phn
NORTHERN SYDNEY
An Australian Government Initiative

SYDNEY NORTH
Health Network

NEEDS ASSESSMENT
2016/2017

CONTENTS

INTRODUCTION

The Sydney North Health Network (SNHN), which operates the Northern Sydney Primary Health Network (PHN), 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. The SNHN will achieve this through the organisation's strategic objectives of:

- Building primary healthcare capacity
- Service transformation
- Commissioning
- Organisational excellence

This first 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 the social determinants of health, such as access to primary care, stress and addiction, which can impact health outcomes. The issues identified in this report will inform the process and will be used to strengthen the engagement between SNHN and the community.

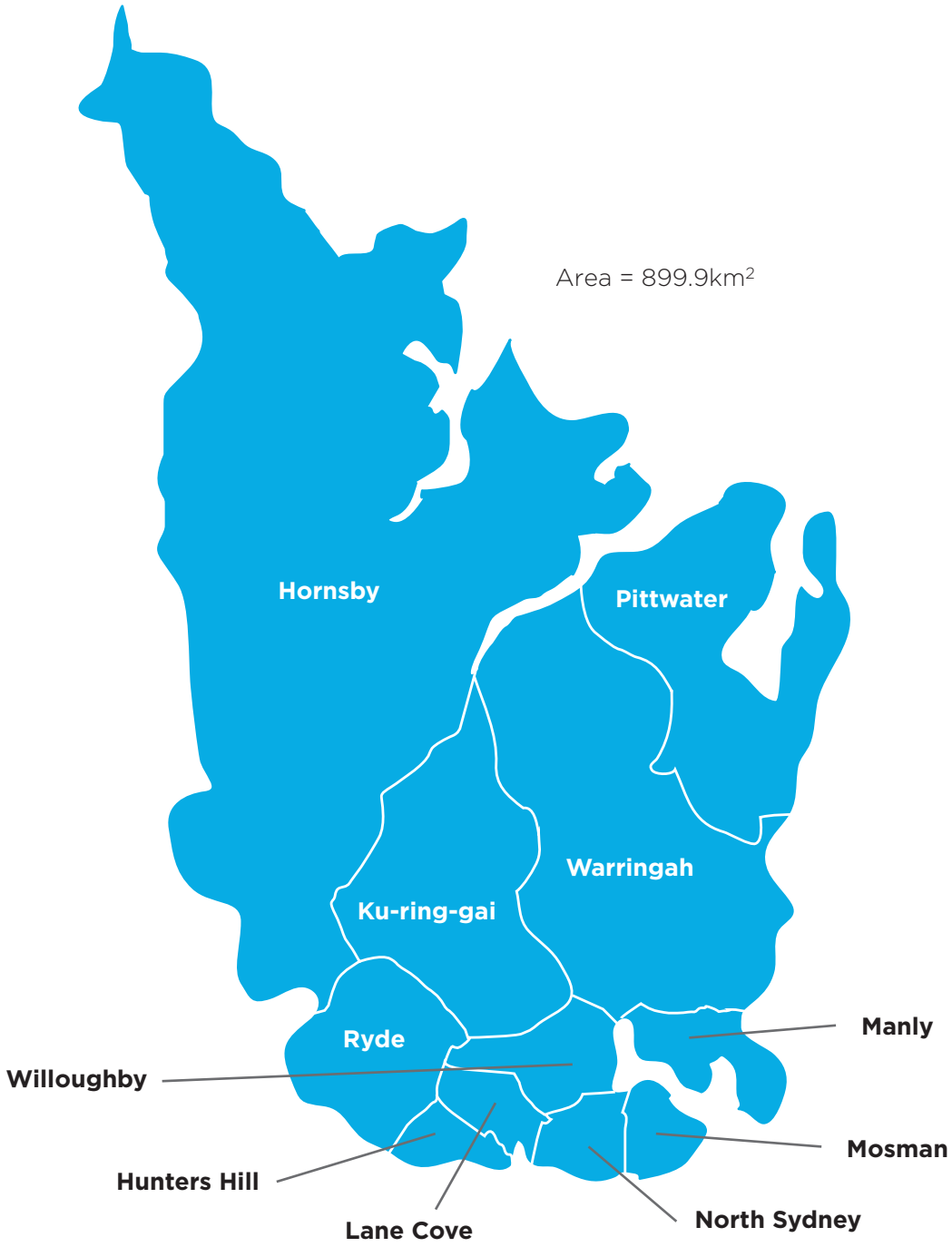
The SNHN Needs Assessment developed a thorough general population health profile for the region, covering 73 separate areas to give a sound snap-shot of the region. Specific detailed investigation into Mental Health, Urgent Care and Health of the Elderly were identified by both preceding Medicare Local 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.

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 the Elderly sections):

- The SNHN population aged 65+ years is projected to increase by 43% between 2016 and 2031 (1.1).
- Compared to NSW, a larger proportion of the SNHN population is born in countries culturally and linguistically different from Australia (1.2).
- Over 2,400 people in the SNHN region identify as Aboriginal and/or Torres Strait Islander, however, the population appears to be significantly under-reported (1.4).
- 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- dependant families in the SNHN region is low compared to NSW , however, this still amounts to over 11,700 children in the region (2.4).
- 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-Indigenous people (3.5).
- Intentional self-harm is the leading cause of death in young people aged 15-24 years in NSW (8.12).
- The SNHN population ranks relatively low on most risk factors, but still has an estimated 67,000 adult smokers and 102,000 adults who are obese (4.1, 4.3).
- The SNHN region has a higher rate of alcohol attributable hospitalisations compared to NSW, particularly in Manly, Mosman and Lane Cove LGAs (4.2).
- Within the SNHN region, 40% of the population has one or more chronic conditions (5.1).
- GP attendances are lower in the SNHN region compared to NSW (6.3).
- Cellulitis, kidney and urinary tract infections, and dental conditions make up 40% of potentially preventable hospitalisations in the SNHN region (7.2).
- Within the SNHN region, 12% of people report having a long-term mental health condition (8.1).
- Emergency department presentations relating to self-harm or suicidal behaviour are particularly prominent for young people aged 15-19 years, averaging over one presentation per day in the SNHN region (8.11).
- 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- Indigenous population (9.7).
- The SNHN region has the highest rate of GP after-hours/emergency providers in NSW. Despite this, the region has a lower rate of patients who access GP after-hours services compared to other PHNs (9.10).
- An estimated 80% of SNHN residents aged 75+ years did not receive an annual health assessment, of whom at least 41,000 are likely to have two or more chronic conditions (10.3).
- For SNHN residents aged 75+ years, 12 in every 100 presentations to an emergency department is due to a fall (10.6).

SYDNEY NORTH HEALTH NETWORK REGION



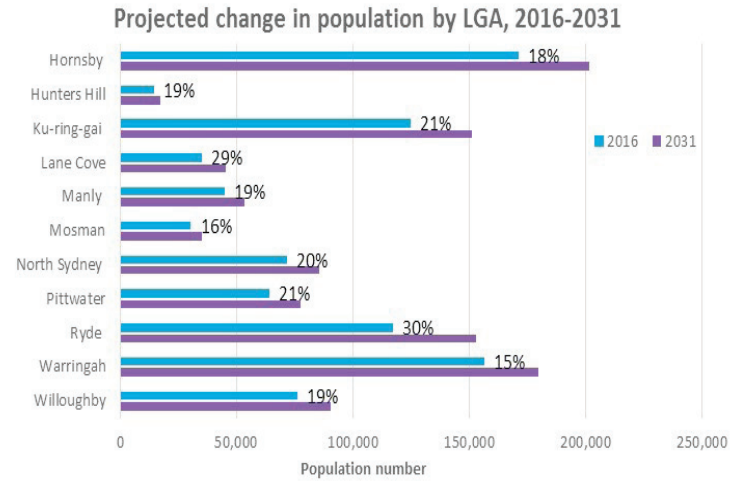
ABS Estimated Resident Population, 2014

LGA	Population
Hornsby	168,614
Hunters Hill	14,689
Ku-ring-gai	120,978
Lane Cove	34,807
Manly	44,786
Mosman	30,276
North Sydney	71,025
Pittwater	63,338
Ryde	114,598
Warringah	155,289
Willoughby	74,166
SNHN	892,566

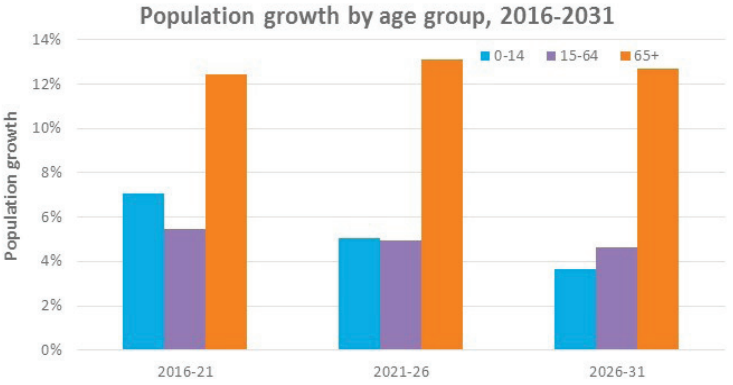
CHAPTER 1

Demography

Growth in the population aged 65+ will fuel healthcare demand



Source: NSW Department of Planning and Environment, 2014



Source: NSW Department of Planning and Environment, 2014

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 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.

SYDNEY NORTH HEALTH NETWORK

The SNHN region has a total ERP of 892,566 (2014). The SNHN population is growing at a similar rate to NSW, with 20.3% growth projected between 2016 and 2031. By 2031, the region is expected to have an additional 183,900 residents living in the area.

At the LGA level, Ryde is projecting the strongest proportional and numerical growth (30.3%), equating to an additional 35,550 residents by 2031. Warringah is projecting the lowest proportional growth (14.9%), however, this still equates to an additional 23,250 residents by 2031.

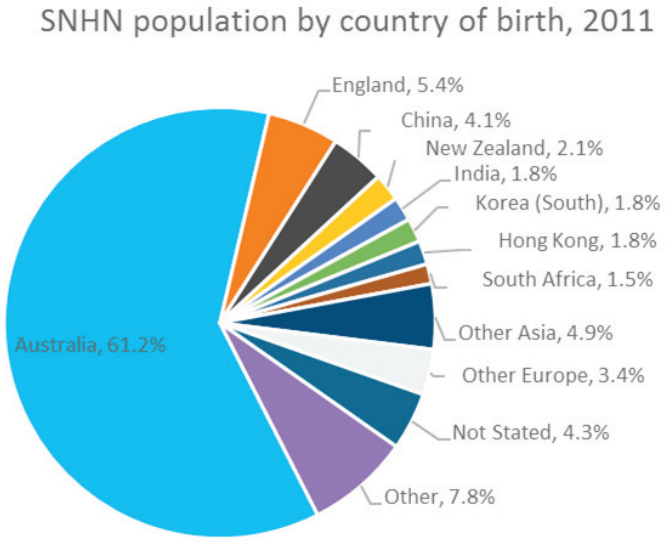
Growth is expected to be highest in the older age group. The population over 65 years of age is expected to increase in the SNHN region by 43.3% between 2016 and 2031, compared to 50.3% for NSW. Ryde, Pittwater and Hornsby LGAs are expected to have the largest proportional growth (approximately 50%) in the population over 65.

The population over 65 years is projected to surpass the population 0-14 years for the first time in 2031. Aged care will become an increasing priority for the SNHN region.

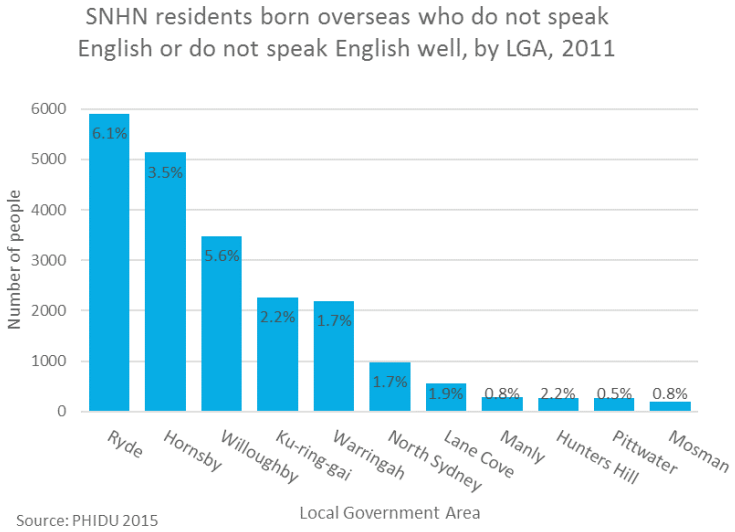
Population growth in the SNHN region is similar to the NSW average

See related content: 10.6 Falls, 10.7 Dementia

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



Source: ABS, 2015



Source: PHIDU 2015

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 2011 Australian Census. More current data is not available, however, the proportion of the SNHN population from CALD backgrounds is not expected to have changed significantly since 2011.

The next Census will be conducted in 2016, with the first results released in mid-2017. Patient records are another source of demographic data. Data provided my General Practices will provide further information relevant to health service requirements in the future.

SYDNEY NORTH HEALTH NETWORK

The majority of the SNHN population (61.2%) were born in Australia, although a smaller proportion compared to NSW (68.6%) and Australia (69.8%).

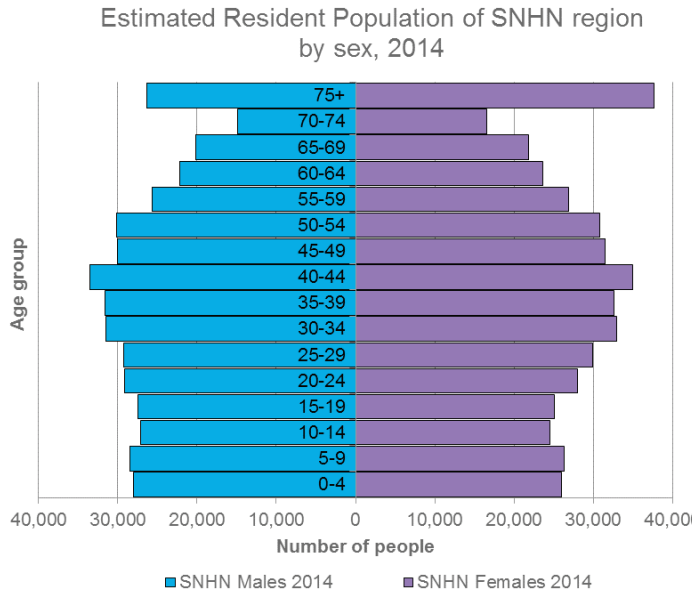
The SNHN region has a larger proportion of its population (22.1%) born in countries culturally and linguistically different from Australia compared to NSW (18.6%).

In 2011, 2.8% of the SNHN population born overseas reported that they did not speak English, or did not speak English well; a similar proportion to Australia (2.6%). This equates to more than 20,000 people in the SNHN region who do not speak English well.

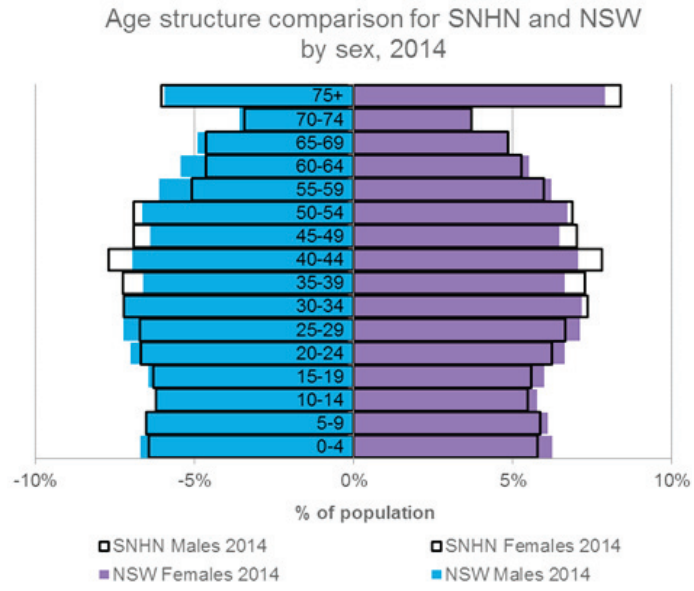
The largest number and highest proportion of people in the SNHN region with poor proficiency in English (6.1%) reside in Ryde LGA. Hornsby LGA has the second highest number of people with poor English language skills, although this equates to only 3.5% of the population. Almost one in four people in the SNHN region (24.7%) speak a language other than English at home. A growing population of Tibetan refugees with complex health needs were identified within the SNHN region by the Sydney North Shore and Beaches Medicare Local Needs Assessment.

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



Source: ABS, 2015



Source: ABS 2015

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 ERP for 2014, 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.

SYDNEY NORTH HEALTH NETWORK

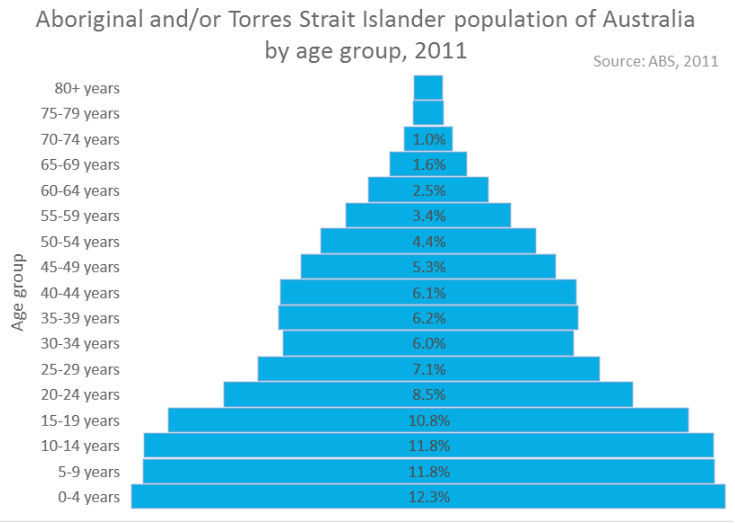
There is a fairly equal proportion of males (48.8%) and females (51.2%) within the SNHN region, with a reasonably similar age structure between males and females other than in the over 75 years age group. Of the population over 75 years, 58% are female.

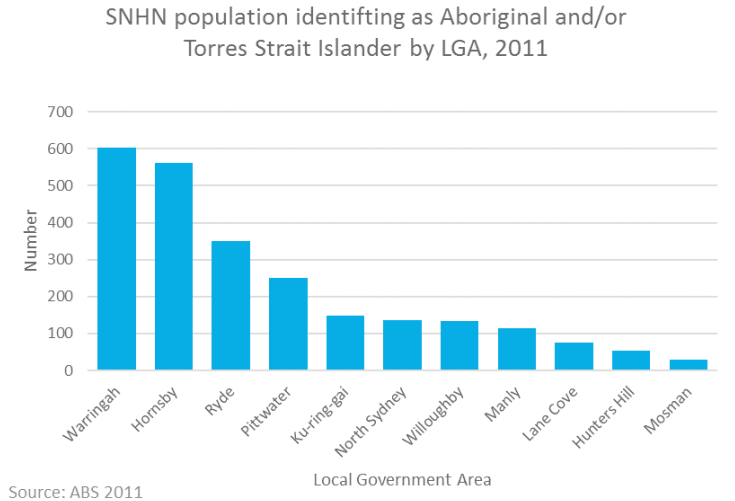
Compared to NSW, the SNHN region has a smaller proportion of the population under 29 years (39% and 37% respectively). This applies in each age group and cumulatively but is most significant in the 0 to 4, 20 to 24 and 25 to 29 year age groups. Conversely, the SNHN region has a larger proportion of the population aged between 35 and 49 years than NSW, suggesting a larger proportion of elderly residents in the future.

Overall SNHN and NSW have a similar age structure over the age of 49 years, although there are substantially fewer males between 55 and 69 years (as a proportion of the population) and more females over 75 years in the SNHN region compared with NSW.

See related content: 3.1 Mortality and life expectancy

Over 2,400 people in the SNHN region identify as Aboriginal and/or Torres Strait Islander





Source: ABS 2011

WHY IS THIS IMPORTANT?

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

All health indicators are poorer for Aboriginal people including life expectancy, death rates, infant mortality and the incidence and prevalence of chronic disease.

Almost 100,000 Aboriginal and Torres Strait Islander people were identified as living in major cities in NSW in the 2011 Census, indicating a substantial population in Sydney 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.

Only a small number of people in the SNHN region identify as Torres Strait Islander. For this reason 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

Aboriginal and/or Torres Strait Islander status 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, 2,455 people identified as Aboriginal and/or Torres Strait Islander in the 2011 Census; 0.3% of the SNHN population at that time. Together with those Aboriginal people not currently identified, this is a large number of people living in the SNHN region at risk of poor health outcomes and low life expectancy.

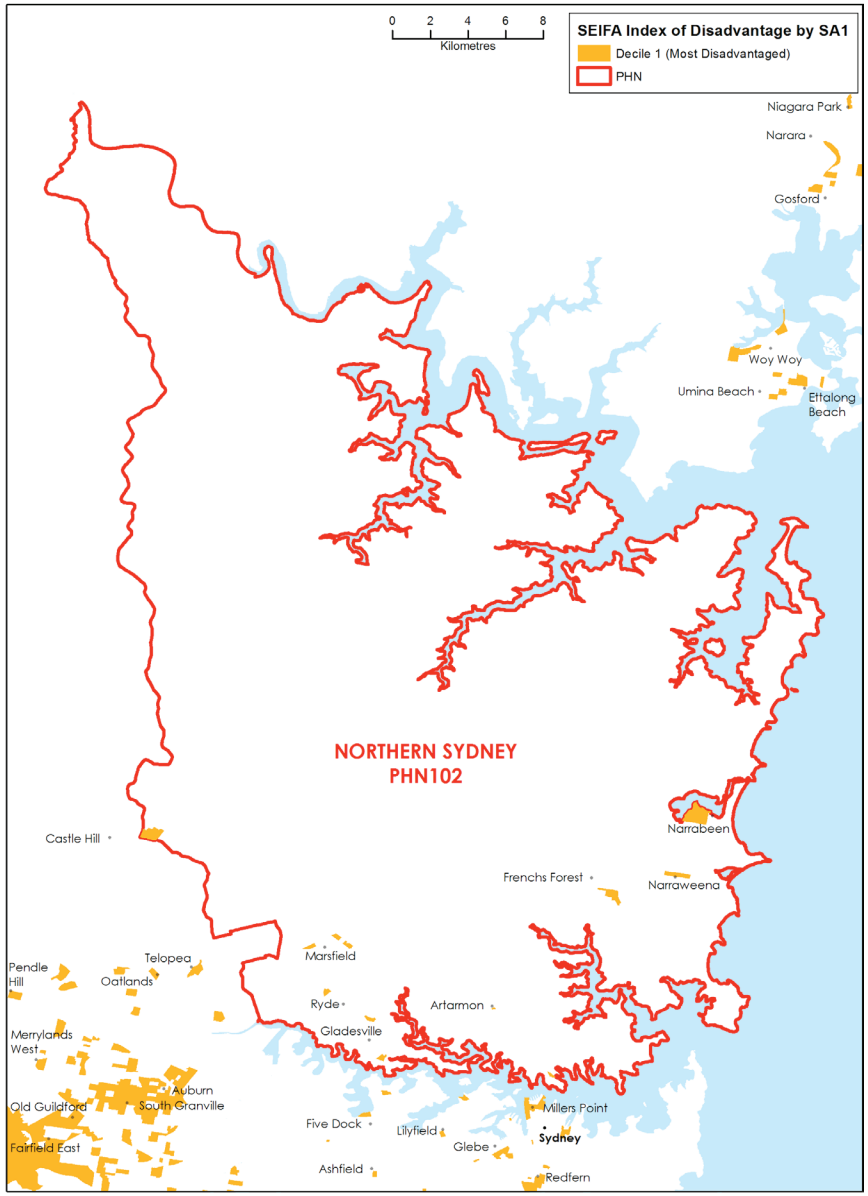
While the proportion of people in the SNHN region identifying as Aboriginal is substantially lower than Australia (2.5%) and NSW (2.5%) as a whole, the poorer health outcomes and lower life expectancy of Aboriginal people necessitates targeted and culturally safe services, and dedicated efforts to achieve 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



Source: PHN Portal, 2016

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 score, the lowest 10% of areas are given a decile number of 1.

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

SYDNEY NORTH HEALTH NETWORK

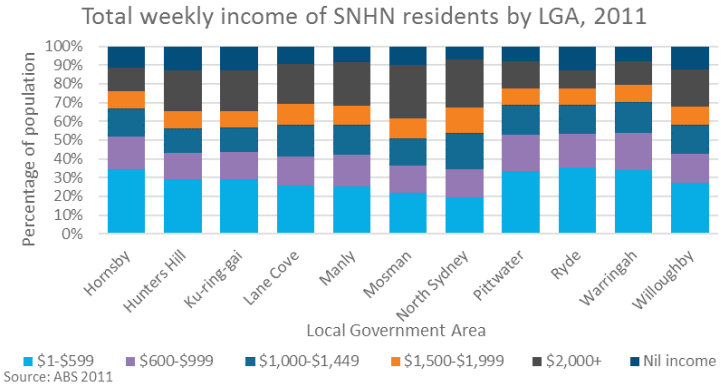
SNHN is ranked the least socio-economically disadvantaged PHN in Australia. Ryde is the most disadvantaged LGA in the SNHN region, scoring in the ninth or second highest decile in both the NSW and Australian rankings. All other LGAs in SNHN are in the 10th, or least disadvantaged decile in both rankings.

Within the SNHN region, however, there are pockets of high disadvantage, falling in the lowest decile in Australia in the IRSD rankings of relative disadvantage. These are found within the Statistical Area Level 2 geography (see Appendix B) of Chatswood East/Artarmon, Macquarie Park/Marsfield, Manly Vale/Allambie Heights, Beacon Hill/ Naraweena, Neutral Bay/Kirribilli, Ryde/ Putney, Narrabeen/Collaroy, Gladesville/ Huntleys Point, Eastwood/Denistone and Cherrybrook.

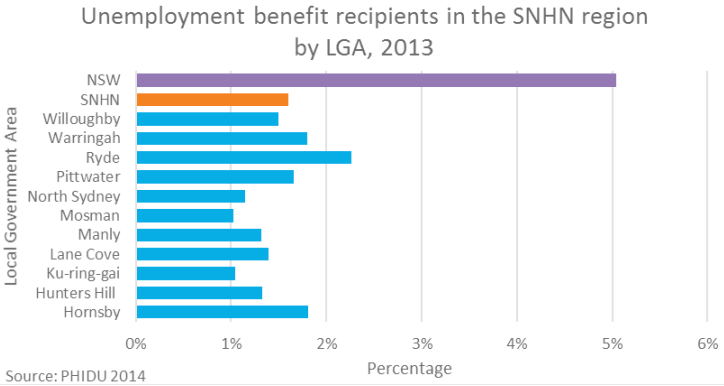
It is also noted that many residents rich in assets may not have a correspondingly high income.

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.

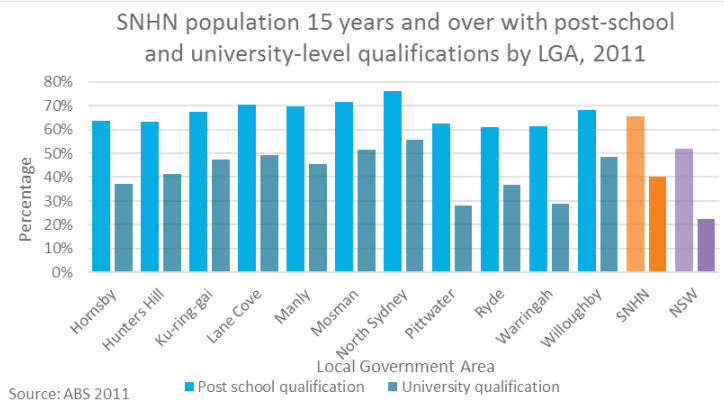
Income, education and employment patterns reflect the low level of disadvantage across the SNHN region



Source: ABS 2011



Source: PHIDU 2014



Source: ABS 2011

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 2011 Census provides a range of data on income, education and employment. This is the most reliable source of data, however, employment and education status is highly changeable and the 2011 figures may no longer be accurate. Public Health Information Development Unit (PHIDU) draws on the Socio-Economic Indexes for Areas (SEIFA) from the 2011 Census to rank PHNs in regard to social and economic disadvantage.

SYDNEY NORTH HEALTH NETWORK

Income levels in the SNHN region are higher than the state average, with 13% of the population earning more than $2,000 a week in 2011, compared with 5% state wide. There is variation between LGAs, however, with only 7% of residents in Ryde LGA in this income bracket, compared to 21% in North Sydney LGA.

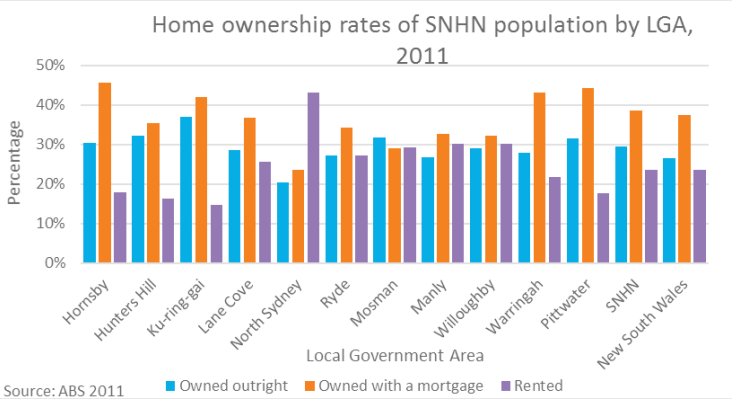
There is also a higher proportion of the population in the SNHN region (8%) reporting nil income compared with NSW (6%). This is likely to be, predominately, self-funded retirees.

In 2011, 2.2% of the SNHN population were unemployed and looking for work, compared with 2.8% in NSW. There is variation within the catchment, however, with unemployment rates ranging from 1.7% in Hunters Hill to 3% in Ryde LGA.

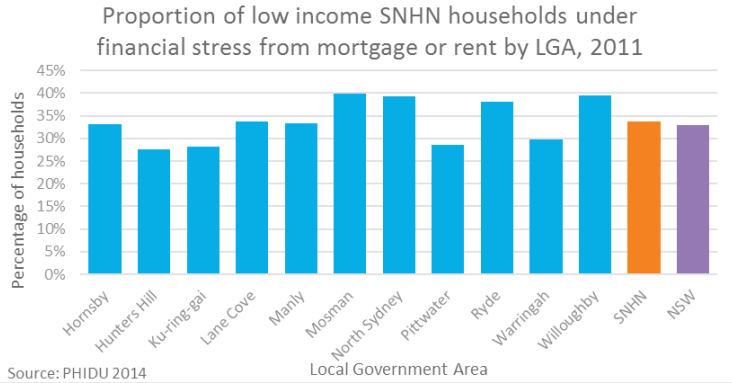
The proportion of the population aged 16 to 64 years on unemployment benefits in June 2013 is low in the SNHN region (1.6%), less than half of the NSW average (5.0%). This suggests that many of those who are unemployed are not the sole or primary bread winner in the household.

Education levels at the 2011 Census were also high in the SNHN region, with 48% of the population obtaining a post-school qualification; almost two thirds of which were at university level. This is substantially higher than the proportion of NSW residents with post-school qualifications (37%) and the percentage at university level (48%). Further, a higher proportion of 15 to 19 year olds in the SNHN region were either earning or learning; 89% compared to 81% across NSW.

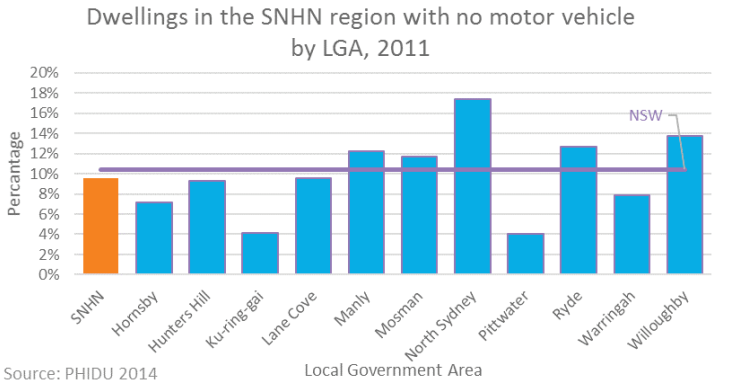
One third of low income households in the SNHN region are under financial stress from mortgage or rent



Source: ABS 2011



Source: PHIDU 2014



Source: PHIDU 2014

WHY IS THIS IMPORTANT?

Poor quality housing, including inadequate heating and cooling constitutes a significant health risk particularly for children and the elderly. 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 are 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 exist too on homelessness, or the adequacy of public and community transport in all parts of the SNHN region.

SYDNEY NORTH HEALTH NETWORK

Rates of home ownership and housing rental are very similar in the SNHN region to the rest of NSW, however, the proportion of the population in social housing is lower in the SNHN region (1%) compared with NSW (3.4%). A lack of public housing within the SNHN region has been identified by stakeholders as a potential concern and will need further investigation.

Ryde had the highest number of people living in social housing and the largest proportion of people receiving rental assistance in June 2014 (13.2%). Overall almost 8,000 people in the SNHN region were living in government housing and 23,000 households were receiving rental assistance on Census night in 2011.

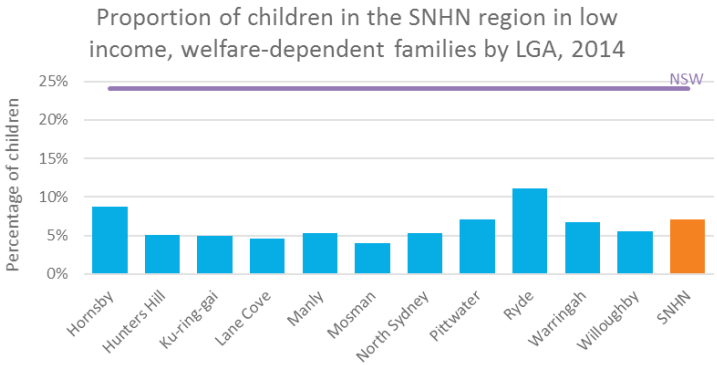
In 2011, 33.6% of low income households in the SNHN region were under financial stress from mortgage or rent. This is similar to NSW (32.9%), but lower than Sydney as a whole (37.7%). Mosman, Hornsby, Manly and Ku-ring-gai LGAs had the highest proportion of low income households under financial stress.

In the 2011 Census, approximately 1,500 people were estimated to be homeless in the SNHN region, with the largest numbers within Neutral Bay/Kirribilli and Manly/Fairlight (Statistical Area Level 2).

The rate of motor vehicle ownership in the SNHN region is the same as other capital cities in Australia, with all but 9.5% of households owning a motor vehicle; a slightly higher rate of ownership compared to NSW (10.4%).

There is an extensive bus service in the SNHN region but limited train services. Improvements are being made to transport infrastructure and bus services in and around the Northern Beaches, to link the new hospital due to open in Frenchs Forest in 2018. It is unclear how well the public transport system meets the needs of all population groups.

Over 11,700 children in the SNHN region were living in low income, welfare-dependent families in June 2014



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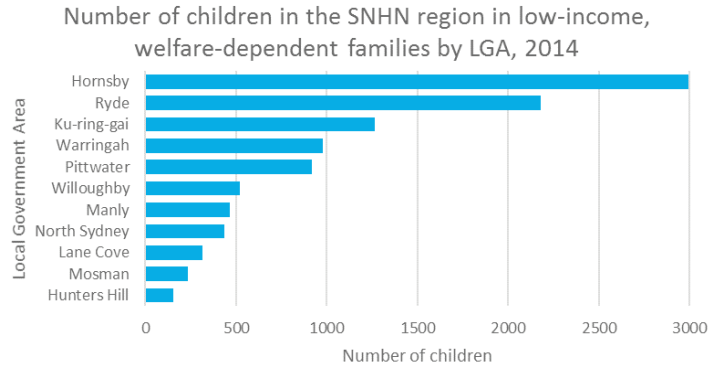

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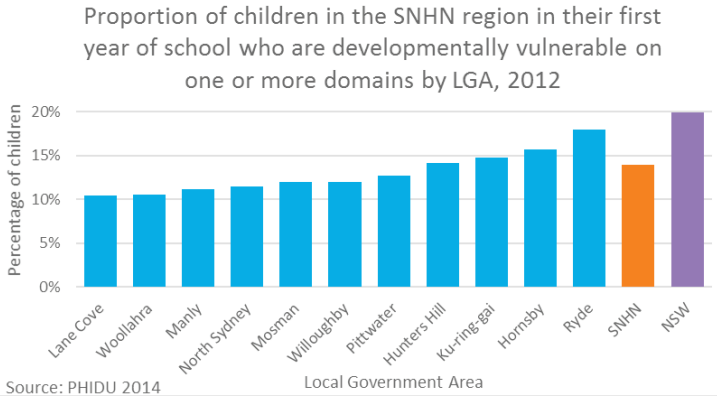


Source: PHIDU 2014

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 2014.

The 2012 Australian Early Development Census (AEDC); a full-population census of children's health and development in their first year of full-time school provides a measure of children's physical health and wellbeing, social competence and emotional maturity as well as their communication skills and general knowledge.

SYDNEY NORTH HEALTH NETWORK

The proportion of children in low income, welfare-dependent families in June 2014 was substantially lower in the SNHN region (6.8%) than NSW (22.9%). This amounts to 11,707 children in the SNHN region living in low income, welfare-dependent families; predominately in Hornsby and Ryde.

In 2011, 12% of families in the SNHN region with children under 15 years were single parent families, compared to 21% in NSW. The proportion of children living in jobless families is also markedly lower in the SNHN region (5%) compared to NSW (15%). The largest numbers of both single parent and jobless families were in Hornsby and Warringah LGAs while the highest proportion of jobless families were in Ryde (7%). All LGAs in the SNHN region had a lower proportion of single parent families and jobless families in 2011 compared to NSW.

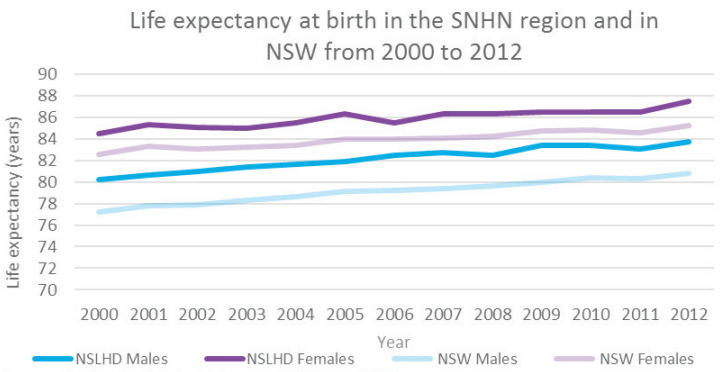
Children in the SNHN also score well in early development measures; 14% were developmentally vulnerable in 2012 in one or more categories, compared with 20% in NSW. Similar to NSW, SNHN children are least developmentally on track in communication skills and general knowledge (83%), and most developmentally on track in language and cognitive skills (94%).

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

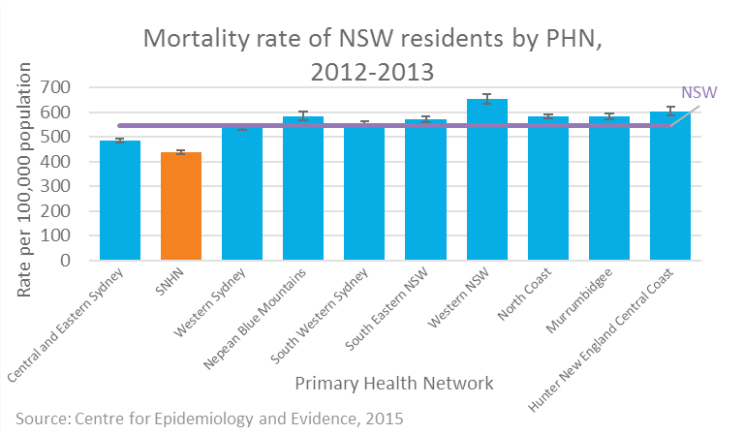
CHAPTER 3

Population Health Outcomes

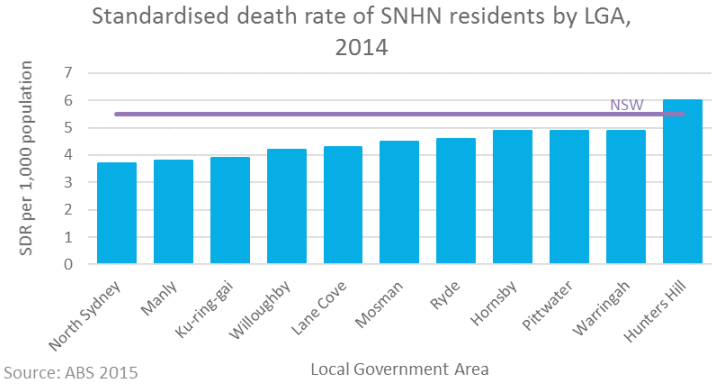
The average life expectancy in the SNHN region is the highest in Australia



Source: Centre for Epidemiology and Evidence 2015



Source: Centre for Epidemiology and Evidence, 2015



Source: ABS 2015

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.

