phn
NORTHERN SYDNEY
An Australian Government Initiative

SYDNEY NORTH
Primary Health Network

NEEDS ASSESSMENT
2016/2017

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Introduction

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

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

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

The SNPHN 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, SNPHN 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 SNPHN will achieve this through the organisation's strategic objectives of:

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

This SNPHN 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 SNPHN 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 SNPHN and the community.

The SNPHN Needs Assessment developed a thorough general population health profile for the region, covering 75 separate areas to give a sound snap-shot of the region. Specific detailed investigation into Mental Health, Urgent Care and Health of 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 SNPHN Clinical and Community Councils for this round of activity.

The SNPHN Need Assessment builds upon and compliments findings of the initial Baseline Needs Assessment (BNA) submitted to the Department of Health in March 2016, and reflects the iterative process of the commissioning and planning cycle of SNPHN.

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):

Demography

- The SNPHN population aged 65+ years is projected to increase by 43% between 2016 and 2031 (1.1).
- Compared to NSW, a larger proportion of the SNPHN population is born in countries culturally and linguistically diverse (CALD) from Australia (1.2).
- Over 3,100 people in the SNPHN region identify as Aboriginal and/or Torres Strait Islander, however, the population appears to be significantly under-reported (1.4).

Population Health Drivers

- The SNPHN 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 SNPHN region is low compared to NSW, however, this still amounts to approximately 12,300 children in the region (2.4).

Population Health Outcomes

- The average life expectancy in the SNPHN 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).

Population Risk Factors

- The SNPHN 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 SNPHN region has a higher rate of alcohol attributable hospitalisations compared to NSW, particularly in Manly, Mosman and Lane Cove LGAs (4.2).

Long Term Conditions

- Within the SNPHN region, 40% of the population has one or more chronic conditions (5.1).

Primary Healthcare

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

Hospitalisations

- Cellulitis, kidney and urinary tract infections, and dental conditions make up 40% of potentially preventable hospitalisations in the SNPHN region (7.2).

Mental Health

- Within the SNPHN region, 12% of people report having a long-term mental health condition (8.1).
- Intentional self-harm is the leading cause of death in young people aged 15-24 years in NSW (8.12).
- 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 SNPHN region (8.11).
- High rates of self-harm among humanitarian entrants, socio-economically disadvantaged people, males aged 75+ years and lesbian, gay, bisexual, transgender and intersex (LGBTI) people (8.15).

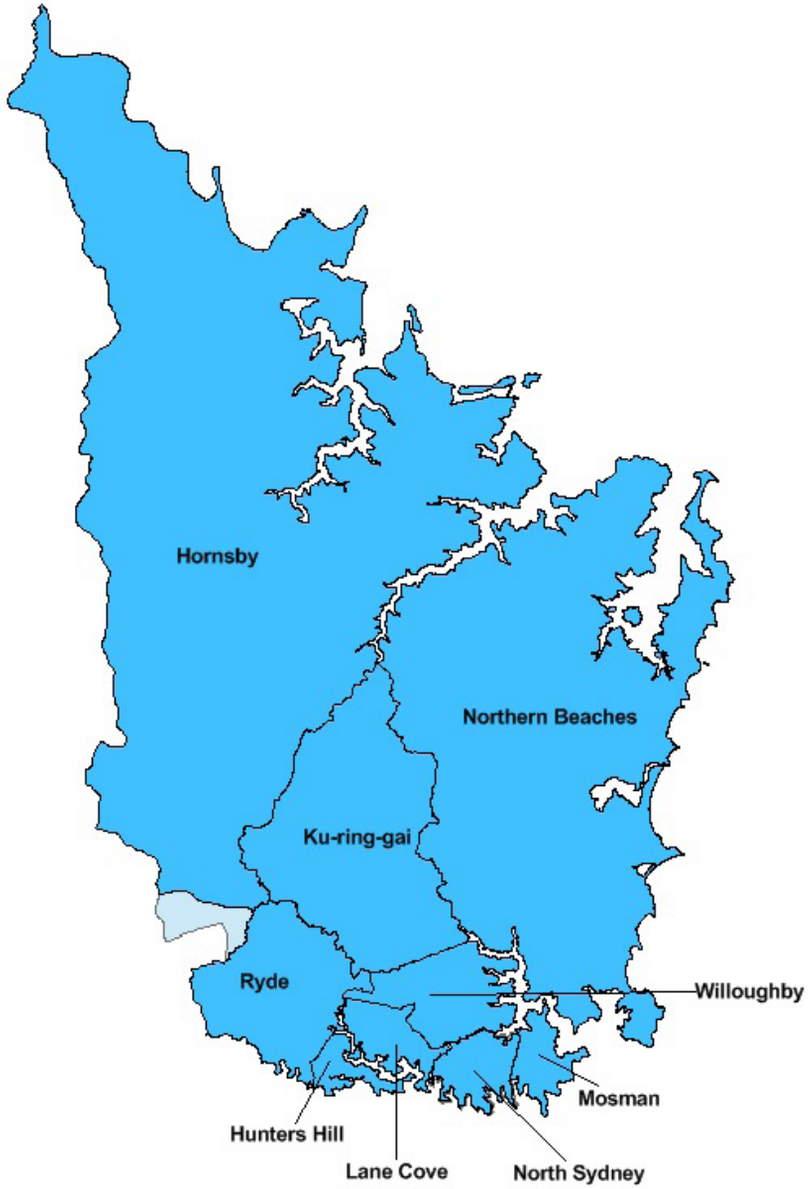
Urgent Care

- Within the SNPHN 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 SNPHN region (9.3).
- A third of all Aboriginal people attending emergency departments in the SNPHN region came from LGAs outside the SNPHN region; twice the rate of the non- Indigenous population (9.7).
- The SNPHN 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).

Health of the Elderly

- An estimated 80% of SNPHN 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 SNPHN residents aged 75+ years, 12 in every 100 presentations to an emergency department is due to a fall (10.6).

Sydney North Primary Health Network Region



ABS Estimated Resident Population, 2015

LGA	POPULATION
Hornsby	170,563
Hunters Hill	14,741
Ku-ring-gai	12,2859
Lane Cove	35,959
Manly	45,365
Mosman	30,496
North Sydney	72,618
Pittwater	64,189
Ryde	117,171
Warringah	156,693
Willoughby	76,354
SNPHN	**907,008**

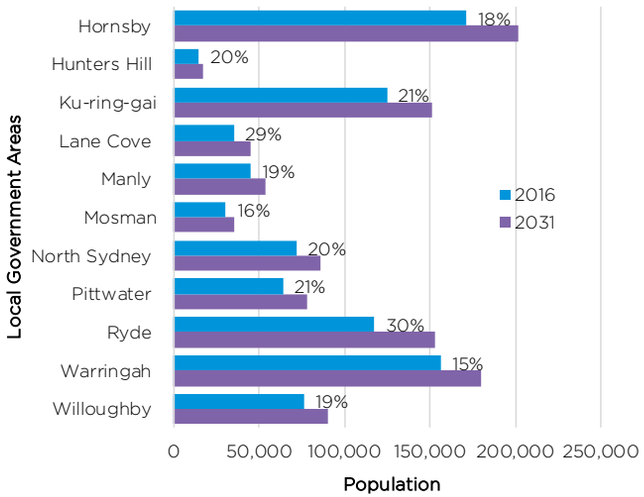
Note: In May 2016, the NSW Government announced the formation of new Local Government Area (LGA) boundaries within the SNPHN region. The map presented includes the latest 2016 LGA boundaries, with 12.5% of Hornsby LGA now merged with Parramatta LGA, whilst remaining within the SNPHN boundary. Manly, Pittwater and Warringah LGAs are now merged to form the Northern Beaches Council. The following document presents data by 2011 LGA boundaries due to availability of data.

CHAPTER 1

Demography

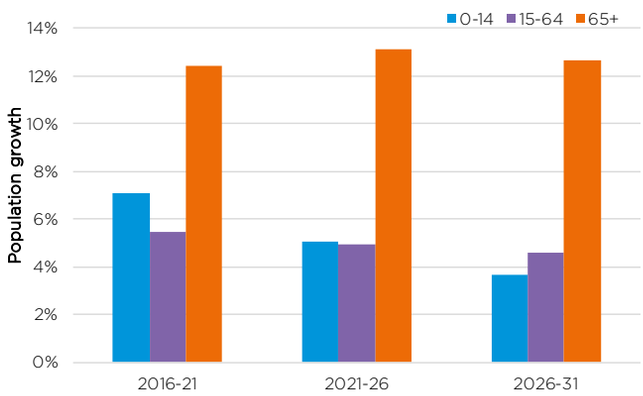
Growth in the population aged 65+ years will fuel healthcare demand

Projected change in population by LGA, 2016 to 2031



Source: NSW Department of Planning and Environment 2014

Population growth by age group, 2016-2031



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 PRIMARY HEALTH NETWORK

The SNPHN region has a total ERP of 907,008 (2015). The SNPHN 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 SNPHN 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 years.

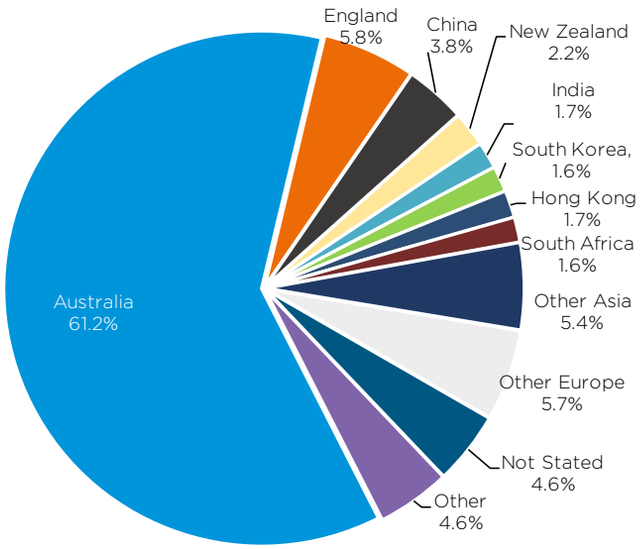
The population over 65 years is projected to surpass the population 0-14 years for the first time in 2031. Aged care will become an increasing priority for the SNPHN region.

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

See related content: 10.6 Falls, 10.7 Dementia

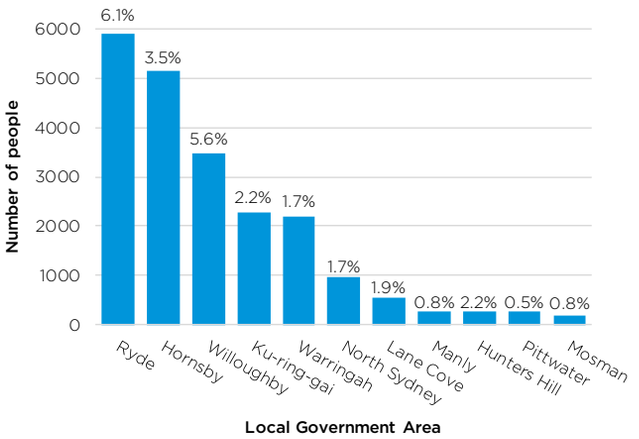
Compared to NSW, a larger proportion of the SNPHN population is born in countries culturally and linguistically different from Australia

SNPHN population by country of birth, 2011



Source: Census of Population and Housing, 2011

SNPHN residents born overseas who do not speak English or do not speak English well, by LGA, 2011



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 SNPHN population from CALD backgrounds is not expected to have changed significantly since 2011.

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

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

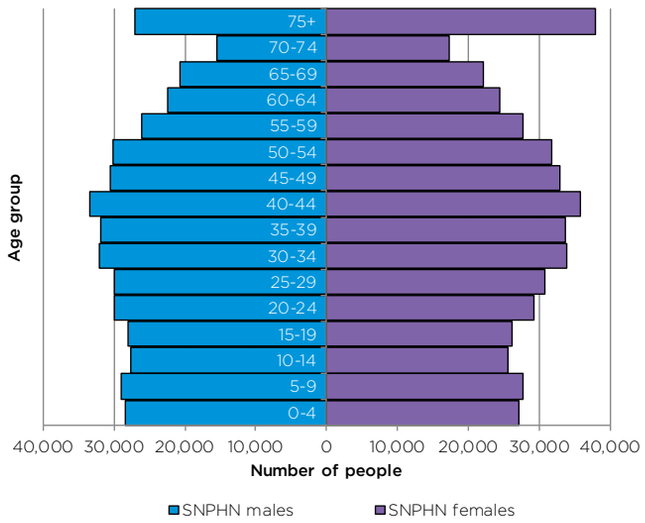
In 2011, 2.8% of the SNPHN population born overseas reported that they did not speak English, or did not speak English well; a similar proportion to Australia (2.6%). This equates to more than 20,000 people in the SNPHN region who do not speak English well.

The largest number and highest proportion of people in the SNPHN 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 SNPHN region (23.7%) speak a language other than English at home with Mandarin, Cantonese, Korean, Italian and Japanese being the most commonly spoken languages. A growing population of Tibetan refugees with complex health needs were identified within the SNPHN 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

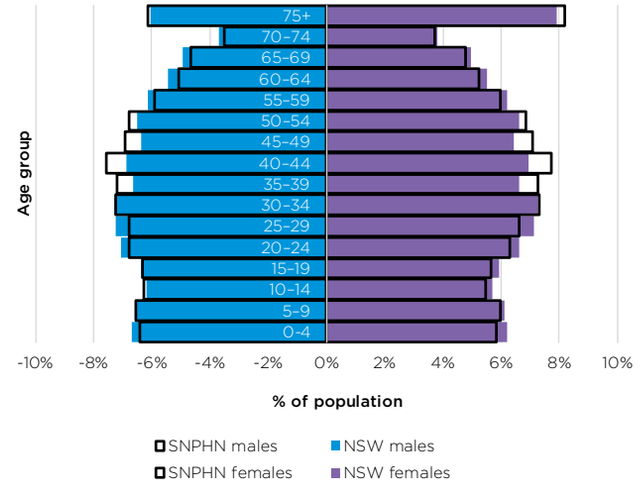
The SNPHN population has a similar age profile to the NSW population

Estimated Resident Population of SNPHN region by sex, 2015



Source: ABS, 2016

Age structure comparison by sex for SNPHN and NSW, 2015



Source: ABS, 2016

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 2015, 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 PRIMARY HEALTH NETWORK

There is a fairly equal proportion of males (48.8%) and females (51.2%) within the SNPHN 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, 58.4% are female.

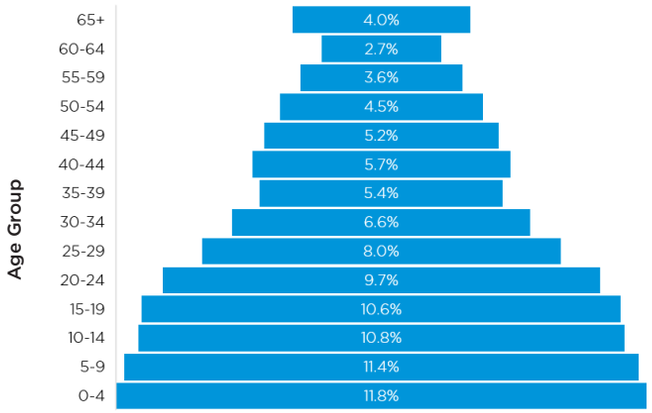
Compared to NSW, the SNPHN region has a smaller proportion of the population under 29 years (38.9% and 37.4% respectively). This applies in each age group and cumulatively but is most significant in the 0 to 4, 20 to 24 and 25 to 29 year age groups. Conversely, the SNPHN region has a larger proportion of the population aged between 35 and 54 years (21.9%) compared to NSW (19.9%).

Overall SNPHN and NSW have a similar age structure for persons over the age of 54 years, although there are more females over 75 years in the SNPHN region compared to NSW.

See related content: 3.1 Mortality and life expectancy

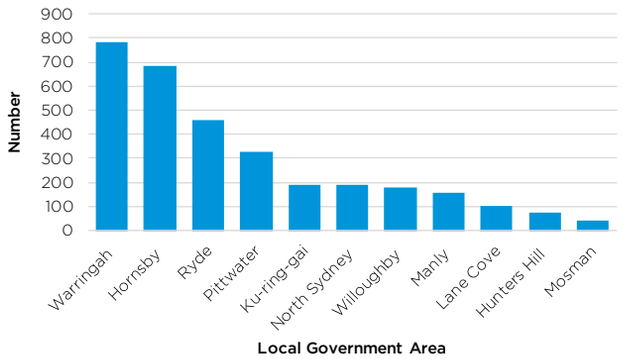
Over 3,100 people in the SNPHN region identify as Aboriginal and/or Torres Strait Islander

Aboriginal population of Australia by age group, 2015



Source: PHIDU, 2016

SNPHN Aboriginal population by LGA, 2015



Source: PHIDU, 2016

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 170,000 Aboriginal and/or Torres Strait Islander people were identified as living in NSW in the 2011 Census, indicating a substantial population at risk of poor health outcomes. Understanding the age and geographic distribution of the Aboriginal population is important for ensuring adequate and appropriate healthcare services and to inform the delivery of training and education to healthcare providers to ensure culturally safe healthcare services are available to all Aboriginal people in the SNPHN region.

Only a small number of people in the SNPHN 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 SNPHN 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. Based on the 2011 Census data, Population Health Information Development Unit (PHIDU) provides population estimates for 2015 at PHN and LGA level. 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 SNPHN region.

SYDNEY NORTH PRIMARY HEALTH NETWORK

Within the SNPHN region, 3,128 people identify as Aboriginal representing 0.4% of the total population. Together with those Aboriginal people not currently identified, this is a large number of people living in the SNPHN region at risk of poor health outcomes and low life expectancy.

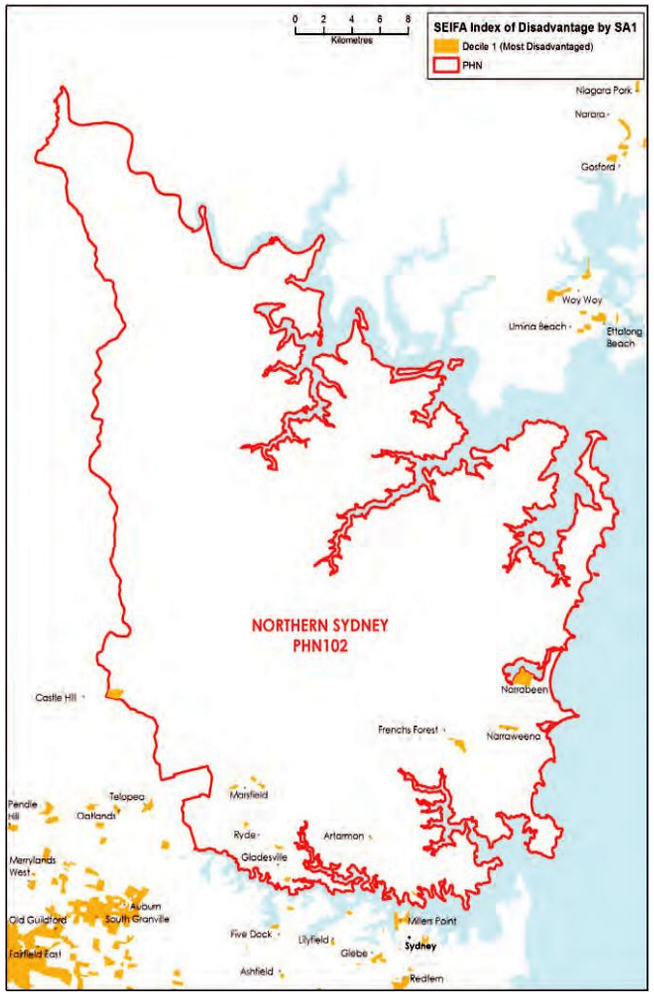
While the proportion of people in the SNPHN region identifying as Aboriginal is substantially lower than Australia (3.1%) and NSW (2.5%) as a whole, the poorer health outcomes and lower life expectancy of Aboriginal people necessitates targeted and culturally safe services, and dedicated efforts to achieve 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 SNPHN region overall



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 PRIMARY HEALTH NETWORK

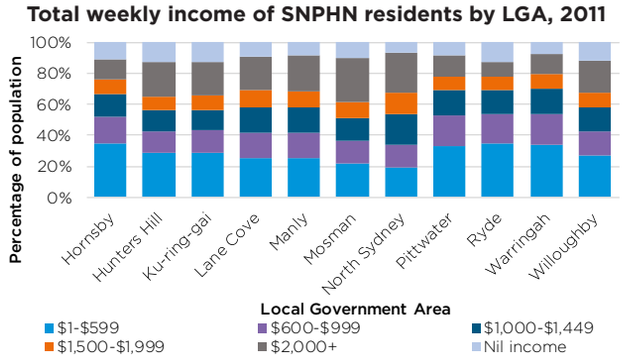
SNPHN is ranked the least socio-economically disadvantaged PHN in Australia. Ryde is the most disadvantaged LGA in the SNPHN region, scoring in the ninth or second highest decile in both the NSW and Australian rankings. All other LGAs in SNPHN are in the 10th, or least disadvantaged decile in both rankings.

Within the SNPHN 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.

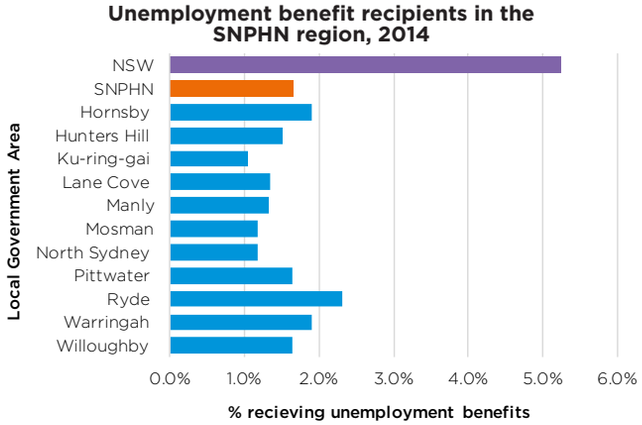
It is also noted that many resident's rich in assets may not have a correspondingly high income.

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

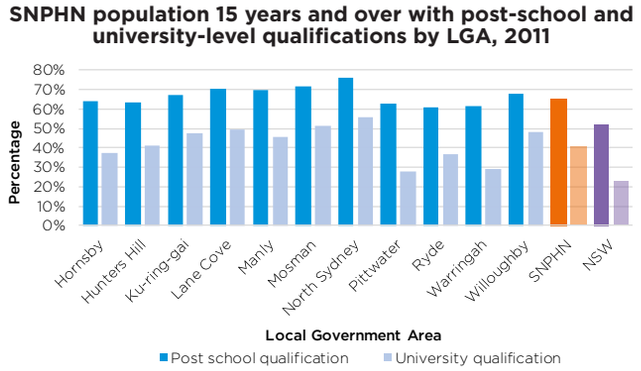
Income, education and employment patterns reflect the low level of socio-economic disadvantage across the SNPHN region



Source: ABS, 2011



Source: PHIDU, 2016



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 variable 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 PRIMARY HEALTH NETWORK

Income levels in the SNPHN 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 SNPHN region (8%) reporting nil income compared with NSW (6%). This is likely to be, predominately, self-funded retirees.

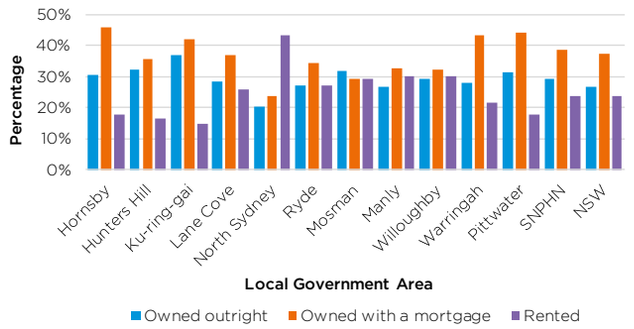
In 2011, 2.2% of the SNPHN population were unemployed and looking for work, compared with 2.8% in NSW. There is variation within the catchment, however, with unemployment rates ranging from 1.7% in Hunters Hill to 3% in Ryde LGA.

The proportion of the population aged 16 to 64 years receiving unemployment benefits in June 2014 was low in the SNPHN region (1.7%), less than half of the NSW average (5.2%). 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 SNPHN region, with 65.5% of the population aged 15 years and over obtaining a post school qualification, almost two thirds of which were obtained at university level. This is substantially higher than the proportion of NSW residents aged 15 years and over with post-school (51.7%) and university level (22.4%) qualifications. Further, a higher proportion of 15 to 19 year olds in the SNPHN region were either earning or learning; 89.4% compared to 81.4% across NSW.

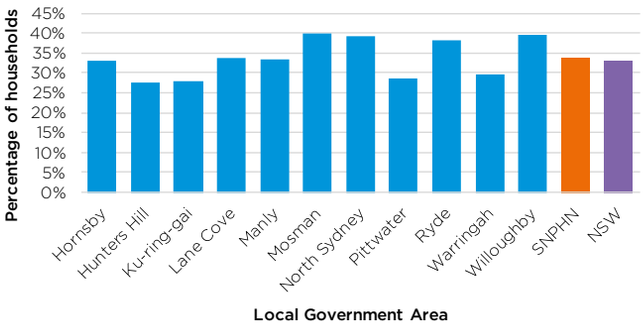
One third of low income households in the SNPHN region are under financial stress from mortgage or rent

Home ownership rates of SNPHN population by LGA, 2011



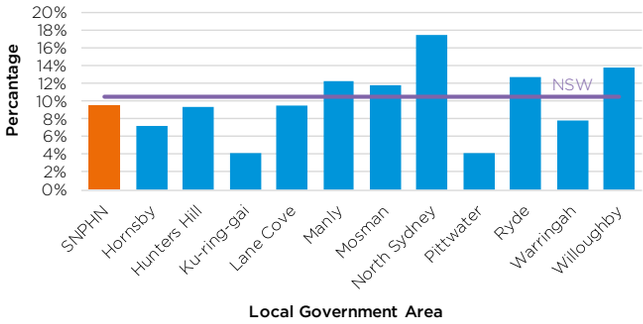
Source: ABS, 2011

Proportion of low income SNPHN households under financial stress from mortgage or rent by LGA, 2011



Source: PHIDU, 2014

Dwellings in the SNPHN region with no motor vehicle by LGA, 2011



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 SNPHN 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 SNPHN region.

SYDNEY NORTH PRIMARY HEALTH NETWORK

Rates of home ownership and housing rental are very similar in the SNPHN region to the rest of NSW, however, the proportion of the population in social housing is lower in the SNPHN region (1%) compared with NSW (3.4%). A lack of public housing within the SNPHN 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 SNPHN 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 SNPHN 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.

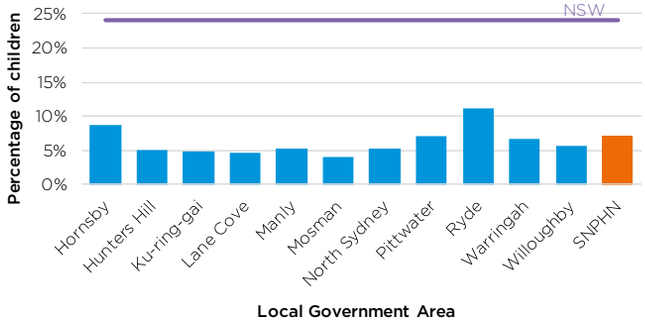
In the 2011 Census, 1,570 people were estimated to be homeless in the SNPHN region with the largest numbers within Neutral Bay/Kirribilli and Manly/Fairlight (Statistical Area level 2).

The rate of motor vehicle ownership in the SNPHN region is the same as other capital cities in Australia. 9.5% of households in the SNPHN region do not own a motor vehicle which is slightly lower compared to 10.4% in NSW.

There is an extensive bus service in the SNPHN 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.

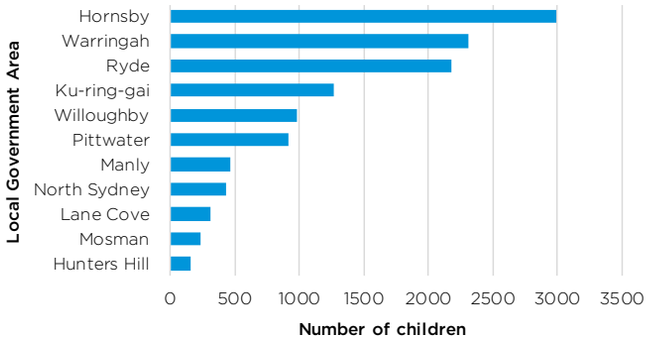
Approximately 12,300 children in the SNPHN region were living in low income, welfare-dependent families in June 2014

Proportion of children in the SNPHN region in low income, welfare-dependent families by LGA, 2014



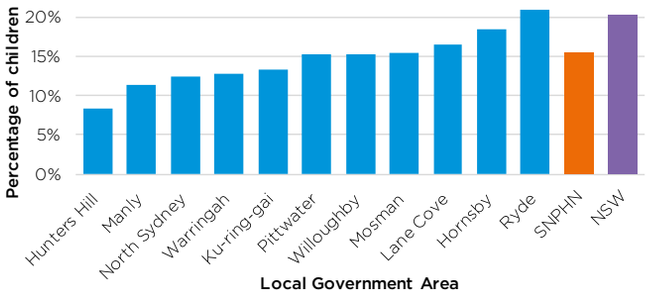
Source: PHIDU, 2014

Number of children in the SNPHN region in low-income, welfare recipient families by LGA, 2014



Source: PHIDU, 2016

Proportion of children in the SNPHN region in their first year of school who are developmentally vulnerable on one or more domains by LGA, 2015



Source: PHIDU, 2016

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 2013.

