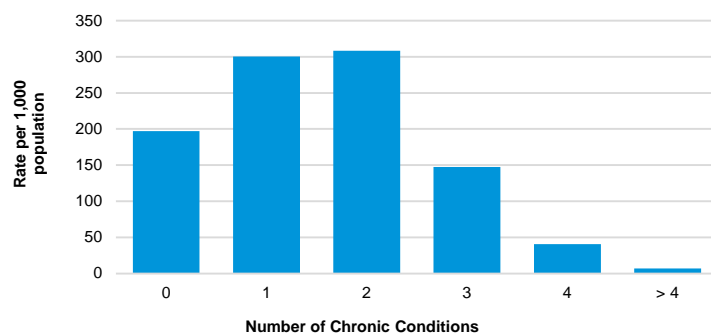
At a glance: Older Australians are healthier than they have ever been. However, in September 2019, 80% of the SNHN population aged 75 years and over have at least one chronic condition. The complexity and resources of treating patients with multiple morbidities is expected to continue to increase. The increasing need for services will require improvements in primary and community care, better integration of care, and an increase in home support services.

While access to services appears in line with or above NSW averages, the ED presentation rate is high, presenting an opportunity for trialling different models of care.

10.1. Different definitions of 'older people' are used in different contexts. In this chapter we concentrate on those aged 75 and over, where 44.4% growth over the next 10 years is expected. Much of the growth will occur in North Sydney LGA.

10.2. 80% of the population aged 75 and over have at least one chronic condition, and 63% have two or more chronic conditions.

Estimated rate of multi-morbidities in residents aged 75 years and over in the SNHN region, 2019



Source: PATCAT, 2019

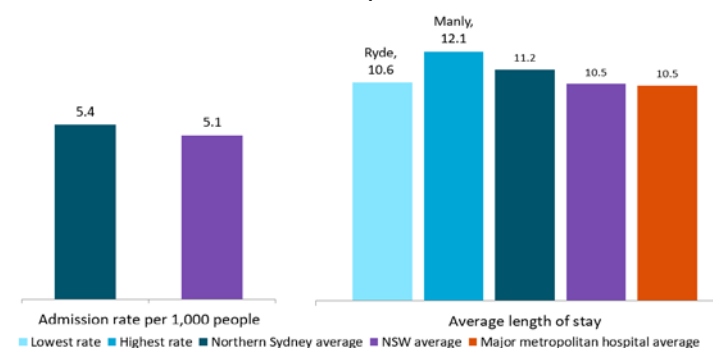
10.3. General practice data from 168 practices within the SNHN region in September 2019 indicates 40% of residents aged 75 years and over received a health assessment from their GP in the last 12 months.

10.4. People aged 75 years and over made up approximately 14% of total ED attendances in the SNHN region. In the SNHN region, ED presentation rates are lower than the NSW average.

10.5. Across Australia, those aged 75 and over account for 22% of hospital separations but represent 31% of patient days, indicating the complexity of treating older patients.

10.6. 12 in every 100 presentations to ED for patients aged 75 years and over is due to a fall. Patients in the SNHN region have higher admissions rates and have longer average length of stays in hospitals for hip fracture admissions.

Experience of hip fractures in people 65 years and over in SNHN hospitals



Source: EY analysis of 2013-14 Australian Atlas of Health Variation data

10.7. An estimated 4.4% of residents within the SNHN region aged 75 and over have dementia.

10.9. Residents of the SNHN region appear to have greater access to residential care and home care services when compared with the NSW average. More aged care services are provided to women.

It is estimated there will be an additional 51,500 residents aged 75 years and over by 2036 in the SNHN region

Population projections for residents aged 75 years and over in the SNHN region by LGA, 2016-2036

	2016		2036	
	No. 75+	% 75+	No. 75+	% 75+
SNHN	65,800	7.4%	117,300	10.8%
Hornsby	11,150	7.5%	19,950	11.2%
Hunters Hill	1,800	12.4%	3,150	20.0%
Ku-ring-gai	10,650	8.6%	17,700	11.5%
Lane Cove	2,300	6.2%	4,500	8.6%
Mosman	2,450	8.1%	4,500	14.0%
North Sydney	3,850	5.3%	8,150	8.9%
Northern Beaches	20,200	7.7%	34,050	11.4%
Ryde	8,700	7.3%	16,850	9.8%
Willoughby	4,700	6.2%	8,450	9.5%

Source: NSW Department of Planning and Environment, 2016

Population changes for residents aged 75 years and over in the SNHN region by LGA, 2016-2036

	% change	Average annual % change	Additional no.
SNHN	44.4%	2.2%	51,500
Hornsby	44.1%	2.2%	8,800
Hunters Hill	42.9%	2.1%	1,350
Ku-ring-gai	39.8%	2.0%	7,050
Lane Cove	48.9%	2.4%	2,200
Mosman	45.6%	2.3%	2,050
North Sydney	52.8%	2.6%	4,300
Northern Beaches	40.7%	2.0%	13,850
Ryde	48.4%	2.4%	8,150
Willoughby	44.4%	2.2%	3,750

Source: NSW Department of Planning and Environment, 2016

WHY IS THIS IMPORTANT?

Population size and projected population growth in a region provides an indication of the expected demand for health services in the future.

The ageing population is projected to have significant implications for health and aged care service demand. As life expectancy continues to improve, people are living longer with chronic and complex diseases. This will have implications on demand for both primary and secondary care.

AVAILABILITY AND ACCURACY OF DATA

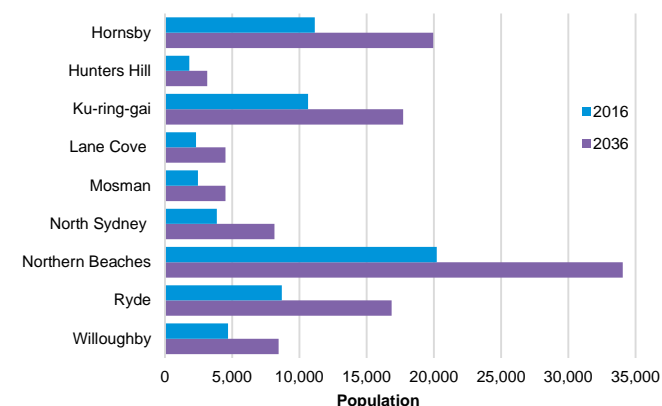
The NSW Department of Planning and Environment calculates population projections based on the ERP supplied by the ABS. Projections are not targets, and actual figures will vary. Projections are based on assumptions that take into account trends for births, deaths and migration.

The projections for the population aged 75 and over have been analysed for the SNHN population for 2016-2036.

SYDNEY NORTH HEALTH NETWORK

In 2016, SNHN region had an estimated 65,800 residents aged 75 years and over. By 2036 this is projected to increase by 44.4% to approximately 117,300.

Projected population changes for residents aged 75 years and over in the SNHN region by LGA, 2016-2036



Source: NSW Department of Planning and Environment, 2016

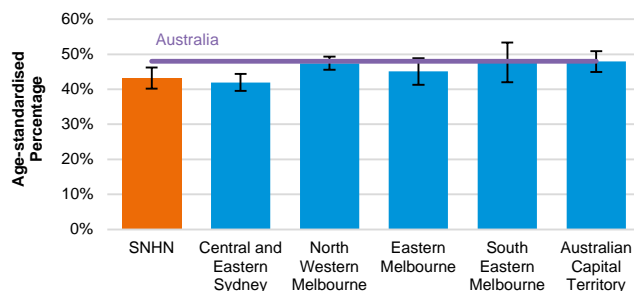
Within the SNHN region, North Sydney LGA is projecting the strongest growth in the number of people aged 75 years and over between 2016 and 2036 (52.8%). Ku-ring-gai will have the smallest projected growth in the population aged 75 years and over (39.8%).

Lane Cove LGA will have the lowest percentage of the population aged 75 years and over (8.6%) in the SNHN region in 2036. Hunters Hill will have the highest proportion of its population (20%) aged 75 years and over by 2036.