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 2012 from HealthStats NSW. Death rates for all causes and the average age of death is also available, or can be calculated, for the SNHN region, and for each LGA, through to 2012.

The ABS age-standardised mortality rate by LGA for 2014 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 of the SNHN, life expectancy at birth was 85.7 years in 2012, 2.7 years higher than the NSW average of 83.0 years.

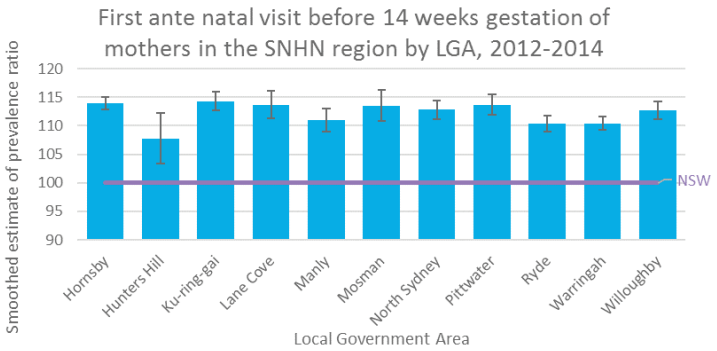
Males in the SNHN region had a life expectancy of 83.7 years in 2012, 3.7 years higher than males across NSW, while female life expectancy of 87.5 years is 2.3 years higher than for NSW females.

The overall mortality rate in the SNHN region is also statistically significant lower than all PHNs in NSW. In 2012-13, the SNHN region had a mortality rate of 437 per 100,000 population. The mortality rate for NSW at that time was 545 per 100,000 population.

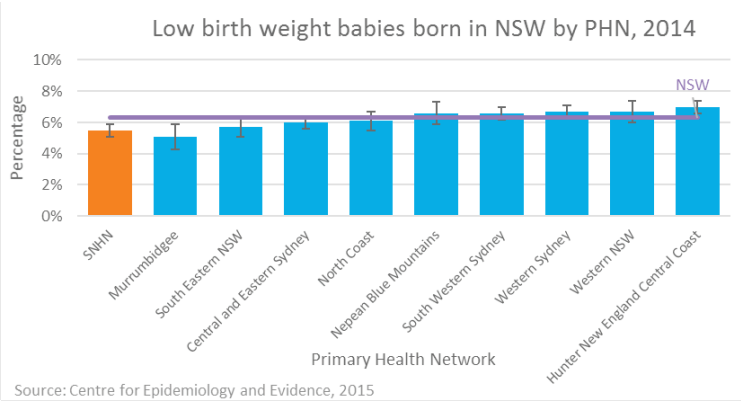
There is some variation in the mortality rate between LGAs in the SNHN, however, all LGAs other than Hunters Hill are below 500 per 100,000. Hunters Hill's comparatively high rate (549) is likely to be due to the small population and small number of deaths.

See related content: 3.3 Premature mortality

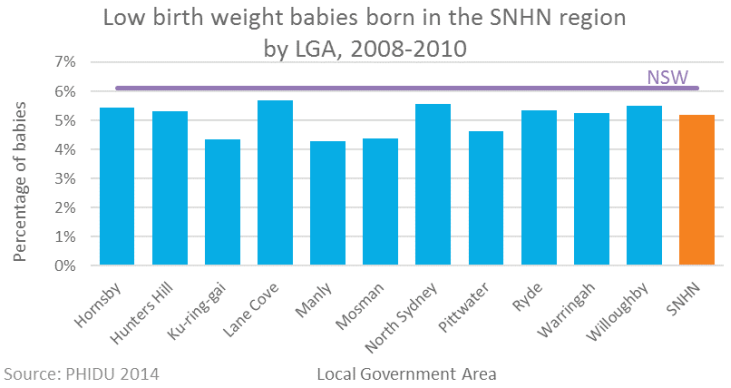
Infant and maternal health is high throughout the SNHN region



Source: Centre for Epidemiology and Evidence, 2015



Source: Centre for Epidemiology and Evidence, 2015



Source: PHIDU 2014

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 2500 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 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. Gestational age and birth weight data are collected and recorded at birth and available by PHN from HealthStats NSW for 2014. PHIDU provides data on low birth weight babies and smoking during pregnancy by LGA for 2008-10.

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

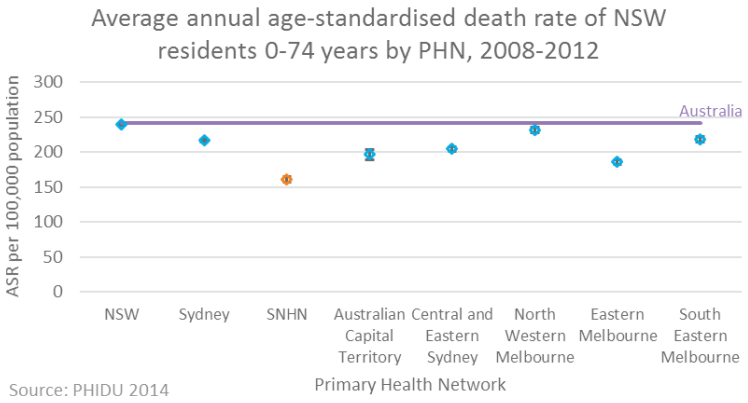
The fertility rate is low throughout the SNHN region (1.62 compared to 1.84 in NSW in 2011) but birth outcomes and maternal health compare favourably with NSW as a whole and with comparable populations in other jurisdictions.

The average annual infant death rate between 2008 and 2012 was 2.4 in the SNHN region compared to 3.5 in Sydney and 3.9 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 comparison less meaningful.

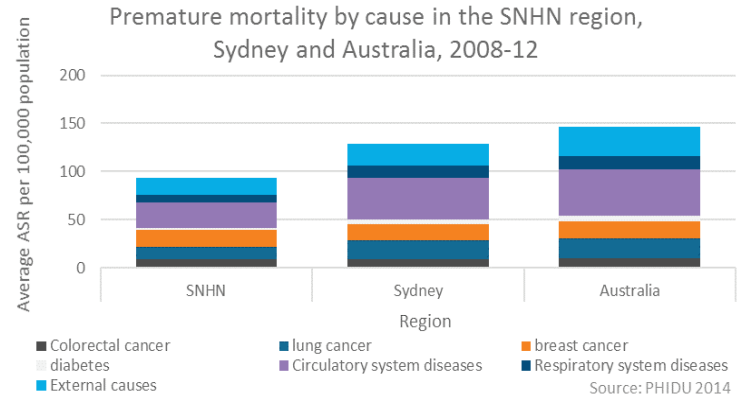
In 2014, 61% of mothers in the SNHN region attended their first ante natal visit before 14 weeks gestation and 93% by 20 weeks gestation. This is 8% higher than first antenatal visits by 20 weeks for NSW. Smoking during pregnancy is also very low in the SNHN region with only 1.8% of mothers smoking during pregnancy between 2008 and 2010. Across NSW the rate is 12% and almost 14% for Australia in the same period.

Only 5.5% of babies born in the SNHN region from 2008 to 2010 were born with a low birth weight compared to 6.3% in NSW. The majority of pregnancies (93%) went full term with only 1% of babies delivered at 31 weeks or younger.

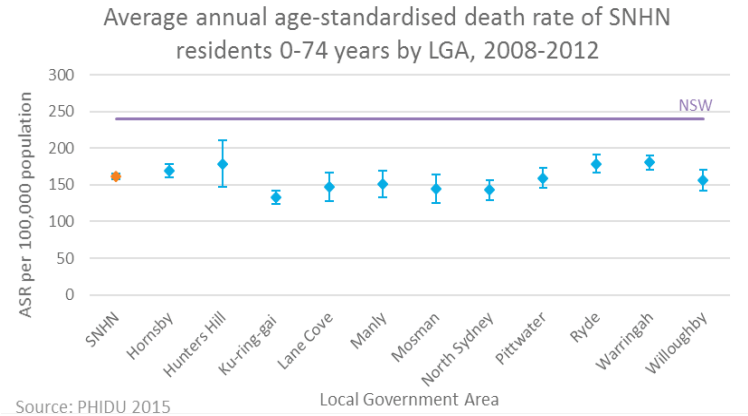
The SNHN region has the lowest rate of premature mortality in Australia



Source: PHIDU 2014



Source: PHIDU 2014



Source: PHIDU 2015

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 2008-12 by LGA have been compiled by PHIDU from Cause of Death Unit Record Files and are directly age-standardised.

SYDNEY NORTH HEALTH NETWORK

SNHN residents have the lowest mortality rate within NSW for those aged under 75 years. For 2008–2012, SNHN had a premature mortality rate of 161 per 100,000, compared to 240 per 100,000 for NSW and 216 per 100,000 for Sydney. Each LGA within the SNHN region has a lower premature mortality rate compared to the NSW average.

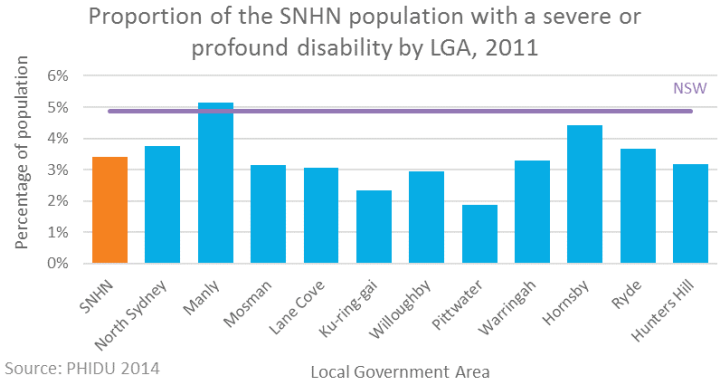
The SNHN region has the lowest rate of premature mortality in each disease category; cancer, diabetes, circulatory system diseases, respiratory system disease and external causes.

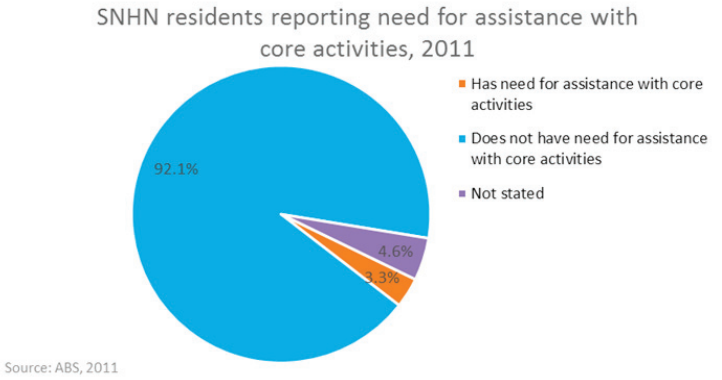
Males in the SNHN region have a higher rate of premature mortality (195 per 100,000, 95%CI 189-201) compared to females (129 per 100,000, 95% CI 124-134). The difference is particularly marked in Ryde, with the premature mortality rate for males 228 per 100,000 (95% CI 209-248), compared to 133 for females (95% CI 118-147).

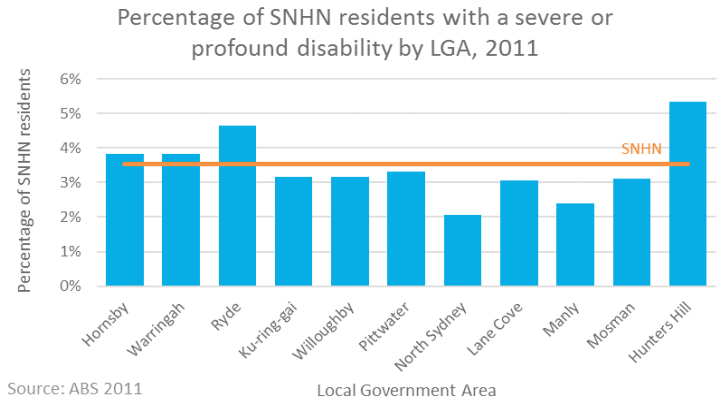
Within the SNHN region Warringah and Ryde had the highest rates of premature mortality in 2008-12 at 181 (95% CI 171-191) and 179 (95% CI 167-191) per 100,000, respectively. Whilst Hunters Hill shows a high premature mortality rate, there is a degree of uncertainty around the true rate, due to the small number of deaths. Ku-ring-gai has the lowest premature mortality rate at 133 per 100,000 (95% CI 123-142).

Similar to other PHNs, the main cause of premature mortality in the SNHN region for 2008-12 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







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

From the 2011 Census, a person with profound or severe limitation needs help or supervision to perform activities that most people undertake at least daily, as the result of a disability, long term health condition (lasting six months or more), and/or older age.

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

The 2012 Survey of Disability, Ageing and Carers is expected to provide additional information on the nature and prevalence of disability within the SNHN region, including less severe disability. This information is needed to inform health service planning and delivery in the SNHN region.

SYDNEY NORTH HEALTH NETWORK

In 2011, the SNHN region had the lowest rate of profound or severe disability in NSW (3.4%), with all LGAs other than Hunters Hill (5.2%) below the NSW average (4.9%).

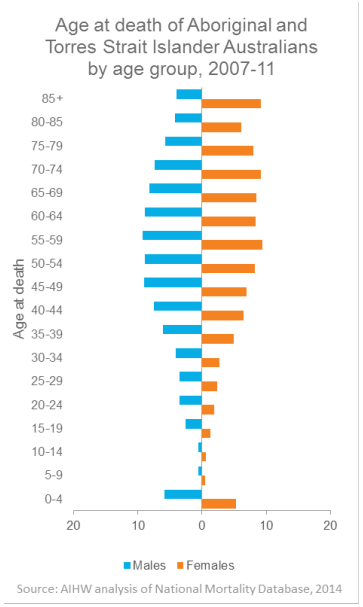
Of the population under 65 years of age, SNHN has the lowest rate of profound or severe disability in Australia, including in Hunters Hill. The highest rate, in Ryde (1.8%), is still well below the state average of 2.6% and the Sydney rate of 2.3%.

SNHN also has the lowest level of disability pension at 1.9%; almost one third of the NSW rate (5.6%) and well below comparable PHNs in other jurisdictions.

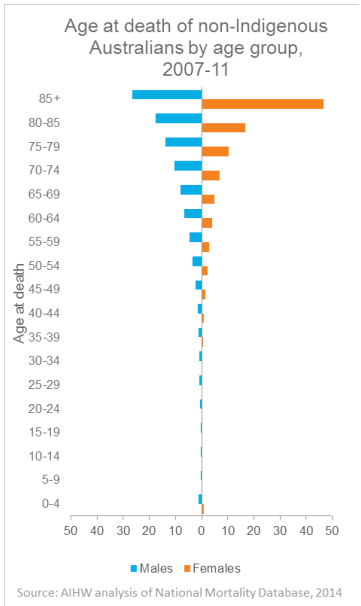
While the rates of disability are low in comparison with other PHNs, over 27,000 people in SNHN have a profound or severe disability, including 8,500 under the age of 65 and more than 20,000 living in the community.

In addition, in the 2011 Census, more than 70,000 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.

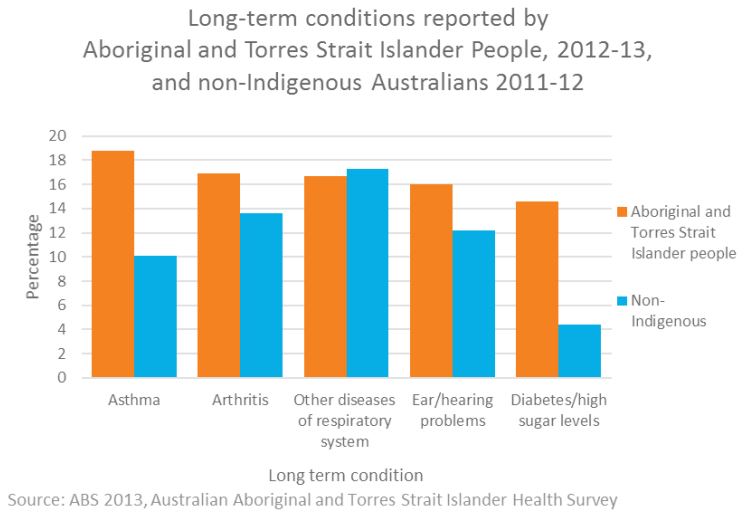
Life expectancy for Aboriginal and Torres Strait Islander peoples is ten years lower compared to non-Indigenous Australians



Source: AIHW analysis of National Mortality Database, 2014



Source: AIHW analysis of National Mortality Database, 2014



Source: ABS 2013, Australian Aboriginal and Torres Strait Islander Health Survey

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

There is extensive data on the health status of, and risk factors for, Aboriginal peoples for Australia and for NSW, however there is very limited data for smaller geographies including for the SNHN region.

Australian Indigenous HealthInfoNet has prepared a summary of Australian Indigenous Health in 2014 using data collected in the 2012-13 Australian Aboriginal and Torres Strait Islander Health Survey and from the 2011 Census. Indigenous Health is also addressed in the Australian Institute for Health and Welfare's report on Australia's Health 2014, however, the SNHN will need to investigate further to better understand the health service needs of Aboriginal people living in the SNHN region.

SYDNEY NORTH HEALTH NETWORK

The life expectancy for Aboriginal and Torres Strait Islander peoples is approximately ten years lower than other Australians, and Aboriginal and Torres Strait Islander adults die at a higher rate at all ages. In the 35-44 year age group in 2010-12, Aboriginal and Torres Strait Islander people died at almost 5 times the rate of non-Indigenous people. The infant mortality rate is almost twice as high for Aboriginal and Torres Strait Islander people compared to non-Indigenous 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-Indigenous Australians.

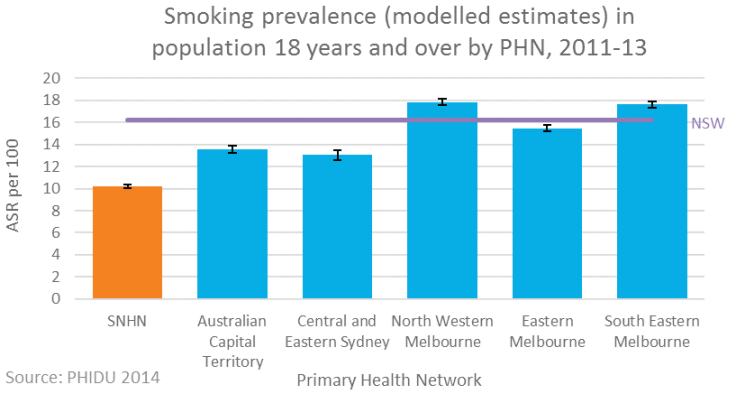
The prevalence of chronic disease is also higher among Aboriginal and Torres Strait Islander people compared to non-Indigenous Australians, and they occur at a younger age. In 2008, Aboriginal and Torres Strait Islander people under 65 years were more than twice as likely as non-Indigenous Australians to have a disability requiring assistance with daily activities.

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

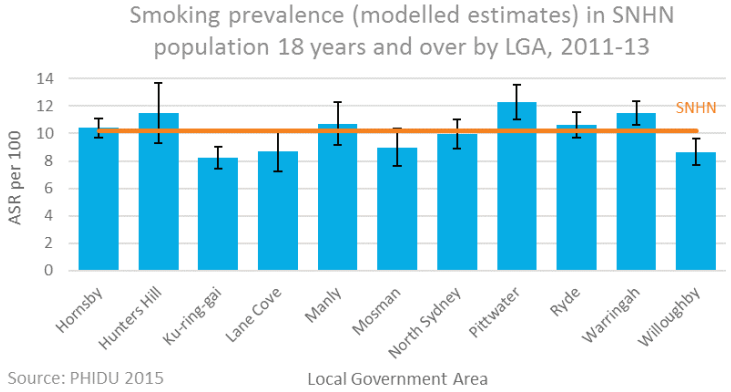
CHAPTER 4

Population Risk Factors

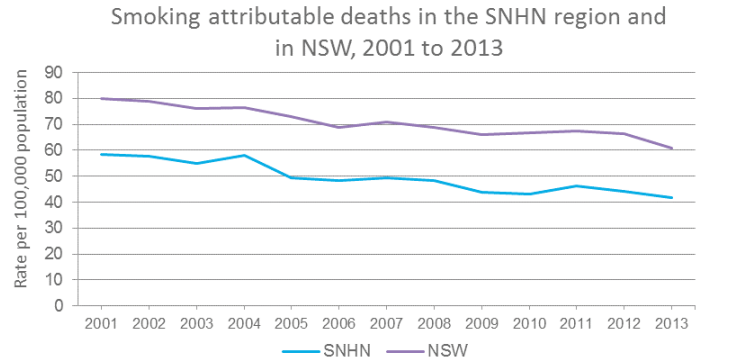
Smoking prevalence is lower in the SNHN region compared to NSW and comparator areas



Source: PHIDU 2014



Source: PHIDU 2015



Source: Centre for Epidemiology and Evidence, 2015

WHY IS THIS IMPORTANT?

Tobacco smoking remains the leading preventable cause of death in Australia, responsible for 15,500 deaths each year. 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 12.8% in 2013 (AIHW, 2014a). A higher proportion of men smoke daily compared to women; smoking rates are highest in males from 40 to 49 years although more females smoke daily in the 25 to 29 year age group (AIHW, 2014a).

AVAILABILITY AND ACCURACY OF DATA

The age-standardised rate (ASR) of current smokers is presented as a measure of smoking prevalence within the SNHN region and comparator areas (see Appendix B). Rates are modelled estimates provided by PHIDU, based on the 2011–13 Australian Health Survey (AHS). Modelled estimates should be used with caution (see Appendix B). Data on smoking attributable deaths and smoking attributable hospitalisations from HealthStats NSW are also presented.

Breakdown of smoking rates by age and cultural background is needed to determine the level of smoking in adolescents and young adults, and in CALD populations in the SNHN region.

SYDNEY NORTH HEALTH NETWORK

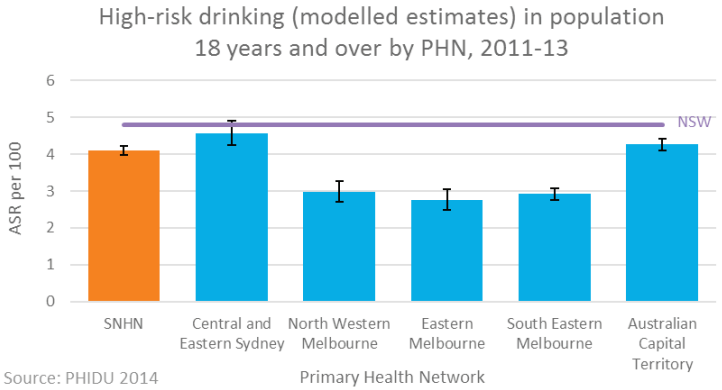
Smoking prevalence in the SNHN region for those aged 18+ years was estimated (ASR) at 10.2 per 100 (95% CI 9.9-10.5) for 2011-13. This is below the NSW ASR of 16.2 per 100 (95% CI 16.1-16.4) and SNHN's comparator areas.

Within the SNHN region, Ku-ring-gai LGA has the lowest prevalence of smoking, with an ASR of 8.2 per 100 (95% CI 7.5-9.0). Pittwater LGA has the highest prevalence of smoking, with an ASR per 100 of 12.3 (95% CI 11.1-13.5), still below NSW. Smoking prevalence is higher in males (11.2 ASR per 100), compared to females (9.2 ASR per 100), statistically significant at the 95% level.

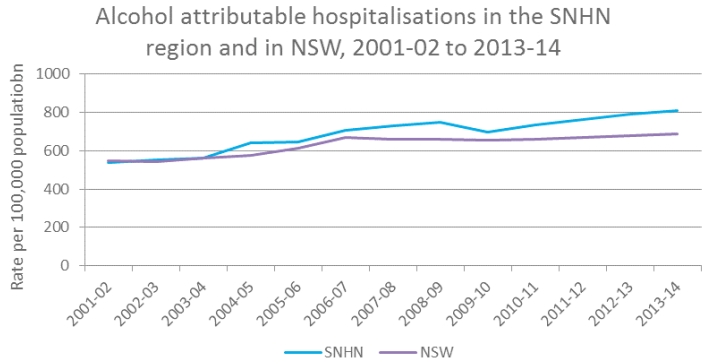
The rate of smoking attributable deaths in the SNHN region has decreased relatively consistently over time, declining from 58.6 per 100,000 (95%CI 53.7-63.9) in 2001 to 42 per 100,000 in 2013 (95%CI 38-45.9). SNHN is lower than NSW in each year, statistically significant at the 95% level.

Whilst smoking prevalence is relatively low in the SNHN region, an estimated 67,200 adults smoke on a daily basis (2011-13). Further, it is likely that rates of smoking in younger adults is higher in the SNHN population as in other populations, suggesting a need for better targeted prevention strategies.

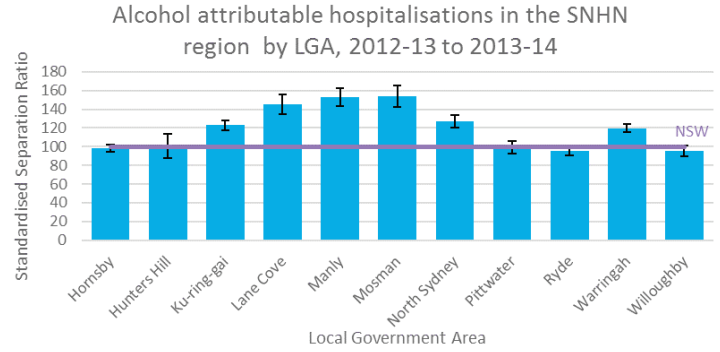
The SNHN region has a higher rate of alcohol attributable hospitalisations compared to NSW



Source: PHIDU 2014



Source: Centre for Epidemiology and Evidence, 2015



Source: Centre for Epidemiology and Evidence, 2015

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 some types of 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 modelled estimates of high-risk drinking (see Appendix B) are based on the 2001 NHMRC guidelines, defined as average daily consumption of 7 or more standard drinks for males, or 5 or more for females; and more than 43 standard drinks per week for males (29 for female). HealthStats NSW have applied the more comprehensive 2009 NHMRC guidelines to assess lifetime and single occasion risky drinking.

Alcohol consumption data, as measured in the 2011-13 Australian Health Survey have been used in this report, supplemented by data from HealthStats NSW. Data from the 2013 National Drug Strategy Household Survey is not currently available at LGA or PHN level. It is important to note that alcohol consumption is self reported and may be underestimated.

SYDNEY NORTH HEALTH NETWORK

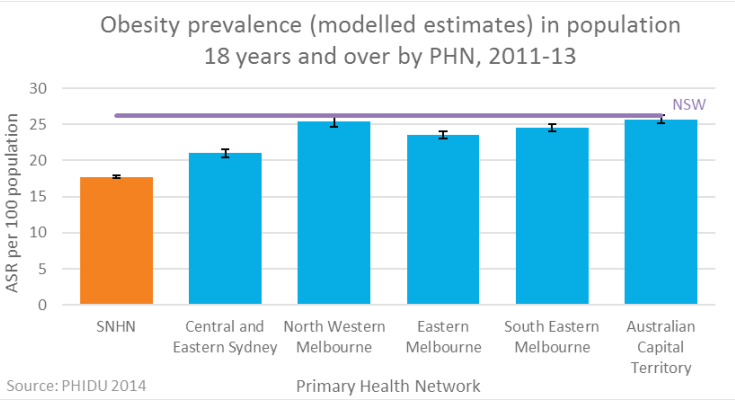
The ASR for high-risk drinking among the 18+ years SNHN population for 2011-13 was 4.1 per 100. (95% CI 3.8-4.4), lower than NSW (4.8, 95% CI 4.7-4.9), but higher than comparator populations in Victoria. It also equates to an estimated 27,000 adults in the SNHN region, at that time, drinking alcohol at levels hazardous to their health.

The SNHN region had a rate of 829 per 100,000 (95% CI 811-848) alcohol attributable hospitalisations for 2013-14, compared to 694 per 100,000 for NSW (95% CI 688-700).

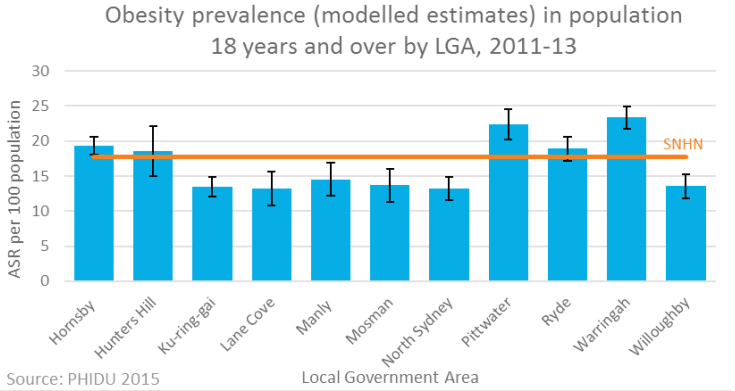
Alcohol attributable hospitalisations are particularly high in Manly, Mosman and Lane Cove LGAs. The standardised separation ratio for alcohol attributable hospital admissions in Manly in 2012-14 is 152.6 (95%CI 143-162), Mosman, 153.7 (95%CI 142-166), and Lane Cove 145.3 (95%CI 135-156). All rates are approximately 50% higher than NSW.

Daily drinking declined significantly in Australia between 2010 and 2013, (NHMRC), yet in the SNHN region, the proportion of the population hospitalised for alcohol-related conditions has increased by an average of 3.6% a year since 2010, with female hospitalisations increasing at a higher rate than males.

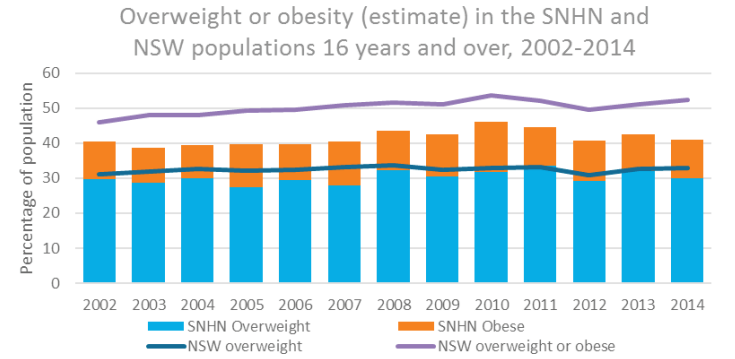
Obesity prevalence is lower in the SNHN region compared to NSW and comparator areas



Source: PHIDU 2014



Source: PHIDU 2015



Source: Centre for Epidemiology and Evidence, 2015

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 (27.4%) overweight or obese in 2011-12 (AIHW, 2016a).

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 2011-13 Australian Health Survey. Height and weight are directly measured, allowing body mass index (BMI) (kg/m^2) to be calculated for participants and modelled to smaller geographies by PHIDU (see Appendix B). These estimates are age-standardised. Non age-standardised data from HealthStats NSW has also been used to illustrate trends in obesity and overweight in the SNHN region.

Obesity is defined as a BMI of 30 or more, overweight a BMI of 25 to 29.9 and a BMI of18 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 rise significantly. Data on childhood obesity or underweight is

SYDNEY NORTH HEALTH NETWORK

In 2011-13, an estimated (ASR) 17.7 per 100 (95% CI 17.2-18.3) of the SNHN population 18+ years were obese, lower than NSW (26.4 ASR per 100) and comparator PHNs at the 95% confidence level.

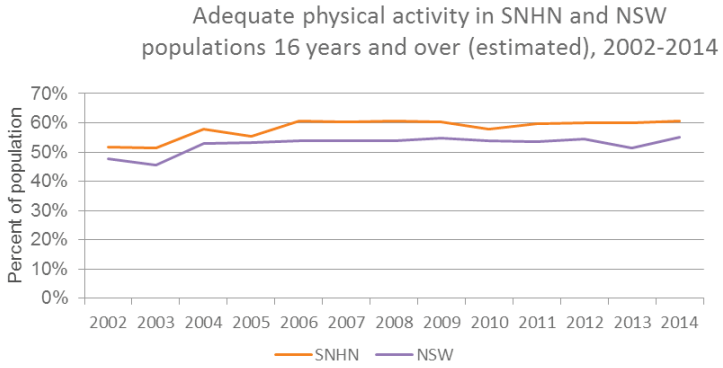
By LGA, Warringah and Pittwater had the highest prevalence of obesity, with an ASR of 23.4 per 100 (95%CI 21.8-25.0) and 22.3 per 100 (95%CI 20.2-24.5) respectively. Both these rates, however, are significantly lower than NSW at the 95% confidence level.

Obesity prevalence for males in the SNHN region (20.8 ASR per 100, 95% CI 19.9-21.8) is statistically significantly higher than females (14.6 ASR per 100, 95% CI 14.0-15.2). The greater prevalence of obesity in males in the SNHN region is consistent with other PHNs and NSW overall. A further 34.8 per 100 population are estimated to be overweight (95%CI 33.9-35.8).

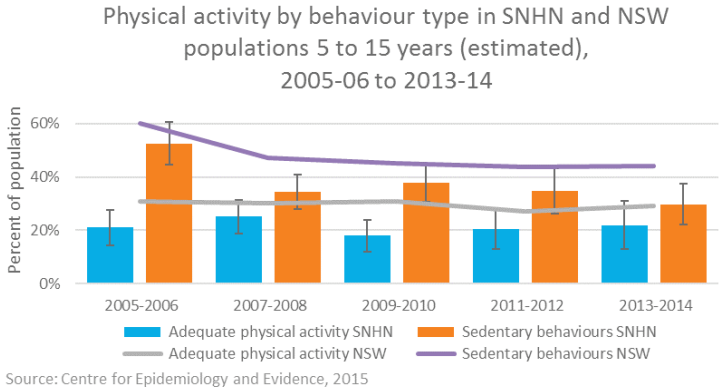
The non-age standardised rates of overweight and obesity from HealthStats NSW show small but not significant fluctuations in rates in the SNHN region between 2002 (40.6%) and 2014 (41.1%), in contrast to the increasing national rate.

While the prevalence of obesity is comparatively low in the region, it remains a public health issue, with an estimated 102,000 adults in the SNHN region obese and a further 200,000 overweight (2011-13). Childhood obesity or underweight will need to be investigated.

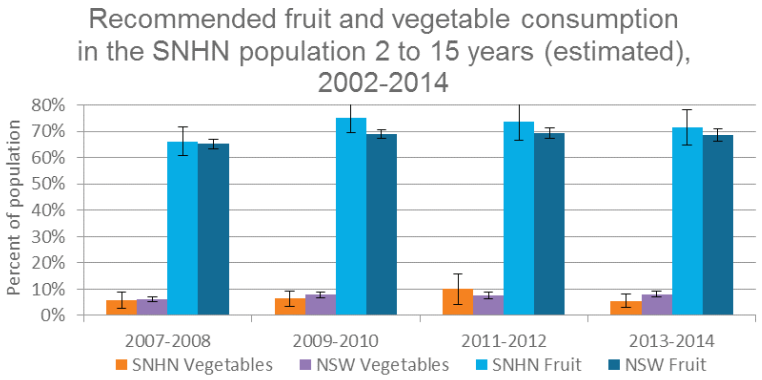
More than seven in ten children in the SNHN region are not getting enough exercise



Source: Centre for Epidemiology and Evidence, 2015



Source: Centre for Epidemiology and Evidence, 2015



Source: Centre for Epidemiology and Evidence, 2015

WHY IS THIS IMPORTANT?

Regular physical activity has many health benefits and plays an important role in promoting healthy weight. It can help prevent heart disease, type 2 diabetes and some cancers, and improve psychological wellbeing. Conversely, 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 the second greatest contributor, behind tobacco smoking, to the cancer burden in Australia (DoH, 2014).

Together with physical exercise, healthy eating contributes to overall good health and wellbeing, while a 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 is defined as undertaking physical activity 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. This is the only measure of nutrition available. Data collected annually in the NSW Population Health Survey has provided estimates of these indicators for the SNHN region.

SYDNEY NORTH HEALTH NETWORK

An estimated 60.5% of adults (95% CI 56.5%-64.5%) in the SNHN region (2014) undertake adequate physical activity, higher compared to the NSW average of 55.2% (95% CI 53.9-56.6).

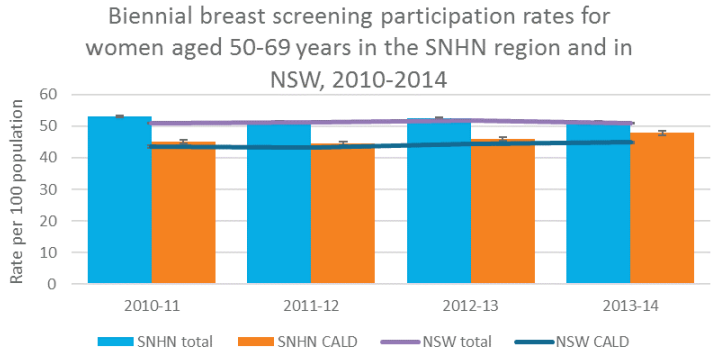
Only one in five children, or a maximum of three in ten children (21.9%, 95%CI 12.8%-30.9%) in the SNHN region, aged 5 to 15 years were estimated to be undertaking sufficient physical activity in 2013-14. The average for NSW is estimated at 29% (95%CI 26.1%-31.9%).

The rate of sedentary behaviour in children in the SNHN region has declined since 2005-06 to 29% in 2013-14 (95%CI 22.1%-37.2%). This is statistically significantly lower than NSW (44.1%, 95%CI 41.2-46.9), although it equates to almost one in three children in the SNHN region having a sedentary lifestyle.

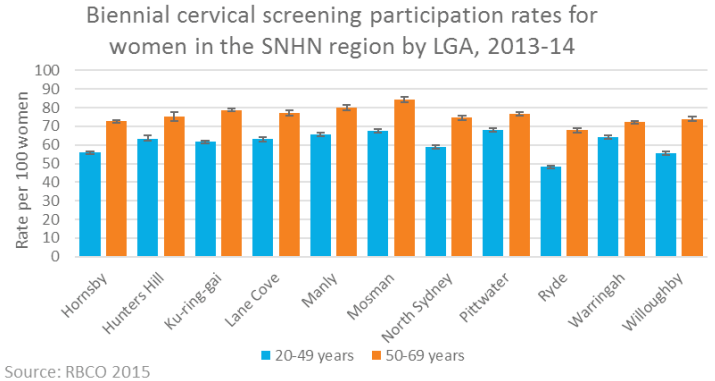
More than half the adult population in the SNHN region (54.8%, 95% CI 50.8-58.9) and 71.6% of children (95% CI 64.8-78.5) have sufficient fruit each day.

Vegetable consumption in the SNHN region, however, is low. Only 7.8% of adults (95% CI 5.9-9.8) and 5.6% children (95% CI 2.9-8.3) are estimated to be eating enough vegetables.

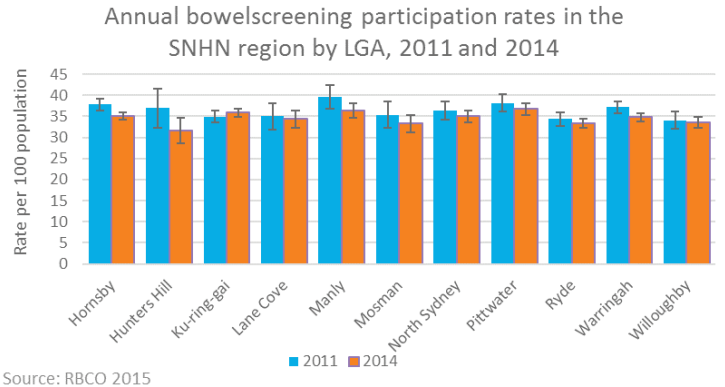
Only 1 in 3 people in the targeted population participated in the National Bowel Cancer Screening Program in 2014



Source: RBCO 2015



Source: RBCO 2015



Source: RBCO 2015

WHY IS THIS IMPORTANT?

Cancer is a leading cause of death in Australia, responsible for more than 44,000 deaths in 2013 (Cancer Council Australia, 2016). While more people are being diagnosed with cancer each year, the survival rate is also increasing.