The 2015 Australian Early Development Census (AEDC) is a census of children's health and development in their first full year of full-time school providing a measure of children's physical health and wellbeing, social competence, emotional maturity, language and cognitive skills and communication skills and general knowledge. PHIDU summarises AEDC scores at PHN and LGA level.

SYDNEY NORTH PRIMARY HEALTH NETWORK

The proportion of children in low-income, welfare-dependent families in June 2014 was substantially lower in the SNPHN region (7.2%) than NSW (24%). This amounts to 12,291 children in the SNPHN region living in low-income welfare recipient families; predominantly in Hornsby and Warringah.

In 2011, 12% of families in the SNPHN 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 SNPHN 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 SNPHN region had a lower proportion of single parent families and jobless families in 2011 compared to NSW.

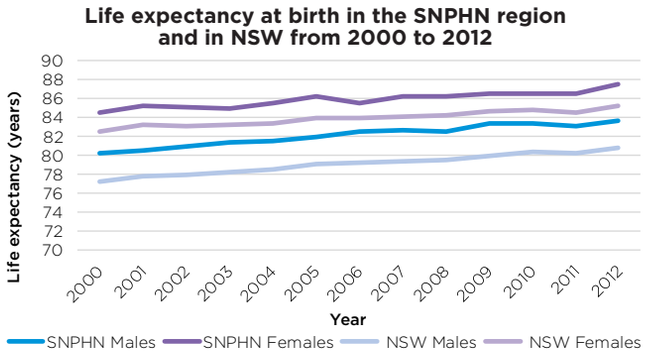
Children in the SNPHN also score well in early development measures; 15.4% were developmentally vulnerable in 2015 in one or more categories, compared with 20.2% in NSW. Similar to NSW, SNPHN children are least developmentally on track in social competence (80.4%) and communication skills and general knowledge (81.5%), and most developmentally on track in language and cognitive skills (93.7%).

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

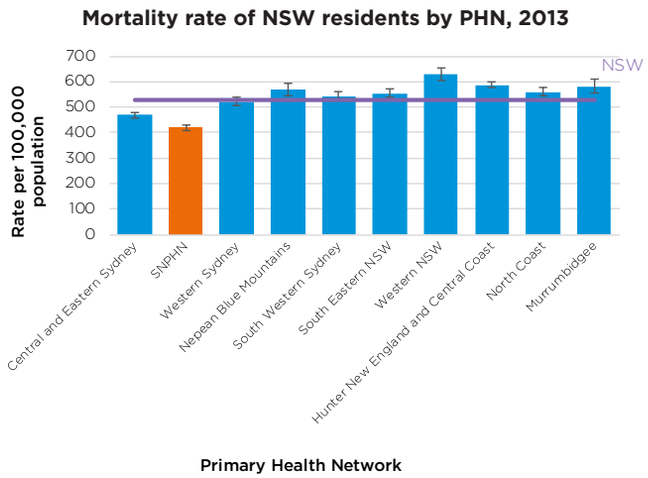
CHAPTER 3

Population Health Outcomes

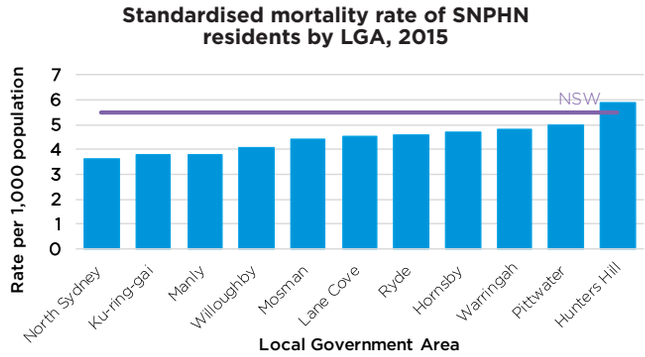
The average life expectancy in the SNPHN region is the highest in Australia



Source: Centre for Epidemiology and Evidence 2015



Source: Centre for Epidemiology and Evidence 2016



Source: ABS, 2016

WHY IS THIS IMPORTANT?

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

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

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

AVAILABILITY AND ACCURACY OF DATA

Life expectancy rates are available for the SNPHN region through to 2012 from HealthStats NSW. Mortality rates for all causes for the SNPHN region is available through to 2013.

The ABS age-standardised mortality rate by LGA for 2015 has also been used in this report.

SYDNEY NORTH PRIMARY HEALTH NETWORK

The average life expectancy in the SNPHN region is the highest in Australia for both males and females. For residents of the SNPHN, 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 SNPHN 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. Life expectancy is lower among people experiencing socio-economic disadvantage. In NSW, life expectancy for people in the most disadvantaged quintile (82 years) was 3.4 years lower compared to those in the least disadvantaged quintile (85.4 years).

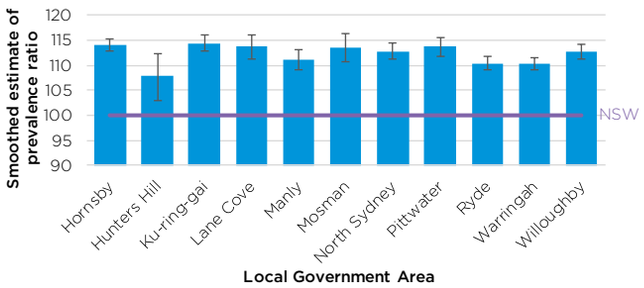
The overall mortality rate in the SNPHN region is significantly lower(statistically) than all PHNs in NSW. In 2013, SNPHN had a mortality rate of 420 per 100,000 (95% CI: 408-432) compared to 529 per 100,000 (95% CI: 524-534) for NSW.

There is variation in mortality rates between LGAs in the SNPHN region, however all LGAs except for Hunters Hills have a lower death rate than NSW. Higher rates in Hunters Hill is likely due to the small population and small number of deaths.

See related content: 2.1 Socio-economic disadvantage, 3.3 Premature mortality

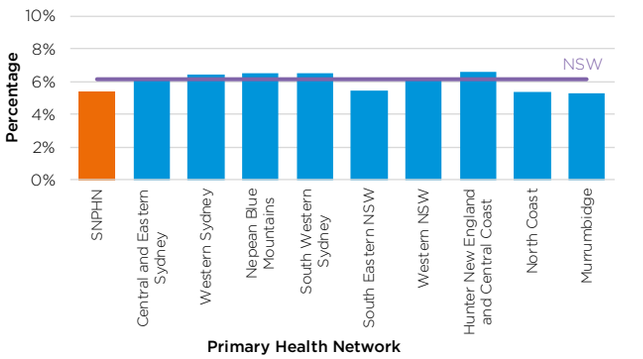
Infant and maternal health is high throughout the SNPHN region

First antenatal visit before 14 weeks gestation of mothers in the SNPHN region by LGA, 2013-2015



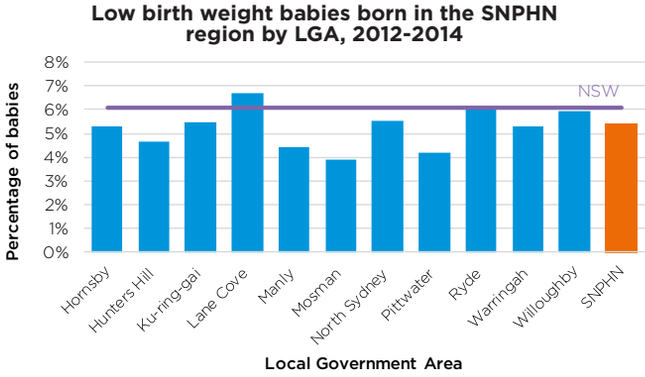
Source: Centre for Epidemiology and Evidence, 2016

Low birth weight babies born in NSW by PHN, 2012-14



Source: PHIDU, 2016

Low birth weight babies born in the SNPHN region by LGA, 2012-2014



Source: PHIDU, 2016

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 sudden infant death syndrome (SIDS). Receiving antenatal care is also important in identifying and minimising risks to an infant's health.

AVAILABILITY AND ACCURACY OF DATA

The infant mortality rate is the number of deaths of live-born infants, aged less than one year, per 1,000 live births. Gestational age and birth weight data are collected and recorded at birth and available by PHN from HealthStats NSW for 2015. PHIDU provides data on low birth weight babies and smoking during pregnancy by LGA for 2012-14.

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

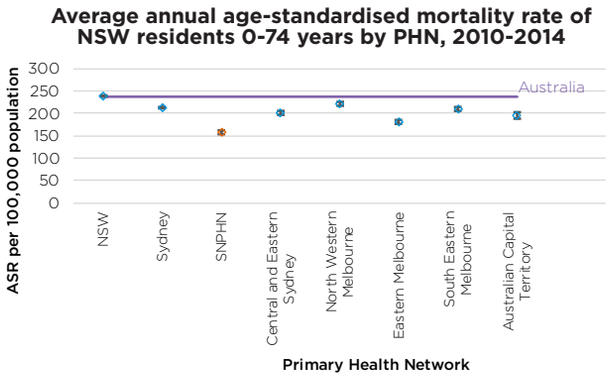
The fertility rate is low throughout the SNPHN region (1.62 compared to 1.84 in NSW in 2011) but birth outcomes and maternal health compare favourably with NSW as a whole and with comparable populations in other jurisdictions.

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

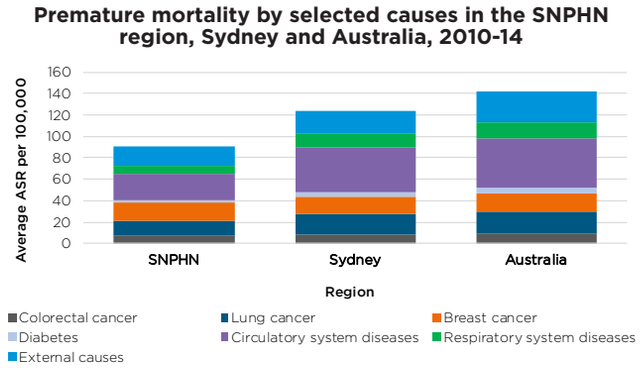
In 2015, 64.6% of mothers in the SNPHN region attended their first antenatal visit before 14 weeks of gestation and 94% by 20 weeks of gestation. This is 6.7% higher than first antenatal visits by 20 weeks for NSW. Smoking during pregnancy is also very low in the SNPHN region with only 1.6% of mothers smoking during pregnancy between 2012 and 2014.In the same period, the rate across NSW and Australia was 8.4% and 10.9% respectively.

Between 2012-14, 5.4% of babies born in the SNPHN region had a low birth weight compared to 6.1% in NSW. The majority of pregnancies (93%) went full term with only 1% of babies delivered at 31 weeks or younger.

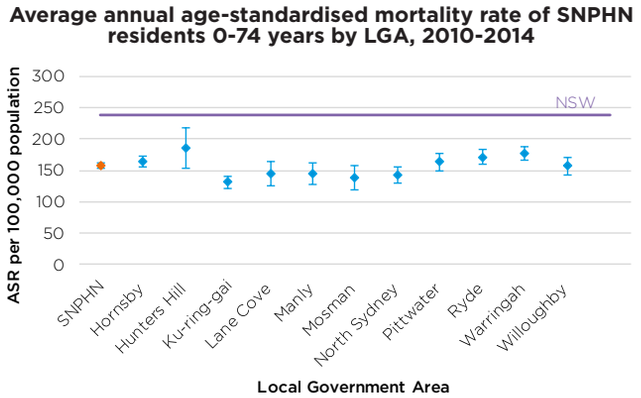
The SNPHN region has the lowest rate of premature mortality in Australia



Source: PHIDU, 2016



Source: PHIDU, 2016



Source: PHIDU, 2016

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 2010-14 by LGA have been compiled by PHIDU from Cause of Death Unit Record Files and are indirectly age-standardised.

SYDNEY NORTH PRIMARY HEALTH NETWORK

SNPHN residents have the lowest mortality rate within NSW for those aged under 75 years. For 2010-14, SNPHN had a premature mortality rate of 158 per 100,000 (95% CI: 154-162) compared to 239 per 100,000 (95% CI: 237-241) for NSW and 213 per 100,000 (95% CI: 211-215) for Sydney. Each LGA within the SNPHN region has a lower premature mortality rate compared to the NSW average.

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

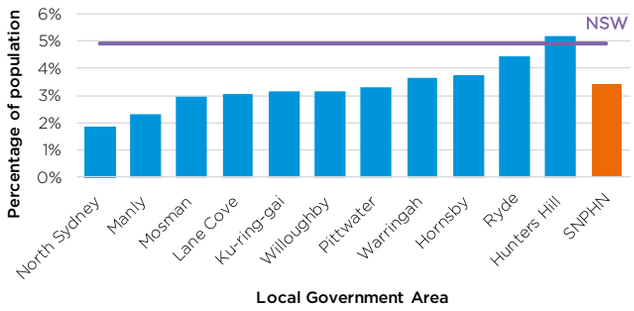
Males in the SNPHN region have a higher rate of premature mortality (190 per 100,000; 95% CI: 184-196) compared to females (127 per 100,000; 95% CI: 122-132). The difference is particularly marked in Ryde, with the premature mortality rate for males 212 per 100,000 (95% CI: 193-230), compared to 133 per 100,000 (95% CI: 119-147) for females.

Within the SNPHN region Warringah and Ryde had the highest rates of premature mortality in 2010-14 at 177 (95% CI: 167-187) and 171 (95% CI: 159-183) 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 131 per 100,000 (95% CI: 122-141).

Similar to other PHNs, the main cause of premature mortality in the SNPHN region for 2010-14 is cancer, followed by circulatory system diseases. Approximately 50% of premature deaths in the SNPHN region could be attributed to cancer, with almost 20% of all premature deaths attributed to lung, colorectal and breast cancers.

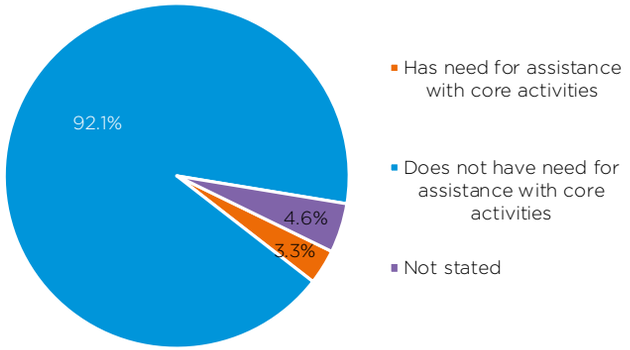
More than 27,000 people in the SNPHN region have a profound or severe disability

Proportion of the SNPHN population with a severe or profound disability by LGA, 2011



Source: PHIDU, 2016

SNPHN residents reporting need for assistance with core activities, 2011



Source: ABS, 2011

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 SNPHN 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.

SYDNEY NORTH PRIMARY HEALTH NETWORK

In 2011, the SNPHN 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, SNPHN 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 2.2%.

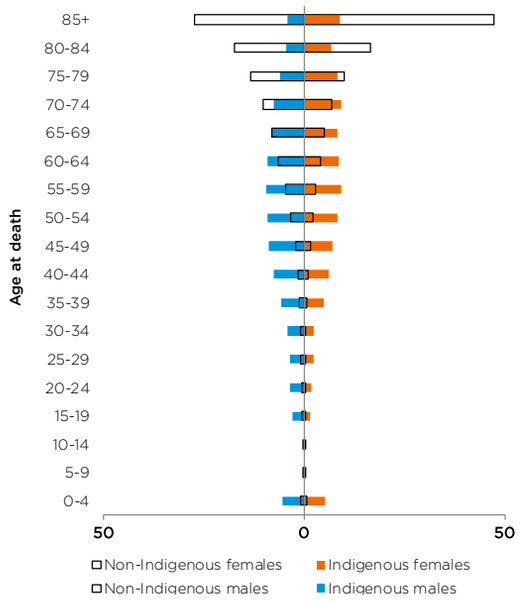
SNPHN also has the lowest level of disability pension at 2% almost one third of the NSW rate (5.6%), and well below comparable PHNs in other jurisdictions.

While the rates of disability are low in comparison with other PHNs, over 27,000 people in SNPHN 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 SNPHN 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.

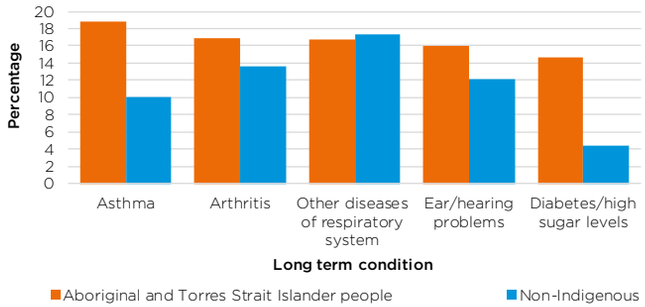
Life expectancy for Aboriginal and Torres Strait Islander peoples is ten years lower compared to non-Indigenous Australians

Age at death by Indigenous status, age and sex, 2009-13



Source: AIHW analysis of the National Mortality Database, 2016

Long-term conditions reported by Aboriginal and Torres Strait Islander People, 2012-13, and non-Indigenous Australians 2011-12



Source: ABS 2013, Australian Aboriginal and Torres Strait Islander Health Survey 2012-13

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 SNPHN region.

AVAILABILITY AND ACCURACY OF DATA

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

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

See related content: 4.1 Tobacco smoking, 4.5 Cancer Screening

SYDNEY NORTH PRIMARY 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 2010-14, 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.

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

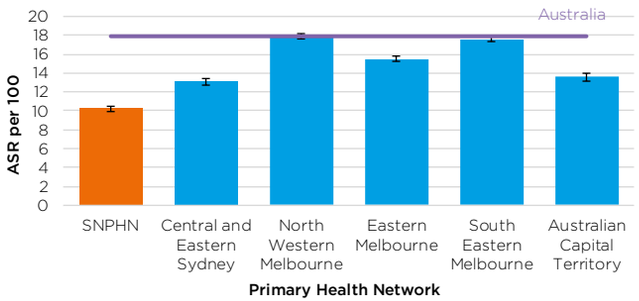
Lifestyle risk factors that can contribute to poorer health outcomes are also higher among Aboriginal and Torres Strait Islander people than non-Indigenous Australians.

CHAPTER 4

Population Risk Factors

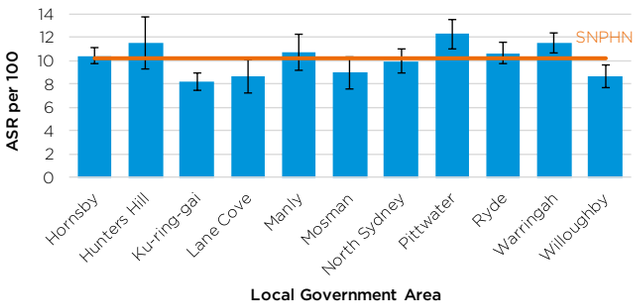
Smoking prevalence is lower in the SNPHN region compared to NSW and comparator areas

Smoking prevalence (modelled estimates) in population 18 years and over by PHN, 2011-12



Source: PHIDU 2016

Smoking prevalence (modelled estimates) in SNPHN population 18 years and over by LGA, 2011-12



Source: PHIDU 2015

Smoking attributable deaths in the SNPHN region and in NSW, 2001 to 2013

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).

AVAILABILITY AND ACCURACY OF DATA

PHIDU provides modelled estimates (see Appendix B) of smoking prevalence based on the 2011–12 Australian Health Survey (AHS). Data on smoking attributable deaths from HealthStats NSW is also presented.

SYDNEY NORTH PRIMARY HEALTH NETWORK

An estimated 67,000 smokers in SNPHN region, with a high prevalence of smoking in:

- Aboriginal people
- Socio-economically disadvantaged people
- LGBTI people

Smoking prevalence in the SNPHN region for those aged 18+ years was estimated (ASR) at 10.2 per 100 (95% CI 9.9-10.5) for 2011-12. This is below the Australian ASR of 18 per 100 (95% CI 17.9-18) and SNPHN's comparator areas.

Smoking prevalence is higher in males (11.2 per 100; 95% CI: 10.7-11.7), compared to females (9.2 per 100; 95% CI: 8.8-9.6).

Within the SNPHN 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).

The rate of smoking attributable deaths in the SNPHN region has decreased relatively consistently over time, declining from 58.6 per 100,000 (95%CI 53.7-63.9) in 2001 to 41.8 per 100,000 in 2013 (95%CI 38-45.9). The rate of smoking attributable deaths is lower for SNPHN compared to NSW.

Whilst smoking prevalence is relatively low in the SNPHN region, an estimated 67,200 people are current smokers (2011-12). Nationally, daily smoking prevalence is higher among Aboriginal people (32.2%) compared to non-Aboriginal people (12.5%).

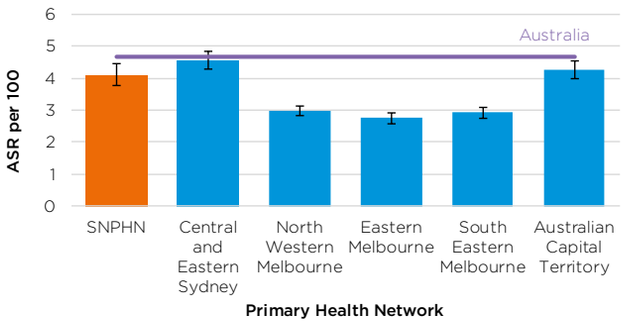
There is also a high smoking prevalence among LGBTI populations, with 21.4% of LGBTI people smoking daily compared to 12.6% of non-LGBTI people.

Nationally, prevalence is also higher among those socio-economically disadvantaged with 20.8% of people in the most disadvantaged quintile smoking daily compared to 6.7% in the least disadvantaged quintile.

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

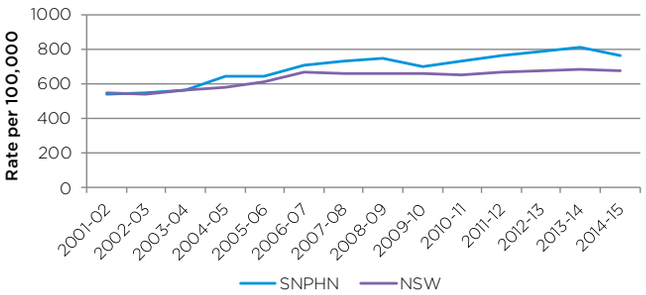
The SNPHN region has a higher rate of alcohol attributable hospitalisations compared to NSW

High-risk drinking (modelled estimates) in population 18 years and over by PHN, 2011-12



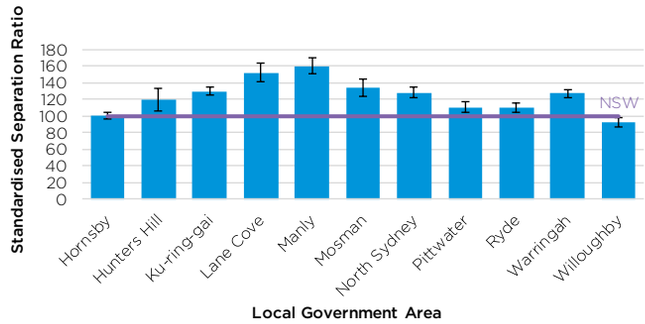
Source: PHIDU 2016

Alcohol attributable hospitalisations in the SNPHN region and in NSW, 2001-02 to 2014-15



Source: Centre for Epidemiology and Evidence, 2016

Alcohol attributable hospitalisations in the SNPHN region by LGA, 2013-14 to 2014-15



Source: Centre for Epidemiology and Evidence, 2016

WHY IS THIS IMPORTANT?

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

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

AVAILABILITY AND ACCURACY OF DATA

PHIDU provides modelled estimates of high-risk drinking (see Appendix B), with alcohol attributable hospitalisations provided by HealthStats NSW. Further analysis required to understand the impact of private healthcare utilisation in the region on the rate of alcohol attributable hospitalisations.

SYDNEY NORTH PRIMARY HEALTH NETWORK

High rate of alcohol attributable hospitalisations in:

- Women
- Manly, Lane Cove and Mosman LGAs

The ASR for high-risk drinking among the 18+ years SNPHN population for 2011-12 was 4.1 per 100. (95% CI 3.8-4.4), lower than Australia (4.7, 95% CI 4.6-4.7), but higher than comparator populations in Victoria.

An estimated 27,000 adults in the SNPHN region, drinking alcohol at levels hazardous to their health.

The SNPHN region has a rate of 759 per 100,000 (95% CI: 741-776) alcohol attributable hospitalisations for 2014-15, compared to 672 per 100,000 (95% CI: 666-677) for NSW.

For the past 10 years, the rate of alcohol attributable hospitalisations in the region has been consistently higher than NSW.

SNPHN females (709 per 100,000, 95% CI: 685-732) have the highest rate of alcohol attributable hospitalisations in NSW.

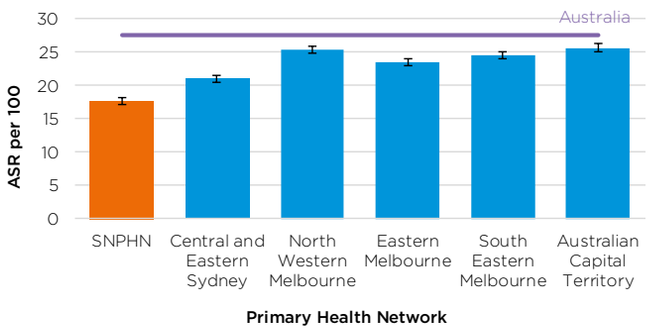
Alcohol attributable hospitalisations are particularly high in Manly, Lane Cove and Mosman LGAs. In 2013-15, the standardised separation ratio for alcohol attributable hospital admissions was 160.5 (95% CI: 150.5-170.7) for Manly, 152.3 (95% CI: 141.7 -163.2) for Lane Cove and 134.6 (95% CI: 124.4-145.3) for Mosman.

Manly also has a higher rate of alcohol attributable injury hospitalisations with a standardised separation ratio of 120.7 (95% CI: 109.2-133.4), 20.7% higher compared to NSW.

Women in the SNPHN region have the highest rate of alcohol attributable hospitalisations in NSW, with geographic hotspots in Manly, Lane Cove and Mosman. Further analysis required to understand causes of alcohol attributable hospitalisations to support reduction in rates.

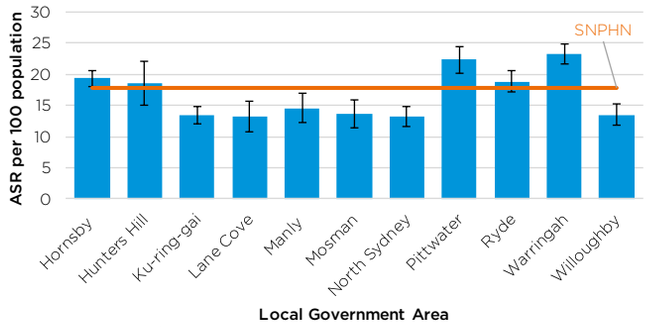
Obesity prevalence is lower in the SNPHN region compared to NSW and comparator areas

Obesity prevalence (modelled estimates) in population 18 years and over by PHN, 2011-12



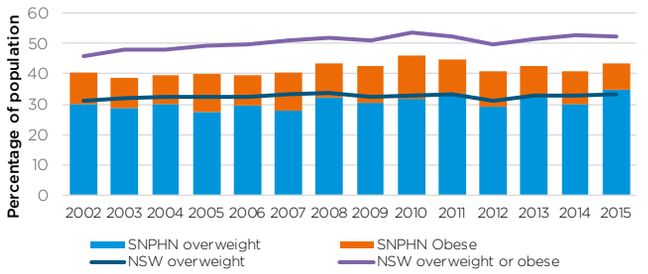
Source: PHIDU 2016

Obesity prevalence (modelled estimates) in population 18 years and over by LGA, 2011-12



Source: PHIDU 2015

Overweight or obesity (estimate) in the SNPHN and NSW populations 16 years and over, 2002-2015



Source: Centre for Epidemiology and Evidence, 2016

WHY IS THIS IMPORTANT?