See related content: 1.3 Age Structure

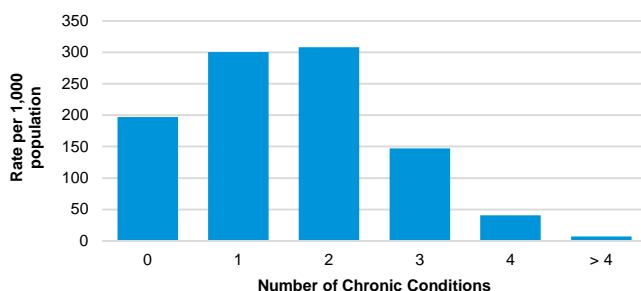
Nearly half of adults within the SNHN region have at least one chronic condition

Percentage of adults with a long-term health condition by PHN, 2016-17



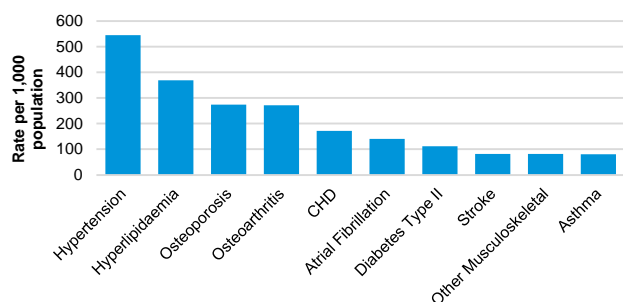
Source: AIHW, 2018

Estimated rate of multi-morbidities in residents aged 75 years and over in the SNHN region, 2019



Source: PATCAT, 2019

Estimated rate of chronic conditions among people aged 75 years and over in the SNHN region, 2019



Source: PATCAT, 2019

WHY IS THIS IMPORTANT?

An ageing population places increased demands on health services. Increased age is associated with increasing prevalence of diagnosed chronic conditions. As the number of conditions a person has increases, the complexity of their treatment also increases.

87% of Australians aged 65 years and over had at least one chronic disease in 2014-15, compared to 35% of people aged 0-44 years (AIHW, 2019j). Multi-morbidities are associated with poorer health outcomes, more frequent use of health services, and higher healthcare costs (AIHW, 2015a). Furthermore, chronic conditions can impact on quality of life, particularly for older people.

AVAILABILITY AND ACCURACY OF DATA

Data on the prevalence of chronic conditions is collected by the ABS through the patient experience survey, most recently conducted in 2016-17. AIHW has analysed and presented this data at PHN level.

PATCAT data from 168 practices in the SNHN region, extracted in September 2019, has been used to estimate the prevalence of selected chronic conditions in the population within the SNHN region aged 75 and over.

SYDNEY NORTH HEALTH NETWORK

AIHW estimates that in 2016-17, 43.2% (95% CI: 40.2-46.2) of adults in the SNHN region had a long-term health condition, similar to comparator PHNs (range: 41.9%-47.9%) and lower than the national average of 48% (95% CI: 47.3-48.7).

PATCAT data indicates that 80% of the SNHN population aged 75 years and over are diagnosed with at least one chronic condition and 50% are diagnosed with two or more chronic conditions.

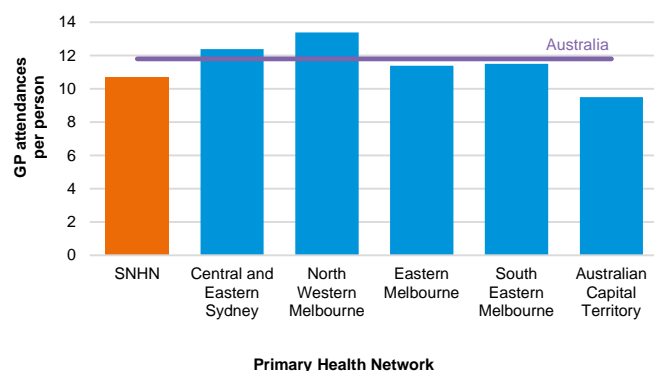
Extrapolating the PATCAT sample data from 168 practices in the SNHN region, the most common chronic conditions affecting the population aged 75 and over are hypertension, hyperlipidaemia, osteoporosis and osteoarthritis. To meet the future health needs of the population within the SNHN region, healthcare pathways, models and standards of treatment for these conditions should be considered. Self-management will become increasingly important.

Despite the prevalence of chronic conditions in the population, two thirds of people aged 75 years and over rated their health as good, very good or excellent in 2013-14 (AIHW, 2014).

See related content: 4. Population Risk Factors, 5. Long Term Conditions

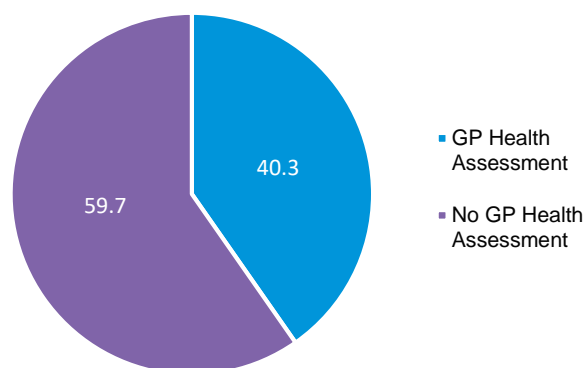
40% of residents aged 75 years and over received an annual GP health assessment

GP attendance rates for people aged 65 years and over by PHN, 2016-17



Source: AIHW, 2018

Proportion of people aged 75 years and over receiving a GP health assessment in the past 12 months, 2019



Source: PATCAT, 2019

WHY IS THIS IMPORTANT?

As shown in 10.1 and 10.2, growth in the relative size of the older population and the frequency of people being diagnosed with multiple chronic conditions will increase the number of people living with complex health needs. Accordingly, access to the right type of care will be pivotal to delivering efficient and effective services and meet the health needs of the population.

GP attendances for people aged 65 years and over made up 29% of the total MBS claims for GP attendances in Australia in 2016-17 (AIHW, 2018).

AVAILABILITY AND ACCURACY OF DATA

AIHW provides data by age and sex at a PHN level from the Medicare Benefits Schedule (MBS) statistics 2016-17. GP attendances are MBS funded patient/doctor encounters, such as visits and consultations. Rates presented are age-specific.

PHIDU publishes MBS services data on Enhanced Primary Care (EPC) items which are health assessments for people aged 75 years and over and refers to an annual in-depth assessment of an older person's physical, psychological and social health status. Data is available at LGA and PHN level for 2009-10. No updated MBS data by age has been published at PHN level since.

A formal GP health assessment is sometimes considered a marker for good practice in aged care, though claiming behaviour can make this hard to interpret.

SYDNEY NORTH HEALTH NETWORK

The age-standardised average annual GP attendance rate per person for residents aged 65 years and over in the SNHN region was 10.7 per person, lower than the national average of 11.8 per person in 2016-17. The SNHN rate of GP attendances was lower than most comparator PHNs (range: 9.5-13.4)

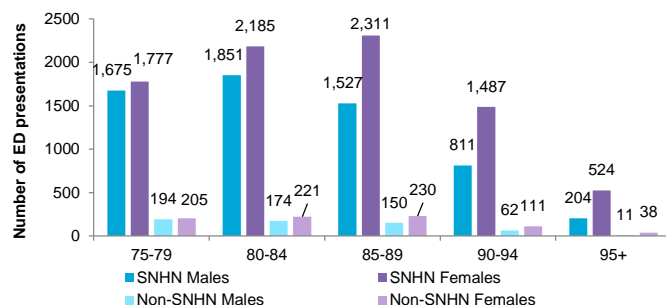
General practice data from 168 practices within the SNHN region indicates that 20,216 residents aged 75 years and over (40.3%) received a health assessment from their GP in the past 12 months. Rate of health assessments from a GP includes claims for MBS items 701, 703, 705, or 707. Whilst this data presents the overall number of GP health assessments within the SNHN region, further analysis is required to assess regional variation.

An ageing population within the SNHN region will see an increase in co-morbidities and dementia, further increasing the need for primary aged care services across the region.

See related content: 10.2 Multi-morbidity, 6. Primary Healthcare

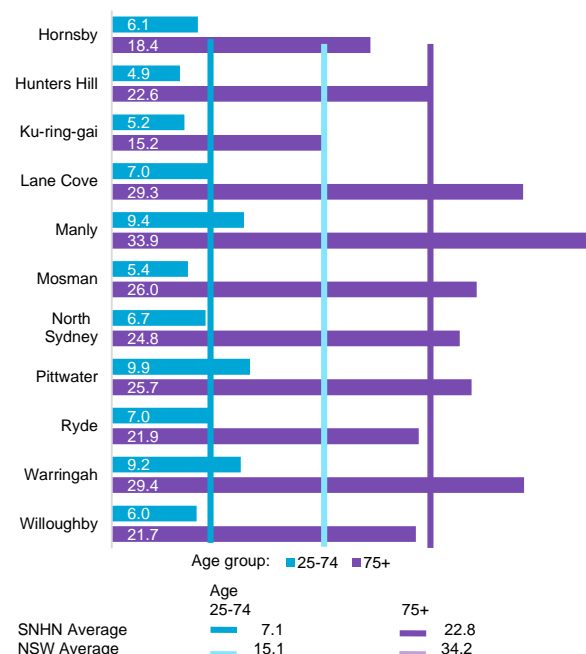
People aged 75 years and over made up 16% of ED presentations in the SNHN region, but only 7.5% of the population

Number of ED presentations for people aged 75 years and over in the SNHN region, 2014-15



Source: EY analysis of SNHN ED data, January-June 2014

ED presentation rate per 100 population in the SNHN region by LGA, 2014-2015



Source: EY analysis of SNHN ED presentation data, January-June 2014 & AIHW emergency department care 2014-15

WHY IS THIS IMPORTANT?