The earlier a cancer is detected, the more likely treatment will be effective. Early diagnosis is therefore critical to cancer survival.

National population-based screening programs are currently available for breast, cervical and bowel cancers. A preventive vaccine for the Human Papillomavirus (HPV) is available to males and females aged 12-13 years.

Reflecting the importance of early detection and treatment, screening rates for breast, bowel and cervical cancers are national headline indicators on which the SNHN is required to report.

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 2015 for Northern Sydney Primary Health Network.

SYDNEY NORTH HEALTH NETWORK

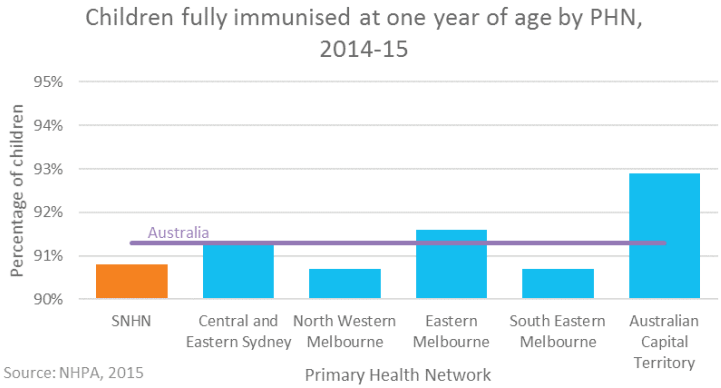
Breast screening rates for women aged 50 to 69 years is marginally higher in the SNHN compared to NSW. Rates are low throughout NSW with only one in two eligible women participating in biennial breast screening; 51.4 per 100 women in the SNHN region in 2013-14 (95%CI 51.1-51.7) and 50.9 per 100 for NSW (95%CI 50.8-51.1). Screening rates are even lower for women from CALD backgrounds; 47.9 per 100 in the SNHN region (95%CI 47.3-48.6) and 44.8 (95%CI 44.5-45.0) in NSW.

Cervical screening rates are higher than breast screening rates in the SNHN region and statistically significantly higher than NSW; 63.6 per 100 women in the SNHN region (95%CI 63.5-63.8) and 57.7 in NSW (95%CI 57.6-57.8).

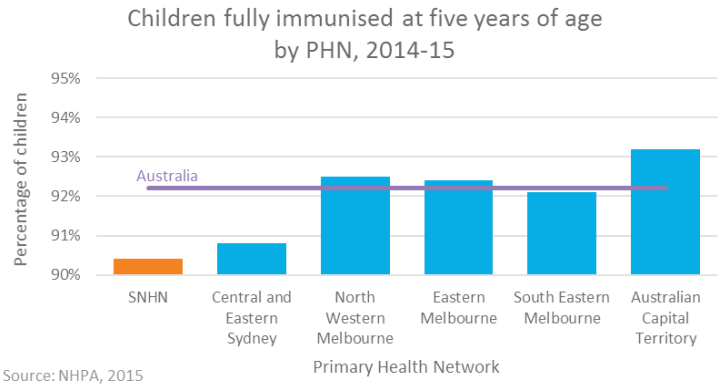
There is considerable variation, however, between LGAs and between age groups. In the SNHN region, and in NSW, cervical screening rates are significantly higher in women aged 50 to 69 years compared to women aged 20 to 49 years (74.5 per 100, 95%CI 74.1-74.8 and 59.3 per 100, 95%CI 59.1-59.5 respectively in the SNHN region in 2013-14). Mosman LGA had the highest rate of cervical screening (20-69 years) in the SNHN region in 2013-14 (72.6 per 100, 95%CI 71.7-73.6) and Ryde LGA the lowest (53.2 per 100, 95%CI 52.7-53.8).

Bowel screening rates are also higher in the SNHN region compared to NSW, but low. Only 34.9 people per 100 (95%CI 34.5-35.3) at the target ages of 50, 55, 60 and 65 participated in bowel screening in 2014. The NSW rate in 2014 was 32.8 (95%CI 32.7-33.0).

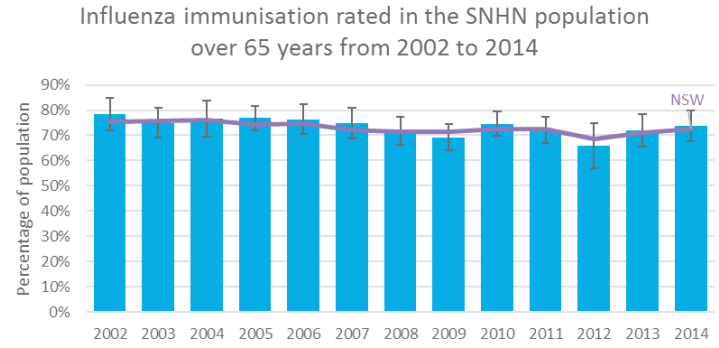
Children in the SNHN region are immunised at lower rates than the Australian average



Source: NHPA, 2015



Source: NHPA, 2015



Source: Centre for Epidemioligy and Evidence, 2015

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.

Immunisation is particularly important for more vulnerable population groups, particularly those with compromised immune systems such as children and the elderly.

Immunisation rates for children at one, two and five years are national headline indicators on which the SNHN is required to report.

AVAILABILITY AND ACCURACY OF DATA

Immunisation rates for children is available from the National Health Performance Authority. HealthStats NSW provides immunisation rates by PHN for influenza and pneumococcal disease for the population over 65 years of age.

SYDNEY NORTH HEALTH NETWORK

Immunisation rates of children at one year of age are lower compared to Australia; 90.8% of one year old children in the SNHN region in 2014-15 were fully immunised compared to 91.3% in Australia. Both are lower than the national aspirational rate of immunisation for Australia of 95%.

Immunisation rates of children at two years of age in 2014-15 are lower still at 87.6%. This is lower than the national rate (89.2%) and lower than all comparator PHNs (range 88.2%-91.4%).

Children at five years of age were also immunised at a lower rate in the SNHN region in 2014-15 compared to Australia and all comparator PHNs; 90.4% in the SNHN region compared to 92.2% in Australia.

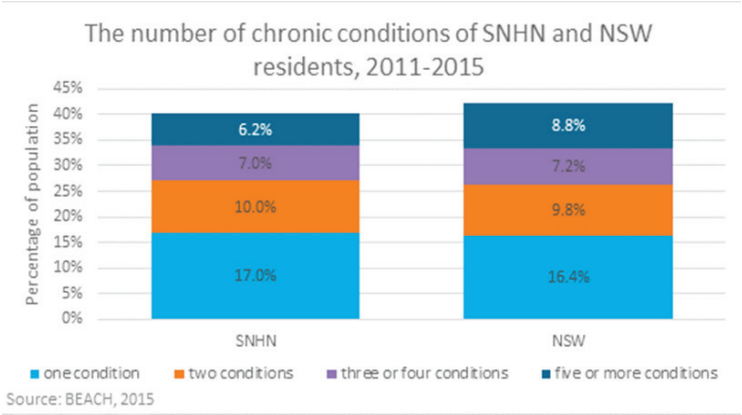
Immunisation rates for influenza, for those over 65 years of age, have mirrored NSW rates and NSW trends. This saw a fall in influenza immunisation in the SNHN region over the ten years to 2012, where it reached a low of 65,8%. Immunisation rates In the SNHN region have since begun to increase.

Immunisation rates in the SNHN region have also followed the NSW trend for pneumococcal disease, although rates are lower than for influenza. Less than half the population over 65 years was immunised for pneumococcal disease in 2014 (48%), similar to NSW (47.9%).

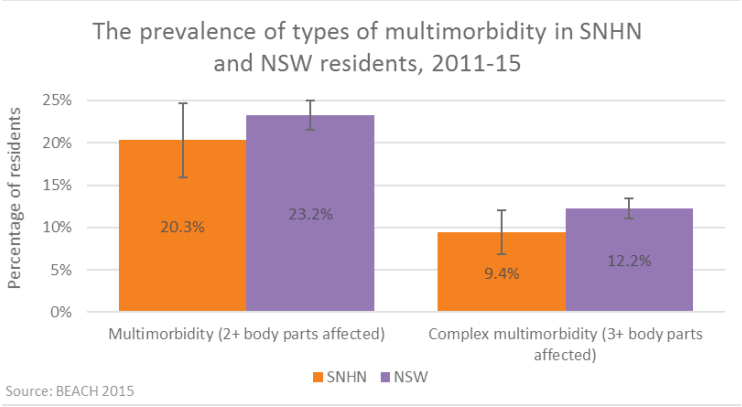
CHAPTER 5

Long Term Conditions

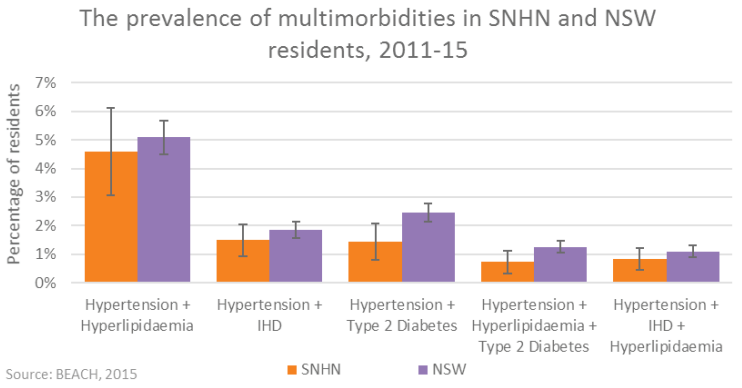
40% of the SNHN population has one or more chronic conditions



Source: BEACH, 2015



Source: BEACH 2015



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, 2015d).

Comorbidities are associated with poorer health outcomes, more frequent use of health services, and higher healthcare costs (AIHW, 2015d); 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 (2011-13). 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

An estimated 40.2% of the SNHN population (95%CI 35.0%-45.3%) has one or more chronic conditions compared with 42.3% for NSW (95%CI 40.4%-44.2%).

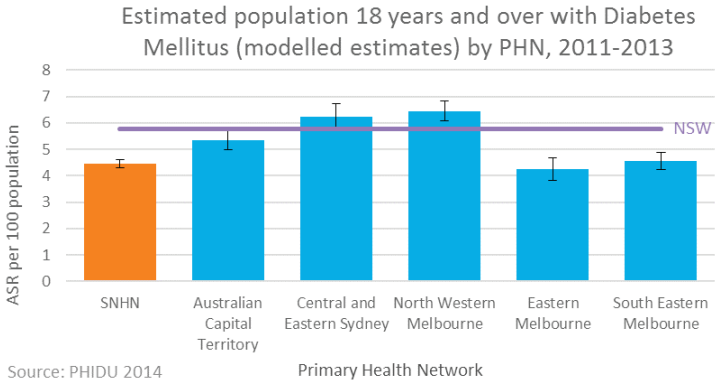
An estimated 6.2% of the SNHN population has five or more chronic conditions compared with 8.8% of the NSW population. This includes complex multimorbidities, where three or more parts of the body are affected; 9.4% of the SNHN population has complex multimorbidity compared with 12.2% in NSW.

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.

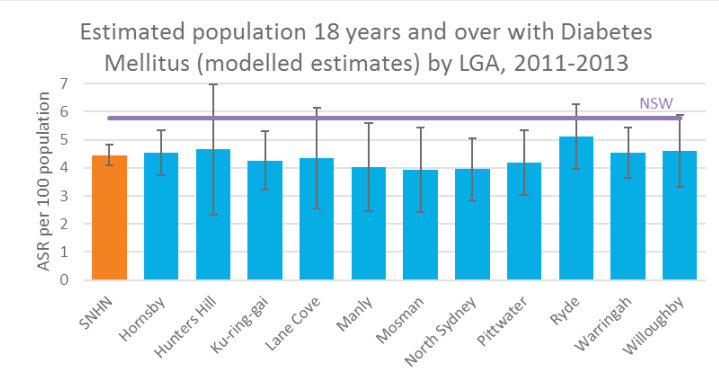
Within the SNHN region, analysis indicates males have higher rates of chronic disease compared to females and are more likely to die from a chronic condition before the age of 75 years.

The prevalence of specific chronic conditions are discussed in the following pages using estimates from the Australian Health Survey (2011-13) and mortality rates for chronic conditions. These indicators highlight a lower prevalence of chronic disease in the SNHN region compared to NSW.

Approximately 25,000 people in the SNHN region are registered as having type 2 diabetes



Source: PHIDU 2014



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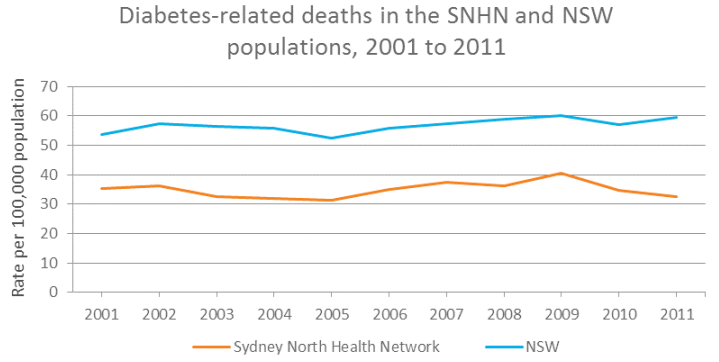


Source: Centre for Epidemiology and Evidence, 2015

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 accounts for approximately 85% of all diabetes in Australia.

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 diabetes based on blood tests of participants in the Annual Health Survey.

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

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-.4%). PHIDU and HealthStats NSW estimates are also similar.

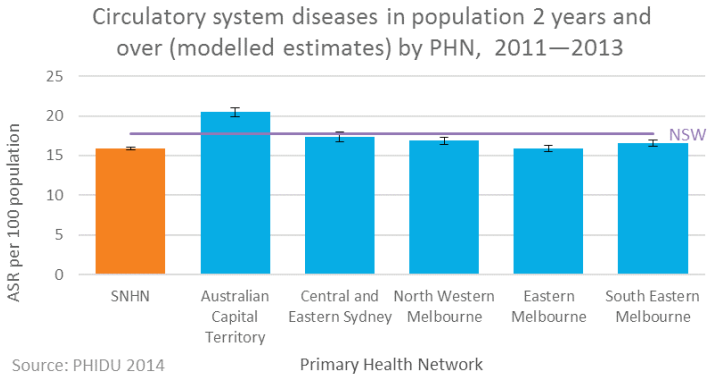
Within the SNHN region, 82.5% of the diabetic population registered with the NDSS has Type 2 diabetes compared with 87% in Australia. There is a much higher rate of type 1 diabetes in the SNHN region (13.4%) compared to Australia (9.8%).

The age profile of people with diabetes is also younger in the SNHN region compared to Australia; 36% are 70 years of age or older compared with 56% for Australia.

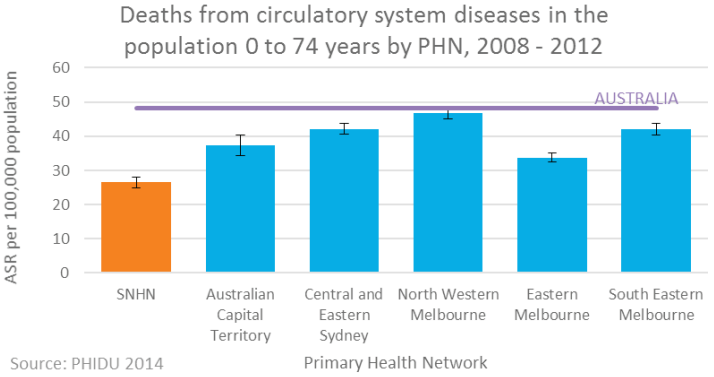
In 2011, 7.7 deaths per 100,000 population were attributed to diabetes. A further 24.7 deaths were associated with diabetes. This is considerably lower than NSW with 14.1 deaths per 100,000 attributed to, and 45.5 per 100,000 associated with, diabetes.

Within the SNHN region, Ryde has the largest proportion of the population registered with the NDSS (4.7%), while Hornsby has the largest number (6,838).

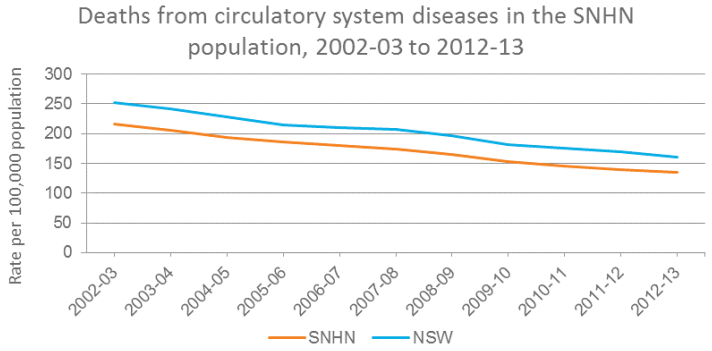
The mortality rate from circulatory system diseases has fallen in the SNHN region by almost 40% in the ten years to 2012-13



Source: PHIDU 2014



Source: PHIDU 2014



Source: Centre for Epidemiology anf Evidence, 2015

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 is one of the most prevalent chronic conditions in Australia, affecting one in five Australian adults in 2011-12. CVD also accounted for 1.1 million hospitalisations in 2013-14 and almost 44,000 deaths in 2012 (AIHW, 2015c) .

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 death attributable to CVD, based on the 2011-13 Population Health Survey. These have been age-standardised to the average estimated resident populations at 2011.

HealthStats NSW provides mortality data from 2001-02 to 2012-13, by LGA, for deaths attributable to CVD, based on the NSW Combined Admitted Patient Epidemiology Data.

SYDNEY NORTH HEALTH NETWORK

The ASR estimate for prevalence of CVD in the SNHN region in 2011-13 is 15.9 per 100 (95% CI 15.3-16.4) statistically significantly lower than NSW (17.8, 95%CI 17.6-17.9) and the same as, or lower, than each of the comparator PHNs.

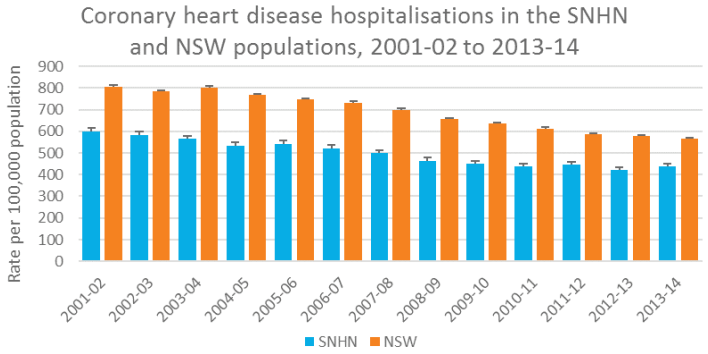
Premature mortality from CVD was also statistically significantly lower in the SNHN region in 2008-12 (average annual ASR 26.5 per 100,000, 95%CI 24.8-28.1) compared to all PHNs.

Similar to other jurisdictions, males in the SNHN region had a significantly higher death rate from CVD in 2012-13; 158.1 per 100,000 population (95% CI 150.2-166.2) compared to females (115.2 per 100,000, 95% CI 110.0-120.7). However more females than males died from CVD each year from 2002-03 to 2012-13, suggesting that females in the SNHN region are more likely to die from CVD after the age of 75.

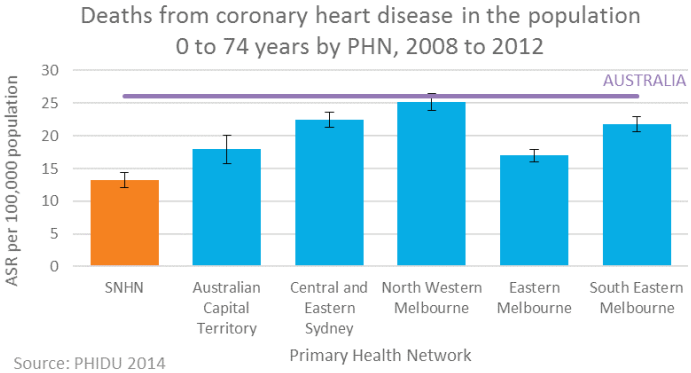
There is considerable variation in the premature death rate from CVD within the SNHN region, however, with the average annual ASR per 100,000 population, 0-74 years, ranging from 20.1 (95%CI 12.9-27.3) in Mosman to 31.4 (95%CI 26.4-36.5) in Ryde in 2008-12.

Similar to NSW, the mortality rate from CVD has declined significantly in the SNHN region, with both male and female deaths falling by approximately 40% between 2002-03 and 2012-13.

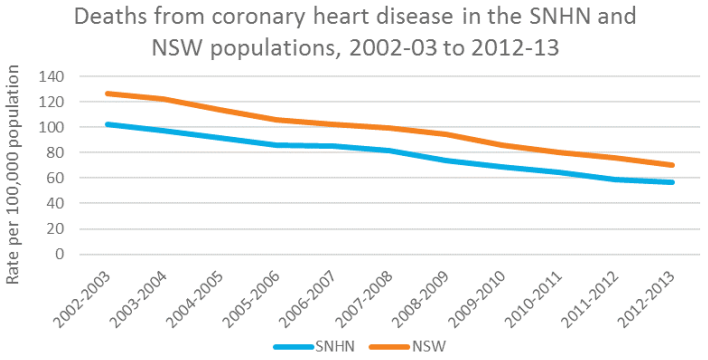
SNHN has the lowest rate of premature mortality from coronary heart disease of all PHNs



Source: Centre for Epidemiology and Evidence, 2015



Source: PHIDU 2014



Source: Centre for Epidemiology and Evidence, 2015

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 almost 20,000 deaths in 2013 (Heart Foundation, 2014).

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

Males and people with a family history of heart disease are at increased risk of CHD, as are Aboriginal and Torres Strait Islander peoples, and 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, 2014b).

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 2002-03 to 2012-13 while PHIDU has provided a modelled estimate of premature death from CHD for all PHNs in 2008-12.

Other risk factors which help determine the risk of CHD in the SNHN 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. 2.93 (95%CI 2.56-3.31). Hospitalisation rates for CHD, however, are statistically significantly lower than NSW over recent years.

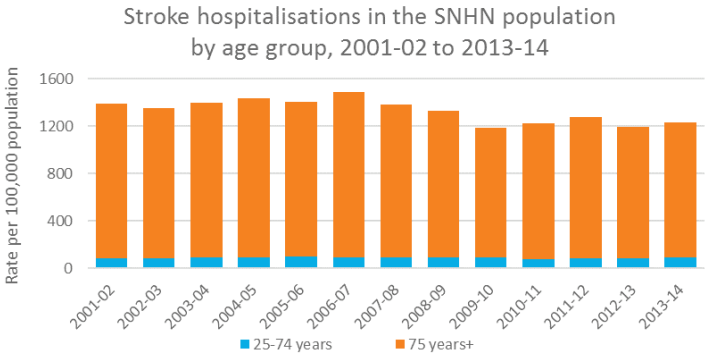
The death rate from CHD in 2012-13 in the SNHN region (56.6 per 100,000, 95%CI 53.7-59.7) is also significantly lower than NSW (70.2 per 100,000, 95%CI 69.0-71.4). Death rates in comparator PHNs is not available.

Premature death from CHD is the lowest of all PHNs. The average annual ASR in the SNHN region in 2008-12 was 13.3 per 100,000 (95%CI 12.1-14.4), significantly lower than all comparator PHNs at the 95% confidence level. A comparable death rate for NSW is not available.

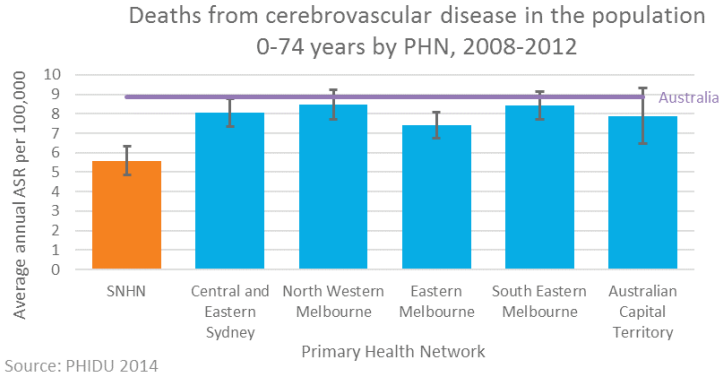
Within the SNHN region, Warringah had the highest age-standardised rate of premature death in 2008-12 (17 per 100,000, 95%CI 13.9-20.1) and Kur-ing-gai the lowest (8.2 per 100,000, 95%CI 1.5-14.9) although the differences are generally not statistically significant.

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

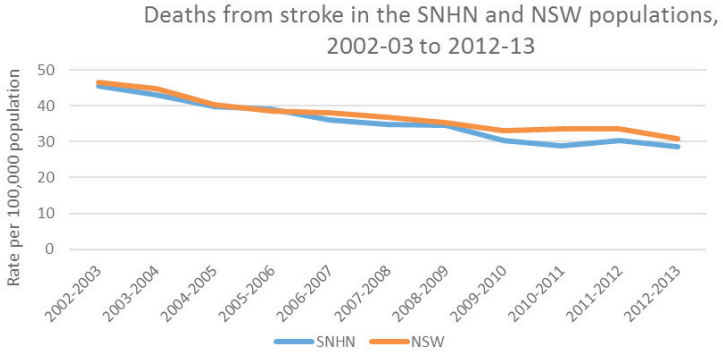
The SNHN region has the lowest rate of premature death from stroke of all NSW PHNs



Source: Centre for Epidemiology and Evidence, 2015



Source: PHIDU 2014



Source: Centre for Epidemiology and Evidence, 2015

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 is falling in Australia, however, the number of stroke events is increasing with the ageing population. Additionally, more people are surviving a stroke, approximately one third of whom have an ongoing disability (AIHW, 2014b).

AVAILABILITY AND ACCURACY OF DATA

Estimates of the prevalence of stroke or cardiovascular accident 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 2002-03 to 2012-13, while PHIDU has provided a modelled estimate of premature death from cerebrovascular disease for all PHNs between 2008-12. Only PHIDU data is age-standardised.

SYDNEY NORTH HEALTH NETWORK

The rate of hospitalisation for stroke (all ages), is markedly lower in the SNHN region in 2013-14 (120.2 per 100,000) compared to NSW (144.3 per 100,000).

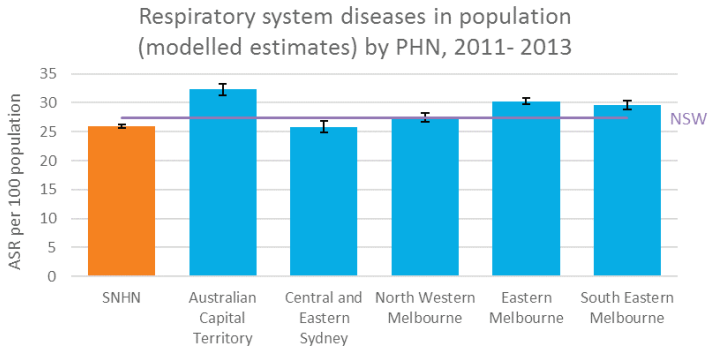
However, the estimated prevalence of stroke survivors in the SNHN population in 2011-15 (0.9%, 95% CI 0.5%-1.4%) is similar to NSW 0.9% (95% CI 0.8%-1.1%).

The mortality rate from stroke in the SNHN region in 2012-13 (28.5 per 100,000 95% CI 26.4-30.7) is also comparable with the mortality rate for NSW (30.9 per 100,000 95% CI 30.1-31.7).

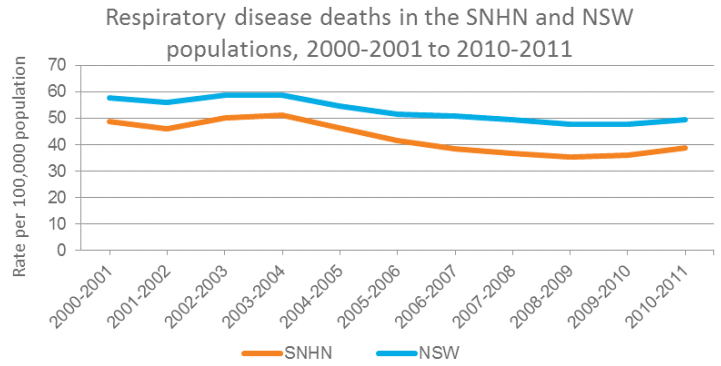
There is a significantly lower rate of premature mortality from cerebrovascular disease in the SNHN region in 2008-12 (average annual ASR 5.6 per 100,000, 95%CI 4.9-6.3) compared to Australia (8.9 per 100,000, 95%CI 8.7-9.1) and all comparator PHNs. This is consistent with the low rate of hospitalisation for stroke in those under 75 years.

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 with the SNHN region.

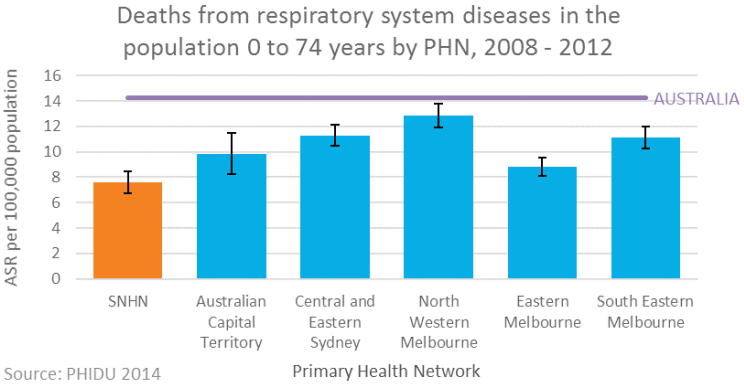
Mortality rates for respiratory system diseases are significantly lower in the SNHN region compared to NSW



Source: PHIDU 2014



Source: Centre for Epidemiology and Evidence, 2015



Source: PHIDU 2014

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 pneumocomiosis, an occupational lung disease, cystic fibrosis 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 6.3 million Australians (AIHW, 2014b).

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 Local Health District (LHD) for 2000 to 2011.

SYDNEY NORTH HEALTH NETWORK

The average annual age-standardised estimate of respiratory disease prevalence in the SNHN region for 2011-13 (25.9 per 100, 95%CI 24.9-26.9) is lower than NSW (27.4, 95%CI 27.1-27.7), and similar to or lower than comparator PHNs.

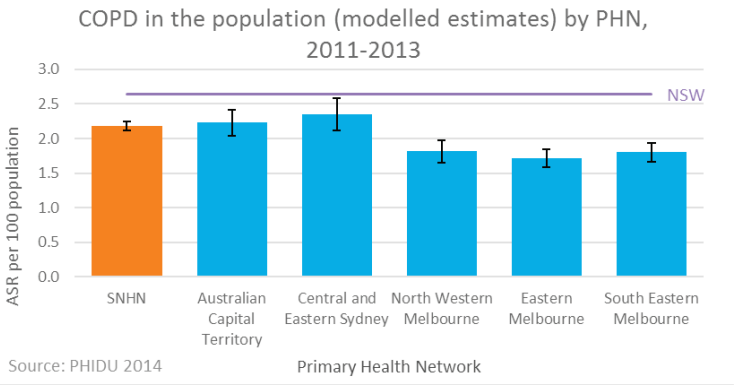
Mortality rates for respiratory system diseases were statistically significantly lower in the SNHN region (38.9 per 100,000 population (95%CI 36.4-41.5) compared to NSW (49.4 per 100,000, 95%CI 48.4-50.5) in 2010-11 and in each of the previous eight years.

Premature mortality for respiratory system diseases was also statistically significantly lower in the SNHN region in 2008-12 (ASR 7.6 per 100,000, 95%CI 6.7-8.4) compared to Australia, and lower compared to comparator PHNs over this period.

There was a statistically significant difference by LGA in premature mortality from respiratory system disease. The average annual ASR ranged from 4.9 per 100,000 (95% CI 3.1-6.7) in Ku-rin-gai to 11.1 per 100,000 (95%CI 8.6-13.6) in Warringah. Hunters Hill also had a high mortality rate however the numbers are very small, with uncertainty in the estimate.

Males in the SNHN region have a higher death 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



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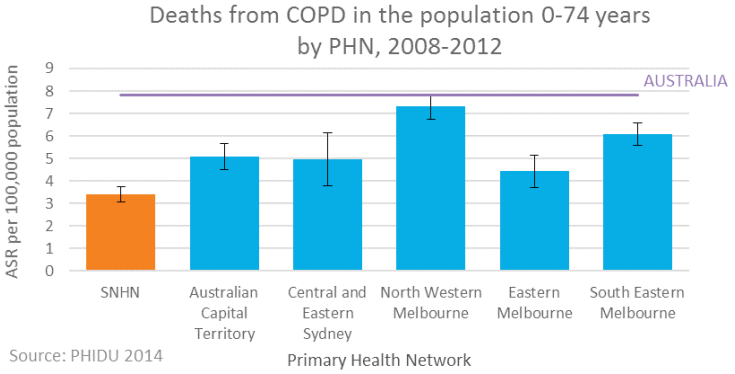

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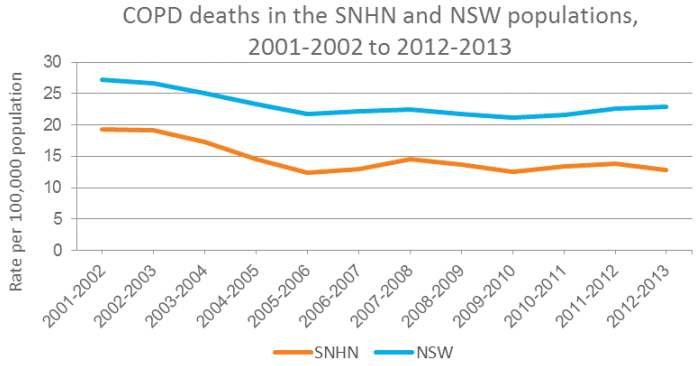


Source: Centre for Epidemiology and Evidence, 2015

WHY IS THIS IMPORTANT?

Chronic obstructive pulmonary disease (COPD) is a 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. Smoking is the highest risk factor for COPD responsible for 60% of COPD in women and 70% in men (AIHW, 2005). 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, 2011b).

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 (Lung Foundation) and the terms can be used interchangeably (AIHW, 2011b). 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, 2011b). Data from PHIDU, the BEACH program and HealthStats NSW have been used in this section as the best available data.

SYDNEY NORTH HEALTH NETWORK

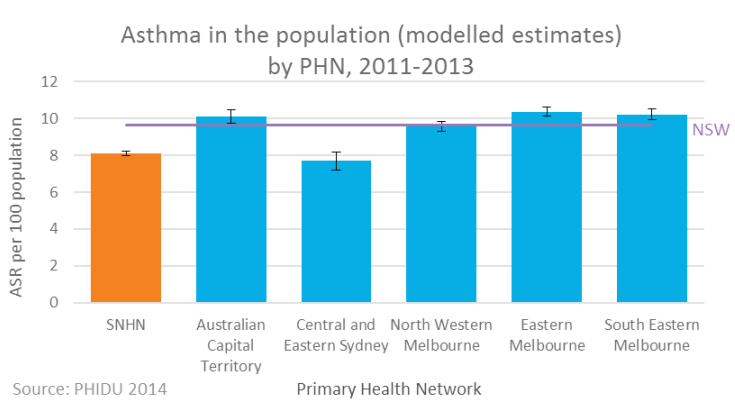
Almost 20,000 residents in the SNHN region were estimated to have COPD in 2011-13. This equates to an age-standardised rate of 2.2 per 100 population (95%CI 2.0-2.4), similar to NSW (2.6, 95%CI 2.6-2.7) and comparator PHNs.

The non age-standardised estimate of COPD prevalence in the SNHN region is 0.9% (95%CI 0.5%-1.4%), lower than NSW (1.6%, 95%CI 1.3%-1.8%). This reflects the higher prevalence of COPD in the older population in general, and suggests a higher age profile for COPD in the SNHN region compared to NSW.

The premature mortality rate from COPD in 2008-12 was statistically significantly lower in the SNHN region (ASR 3.4 per 100,000, 95%CI 2.8-4.0) compared to Australia in the same period (ASR 7.8 per 100,000, 95%CI 7.7-8.0). The premature death rate in the SNHN region was lower than all PHNs for this period.

There is some variation in 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.

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



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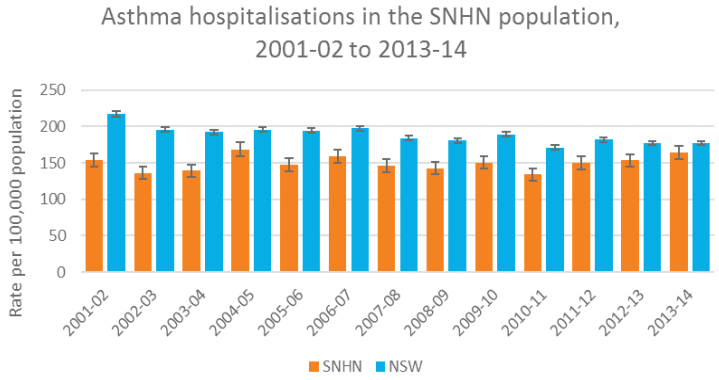
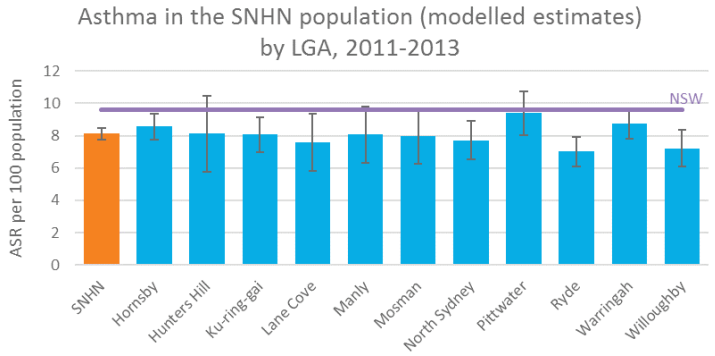


Source: Centre for Epidemiology and Evidence, 2015



Source: PHIDU 2014

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. Over 15 years asthma is more common in females than males.

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, 2015a).

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

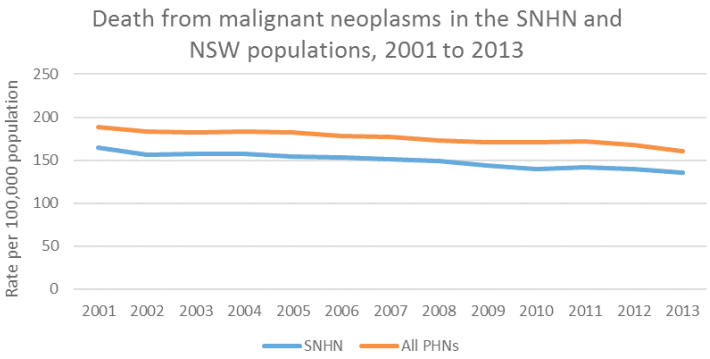
In the SNHN population under 15 years of age, the estimated prevalence of asthma in 2013-14 was 18.7% (95%CI 11.6%-25.8%) compared to 14.8% for NSW (95%CI 13.1-16.6).

For all age groups, however, the estimated age-standardised rate of asthma in the SNHN region in 2011-13 is statistically significantly lower than NSW; 8.1 per 100 (95%CI 7.8-8.5) in the SNHN region and 9.6 per 100, 95% CI 9.5-9.7) in NSW.

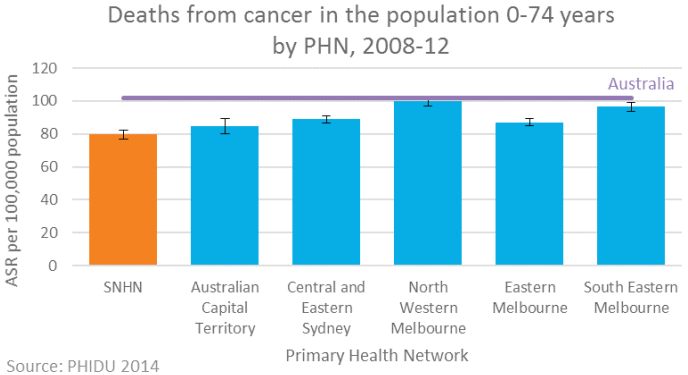
In the younger demographic (5 to 34 years), and in the whole population, SNHN residents were hospitalised for asthma at a lower rate compared to NSW. In the 5 to 34 years age group, 135.4 people per 100,000 population were hospitalised for asthma in 2013-14 (95%CI 123.2-148.5), compared to 165.8 per 100,000 (95% CI 161.2-170.6) for NSW. Across all age groups, the margin was narrower but still significantly lower in the SNHN region compared to NSW at the 95% confidence level; 164.2 per 100,000 in the SNHN region and 177.1 per 100,000 in NSW.