Rates of overweight and obesity are increasing in Australia with 63% of Australian adults (11.2 million people), and more than one in four children aged 5-17 years (27%) being overweight or obese in 2014-15 (AIHW, 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/m2) to be calculated for participants and modelled to smaller geographies by PHIDU (see Appendix B).

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

- An estimated 102,000 obese adults
- High prevalence of obesity in Warringah and Pittwater

In 2011-12, an estimated (ASR) 17.7 per 100 (95% CI 17.2-18.3) of the SNPHN population 18+ years were obese, lower than Australia (27.5 per 100) and comparator PHNs at the 95% confidence level.

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 lower compared to Australia.

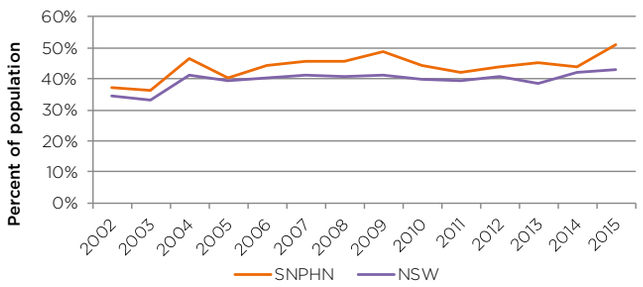
Obesity prevalence for males in the SNPHN region (20.8 ASR per 100, 95% CI 19.9-21.8) is higher than females (14.6 ASR per 100, 95% CI 14.0-15.2). The greater prevalence of obesity in males in the SNPHN region is consistent with other PHNs and NSW overall. A further 34.8 per 100 population are estimated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

In contrast to the increasing NSW rate, rates of overweight or obesity in the SNPHN region show small but not significant fluctuations in rates between 2002 (40.6%; 95% CI: 36.4-44.7) and 2015 (43.3%, 95% CI: 36.8-49.7).

Whilst the prevalence of obesity is comparatively low in the region, it remains a public health issue, with an estimated 102,000 adults in the SNPHN region obese and a further 200,000 overweight (2011-12). Higher prevalence of obesity within Warringah and Pittwater LGAs indicates geographic hotspots within the SNPHN region, requiring further analysis.

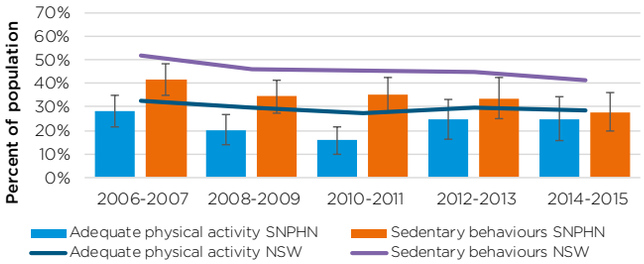
Seven in ten children in the SNPHN region are not getting enough exercise

Adequate physical activity in SNPHN and NSW populations 16 years and over, 2002-2015



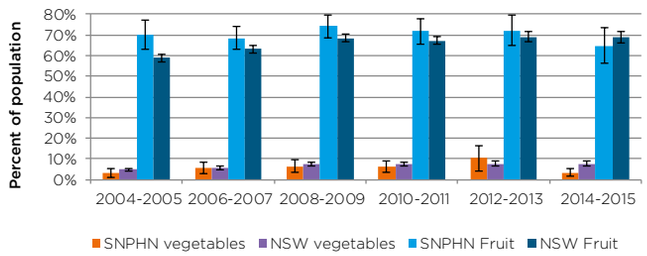
Source: Centre for Epidemiology and Evidence, 2016

Physical activity by behaviour type in SNPHN and NSW children 5 to 15 years, 2006-07 to 2014-15



Source: Centre for Epidemiology and Evidence, 2016

Recommended fruit and vegetable consumption in the SNPHN and NSW population 2 to 15 years, 2004-05 to 2014-15



Source: Centre for Epidemiology and Evidence, 2016

WHY IS THIS IMPORTANT?

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

Inadequate physical activity is the second greatest contributor, behind tobacco smoking, to the cancer burden in Australia (DoH, 2014).

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 300 minutes per week over 5 separate occasions. Adequate nutrition is defined as two or more serves of fruit and five or more serves of vegetables a day for adults.

SYDNEY NORTH PRIMARY HEALTH NETWORK

- 51% of adults undertake adequate physical activity
- Less than 50% of adults and 65% of children have the recommended intake of fruit
- Only 5% of adults and 3% of children have the recommended intake of vegetables

An estimated 50.8% of persons aged 16 years and over (95% CI: 44.4-57.1) in the SNPHN region (2015) undertake adequate physical activity, higher compared to the NSW average of 42.9% (95% CI: 41-44.8).

One in four children (24.9%; 95% CI: 15.4%-34.3%) in the SNPHN region aged 5 to 15 years were estimated to be undertaking sufficient physical activity in 2014-15. The average for NSW is estimated at 28.2% (95% CI: 25.3-31.1).

The rate of sedentary behaviour in children in the SNPHN region has declined since 2006-07 to 27.8% in 2014-15 (95% CI: 19.6-36). This is significantly lower than NSW (41.5%, 95% CI: 38.3-44.6), although it equates to 3 in 10 children in the SNPHN region having a sedentary lifestyle.

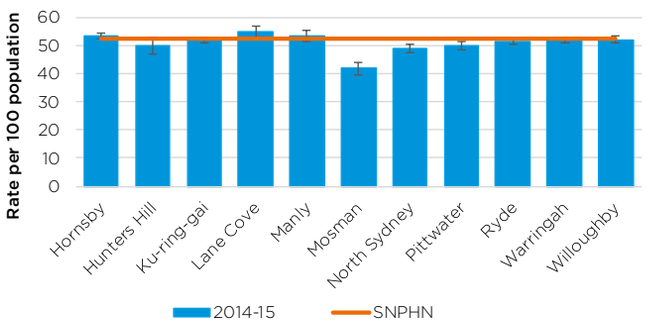
Within the SNPHN region, 47.7% of the adult population (95% CI: 41.5-54) and 64.9% of children (95% CI: 56.5-73.4) have the recommended intake of fruit each day.

Vegetable consumption in the SNPHN region is low, with 5.1% of adults (95% CI: 3.6-6.6) and 3.4% of children (95% CI: 1.4-5.3) consuming the adequate intake of vegetables.

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

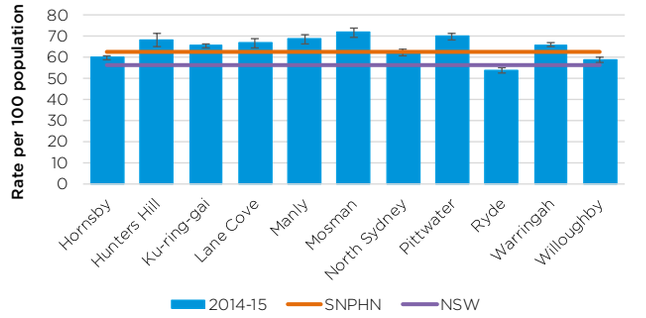
Only 4 in 10 people in the targeted population participated in the National Bowel Cancer Screening Program in 2015

Biennial breast cancer screening participation rates in the SNPHN region by LGA, 2014-15



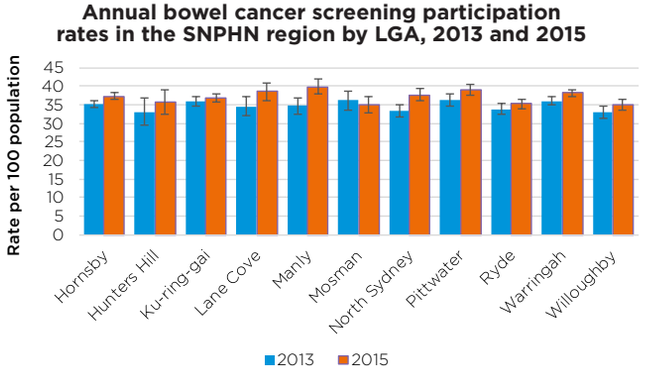
Source: RBCO 2016

Biennial cervical cancer screening participation rates in the SNPHN region by LGA, 2014-15



Source: RBCO 2016

Annual bowel cancer screening participation rates in the SNPHN region by LGA, 2013 and 2015



Source: RBCO 2016

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). Screening rates for breast, bowel and cervical cancers are national headline indicators on which the SNPHN is required to report.

AVAILABILITY AND ACCURACY OF DATA

Cancer screening rates for the SNPHN region have been provided by the Cancer Institute NSW in the Reporting for Better Cancer Outcomes (RBCO) Performance Report 2016 for Northern Local Health District (LHD).

SYDNEY NORTH PRIMARY HEALTH NETWORK

- Low breast cancer screening rates in CALD and Aboriginal women
- Low cervical cancer screening rate in women aged 20-24 years
- Low bowel cancer screening rate

One in two eligible women in the SNPHN region participate in biennial breast cancer screening, with a rate of 52.5 per 100 (95% CI: 52.2-52.8) for SNPHN compared to 51.6 per 100 (95% CI: 51.5-51.7) for NSW (2014-15). Mosman LGA has the lowest breast cancer screening rate (43.4 per 100, 95% CI: 41.8-45) in the SNPHN region.

Screening rates are lower for women from CALD backgrounds particularly in Mosman and Pittwater LGAs. The rates among CALD women in Mosman and Pittwater were 37.4 per 100 and 38.5 per 100 respectively compared to 50.9 per 100 in SNPHN and 46.1 per 100 in NSW.

Screening rates are also lower among Aboriginal women (27.7 per 100; 95% CI: 21.6-33.8) in the SNPHN region compared to NSW (40.2 per 100; 95% CI:39.3-41).

Cervical cancer screening rates among SNPHN women aged 20-69 years (2014-15) highest in NSW: 62.7 per 100 in the SNPHN region (95% CI: 62.5-62.9) and 56 per 100 in NSW (95% CI: 55.9-56.1).

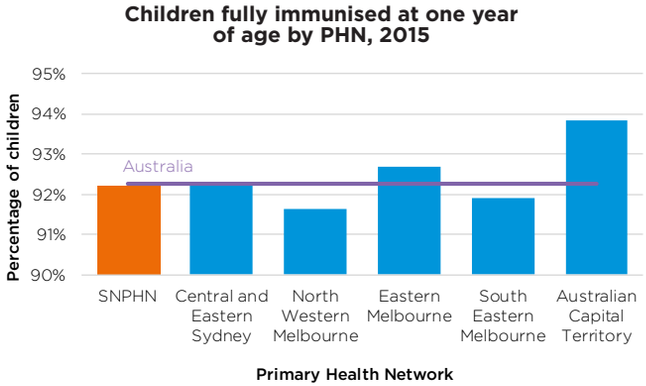
Variation in cervical screening rates between LGAs and age groups:

- Ryde LGA had the lowest screening rate within the SNPHN region: 53.5 per 100 (95% CI: 53-54).
- Screening rates lower among women aged 20-24 years in the SNPHN region (37.4 per 100; 95% CI: 36.8-37.9) compared to NSW (38.8 per 100; 95% CI: 38.6-39).

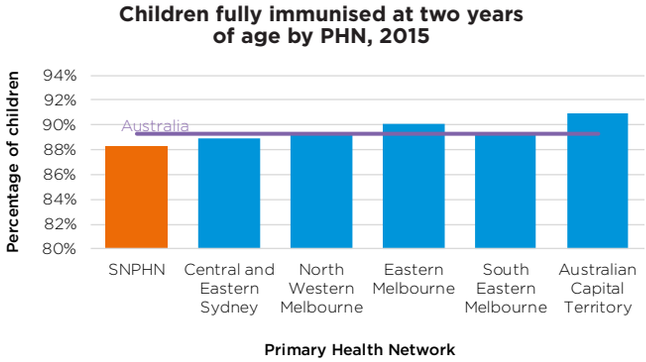
In 2015, bowel cancer screening rates in the targeted age groups of 50, 55, 60 and 65 years were higher in the SNPHN region compared to NSW, but lowest of three cancers screened nationally. Screening rates in SNPHN: 37.1 per 100 (95% CI: 36.7-37.5) compared to 35.1 per 100 (95% CI: 35-35.3) for NSW. Further analysis is required to understand the impact of colonoscopy on bowel cancer screening rates.

Within the SNPHN region, CALD and Aboriginal women have low breast screening rates, with low screening rates for cervical cancer in women aged 20-24 years and bowel cancer screening rates low across the region.

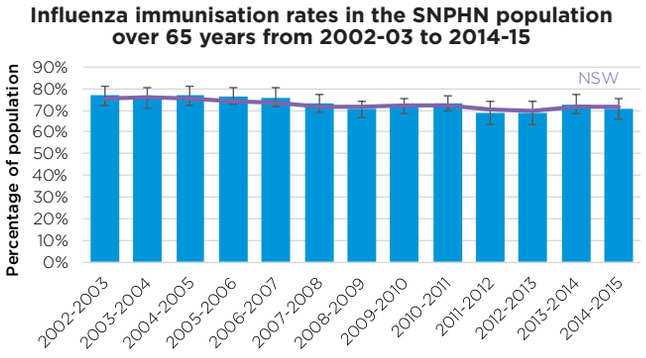
Children in the SNPHN region are immunised at lower rates than the national aspirational target of 95%



Source: PHIDU, 2016



Source: PHIDU, 2016



Source: Centre for Epidemiology and Evidence, 2016

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

AVAILABILITY AND ACCURACY OF DATA

Immunisation rates for children are available for 2015 at PHN and LGA level from PHIDU. Health Stats NSW provides immunisation rates by PHN for influenza and pneumococcal disease for the population over 65 years of age.

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

Immunisation rates of children aged one year in the SNPHN region (92.2%) similar to the national (92.3%) and state rates (92.2%) for 2015. Hunters Hill (89.3%), Mosman (90.3%) and Pittwater (90.6%) had the lowest immunisation rates in the SNPHN region.

Within SNPHN, immunisation rates of children at two years of age in 2015 was 88.3%. This is lower than the national rate of 89.3% as well as the rate of all comparator PHNs (range: 90-90.9%). Rates were lower in Manly (86.1%), Mosman (86.1%) and Pittwater (87%) compared to the regional, state and national average.

Children aged five years in the SNPHN region (91.4%) were immunised at a higher rate compared to Australia (89.3%), but lower compared to NSW (93.1%). Mosman (87.4%) and Manly (88.3%) had the lowest immunisation rates. Hunters Hill had the highest rate at 94.7%, however, higher rates may be attributed to variation within Hunters Hill's small population.

Immunisation rates for influenza in those aged 65 years and over, have mirrored NSW rates and trends. 70.5% of people aged 65 years and over (95% CI: 65.7-75.3) were immunised for influenza in SNPHN, similar to 71.9% for NSW (95% CI: 70.2-73.6).

Immunisation rates for pneumococcal disease in the SNPHN region have also followed the NSW trend, although rates are lower than for influenza. Less than half the population over 65 years was immunised for pneumococcal disease in 2014-2015 (47.1%; 95% CI: 41.6-52.6), similar to NSW (47.6%; 95% CI:45.7-49.5).

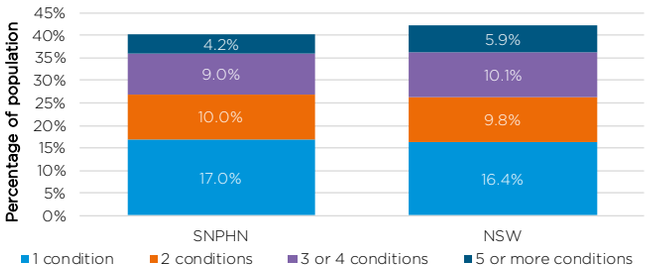
Immunisation rates for children aged one, two and five years in the SNPHN region vary by age group and geography, but all rates are below the national aspirational target of 95%.

CHAPTER 5

Long Term Conditions

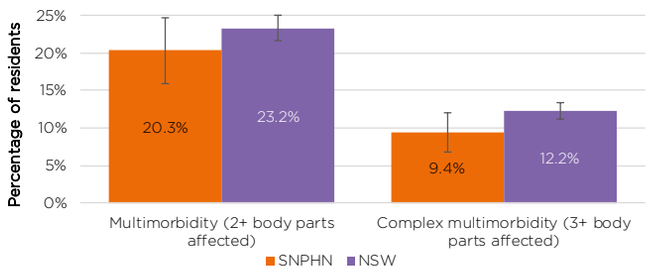
40% of the SNPHN population has one or more chronic conditions

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



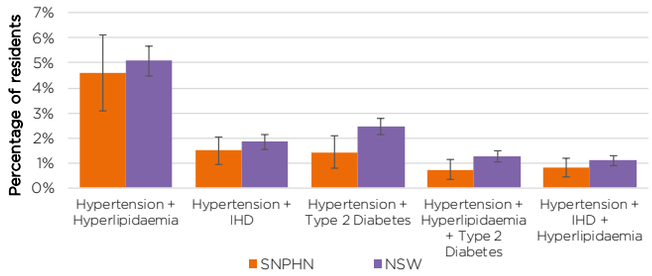
Source: BEACH, 2015

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



Source: BEACH, 2015

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



Source: BEACH, 2015

WHY IS THIS IMPORTANT?

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

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

Chronic diseases are the leading cause of disability and death in Australia and associated with most of the burden of ill

health. Approximately one in two Australians has a chronic disease with one in five affected by multiple chronic diseases (AIHW, 2015e).

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

AVAILABILITY AND ACCURACY OF DATA

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

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

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

An estimated 40.2% of the SNPHN population (95%CI 35%-45.3%) has one or more chronic conditions compared with 42.3% for NSW (95%CI 40.4%-44.2%).

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

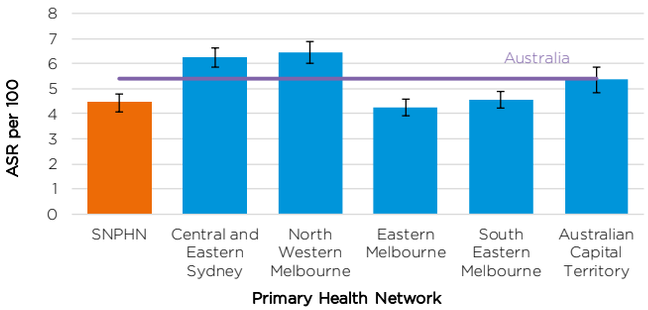
The prevalence of common patterns of multimorbidity in the SNPHN region and NSW include; 4.6% of the SNPHN population with both hypertension and hyperlipidaemia compared with 5.1% for NSW. The prevalence of hypertension with ischaemic heart disease and hypertension with type 2 diabetes multimorbidities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

Within the SNPHN 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 (2011-12) and mortality rates for chronic conditions. These indicators highlight a lower prevalence of chronic disease in the SNPHN region compared to NSW.

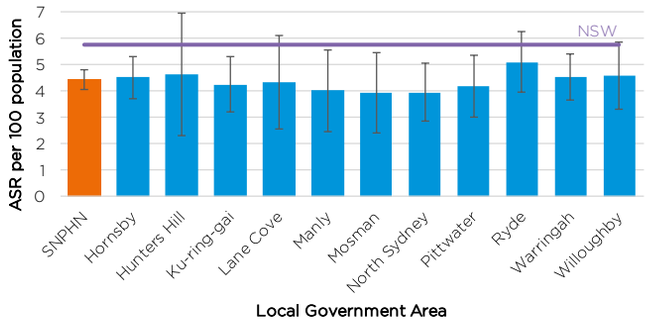
Approximately 26,000 people in the SNPHN region are registered as having type 2 diabetes

Estimated population 18 years and over with diabetes mellitus (modelled estimates) by PHN, 2011-12



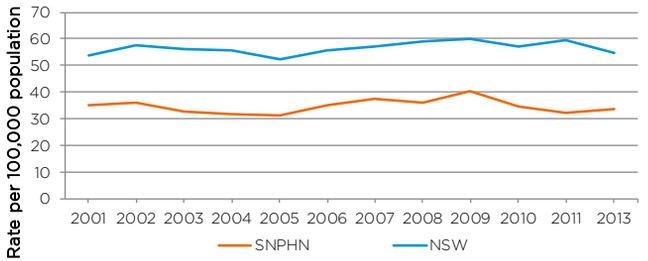
Source: PHIDU 2016

Estimated population 18 years and over with diabetes mellitus (modelled estimates) by LGA, 2011-2012



Source: PHIDU 2014

Diabetes-related deaths in the SNPHN and NSW populations, 2001 to 2013



Source: Centre for Epidemiology and Evidence, 2016

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 Australian 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 PRIMARY HEALTH NETWORK

More than 30,000 SNPHN residents are registered with the NDSS, equal to 3.5% of the population. This is substantially lower than the national rate of registration of 5.2%.

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

Within the SNPHN region, 82.2% 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 SNPHN region (12.9%) compared to Australia (9.5%).

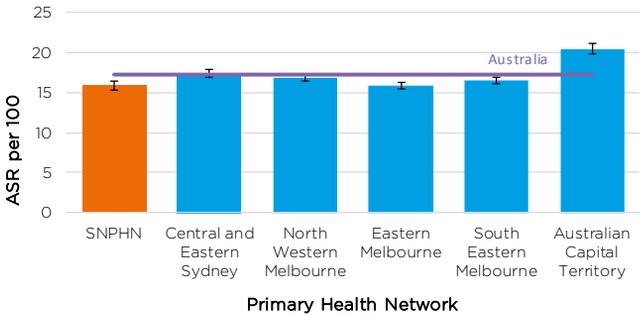
The age profile of people with diabetes is also younger in the SNPHN region compared to Australia; 37.4% are 70 years of age or older compared with 58% for Australia.

In 2013, 7.2 deaths per 100,000 population were attributed to diabetes as the principal cause. A further 26.4 deaths were associated with diabetes. This is considerably lower than NSW with 13.9 deaths per 100,000 attributed to, and 40.9 per 100,000 associated with, diabetes.

Within the SNPHN region, Ryde has the largest proportion of the population registered with the NDSS (4.8%), while Hornsby has the largest number (7,041).

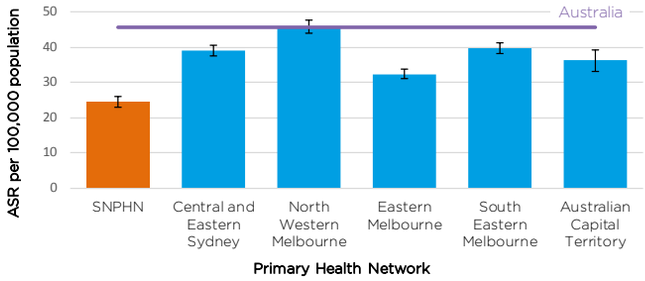
The mortality rate from circulatory system diseases has fallen in the SNPHN region by almost 40% in the ten years to 2012-13

Circulatory system diseases in population 2 years and over (modelled estimates) by PHN, 2011-12



Source: PHIDU 2016

Deaths from circulatory system diseases in the population 0 to 74 years by PHN, 2010-14



Source: PHIDU 2016

Deaths from circulatory system diseases in the SNPHN population, 2002-03 to 2012-13

Source: Centre for Epidemiology and 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, 2015d).

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 morality attributable to CVD, based on the 2011-12 Australian 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 PRIMARY HEALTH NETWORK

The age-standardised rate (ASR) estimate for prevalence of CVD in the SNPHN region in 2011-12 is 15.9 per 100 (95% CI 15.3-16.4) statistically significantly lower than Australia (17.3, 95% CI 17.2-17.4) and the same as, or lower, than each of the comparator PHNs.

Premature mortality from CVD was also significantly lower in the SNPHN region in 2010-14 (24.6 per 100,000; 95% CI: 23.1-26.2) compared to all PHNs.

Similar to other jurisdictions, males in the SNPHN region had a significantly higher mortality 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).

There is considerable variation in the premature mortality rate from CVD within the SNPHN region, ranging 15.6 per 100,000 (95% CI: 9.4-21.8) in Mosman to 29.6 per 100,000 (95% CI: 24.7-34.5) in Ryde. Although Hunters Hill had the highest rate of premature morality at 31.5 per 100,000 (95% CI: 18.2-44.8); owing to its small population, there is a degree of uncertainty around the estimate.

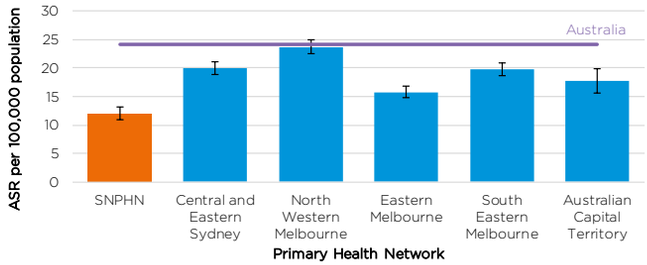
Similar to NSW, the mortality rate from CVD has declined significantly in the SNPHN region, with both male and female deaths falling by approximately 40% between 2002-03 and 2012-13.

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

Coronary heart disease hospitalisations in the SNPHN and NSW populations, 2001-02 to 2014-15

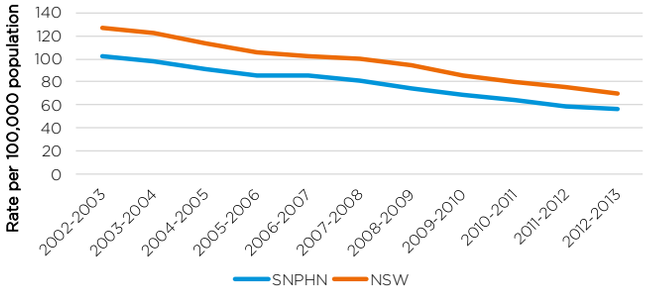
Source: Centre for Epidemiology and Evidence, 2016

Deaths from coronary heart disease in the population 0 to 74 years by PHN, 2010-14



Source: PHIDU 2016

Deaths from coronary heart disease in the SNPHN and NSW populations, 2002-03 to 2012-13



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 SNPHN 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 2010-14.

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

The death rate from CHD in 2012-13 in the SNPHN 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.

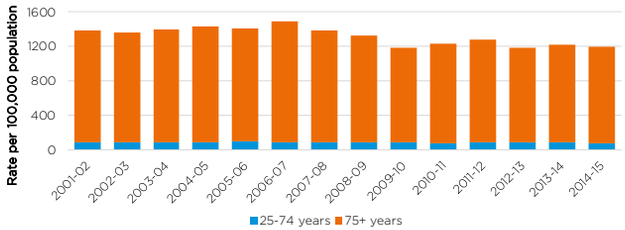
The premature morality rate from CHD in the SNPHN region is lowest of all PHNs. The average annual ASR in the SNPHN region in 2010-14 was 12.1 per 100,000 (95% CI: 11-13.1), significantly lower than all comparator PHNs, NSW and Australia at the 95% confidence level.

Within the SNPHN region, Warringah had the highest age-standardised rate of premature mortality in 2010-14 (16.1 per 100,000, 95% CI: 13.1-19.1) and Mosman the lowest (7.1 per 100,00, 95% CI: 2.9-11.3), although the differences are generally not statistically significant.

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

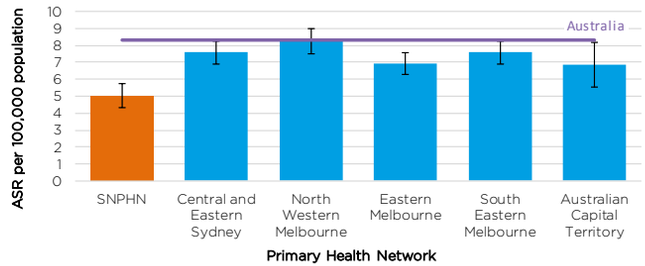
The SNPHN region has the lowest rate of premature morality from stroke of all NSW PHNs

Stroke hospitalisations in the SNPHN population by age group, 2001-02 to 2014-15



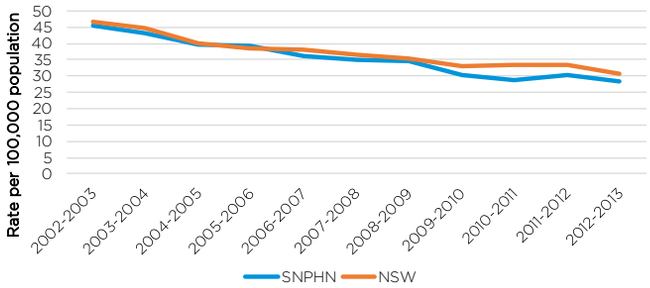
Source: Centre for Epidemiology and Evidence, 2016

Deaths from cerebrovascular diseases in the population 0 to 74 years by PHN, 2010-14



Source: PHIDU 2016

Deaths from stroke in the SNPHN and NSW populations, 2002-03 to 2012-13



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 age standardised modelled estimates of premature morality from cerebrovascular disease for all PHNs between 2010-14.