Well organised chronic care management can limit the need for acute health services. Good access to urgent appointments in primary care reduces the need to access hospital-based emergency services.

Comparing the ED presentation rate for the adult (25-74) and older people (75 and over) provides a marker for how well complex chronic diseases are being managed in the community.

AVAILABILITY AND ACCURACY OF DATA

ED presentation data was obtained from Northern Sydney LHD for all attendances to public hospital EDs in the SNHN region recorded from January to June 2014 was analysed.

AIHW emergency department presentations by age group and sex, public hospital emergency departments, states and territories, 2014-15 has been used to provide the NSW ED presentations comparison.

SYDNEY NORTH HEALTH NETWORK

Between January and June 2014 people aged 75 years and over made up 16% of ED attendances in the SNHN region. Females have higher numbers of ED attendances than males.

Overall, within the SNHN region the rate of ED presentations for people aged 75 years and over is 3.2 times higher than for 25-74 year olds. ED presentation rates within the SNHN region are lower than NSW averages, reflecting the lower disease rates noted, and potentially indicating primary care services effectively maintaining a healthy population.

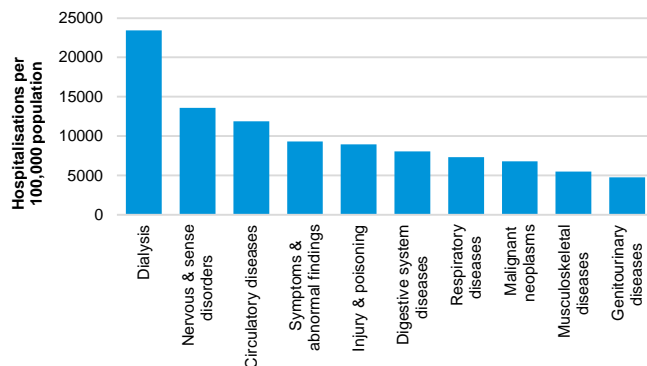
Within the SNHN region, Manly and Warringah had the highest ED attendance rates per 100 residents aged 75 years and over, while Ku-ring-gai residents aged 75 years and over have the lowest ED presentation rate. The equivalent of a third (34 attendances per 100 people) of the Manly population aged 75 years and over attend ED a year, compared with an average of 1 in 5 for all within the SNHN region (23%).

The average ED presentation rate for residents within the SNHN region aged 75 years and over is 3.2 times greater than for the 25-74 year old cohort.

See related content: 9. Urgent Care

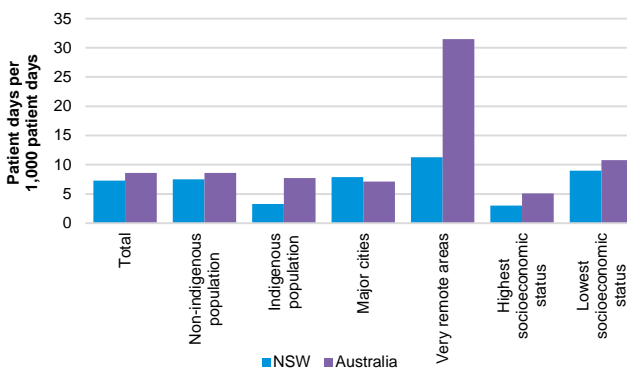
People aged 65 years and over accounted for 42% of all hospitalisations in Australia

Main causes of hospitalisations for NSW residents aged 75 years and over, 2017-18



Source: Centre for Epidemiology and Evidence, 2019

Hospital patient days used by those eligible and waiting for residential aged care in NSW and Australia, 2017-18



Source: AIHW, 2019

WHY IS THIS IMPORTANT?

Delivering more effective and efficient care means keeping patients healthy in their homes for longer. Where possible, unnecessary hospitalisations should be avoided.

For the population aged 75 years and over, this may require an increase in support services for patients in their residence and increased support for GPs managing the treatment of these patients.

AVAILABILITY AND ACCURACY OF DATA

HealthStats NSW provides causes of hospitalisations by category from 2001-02 to 2017-18 in NSW by age group. Rates were calculated using the ABS 2017 ERP of NSW residents aged 75 years and over. Data presented excludes patients who were treated solely within the emergency department, rehabilitation episodes are also excluded.

AIHW analyses and presents data on hospital patient days used in public and private hospitals by NSW and Australian residents who were eligible and waiting for residential aged care in 2017-18. Data is not available for hospital separations and patient days at a PHN level.

SYDNEY NORTH HEALTH NETWORK

In 2017-18, the main cause of hospitalisations for NSW residents aged 75 years and over was dialysis with a rate of 23,421 hospitalisations per 100,000 population. Nervous and sense disorders, followed by circulatory system diseases were the next most common causes of hospitalisations for the NSW population aged over 75 years of age.

Across Australia, those aged 75 years and over account for 22% of hospital separations, but represent 31% of patient bed days. The longer length of stay could potentially be linked to the increased complexity of treating older patients.

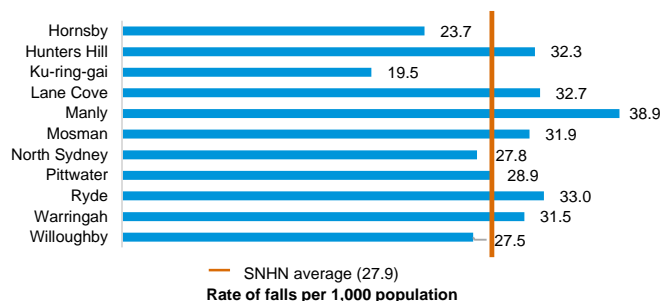
The rate of patient days among those eligible and waiting for residential aged care was 7.3 per 1,000 in NSW and 8.6 per 1,000 in Australia. Further investigation is required to understand the variation at a PHN level.

Across Australia, those aged 75 and over account for 22% of hospital separations and 31% of patient days.

See related content: 9. Long Term Conditions, 7. Hospital Care, 10.9 Aged care service use

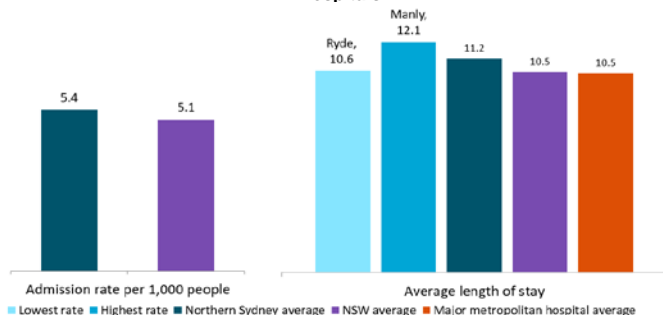
12 in every 100 ED presentations for patients aged 75 years and over in the SNHN region is due to a fall

ED presentation rate for falls in SNHN region for people aged 75 years and over, 2014



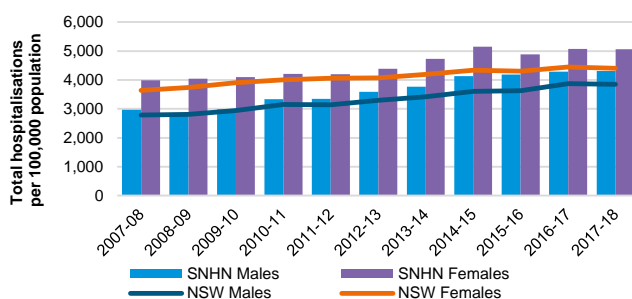
Source: EY analysis of SNHN ED presentation data, January-June 2014

Experience of hip fractures in people 65 years and over in SNHN hospitals



Source: EY analysis of 2013-14 Australian Atlas of Health Variation data

Fall-related injury hospitalisations in the SNHN region and NSW populations aged 65 years and over, 2008-18



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

Falls for older people can have significant and ongoing impacts on their health. The injuries sustained from a fall can take extended periods of time for recovery and may require surgery (such as hip replacements) and ongoing care (such as rehabilitation). In the community, there are falls prevention services that can decrease the rates of falls, and there may be the requirement for ongoing healthcare and support after a fall.