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

Over 5,000 people in the SNHN region are expected to be diagnosed with cancer in 2016 (Cancer Institute NSW, 2015)



Source: Centre for Epidemiology and Evidence, 2015



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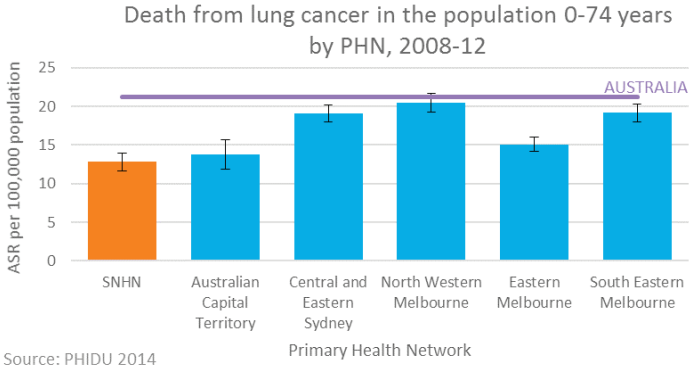


Source: PHIDU 2014

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 35% of all deaths in 2014. The incidence of cancer is also high; 1 in 2 Australian men and 1 in 3 Australian women will be diagnosed with cancer by the age of 85, amounting to an estimated 150,000 new diagnoses of cancer each year by 2020 (Cancer Council Australia, 2016).

AVAILABILITY AND ACCURACY OF DATA

The Cancer Institute NSW has produced the Reporting for Better Cancer Outcomes Performance Report 2015 for the SNHN, providing summary data on cancer incidence and mortality in the SNHN. Risk factors are also identified for the SNHN, however, data is not available by LGA.

PHIDU data includes premature mortality rates for lung, breast and colorectal cancers, by LGA, based on the Cause of Death Unit Record Files from 2009-12. HealthStats NSW provides death rates in the SNHN region, from all cancers, and from key cancers, from 2002 to 2013. Estimates of cancer prevalence in the SNHN region is also available from the BEACH Program.

SYDNEY NORTH HEALTH NETWORK

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

The death rate from all cancers was statistically significantly lower in the SNHN region in 2013, however, (135.7 per 100,000 population, 95%CI 128.7-142.9) compared to NSW (160.5, 95%CI 157.9-163.2), and declining at a similar rate.

Premature mortality for all cancers was also statistically significantly lower in the SNHN region (ASR 79.6 per 100,000, 95%CI 76.8-82.4) compared to Australia (ASR 102.0 per 100,000, 95%CI 101.4-102.6), and to all PHNs, excluding ACT. Premature mortality for NSW is not available.

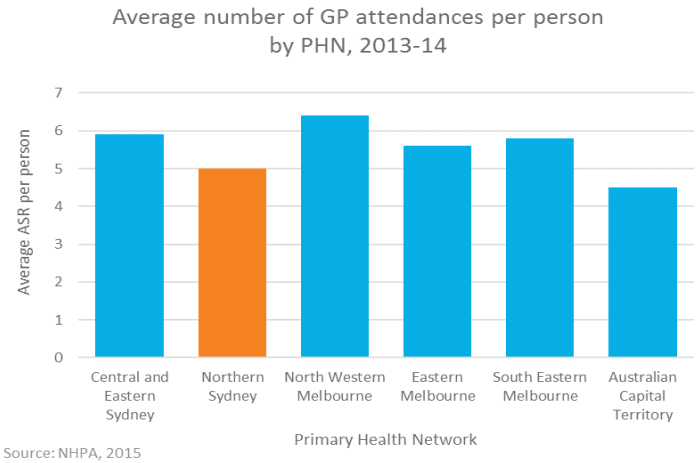
Within the SNHN region, breast cancer has the highest rate of premature mortality for 2008-12(ASR 18.1 per 100,000 females, 95%CI 16.2-19.9), although lung cancer was responsible for more deaths. The premature death rate for breast cancer was similar to comparator PHNs and Australia, although in most PHNs, and in Australia, the premature mortality rate for lung cancer is higher than for breast cancer.

Premature mortality from lung cancer was significantly lower in the SNHN region (ASR 12.8 per 100.000, 95%CI 11.7-13.9) compared with Australia (ASR 21.2, 95%CI 21-21.5) and with all comparator PHNs other than ACT. The highest rates of cancer mortality in the SNHN region is in Warringah and Ryde.

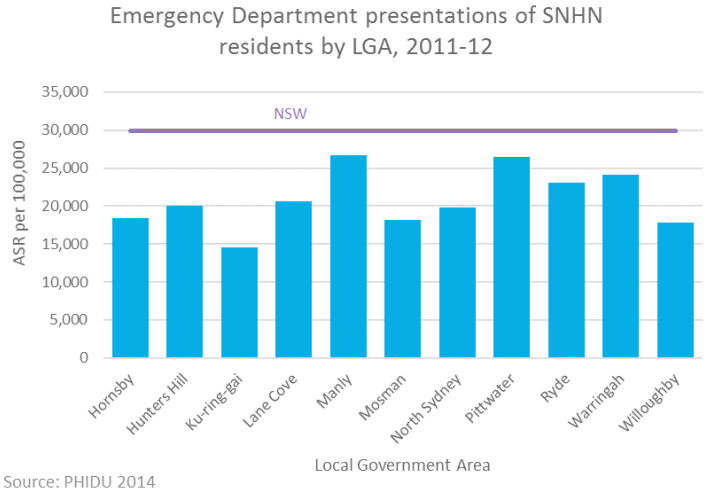
CHAPTER 6

Primary Healthcare

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



Source: NHPA, 2015



Source: PHIDU 2014

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

Details of the GP and allied health workforce are available for the SNHN region (2014) from the Health Workforce Data tool. Additional data reflecting access to PHC services, including allied health attendances and Emergency Department (ED) presentations are available from the National Health Performance Authority. No data has been identified to determine the cultural competency of the PHC workforce, or adequacy of transport in the SNHN.

SYDNEY NORTH HEALTH NETWORK

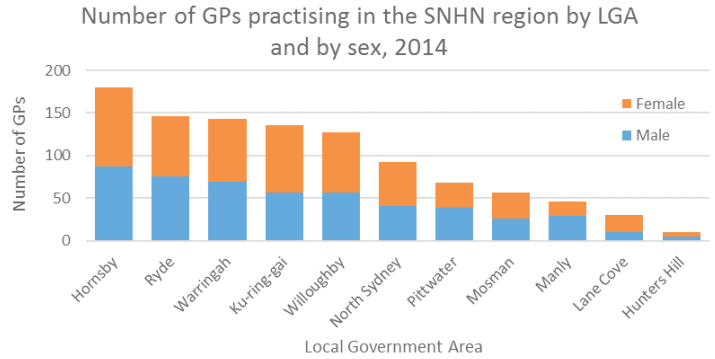
SNHN appears to have an adequate supply of health professionals to ensure sufficient availability of primary healthcare services. However GP attendances are relatively low in the SNHN region with an age-standardised rate of 5 attendances per person in 2013-14. This is lower than all comparator PHNs, excluding ACT, but is consistent with the general good health of the SNHN population.

It is worth noting, however, that 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.

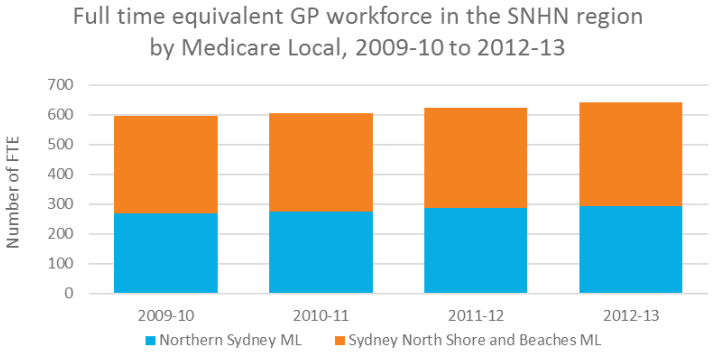
Where access to PHC services is inadequate, ED presentations and PPH are often high. Rates for both indicators are low in the SNHN region suggesting reasonable access to PHC services for most of the population.

Access to PHC services for more vulnerable population groups is not known. This includes the affordability of GP services and the cultural safety of services for Aboriginal people and people from CALD backgrounds. These will need to be investigated further.

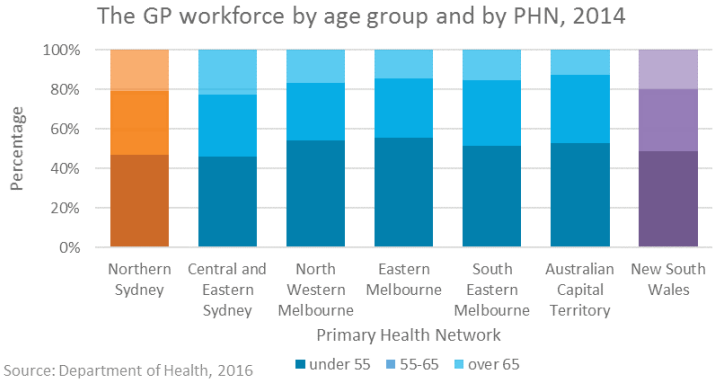
The GP workforce in the SNHN region has a similar age structure to NSW



Source: Health Workforce Data Tool, 2013



Source: Medicare Local Statistics and Data, 2013



Source: Department of Health, 2016

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

The full time equivalent (FTE) GP workforce is available for the SNHN for 2012-13 from Medicare Local Statistics and Data, although only in total for each of the two Medicare Locals comprising the SNHN.

A headcount of GPs in the SNHN in 2014, by LGA, and by age and sex, is available from the Health Workforce Data tool and from ChilliDB; an in-house database, however the FTE workforce for the SNHN region in 2014 is not currently available.

SYDNEY NORTH HEALTH NETWORK

In 2012-13, an estimated 1,156 GPs were practising within the SNHN region. This equated to a FTE GP workforce of 642 or approximately one FTE GP for every 1,329 people. This is a slightly lower GP to population ratio than the average for Australia at that time (1:1,269).

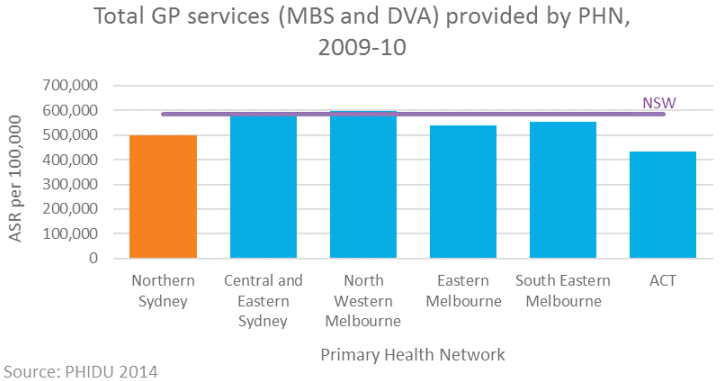
The total GP workforce in 2014 was calculated at 1,035, a slightly lower number of individuals but not necessarily a lower FTE. This is similar to the 2016 figures from SNHN's internal database. These GPs work in 281 general practices in the SNHN region, with an average of 4.3 individual GPs per practice in 2016.

In 2014, the GP workforce in the SNHN region had a larger proportion of female GPs (52%) compared with NSW (40%), and similar proportion (52.9%) of GPs aged over 55 years, compared to NSW (51.5%).

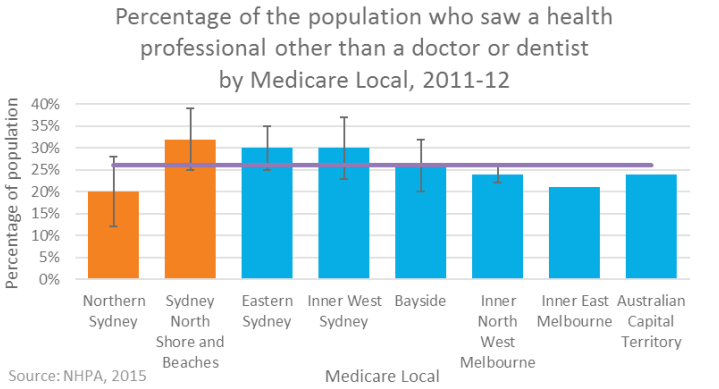
The proportion of GPs over 55 years is lower in the SNHN region compared to Central and Eastern Sydney (54.1%) comparator PHN (see Appendix B), but higher than the Victorian and ACT PHNs which are all under 50%.

By most measures, the GP workforce is of adequate size for the population. Only the areas around Hornsby Heights, Mt Colah, Mt Kur-ing-gai, Brooklyn and Berowra are currently considered a District of Workforce Shortage indicating that there is more access to Medicare-subsidised general practice services in the rest of SNHN compared to the national average.

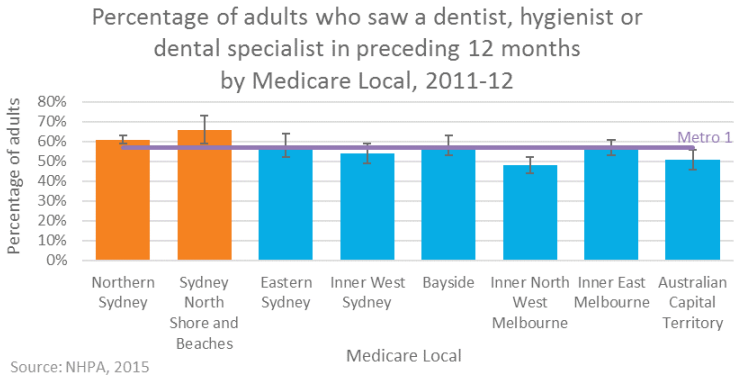
GP attendances are lower in the SNHN region compared to NSW



Source: PHIDU 2014



Source: NHPA, 2015



Source: NHPA, 2015

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

PHIDU has provided data on GP services delivered within the SNHN region in 2009-10. More recent data is not currently available.

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

The National Health Performance Authority (NHPA) provides data by PHN from the 2011-12 Patient Experience Survey conducted by the Australian Bureau of Statistics.

All data relevant to this section are self-reported or based on a small sample size and may over or under estimate the true rate.

SYDNEY NORTH HEALTH NETWORK

The number of age-standardised GP services delivered in the SNHN region in 2009-10 (500,583) was significantly lower than NSW (583,903), and lower than all comparator PHNs other than the ACT.

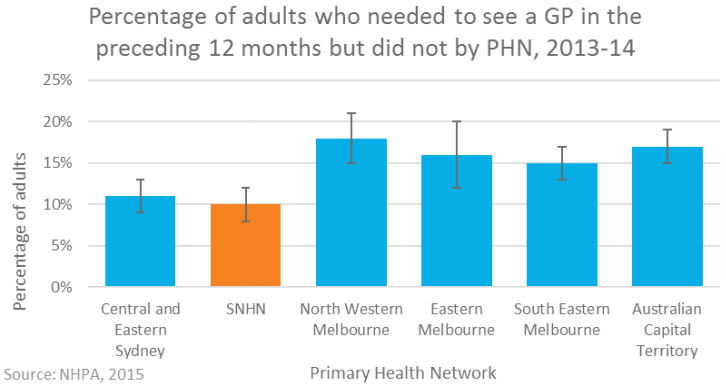
After hours GP attendances were also lower or equivalent in the SNHN region than in comparator PHNs; 7% of adults in the SNHN in 2013-14 (95%CI 5%-9%) saw a GP after hours in the preceding 12 months compared with 7% to 12% in comparator PHNs.

Attendances at other health professionals are also low in the SNHN region. Only 20% (95%CI 12%-28%) of the Northern Sydney Medicare Local (NSML) population and 32% (95%CI 25-40%) of the Sydney North Shore and Beaches Medicare Local (SNSBML) saw a health professional other than a doctor or dentist in 2011-12.

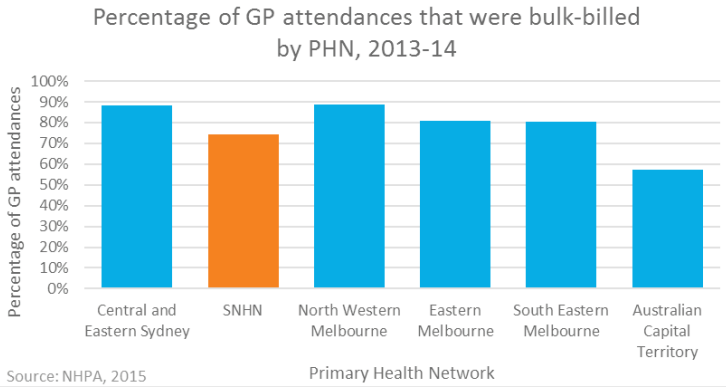
Attendance at a dentist, dental hygienist or dental specialist, however, was highest in the NSML and SNSNBML in 2011-12 of all Medicare Locals at 61% (95%CI 54%-69%) and 66% (95%CI 60%-72%), respectively.

From April 2011 to March 2015, almost all GP encounters (98%) in the SNHN region were direct patient encounters; similar to NSW. Of 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.

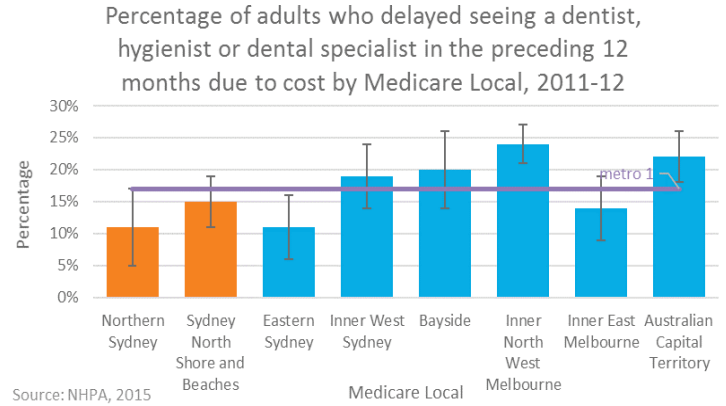
17% of adults in the SNHN region waited longer to see a GP than they felt was acceptable



Source: NHPA, 2015



Source: NHPA, 2015



Source: NHPA, 2015

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. This is particularly pertinent for populations with potential for poorer health outcomes; Aboriginal peoples, the elderly, 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 reflecting access to General Practice and other PHC services provided in the SNHN region, including cost barriers and waiting times for GP appointments. This includes from the BEACH Program and from the National Health Performance Authority (NHPA).

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

On most occasions, adults in the SNHN can get a GP appointment when needed. 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%).

Adults in the SNHN mostly saw a GP when they needed to (90%, 95%CI 88%-92%) and only 3% of adults in the SNHN (95%CI 2%-5%) were delayed or prevented from seeing a GP because of cost.

Prescriptions were affordable for most adults in the SNHN region in 2013-14 with only 4% of adults (95%CI 2%-6%) indicating that they had delayed or avoided filling a prescription due to cost in the preceding 12 months.

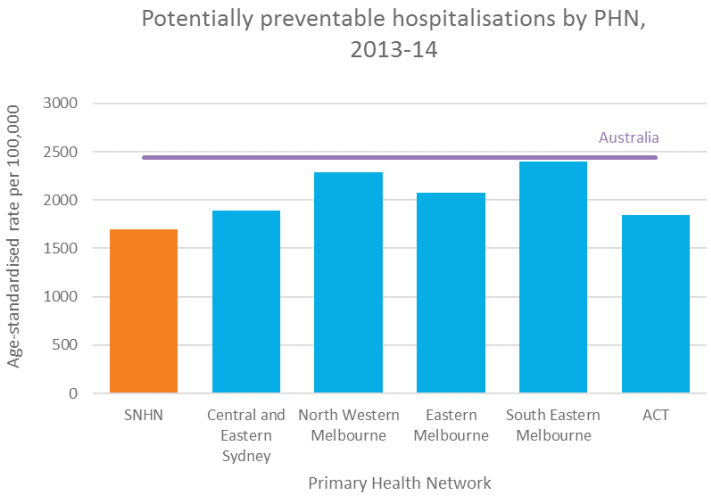
Cost was a more significant barrier to dental and specialist medical services. In 2011-12, 11% of adults in Northern Sydney Medicare Local (NSML) (95%CI 7%-16%) and 15% in Sydney North Shore and Beaches (SNSB) (95%CI 11%-20%) delayed or did not receive dental care in the previous 12 months due to cost.

Cost was also a barrier to accessing specialist medical services for 8% of adults in SNSB (95%CI 3%-12%). Data is not available for NSML.

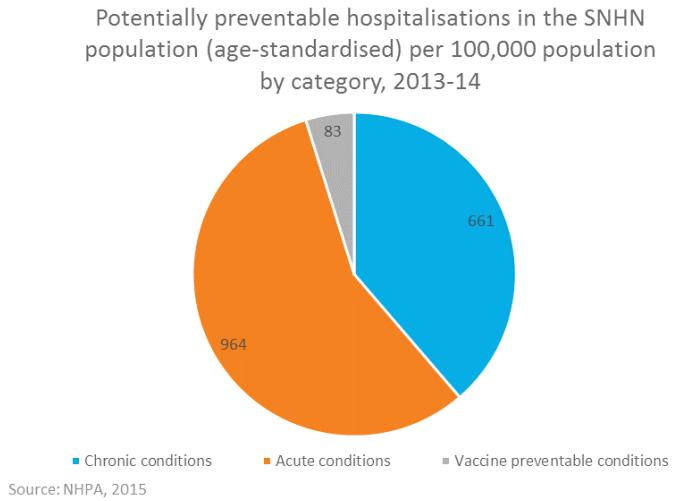
CHAPTER 7

Hospitalisation

SNHN had the lowest rate of potentially preventable hospitalisations across NSW and comparator PHNs in 2013-14



Source: NHPA, 2015



Source: NHPA, 2015

WHY IS THIS IMPORTANT?

Potentially preventable hospitalisations (PPH) are those 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 on which the SNHN is required to report.

AVAILABILITY AND ACCURACY OF DATA

PPH data is available for the SNHN region for 2013-14 for a range of chronic, acute and vaccine preventable conditions. PPH data is calculated from the National Health Performance Authority's (NHPA) analysis of Admitted Patient Care National Minimum Data Set 2013–14. The National Health Care Agreement defines the specific ICD codes (International Statistical Classification of Diseases and Related Health Problems) to be included. Age-standardised data from the NHPA has been used in this section.

SYDNEY NORTH HEALTH NETWORK

Compared to Australia and to comparator PHNs, the SNHN region had the lowest rate of PPH per 100,000 people (age standardised) in 2013-14 (1,702 per 100,000 in the SNHN region compared to 2,436 for Australia). This indicates that the healthcare services in the SNHN region are effectively managing and/or preventing PPH, compared to PHNs with similar population profiles.

Acute conditions comprised more than half of all PPH (55%) in the SNHN region in 2013-14, and almost half (48.5%) of all PPH bed days in the same period; including 9% provided as Hospital in the Home.

Chronic conditions accounted for 41% of all PPH admissions in the SNHN region in 2013-14, and 39% of all age-standardised admissions.

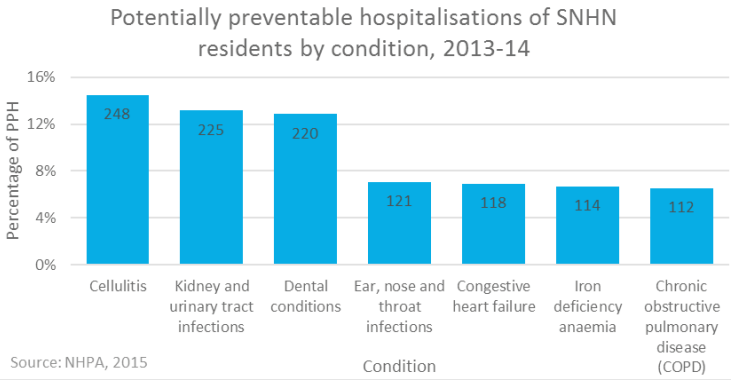
Only a small proportion of PPH in 2013-14 (5%) were attributable to vaccine-preventable conditions, however, these admissions were for a longer duration; 8% of total PPH bed days were attribute to vaccine-preventable conditions with an average length of stay of 7.8 days.

The average length of stay for acute and chronic conditions was 4 and 4.9 days respectively.

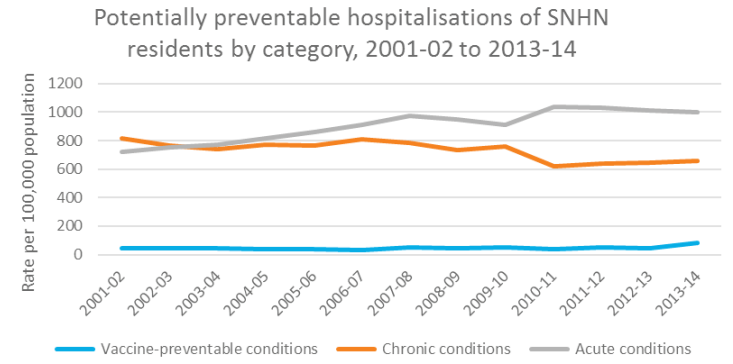
More than one third of PPH for vaccine-preventable conditions in the SNHN region in 2013-14 were for vaccine-preventable pneumonia and influenza; 289 people and almost 3,000 bed days.

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

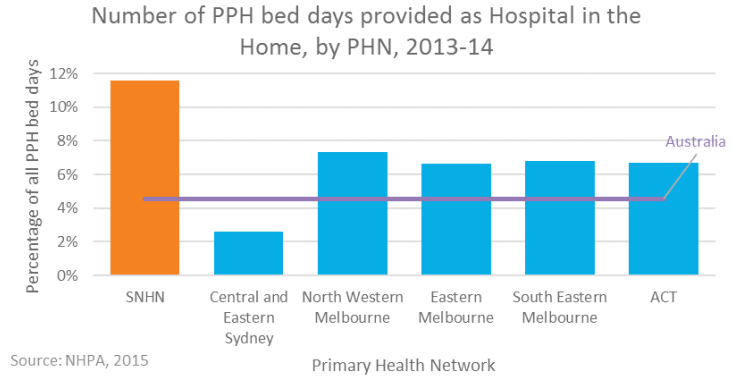
Cellulitis, kidney and UTIs, and dental conditions make up 40% of potentially preventable hospitalisations in the SNHN region



Source: NHPA, 2015



Source: Centre for Epidemiology and Evidence, 2015



Source: NHPA, 2015

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

Analysis was conducted using data from the National Health Performance Authority's analysis of Admitted Patient Care National Minimum Data Set 2013–14. There are 22 separate conditions for which hospitalisation is considered potentially preventable.

The NHPA data provides age-standardised PPH rates for the SNHN region, broken down by condition. NSW health stats also provides PPH data by condition and by PHN, however this data is not age standardised. NHPA data has therefore been used in this section.

SYDNEY NORTH HEALTH NETWORK

PPH in the SNHN region in 2013-14 were predominately for acute conditions, with seven conditions responsible for over two thirds of all PPH in this period.

Cellulitis, kidney and urinary tract infections, and dental conditions were the conditions for which people in the SNHN region were most likely to be admitted for a PPH. These conditions accounted for 40% of PPH in the SNHN region in 2013-14, and 36% of all bed days.

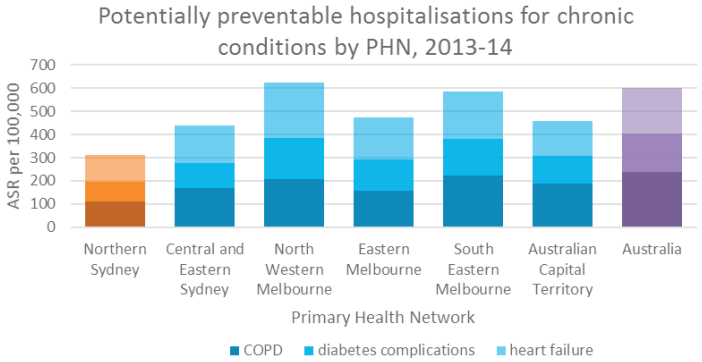
ENT infections, congestive heart failure, iron deficiency anaemia and COPD each accounted for 7% of all PPH and, together, 32% of bed days.

While still low, there was a marked peak in PPH for vaccine-preventable conditions in the SNHN region in 2013-14, rising from 43.1 per 100,000 in 2012-13 to 80.4 in 2013-14.

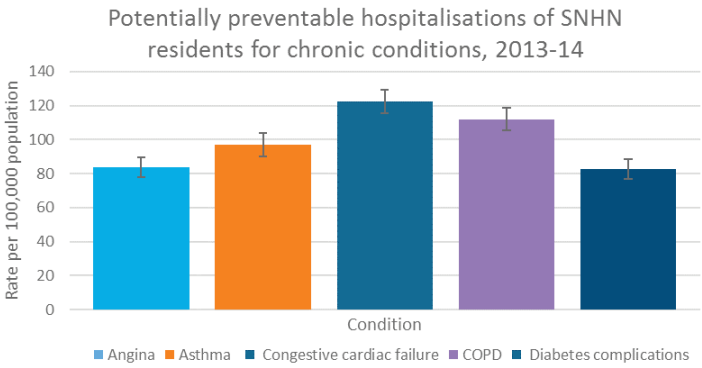
For all conditions that presented as a PPH, dental conditions had the highest proportion of same day discharges, with 87% of dental presentations discharged the same day.

Patients in the SNHN received more care through Hospital in the Home (HITH), as a proportion of bed days, than any other PHN in Australia. 11.6% of all PPH bed days in the SNHN region were provided through HITH compared with 2.6% in Central and Eastern Sydney PHN and 4.6% across Australia.

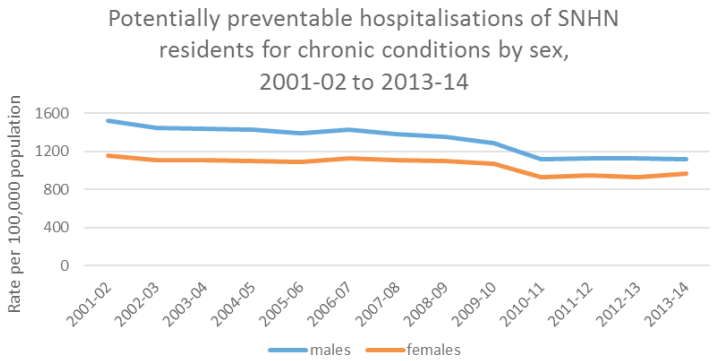
Rates of Potentially Preventable Hospitalisations for chronic conditions has declined in the SNHN region since 2009-10



Source: Centre for Epidemiology and Evidence, 2015



Source: Centre for Epidemiology and Evidence, 2015



Source: Centre for Epidemiology and Evidence, 2015

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 for key chronic conditions, by condition and by PHN, are available from the National Health Performance Authority's analysis of Admitted Patient Care National Minimum Data Set 2013–14. HealthStats NSW also provides hospitalisation data for a range of chronic conditions by LGA, however these are not age-standardised.

SYDNEY NORTH HEALTH NETWORK

Potentially preventable hospitalisations for chronic conditions are the lower in the SNHN region (ASR 661 per 100,000 population) compared with Australia (1,122) and comparator PHNs. This includes for heart failure, diabetes complications and COPD.

Congestive cardiac failure is the most common chronic condition for which residents of the SNHN region had a PPH in 2013-14, accounting for almost 11,500 bed days. This is statistically significantly lower, however, than all other PHNs in NSW.

Hospitalisations for other chronic conditions were also statistically significantly lower in the SNHN region compared to NSW, and lower than comparator PHNs.

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

The rate of PPH for chronic conditions has declined in the SNHN region NSW since from 2009-10. This indicates more effective management of chronic conditions in the community.

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 treatment rates are a headline indicator on which the SNHN is required to report. This includes treatments to children and adolescents which are to be reported separately.

8.1 For the SNHN population 11.6% of those surveyed reported having a mental health problem, which is lower than NSW or Metro 1 averages. In 2012/13 7.5% of the population within the SNHN region accessed MBS subsidised mental health services.

8.3 The age structure of the SNHN population using MBS mental health services is different from the age structure using PBS services. 15-24 year olds and those aged 75 and over have higher use of MBS mental health services in the SNHN region compared to NSW and Metro 1 averages.

8.4 A smaller proportion of the GP workload is comprised of mental healthcare in the SNHN region than in NSW and Metro 1.

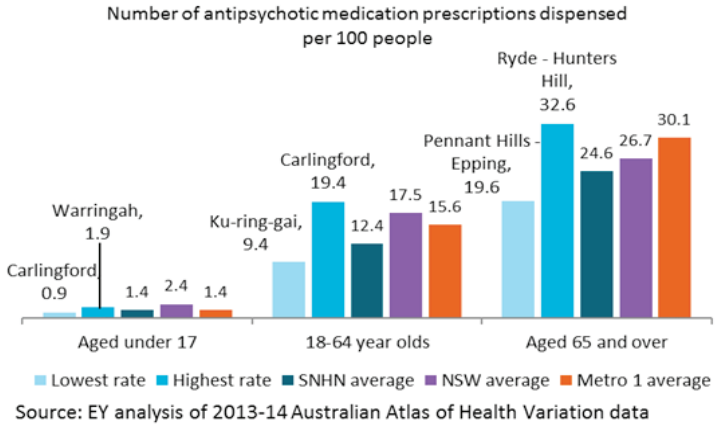
8.5 The number of GP Mental Health Treatment Plans produced is consistent with the number of patients with mental illness.

8.6 There are 70% more psychiatrists per head in the SNHN region compared to the NSW average, creating a risk of supplier-induced demand. Patients using MBS mental health services and who reside in the SNHN region are more likely to use psychiatrists, and on average use more psychiatric services than across NSW.

8.7 The average number of MBS services provided per patient by clinical psychologists is decreasing, but remains high compared to other Metro 1 areas or NSW.

8.8 Prevalence of depression and anxiety, the most common mental illness diagnoses, is lower in the SNHN region than across Australia. The prevalence of antidepressant prescribing is slightly higher than that expected based on the estimated prevalence of depression.

8.9 There is up to two-fold variation within the SNHN region in the level of antipsychotic medication prescribing. Rates in the elderly seem high.

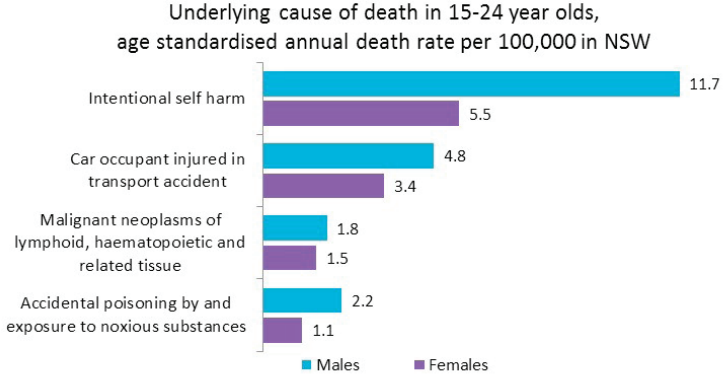


Source: EY analysis of 2013-14 Australian Atlas of Health Variation data

8.10 The average fee charged in the SNHN region is higher than for NSW or Metro 1 for all mental health service types.

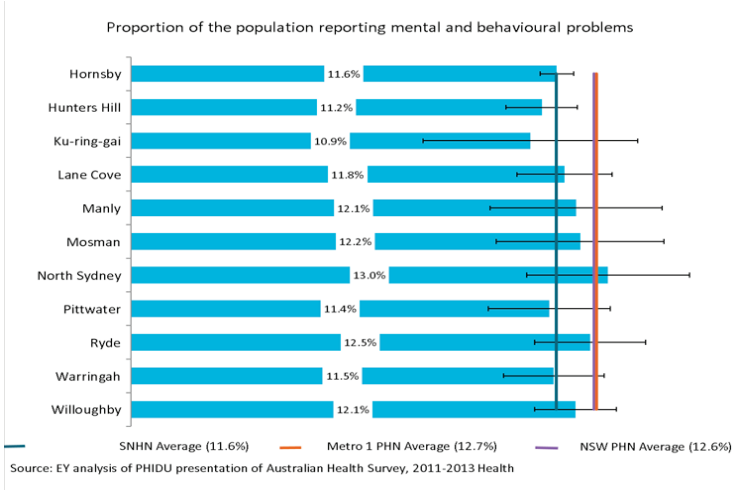
8.11 On average, every day 1.6 15-19 year olds present to an ED with self harm, suicidal thoughts or suicide attempts in the SNHN region. Alcohol presentations are also high, albeit under-counted.

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

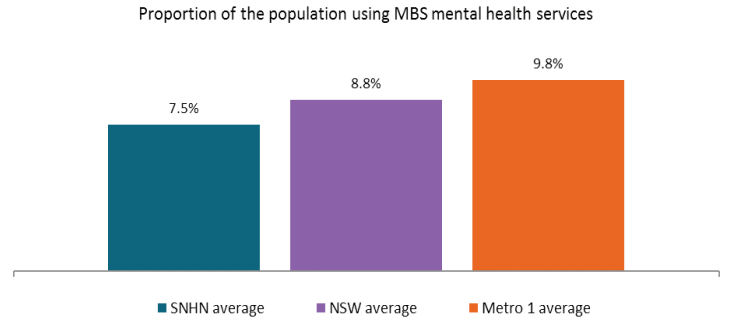


Source: ABS cat 3303 Causes of Death, 2013

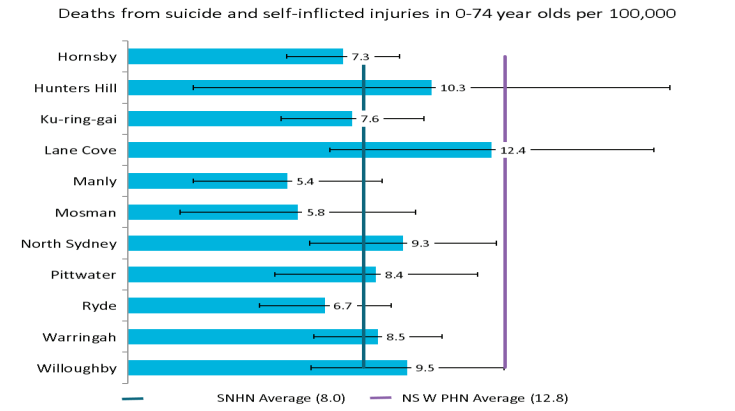
The SNHN region has a lower level of reported mental health problems than NSW or Metro 1 areas, with a similar proportionate level of MBS services



Source: EY analysis of PHIDU presentation of Australian Health Survey, 2011-2013 Health



Source: EY analysis of MBS claims data, 2012-13.



Source: EY analysis of PHIDU presentation of Deaths data, 2008-2012.

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.

HOW IS IT MEASURED?

As part of the Australian Health Survey, people were asked to report on their long-term health conditions. Included were behavioural or emotional disorders; dependence on drugs or alcohol; feeling anxious or nervous; and depression, and feeling depressed. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

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: X60-X84, Y87.0, Y10-Y34.

SYDNEY NORTH HEALTH NETWORK

Of the population living in the SNHN region, 11.6% report having a long-term mental health condition, while 7.5% used MBS services to treat mental health conditions in 2012/13. These are lower compared to NSW and Metro 1 levels. Services for mental health conditions may not be specifically identified as such (so not recorded as a mental health service claim), and some will be self-managed.

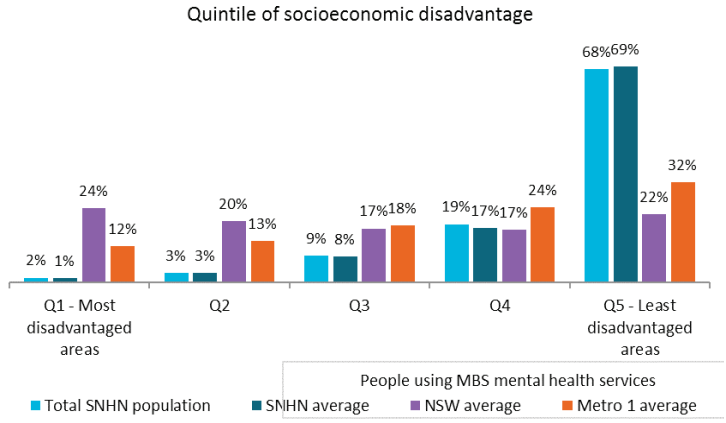
The annual age standardised death rates from suicide and self-harm is slightly lower in the SNHN region than NSW, but remains the highest cause of death for youth in the SNHN (see 8.12). By suburb the highest rates of suicide were in Lane Cove and Hunters Hill, though not significantly so. Further investigation of reasons contributing to youth suicide and self harm may present opportunities for targeted intervention.