SYDNEY NORTH PRIMARY HEALTH NETWORK

The rate of hospitalisations for stroke (all ages), was markedly lower in the SNPHN region (114.5 per 100,000) in 2014-15 compared to NSW (136.2 per 100,000).

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

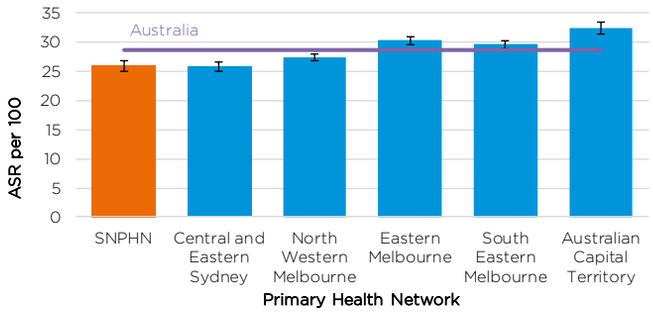
The mortality rate from stroke in the SNPHN region in 2012-13 (28.5 per 100,000 95% CI 26.4-30.7) is also comparable with the mortality rate for NSW (30.9 per 100,000 95% CI 30.1-31.7).

There is a significantly lower rate of premature mortality from cerebrovascular diseases in the SNPHN region among persons under the age of 75 years. The rate in SNPHN is 5 per 100,000 (95% CI: 4.3-5.7) compared to 8.3 per 100,000 (95% CI: 8.2-8.5) in Australia. This is consistent with the low rate of hospitalisations for stroke in those under 75 years.

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

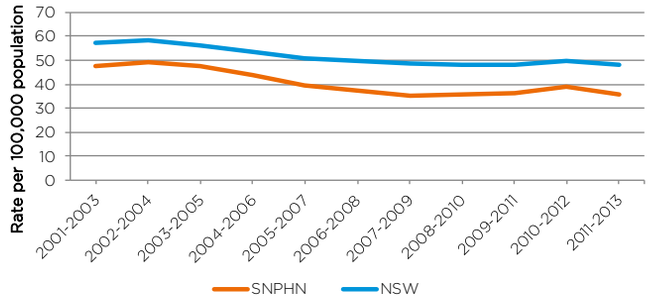
Mortality rates for respiratory system diseases are significantly lower in the SNPHN region compared to NSW

Respiratory system diseases in the population (modelled estimates) by PHN, 2011-12



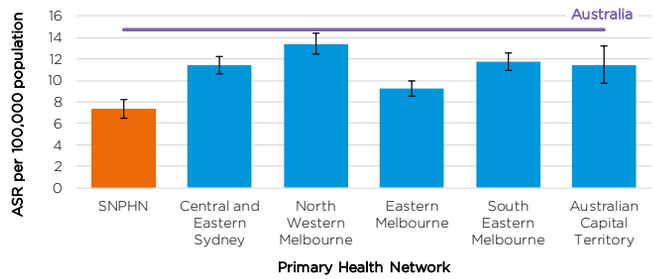
Source: PHIDU 2016

Respiratory disease deaths in the SNPHN and NSW populations, 2001-2003 to 2011-2013



Source: Centre for Epidemiology and Evidence, 2016

Deaths from respiratory diseases in the population 0 to 74 years by PHN, 2010-14



Source: PHIDU 2016

WHY IS THIS IMPORTANT?

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

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

Respiratory conditions are the most commonly treated condition in general practice and affect an estimated 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 SNPHN 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 SNPHN region. HealthStats NSW provides data on respiratory disease deaths by PHNs for 2001 to 2013.

SYDNEY NORTH PRIMARY HEALTH NETWORK

The average annual age-standardised estimate of respiratory disease prevalence in the SNPHN region for 2011-12 (25.9 per 100, 95%CI 24.9-26.9) is lower than Australia (28.7, 95%CI 28.5-28.8), and similar to or lower than comparator PHNs.

Mortality rates for respiratory system diseases in the SNPHN region have been lower than NSW since 2001-03. In 2011-13, the rate in SNPHN was 35.7 per 100,000 (95% CI: 33.8-37.8) compared to 48.2 per 100,000 (95% CI: 47.4-49.1) in NSW.

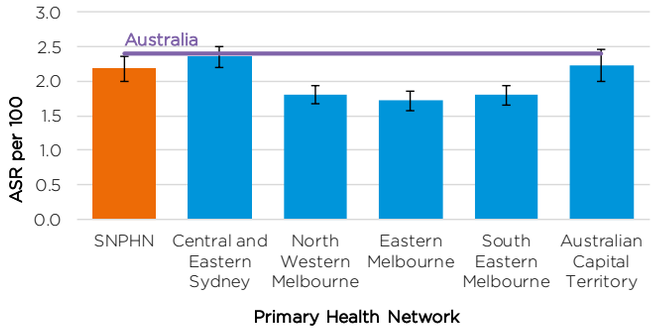
Premature mortality for respiratory system diseases was also significantly lower in the SNPHN region in 2010-14 (7.4 per 100,000; 95% CI: 6.5-8.2) compared to Australia and comparator PHNs.

Premature morality rates for respiratory system diseases varied across the region in 2010-14, ranging from 3.7 per 100,000 (95% CI: 2.2-5.3) in Ku-ring-gai to 9.7 per 100,000 (95% CI: 7.4-12) in Warringah. Mortality rates were also higher in Hunters Hill (9.8 per 100,000; 95% CI: 2.4-17.2) however there is uncertainty around the estimate owing to its small population.

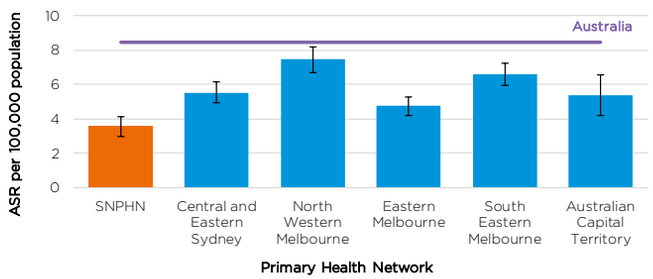
Males in the SNPHN region have a higher mortality rate from respiratory system diseases than females, similar to other jurisdictions.

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

COPD in the population (modelled estimates) by PHN, 2011-12

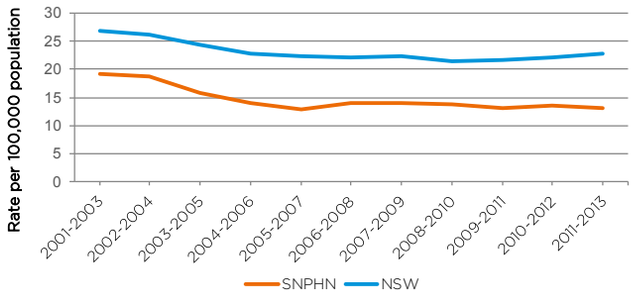


Deaths from COPD in the population 0 to 74 years by PHN, 2010-14



Source: PHIDU 2016

COPD deaths in the SNPHN and NSW populations, 2001-2003 to 2011-2013



Source: Centre for Epidemiology and Evidence, 2016

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 PRIMARY HEALTH NETWORK

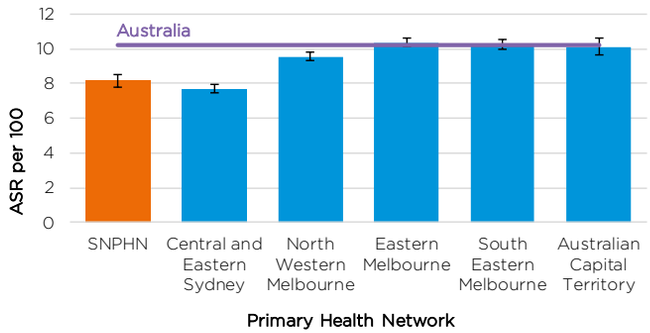
Almost 20,000 residents in the SNPHN region were estimated to have COPD in 2011-13. This equates to an age-standardised rate of 2.2 per 100 population (95%CI 2.0-2.4), similar to Australia (2.4 per 100) and comparator PHNs.

The premature mortality rate from COPD in 2010-14 was significantly lower in the SNPHN region (3.5 per 100,000, 95% CI: 3-4.1) compared to Australia (8.5 per 100,000, 95% CI: 8.3-8.6) and NSW (8.6 per 100,000, 95% CI: 8.3-8.9). The mortality rate in the SNPHN region was lower than the average of all PHNs.

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.

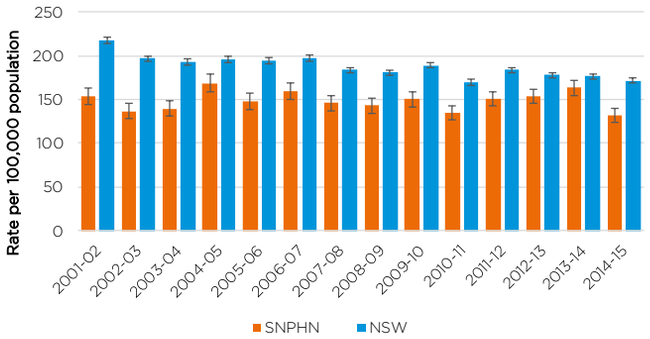
5 to 34 year olds in the SNPHN region have lower rates of hospitalisation for asthma compared to NSW

Asthma in the population (modelled estimates) by PHN, 2011-12



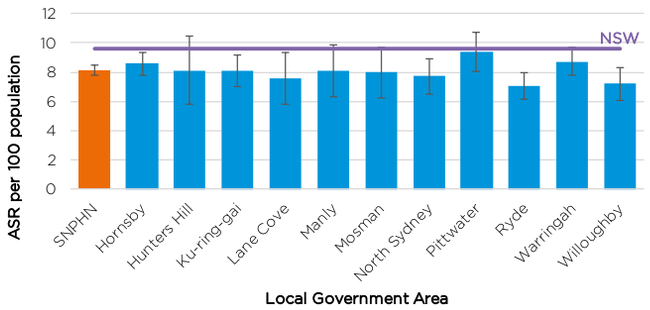
Source: PHIDU 2016

Asthma hospitalisations in the SNPHN population, 2001-02 to 2014-15



Source: Centre for Epidemiology and Evidence, 2016

Asthma in the SNPHN population (modelled estimates) by LGA, 2011-2012



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. However, asthma is more common in females than males is those aged 15 years and over.

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 SNPHN region is provided by PHIDU, the BEACH program and NSW HealthStats. Data is also available for NSW on asthma hospitalisations.

SYDNEY NORTH PRIMARY HEALTH NETWORK

In the SNPHN population under 15 years of age, the estimated prevalence of asthma in 2014-15 was 17.7% (95% CI: 10.7-24.7) compared to 13.5% for NSW (95% CI: 11.8-15.3).

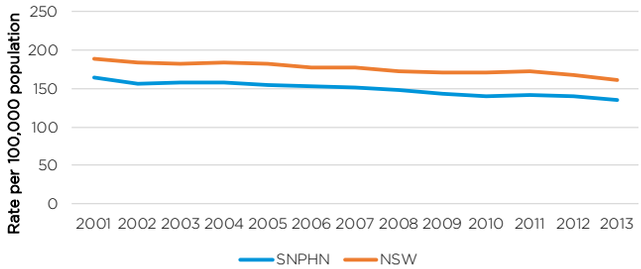
For all age groups, however, the estimated age-standardised rate of asthma in the SNPHN region in 2011-12 was significantly lower than Australia; 8.1 per 100 (95% CI: 7.8-8.5) in the SNPHN region and 10.2 per 100 (95% CI: 10.1-10.3) in NSW.

In the younger demographic (5 to 34 years), and in the whole population, SNPHN residents were hospitalised for asthma at a lower rate compared to NSW. In the 5 to 34 years age group, 102 per 100,000 (95% CI: 92-114) people in SNPHN region were hospitalised for asthma in 2014-15 compared to 152 per 100,000 (95% CI: 147-156) for NSW. Across all age groups, the rate of hospitalisations was slightly higher for SNPHN (132 per 100,000, 95% CI: 125-140) compared to the 5-34 years' age group, but still significantly lower compared to NSW (172 per 100,000; 95% CI: 169-175).

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

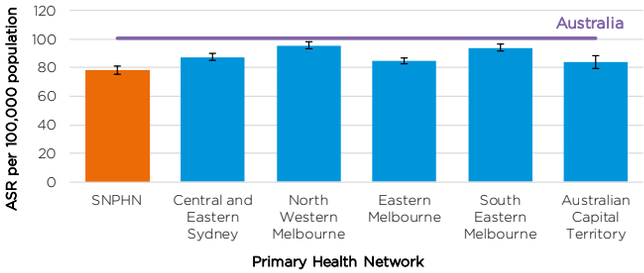
Over 5,000 people in the SNPHN region are expected to be diagnosed with cancer in 2016 (Cancer Institute NSW, 2015)

Death from malignant neoplasms in the SNPHN and NSW populations, 2001 to 2013



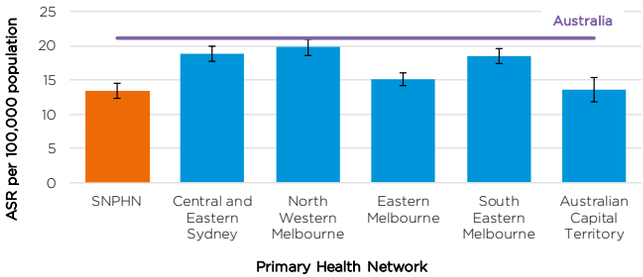
Source: Centre for Epidemiology and Evidence, 2015

Deaths from cancer in the population 0-74 years by PHN, 2010-14



Source: PHIDU 2016

Deaths from lung cancer in the population 0 -74 years by PHN, 2010-14



Source: PHIDU 2016

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 RBCO 2016 for the NSLHD, providing summary data on cancer incidence, morality and risk factors for the SNPHN region.

PHIDU data includes premature morality rates for lung, breast and colorectal cancers, based on the Cause of Death Unit Record Files from 2010-14. HealthStats NSW provides death rates in the SNPHN region, from all cancers, and from key cancers, from 2002 to 2013. Estimates of cancer prevalence in the SNPHN region is also available from the BEACH Program.

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

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

Premature mortality for all cancers was also significantly lower in the SNPHN region (78.5 per 100,000; 95% CI: 75.8-81.2) compared to Australia (100.7 per 100,000; 95% CI:100.1-101.3), NSW (101.9 per 100,000, 95% CI:100.8-102.9) and to all PHNs, excluding ACT. The highest rate of cancer morality within the SNPHN region was in Warringah and Ryde LGAs.

Within the SNPHN region, in 2008-12, breast cancer incidence was 70.3 per 100,000 (95% CI: 67.9-72.8), higher than the NSW rate of 60.9 per 100,000 (95% CI: 60.1-61.7). Breast cancer had the highest premature mortality rate of all cancers in 2010-14 (17.5 per 100,000 females; 95% CI: 15.7-19.3). The rate was similar to Australia, NSW and other comparator PHNs.

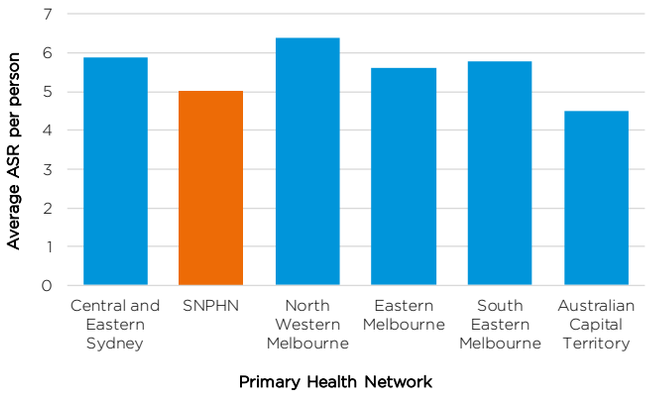
Whilst lung cancer more deaths in the SNPHN region; unlike most PHNs, premature mortality rate for lung cancer in SNPHN (13.4 per 100,000; 95% CI: 12.3-14.5) was lower than breast cancer. The premature mortality rate for lung cancer was significantly lower compared to Australia and all comparator PHNs except ACT.

CHAPTER 6

Primary Healthcare

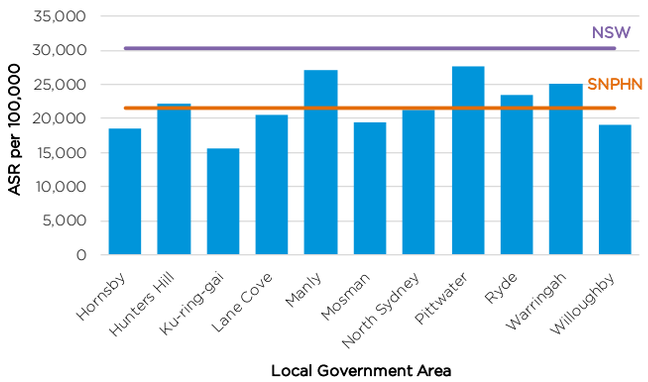
SNPHN residents access 12% of primary healthcare services outside the SNPHN region

Average number of GP attendances per person by PHN, 2013-14



Source: NHPA, 2015

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



Source: PHIDU 2016

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 SNPHN 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 SNPHN.

SYDNEY NORTH PRIMARY HEALTH NETWORK

SNPHN 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 SNPHN 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 SNPHN 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 SNPHN region are provided to people from outside the catchment, while 12% of services to SNPHN residents are accessed out of area.

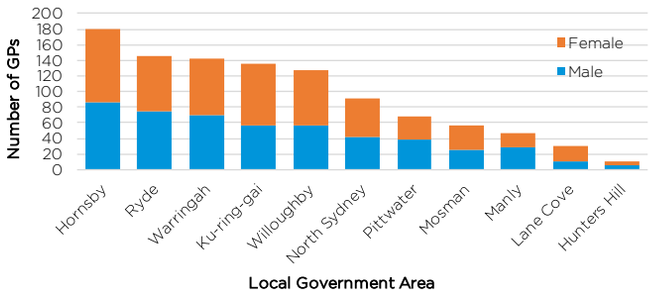
Where access to PHC services is inadequate, ED presentations and PPH are often high. Rates for both indicators are low in the SNPHN region suggesting reasonable access to PHC services for most of the population.

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.

See related content: 6.4 Barriers to access

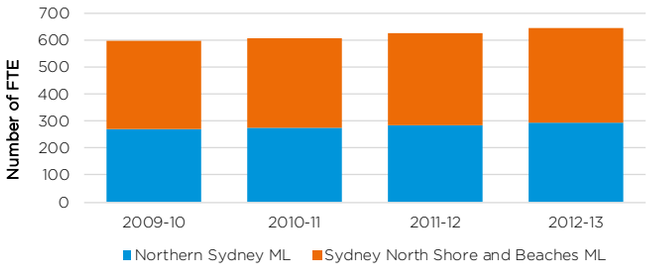
The GP workforce in the SNPHN region has a similar age structure to NSW

Number of GPs practising in the SNPHN region by LGA and by sex, 2014



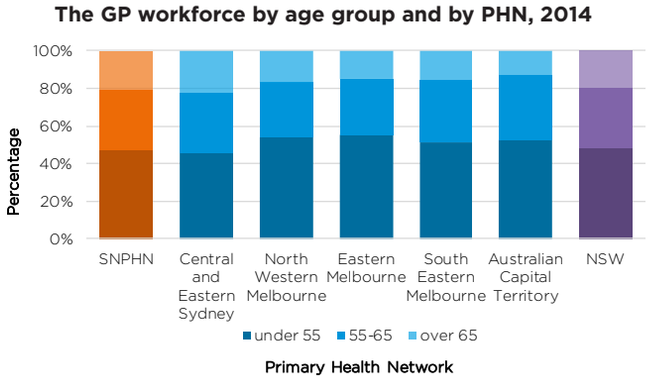
Source: Health Workforce Data Tool, 2013

Full time equivalent GP workforce in the SNPHN region by Medicare Local, 2009-10 to 2012-13



Source: Medicare Local Statistics and Data, 2013

The GP workforce by age group and by PHN, 2014



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 SNPHN for 2012-13 from Medicare Local Statistics and Data, although only in total for each of the two Medicare Locals comprising the SNPHN.

A headcount of GPs in the SNPHN 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 SNPHN region in 2014 is not currently available.

SYDNEY NORTH PRIMARY HEALTH NETWORK

In 2012-13, an estimated 1,156 GPs were practising within the SNPHN 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 SNPHN's internal database. These GPs work in 281 general practices in the SNPHN region, with an average of 4.3 individual GPs per practice in 2016.

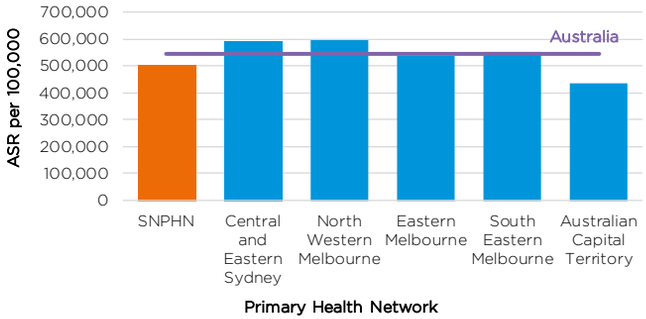
In 2014, the GP workforce in the SNPHN region had a larger proportion of female GPs (52%) compared with NSW (40%), and similar proportion (52.9%) of GPs aged over 55 years, compared to NSW (51.5%).

The proportion of GPs over 55 years is lower in the SNPHN 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 Dural-Wisemans Ferry, Asquith, Bayview-Elanora Heights and Terry Hills-Duffys Forest are currently considered a District of Workforce Shortage indicating that there is more access to general practice services in the rest of SNPHN compared to the national average.

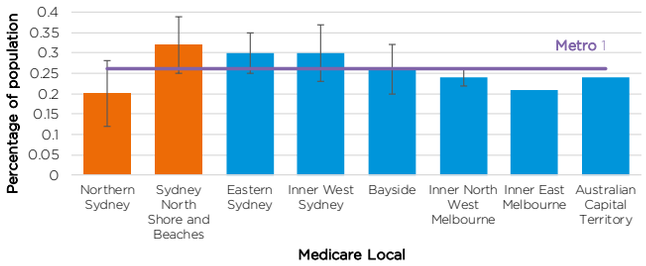
GP attendances are lower in the SNPHN region compared to NSW

Total GP services (MBS and DVA) provided by PHN, 2009-10



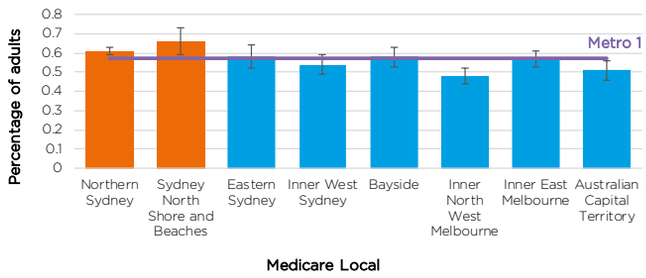
Source: PHIDU 2016

Percentage of the population who saw a health professional other than a doctor or dentist by Medicare Local, 2011-12



Source: NHPA, 2015

Percentage of adults who saw a dentist, hygienist or dental specialist in preceding 12 months by Medicare Local, 2011-12



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 SNPHN region in 2009-10. More recent data is not currently available.

The AIHW provides claims data on MBS item 715 (annual Indigenous specific health checks) by PHN from 2011-2014.

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.

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

The GP usage rate was lower for the Aboriginal population in the SNPHN region, with 1.7% receiving annual health checks in 2013-14, compared to 19.2% across NSW and 21.3% nationally. This has decreased from 4.6% in 2011-12 and 2% in 2012-13 and highlights the need for access to and utilisation of culturally appropriate services.

After hours GP attendances were also lower or equivalent in the SNPHN region than in comparator PHNs; 7% of adults in the SNPHN 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.

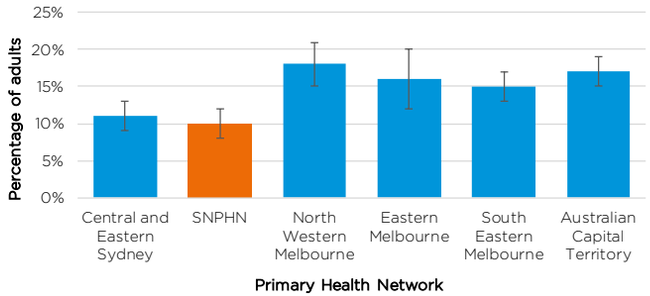
Attendances at other health professionals are also low in the SNPHN region. Only 20% (95%CI 12%-28%) of the Northern Sydney Medicare Local (NSML) population and 32% (95%CI 25-40%) of the Sydney North Shore and Beaches Medicare Local (SNSBML) saw a health professional other than a doctor or dentist in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

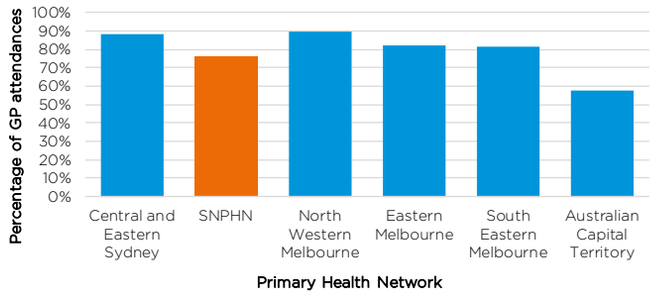
17% of adults in the SNPHN region waited longer to see a GP than they felt was acceptable

Percentage of adults who needed to see a GP in the preceding 12 months but did not by PHN, 2013-14



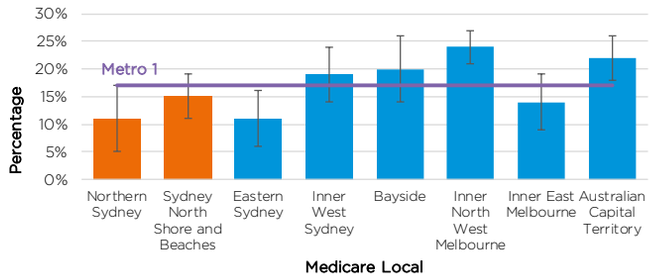
Source: NHPA, 2015

Percentage of GP attendances that were bulk-billed by PHN, 2014-15



Source: AIHW, 2016

Percentage of adults who delayed seeing a dentist, hygienist or dental specialist in the preceding 12 months due to cost by Medicare Local, 2011-12



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. Access can impact health outcomes of vulnerable and hard to reach groups-Aboriginal peoples, LGBTI people, 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 SNPHN 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 SNPHN 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 SNPHN region and is discussed in detail in chapter 8.

SYDNEY NORTH PRIMARY HEALTH NETWORK

On most occasions, adults in the SNPHN can get a GP appointment when needed. While 17% of adults in the SNPHN 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 SNPHN mostly saw a GP when they needed to (90%, 95%CI 88%-92%) and only 3% of adults in the SNPHN (95%CI 2%-5%) were delayed or prevented from seeing a GP because of cost. However, there was a lower proportion of bulk-billed GP attendances in the SNPHN region (75.9%) compared to Australia (84.3%) and most comparator PHNs. Lower rates of bulk billing can result in practitioners charging higher gap fees creating a financial barrier to accessing services especially in populations experiencing socio-economic disadvantage.

Prescriptions were affordable for most adults in the SNPHN 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.

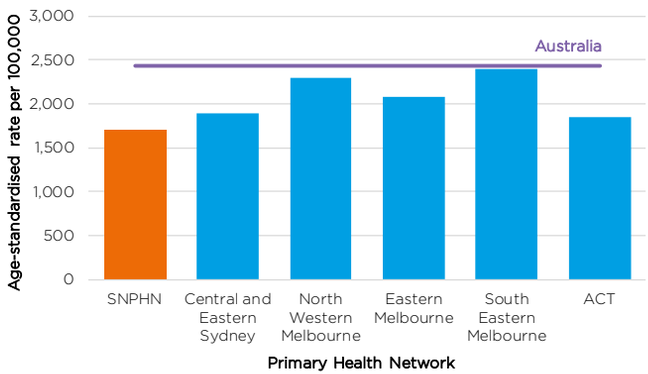
Other barriers include limited access to LGBTI appropriate services. Currently, 22 GPs in the SNPHN region have completed online training to be registered as gay friendly.