AVAILABILITY AND ACCURACY OF DATA

14,353 ED presentations of residents within the SNHN region occurring in Northern Sydney LHD over January to June 2014 were analysed. A presenting problem that included 'fall' was used to identify potential fall patients.

AIHW's analysis on hip fractures is presented as part of the Australian Atlas of Health Variation and includes both public and private hospitals. If a patient has multiple admissions, these are included separately. Based on patient place of residence, the analysis includes revisions, and is for patients of all ages.

HealthStats NSW provides falls-related injury hospitalisations from 2001-02 to 2017-18, by PHN. Data presented excludes emergency department episodes only and rehabilitation admissions.

SYDNEY NORTH HEALTH NETWORK

At least 1,757 (12.2%) presentations to ED made by residents within the SNHN region aged 75 and over were fall related. The highest rates were seen for residents of Manly, Ryde and Lane Cove.

The admission rate for hip fractures is marginally higher in the SNHN region than the NSW average. The average length of stay in hospital for a hip fracture is also higher in the SNHN region than the NSW or Metro 1 average. The longest average length of stay of 12.1 days occurs for residents from Manly. There could be multiple reasons for the longer average length of stay including increased patient complexity and difficulty in securing an appropriate discharge location.

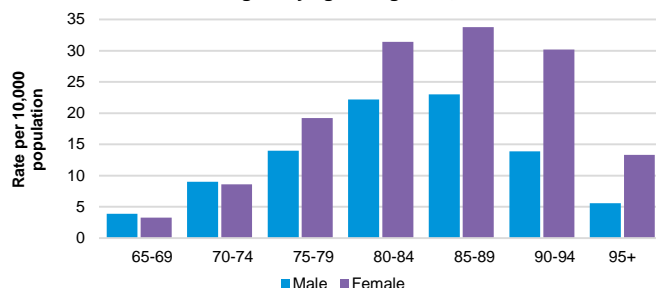
Falls-related injury hospitalisation trends for persons aged 65 years and over in the SNHN region have increased over the last ten years from 3,576 per 100,000 population in 2007-08 to 4,732 per 100,000 population in 2017-18. This is higher than the NSW rate of 4,146 per 100,000 population in 2017-18.

The increases have been evident for both males and females in the SNHN region. In 2017-18, the rate of falls-related injury hospitalisations for females aged 65 years and over in the SNHN region was 5,066 per 100,000 population compared to the NSW rate of 4,400 per 100,000. For males aged 65 years and over in the SNHN region, the rate of falls-related injury hospitalisations was 4,307 per 100,000 population compared to the NSW rate of 3,851 per 100,000 population.

Further investigation is required to understand why the SNHN population has a higher rate of falls than the NSW averages in both male and female populations.

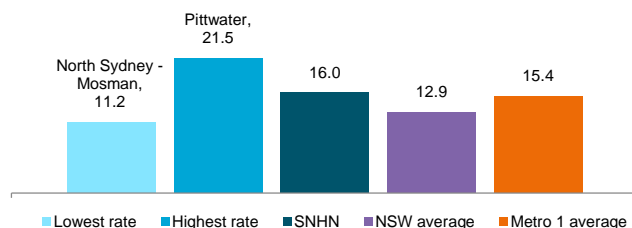
An estimated 4.4% of residents within the SNHN region aged 75 and over have dementia

Rate of people diagnosed with dementia aged 65 years and over in the SNHN region by age and gender, 2019



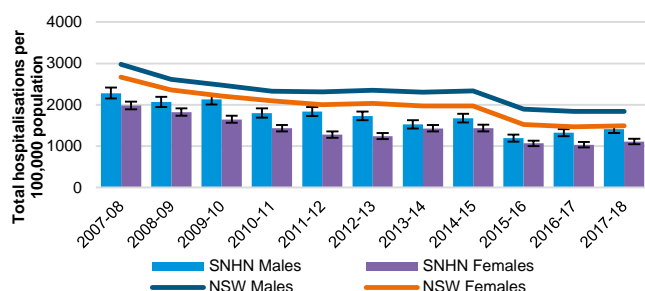
Source: PATCAT, 2019

Number of anticholinesterase prescriptions dispensed per 100 people aged 65 years and over



Source: EY analysis of 2013-14 Australian Atlas of Health Variation data

Dementia-related hospitalisations in the SNHN and NSW populations aged 65 years and over, 2007-08 to 2017-18



Source: Centre for Epidemiology and Evidence, 2019

WHY IS THIS IMPORTANT?

Dementia is a collection of conditions that are characterised by the gradual impairment of brain function. Dementia affects an individual's ability to perform everyday tasks which interfere with the individual's normal day-to-day life (Dementia Australia, 2019).

One in ten people over the age of 65 have dementia in Australia, making it the second leading cause of death of Australians (Dementia Australia, 2019). People with dementia require increasing support to maintain their independence and once residing in nursing care, require a high level of care.

AVAILABILITY AND ACCURACY OF DATA

The prevalence of dementia in those aged 65 years and over is estimated based on data from 168 general practices in the SNHN region. Data was extracted from PATCAT in September 2019. There is a potential for double-counting of patients who visit multiple general practices.

Anticholinesterase medications, the main medication available to slow the progression of dementia, were recently analysed in the Atlas of Healthcare Variation for ages 65 and over.

HealthStats NSW provides dementia-related hospitalisations from 2001-02 to 2017-18 for people aged 65 years and over, by PHN. Data presents dementia related hospitalisations as both principle diagnosis and as a co-morbidity.

SYDNEY NORTH HEALTH NETWORK

Based on PATCAT data an estimated 4.4% of residents within the SNHN region aged 75 years and over have dementia, with rates increasing with age. The greatest impact is seen in the female population aged 85 years and over (34 per 10,000).

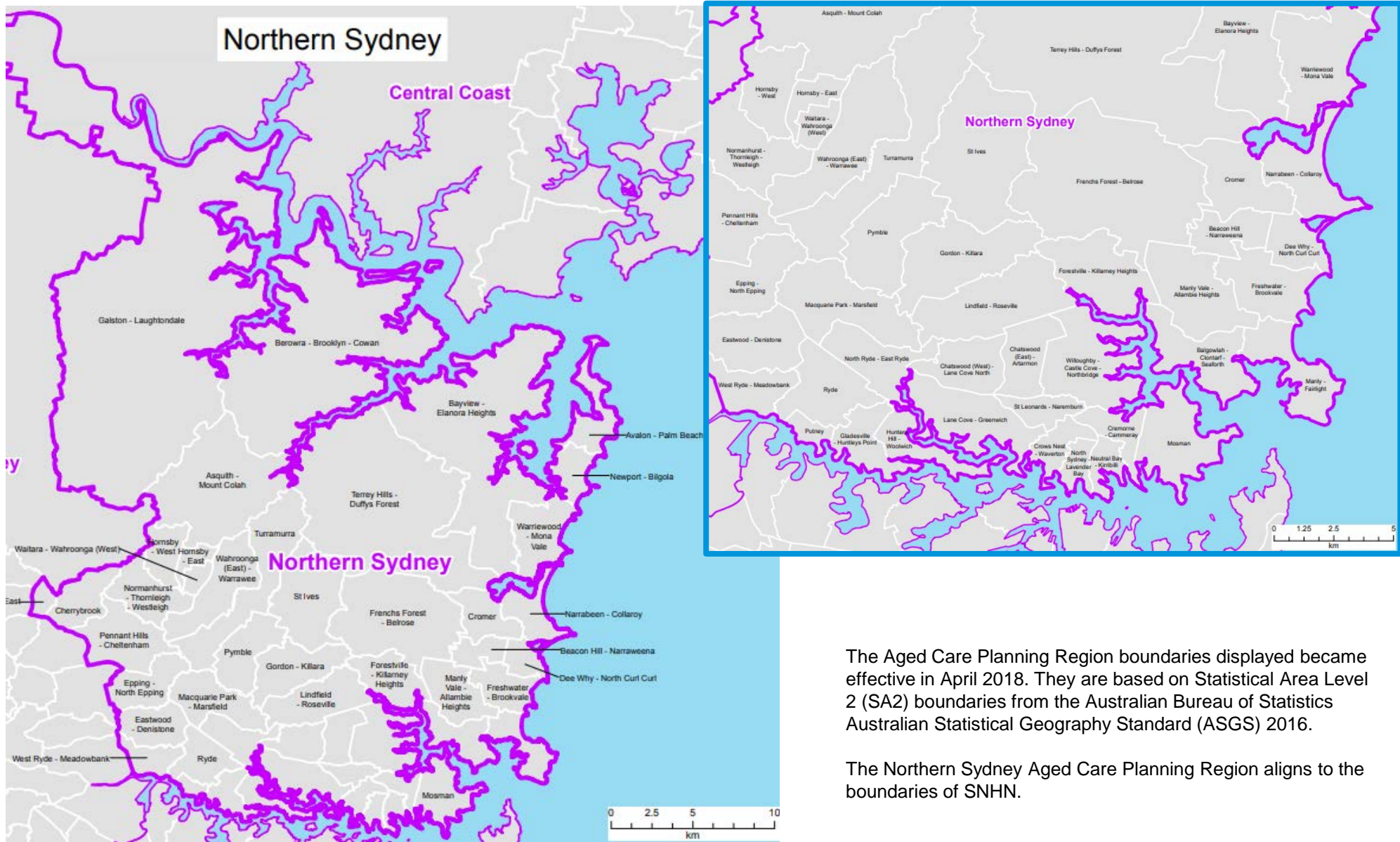
The diagnosis prevalence of dementia in the SNHN region is similar to that across Australia. The rates of anticholinesterase prescribing in the SNHN region are similar to the Metro 1 average and above the NSW average. Socioeconomic status may be a determinant of this variation in prescribing practice.