	SNHN	NSW	METRO 1
People reporting mental and behavioural	11.6% (95% CI: 11.5-12.1)	12.6% (95% CI: 12.5-12.8)	12.7% (95% CI: 12.3-13.1)
People using MBS mental health services	7.5%	8.8%	9.8%
Mortality rate per 100,000 0-74 year olds from self-harm	8.0 (95% CI: 7.1-8.9)	12.8 (95% CI: 11.6-13.0)	Not available

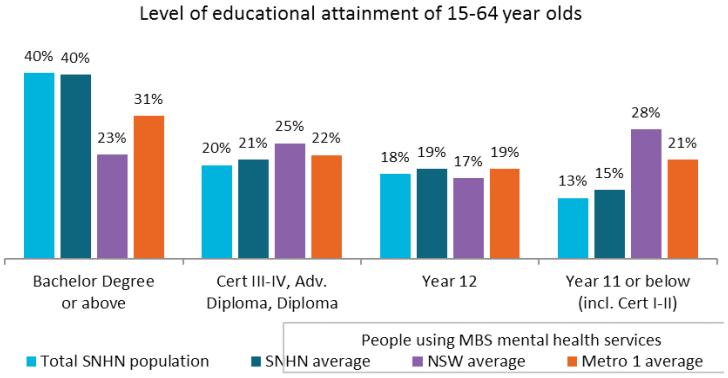
7.5% of people (around 67,000) living in the SNHN region use MBS mental health services annually

See related content: 2.1 Deprivation, 2.2 Education and employment, 8.8 Frequent mental health diagnoses, 8.12 Youth experiences of mental health

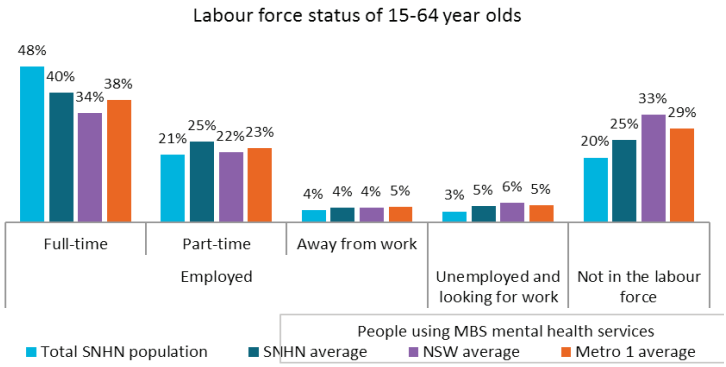
61% of people (41,000 out of 67,200) using MBS mental health services in the SNHN region are female



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.

HOW IS IT MEASURED?

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.

Demographic information such as quintile of socioeconomic disadvantage, educational attainment and employment status are based on the 2011 Australian Census. Not all respondents provided information on their educational attainment and labour force status, accounting for totals of less than 100%.

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). Put another way, 61% of mental health service users are female (41,000 out of 67,200).

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 full-time 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.

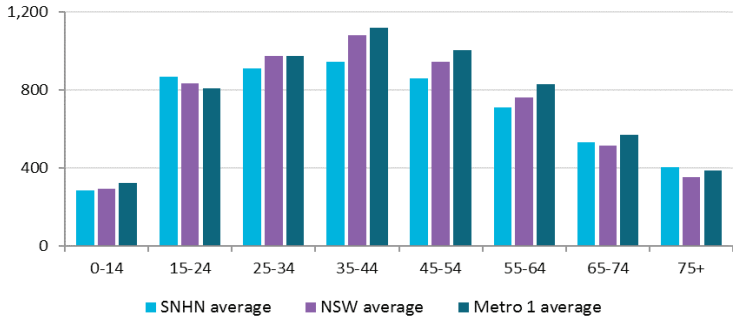
It is likely that the ability to pay for services increases the level of services provided.

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: 2.1 Deprivation, 2.2 Education and employment, 8.8 Frequent mental health diagnoses

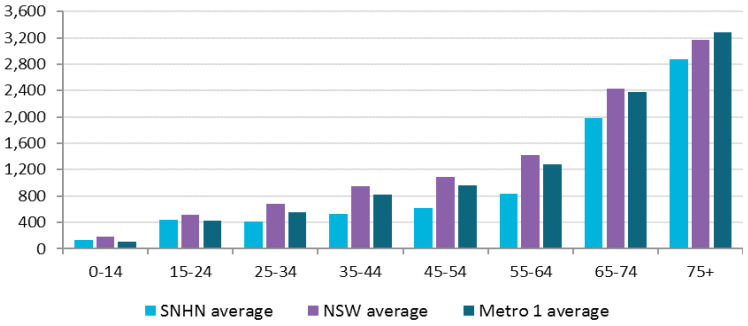
15-24 year olds and those aged 75 and over have higher use of MBS subsidised mental health services in the SNHN region compared to NSW and Metro 1 averages

Number of people using MBS mental health services per 10,000 population



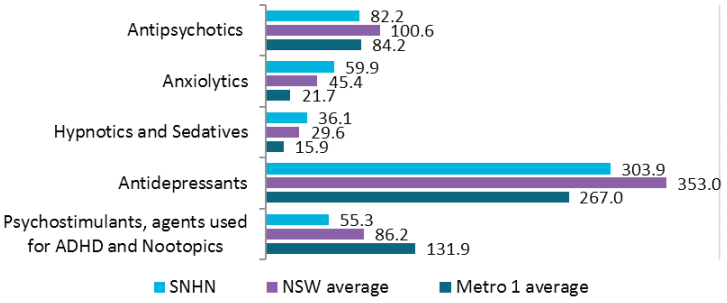
Source: EY analysis of ABS cat no. 4329, 2011 MBS data

Number of people using PBS listed mental health-related medications per 10,000 population



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

Number of people aged 15-24 using PBS listed mental health-related medications per 10,000



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

WHY IS THIS IMPORTANT?

Comparing MBS and PBS usage across regions is one indicator of the comparative ability of people to access services.

HOW IS IT MEASURED?

The Medical Benefits Scheme (MBS) and the Pharmaceutical Benefits Scheme (PBS) are the key mechanisms the Australian Government uses to fund primary healthcare. The two schemes are lists of approved services or medications and the corresponding amounts the government will fund. Accordingly, this data details the subsidised services provided but does not include any non-subsidised services, or any non-PBS listed prescriptions. The treatment of mental health related conditions varies by patient and diagnosis, so despite steps being taken to ensure its accuracy, it is probable that there is misclassification of patients within the PBS data. Further, in this analysis the location has been determined by the patient's residence. This provides good information on the number of services delivered to people within the PHN but does not enable analysis of where the providers were located (i.e. whether the patient had to travel outside the PHN to receive care).

SYDNEY NORTH HEALTH NETWORK

For most age groups, the population in the SNHN region use fewer MBS mental health services and fewer PBS listed mental health related medications, compared to both the NSW and Metro 1 averages.

Exceptions are:

- the 15-24 and 75+ age groups who use MBS mental health services at a marginally higher rate than the Metro 1 and NSW average.
- the 0-14 and 15-24 age groups who use PBS listed mental health related medications at a higher rate than the Metro 1 average.

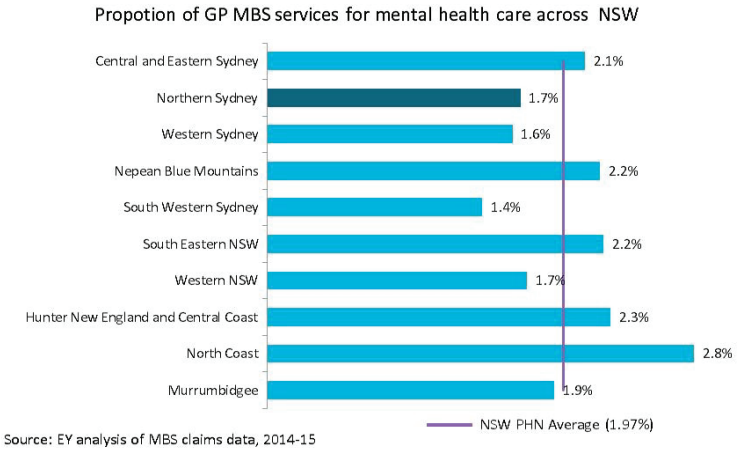
The higher rate of PBS listed mental health related medications appears to be driven by a higher rate of psychostimulant usage - 50% higher than the NSW average and more than twice the Metro 1 average. This mainly relates to ADHD treatment, and is likely reflecting the higher socio-economic status of SNHN residents, and raises concerns about possible over-treatment which warrants further investigation.

In 2011 61,000 people (8.2%) in the SNHN region used PBS listed mental health related medications similar to the 56,000 people (7.5%) using MBS mental health services.

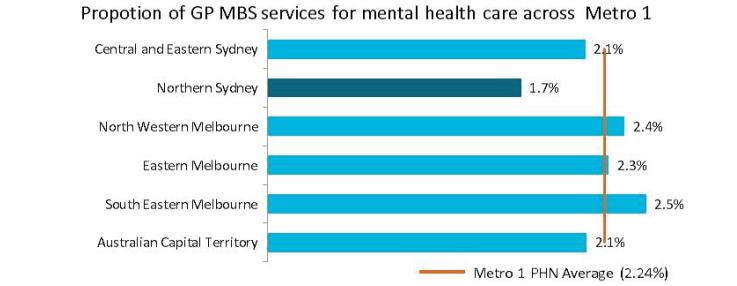
Higher use of medications to treat ADHD may reflect the higher socio-economic status of the SNHN residents

See related content: 8.4 GP MBS services for mental healthcare, 8.5 GP Mental Health Treatment Plans, 8.9 Prescription medication use

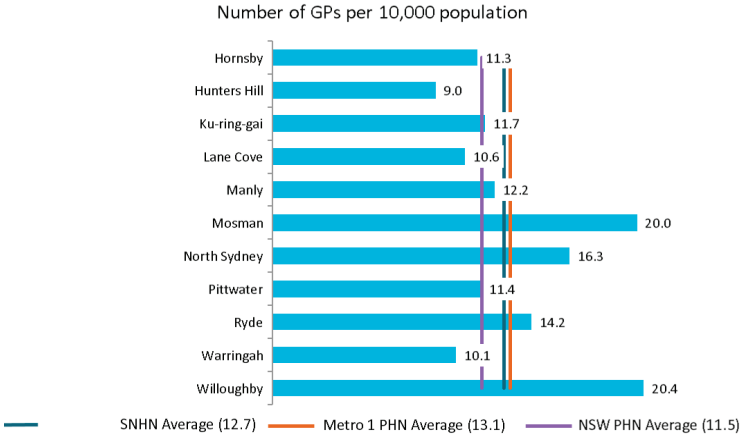
A smaller proportion of the GP workload is comprised of mental healthcare in the SNHN region than in NSW and Metro 1



Source: EY analysis of MBS claims data, 2014-15



Source: EY analysis of MBS claims data, 2014-15



Source: EY analysis of 2014 Health workforce data

WHY IS THIS IMPORTANT?

As the gatekeeper to healthcare in Australia, general practitioners are often the first point of contact with the health system. The mental health MBS services that are provided indicate whether the population are using GPs to treat and manage their mental health concerns.

HOW IS IT MEASURED?

In calculating the proportion of GP MBS services for mental healthcare, the number of specific GP Mental Health services (MBS Group A20) was divided by the total number of GP services (MBS Groups A01, A02, A11, A14, A15, A17, A18, A19, A22, A23).

The use of selected MBS item numbers to identify the provision of mental healthcare by GPs underestimates the true value as GPs may provide mental healthcare without using the specific MBS code - for example when physical health matters are covered as well. A more generic code can be used where there is little external visibility of the conditions treated during the consultation.

BEACH is a specific study of general practice consultations across Australia—see Appendix B for further details.

SYDNEY NORTH HEALTH NETWORK

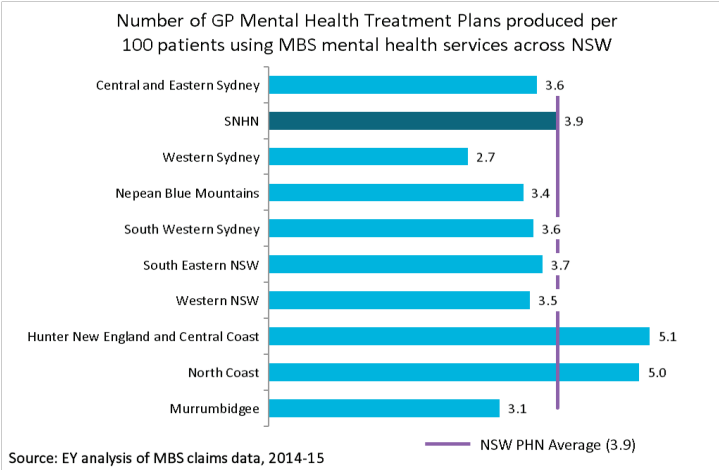
The proportion of GP services delivered in the SNHN region that are specific to mental health is 1.7%. This is lower than the NSW (2.0%) or the Metro 1 PHN average (2.2%). In addition BEACH data for 2011-2015 for the SNHN region show 5.2% of GP encounters are related to psychological concerns, compared to 5.8% across NSW. These findings likely relate to the lower prevalence of mental disorders in the area (see 9.1) leading to a lower need for service. In addition people needing care may be using specialised services more than general practice (see 9.6 & 9.7).

This does not appear to be caused by an undersupply of GPs in the SNHN area as the number of GPs per 10,000 population is similar in the SNHN region to the Metro 1 peer group, and higher than the NSW average. This has not been adjusted for full-time equivalency.

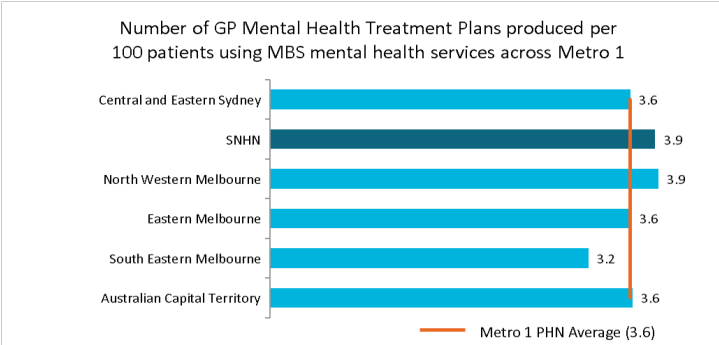
The SNHN region has more GPs per head than NSW, with some variation across the district. The range of number of GPs per 10,000 population is 9.0 in Hunters Hill to 20.3 in Willoughby (see Chapter 6). This may potentially impact on patients decisions on which health professional provides their mental healthcare.

See related content: 8.5 GP Mental Health Treatment Plans, 8.6 Use of psychiatrist services, 8.7 Use of clinical psychologist services

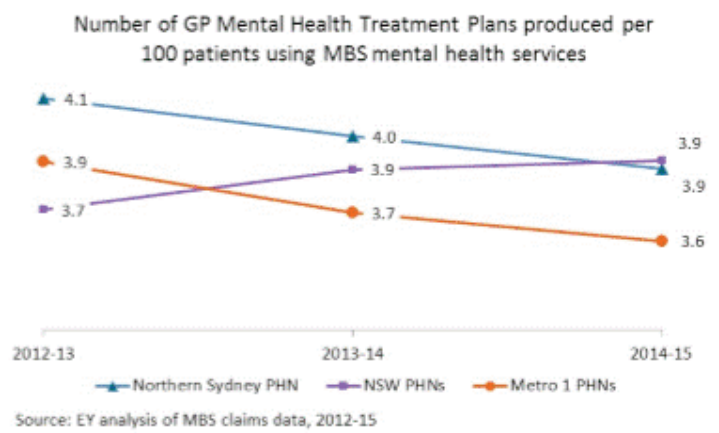
The number of GP Mental Health Treatment Plans produced is consistent with the number of mental health patients



Source: EY analysis of MBS claims data, 2014-15



Source: EY analysis of MBS claims data, 2014-15



Source: EY analysis of MBS claims data, 2012-15

WHY IS THIS IMPORTANT?

The number of GP Mental Health Treatment Plans being produced is one indicator of the level of mental healthcare being managed by GPs. The production of a formal GP Mental Health Treatment Plan is sometimes considered a marker for good practice in mental healthcare, though claiming behaviour can make this hard to interpret.

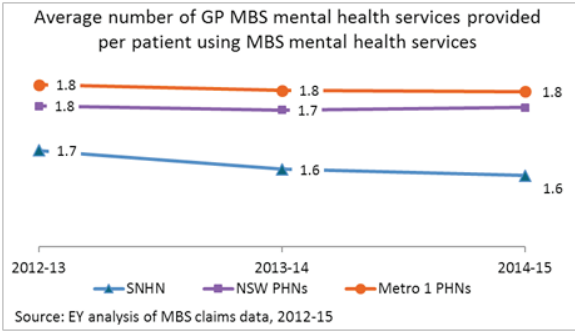
HOW IS IT MEASURED?

Preparation of GP Mental Health Treatment Plans has been measured by the number of patients for which an MBS item 2700 was claimed. For each patient, a MBS rebate can be claimed once every 12 months, except where there has been a significant change in the patient's clinical condition or care circumstances that requires the preparation of a new plan. The number of patients receiving a plan was divided by the number of patients receiving any mental health MBS service to get an average rate per 100 patients.

SYDNEY NORTH HEALTH NETWORK

The number of GP Mental Health Treatment Plans produced per 100 patients using MBS mental health services in the SNHN region is similar to the NSW PHN average and the Metro 1 PHN average. This indicates that the GPs working in the SNHN region are claiming for Mental Health Treatment Plans at a similar rate to their peers.

Over the past two years, the number of plans and the average number of GP MBS mental health services provided to each patient has decreased slightly in the SNHN region. This may indicate GPs are providing fewer services to patients with mental disorders but could also just relate to changes in claiming behaviour.

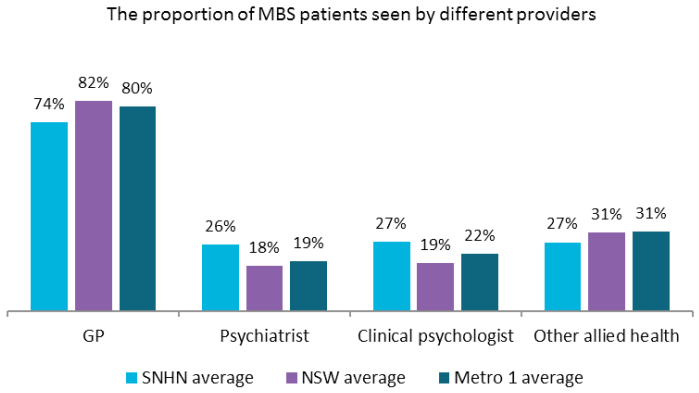


Source: EY analysis of MBS claims data, 2012-15

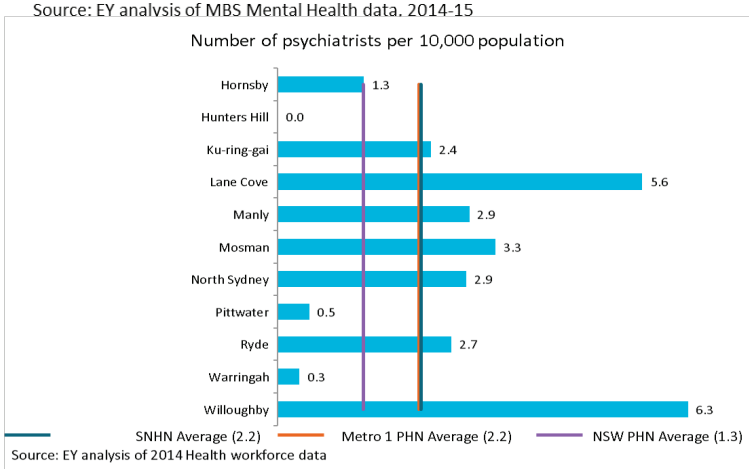
Over the past two years the rate of GP Mental Health Treatment Plans generation for patients using MBS mental health services is decreasing

See related content: 8.4 GP MBS services for mental healthcare

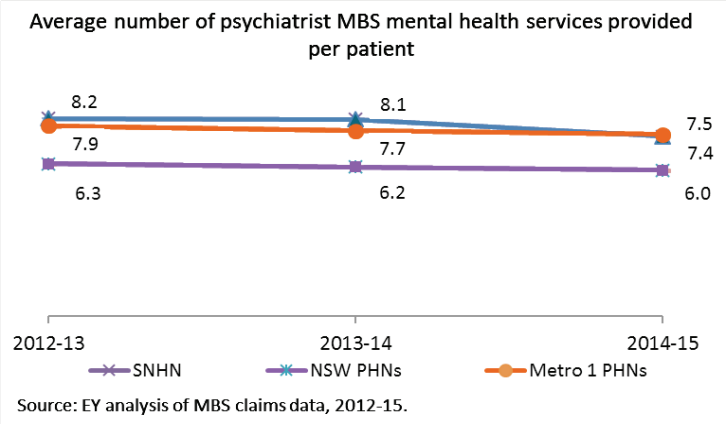
The proportion of mental health services provided by psychiatrists in the SNHN region is higher than the NSW average



Source: EY analysis of MBS Mental Health data, 2014-15



Source: EY analysis of 2014 Health workforce data



Source: EY analysis of MBS claims data, 2012-15.

WHY IS THIS IMPORTANT?

A 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. On this page we consider psychiatrists and the following page considers clinical psychologists.

HOW IS IT MEASURED?

The proportion of MBS patients seen by each provider type was calculated by dividing the number of patients receiving MBS services from that provider type by the total number of patients in that location.

The average number of psychiatrist MBS mental health services provided per patient has been determined by dividing the total number of MBS mental health items delivered by psychiatrists by the total number of patients seen by psychiatrists for MBS mental health items. Note that this is only the average value—there is no indicator for the actual number of services provided per patient.

SYDNEY NORTH HEALTH NETWORK

The proportion of services provided by psychiatrists to patients within the SNHN region is above the NSW average:

- 26% of MBS mental health patients see psychiatrists compared to 18% in NSW (44% higher)
- 2.2 psychiatrists per 10,000 population compared to 1.3 (70% higher)
- 6.0 psychiatrist MBS services per patient compared to 7.4 (23% lower)

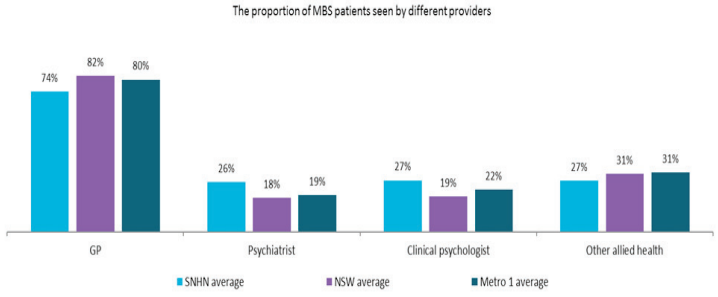
As seen in section 8.1, the prevalence of mental health conditions was lower in the SNHN region compared to NSW, so lower rates of psychiatric care rather than higher might have expected. The lower proportion of SNHN MBS mental health patients using a GP may indicate that the psychiatrists are providing care that is provided by GPs in other locations.

One area that may be worth further review is the potential that residents of the SNHN region are being over-serviced according to their estimated level of need. This cannot be assessed without further information on the diagnosis and a corresponding recommended level of treatment.

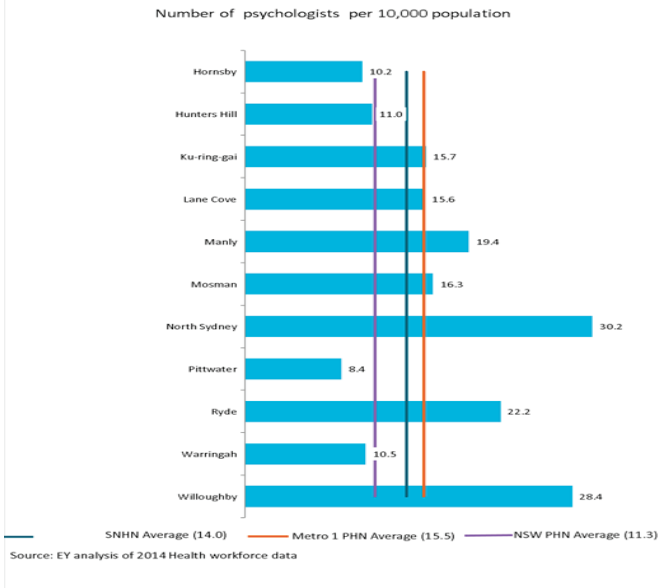
There are 70% more psychiatrists per 10,000 population in the SNHN region compared to the NSW average

See related content: 8.1 Need for mental healthcare, 8.4 GP MBS services for mental healthcare, 8.7 Use of clinical psychologist services

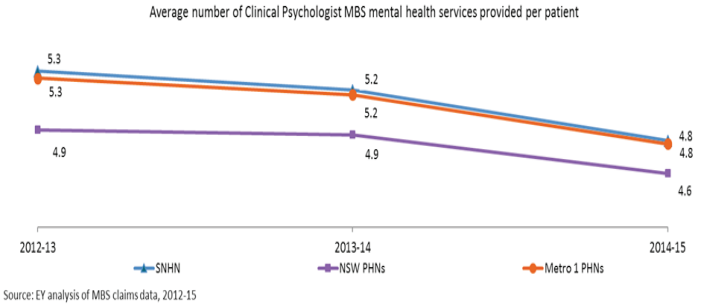
The proportion of mental health services provided by clinical psychologists in the SNHN region is higher than the NSW average



Source: EY analysis of MBS Mental Health data, 2014-15



Source: EY analysis of 2014 Health workforce data



Source: EY analysis of MBS claims data, 2012-15

WHY IS THIS IMPORTANT?

A key objective of PHNs is to improve 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. On this page we consider clinical psychologists and the previous page covered psychiatrists.

HOW IS IT MEASURED?

The proportion of MBS patients seen by each provider type was calculated by dividing the number of patients receiving MBS services from that provider type by the total number of patients in that location.

The average number of clinical psychologist MBS mental health services provided per patient has been determined by dividing the total number of MBS mental health items delivered by clinical psychologists by the total number of patients seen by clinical psychologists for MBS mental health items. Note that this is only the average value—there is no indicator for the actual number of services provided per patient.

SYDNEY NORTH HEALTH NETWORK

The proportion of services provided by clinical psychologist to patients within the SNHN region is above the NSW average:

- 27% of MBS mental health patients see clinical psychologists compared to 19% (42% higher)
- 14.0 clinical psychologists per 10,000 population compared to 11.3 (24% higher)
- 4.8 clinical psychologist MBS services per patient compared to 4.6 (4% higher)

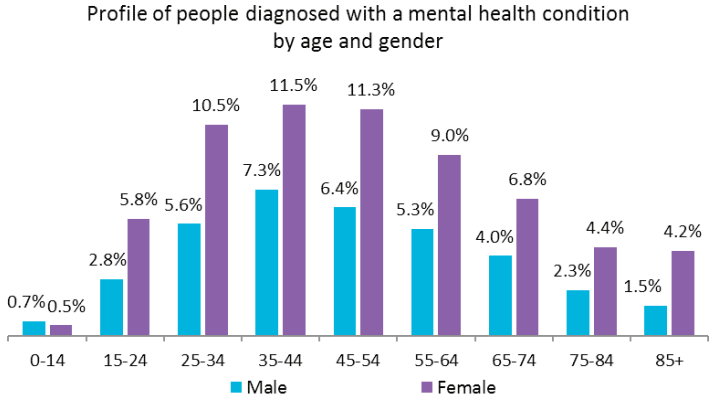
As seen in section 8.1, the need for mental healthcare was lower in the SNHN region compared to NSW across the three indicators. Higher rates of use of clinical psychologists compared with other providers such as GPs may be quite appropriate. The higher rate for psychologists is less prominent than for psychiatrist services.

There was a reduction in the average number of claims per patient by clinical psychologists in 2014/15. This may have been due to changes in claiming rules as similar trends occurred for Metro 1 PHNs and NSW overall.

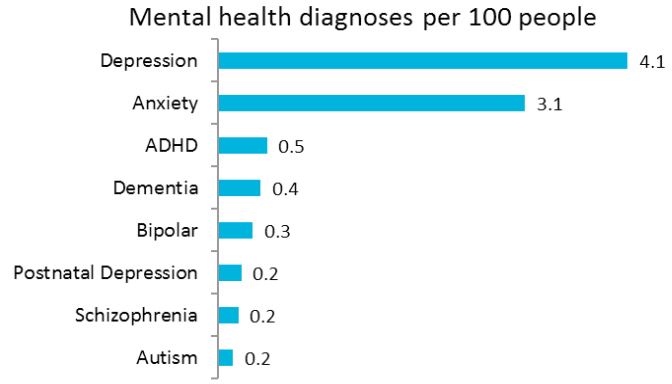
The average number of MBS services provided per patient by clinical psychologists decreased slightly in 2014/15

See related content: 8.1 Need for mental healthcare, 8.4 GP MBS services for men-tal healthcare, 8.6 Use of psychiatrist services

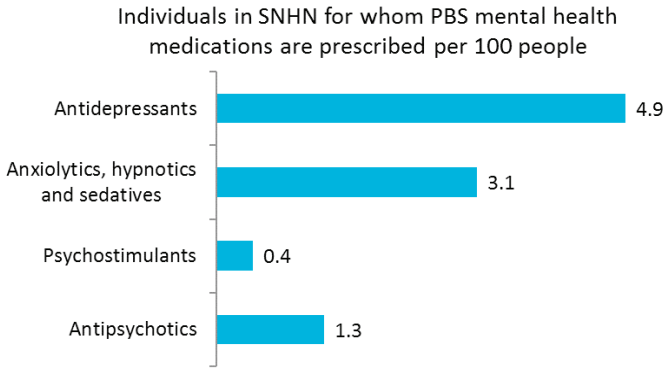
Depression and anxiety are the most common mental disorders diagnosed, yet prevalence in the SNHN region is lower than across Australia



Source: EY analysis of PenCAT data from 24 practices in SNHN, February 2016



Source: EY analysis of PenCAT data from 24 practices in SNHN, February 2016



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.

HOW IS IT MEASURED?

This page presents analysis of PenCAT data (see Appendix B). Within the SNHN region PenCAT is used to collect clinical data for 242,700 patients from 24 general practices. This represents approximately 27% of the population in the SNHN region. When recording patient details in PenCAT, the doctor may select multiple diagnoses for a single individual. Potential limitations of this data include:

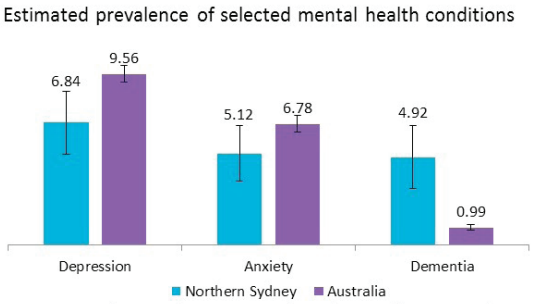
- Duplication of patients attending multiple practices
- No information on patients who have not sought care or been diagnosed
- Patients cannot be differentiated by residential location (within or external to the PHN).

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.

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



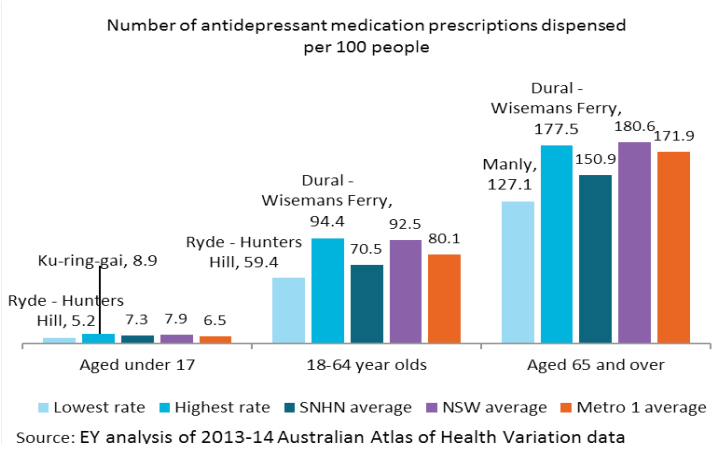
Source: BEACH data, prevalence among active patients, April 2011 - March 2015.

Prescriptions for PBS mental health medications per 100 population 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.

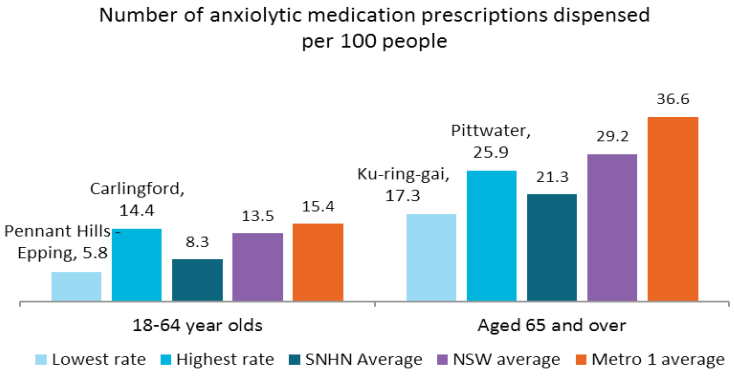
The rate of antidepressant prescribing is slightly higher than might be expected based on the prevalence of depression estimated by PenCAT and BEACH data

See related content: 8.3 Usage of MBS and PBS for mental health, 8.9 Prescription medication use

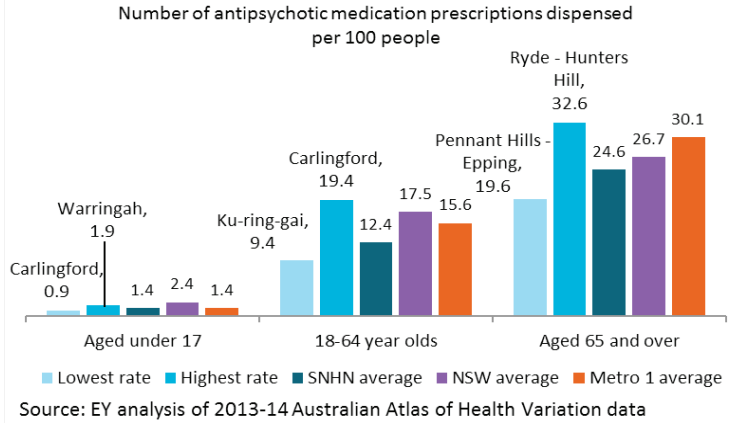
There is significant variation within the SNHN region (up to two fold) in the level of mental health-related medication prescribing



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



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



Source: EY analysis of 2013-14 Australian Atlas of Health 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.

HOW IS IT MEASURED?

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.

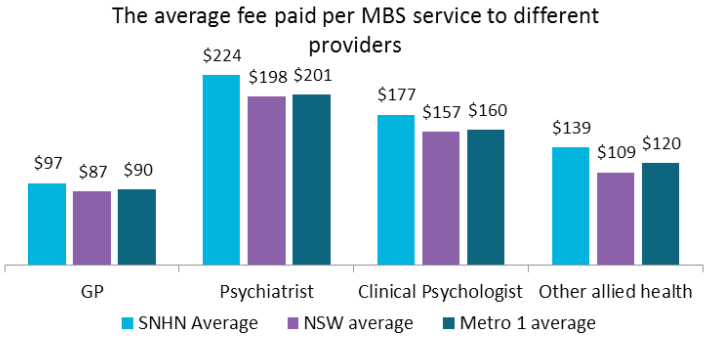
The lower average prescribing rates shown in SNHN PBS data is confirmed with BEACH data which shows 5.6 psychological agents prescribed per 100 encounters compared to the national average of 8.4. For antidepressants and anxiolytics the prescribing rates are 3.1 and 0.9 for the SNHN region, again lower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

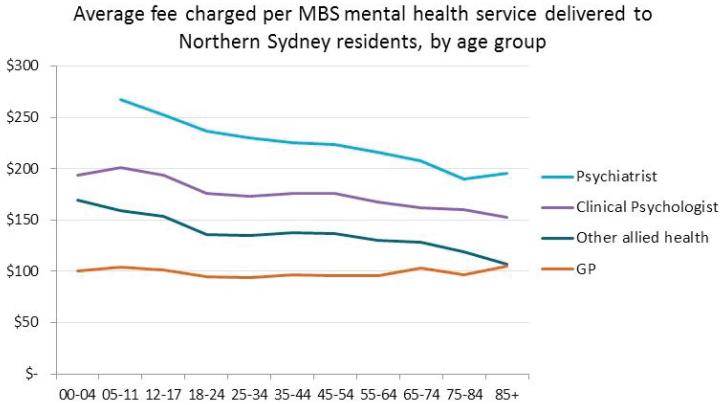
On average, prescribing rates of mental health related medications in the SNHN region are lower than across NSW and Metro 1

See related content: 8.8 Frequent mental health diagnoses

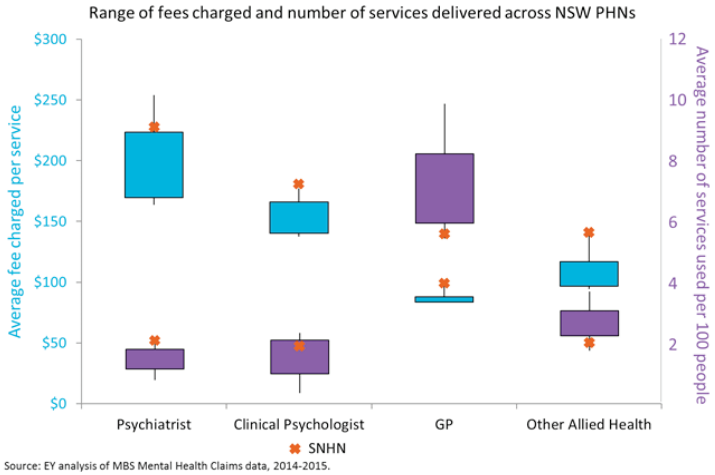
The average fee charged in the SNHN region is higher than for NSW or Metro 1 for all mental health service types



Source: EY analysis of MBS Mental Health data. 2014-15



Source: EY analysis of MBS Mental Health Claims data, 2014-15



Source: EY analysis of MBS Mental Health Claims data, 2014-2015.

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.

HOW IS IT MEASURED?

The average fee paid is determined by analysing MBS data. The fee paid includes any rebate received through the MBS or private health insurance claims and in this way is an accurate reflection of the up-front cost borne by the patient.

The final analysis displayed compares the average fee charged for different service types and the rates of the population accessing the different service types across the NSW PHNs.

SYDNEY NORTH HEALTH NETWORK

On average residents in the SNHN region pay more per MBS service than the NSW or Metro 1 average. Psychiatrists charge the highest fees of all providers as expected. The higher fees charged to the younger age groups are expected as services are often more complex and provided to the family unit. It is also psychiatrist services where the greatest variation in average fee paid is seen, although the rates of people accessing services is relatively consistent across the NSW PHNs.

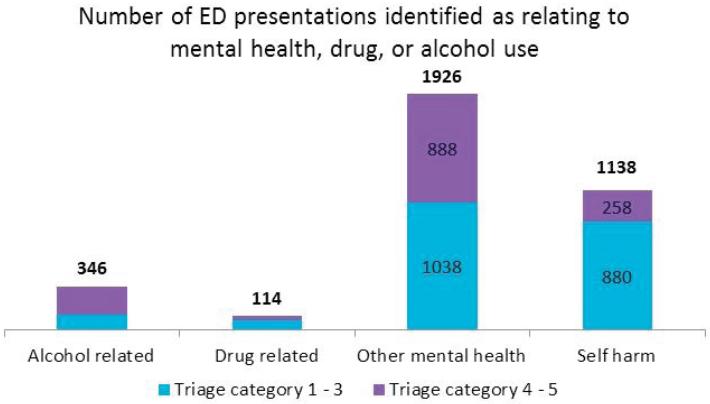
The average fee charged by GPs shows the least variation across the NSW PHNs of any provider. The rates of GP mental health service use however shows a large variation across NSW PHNs, which may be indicative of the relative availability of these service providers.

Higher mental health service charges in the SNHN region do not seem to reduce the rate of people using mental health services in the area.