CHAPTER 7

Hospitalisation

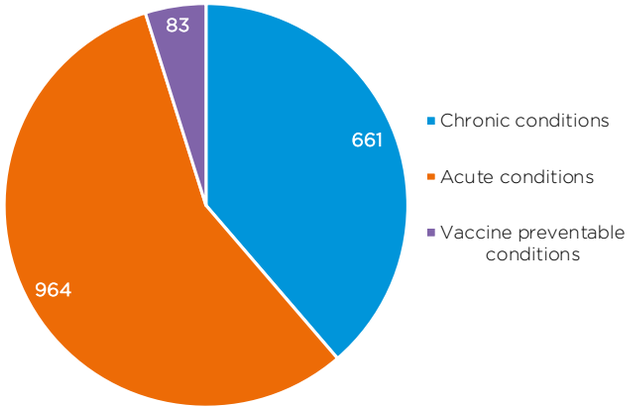
SNPHN had the lowest rate of potentially preventable hospitalisations across NSW and comparator PHNs for 2013-14

Potentially preventable hospitalisations by PHN,2013-14



Source: NHPA, 2015

Potentially preventable hospitalisations in the SNPHN population (age-standardised) per 100,000 population by category, 2013-14



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 SNPHN region could help identify opportunities for targeted interventions.

PPH for acute, chronic and vaccine-preventable conditions are national headline indicators on which the SNPHN is required to report.

AVAILABILITY AND ACCURACY OF DATA

PPH data is available for the SNPHN 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 PRIMARY HEALTH NETWORK

Compared to Australia and to comparator PHNs, the SNPHN region had the lowest rate of PPH per 100,000 people (age standardised) in 2013-14 (1,702 per 100,000 in the SNPHN region compared to 2,436 for Australia). This indicates that the healthcare services in the SNPHN 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 SNPHN 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 SNPHN 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.

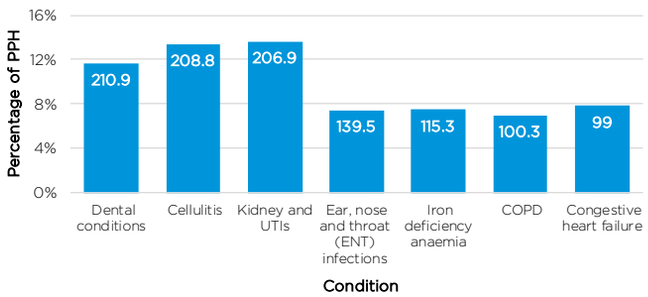
The average length of stay for acute and chronic conditions was 4 and 4.9 days respectively.

More than one third of PPH for vaccine-preventable conditions in the SNPHN 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.

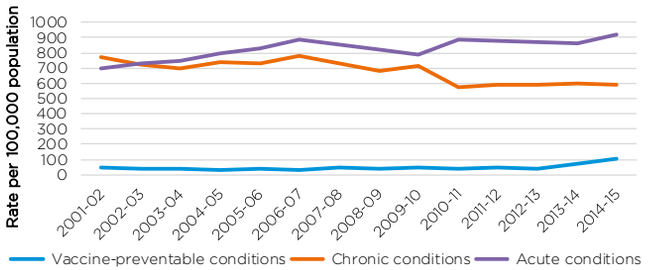
Cellulitis, kidney and UTIs, and dental conditions make up 40% of potentially preventable hospitalisations in the SNPHN region

Potentially preventable hospitalisations by condition in SNPHN, 2014-15



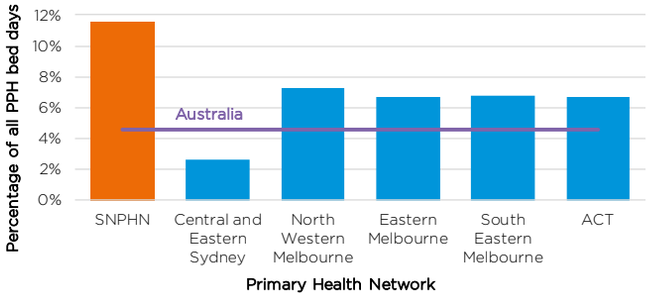
Source: Centre for Epidemiology and Evidence, 2016

Potentially preventable hospitalisations of SNPHN residents by category, 2001-02 to 2014-15



Source: Centre for Epidemiology and Evidence, 2016

Number of PPH bed days provided as Hospital in the Home, by PHN, 2013-14



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

2015 National Healthcare Agreement lists 22 separate conditions for which hospitalisation is considered potentially preventable (AIHW, 2016c). Age-standardised data by PHN for these conditions for 2014-15 is available from NSW Health Stats and is presented in this section. NHPA's analysis of Admitted Patient Care National Minimum Data Set 2013-14 is also included.

SYDNEY NORTH PRIMARY HEALTH NETWORK

PPH in the SNPHN region in 2014-15 were predominantly 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 conditions for which people in the SNPHN region were most likely to be admitted for a PPH. These conditions accounted for 38.7% of all PPH in the SNPHN region in 2014-15 and 34.3% of all bed days.

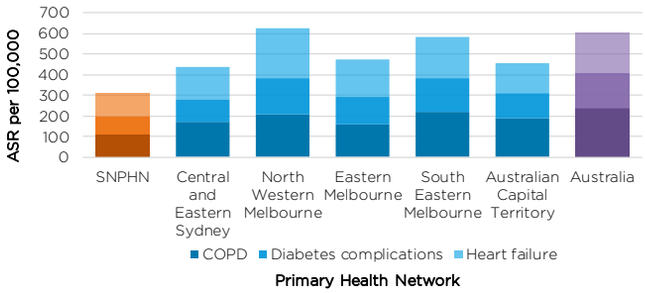
ENT infections, congestive heart failure, iron deficiency anaemia and COPD together accounted for 29.7% of all PPH and 32% of all bed days.

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 SNPHN 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 SNPHN region were provided through HITH compared with 2.6% in Central and Eastern Sydney PHN and 4.6% across Australia.

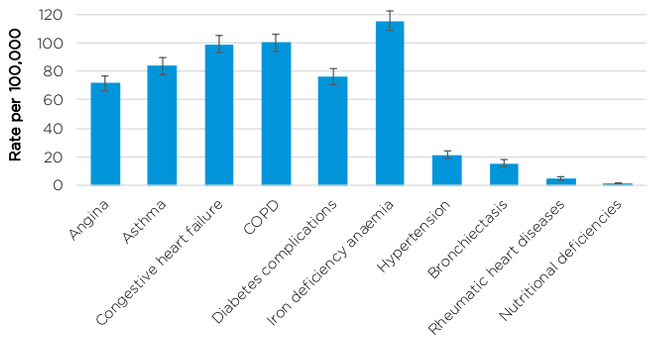
Rates of Potentially Preventable Hospitalisations for chronic conditions has remained stable in the SNPHN region since 2010-11

Potentially preventable hospitalisations for chronic conditions by PHN, 2013-14



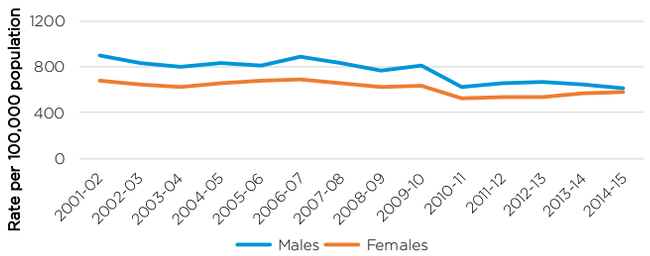
Source: NHPA, 2015

PPH for chronic conditions in SNPHN, 2014-15



Source: Centre for Epidemiology and Evidence, 2016

Potentially preventable hospitalisations of SNPHN residents for chronic conditions by sex, 2001-02 to 2014-15



Source: Centre for Epidemiology and Evidence, 2016

WHY IS THIS IMPORTANT?

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

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

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

AVAILABILITY AND ACCURACY OF DATA

Age-standardised PPH data for key chronic conditions, by condition and by PHN, are available from NSW HealthStats and NHPA. Data for PPH by conditions is currently not available for LGAs.

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

While iron deficiency anaemia had the highest rate of PPH of all chronic conditions, greater number of hospitalisations and bed days associated with congestive heart failure implied that it presented as a greater burden among SNPHN residents. Hospitalisations for all chronic conditions however, were significantly lower in the SNPHN region compared to NSW.

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

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

CHAPTER 8

Mental Health

Mental Health - Key Points

At a glance: The SNPHN 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 SNPHN is required to report. This includes treatments to children and adolescents which are to be reported separately.

8.1 For the SNPHN 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 SNPHN region accessed MBS subsidised mental health services.

8.3 The age structure of the SNPHN 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 SNPHN region compared to NSW and Metro 1 averages.

8.4 A smaller proportion of the GP workload is comprised of mental healthcare in the SNPHN 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.

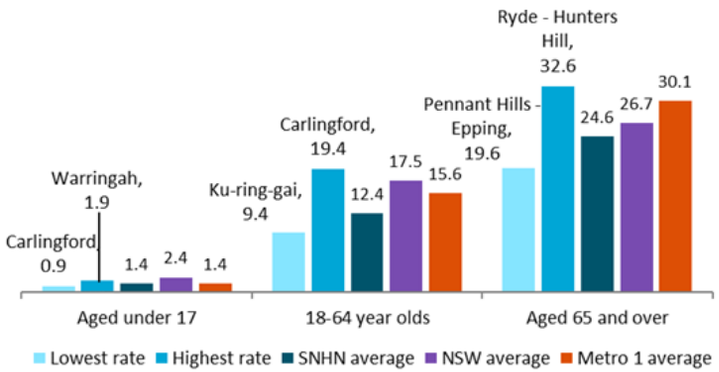
8.6 There are 70% more psychiatrists per head in the SNPHN region compared to the NSW average, creating a risk of supplier-induced demand. Patients using MBS mental health services and who reside in the SNPHN region are more likely to use psychiatrists, and on average use more psychiatric services than 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 SNPHN 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 SNPHN region in the level of antipsychotic medication prescribing. Rates in the elderly seem high.

Number of antipsychotic medication prescriptions dispensed per 100 people



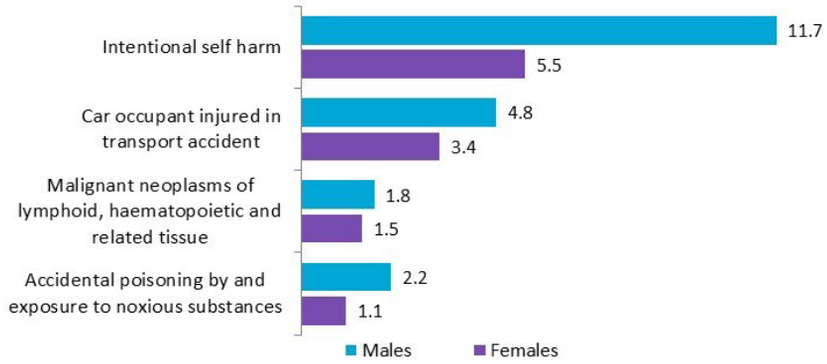
Source: EY analysis of 2013-14 Australian Atlas of Health Variation Data

8.10 The average fee charged in the SNPHN 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 SNPHN 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.

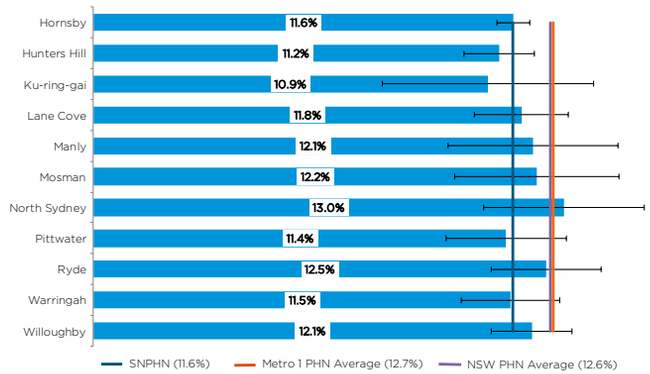
Underlying cause of death in 15-24 year olds, age standardised annual death rate per 100,000 in NSW



Source: ABS cat 3303 Causes of death, 2013

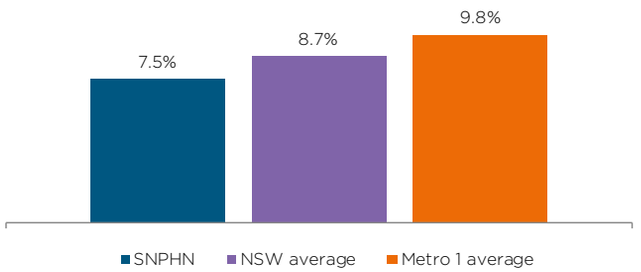
The SNPHN region has a lower level of reported mental health problems than NSW or Metro 1 areas, with a similar proportionate level of MBS services

Proportion of the population reporting mental and behavioural problems



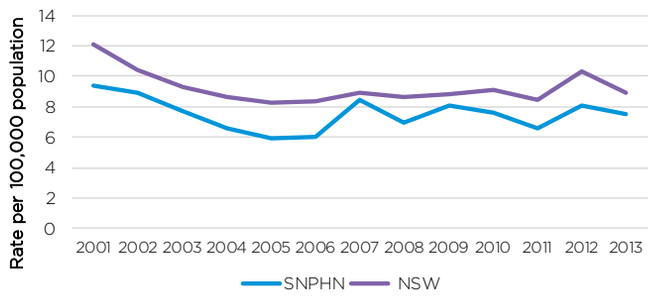
Source: EY analysis of PHIDU presentation of Australian Health Survey, 2011-2013 Health workforce data

Proportion of the population using MBS mental health services



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

Suicide rates in SNPHN and NSW, 2001-13



Source: Centre for Epidemiology and Evidence, 2016

WHY IS THIS IMPORTANT?

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

AVAILABILITY AND ACCURACY OF DATA

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

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

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

In the SNPHN region, 11.6% of the population report having a long-term mental health condition, 8.5% of adults report high or very high psychological distress, while 7.5% of the population used MBS services to treat mental health conditions in 2014-15. 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.

Suicide rates in the SNPHN region have remained stable over the past 10 years, similar to NSW, but suicide remains the highest cause of death for young people in the SNPHN region (see 8.12). In 2013, 71 deaths occurred in the SNPHN region due to suicide, averaging one death every five days. Further investigation of reasons contributing to youth suicide and self-harm may present opportunities for targeted intervention.

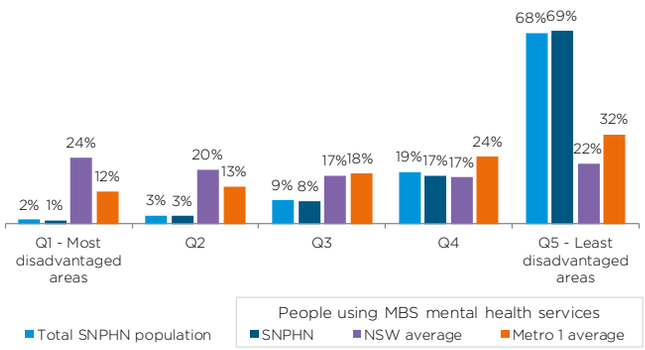
	SNPHN	NSW	METRO 1
People reporting mental and behavioural problems	11.6% (95% CI: 11.5-12.1)	12.6% (95% CI: 12.5-12.8)	12.7% (95% CI: 12.3-12.1)
High or very high psychological distress (18+ years)	8.5% (95% CI:8-8.9)	10.5% (95% CI: 10.3-10.7)	Not available
People using MBS mental health services	7.5%	8.7%	9.8%
Suicide rates per 100,000	7.5 (95% CI: 5.8-9.5)	8.9 (95% CI: 8.2-9.6)	Not available

7.5% of people (around 67,000) living in the SNPHN 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

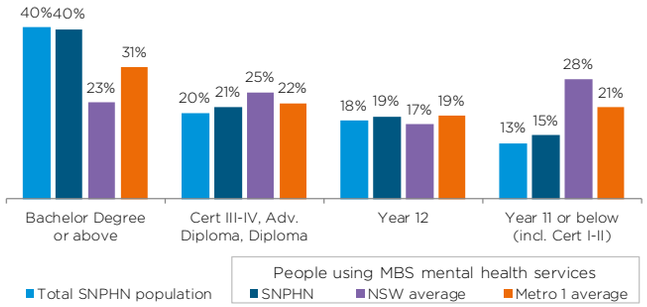
61% of people (41,000 out of 67,200) using MBS mental health services in the SNPHN region are female

Quintile of socioeconomic disadvantage



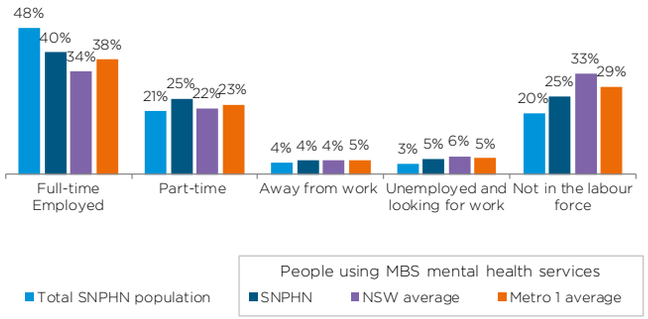
Source: EY analysis of ABS 4329, 2011

Level of educational attainment of 15-64 year olds



Source: EY analysis of ABS 4329, 2011

Labour force status of 15-64 year olds



Source: EY analysis of ABS 4329, 2011

WHY IS THIS IMPORTANT?

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

AVAILABILITY AND ACCURACY OF DATA

People using mental health services have been identified by determining who has claimed MBS subsidies for mental health services. These services include GP services, psychiatrists, psychologists, and relevant allied health services.

Stratification of the population into different 'needs groups', ranging from whole of population needs for mental health promotion and prevention, through to those with severe, persistent and complex conditions is important in understanding the different service responsibilities within the **stepped care approach** (Department of Health, 2016g).

SYDNEY NORTH PRIMARY HEALTH NETWORK

The male to female ratio of users of MBS subsidised mental health services in the SNPHN 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 SNPHN 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 SNPHN region.

Of the population using MBS mental health services in the SNPHN 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 SNPHN region that is above average. It is likely that the ability to pay for services increases the level of services provided.

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

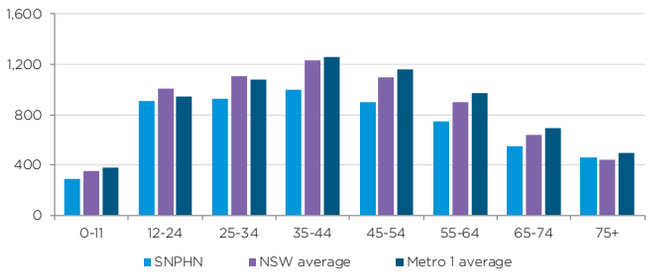
- 23.1% (209,519) of SNPHN population with previous illness, risk of relapse or at early stage of developing illness.
- 9.1% (82,538) with mild mental illness.
- 4.6% (41,722) with moderately severe mental illness.
- 3.1% (28,117) with severe mental illness

The SNPHN 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

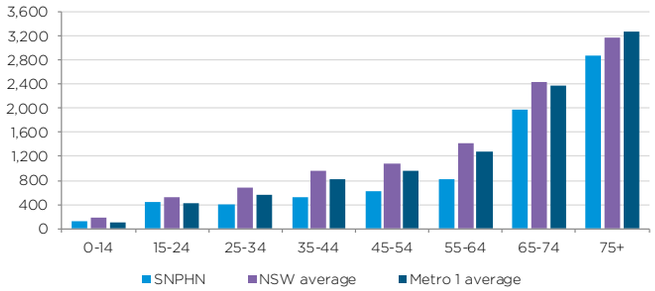
75+ year olds have higher use of MBS subsidised mental health services in the SNPHN region compared to the NSW average

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



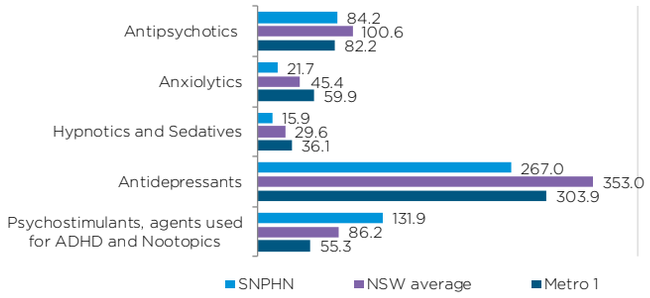
Source: Department of Health 2016, MBS claims data 2014-15

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 PRIMARY HEALTH NETWORK

For most age groups, the population in the SNPHN 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:

- 75+ year olds who use MBS mental health services at a marginally higher rate than the 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.

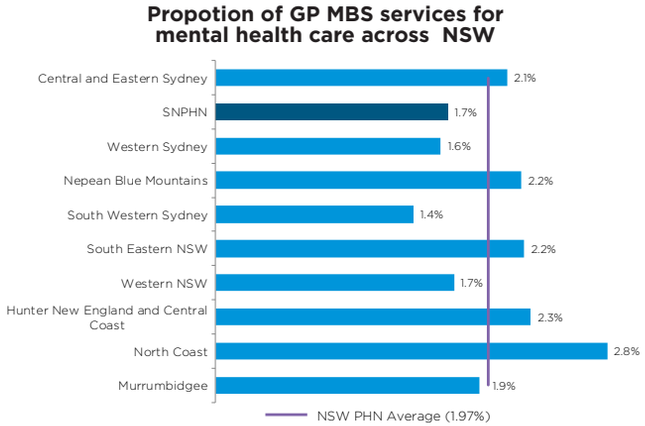
The higher rate of PBS listed mental health related medications appears to be driven by a higher rate of psychostimulant usage - 50% higher than the NSW average and more than twice the Metro 1 average. This mainly relates to ADHD treatment, and is likely reflecting the higher socio-economic status of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

MBS service usage is higher in males under 12 years compared to females but lower for those aged 12-24 years. The ratio of males to females using MBS subsidised mental health services for those under 12 years is 1.6:1 compared to 1:1.4 for those aged 12-24 years.

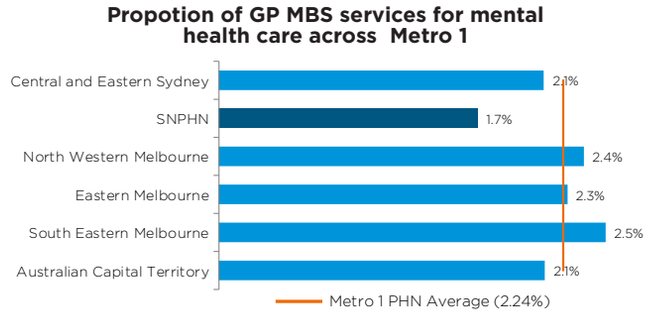
Higher use of medications to treat ADHD may reflect the higher socio-economic status of the SNPHN residents

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

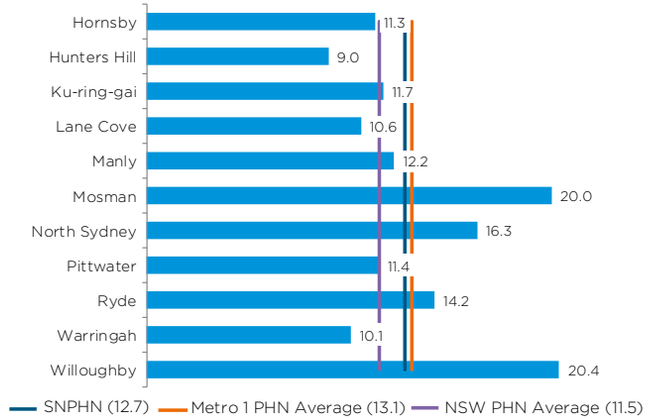
A smaller proportion of the GP workload is comprised of mental healthcare in the SNPHN region than in NSW and Metro 1



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 PRIMARY HEALTH NETWORK

The proportion of GP services delivered in the SNPHN 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 SNPHN 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).

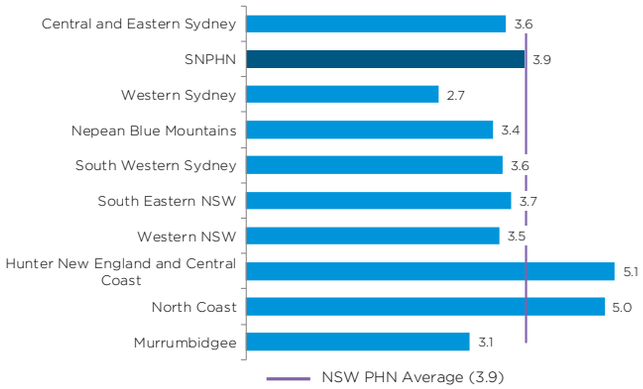
This does not appear to be caused by an undersupply of GPs in the SNPHN area as the number of GPs per 10,000 population is similar in the SNPHN region to the Metro 1 peer group, and higher than the NSW average. This has not been adjusted for full-time equivalency.

The SNPHN 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

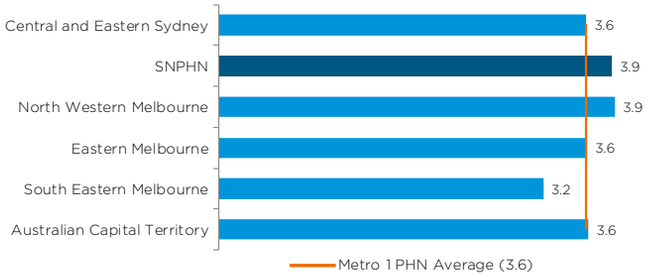
The number of GP Mental Health Treatment Plans produced is consistent with the number of mental health patients

Number of GP Mental Health Treatment Plans produced per 100 patients using MBS mental health services across NSW



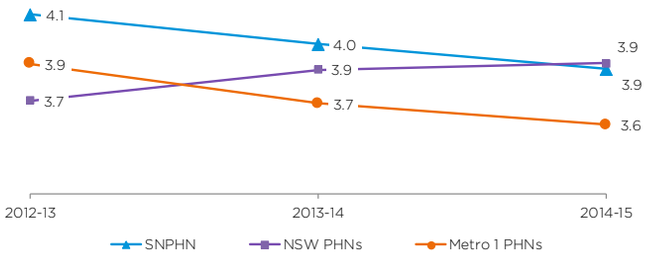
Source: EY analysis of MBS claims data, 2014-15

Number of GP Mental Health Treatment Plans produced per 100 patients using MBS mental health services across Metro 1



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

Number of GP Mental Health Treatment Plans produced per 100 patients using MBS mental health services



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?

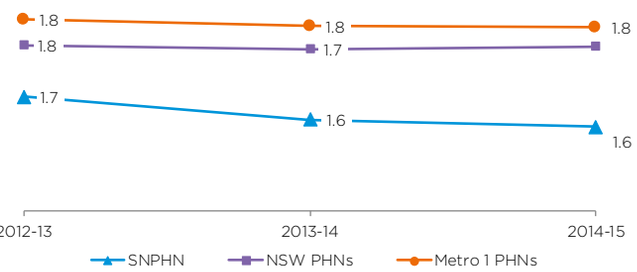
Preparation of GP Mental Health Treatment Plans has been measured by the number of patients for which an MBS item 2700 was claimed. For each patient, a MBS rebate can be claimed once every 12 months, except where there has been a significant change in the patient's clinical condition or care circumstances 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 PRIMARY HEALTH NETWORK

The number of GP Mental Health Treatment Plans produced per 100 patients using MBS mental health services in the SNPHN region is similar to the NSW PHN average and the Metro 1 PHN average. This indicates that the GPs working in the SNPHN 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 SNPHN region. This may indicate GPs are providing fewer services to patients with mental disorders but could also just relate to changes in claiming behaviour.