From 2007-08 to 2017-18 there has been a gradual decrease in the age-standardised rate of dementia related hospitalisations for people aged 65 years and over in the SNHN and NSW populations. SNHN had a lower rate of dementia-related hospitalisations (1,237 per 100,000; 95% CI: 1,184-1,292) compared to NSW (1,649 per 100,000; 95% CI: 1,627-1,672) in 2017-18.

Males in both the SNHN and NSW populations have a higher rate of dementia-related hospitalisations compared to females. For males aged 65 years and over in the SNHN region, the rate of dementia-related hospitalisations was 1,409 per 100,000 population (95% CI: 1,322-1,499), compared to 1,112 dementia-related hospitalisations per 100,000 population (95% CI: 1,046-1,181) for females in 2017-18.

The age standardised rate of people being hospitalised for dementia has been gradually decreasing from 2007-08 to 2017-18.

SNHN Aged Care Planning Regions



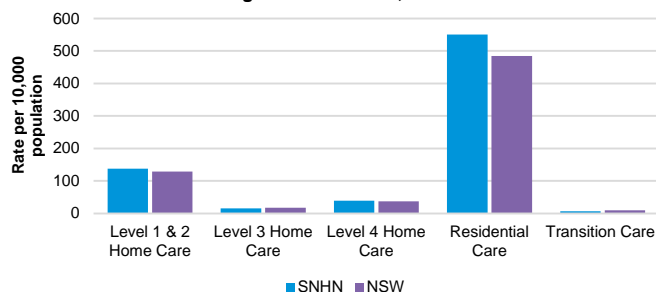
Source: Department of Health, 2018

The Aged Care Planning Region boundaries displayed became effective in April 2018. They are based on Statistical Area Level 2 (SA2) boundaries from the Australian Bureau of Statistics Australian Statistical Geography Standard (ASGS) 2016.

The Northern Sydney Aged Care Planning Region aligns to the boundaries of SNHN.

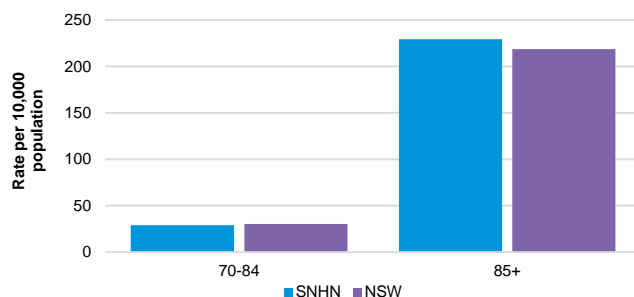
Residents in the SNHN region appear to have greater access to residential care and home care services when compared with the NSW average

Number of people aged 65 years and over in SNHN and NSW accessing aged care services, 2017



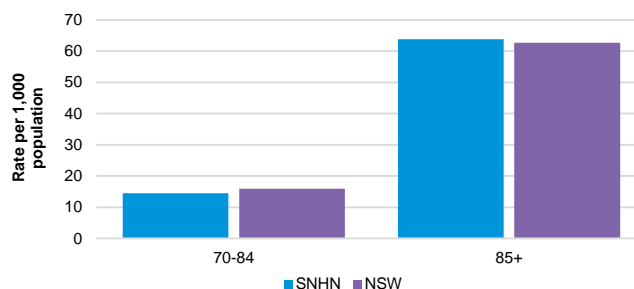
Source: AIHW, 2019

Residential aged care recipients in SNHN and NSW by age, 2017



Source: AIHW, 2019

Home Care Package recipients in SNHN and NSW by age, 2017



Source: AIHW, 2019

WHY IS THIS IMPORTANT?

Delivering more effective and efficient care means keeping patients healthy in their homes for longer. This is in line with patient preferences, improves the long-term health prognosis of patients and decreases the pressure on and expenditure by local hospitals.

AVAILABILITY AND ACCURACY OF DATA

The AIHW and Department of Health provide data on and information about aged care services in Australia through GEN. GEN reports on the capacity and activity in the aged care system focusing on the people and the services they use.

The data available relates to government-funded aged care programs operating under the *Aged Care Act 1997*. This captures information on government funded or subsidised services but does not include information on services provided by the private sector. The rate per population was calculated using the ERP for 2017 from the ABS.

The data presented does not consider the informal care and support that is provided by family members, friends and volunteers. Further investigation is required to understand how service use may be influenced by the provision of care from informal care givers in the SNHN region.

SYDNEY NORTH HEALTH NETWORK

There were 9,258 operational aged care places in the SNHN region in June 2018. This includes 9,144 (98.7%) residential care places and 108 (1.2%) transitional care places.

The majority of government subsidised aged care services provided in the SNHN region are residential aged care services and home care packages. In 2017, the SNHN region had a higher rate of residents aged 65 years and over accessing residential aged care services (551 per 10,000) compared to NSW (484 per 10,000). Similarly, the SNHN region had a higher proportion of residents aged 65 years and over accessing Home Care Packages (192 per 10,000) compared to NSW (182 per 10,000). This has positive implications for supporting older people to live at home.

The bulk of services provided are provided to women which is expected given their higher numbers in this age group, and the tendency for women performing care giving roles within the family reducing the use of formal services by men.

20.1% of aged care recipients were from CALD backgrounds, however there are cohorts refraining from accessing services leading to 'hidden carers' (Department of Social Services, 2015).

The bulk of aged care services provided are provided to women.

See related content: 1. Demography, 10.1 Patient demographics, 10.2 Multi-morbidity, 10.7 Dementia

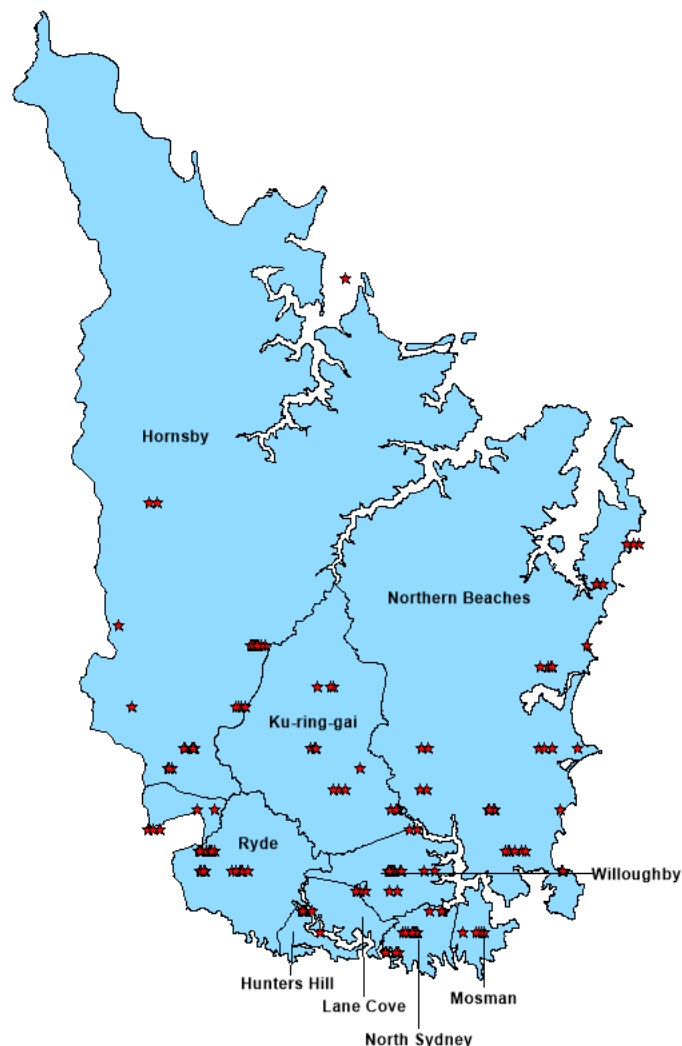


CHAPTER 11

Service Mapping

After hours service mapping

ACCREDITED GENERAL PRACTICES PROVIDING AFTER HOURS SERVICES



WHY IS THIS IMPORTANT?