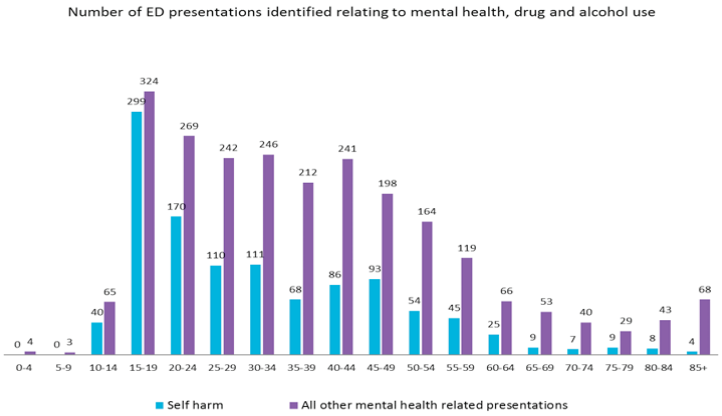
Higher mental health service charges in the SNHN region do not seem to reduce the rate of people using services

See related content: 8.6 Use of psychiatrist services, 8.7 Use of clinical psychologist services

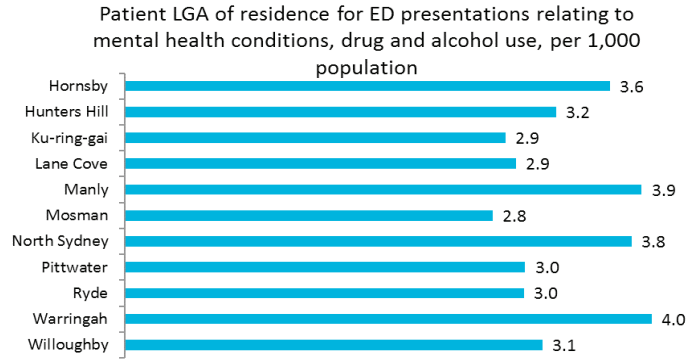
On average, 1.6 of 15-19 year olds present to an ED every day with self harm or suicidal thoughts or attempts in the SNHN region



Source: EY analysis of Northern Sydney ED presentation data, January- June 2014.



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



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.

HOW IS IT MEASURED?

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 2015, 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.

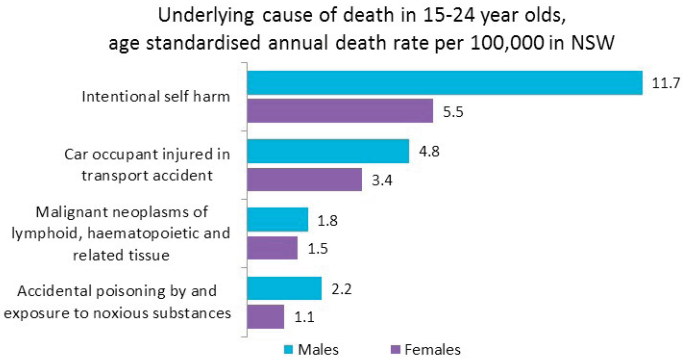
Presentations relating to suicide and self harm are particularly prominent within the 15-19 age group where it accounts for almost half (48%) of the mental health related ED presentations - more than one (1.6) presentation each day.

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.

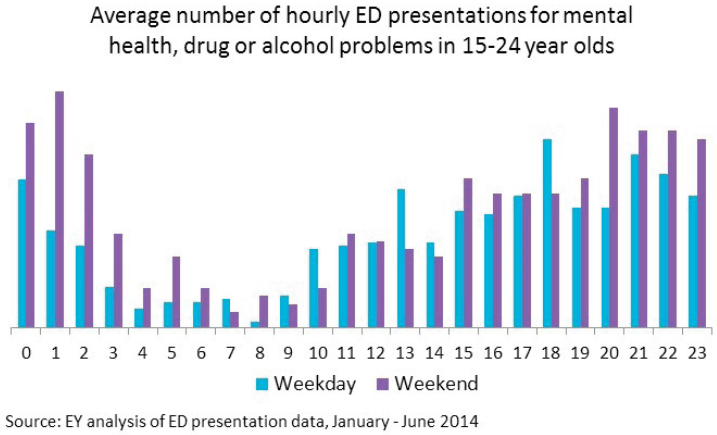
Warringah has a relatively high rate of ED presentations for mental health conditions despite a lower prevalence of mental health problems

See related content: 8.1 Need for mental healthcare, 8.6 Use of psychiatrist services, 8.7 Use of clinical psychologist services, 8.12 Youth mental health

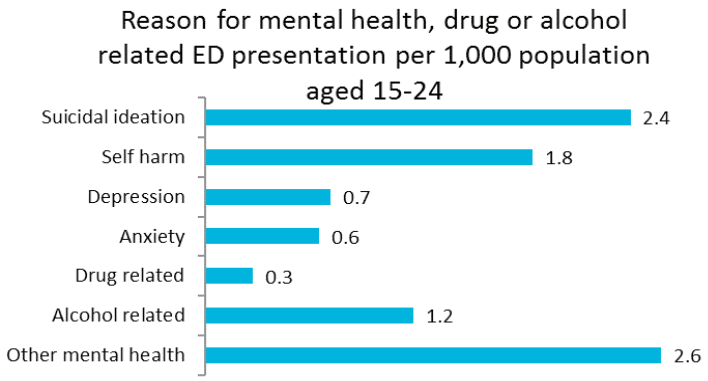
Intentional self-harm is the greatest cause of death in 15-24 year olds - twice that of motor vehicle injury



Source: ABS cat 3303 Causes of Death, 2013



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



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

WHY IS THIS IMPORTANT?

Mental health incidence is highest in the 15-19 year age group, assisting this age group access appropriate and timely services is paramount.

HOW IS IT MEASURED?

The causes of death information is collated by the ABS based on information provided on individual's death certificates. At the time of publication, the 2013 data was subject to revision - for example deaths where the coroner is required to certify the death certificate, such as when the cause of death was a self-inflicted injury. Values might change a little before finalisation.

The ED presentation data (see section 8.11 for analysis detail) 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 - eg alcohol, depression and anxiety will be under-reported.

SYDNEY NORTH HEALTH NETWORK

The top cause of death in 15-24 year olds in NSW for both males and females is intentional self harm with the rate for males over double the rate for females. The rate per person (8.6/100,000) is over double the rate for motor vehicle injury (4.1). For 2004-2014, the most common method of suicide in NSW is 'hanging, strangulation and suffocation'. On average this method has contributed 4.6 deaths per 100,000 population with a slight upwards trend. Over this same period the annual death rate from 'exposure to gases and other vapours' has been gradually decreasing, from 1.2 to 0.7.

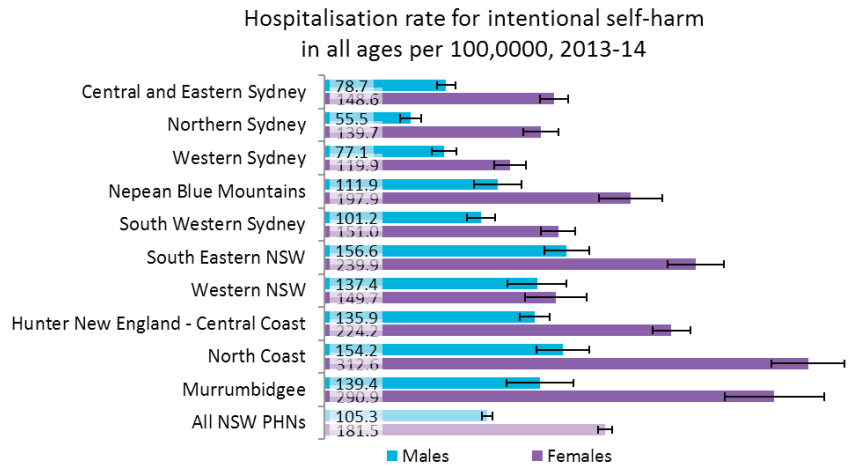
Three quarters of all identified mental health and drug and alcohol-related presentations occur out of hours for 15-24 year olds, in line with the pattern for other reasons in this group (data not shown).

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 increasing access to services.

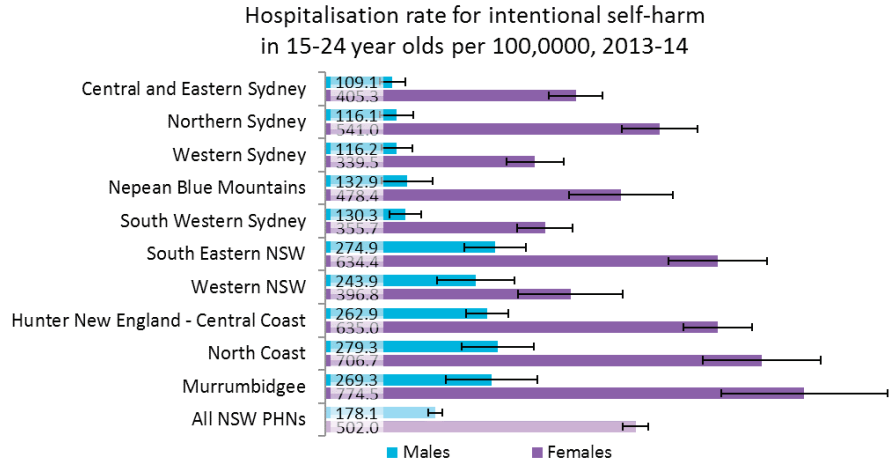
While females present with self-harm to ED at twice the rate of males, males are twice as likely to die through intentional self harm

See related content: 8.3 Usage of MBS and PBS for mental health, 8.11 ED presentations for mental health conditions

In the SNHN region the rate of female hospitalisation for intentional self harm in the 15-24 age group is 4.5 times higher than for males



Source: NSW Combined Admitted Patient Epidemiology Data and ABS population estimates (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.



Source: NSW Combined Admitted Patient Epidemiology Data and ABS population estimates (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

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.

HOW IS IT MEASURED?

On this page intentional self harm refers to suicide attempts and purposely self-inflicted poisoning or injury. In contrast to analysis presented on 8.11 and 8.12, this only includes people who are admitted to hospital, and does not include people who go home from ED.

Only NSW residents are included and PHN allocation is determined by person residence, rather than where they are treated. Hospital separations were classified using ICD-10-AM.

SYDNEY NORTH HEALTH NETWORK

The male to female ratio of admissions for all age groups is 1:2.5 for the SNHN region and 1:1.7 for NSW. The higher burden on females is more pronounced in the 15-24 age group with the ratio increasing to 1:4.5 in the SNHN region and 1:2.8 in NSW.

For all ages, the hospitalisation rate in the SNHN region is significantly lower than the NSW average for both genders. Males in the SNHN region have the lowest rates of hospitalisation of all PHNs and females the second lowest.

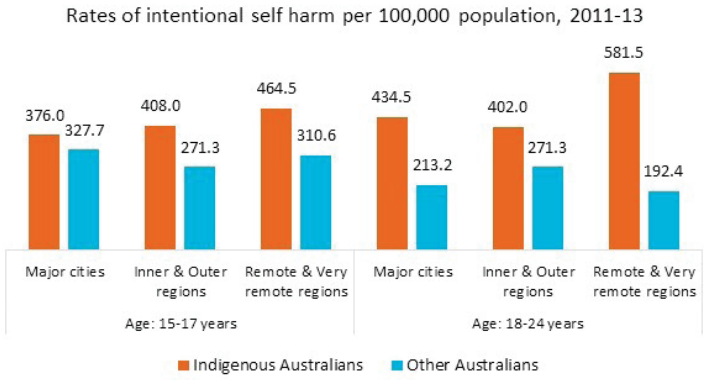
For the 15-24 year age group the hospitalisation rate for males in the SNHN region is also significantly lower than the NSW average while admission rates for females in this age group are higher but not significantly different from the NSW average.

In a similar way to ED presentations, females are hospitalised for self-harm at twice the rate of males, yet males are twice as likely to die through intentional self harm.

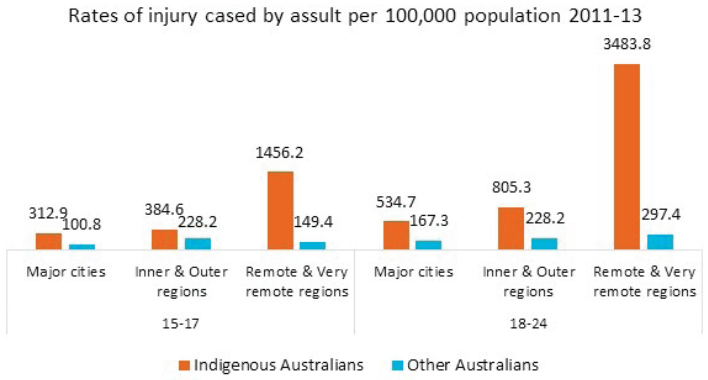
The residents within the SNHN region have a lower rate of hospitalisation for self-harm than the NSW average

See related content: 8.11 ED presentations for mental health conditions, 8.12 Youth experiences of mental health

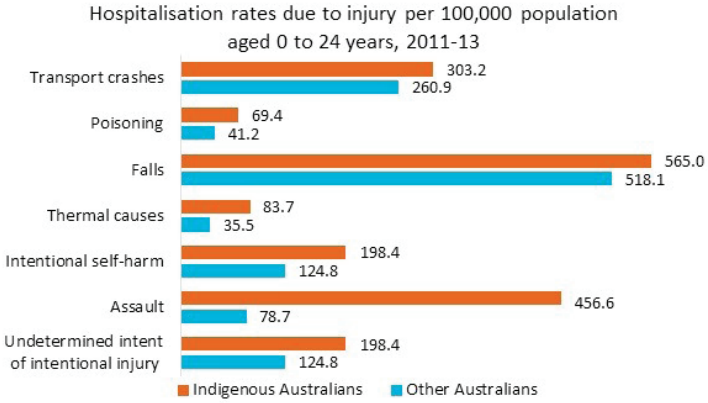
Injury caused by assault is the main cause of hospitalisation due to intentional injury for the Indigenous population aged under 25



Source: AIHW: Pointer S 2016. Hospitalised injuries in Aboriginal and Torres Strait Islander children and young people: 2011–13. Injury research and statistics series no. 96. Cat. no. INJCAT 172. Canberra: AIHW. Table B9



Source: AIHW: Pointer S 2016. Hospitalised injuries in Aboriginal and Torres Strait Islander children and young people: 2011–13. Injury research and statistics series no. 96. Cat. no. INJCAT 172. Canberra: AIHW. Table B10



Source: AIHW: Pointer S 2016. Hospitalised injuries in Aboriginal and Torres Strait Islander children and young people: 2011–13. Injury research and statistics series no. 96. Cat. no. INJCAT 172. Canberra: AIHW. Table 2.4

WHY IS THIS IMPORTANT?

Understanding what type of injuries result in hospitalisations for Aboriginal and Torres Strait Islander people is a good first step in understanding where targeting interventions need to be directed. In Hospitalised injuries in Aboriginal and Torres Strait Islander children and young people: 2011–13, AIHW note that "Intentional self-harm was the second most common cause of death from external causes for Indigenous children aged 0–17 between 2001 and 2011".

HOW IS IT MEASURED?

The AIHW has analysed information on the injuries that lead to hospitalisations of Aboriginal and Torres Strait Islander people aged 0 to 24 years from 2011-12 to 2012-13. The categorisation of data is based on the ICD-10. Intentional self harm includes ICD-10 categories of X60-X84. Because of the small numbers of hospitalisations occurring in 'remote and very remote regions', results relating to these areas should be interpreted with caution.

SYDNEY NORTH HEALTH NETWORK

Across Australia, the rates of intentional self harm in the 15-24 year age groups are higher in the Aboriginal and Torres Strait Islander population compared to other Australians. This is an indicator of the significant impact of mental disorders on this population. However, in terms of intentional injuries, it is assault which causes the highest rate of hospitalisation of Aboriginal and Torres Strait Islander people aged 0 to 24 years.

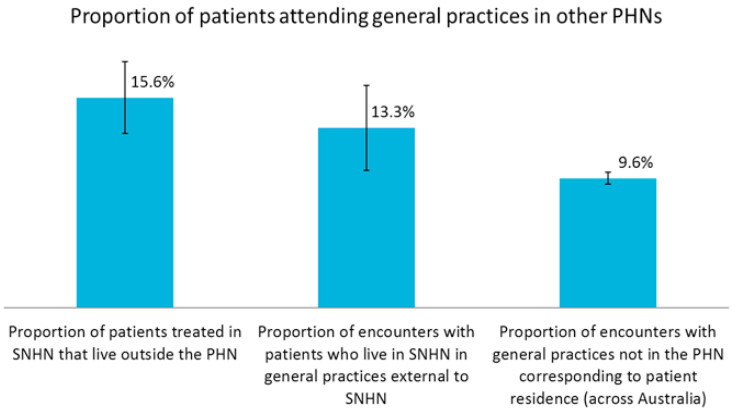
If the rates in the SNHN region are in line with the Australian rates for Major Cities for Indigenous 15 to 17 year olds, the rate of hospitalisations per 100,000 population caused by intentional self harm is 376.0, compared to 312.9 for injury caused by assault. For the 18 to 24 year olds the rates are 434.5 and 534.7 respectively. Each of these rates is higher than that observed for the non-Indigenous population, illustrating the importance of targeted interventions.

For the Aboriginal and Torres Strait Islander population aged under 25, the leading cause of injury related hospitalisations is falls. The rate of falls is highest in the population under 15 years. In major cites, the rate of hospitalisations caused by falls is 379.0 per 100,000 population for Aboriginal and Torres Strait Islander people aged 15 to17, and 328.7 for 18 to 24 year olds.

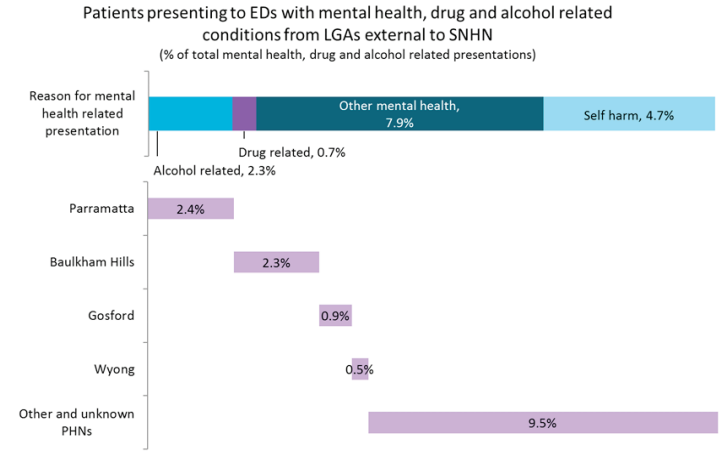
For 18-24 year olds in major cities, the rate of hospitalisation caused by self harm is 1.48 times higher for Aboriginal and Torres Strait Islander people than the non-Indigenous population

See related content: 8.11 ED presentations for mental health conditions, 8.12 Youth experiences of mental health, 8.13 Hospitalisations for intentional self harm

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



Source: BEACH data, April 2011-March 2015.



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

Hospital	Parramatta	Baulkhum Hill	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 in 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.

HOW IS IT MEASURED?

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 consults) than are residents within the SNHN region receiving services from providers in alternate PHNs (13% of all SNHN consults)—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 difficultly 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 the elderly 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.

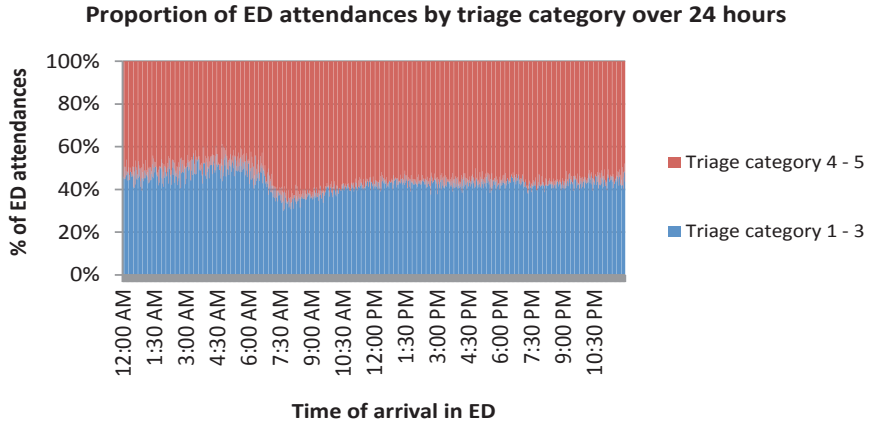
9.5 Over a third of all ED attendances in the SNHN region were at Royal North Shore (RNS) Hospital. Hornsby Hospital received the second highest proportion of ED attendances (almost 20%).

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-Indigenous 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 Indigenous 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 24% of all ED attendances occurring during these hours. The hours when the highest proportion of ED attendances were in lower triage categories were from 7AM to 11AM.



EY analysis of SNHN ED data

9.10 In 2014/15 the SNHN region had the highest rate of GP after-hours/ emergency providers per 100,000 in NSW. Despite this, the SNHN region had a lower rate of patients who accessed GP after-hours services than other PHNs.

9.11 In the period 2012/13 to 2014/15 the SNHN region had the highest average fee charged for an after hours GP service across both NSW and Metro 1.

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:

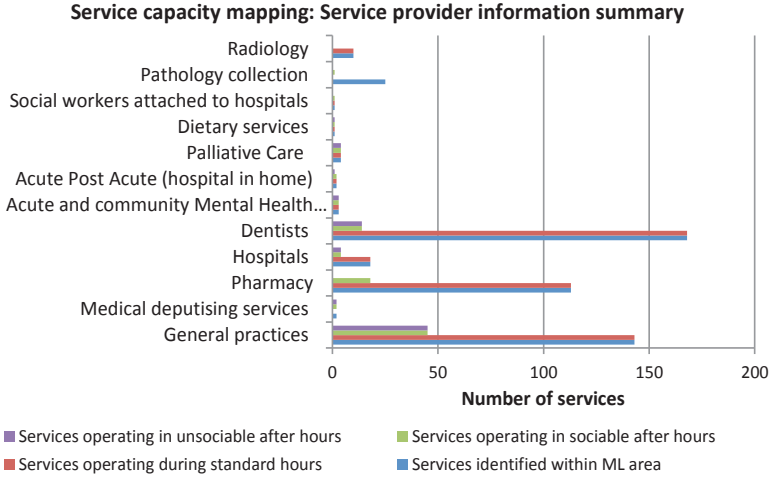
- Lack of community awareness of after hours services available in NSML area
- Increasing trends to present at ED instead of accessible after hours services
- Low awareness of after hours services for over 65 year olds in Hunters Hill LGA, as well as Ku-ring-gai, Ryde and Hornsby LGAs
- Lack of awareness 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:

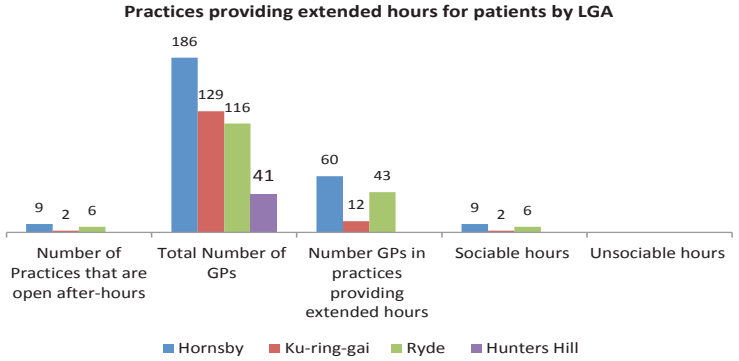
- Limited access to community/public transport services may present as a barrier to accessing after hours services for patients who rely on community transport
- Hunters Hill and Ku-ring-gai LGAs had below average after-hours claims

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



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)

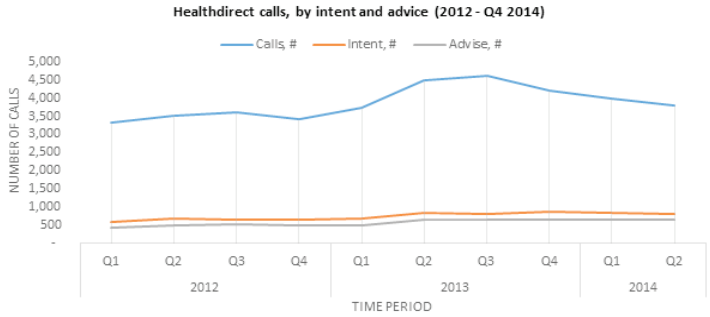
Following the after hours assessment in 2011, implementation of the 3 year after-hours plan commenced in August 2013. The implementation report included an assessment of the current state of service provision in NSML in 2013:

# 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

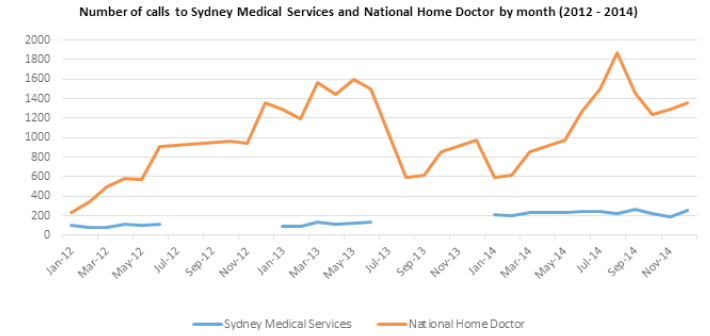
- Of 103 pharmacies, 23 offered extended hours but none were open 24 hours
- Pathology and radiology services were only available in hospital settings outside normal business hours
- NSLHD funded 2 rapid-response teams that offer additional support for after hours urgent care needs in Residential Aged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

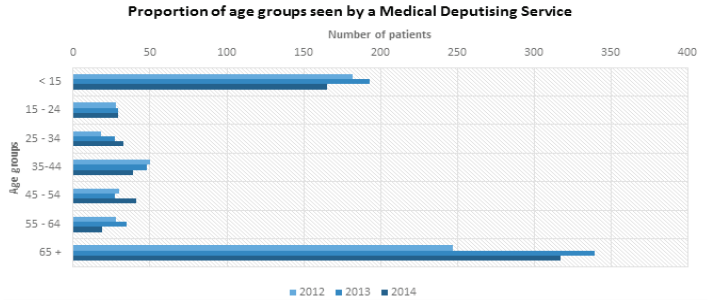
The implementation report details the action and outputs defined to meet objectives of the after hours plan. For instance, the trend of uptake of the Healthdirect GP Helpline was one indicator used to demonstrate access to triage and community based services. An analysis of the number of calls received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



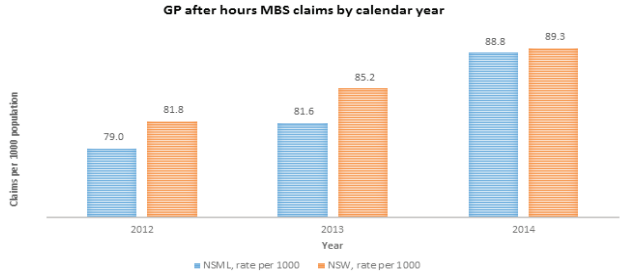
Grants were offered to medical deputising services to expand after hours services into areas of need. The graph below shows a large increase in calls to the National Home Doctor service from January to August 2014.



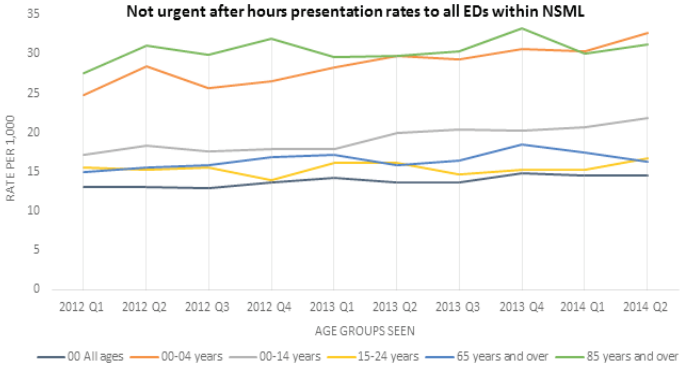
The below breakdown of the proportion of age groups seen by a medical deputising service shows that patients aged under 15 and over 65 were the largest users of this service.



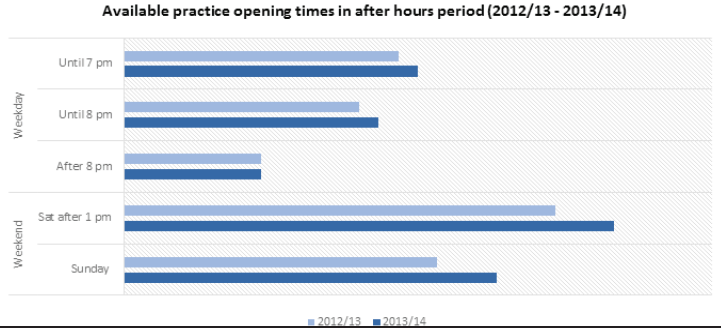
The implementation report found that, the rate of GP after hours claims in NSML were lower than the rate of claims across NSW. However, the gap has reduced and NSML and NSW were claiming almost equal rates by 2014.



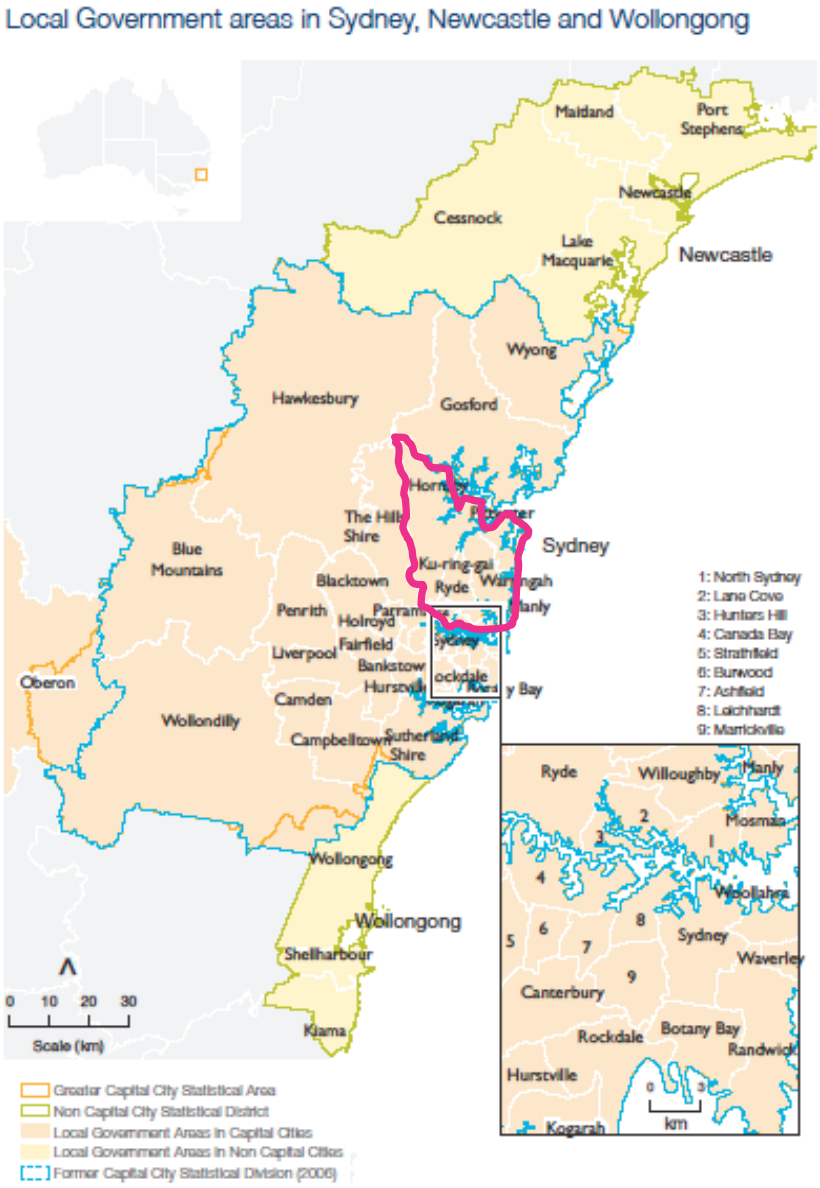
The implementation report presents an analysis of paediatric and elderly ED presentations that fell into less urgent triage categories (triage 4 and 5). It notes that patients aged 0-4 and 85+ had the highest rate of less-urgent ED attendances.



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 SYDNEY AS AT 2012

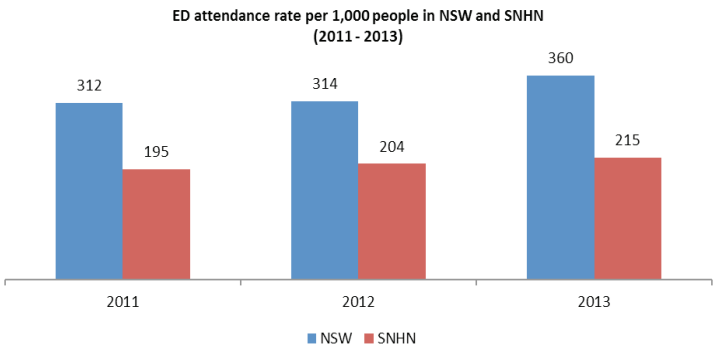


Source: Department of Infrastructure and Transport, 2012

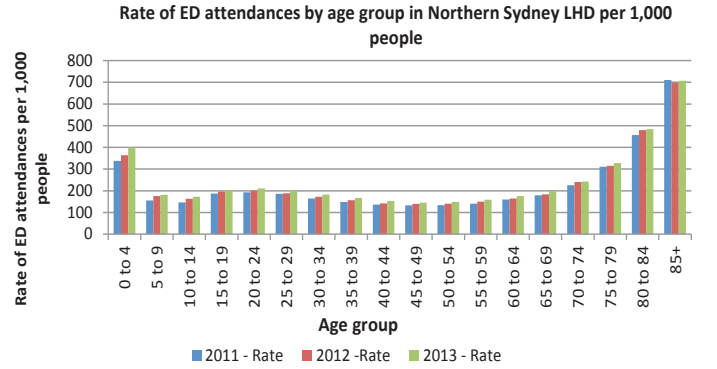
HOSPITALS WITHIN THE SNHN REGION

Source: NSW Department of Health website

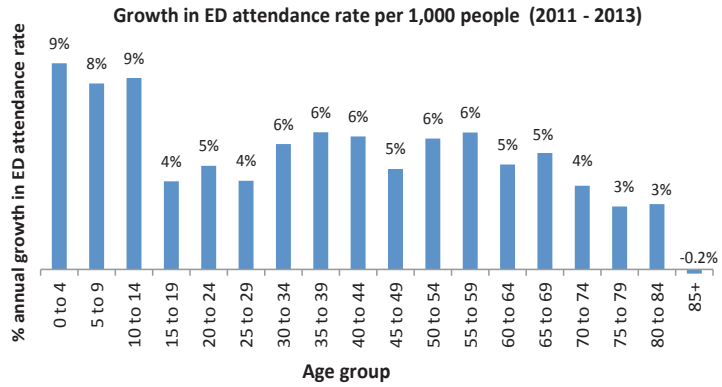
The SNHN region has a lower rate of ED attendance than NSW



Source: EY analysis of SNHN ED data (July 2010—June 2014); AIHW ED Care 2014-15 Table 2.5; Department of Health population report (2009-14)



Source: EY analysis of SNHN ED data (2011—2013)



Source: EY analysis of SNHN ED data (2011—2013)

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 (EDs') in the SNHN region will highlight any sections of the demographic that may require targeted intervention.

HOW IS IT MEASURED?

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. T o 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+ 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 in the 85 years+ age group, 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 10. 1 Previous work), which also noted that the 0-4 and 85+ age groups had the highest rate of less-urgent ED attendances in NSML.

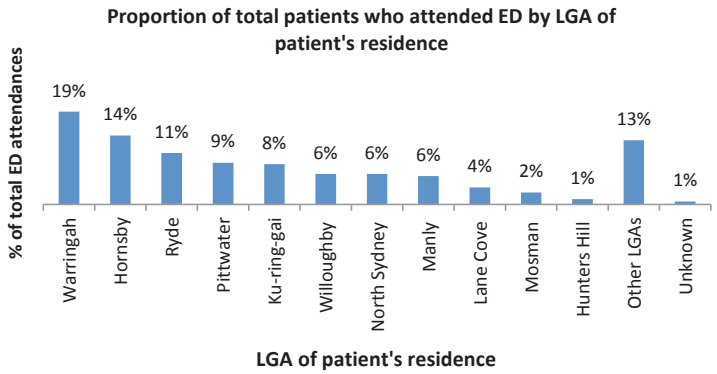
All age groups except 85 years+ experienced growth in ED attendance rates from 2011 to 2013.

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

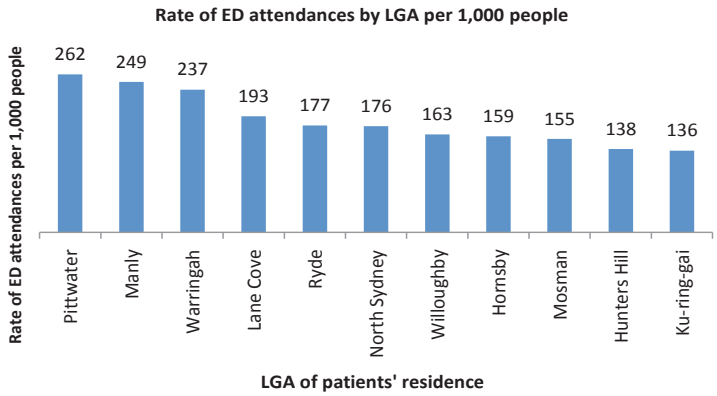
The 0 to 4 and 85+ age groups had the highest number of ED attendances of all age groups

See related content: 1.3 Age structure, 8.4 GP MBS services for mental healthcare, Chapter 10 Health of the Elderly

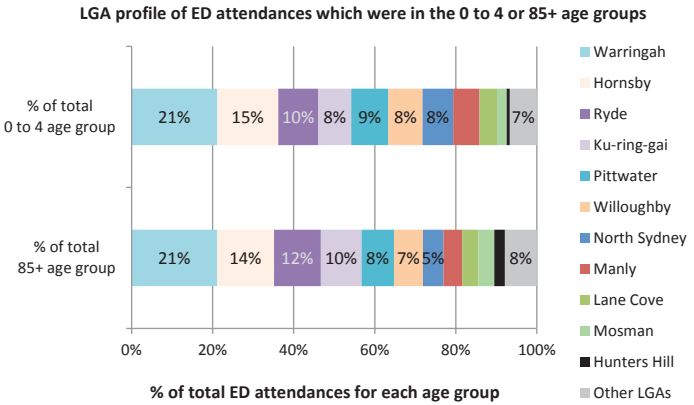
Rates of ED attendance were highest in Pittwater and Manly



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



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



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.

HOW IS IT MEASURED?

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

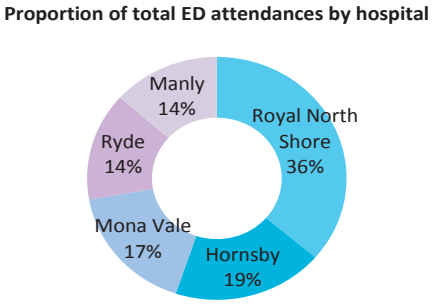
ED attendances from Warringah and Hornsby LGAs accounted for a third (33%) of all ED attendances in the area. However, the rate of ED attendance relative to the population size was highest in Pittwater and Manly LGAs in 2013, where there were 262 and 249 ED attendances per 1,000 people respectively. Lower numbers of GPs per head in Pittwater and Manly than the SNHN region average (see 9.4) 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 '85+' generally reflected the LGA demographics.

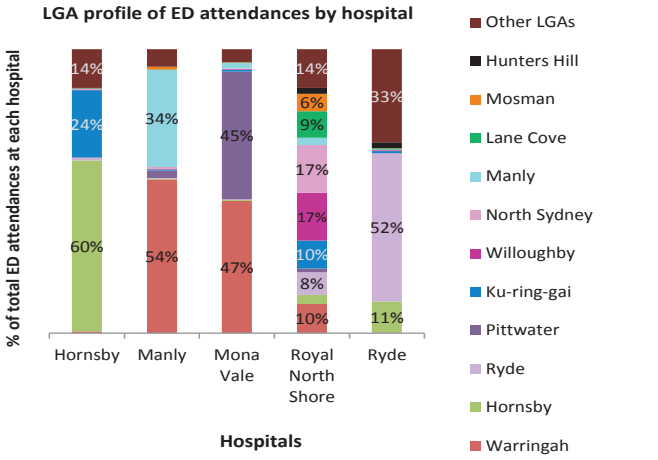
Patients from Warringah and Hornsby LGAs accounted for a third of all ED attendances in the SNHN area

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

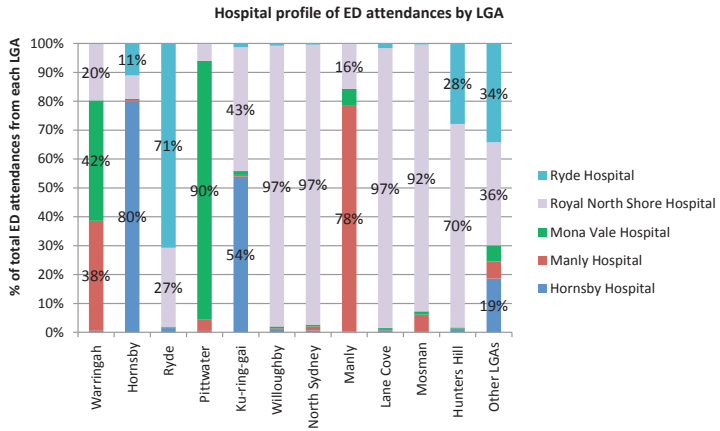
Royal North Shore Hospital has a third of all ED attendances in the SNHN region, with the greatest spread of residential LGAs



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



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



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.