Average number of GP MBS mental health services provided per patient using MBS mental health services



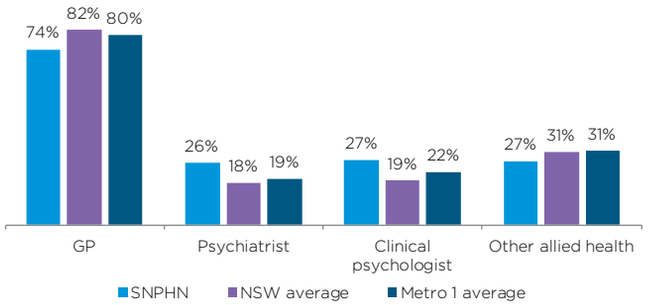
Source: EY analysis of MBS claims data, 2012-15

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

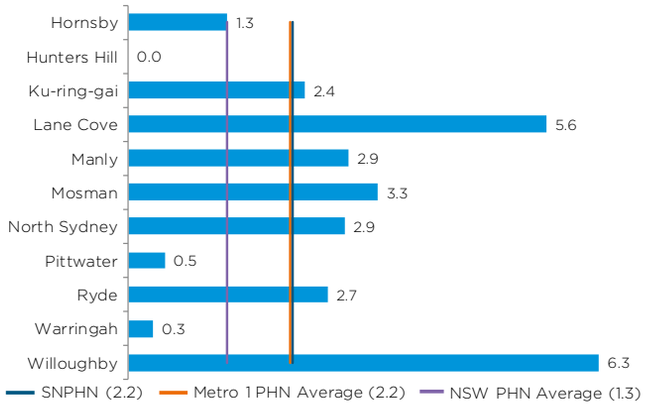
The number of GP Mental Health Treatment Plans produced is consistent with the number of mental health patients

The proportion of MBS patients seen by different providers



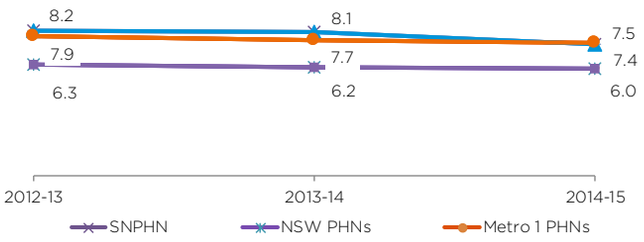
Source: EY analysis of MBS Mental Health data, 2014-15

Number of psychiatrists per 10,000 population



Source: EY analysis of 2014 Health workforce data

Average number of psychiatrist MBS mental health services provided per patient



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 PRIMARY HEALTH NETWORK

The proportion of services provided by psychiatrists to patients within the SNPHN 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 SNPHN region compared to NSW, so lower rates of psychiatric care rather than higher might have expected. The lower proportion of SNPHN MBS mental health patients using a GP may indicate that the psychiatrists are providing care that is provided by GPs in other locations.

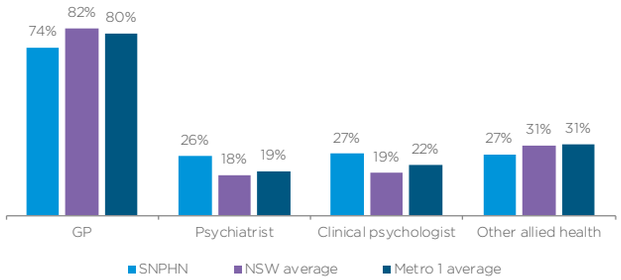
One area that may be worth further review is the potential that residents of the SNPHN region are being over-serviced according to their estimated level of need. This cannot be assessed without further information on the diagnosis and a corresponding recommended level of treatment.

There are 70% more psychiatrists per 10,000 population in the SNPHN 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

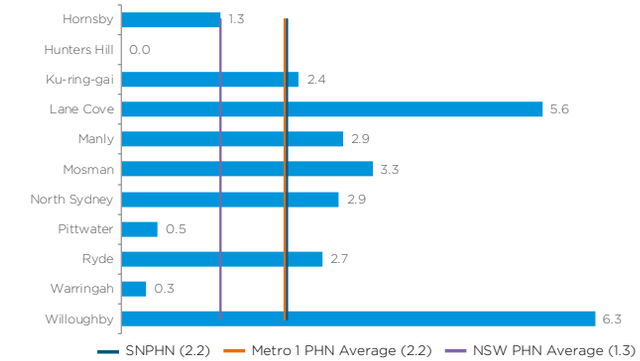
The proportion of mental health services provided by clinical psychologists in the SNPHN region is higher than the NSW average

The proportion of MBS patients seen by different providers



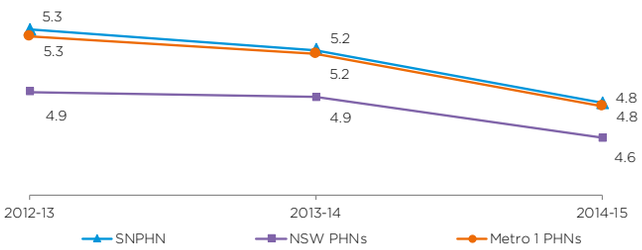
Source: EY analysis of MBS Mental Health data, 2014-15

Number of psychologists per 10,000 population



Source: EY analysis of 2014 Health workforce data

Average number of Clinical Psychologist MBS mental health services provided per patient



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 PRIMARY HEALTH NETWORK

The proportion of services provided by clinical psychologist to patients within the SNPHN 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 SNPHN 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.

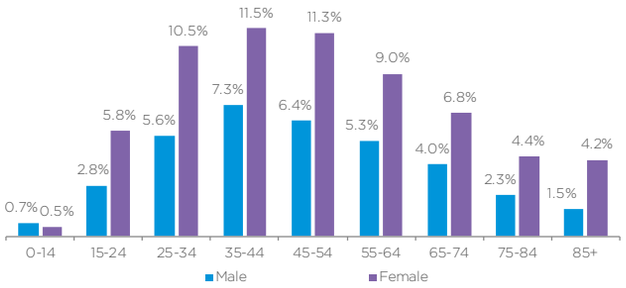
There was a reduction in the average number of claims per patient by clinical psychologists in 2014/15. This may have been due to changes in claiming rules as similar trends occurred for Metro 1 PHNs and NSW overall.

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 mental healthcare, 8.6 Use of psychiatrist services

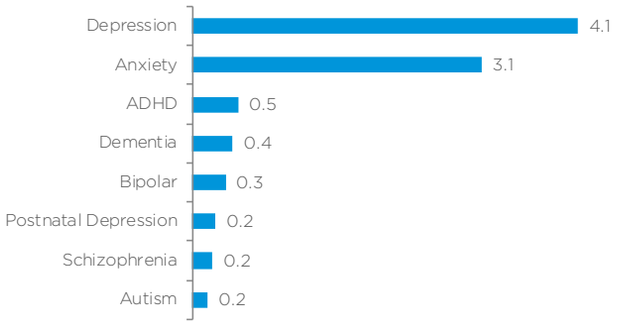
Depression and anxiety are the most common mental disorders diagnosed, yet prevalence in the SNPHN region is lower than across Australia

Profile of people diagnosed with a mental health condition by age and gender



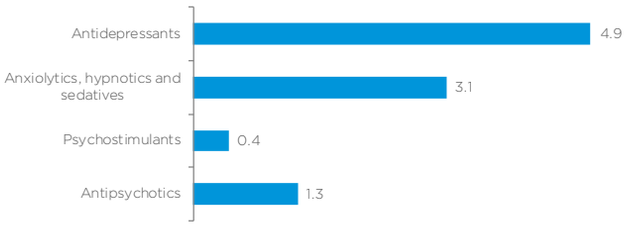
Source: EY analysis of PenCAT data from 24 practices in SNPHN, February 2016

Mental health diagnoses per 100 people



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

Individuals in SNPHN for whom PBS mental health medications are prescribed per 100 people



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

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 SNPHN 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 SNPHN region. When recording patient details in PenCAT, the doctor may select multiple diagnoses for a single individual. Potential limitations of this data include:

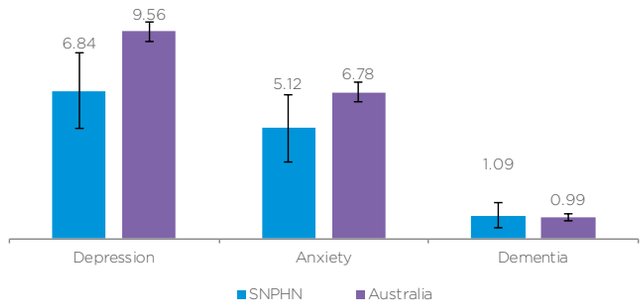
- Duplication of patients attending multiple practices
- No information on patients who have not sought care or been diagnosed
- Patients cannot be differentiated by residential location (within or external to the PHN).

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

Estimated prevalence of selected mental health conditions



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

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

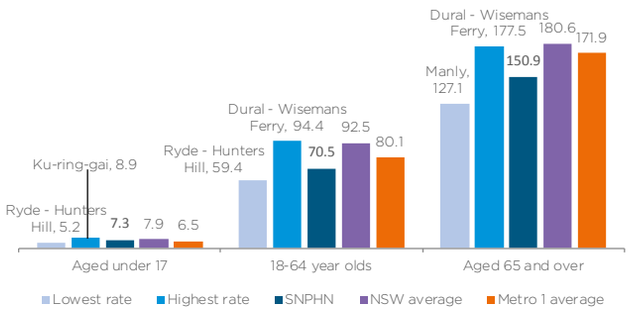
Prescriptions for PBS mental health medications per 100 population is higher than the rate of diagnosis for depression, bipolar and schizophrenia. This may be due to diagnosis prevalence in the sample population being less than the true prevalence in the SNPHN region, or due to off-label prescribing.

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

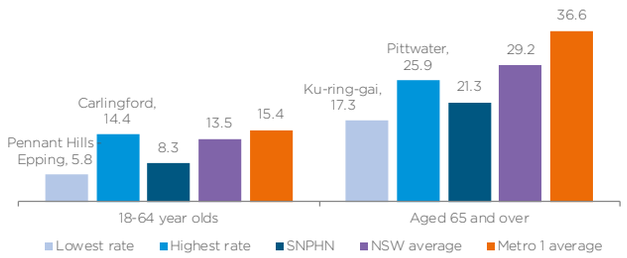
There is significant variation within the SNPHN region (up to two fold) in the level of mental health-related medication prescribing

Number of antidepressant medication prescriptions dispensed per 100 people



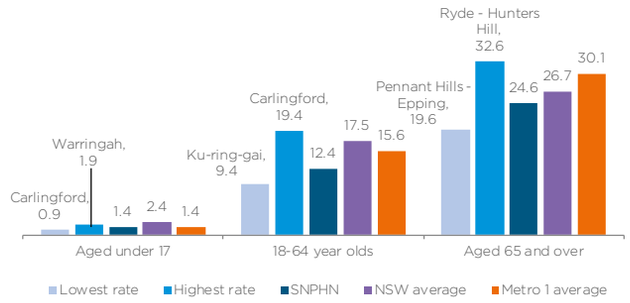
Source: EY analysis of 2013-14 Australian Atlas of Health Variation data

Number of anxiolytic medication prescriptions dispensed per 100 people



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

Number of antipsychotic medication prescriptions dispensed per 100 people



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 SNPHN region respectively.

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

SYDNEY NORTH PRIMARY HEALTH NETWORK

On average the dispensing rates of medications for mental disorders in the SNPHN region is lower than the NSW average or the Metro 1 average. There is however variation within the SNPHN 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 SNPHN 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 SNPHN region, again lower than the 4.4 and 1.9 for Australia.

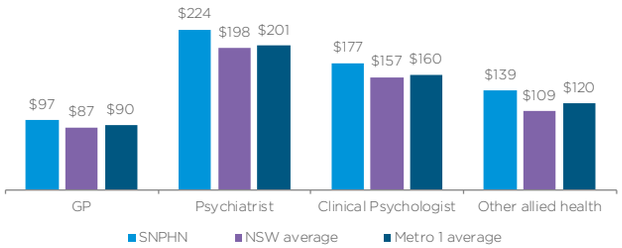
Medication usage rates seem in line with prevalence data, indicating lower disease rates in the SNPHN region. Potential overuse of anti-psychotic medication in the management of dementia symptoms in the elderly could be examined in more detail.

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

See related content: 8.8 Frequent mental health diagnoses

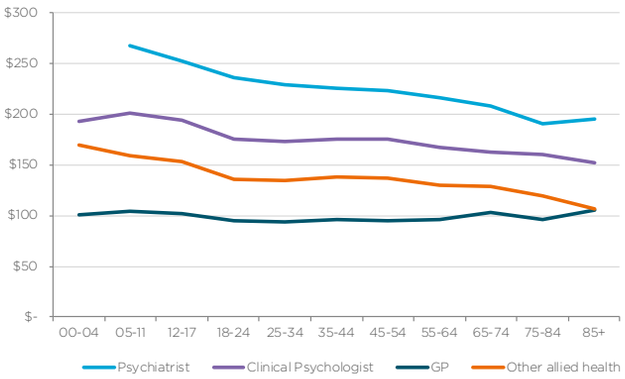
The average fee charged in the SNPHN region is higher than for NSW or Metro 1 for all mental health service types

The average fee paid per MBS service to different providers



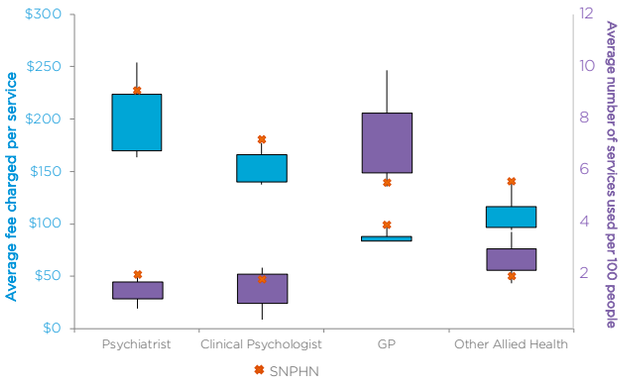
Source: EY analysis of MBS Mental Health data, 2014-15

Average fee charged per MBS mental health service delivered to SNPHN residents, by age group



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

Range of fees charged and number of services delivered across NSW PHNs



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 PRIMARY HEALTH NETWORK

On average residents in the SNPHN 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.

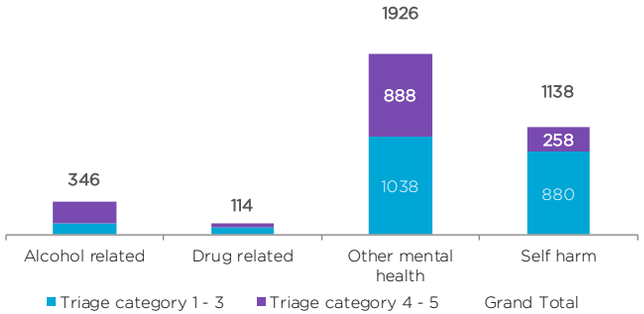
Higher mental health service charges in the SNPHN region do not seem to reduce the rate of people using mental health services in the area.

Higher mental health service charges in the SNPHN 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

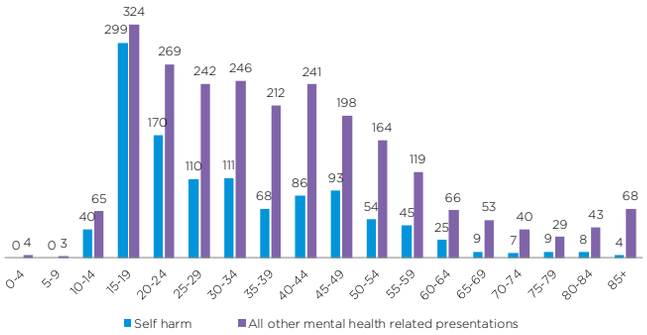
On average, 1.6 of 15-19 year olds present to an ED every day with self harm or suicidal thoughts or attempts in the SNPHN region

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



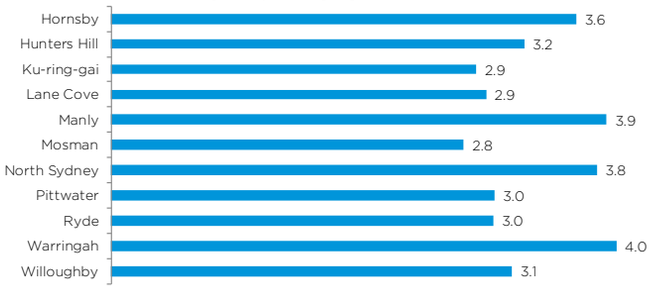
Source: EY analysis of SNPHN ED presentation data, January- June 2014

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



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

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



Source: EY analysis of SNPHN 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 SNPHN region, it does not capture people from the SNPHN 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 SNPHN region presentations have been identified and NSW level information is presented as an initial indicator, not a direct comparator.

SYDNEY NORTH PRIMARY 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 SNPHN 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.

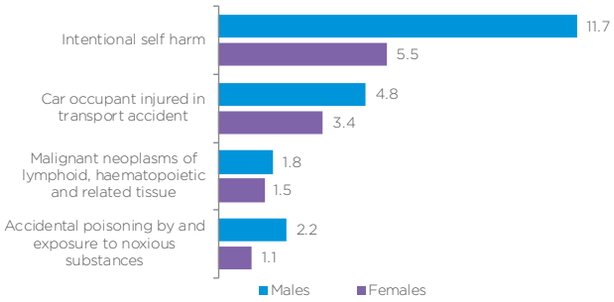
Of the ED presentations related to mental health, three out of ten are aged 15-24 and half occur in the 15-34 year age bracket. Presentations by LGA within the SNPHN region vary from 2.8 per 1,000 population in Mosman to 4.0 in Warringah. This is despite Warringah having a lower proportion of the population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

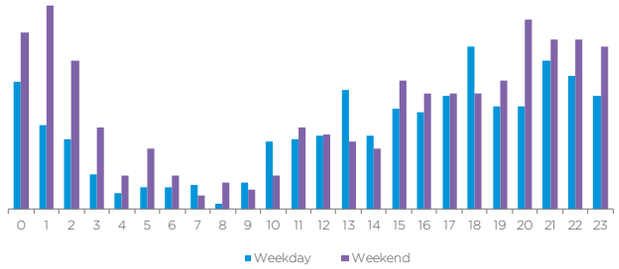
Intentional self-harm is the greatest cause of death in 15-24 year olds - twice that of motor vehicle injury

Underlying cause of death in 15-24 year olds, age standardised annual death rate per 100,000 in NSW



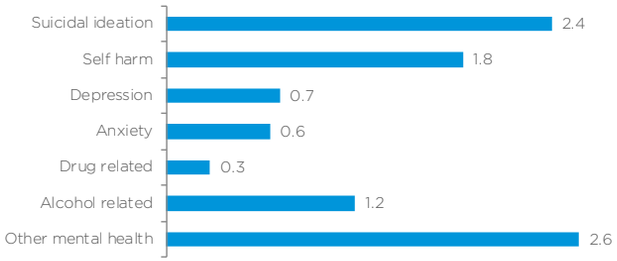
Source: ABS cat 3303 Causes of Death, 2013

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



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

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



Source: EY analysis of SNPHN 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 - e.g. alcohol, depression and anxiety will be under-reported.

SYDNEY NORTH PRIMARY 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).

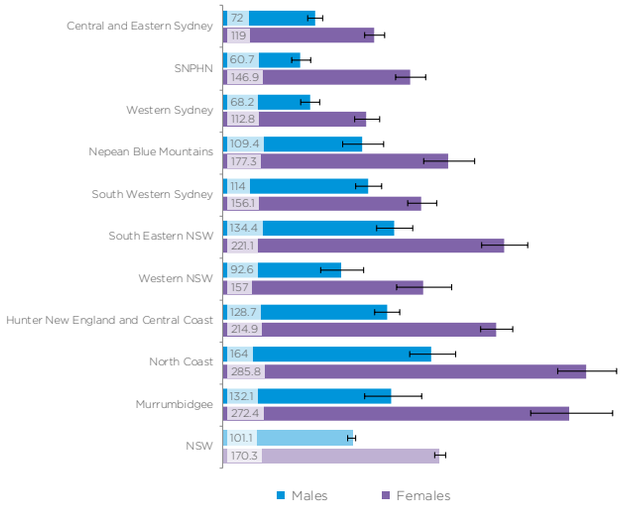
Child and youth preventive mental health service provision was identified by key respondents as an area that would benefit from further resource being deployed in the SNPHN area, including improving preventive mental health programs and increasing access to services.

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

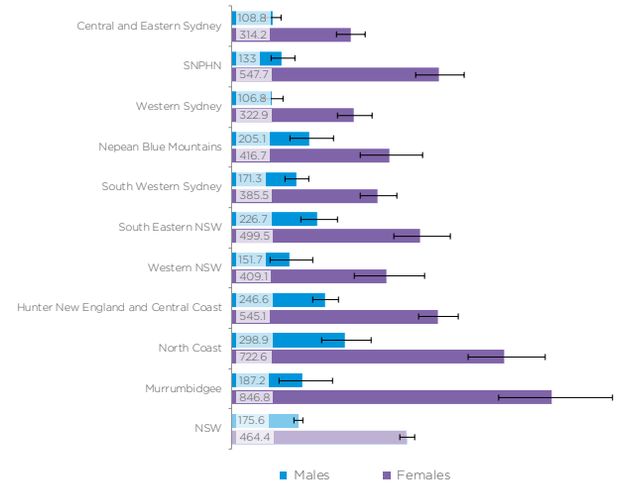
In the SNPHN region, the rate of hospitalisation for intentional self-harm is higher in females aged 15-24 years than males

Hospitalisation rate for intentional self-harm in all ages per 100,0000, 2014-15



Source: Centre for Epidemiology and Evidence, 2016

Hospitalisation rate for intentional self-harm in 15-24 year olds per 100,0000, 2014-15



Source: Centre for Epidemiology and Evidence, 2016

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 PRIMARY HEALTH NETWORK

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

For all ages, the hospitalisation rate in the SNPHN region (103.3 per 100,000; 95% CI: 96.6-110.4) is significantly lower than NSW (135.1 per 100,000; 95% CI: 132.5-137.8). Males in the SNPHN region (60.7 per 100,000; 95% CI: 53.6-68.6) have the lowest rates of hospitalisation of all PHNs. Though SNPHN females (146.9 per 100,000; 95% CI: 135.5-159) have a higher rate than men; the rate is second lowest in NSW.

The rate of hospitalisation for self-harm in the 15-24 years' age group in the region (335 per 100,000; 95% CI: 301.8-371.3) is similar to the NSW rate (316 per 100,000; 95% CI: 304.8-327.3). While SNPHN males (133 per 100,000; 95% CI: 104.6-166.7) have a similar rate of hospitalisation to NSW males (176 per 100,000; 95% CI: 164.3-187.5); admission rates for SNPHN females (548 per 100,000; 95% CI: 486.6-614.3) in this age group is however, higher than both SNPHN males and NSW females (464 per 100,000; 95% CI: 445.1-484.3).

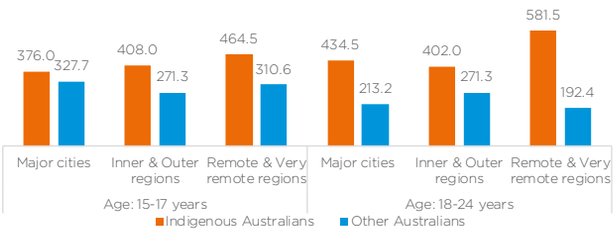
In a similar way to ED presentations, females are hospitalised at a higher rate than males, yet males are more likely to die through intentional self-harm.

The residents within the SNPHN 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

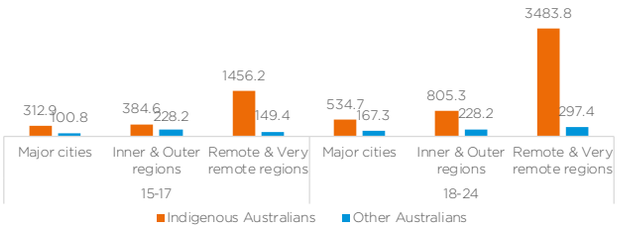
Injury caused by assault is the main cause of hospitalisation due to intentional injury for the Indigenous population aged under 25

Rates of intentional self harm per 100,000 population, 2011-13



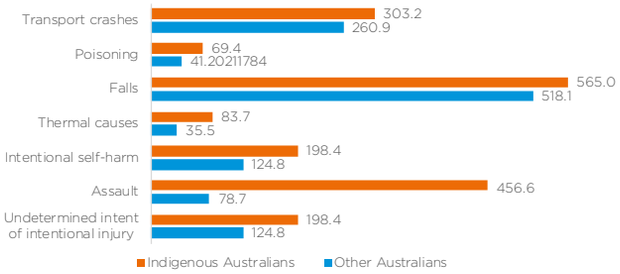
Source: AIHW: Pointer S 2016. Hospitalised injuries in Aboriginal and Torres Strait Islander children and young people: 2011–13. Injury research and statistics series no. 96. Cat. no. INJCAT 172. Canberra: AIHW. Table B9

Rates of injury cased by assult per 100,000 population 2011-13



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

Hospitalisation rates due to injury per 100,000 population aged 0 to 24 years, 2011-13



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?

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

HOW IS IT MEASURED?

The Australian Aboriginal and Torres Strait Islander Health Survey 2012-13 uses the modified Kessler Psychological Distress (K5) Scale as a measure of non-specific psychological distress in individuals 18 years and over. This has been supplemented in this section with hospitalisation data from NSW Health Stats and AIHW.

SYDNEY NORTH PRIMARY HEALTH NETWORK

Across Australia, there is a higher rate of psychological distress among Aboriginal people compared to non-Aboriginal people, with 29.4% (95% CI: 27.3- 31.5) of the Aboriginal population in Australia reporting high or very high psychological distress compared to 10.8% (95% CI: 10.2-11.4) of non-Aboriginal people. High rates of distress illustrate the need for targeted interventions to prevent subsequent hospitalisations and suicide.

In NSW, suicide rates are higher among Aboriginal people (12.5 per 100,000; 95% CI: 9.7-15.6) compared to non-Aboriginal people (8.9 per 100,000; 95% CI: 8.6-9.2).

While data around suicide is not available by PHN, rates of hospitalisations for mental health disorders among Aboriginal people (2,686 per 100,000, 95% CI: 2,011-3,495) in the SNPHN region is higher compared to non-Aboriginal people (1,860 per 100,000; 95% CI: 1,832-1,888) emphasising the gap in health outcomes.

Across Australia, the rates of intentional self-harm hospitalisations in the 15-24 year age groups are higher in Aboriginal people compared to non-Aboriginal people, with assault causing the highest rate of hospitalisation in terms of intentional injuries. If the rates in the SNPHN 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, emphasising 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 cities, 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

LGBTI people are 2.4 times more likely to use illicit drugs

WHY IS THIS IMPORTANT?

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

Population groups:

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

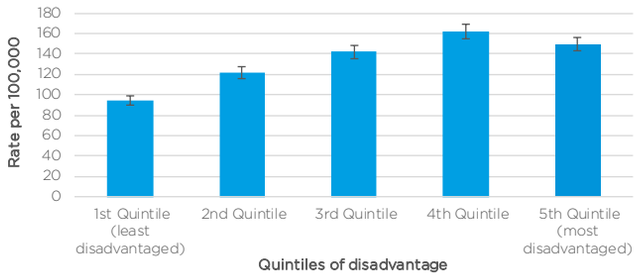
HOW IS IT MEASURED?

This section presents data from NSW HealthStats, National Drug Strategy Household Survey 2013 and results from a literature review to provide a comprehensive overview of the needs of vulnerable population groups identified above.

Socio-economic disadvantage

People in the most disadvantaged quintile in NSW have higher rates of hospitalisations for intentional self-harm (149.4 per 100,000; 95% CI: 143-156) compared to those in the least disadvantaged quintile (94.2 per 100,000; 95% CI: 89.3-99.3).

Rate of hospitalisations in NSW for intentional self-harm by socio-economic status, 2014-15



Source: Centre for Epidemiology and Evidence, 2016

LGBTI people

An estimated 22,700 LGBTI people live within the region, with specific lifestyle behaviours and health issues (ACON).

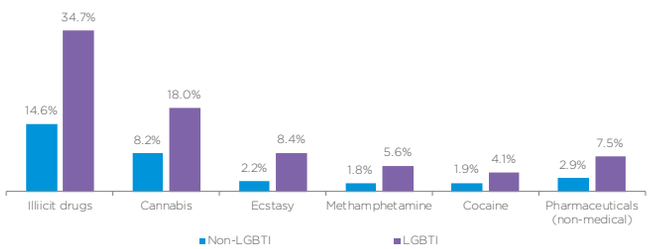
There is a high risk of HIV and Hepatitis C among LGBTI people due to high risk sexual practices as well as drug usage patterns. Nationally, gay men have the highest prevalence of HIV (17%) (The Kirby Institute, 2015). Cancer and STI screening behaviours were also poorer among homosexual women.

LGBTI people are 1.7 times more likely to experience major depression and 4.1 times more likely to attempt suicide (Ritter et al, 2012). Suicidal ideation is higher among young LGBTI people, partly due to impacts of higher rates of violence and harassment (beyondblue, 2010). There is also a higher prevalence of risky drinking and illicit drug use. Across Australia, 29.9% of LGBTI people reported engaging in risky drinking behaviours compared to 18.5% of non-LGBTI people and 38.6% reported using illicit drugs in the past 12 months:- 2.4 times higher than non-LGBTI people (14.6%).