Service mapping involves identifying and documenting the range of services available within the SNHN region to determine any potential service gaps that may exist relating to the local population health needs.

AVAILABILITY AND ACCURACY OF DATA

A service mapping exercise was undertaken to ascertain the number and location of general practice after hours, mental health, drug and alcohol and aged care services, as information at the PHN level was unavailable.

Mapping number and location of services, combined with utilisation, is the initial step in mapping primary healthcare services in the region. Further investigation is required around accessibility, responsiveness, capability, acceptability and quality. Analysis of geography, workforce and services is needed to provide an overall picture of the health workforce and services in the region.

Service data held by the previous two Medicare Locals was cross checked against the National Health Service Directory database and internet searches. Where information on individual psychologists was not available, a search of the Australian Health Practitioner Regulation Agency (AHPRA) database was performed.

Services are geographically mapped by postcode. Caution should be used when interpreting maps presented, as one postcode can represent a number of suburbs within a region. Overlapping stars on a map represent two or more services with the same postcode.

GENERAL PRACTICE AFTER HOURS

The SNHN region has a total of 199 accredited general practices providing after hours services, with 166 of these practices providing after hours through an Approved Medical Deputising Service (AMDS) and the remaining 33 practices providing after hours care from within their practice.

Hornsby and Ryde LGAs have the highest number of accredited after hours services, 46 and 32 respectively. The majority of LGAs provide their after-hours services through a Medical Deputising Service. Hornsby LGA has the highest number (8) of practices providing 24 hour care from within their practices.

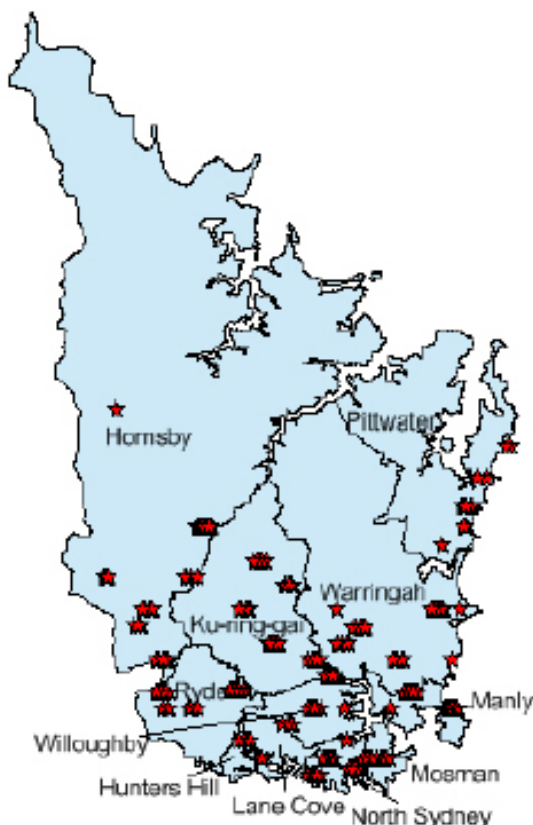
Lane Cove, Mosman, Hunters Hill and Manly LGAs have the lowest number of general practices, therefore residents in these areas not only have limited access to general practices but also after hours services.

SNHN has commissioned hospital discharge and GP Social work services to support patients at risk of hospital admission/re-admission.

Further investigation is required to understand the impact of changes to after hours MBS items and the Approved Medical Deputising Services program on the accessibility and availability of after hours services within the region. Additionally, further analysis is needed to map the range of after hour services in the region, and to determine if these services are accessible to the entire population.

Mental health/drug and alcohol service mapping

MENTAL HEALTH SERVICES



MENTAL HEALTH

Service mapping using HealthMap's National Health Services Directory indicates a total of 363 mental health services within the SNHN region in 2017. Further investigation is required to determine the distribution of mental health services throughout the region.

Initial service mapping indicates a large number of mental health services available within the region. The SNHN Integrated Mental Health Atlas 2017 provides a standardised, internationally validated tool which highlights gaps in mental health service provision to inform service planning of mental health services in the SNHN region.

Data from the Integrated Mental Health Atlas highlighted the following key patterns in mental health care provision in the SNHN region:

- ◆ Limited alternatives to hospitalisations relating to general mental health,
- ◆ Limited day services for older people, and
- ◆ Limited availability of support services for children and young people.

SNHN has commissioned 11 mental health services across the stepped care continuum, supporting access to the most appropriate level of care tailored to individual needs.

DRUG AND ALCOHOL

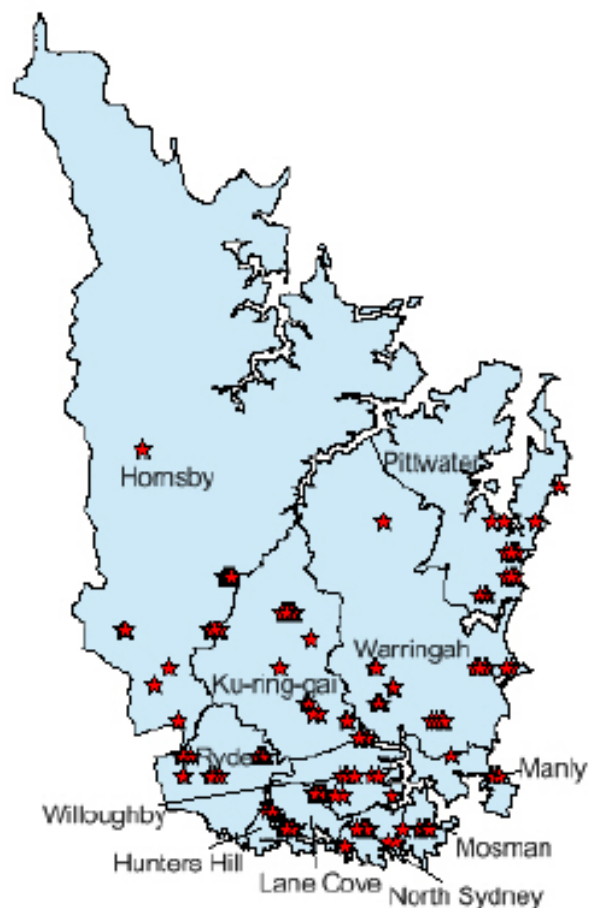
Service mapping using HealthMap's National Health Services Directory indicates a total of 22 drug and alcohol services within the SNHN region in 2017. Magistrates Early Referral Into Treatment (MERIT) operates out of Manly and Hornsby local courts and is designed to engage with illicit drug problems and local court matters into drug and alcohol treatment. Data is not available for MERIT programs by LGA.

SNHN has commissioned two alcohol and other drugs services tailored to target vulnerable and high-risk groups within the SNHN region. The services are also aligned to the stepped care approach to facilitate integration between mental health and AOD services.

There is limited availability of local data to accurately map drug and alcohol services within the SNHN region. Further investigation is required to understand if existing services meet the needs of the entire SNHN population.

Aged care service mapping

AGED CARE SERVICES



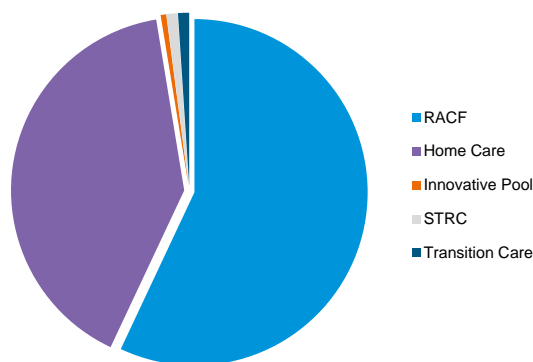
AGED CARE SERVICES

The Needs Assessment highlights an ageing population, with increasing health need. The increasing need for services will require improvements in primary and community care, better integration of care, and an increase in home support services.

Service mapping indicates a total of 193 aged care services within the SNHN region (GEN, 2019a). Aged care services are categorised as Residential Care (including RACFs) services that provide Home Care Packages, Transition Care, Innovative Pool, and Short Term Restorative Care (STRC).

Residential care offers long- or short-term stays in an aged care facility. Home care provides different levels of aged care services for people in their own homes. Transition care provides short-term care to restore independent living after a hospital stay while short-term restorative care expands on transition care to include anyone whose capacity to live independently is at risk. Innovative pool aged care services pilot new approaches to providing aged care.