HOW IS IT MEASURED?

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 PHN 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.

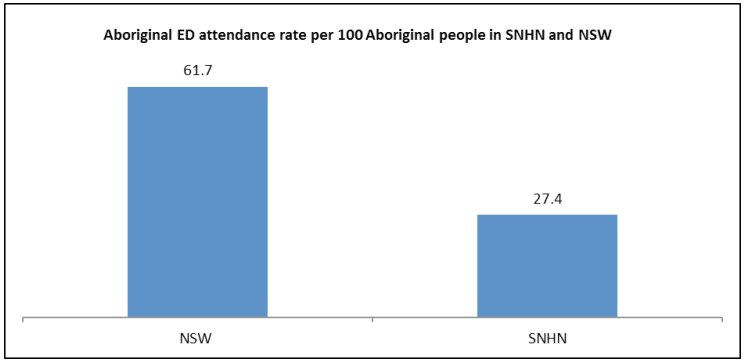
Hornsby Hospital received the second highest proportion of ED attendances, at almost 20%, most from the Hornsby LGA. Per the analysis on page 10.3, Hornsby LGA had a relatively low rate of ED attendance of 163 per 1,000 people.

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.

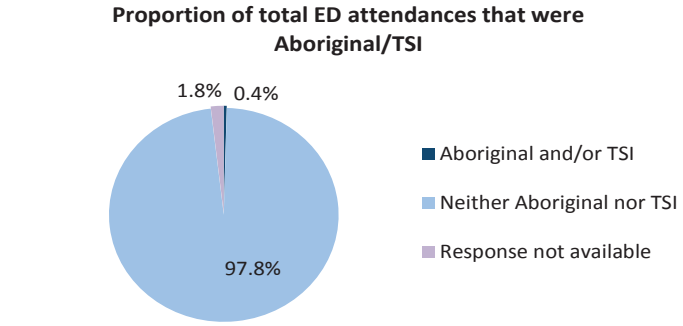
The majority of patients attended their local or neighbouring ED

See related content: 9.4 ED attendances by suburb in SNHN region

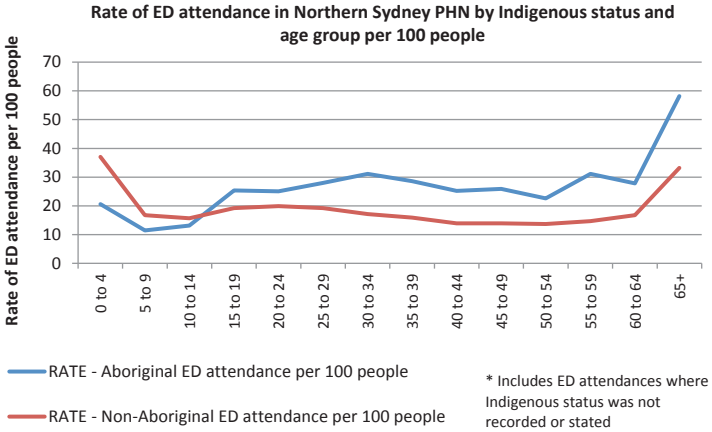
The Aboriginal population aged 15 years and over had higher ED attendance rates than their non-Indigenous counterparts



Source: EY representation of NSW Health data (2013)



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



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 T orres Strait Islander (henceforth 'Aboriginal') may have particular patterns of service utilisation that could present opportunities for targeted intervention.

HOW IS IT MEASURED?

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

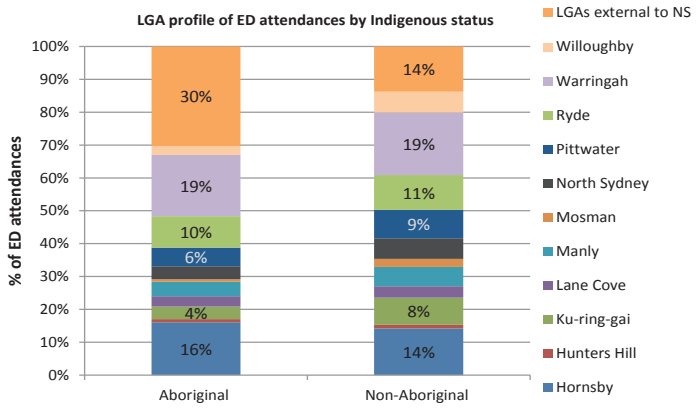
ED attendance rates for the Aboriginal population in the SNHN region is significantly lower than the NSW average, however the Aboriginal population in the SNHN region is very small and results relating to this data should be interpreted with caution. In 2013, across NSW there was an ED attendance rate 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. age 15+) had higher ED attendance rates than their non-Indigenous counterparts. Interestingly the rates were lower in children. This may be worth exploring in more detail regarding potential access issues; alternatively it may be that non-Indigenous child attendance rates are too high.

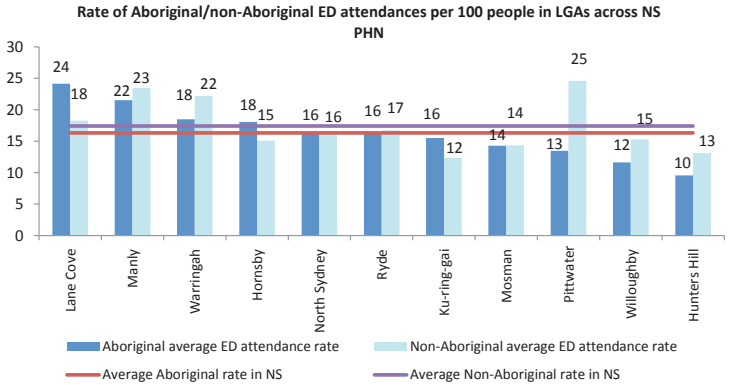
The large gap between ED attendance rates of Aboriginal and non-Indigenous across most age groups in the SNHN region presents an opportunity for targeted intervention.

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

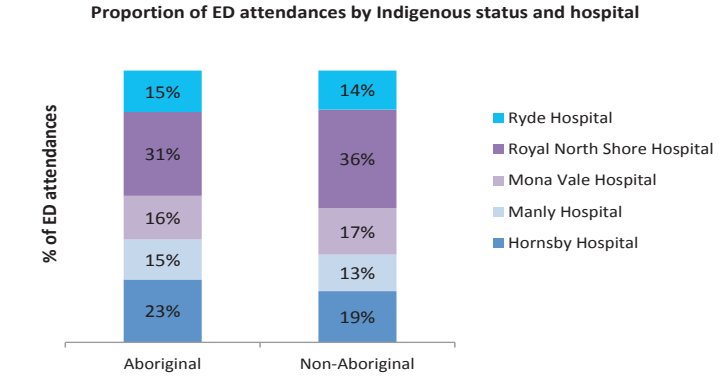
The Aboriginal ED attendance rate was higher than the non- Indigenous in 3 out of 11 LGAs - Lane Cove, Hornsby, Ku-ring-gai



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



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



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

WHY IS THIS IMPORTANT?

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

HOW IS IT MEASURED?

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

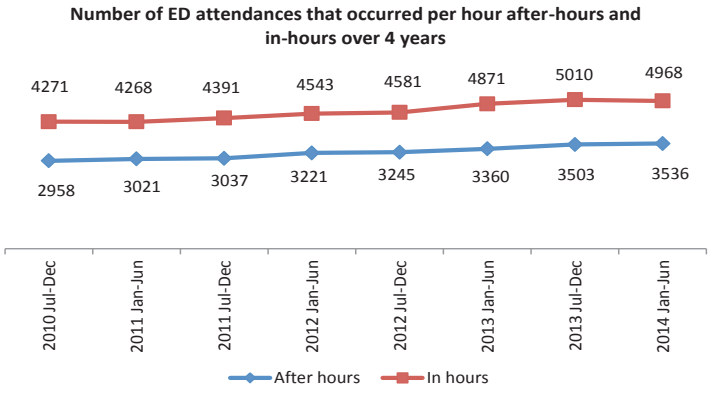
Amongst both Aboriginal and non-Indigenous ED attendances, a third of all ED attendances came from Warringah and Hornsby. However, a greater proportion of Aboriginal attendances came from LGAs outside the SNHN region (30%). The LGA with the highest Aboriginal ED attendance rate per 100 Aboriginal population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

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 Bidgel Aboriginal health unit. based at Hornsby Hospital.

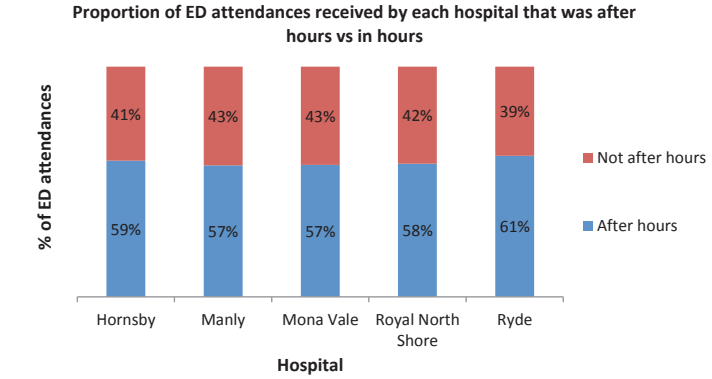
Almost a third of all Aboriginal ED attendances came from LGAs outside the SNHN region, compared to only 14% of non-Indigenous attendances

See related content: 9.4 ED attendances by suburb in the SNHN region; 9.6 Aboriginal ED attendances: rate of attendance and age

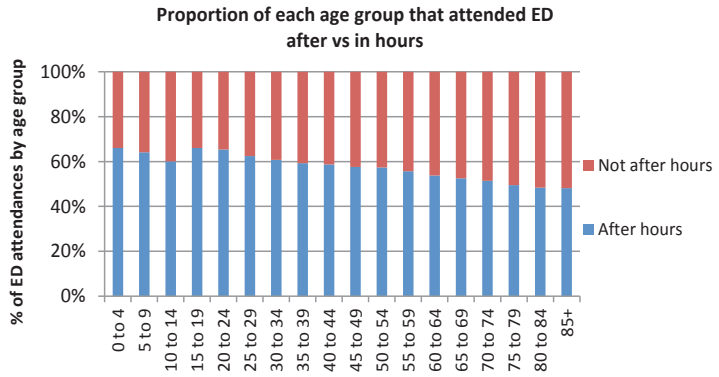
Whilst the majority of ED attendances occurred after hours, there was a higher per hour rate of attendances between 9am and 5pm



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



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



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.

HOW IS IT MEASURED?

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.

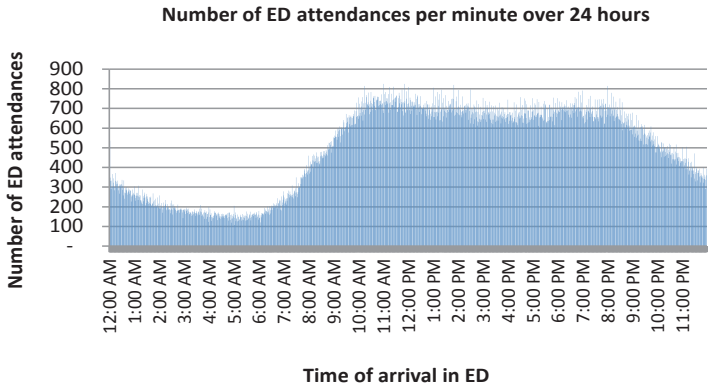
Younger age groups had a greater proportion of ED attendances occurring after hours, with those in the '0 to 4' age group the highest at 66% - perhaps related to parental availability.

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 elderly 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.

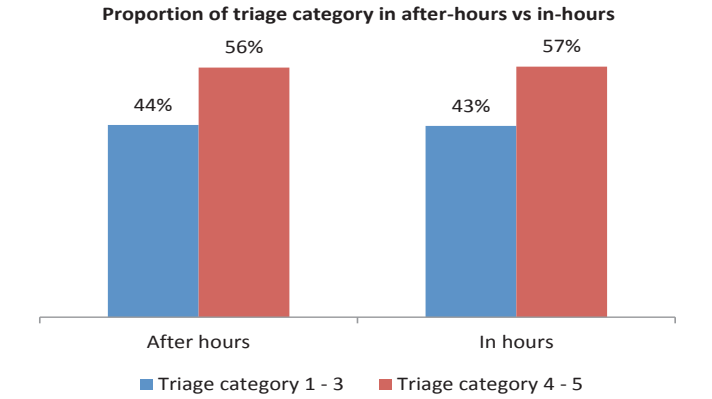
Children had the highest proportion of after-hours ED attendances

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

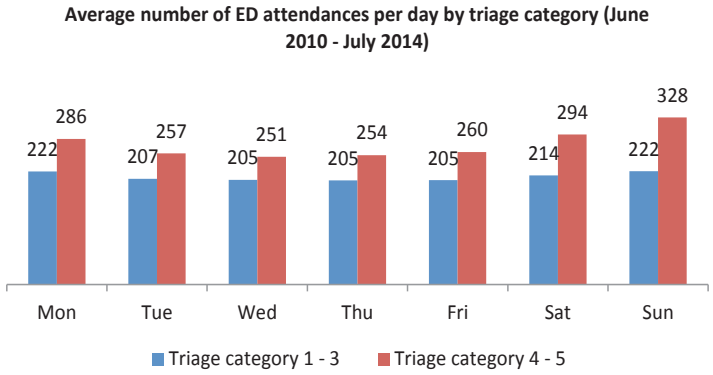
Almost 60% of all attendances were in low urgency triage categories



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



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



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

WHY IS THIS IMPORTANT?

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 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.

HOW IS IT MEASURED?

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. Triage categories 1 to 3 were combined as representing urgent need for consultation, while triage categories 4 and 5 were combined as being less urgent, and potentially representing problems dealt with in primary care settings. 'In-hours' was defined as 9.00am to 4.59pm.

SYDNEY NORTH HEALTH NETWORK

Although 58% of total ED attendances occurred after-hours, the hours that received the highest volume of patients were between 10.00am to 2.00pm. ED attendances that occurred during these hours accounted for almost a quarter (24%) of all ED attendances. The hours receiving the lowest number of ED attendances occurred between 3.00am to 6.00am.

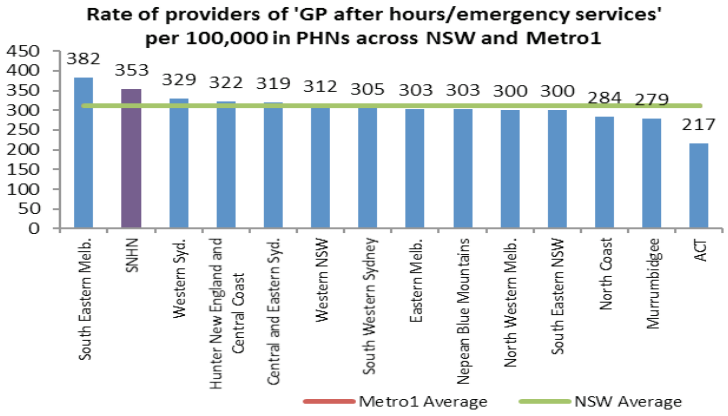
The proportion of more urgent ED attendances (triage 1 - 3) occurring after hours was almost the same as in-hours. The hours with the highest proportion of triage 4 - 5 ED attendances were between 7.00am to 11.00am. During these hours around 60% of ED attendances were triage 4 - 5. On average, over the 4 years, Sundays had the highest number of triage 4-5 presentations. Further, the NSML After Hours Report (see 10. Previous work), found that the 0-4 and 85+ age groups had the highest rate of less-urgent (triage 4 and 5) ED attendances in NSML.

An area of opportunity for further investigation is understanding the reasons behind the high volume of lower-triage-category ED attendances occurring in-hours, particularly in the morning and early afternoon, as well as on weekends.

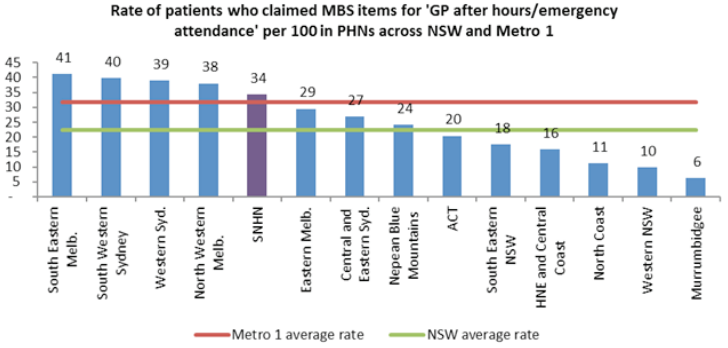
On average, a greater number of lower-urgency presentations occurred on weekends than on weekdays

See related content: 9.3 Age profile of patients attending ED; 9.8 After hours ED attendances: patient age and hospital

In 2014-15, the SNHN region had the highest concentration of 'GP after-hours/ emergency' service providers per 100,000 in NSW



Source: EY analysis of MBS data by PHN and MBS Item, for 2014-15



Source: EY analysis of MBS data by PHN and MBS Item, for 2014-15

WHY IS THIS IMPORTANT?

Comparing utilisation and provision of GP after-hours services in the SNHN region with PHNs across NSW and Metro 1 is important to understanding the relative level of service in the SNHN region. Very low or very high volumes of utilisation or service provision may indicate an area of opportunity for fur- ther analysis and targeted intervention.

HOW IS IT MEASURED?

This analysis was conducted using MBS da- ta, which captures data on MBS claims pro- cessed from 2012/13 to 2014/15. To deter- mine the rates per 100,000 people, popula- tion data was obtained from the Department of Health population summary for each PHN for the year 2014. Analysis of MBS data was limited to the period 2014-15, and limited to the MBS reporting group 'GP after hours/ emergency attendance' (MBS Group A11, A22, A23).

Note: Metro 1 PHNs are those that are most comparable to the SNHN region. These include: Central and Eastern Sydney, North Western Melbourne, Eastern Melbourne, South Eastern Melbourne, and ACT.

SYDNEY NORTH HEALTH NETWORK

In 2014-15, the SNHN region had the highest rate of registered 'GP after hours/emergency' service providers per 100,000 in NSW, and the second highest rate of providers in Metro 1. The average rate of providers across NSW and Metro 1 were similar (311 and 312 per 100,000 respectively).

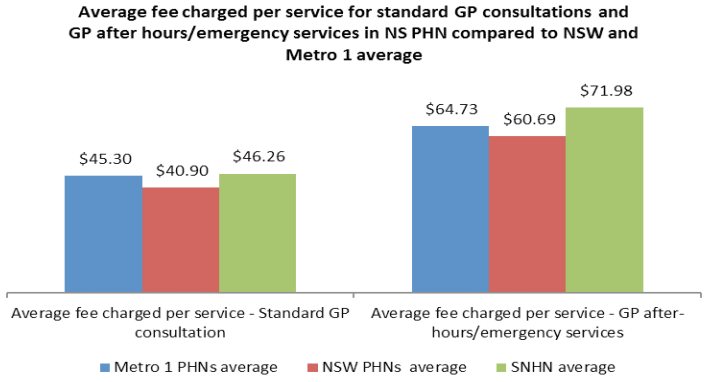
However, the number of patients who accessed at least one 'GP after hours/ emergency' service in 2014-15 per 100,000 people in the SNHN region was lower than some PHNs that had a lower rate of providers (e.g. the rate of providers was 18% higher in the SNHN region than in North Western Melbourne, however North Western Melbourne had an 11% greater rate of patients accessing the service). This may suggest that the number of providers in the SNHN region may be higher than required for the number of patients accessing GP after hours services, or patients may be experiencing a barrier to access (see 10.10).

The average number of services claimed per patient in the SNHN region was also lower than most PHNs in NSW and Metro 1.

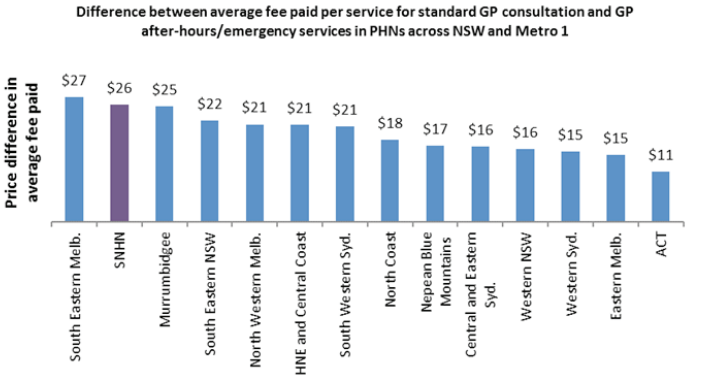
The SNHN region had a lower rate of patients who accessed GP after-hours services than other PHNs

See related content: 9.8 After hours ED attendances: patient age and hospital; 9.9 After hours ED attendances: time and triage category; 9.11 After-hours/emergency GP attendances: fees charged

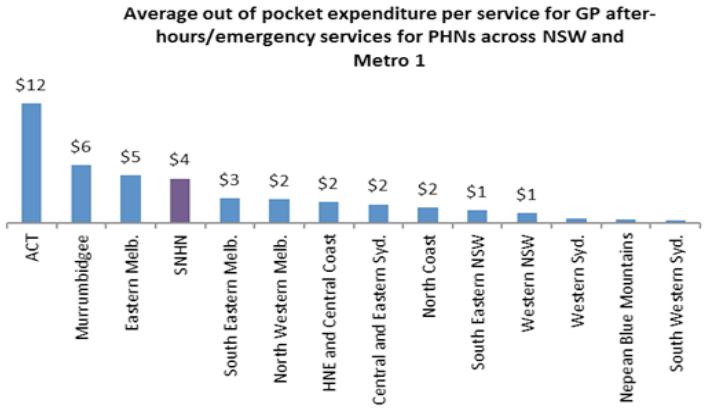
The SNHN region had the highest average fee per service for after- hours GP services compared to NSW and Metro 1 PHNs



Source: EY analysis of MBS data by PHN and MBS Item (2012/13—2014/15)



Source: EY analysis of MBS data by PHN and MBS Item (2012/13—2014/15)



Source: EY analysis of MBS data by PHN and MBS Item (2012/13—2014/15)

WHY IS THIS IMPORTANT?

The relatively high rate of GP after-hours providers in the SNHN region, but lower rates of patients accessing after hours GP services (see 9.10) may be indicative of a barrier to access. If fees charged by GP after hours providers in the SNHN region are too high, this may inhibit or discourage patients accessing after hours GP services.

HOW IS IT MEASURED?

This analysis was conducted using MBS data, which captured data on MBS claims processed from 2012/13 to 2014/15. Figure 3 out of pocket expenditure was calculated by deducting benefits paid from the fees charged for services delivered. Standard GP consultations were defined as MBS item number 23, while 'after hours/emergency' consultations were defined by the MBS reporting group 'GP after-hours/ emergency attendance' (MBS Group A11, A22, A23).

Note: Metro 1 PHNs are those that are most comparable to the SNHN region. These include: Central and Eastern Sydney, North Western Melbourne, Eastern Melbourne, South Eastern Melbourne, and ACT.

SYDNEY NORTH HEALTH NETWORK

For after hours GP services, the SNHN region had the highest average fee charged per service ($72), and the second highest for standard GP consultations ($46), across both NSW and Metro 1. It also had the second highest variance between the average fee charged per service for standard GP consultations and after hours GP consultations.

The average per service out of pocket cost incurred by patients was the second highest in the SNHN region across all PHNs in NSW, and fourth highest when compared to PHNs in both NSW and Metro 1. The per-service out-of-pocket cost of $4.47 in the SNHN region was over 50% higher than the average per service out of pocket cost across NSW and Metro 1 PHNs.

The relatively high cost of after-hours GP services in the SNHN region may result in lower utilisation of after hours GP services. This could be an opportunity for further assessment of the impact on after hours ED presentations.

The average per-service out-of-pocket cost incurred by patients was the sec- ond highest in the SNHN region across all PHNs in NSW

See related content: 9.8 After hours ED attendances: patient age and hospital; 9.9 After hours ED attendances: time and triage category; 9.10 After-hours and emergency GP attendances

CHAPTER 10

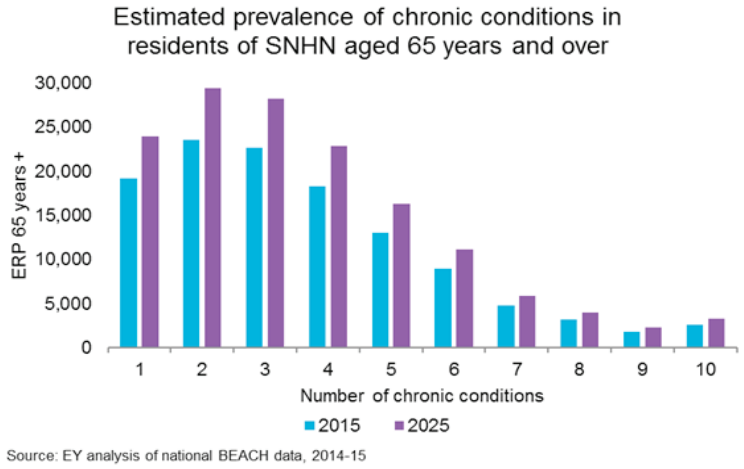
Health of the Elderly

HEALTH OF THE ELDERLY — KEY POINTS

At a glance: Elderly Australians are healthier than they have ever been. However with 90% of the population aged 65 and over having 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 'elderly' are used in different contexts. In this chapter we concentrate on those aged 75 and over, where 38% growth over the next 10 years is expected. Much of the growth will occur in Hornsby and Warringah.

10.2 **90% of the population aged 65 and over have at least one chronic condition (118,000 people), and 57% have three or more (75,000).** By 2025, there will be an additional 17,000 residents within the SNHN region with three or more chronic conditions.



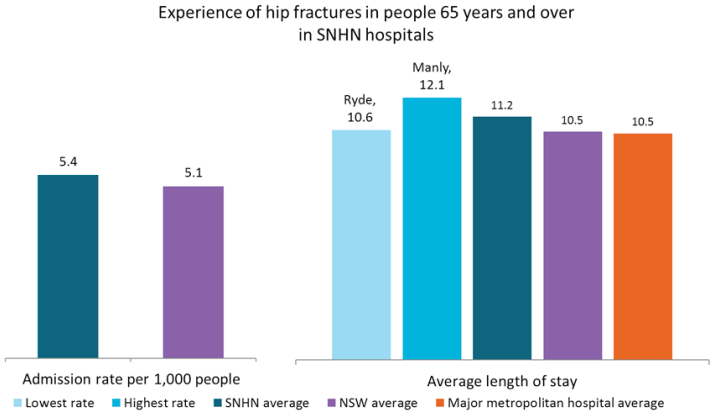
Source: EY analysis of national BEACH data, 2014-15

10.3 52,000 residents 75 and over (82%) did not receive a health assessment, of whom at least 41,000 are likely to have 2 or more chronic conditions.

10.4 People aged 75 years and over made up approximately 14% of total ED attendances in the SNHN region. While the SNHN region ED presentation rates are lower than NSW averages the high volumes potentially indicate primary care services effectively maintain a healthy population.

10.5 Across Australia, those aged 75 and over account for 21.7% of hospital separations and 31.0% of patient days, indicating the complexity of treating elderly 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.



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

10.7 An estimated 2.9% of residents within the SNHN region aged 65 and over have dementia.

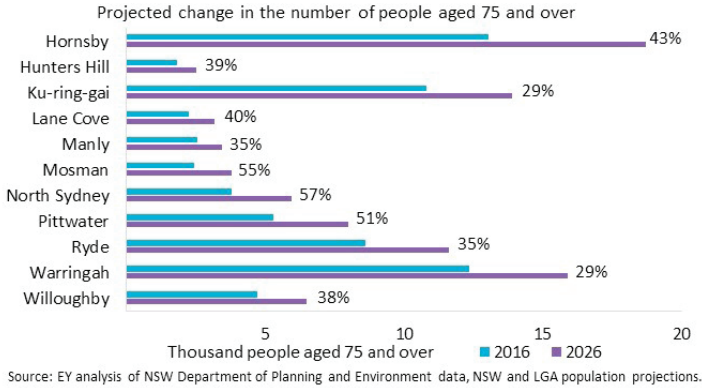
10.9 Residents of the SNHN region appear to have greater access to residential care and home care services when compared with the NSW average. The bulk of services provided are provided to women.

There will be an estimated additional 25,800 residents in he SNHN region aged 75 years and over by 2026, making up 9.1% of the total population

Population projections for residents 75 and over

LGA	2016		2026	
	no.	% pop.	no.	% pop.
SNHN	67,650	7.5%	93,450	9.1%
NSW	551,200	7.2%	795,400	9.1%
Hornsby	13,050	7.6%	18,700	9.8%
Hunters Hill	1,800	12.3%	2,500	15.1%
Ku-ring-gai	10,800	8.7%	13,900	9.7%
Lane Cove	2,250	6.4%	3,150	7.6%
Manly	2,550	5.7%	3,450	6.8%
Mosman	2,450	8.0%	3,800	11.3%
North Sydney	3,800	5.3%	5,950	7.3%
Pittwater	5,300	8.3%	8,000	11.0%
Ryde	8,600	7.3%	11,600	8.3%
Warringah	12,350	7.9%	15,900	9.2%
Willoughby	4,700	6.2%	6,500	7.5%

Source: EY analysis of NSW Department of Planning and Environment data.



Source: EY analysis of NSW Department of Planning and Environment data, NSW and LGA population projections.

Population changes for residents 75 and over, 2016-2026

LGA	% change	Av annual % change	Additional no.
SNHN	38%	3.7%	25,800
NSW	44%	4.2%	244,200
Hornsby	43%	4.1%	5,650
Hunters Hill	39%	3.7%	700
Ku-ring-gai	29%	2.8%	3,100
Lane Cove	40%	3.8%	900
Manly	35%	3.4%	900
Mosman	55%	5.0%	1,350
North Sydney	57%	5.1%	2,150
Pittwater	51%	4.7%	2,700
Ryde	35%	3.4%	3,000
Warringah	29%	2.8%	3,550
Willoughby	38%	3.7%	1,800

Source: EY analysis of NSW Department of Planning and Environment data.

WHY IS THIS IMPORTANT?

Population ageing 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 demand implications for both primary and secondary care.

HOW IS IT MEASURED?

The NSW Department of Environment and Planning provides population projections by LGA and five year age group. The projections for the population aged 75 and over have been analysed for the population of the SNHN region and for the total NSW population.

SYDNEY NORTH HEALTH NETWORK

In 2016, SNHN region had an estimated 67,650 residents aged 75 years and over. By 2026 this is projected to increase by more than a third to approximately 93,450. The rate of growth is slower than the State average although the proportion of the population aged 75 years and over will be similar to NSW levels at approximately 9.1%.

Within the SNHN region, North Sydney and Mosman LGAs are projecting the strongest growth in the number of people aged over 75 years between 2016 and 2026 at 57% and 55% respectively. Hornsby will make up 22% (5,650) of the population growth in the SNHN region for the 75 and over age group.

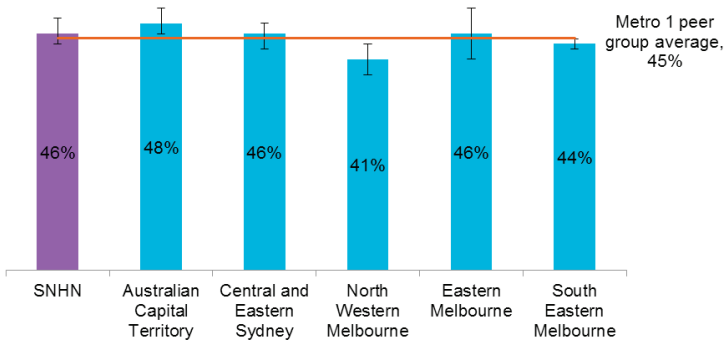
By 2026 Hunters Hill will have the highest proportion of residents aged 75 years and over at 15.1% of it's population. Manly will have the lowest proportion of residents aged 75 years and over at 6.8% of it's population.

Hornsby alone will make up 22% (5,650) of the population growth in the SNHN region for the 75 years and over age group between 2016 and 2026

See related content: 1.3 Age structure

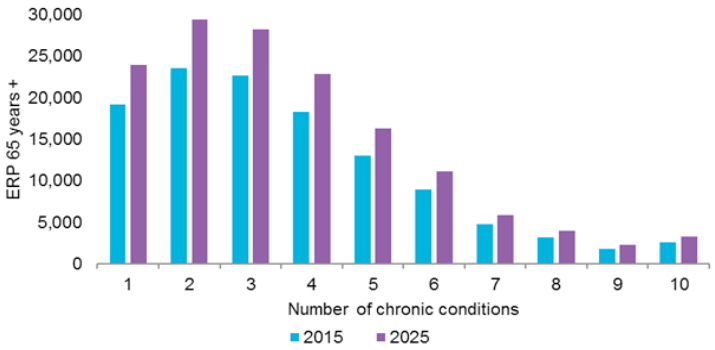
Nearly half of adults within the SNHN region have at least one chronic condition

Percentage of adults with a long term health condition



Source: EY analysis of Australian Bureau of Statistics (ABS) Patient Experience Survey 2013–14

Estimated prevalence of chronic conditions in residents of SNHN aged 65 years and over



Source: EY analysis of national BEACH data, 2014-15

Estimated prevalence of selected chronic conditions in the SNHN region for the population aged 75 and over

Diagnosis	Prevalence per 100 people	Number of people in 2015	Number of people in 2025	Number of additional patients
Muscoloskeletal	37	23510	30644	7134
Coronary Heart Disease	15	9599	12512	2913
Mental Health Condition	11	6897	8990	2093
Diabetes	11	6746	8793	2047
Asthma	7	4195	5468	1273
Dementia	5	3448	4495	1046
Stroke	5	3404	4437	1033
Renal impairment	5	2893	3771	878
Heart Failure	4	2845	3709	863

Source: EY analysis of PenCAT data from 24 practices in SNHN, February 2016.

WHY IS THIS IMPORTANT?

Ageing of the population places additional demands on health and other resources because increased age is associated with increased prevalence of diagnosed chronic conditions. As the number of conditions a person has increases, the complexity of their treatment also increases.

HOW IS IT MEASURED?

Data on the prevalence of chronic conditions is collected by the ABS through the patient experience survey, most recently conducted in 2013-14. NHPA has analysed this data according to PHN, including establishing peer groups based on socioeconomic status, remoteness and distance to hospitals.

PenCAT data from 24 practices in the SNHN region has been used to estimate the prevalence of selected chronic conditions in the population within the SNHN region aged 75 and over. The PenCAT prevalence has been applied to the total population within the SNHN region aged 75 and over in 2015 and 2025 to the estimate the likely total number of people with these diagnoses now, and into the future should prevalence rates be maintained.

SYDNEY NORTH HEALTH NETWORK

NHPA estimates that 46% of adults within the SNHN region have a chronic condition, similar to other Metro 1 PHNs. BEACH data shows general practice attendance is heavily skewed towards those with chronic disease - for those aged 65 years and over 90% have at least one chronic condition and 57% having three or more nationally.

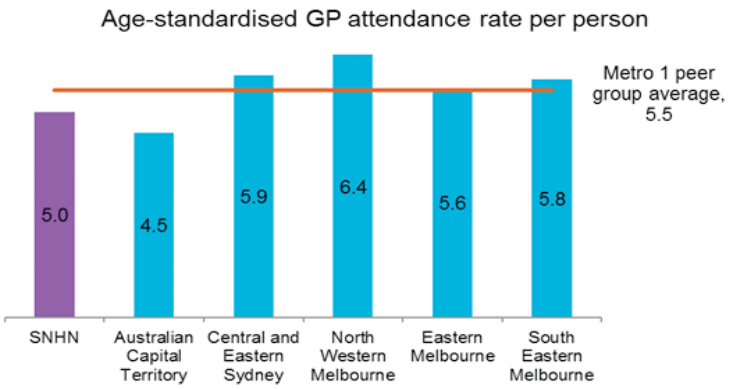
Extrapolating the PenCAT sample data from 24 practices in the SNHN region, the most common chronic conditions affecting the population aged 75 and over are musculoskeletal conditions, coronary heart disease, mental health and diabetes. To meet the future health needs of the population within the SNHN region, healthcare pathways, models and standards of treatment for these conditions should be considered. Self-management will become increasingly important.

Despite the chronic conditions two thirds of people aged 75+ rate their health as good, very good or excellent (AIHW *Australia's Health 2014*).

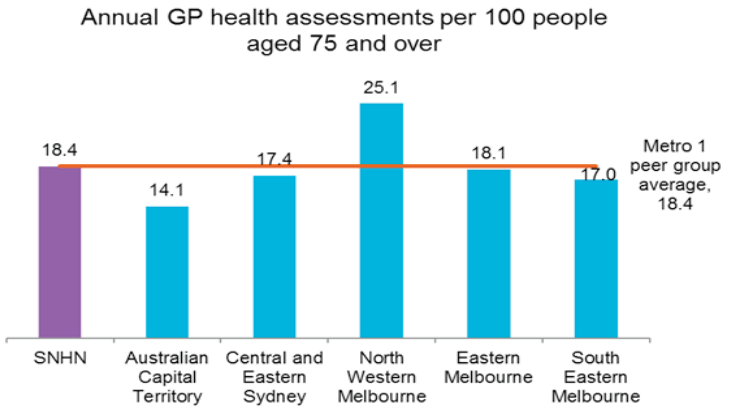
By 2025 there might be an additional 17,000 residents within the SNHN region with three or more chronic conditions

See related content: 4. Population Risk Factors, 5. Long Term Conditions

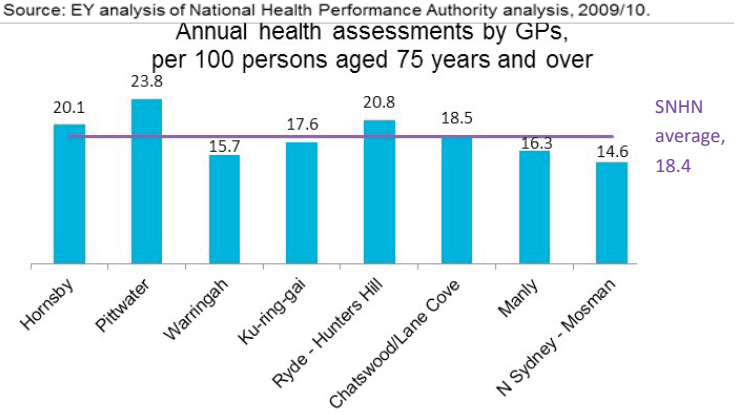
Almost 12,000 residents (18.4 out of 100) aged 75 and over received an annual health assessment from their GP



Source: EY analysis of National Health Performance Authority analysis by PHN, 2013-



Source: EY analysis of National Health Performance Authority analysis, 2009/10.



Source: EY analysis of PHIDU analysis, 2009/10 - release date November 2014

WHY IS THIS IMPORTANT?

As shown in 10.1 and 10.2, growth in the relative size of the elderly 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 meeting health needs.

HOW IS IT MEASURED?

NHPA publicly reports its analysis of general practice attendances, derived from the Medicare Benefits statistics 2013-14 and Australian Bureau of Statistics, Estimated Resident Population at 30 June 2013.

PHIDU publishes MBS services data such as annual GP health assessments by age group for PHNs and LGAs. The production of 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.

The age-standardised average annual GP attendance rate per persons for residents within the SNHN region is lower than the peer group average with five visits per person compared with an average 5.5.