Perinatal depression

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

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



Source: AHIW: National Drug Strategy Household Survey 2013

Intellectual disability

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

Homelessness

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

Elderly

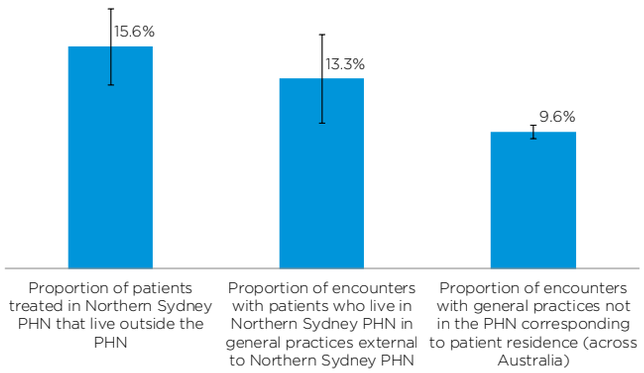
In NSW, rates of suicide in persons aged 75 years and over (13.6 per 100,000; 95% CI: 10.6-17.3) is higher compared to all ages (8.9 per 100,000; 95% CI: 8.2-9.6), with a greater burden on males. Males aged 75 years and over have the highest rate of suicide in NSW - 25.9 per 100,000 (95% CI: 19.6-33.6), whilst those aged 35-54 years have the largest number of suicides.

CALD

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

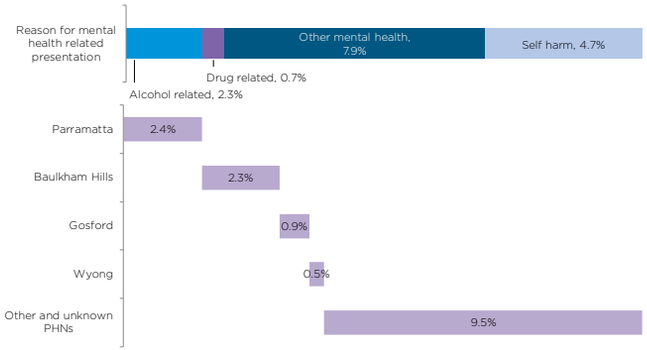
16% of ED mental health-related presentations to the SNPHN hospitals are for residents of other PHNs

Proportion of patients attending general practices in other PHNs



Source: BEACH data, April 2011-March 2015

Patients presenting to EDs with mental health, drug and alcohol related conditions from LGAs external to Northern Sydney (% of total mental health, drug and alcohol related presentations)



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

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

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

WHY IS THIS IMPORTANT?

In considering the number of services to be provided in the SNPHN region, it is not just the need of the residents within the SNPHN 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 SNPHN 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 SNPHN region to other hospitals.

SYDNEY NORTH PRIMARY 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 SNPHN region (16% of consults) than are residents within the SNPHN region receiving services from providers in alternate PHNs (13% of all SNPHN consults)—so a net inflow.

Of the identified mental health related ED presentations, 16% are for people residing in LGAs not within the SNPHN region—in line with the GP consult inflow. There may be an opportunity for providers of mental healthcare in the SNPHN 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 SNPHN region for GP services than are residents within the SNPHN region receiving services out of the area.

CHAPTER 9

Urgent Care

Urgent Care - Key Points

At a glance: the SNPHN 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 SNPHN 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 SNPHN region. ED attendances from Warringah and Hornsby LGAs account for a third of all ED attendances in the SNPHN 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 SNPHN region were at Royal North Shore (RNS) Hospital. Hornsby Hospital received the second highest proportion of ED attendances (almost 20%).

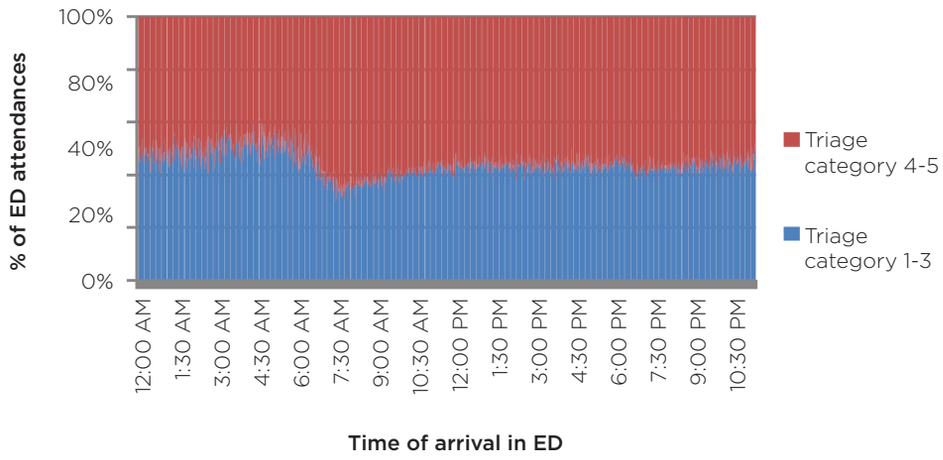
9.6 In the SNPHN region, while absolute numbers were low, most age groups within the Aboriginal-identified population had a higher ED attendance rate than their non-Indigenous counterparts.

9.7 Lane Cove LGA had the highest rate of ED attendances of Aboriginal people in the SNPHN region. Almost a third of all Aboriginal people attending EDs in the SNPHN region came from LGAs outside the SNPHN 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.

Proportion of ED attendances by triage category over 24 hours



Source: EY analysis of SNPHN ED data

9.10 In 2014/15 the SNPHN region had the highest rate of GP after-hours/ emergency providers per 100,000 in NSW. Despite this, the SNPHN 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 SNPHN 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

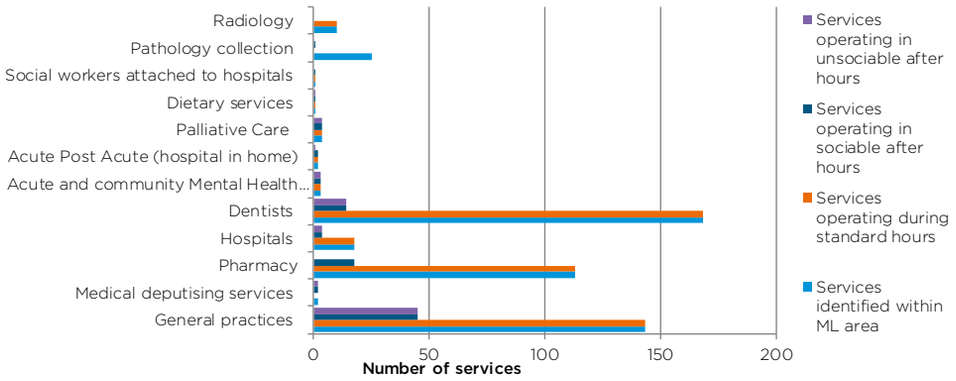
Increasing trend of 16-24 year olds presenting to local EDs in the Hornsby LGA Findings in relation to utilisation of after hours services included:

- 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:

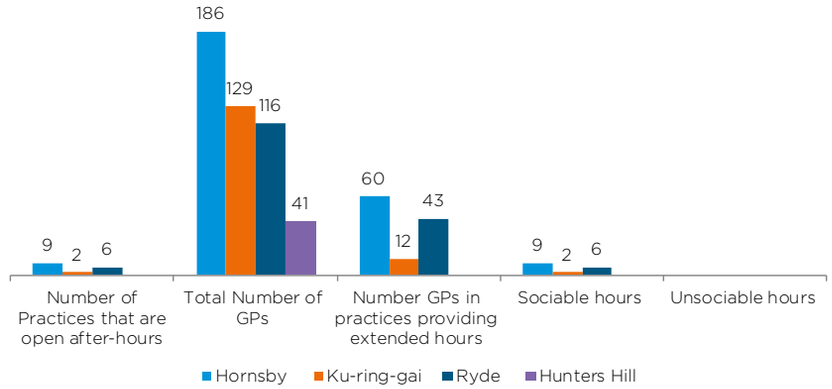
# of General Practices	# of practices providing after hours care	Medical deputising services (MDS)	% of practices providing after hours through an MDS	# of practices providing their own after hours care
143	45	2	80%	30

Service capacity mapping: Service provider information summary



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

Practices providing extended hours for patients by LGA



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:

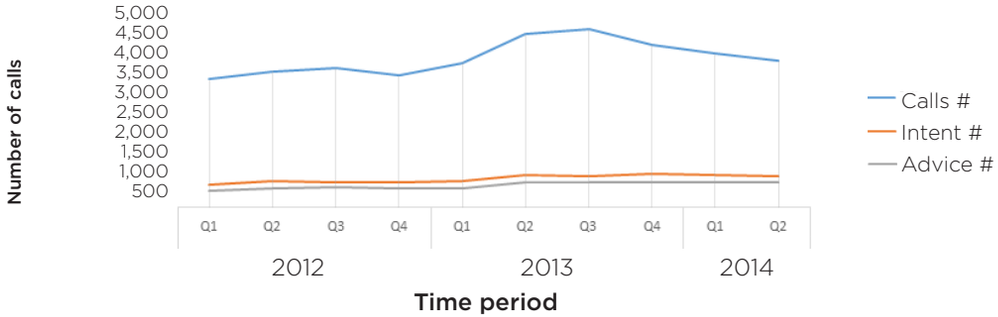
# of General Practices	# of practices offering 24 hour access to care	Medical deputising services (MDS)	% of practices providing after hours through an MDS	# of practices providing their own after hours care
147	53	4	75	14

- 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.

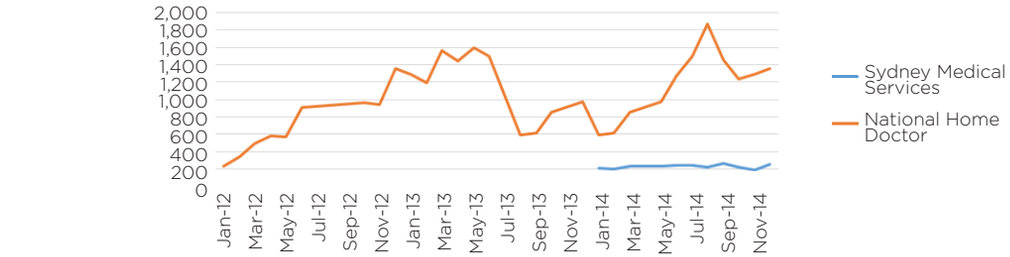
The implementation report details the action and outputs defined to meet objectives of the after hours plan. For instance, the trend of uptake of the Healthdirect GP Helpline was one indicator used to demonstrate access to triage and community based services. An analysis of the number of calls received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

HealthDirect calls by internet and advice (2012-2014)



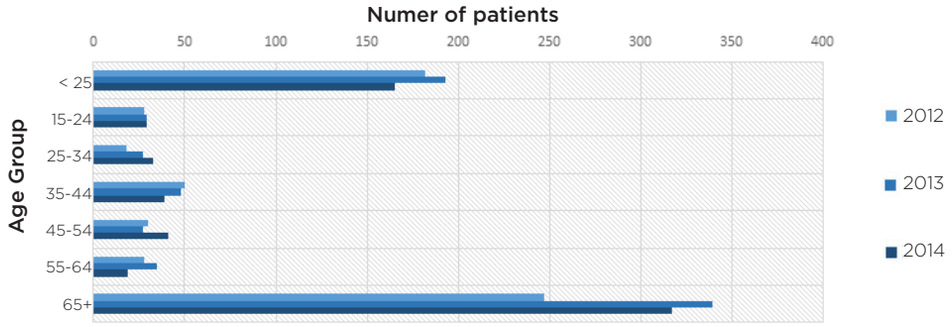
Grants were offered to medical deputising services to expand after hours services into areas of need. The graph below shows a large increase in calls to the National Home Doctor service from January to August 2014.

Number of calls to Sydney Medical Services and National Home Doctor by month (2012-2014)



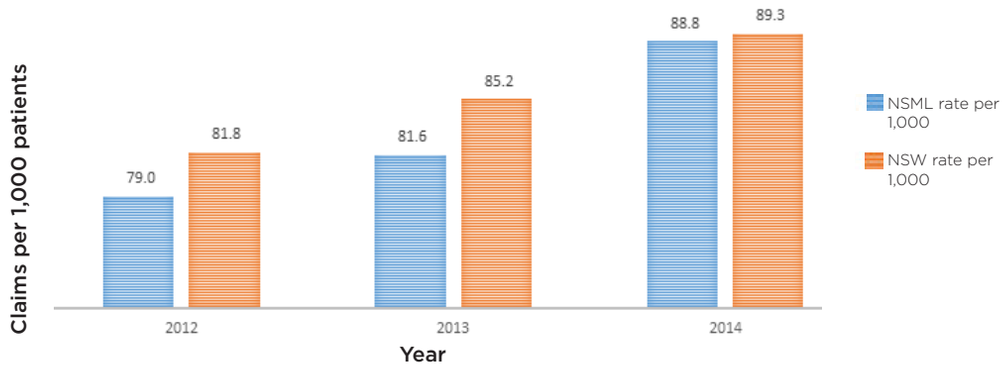
The below breakdown of the proportion of age groups seen by a medical deputising service shows that patients aged under 15 and over 65 were the largest users of this service.

Proportion of age groups seen by a Medical Deputising Service



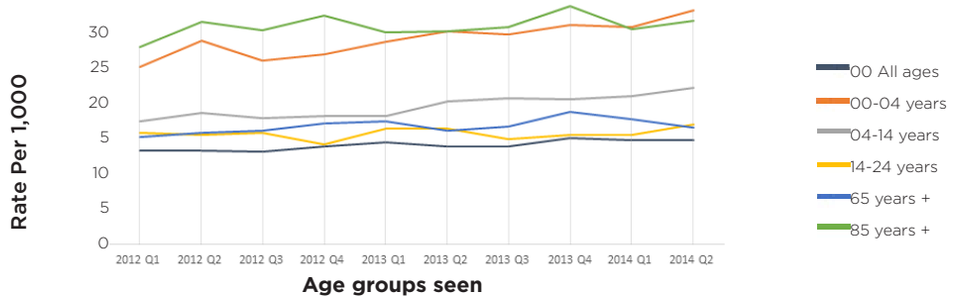
The implementation report found that, the rate of GP after hours claims in NSML were lower than the rate of claims across NSW. However, the gap has reduced and NSML and NSW were claiming almost equal rates by 2014.

GP after hours MBS clams by calendar year



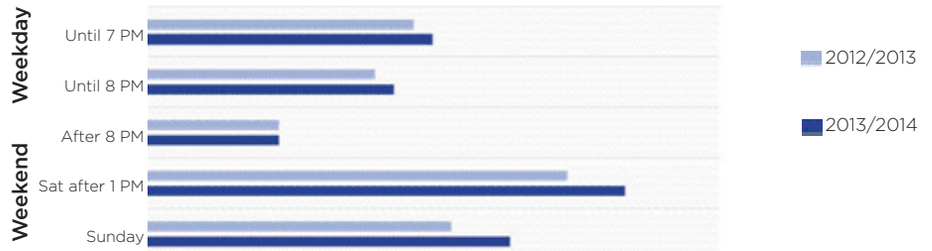
The implementation report presents an analysis of paediatric and elderly ED presentations that fell into less urgent triage categories (triage 4 and 5). It notes that patients aged 0-4 and 85+ had the highest rate of less-urgent ED attendances.

Not urgent after hours presentation rates to all EDs within NSML



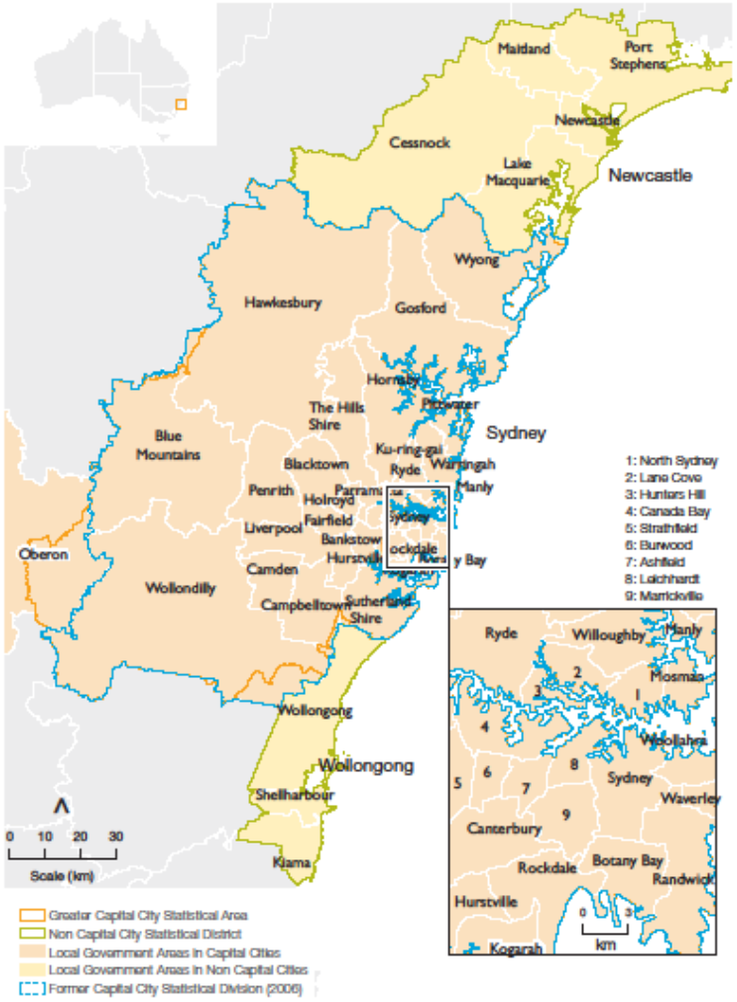
The implementation report notes that NSML was awarded $380,000 in funding to assist health services with extending after hours coverage. A graph is provided in the report, showing the resultant increase in after hours services available.

Available practice opening times in after hours period (2012/13 – 2013/14)



Local Government Area (LGA) boundaries in Sydney as at 2012

Local Government areas in Sydney, Newcastle and Wollongong

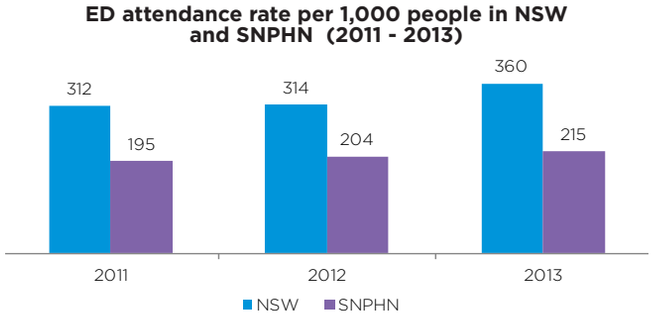


Source: Department of Infrastructure and Transport, 2012

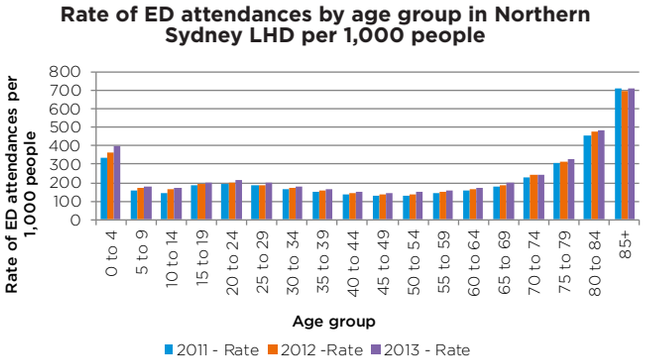
Hospitals within the SNPHN region

Source: NSW Department of Health website

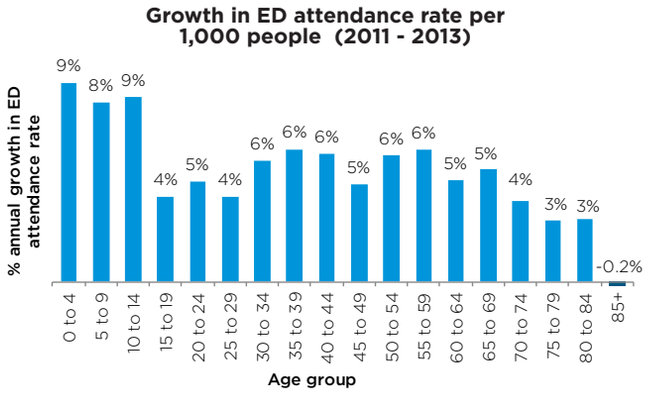
The SNPHN region has a lower rate of ED attendance than NSW



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



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

WHY IS THIS IMPORTANT?

A disproportionately high utilisation of emergency care services may indicate that there are opportunities to improve primary care services. Understanding the profile of patients who attended emergency departments (EDs') in the SNPHN 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 SNPHN region to attend hospitals elsewhere. To calculate ED attendance rate, an age breakdown of the population of the SNPHN region was obtained from the Department of Health population data for years 2011 to 2013.

SYDNEY NORTH PRIMARY HEALTH NETWORK

From 2011-2013, the ED attendance rate in the SNPHN 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 SNPHN 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 SNPHN 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.

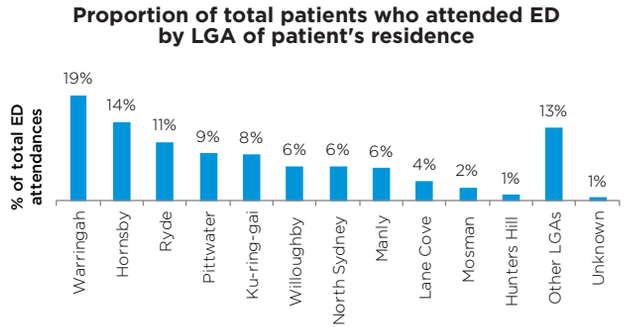
All age groups except 85 years+ experienced growth in ED attendance rates from 2011 to 2013.

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 SNPHN region amongst the 0 to 4 and 85+ age groups are lower than NSW rates, further analysis could reveal opportunity for intervention.

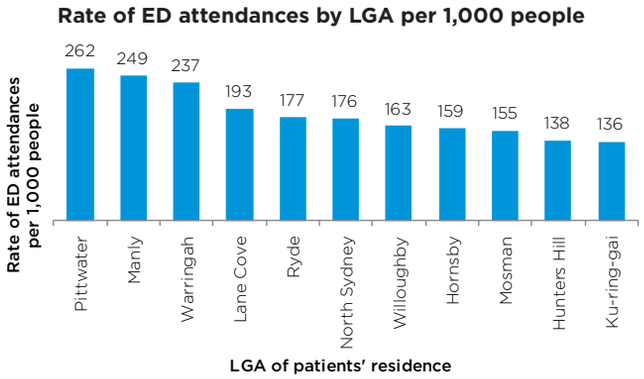
The 0 to 4 and 85+ age groups had the highest number of ED attendances of all age groups

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

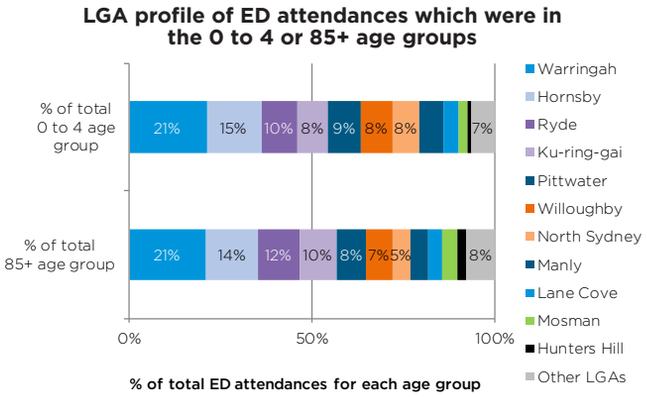
Rates of ED attendance were highest in Pittwater and Manly



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



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



Source: EY analysis of SNPHN 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 SNPHN 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 PRIMARY 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 SNPHN region average may be a contributing factor to the higher volume of ED attendances in these areas, though other LGAs have lower concentrations of GPs without the higher rates of ED attendances, suggesting that other factors may also contribute to Pittwater and Manly having a high ED attendance rate. It may be possible to identify models of care in the lower utilisations areas that could be transferred to high use areas.

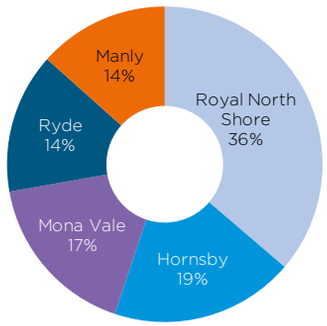
Patterns of ED attendances in the highest visiting age groups '0 to 4' and '85+' generally reflected the LGA demographics.

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

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

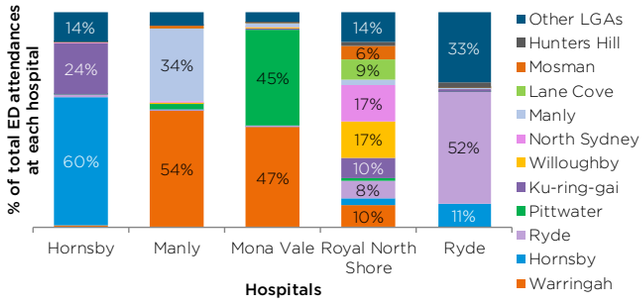
Royal North Shore Hospital has a third of all ED attendances in the SNPHN region, with the greatest spread of residential LGAs

Proportion of total ED attendances by hospital



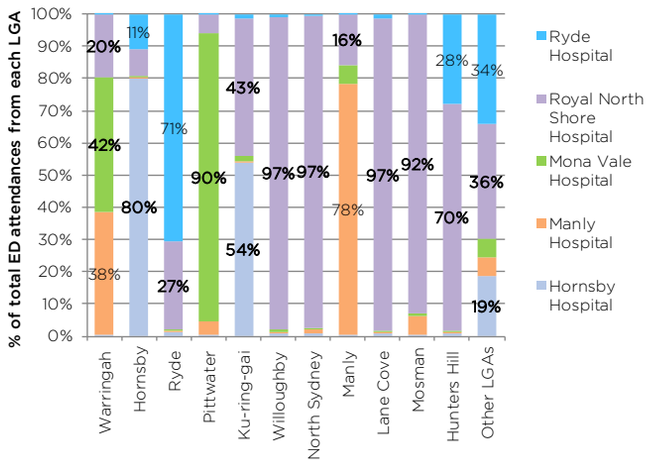
Source: EY analysis of SNPHN ED data (July 2010-June 2014)

LGA profile of ED attendances by hospital



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

Hospital profile of ED attendances by LGA



Source: EY analysis of SNPHN 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 PRIMARY 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.

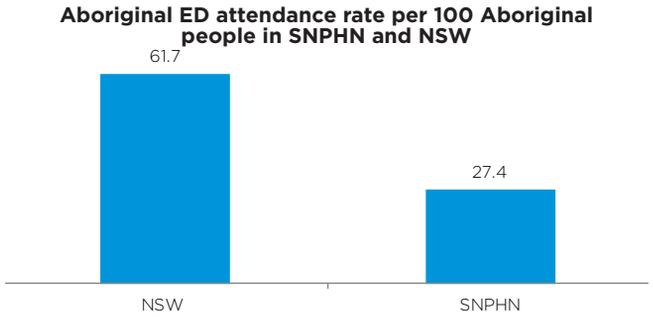
Hornsby Hospital received the second highest proportion of ED attendances, at almost 20%, most from the Hornsby LGA. Per the analysis on page 10.3, Hornsby LGA had a relatively low rate of ED attendance of 163 per 1,000 people.

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.

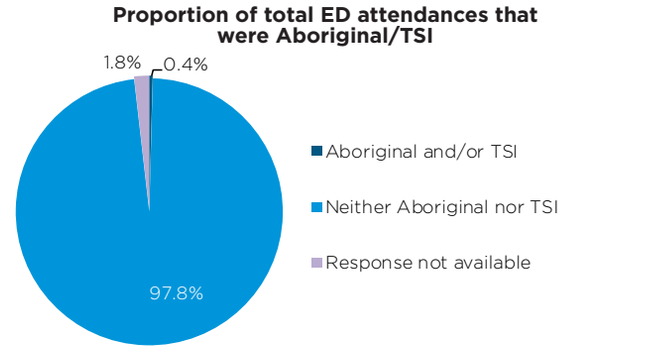
The majority of patients attended their local or neighbouring ED

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

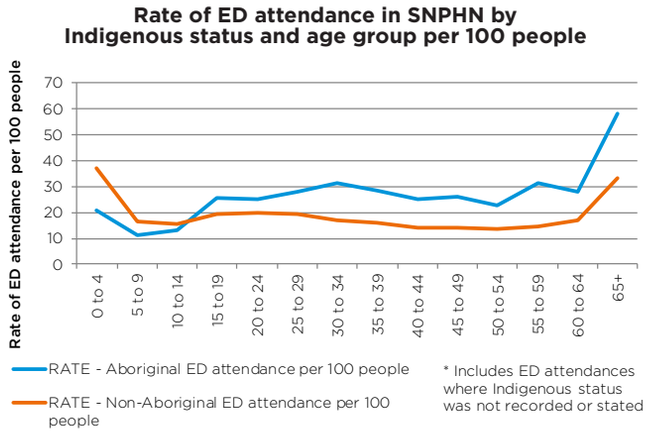
The Aboriginal population aged 15 years and over had higher ED attendance rates than their non-Indigenous counterparts



Source: EY representation of NSW Health data (2013)



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



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

WHY IS THIS IMPORTANT?