Aged care services within the SNHN region, 2019

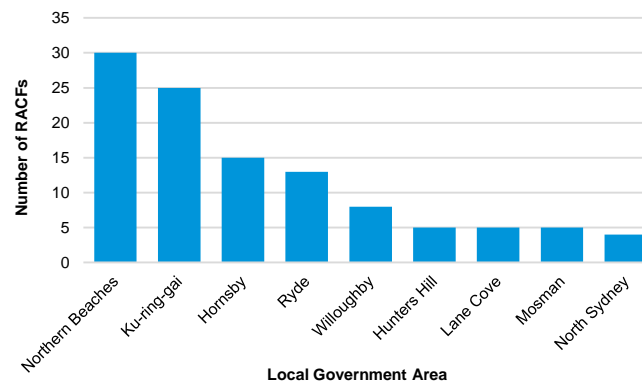


Source: GEN, 2019

RACFs provide the largest amount of services to the elderly population, with a total of 110 RACFs within the SNHN region. In June 2019, there were 78 services in the SNHN region that provided Home Care Packages (GEN, 2019).

When mapped by LGA, Northern Beaches LGA has the highest number of RACFs (30) and North Sydney LGA has the lowest (4) in June 2019 (GEN, 2019a).

Number of Residential Aged Care Facilities (RACFs) in the SNHN Region by LGA, 2019



Source: GEN, 2019

Analysis within Chapter 10 indicates residents within the SNHN region appear to have greater access to residential care and home care services when compared to the NSW average. Further investigation is required to determine if these services match the needs of the entire population.

Stakeholder consultations

Stakeholder consultation was undertaken to provide qualitative insights into the health and service needs of the region which cannot be ascertained with quantitative data alone. Information from consultations synthesised with quantitative data assists in identifying population cohorts at risk of poorer health outcomes to inform subsequent planning and commissioning of services in the region.

Commissioning co-design sessions conducted between 2016 and 2019 specific to mental health, alcohol and other drugs and Aboriginal Health had representation from over 300 stakeholders, providing further qualitative insights to inform service planning.

The consultations were well represented from a broad cross-section of the local community and service sector including the following:

- ◆ General Practice
- ◆ The SNHN Board
- ◆ SNHN Community Council
- ◆ SNHN Clinical Council
- ◆ SNHN Mental Health and AOD Advisory Committee
- ◆ Northern Sydney Local Health District
- ◆ Allied Health – public and private
- ◆ Non-Government Organisations (local, state, national)
- ◆ People with lived experience, consumers, and carers
- ◆ Local schools
- ◆ Local Government Councils
- ◆ Family and Community Services (FACS)

Key themes from stakeholder consultations

MENTAL HEALTH

- ◆ Comorbid physical health conditions, risk of social isolation, difficulty in accessing secure housing and lower rates of labour force participation among people with mental illness highlights need for support beyond clinical services.
- ◆ Need for integrating clinical and non-clinical services across the stepped care continuum to prevent silos.
- ◆ Need to increase awareness of referral pathways to support navigation of different services, particularly among vulnerable population groups such as CALD, young people and people experiencing homelessness.
- ◆ Development work is needed within the primary care sector to support early detection and intervention for eating disorders.
- ◆ Medication education is especially important for older people and patients being treated for mental health diagnoses.
- ◆ Key areas of opportunity for health gains include homelessness, comorbid drug and alcohol use, high risk youth, and borderline personality disorder.
- ◆ There are some preventive mental health programs in play: headspace; aged care mental health programs; pre-natal and infant mental health.
- ◆ It is evident that some young people turn up to ED repeatedly with mental health related issues, including self-harm and suicidality. Service responses for these young people should be focused on diverting unnecessary ED presentations.
- ◆ Stress and anxiety related to the pressures of academic achievement have a negative impact on the mental health and wellbeing of young people in the region.
- ◆ Access to mental health services, including psychological services, that require referral from a GP can be challenging for some population groups. The provision for initial referrals to be made by a wider array of service providers would promote better access to subsidised mental healthcare.
- ◆ Limited availability of services for those with chronic and moderate to severe mental illness.

Key themes and issues from stakeholder consultations

MENTAL HEALTH

Aboriginal people

- ◆ Impacts of the Stolen Generations, poor access to preventative health care and higher rates of social disadvantage impact rates of psychological distress amongst the Aboriginal and Torres Strait Islander community.

CALD population

- ◆ Mental health needs for CALD groups in the SNHN region are complex and diverse. CALD groups present for a range of mental health and health needs e.g. trauma, migration, career change, physical health, social isolation and separated families.
- ◆ Understanding of complexities related to cultural background is not always addressed by service providers. Barriers relating to utilisation of psychological services for CALD populations include stigma, both between generations and within cultures.
- ◆ Potential financial barriers exist for CALD groups whose visa status doesn't allow them to access Medicare (eligibility), including international students wanting to access psychologists.

Perinatal depression

- ◆ There is stigma attached to perinatal depression for women in the SNHN region, with women being underdiagnosed and falling through gaps in service provision.
- ◆ Engaging mothers with perinatal depression at the antenatal stage (if required) is important as clients will present postnatal at higher acuity. However, financial barriers exist, as not all antenatal care is subsidised, with patients unable to determine what services are available privately and publicly.

LGBT

- ◆ Limited access to LGBTI appropriate mental health care services.

Homelessness or people at risk of homelessness

- ◆ People who are experiencing primary or secondary homelessness face additional barriers to accessing physical and mental health care services.

Older people

- ◆ People living in a residential aged care facility and those aged 65+ years with comorbidities face challenges in accessing mental health services. Barriers are intensified for those who lack support from families.

Children and young people

- ◆ Limited availability of services for children aged under 12 years in comparison to those aged over 12 years. Consultation highlighted less recognition of early indicators in those aged under 12 years, with limited availability of mental health services for children with mild to moderate mental health issues.
- ◆ Navigation of a complex health system acts as a barrier to families, children and young people accessing services, highlighting that services are predominantly utilised by proactive and health literate families.
- ◆ Service gaps exist for young people whose mental health issues are too severe or complex for headspace but are not so acute as to require service by LHD Child and Youth Mental Health Services (CYMHS).
- ◆ Lack of group programs available in the region for families highlights the limited availability of family intervention treatments, including integrated child and parent interventions.
- ◆ Need for provision of outreach or in-place, rather than centre-based support to young people. Young people may not engage in a clinical environment thus requiring a safe and neutral environment. Services need to be flexible in where sessions are delivered.
- ◆ Lower rates of bulk billing medical services and practitioners charging higher gap fees creates a financial barrier to access, impacting socio-economically disadvantaged families and children in the region.

Key themes and issues from stakeholder consultations

MENTAL HEALTH

Intellectual disability

- ◆ Limited options are available for clients with intellectual disability, combined with a lack of awareness amongst primary health care providers of suitable services.

People with severe mental illness and complex needs

- ◆ Limited early intervention treatments for patients with severe mental illness and limited alternatives to hospital.
- ◆ Need for access to flexible, integrated psychosocial services catering to the needs of people with severe mental illness, carers and family members.
- ◆ Consultation identified the NDIS application process acting as a barrier to accessing psychosocial support services for persons with severe and complex needs.
- ◆ Specific cohorts experiencing barriers to accessing NDIS include young people, people experiencing homelessness, people with co-morbid mental health and substance misuse issues, people from CALD backgrounds, people with a primary diagnosis of depression or anxiety, and people with personality disorders.

ALCOHOL AND OTHER DRUGS

- ◆ Alcohol, methamphetamine (ice) and other drug use are growing in the area. In the Northern Sydney LHD, drugs of concern include steroids, ice and other amphetamines. The number of young men using steroids is a hidden health problem, and the ice-steroid combination is an issue of concern.
- ◆ Cultural acceptance of alcohol can create challenges in identifying a need to seeking help, highlighting people are able be high functioning and often not seeking help until entering the criminal justice system or other crises.

- ◆ Lack of bulk billing GPs provides financial barriers to accessing AOD services. Majority of AOD services are supplied through private healthcare. People in this cohort who are not clients of public AOD services have difficulty accessing affordable and appropriate support.
- ◆ Limited recognition of appropriate screening and referral pathways amongst primary health care providers. Confusion exists among clients around identifying AOD services available and access pathways. Navigation of the complex health care system is a challenge for clients and service providers.
- ◆ Early intervention programs for AOD is limited with service gaps around female clients presenting at emergency departments.
- ◆ A need exists for low cost or free day/out-patient programs in the region.
- ◆ Demand for residential rehabilitation beds placement outstrips supply and people seeking residential rehabilitation either face long wait times or travel out of area to access support. This acts as a barrier to people obtaining support for AOD misuse disorders.
- ◆ Most non-residential AOD services in the region only provide service during business hours. This makes access to specialist support difficult for people who attend work or education and for the families of people receiving AOD treatment.
- ◆ People seeking to access residential rehabilitation are often required to go through detox first. This creates delays in accessing treatment and can serve to diminish peoples' willingness to pursue rehabilitation.
- ◆ Lack of services skilled in addressing co-occurring AOD and mental health issues with many services addressing one issue to the exclusion of the other.
- ◆ Need for AOD education for children and young people across the region, as education in schools in its current form is inconsistent.