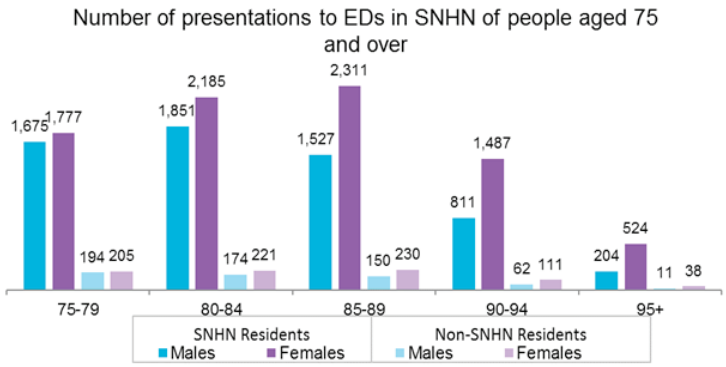
An estimated 12,000 residents aged 75 and over (18.4%) received an annual health assessment in the SNHN region in 2015. An estimated 83% of people aged 75+ have two or more chronic conditions (Britt et al 2008). This would imply that an estimated 41,000 residents within the SNHN region aged 75 of more with two or more chronic conditions remain without an annual health assessment.

Within the SNHN region, some variation exists in the rate of GP annual health assessments. Nine more residents of Pittwater in every 100 receive a GP annual health assessment compared with North Sydney - Mosman. Whether or not the MBS claim code is accurately reflecting care practices, more proactive care and patient self-management are desired.

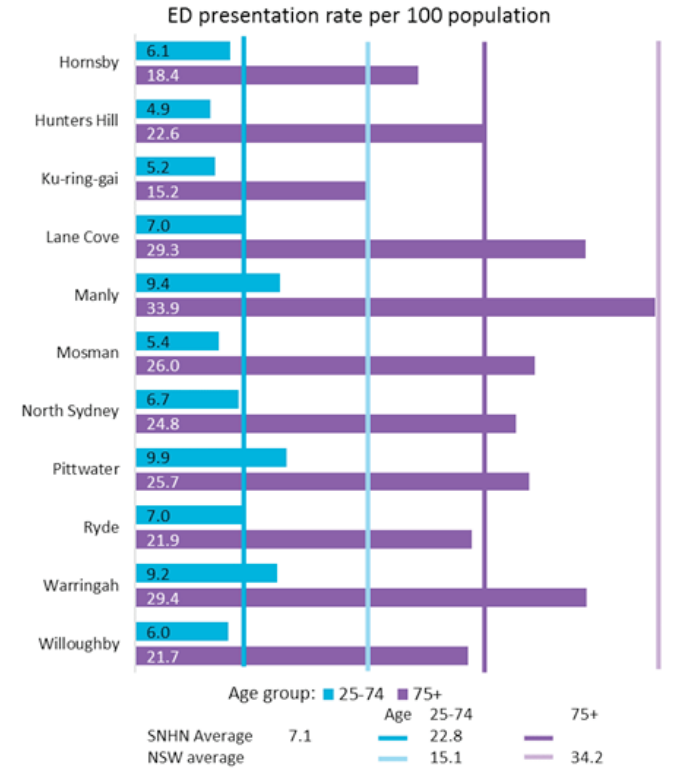
An estimated 41,000 residents 75 and over with two or more chronic conditions did not get an annual health assessment

See related content: 10.2 Multi-morbidity, 6 Primary Healthcare

People aged 75 and over made up 16% of ED presentations in the SNHN region but only 7.5% of the population



Source: EY analysis of NSLHD ED data, January - June 2014.



Source: EY analysis of SNHNED presentation data, January - June 2014, and AIHW Emergency department care 2014-2015, Health services series no 65, Table 3.1 .

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 elderly (75 and over) provides a marker for how well complex chronic diseases are being managed in the community.

HOW IS IT MEASURED?

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.

AHIW Table 3.1 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 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.

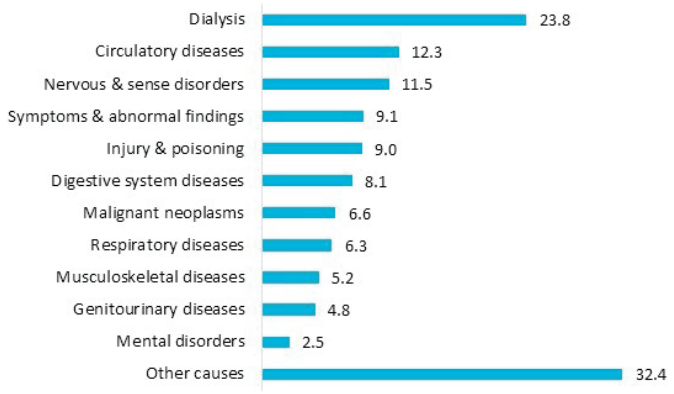
Within the SNHN region, Manly and Lane Cove had the highest ED attendance rates per 1,000 residents aged 75 years and over, while Ku-ring-gai LGA residents aged 75 and over have the lowest ED presentation rate. The equivalent of a third (34 attendances per 100 people) of the Manly population aged 75+ attend ED a year, compared with an average of 1 in 5 for all within the SNHN region (23%).

The average ED presentation rate per 1,000 for residents within the SNHN region aged 75 and over is 3.2 times greater than for the 25-74 year old cohort

See related content: 9. Urgent Care

In 2013/14, there were 131 hospitalisations for every 100 residents aged 75 and over in New South Wales

Main causes of hospitalisations for NSW residents aged 75 and over per 100 people, 2014-15



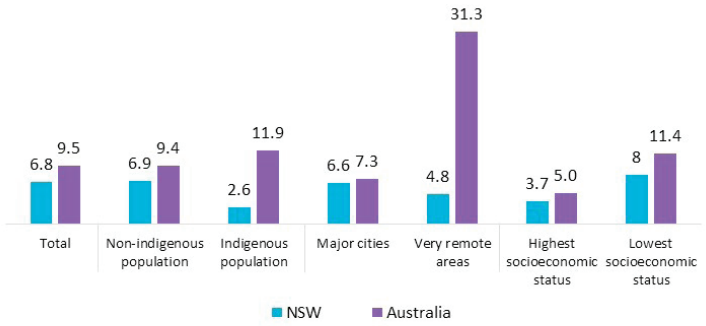
Source: EY analysis of NSW Combined Admitted Patient Epidemiology Data and ABS population estimates. Centre for Epidemiology and Evidence, NSW Ministry of Health.

Australia-wide hospital separations and patient days, 2013-14

		25-74		75+	
		Male	Female	Male	Female
Separations	No	2,946,788	3,430,458	1,061,227	1,043,489
	% of total	64.2%	67.1%	23.1%	20.4%
Patient days	No	7,757,450	8,417,211	3,903,022	4,734,193
	% of total	59.0%	57.1%	29.7%	32.1%

Source: EY analysis of Australian Institute of Health and Welfare 2015. Admitted patient care 2013–14: Australian hospital statistics. Health services series no. 60. Cat. no. HSE 156. Canberra: AIHW. Table 3.1

Hospital patient days per 1,000 patient days, used by those eligible and waiting for residential aged care, 2013–14



Source: Australian Institute of Health and Welfare 2015. Admitted patient care 2013–14: Australian hospital statistics. Health services series no. 60. Cat. no. HSE 156. Table 4.24

WHY IS THIS IMPORTANT?

Delivering more effective and efficient care means keeping patients healthy in their homes for longer. Where possible unnecessary hospitalisation should be avoided.

For the population aged 75 and over, this may require increased support of patients in their residents and increased support for GPs managing the treatment of these patients.

HOW IS IT MEASURED?

Information on hospitalisations have been collected and analysed by the NSW Ministry of Health. The causes have been allocated according to the principle diagnosis. Other causes include: other neoplasms; blood and immune diseases; infectious diseases; skin diseases; endocrine diseases; and maternal, neonatal and congenital disorders.

The analysis of separations and patient days includes both public and private hospitals across Australia.

SYDNEY NORTH HEALTH NETWORK

Across NSW, for the population aged 75 and over, there are 131 hospitalisations for every 100 residents. This indicates people in this age group are having multiple hospital admissions annually. The most common cause of hospitalisation is dialysis followed by circulatory diseases and nervous and sense disorders.

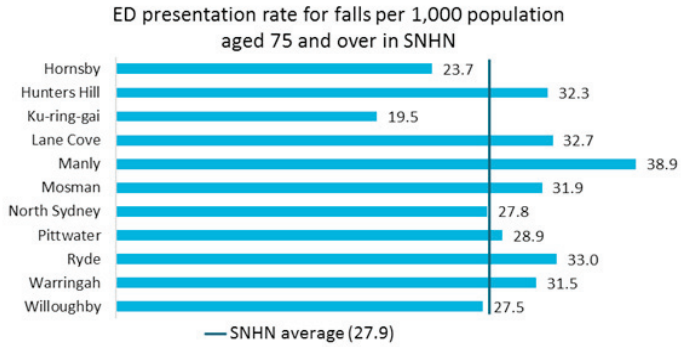
Across Australia, those aged 75 and over account for 22% of hospital separations, but these represent 31% of patient bed days. The longer length of stay is linked to the increased complexity of treating older patients.

The number of days used by patients eligible and waiting for residential aged care in 2013-14 was 6.8 per 1,000 in NSW and 9.5 in Australia. Based on the rates for major cities and for areas of high socioeconomic status, it is probable that the rate in the SNHN region will be lower than the NSW rate, indicating the level of residential aged care is not having a significant negative impact on hospital discharges.

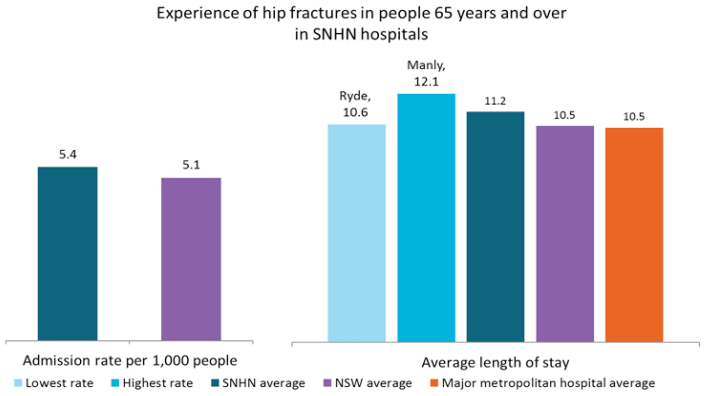
Across Australia, those aged 75 and over account for 22% of hospital separations and 31% of patient days

See related content: 5. Long Term Conditions, 7. Hospital care, 10.9 Aged care service use

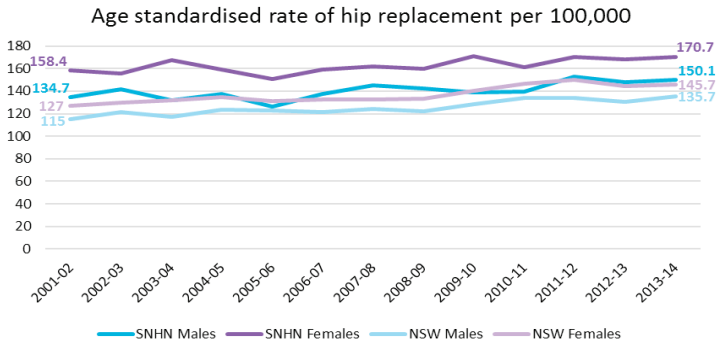
12 in every 100 presentations to ED for patients from the SNHN region aged 75 years and over is due to a fall



Source: EY analysis of Northern Sydney ED presentation data, January - June 2014.



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



Source: NSW Combined Admitted Patient Epidemiology Data and ABS population estimates (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

WHY IS THIS IMPORTANT?

Falls in the elderly population can have large impacts on their health. The injuries sustained from the 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 support after a fall.

HOW IS IT MEASURED?

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.

NHPA 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.

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.

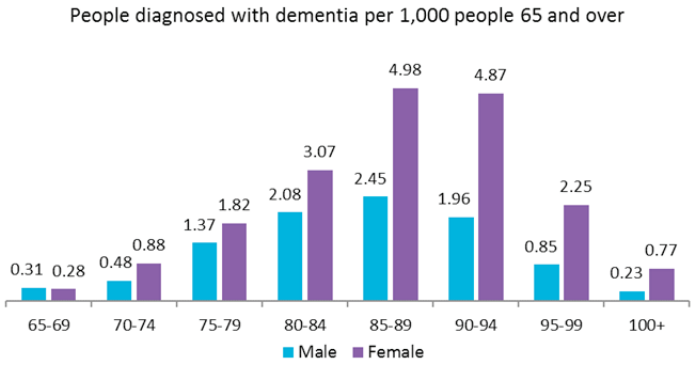
The admission rate for hip fractures is marginally higher in the SNHN region than the NSW average. The average length of stay in hospital for a hip fracture is also higher in the SNHN region than the NSW or Metro 1 average. The longest average length of stay of 12.1 days occurs for residents from Manly. There could be multiple reasons for the longer average length of stay including increased patient complexity and difficulty in securing an appropriate discharge location. The lower levels of transitional care provision (see 10.9 Aged care service use) may be contributing to this average length of stay.

Compared to NSW, the rate of hip replacements for residents within the SNHN region is higher for both males and females, and has been consistently so over the 2001-02 to 2013-14 period.

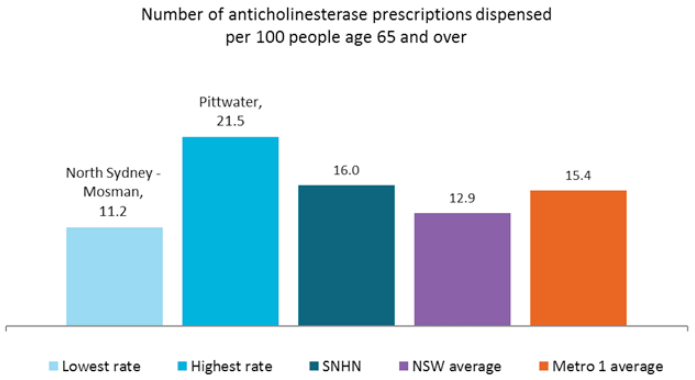
Patients in the SNHN region have longer average length of stays in hospitals for hip fracture admissions

See related content: 10.5 Hospitalisations for people aged 75 and over, 10.9 Aged care service use

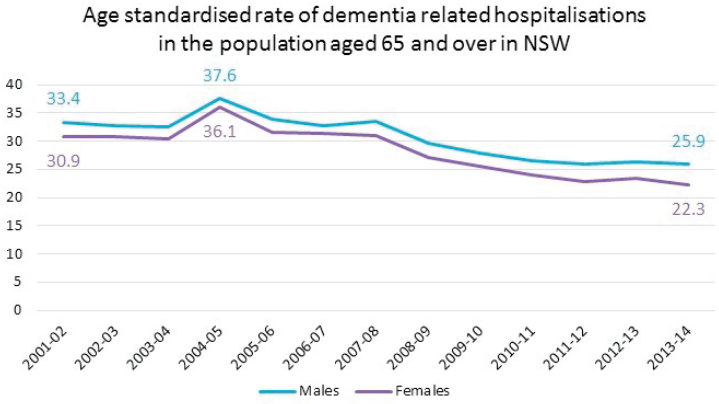
An estimated 5.3% of residents within the SNHN region aged 75 and over have dementia



Source: EY analysis of PenCAT data from 24 practices in SNHN, February 2016



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



Source: NSW Combined Admitted Patient Epidemiology Data and ABS population estimates (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

WHY IS THIS IMPORTANT?

One in ten people over 65 have dementia in Australia, rising to three in ten people over the age of 85. While being physically capable of looking after themselves, people with dementia require increasing support to maintain their independence and once residing in nursing care, require a high level of supervision.

HOW IS IT MEASURED?

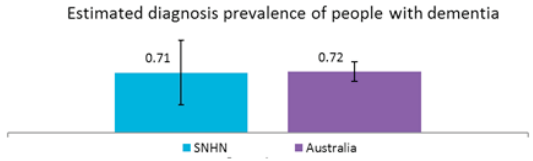
The prevalence of dementia in those aged 75 and over is estimated based on the PenCAT sample of 24 GP practices. There is a potential for double-counting of patients visiting multiple providers. BEACH data was used to compare estimated prevalence rates.

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.

Dementia-related hospitalisation trends (using both principal diagnosis and as a co-morbidity) were analysed by NSW Health for ages 65 and over.

SYDNEY NORTH HEALTH NETWORK

Based on PenCAT data an estimated 5.3% of residents within the SNHN region aged 75 and over have dementia, with rates increasing with age. The greatest impact is seen in the female population aged 85 and over.



Source: BEACH data, April 2011- March 2015.

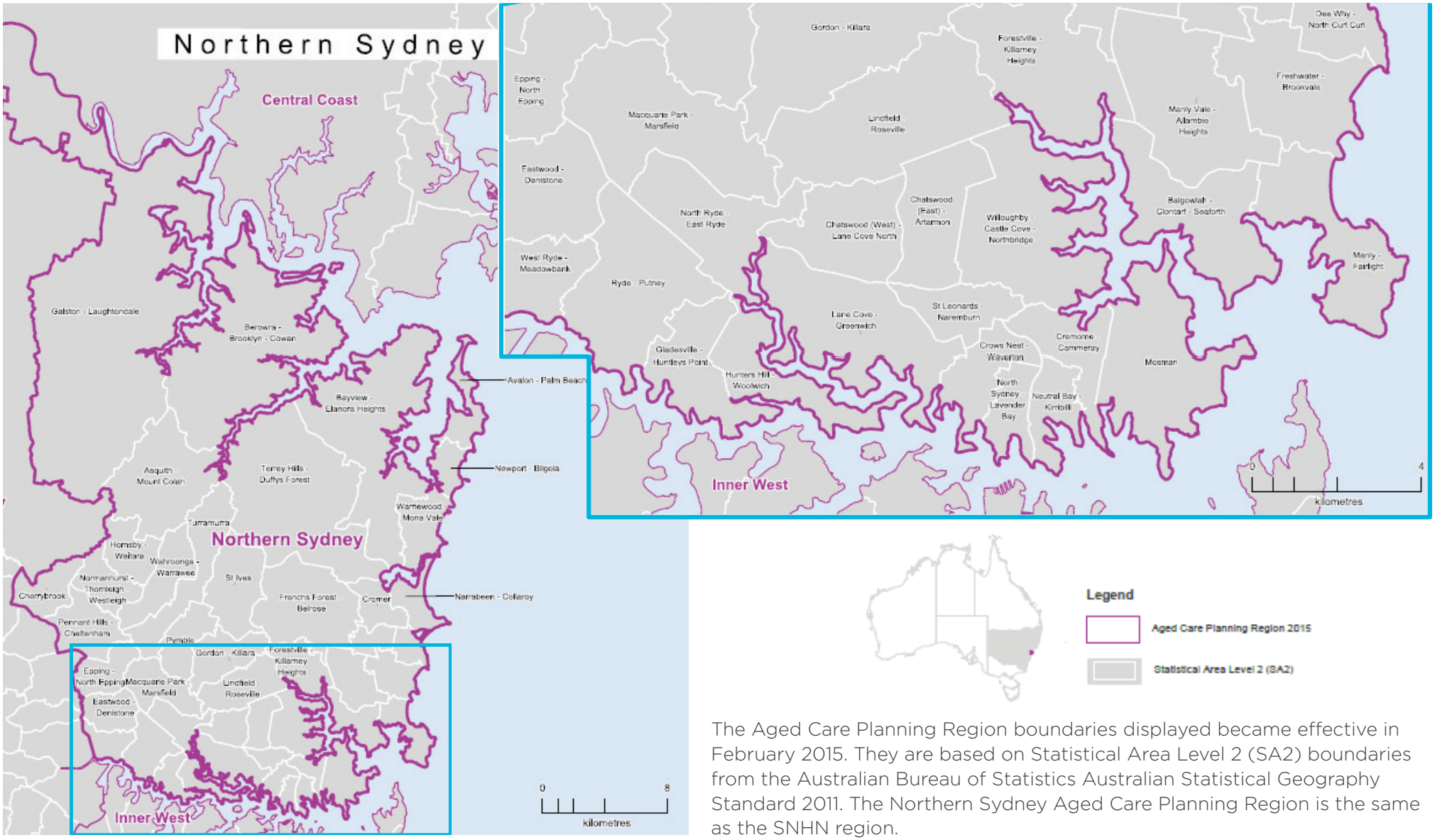
The diagnosis prevalence of dementia in the SNHN region is similar to that across Australia. The rates of anticholinesterase prescribing in the SNHN region are similar to the Metro 1 average and above the NSW average. Socioeconomic status may be a determinant of this variation in prescribing practice.

From 2001-02 to 2013-14 there has been a gradual decrease in the age-standardised rate of dementia related hospitalisations for people aged 65 and over. This may indicate that the management of people in the community is increasing. While this is encouraging, it should be remembered that the increasing number of people aged 65 and over will increase the absolute number of hospitalisations.

The aged standardised rate of people being hospitalised for dementia has been gradually decreasing from 2001-02 to 2013-14

See related content: 6. Primary Healthcare, 10.2 Multi-morbidity, 10.9 Aged care service use

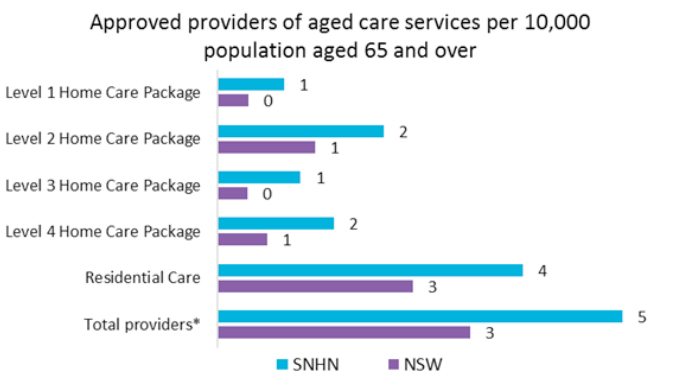
SA2s in SNHN Aged Care Planning Region



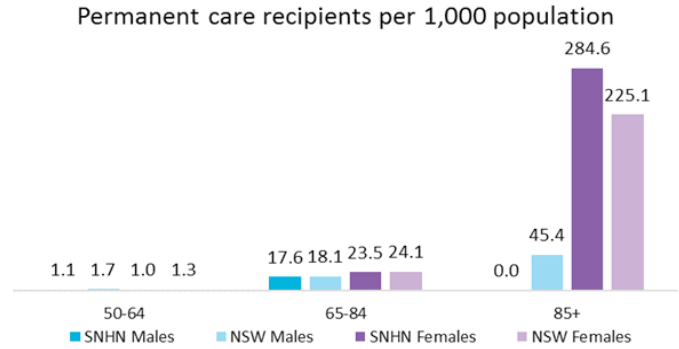
The Aged Care Planning Region boundaries displayed became effective in February 2015. They are based on Statistical Area Level 2 (SA2) boundaries from the Australian Bureau of Statistics Australian Statistical Geography Standard 2011. The Northern Sydney Aged Care Planning Region is the same as the SNHN region.

Source: Department of Social Services, 2015. https://www.dss.gov.au/our-responsibilities/ageing-and-aged-care/tools-and-resources/ageing-and-aged-care-research-and-statistics/aged-care-planning-region-maps/2015-aged-care-planning-regions-new-south-wales

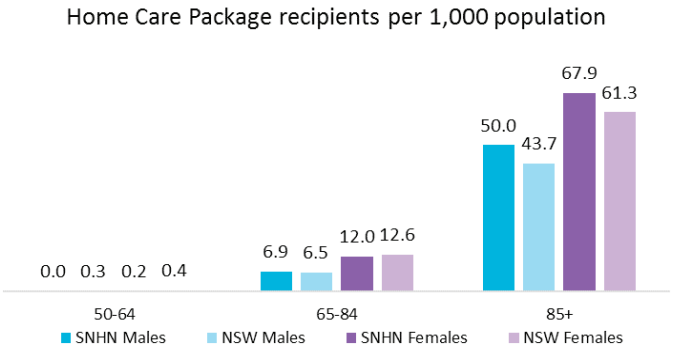
Residents in the SNHN region appear to have greater access to residential care and home care services when compared with the NSW average



Source: EY analysis of Aged Care Programme data, 30 June 2015.
*Total providers also includes providers of Innovative Pool, Multi-Purpose Service, National Aboriginal and Torres Strait Islander Aged Care, and Transition Care services noting, some provides will provide multiple types of services.



Source: EY analysis of Aged Care Programmes data, 30 June 2015.



Source: EY analysis of Aged Care Programmes data, 30 June 2015.

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.

HOW IS IT MEASURED?

Aged care providers delivering subsidised services report to the federal government on the services they provide. This captures information on government funded or subsidised services, but does not include information on services provided by the private sector.

For the different age groups displayed, rates have been approximated by dividing the number of recipients or services by the size of the population in that age and gender group according to the ERP in 2013.

This analysis does not consider the informal care and support provided by family members, friends and volunteers.

SYDNEY NORTH HEALTH NETWORK

There are 11,563 operational aged care places in the SNHN region as at 30 June 2015. This includes 108 Transitional Care places. There are no dedicated Aboriginal and Torres Islander Aged Care facilities, representing a potential area for further investigation.

The bulk of government subsidised aged care services provided in the SNHN region are residential care services and home care packages. The rate of permanent care provision is slightly lower in the SNHN region than across NSW (excluding females aged over 85). However, this is likely to be being bolstered by services provided through the private (non-subsidised) market.

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.

The bulk of aged care services provided are provided to women

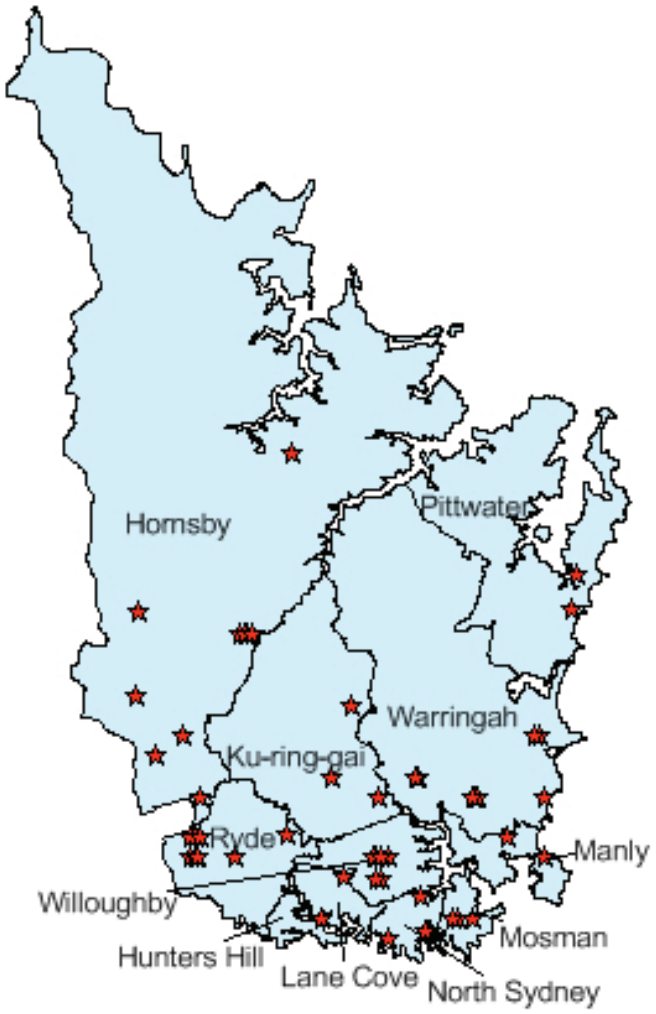
See related content: 1. Demography, 10.1 Patient demographics, 10.2 Multi-morbidity, 10.7 Dementia

CHAPTER 11

Service Mapping

11.1 AFTER HOURS SERVICE MAPPING

GENERAL PRACTICES WITH EXTENDED OPENING HOURS



SERVICE MAPPING

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 need.

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 a 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 169 general practices providing after hours services, with 149 of these practices providing after hours through a Medical Deputising Service and the remaining 20 practices providing after hours care from within their practice.

Hornsby and Ryde LGAs have the highest number of after hours services, 32 and 28 respectively. The majority of LGAs provide their after hours services through a Medial 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.

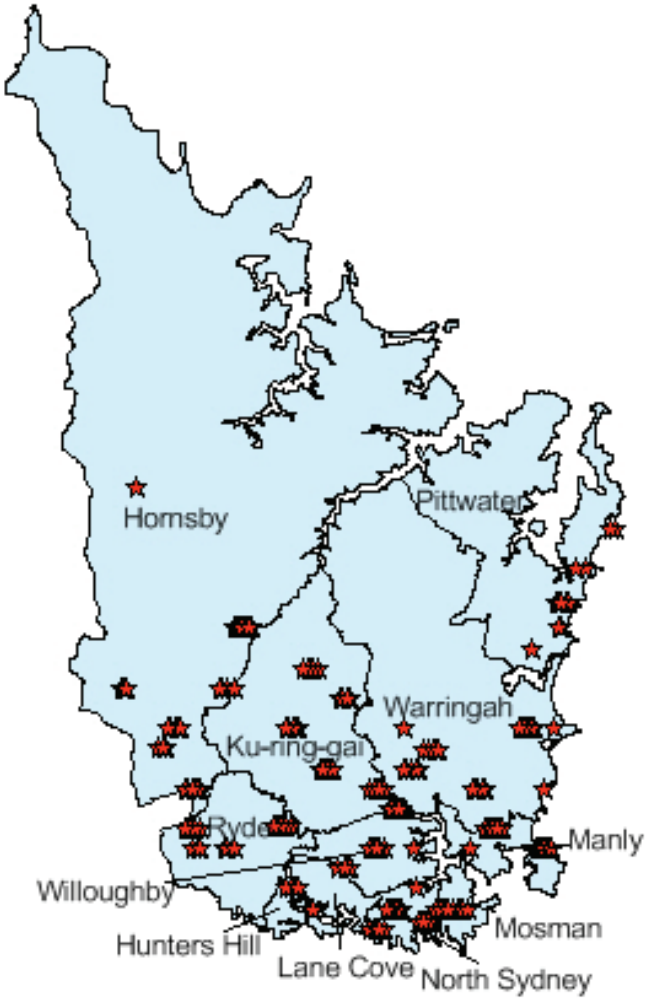
General practices with extended opening hours followed a similar pattern, with the highest numbers seen in Hornsby (13) and Ryde (10) and the lowest numbers in Hunters Hill (1) and Lane Cove (1).

For 2014/15, the SNHN region had the highest rate of general practice after hours/ emergency providers per 100,000 in NSW (see Chapter 9). Despite this, the SNHN region had a lower rate of patients who accessed general practice after-hours services compared to other PHNs.

Further investigation is required to map the range of after hour services in the region, and to determine if these services are accessible to the entire population.

11.2 MENTAL HEALTH/DRUG AND ALCOHOL SERVICE MAPPING

MENTAL HEALTH SERVICES



MENTAL HEALTH

Service mapping indicates a total of 374 mental health services within the SNHN region. Service information was available for 213 mental health services. The majority of services where information is unavailable relate to independent psychologists.

Mapping by LGA, Hornsby has the largest number of mental health services (64), followed by Warringah (56), Ku-ring-gai (45), and North Sydney (43). The remaining LGAs ranged from 8 to 37 in number of mental health services, with the lowest number in Hunters Hill and Mosman.

Youth mental health has been identified as a health need within the region. Providing specific services to this group is essential in addressing mental health needs within the region.

Where information is available, 80 mental health services are provided to children, youth and adults in the region, with eight services aimed specifically at children and young people.

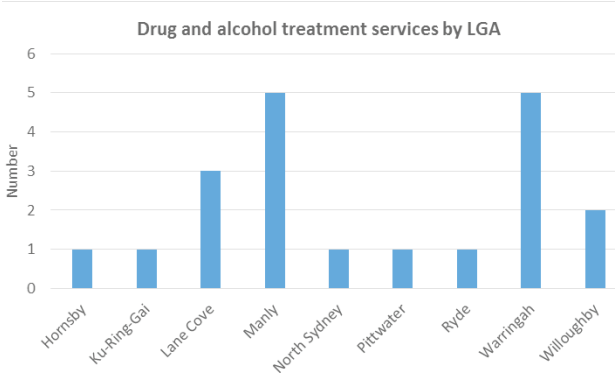
Mapping mental health services available to children and young people by LGA, Hornsby and Ku-ring-gai had the largest number of services (15), followed by Warringah (13). The remaining LGAs ranged from two to eight services, with the lowest number in Mosman.

Initial service mapping indicates a large number of mental health services available within the region. Further investigation is required to determine if these services match the needs of the entire population.

DRUG AND ALCOHOL

Service mapping indicates a total of 21 drug and alcohol services within the SNHN region. Both the Manly and Warringah LGAs have the highest number (5) of drug and alcohol services. Magistrates Early Referral Into Treatment (MERIT) was not assigned to an LGA.

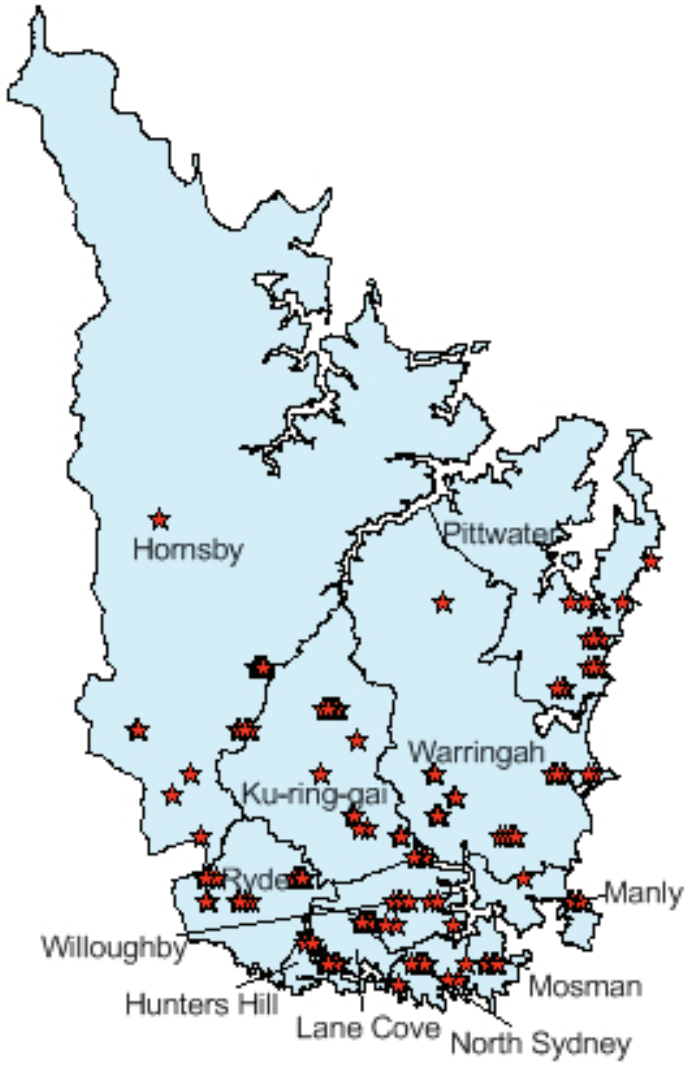
No drug and alcohol services were identified for Hunters Hill and Mosman. This is an area for further investigation, as Mosman, Manly and Lane Cove LGAs have a higher rate of alcohol attributable hospitalisations (see Chapter 4) compared to NSW. Drug and alcohol services catering to young adults are provided in Lane Cove, Manly, Warringah and Willoughby.



Drug and alcohol services appear to be unequally distributed across the region. Additional investigation is required to understand if existing services can meet the needs of the entire population.

11.3 AGED CARE SERVICE MAPPING

AGED CARE SERVICES

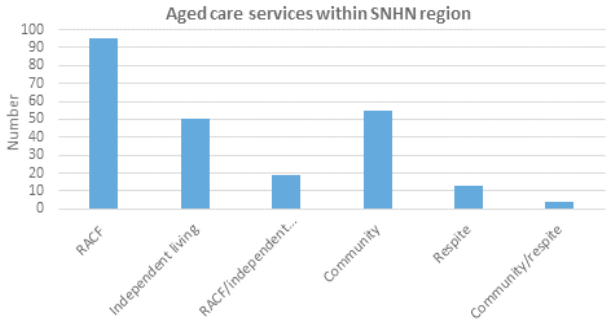


AGED CARE SERVICES

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.

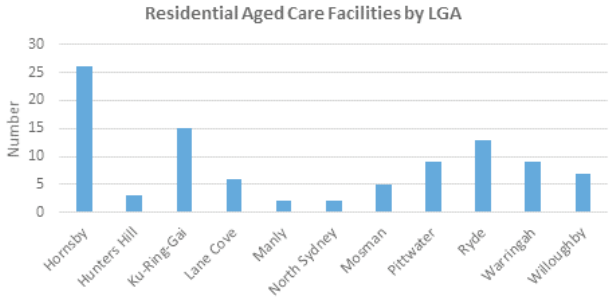
Preliminary service mapping indicates a total of 238 aged care services within the SNHN region. Aged care services are categorised as Residential Aged Care Facility (RACF), independent living, community care and respite services.

RACFs have been defined as providing both high and low care, including nursing homes. Independent living includes retirement villages, retirement homes and serviced apartments. Community care services can include meals on wheels, support groups, linen, information and referrals. Respite has been defined as short and long term respite, including day centres.



RACFs provide the largest amount of services to the elderly population, with a total of 116 RACFs within the region, 19 of which also provide independent living.

When mapped by LGA, Hornsby has the largest number of RACFs (28) and Manly and North Sydney has the lowest number of RACFs (2).



A total of 69 independent living services are provided within the SNHN region, including those supplied with RACFs. A total of 59 community services and 17 respite services are provided within the SNHN region, four of which provide community and respite services.

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.

INDIVIDUAL STAKEHOLDERS CONSULTED

NAME	POSITION
Susan Kurrle	Curran Professor in Health Care of Older People
Kim Field	Director Primary and Community Care, NS LHD
David Miles	Manager Health Services Planning, NS LHD
Brenda Scully	Senior Health Services Planner, NS LHD
Andrea Taylor	Director of Mental Health, Drugs and Alcohol
Philip Stone	Youth services coordinator
Deborah Clark	Primary care advancement coordinator
Marie Carey	Primary care advancement and integration manager

REPRESENTATIVE GROUPS CONSULTED

- SNHN Board
- SNHN Clinical Council
- SNHN Community Council

KEY THEMES AND ISSUES FROM STAKEHOLDER CONSULTATIONS

MENTAL HEALTH

- The SNHN region has a high prevalence of eating disorders with the majority of care being provided in the private sector. There is a position within the LHD that coordinates and directs people to appropriate services. Development work is needed within the primary care sector to support early detection and intervention for eating disorders.
- 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.
- There needs to be adequate capacity across each level of mental health care provision.
- Alcohol, ice and other drug use are growing in the area. In the Northern Sydney LHD, the trend is 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.
- Medication education is especially important for the elderly and patients being treated for mental health diagnoses.
- Key areas of opportunity for health gains include: homelessness, drug and alcohol, 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.
- 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.
- Changes to mental health funding is causing uncertainty and concern amongst service providers and service users in the region. People are unsure of the impact that the rollout of the NDIS will have on the local service system.

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-focussed 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 COMMENTS ON HEALTH AND HEALTH CARE

- 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.
- The SNHN region has a high proportion of health services relative to its population. There is potential for over-treatment in the SNHN region, and supply-driven utilisation of services.
- There is opportunity to improve women's health, particularly maternity services. This may include the increased involvement of GPs.
- A lot of palliative care work is done by GPs and nurses, not the specialist units. An area currently being explored is palliative care for cardiac failure and respiratory problems.
- There was a review conducted of palliative care services, but there was insufficient focus on primary care. Since referral to palliative care requires a GP, it would be beneficial to look at the primary care/GP level for palliative care.
- 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'?
- The services provided to and required by homeless people is an area for further investigation.
- There is need for increased integration of primary care and tertiary care. Greater use of electronic health records may offer a solution.
- Health promotion is an area for improvement. LHDs are no longer expected to have a health promotion plan that covers everything. Victoria has a good model, where community health sites have a health promotion trust, and decisions are made collaboratively. Currently, community Drug and Alcohol teams do most of the health promotion work.
- Two key priorities for social impact investment are mental health and chronic disease.
- There may be an opportunity to provide less services in outpatients clinics through improved communication and increased patient transitioning to community care.
- There may be a need to review the Hepatitis B immunisation strategy.
- There are great opportunities for the PHN and LHD to work in partnership on local programs and initiatives. The PHN and LHD should ensure that future planning processes are as collaborative and coordinated as possible.

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 SNHN, sample of 205 general practitioners (20,500 encounters), 2011-15.
- **Comparator areas (Metro 1)** - PHNs that are most comparable to the SNHN 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 2011 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 2011–13 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 (PenCAT)** - 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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