Key themes and issues from stakeholder consultations

URGENT CARE

- ◆ Youth access to ED is skyrocketing. Young people do not know how to access a GP, especially out of hours, and few GPs are youth-focused or youth-friendly. There is a need to improve the coordination of youth services.
- ◆ The homeless population includes permanent residents within the SNHN region and a transient homeless population. This group have significant health needs and a high level of interaction with the acute care sector.
- ◆ There is potential for improvement in drug and alcohol services. Royal North Shore and Manly emergency departments see the bulk of presentations for alcohol and other drug use.
- ◆ GP access is not even across the region. Pockets of limited access should be further investigated.
- ◆ After hours GP services are key to diverting unnecessary ED attendance. Cost is an issue for some patients. Others don't know how to access GP services out of hours, instead presenting to the hospital ED. Geographic coverage of after-hours services and clear consistent messaging is important.
- ◆ There is a need for better integration and coordination of existing services rather than simply providing more services.

AGED CARE

- ◆ Previously the system was very integrated, with GPs at the centre and involved all the way through the patient's journey - the system is now fragmented with GPs no longer involved with hospital admissions or discharge planning.
- ◆ The PHN should focus on re-establishing links between primary care, acute/sub-acute care, and community care.
- ◆ There is a need for increased GP involvement with residential aged care facilities and to develop the skills of practice nurses.
- ◆ The role of allied health providers in caring for the elderly should be assessed. Falls are a specific area for preventive intervention.
- ◆ Communication through the My Aged Care website is not meeting expectations of timeliness or a single point of contact for carers.
- ◆ It would be beneficial to increase communication and collaboration between service providers so that, for example, a GP could call an aged care assessment team to discuss a particular patient.
- ◆ The roll-out of NDIS may mean that people under 65 lose benefits (e.g. meals on wheels). Some chronic disease patients need this support. There is a risk that patients will be received into the system further down the track, when their conditions are more severe. It is anticipated that the average length of stay will increase. There are early indications from trials in Hunter New England suggesting this has started to occur.
- ◆ The limited amount of information available on the level of aged care services provided is creating problems.
- ◆ Better efforts should be made to risk stratify the population to identify people early and prevent them becoming high users of health care services.

Key themes and issues from stakeholder consultations

GENERAL HEALTH AND HEALTHCARE

- ◆ The SNHN region has a high proportion of health services relative to its population with potential supply-driven utilisation of services. However, improving system navigation and access to services for the most vulnerable populations continues to be an area of focus.
- ◆ There is opportunity to improve women's health, particularly maternity services. This may include the increased involvement of GPs.
- ◆ Increasing primary care led provision of end of life care services
- ◆ There is a need to understand the socio-economic position of people within Northern Sydney, and the impact of that on accessing healthcare. Are people 'asset rich but income poor'?
- ◆ There is need for increased integration of primary and tertiary care. Greater use of electronic health records may offer a solution.
- ◆ Two key priorities for social impact investment are mental health and chronic disease. Building health literacy to facilitate prevention, early intervention and management across the population is an area of ongoing focus.
- ◆ There may be an opportunity to provide less services in outpatients clinics through improved communication and increased patient transitioning to community care.
- ◆ Collaboration and partnerships between SNHN and NSLHD on local programs and initiatives to promote system integration and coordination of care.
- ◆ Consultation with local councils, community groups and service providers identified opportunities to collaborate and build partnerships on new and existing programs addressing:
 - ◆ lifestyle risk factors across vulnerable population groups including culturally appropriate interventions for Aboriginal and CALD populations
 - ◆ social isolation across the population to promote emotional wellbeing and build community capacity to mutually support one another
- ◆ Consultation also highlighted a need for family-based interventions that facilitated participation from both parents and children to target physical and mental wellbeing.

Aboriginal people

- ◆ Aboriginal health is a priority and there is a need better understand our Aboriginal community, and what their health needs are. The level of preventative health interventions (e.g. breast screening) in the Aboriginal and Torres Strait Islander population is low.
- ◆ Lack of access to cultural competence training and availability of culturally-aware information for staff highlights the need to develop a more culturally aware and appropriate primary care work force to promote access to general health, mental health and AOD services.
- ◆ Need for a holistic approach in primary care services (including mental health and AOD services) focusing on the social, emotional and cultural well-being of the whole community rather than solely on illness.
- ◆ Lack of flexibility in provision of health services to the Aboriginal population in SNHN region. Lack of services open to a client's family and a need to provide outreach services within the Aboriginal community.

CALD

- ◆ The need for better access to interpreters for CALD clients in the SNHN region. Consultation highlighted health service providers with relevant ethnic background and language-speaking are limited, with a need for sustainable key bilingual GPs and psychologists in the region.
- ◆ Stakeholder consultation highlighted potential financial barriers for CALD groups accessing primary health services due to visa status.
- ◆ Need for ongoing and culturally appropriate health promotion for sexual health, nutrition and oral health, highlighting a need to focus on women and older CALD groups.

Homelessness

- ◆ The services provided to and required by homeless people is an area for further investigation.
- ◆ Need to increase the availability of early intervention services, including counselling and case management, to stop people 'at risk' becoming homeless
- ◆ Need for a continuum of care from crisis to affordable housing, keeping people independent and involved in the community when housed, with coordination between housing, police, youth justice, health and councils. Need for flexibility in how and where services are provided to a build relationship with the client for longevity to prevent homelessness.

Data definitions

- ◆ **Age standardisation** - Age-standardised rates enable the comparison of rates between populations with different age structures by removing the influence of age. This adjustment is important because the rates of many health conditions and health service use vary with age.
- ◆ **Bettering the Evaluation and Care of Health (BEACH)** - Database of clinical activities in general practice for SNPHN, sample of 205 general practitioners (20,500 encounters), 2011-15.
- ◆ **Comparator areas (Metro 1)** - PHNs that are most comparable to the SNPHN region, based on factors such as remoteness, socioeconomic status and distance to hospitals. These include: Central and Eastern Sydney, North Western Melbourne, Eastern Melbourne, South Eastern Melbourne, and ACT.
- ◆ **Confidence Interval (CI)** - At the 95% level, there is 95% chance that the true underlying population statistic will fall within the calculated confidence interval.
- ◆ **Decile** - Ten equal parts of a distribution. For example, if 100 patients were ranked according to the number of times they visit a doctor, the top decile will refer to the 10 patients with the most visits, and the bottom decile to the 10 patients with the fewest visits.
- ◆ **Index of Relative Socio-Economic Disadvantage (IRSD)** - IRSD is one of four indexes contained within the Socio-Economic Indexes for Areas (SEIFA). SEIFA ranks areas according to relative socio-economic advantage and disadvantage, based on information from the 2016 Census.
- ◆ **Life expectancy at birth** - The number of years of life that a person is expected to live at the time they are born. The measure assumes the age- and sex-specific death rate that applied when they were born continues throughout their lifetime.
- ◆ **Modelled estimates** - Estimates for risk factors and chronic disease produced by PHIDU are calculated based on the 2011-12 and 2014-15 Australian Health Survey, conducted by ABS. Modelled estimates summarise the various demographic, socioeconomic and administrative information available for an area in a way that indicates the expected level of each health indicator for an area with those characteristics. The numbers are estimates for an area, not measured events as are, for example, death statistics. As such, they should be viewed as a tool that, when used in conjunction with local area knowledge and taking into consideration the prediction reliability, can provide useful information that can assist with decision making for small geographic regions.
- ◆ **Pen Clinical Audit Tool (PATCAT)** - Population reporting software of patient information from general practice.
- ◆ **Potentially preventable hospitalisation (PPH)** - Hospital separations from a specified range of conditions where hospitalisation is considered to be largely preventable by timely and effective provision of non-hospital or primary health care including prevention.
- ◆ **Statistical Area Level 2 (SA2)** - A geographic area defined by the Australian Bureau of Statistics (ABS) as generally having a population range of between 3,000 and 25,000 persons, and have an average population of about 10,000 persons. There are approximately 2,200 SA2s in Australia.

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