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

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 SNPHN 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 SNPHN region and NSW were obtained from PHIDU (June 2015), which published the Aboriginal population as at 2013 ERP.

SYDNEY NORTH PRIMARY HEALTH NETWORK

ED attendance rates for the Aboriginal population in the SNPHN region is significantly lower than the NSW average, however the Aboriginal population in the SNPHN 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 SNPHN region.

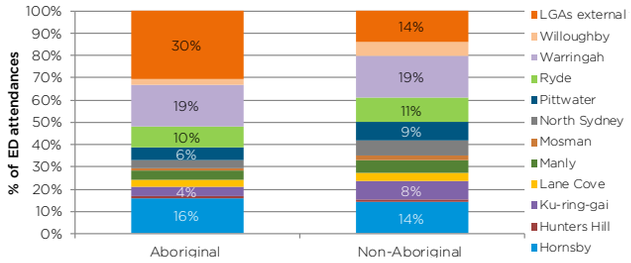
From July 2010 to June 2014 there were 3,006 ED attendances in the SNPHN region where the patient was identified as Aboriginal,0.4% of all presentations. Adult age groups within the Aboriginal population (i.e. age 15+) had higher ED attendance rates than their non-Indigenous counterparts. Interestingly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

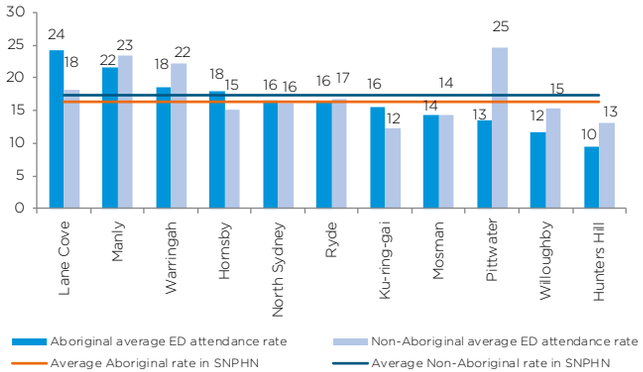
The Aboriginal ED attendance rate was higher than the non- Indigenous in 3 out of 11 LGAs - Lane Cove, Hornsby, Ku-ring-gai

LGA profile of ED attendances by Indigenous status



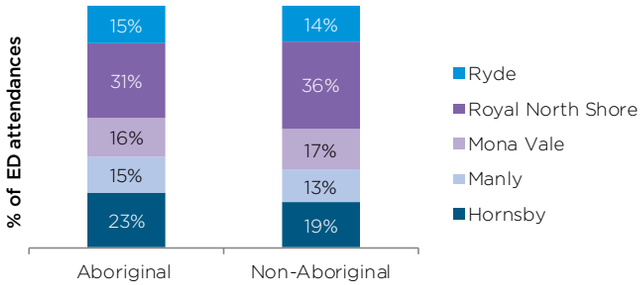
Source: EY analysis of SNPHN ED data (July 2010-June 2014)

Rate of Aboriginal/non-Aboriginal ED attendances per 100 people in LGAs across SNPHN



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

Proportion of ED attendances by Indigenous status and hospital



Source: EY analysis of SNPHN 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 SNPHN LGAs were obtained from PHIDU (June 2015), which published the Aboriginal population by LGA as at 2013 ERP.

SYDNEY NORTH PRIMARY 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 SNPHN 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.

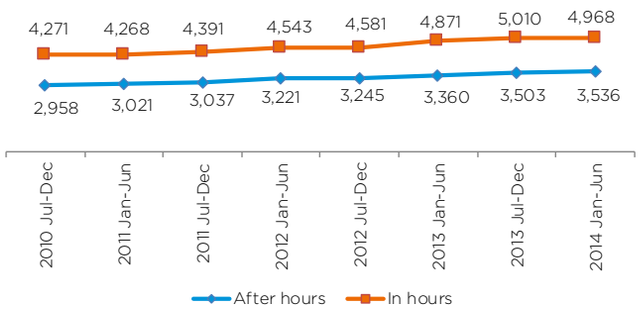
The specific hospitals used by Aboriginal residents was similar to their non Aboriginal counterparts. The slightly greater proportion of Aboriginal ED attendances going to Hornsby Hospital is likely to be due to the higher proportion of Aboriginal ED attendances that came from Hornsby LGA and the Bungee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

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

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

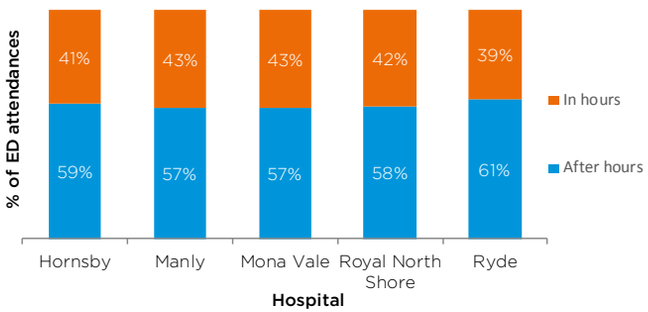
Whilst the majority of ED attendances occurred after hours, there was a higher per hour rate of attendances between 9am and 5pm

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



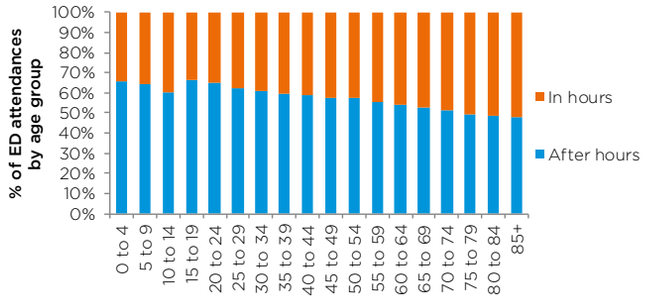
Source: EY analysis of SNPHN ED data (July 2010-June 2014)

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



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

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



Source: EY analysis of SNPHN 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 SNPHN 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 PRIMARY HEALTH NETWORK

From July 2010 to June 2014, the majority (58%) of ED attendances in the SNPHN 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.

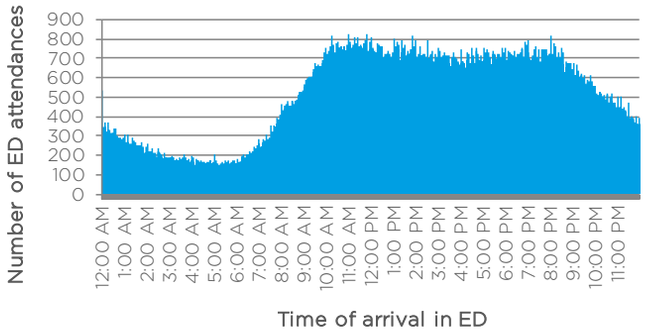
Older patients are more likely to attend in-hours. This is consistent with the findings in the NSML After Hours Report. This potentially raises an opportunity to improve accessibility of primary care services for these patients. To this point, the NSML Whole of Region's Needs Assessment Report noted 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

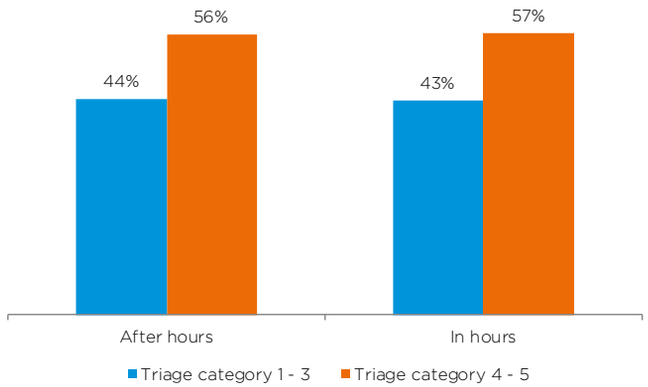
Almost 60% of all attendances were in low urgency triage categories

Number of ED attendances per minute over 24 hours



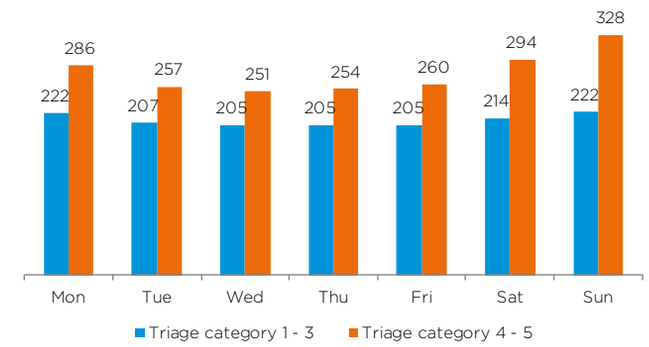
Source: EY analysis of SNPHN ED data (July 2010-June 2014)

Proportion of triage category in after-hours vs in-hours



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

Proportion of triage category in after-hours vs in-hours



Source: EY analysis of SNPHN 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 PRIMARY 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 9.1 Northern Sydney Medicare Local after hours Needs Assessment), found that the 0-4 and 85+ age groups had the highest rate of less-urgent (triage 4 and 5) ED attendances in NSML.

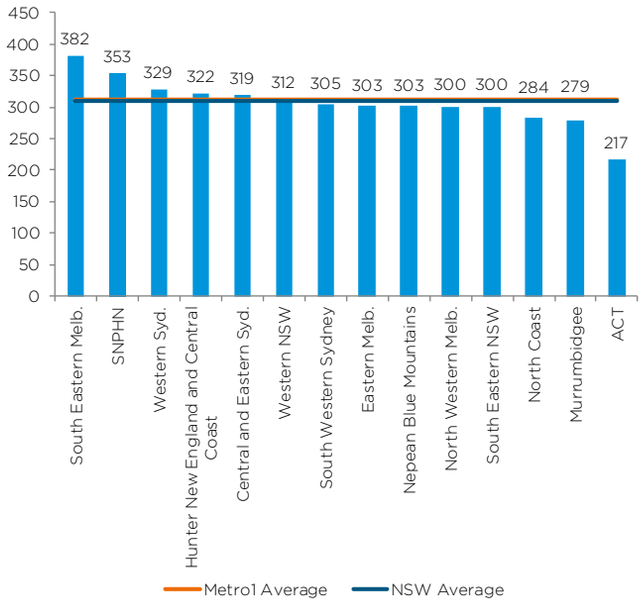
An area of opportunity for further investigation is understanding the reasons behind the high volume of lower-triage-category ED attendances occurring in-hours, particularly in the morning and early afternoon, as well as on weekends.

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

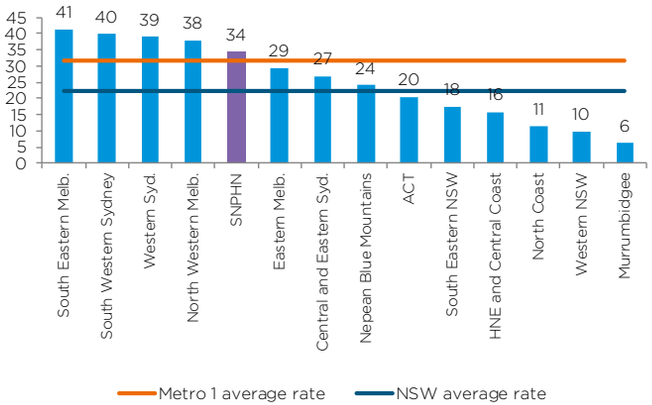
In 2014-15, the SNPHN region had the highest concentration of 'GP after-hours/ emergency' service providers per 100,000 in NSW

Rate of providers of 'GP after hours/emergency services' per 100,000 in PHNs across NSW and Metro1



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

Rate of patients who claimed MBS items for 'GP after hours/emergency attendance' per 100 in PHNs across NSW and Metro 1



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

WHY IS THIS IMPORTANT?

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

HOW IS IT MEASURED?

This analysis was conducted using MBS data, which captures data on MBS claims processed from 2012/13 to 2014/15. To deter-mine the rates per 100,000 people, population 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).

SYDNEY NORTH PRIMARY HEALTH NETWORK

In 2014-15, the SNPHN 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 SNPHN region was lower than some PHNs that had a lower rate of providers (e.g. the rate of providers was 18% higher in the SNPHN 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 SNPHN 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).

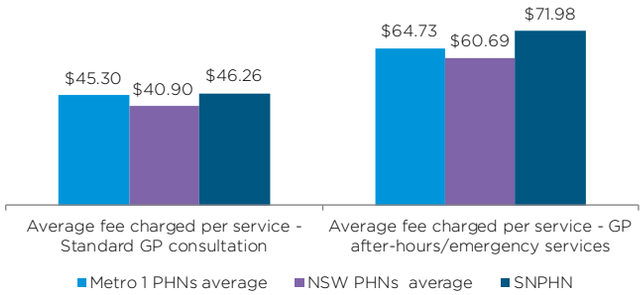
The average number of services claimed per patient in the SNPHN region was also lower than most PHNs in NSW and Metro 1.

The SNPHN 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

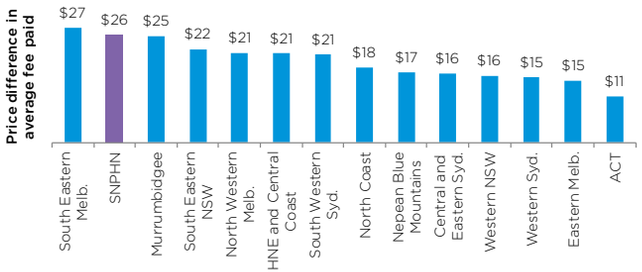
The SNPHN region had the highest average fee per service for after- hours GP services compared to NSW and Metro 1 PHNs

Average fee charged per service for standard GP consultations and GP after hours/emergency services in SNPHN compared to NSW and Metro 1 average



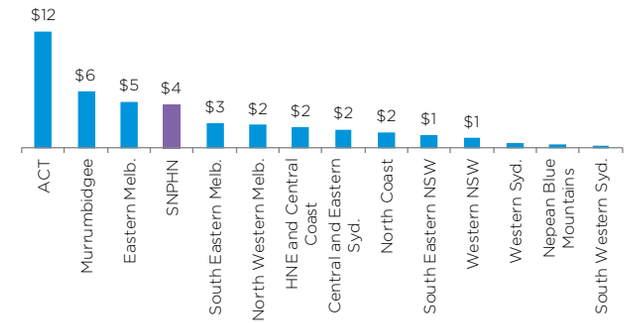
Source: EY analysis of MBS data by PHN and MBS item (2012/13-2014-15)

Difference between average fee paid per service for standard GP consultation and GP after-hours/emergency services in PHNs across NSW and Metro 1



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

Average out of pocket expenditure per service for GP after-hours/emergency services for PHNs across NSW and Metro 1



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 SNPHN 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 SNPHN 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).

SYDNEY NORTH PRIMARY HEALTH NETWORK

For after hours GP services, the SNPHN 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 SNPHN 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 SNPHN 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 SNPHN 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 second highest in the SNPHN 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

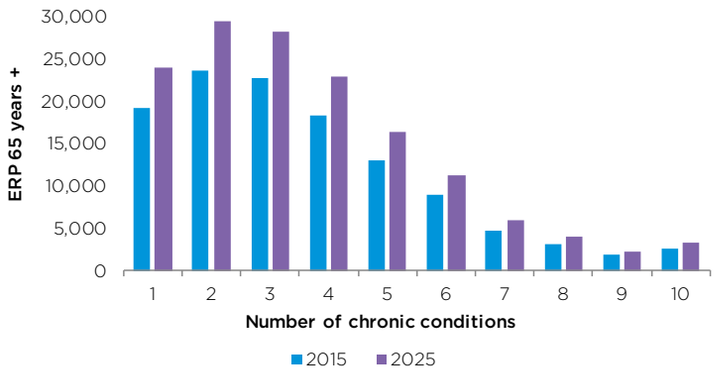
At a glance: Elderly Australians are healthier than they have ever been. However, with 90% of the population aged 65 and over having at least one chronic condition, the complexity and resources of treating patients with multiple morbidities is expected to continue to increase. The increasing need for 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 SNPHN region with three or more chronic conditions.

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



Source: EY analysis of national BEACH data 2014-15

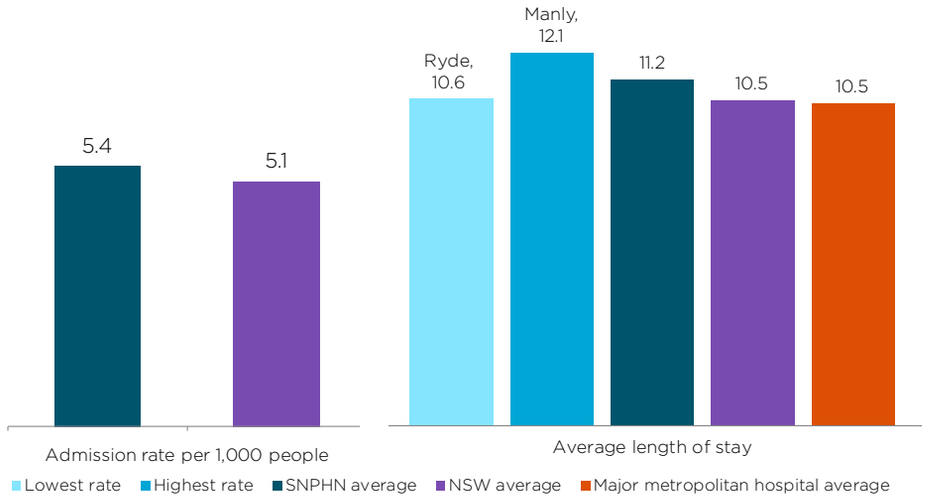
10.3 52,000 residents 75 and over (82%) did not receive a health assessment, of whom at least 41,000 are likely to have 2 or more chronic conditions.

10.4 People aged 75 years and over made up approximately 14% of total ED attendances in the SNPHN region. In the SNPHN region, ED presentation rates are lower than the NSW average indicating that 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 SNPHN region have higher admissions rates and have longer average length of stays in hospitals for hip fracture admissions.

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



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

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

10.9 Residents of the SNPHN 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 the SNPHN region aged 75 years and over by 2026, making up 9.1% of the total population

Population projections for residents 75 and over

	2016		2026	
	no.	% pop.	no.	% pop.
SNPHN	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

Population changes for residents 75 and over, 2016-2026

LGA	% Change	Av annual % change	Additional no.
SNPHN	38%	3.70%	25,800
NSW	44%	4.20%	244,200
Hornsby	43%	4.10%	5,650
Hunters Hill	39%	3.70%	700
Ku-ring-gai	29%	2.80%	3,100
Lane Cove	40%	3.80%	900
Manly	35%	3.40%	900
Mosman	55%	5.00%	1,350
North Sydney	57%	5.10%	2,150
Pittwater	51%	4.70%	2,700
Ryde	35%	3.40%	3,000
Warringah	29%	2.80%	3,550
Willoughby	38%	3.70%	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 SNPHN region and for the total NSW population.

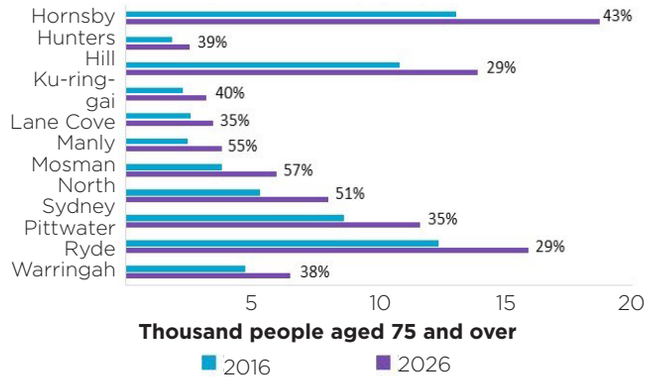
SYDNEY NORTH PRIMARY HEALTH NETWORK

In 2016, SNPHN 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 SNPHN 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 SNPHN 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 its population. Manly will have the lowest proportion of residents aged 75 years and over at 6.8% of its population.

Projected change in the number of people aged 75 and over



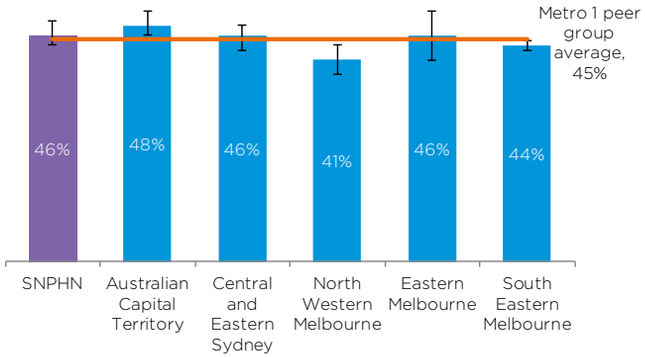
Source: EY analysis of NSW Department of Planning and Environment data, NSW and LGA projections

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

See related content: 1.3 Age structure

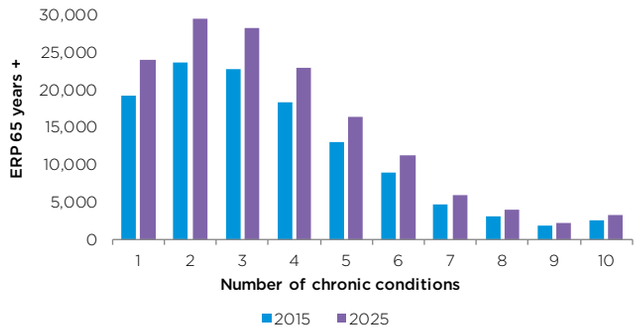
Nearly half of adults within the SNPHN region have at least one chronic condition

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 SNPHN aged 65 years and over



Source: EY analysis of national BEACH data 2014-15

Proportion of ED attendances by triage category over 24 hours

Diagnosis	Prevalence per 100 people	Number of people in 2015	Number of people in 2025	Number of additional patients
Muscoloskeletal	37	23,510	30,644	7,134
Coronary Heart Disease	15	9,599	12,512	2,913
Mental Health Condition	11	6,897	8,990	2093
Diabetes	11	6,746	8,793	2047
Asthma	7	4,195	4,468	1,273
Dementia	5	3,448	4,495	1,046
Stroke	5	3,404	4,437	1,033
Renal impairment	5	2,893	3,771	878
Heart Failure	4	2,845	3,709	863

Source: EY analysis of PenCAT data from 24 practices in SNPHN, 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 SNPHN region has been used to estimate the prevalence of selected chronic conditions in the population within the SNPHN region aged 75 and over. The PenCAT prevalence has been applied to the total population within the SNPHN 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 PRIMARY HEALTH NETWORK

NHPA estimates that 46% of adults within the SNPHN 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 SNPHN 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 SNPHN region, healthcare pathways, models and standards of treatment for these conditions should be considered. Self-management will become increasingly important.

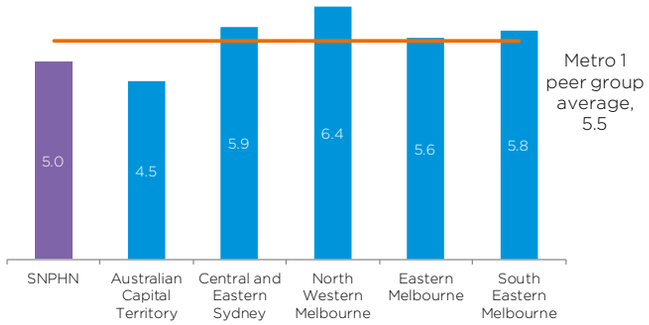
Despite the chronic conditions two thirds of people aged 75+ rate their health as good, very good or excellent (AIHW Australia's Health 2014).

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

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

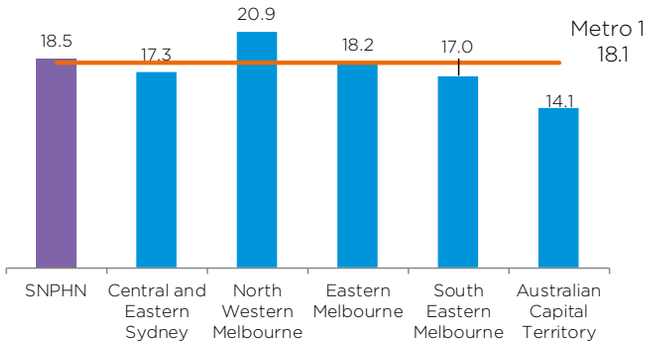
Almost 12,000 residents (18.4 out of 100) aged 75 and over received an annual health assessment from their GP

Age-standardised GP attendance rate per person



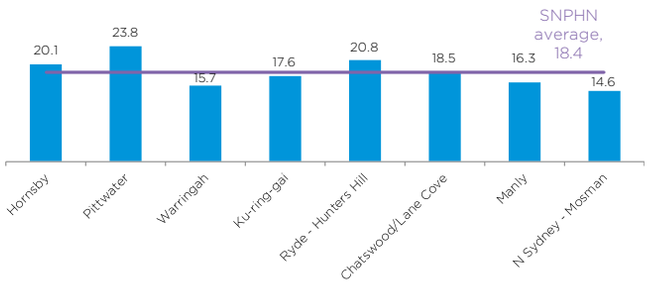
Source: EY analysis of National Health Performance Authority analysis by PHN, 2013-14

Annual GP health assessments per 100 people aged 75 years and over



Source: PHIDU, 2016- MBS data 2009/10

Annual GP health assessments per 100 people aged 75 years and over



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.

SYDNEY NORTH PRIMARY HEALTH NETWORK

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

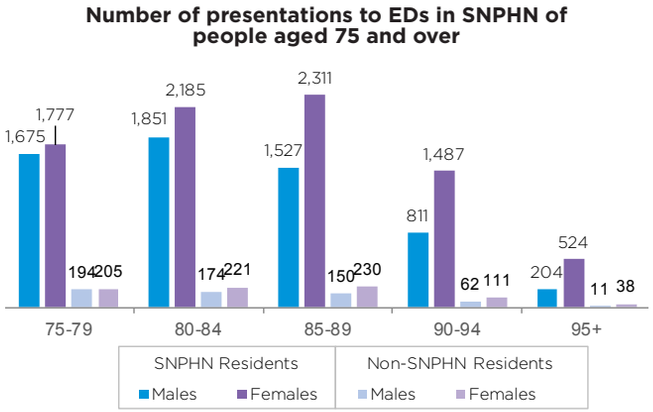
An estimated 12,000 residents aged 75 and over (18.4%) received an annual health assessment in the SNPHN region in 2015. An estimated 83% of people aged 75+ have two or more chronic conditions (Britt et al 2008). This would imply that an estimated 41,000 residents within the SNPHN region aged 75 of more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

Within the SNPHN 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.

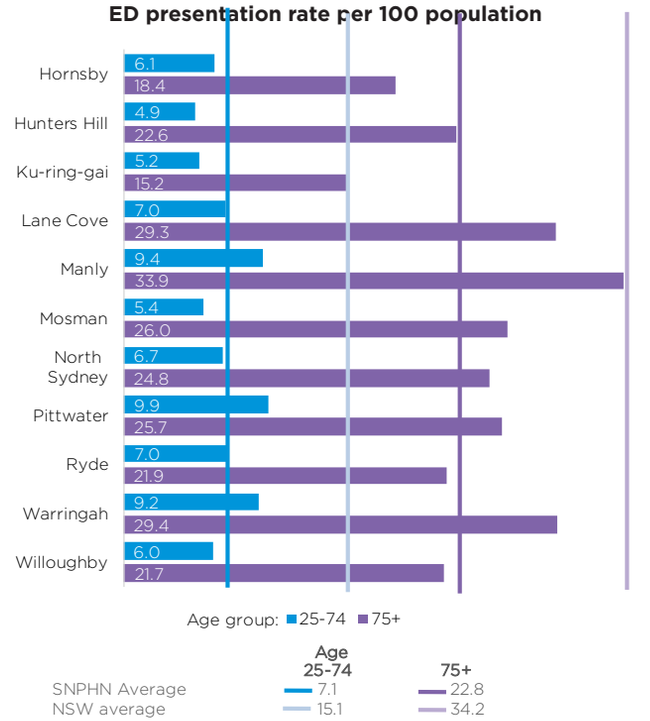
An estimated 41,000 residents 75 and over with two or more chronic conditions did not get an annual health checkup.

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

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



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



Source: EY analysis of SNPHN ED 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 SNPHN 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 PRIMARY HEALTH NETWORK

Between January and June 2014 people aged 75 years and over made up 16% of ED attendances in the SNPHN region. Females have higher numbers of ED attendances than males.

Overall, within the SNPHN 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 SNPHN region are lower than NSW averages, reflecting the lower disease rates noted, and potentially indicating primary care services effectively maintaining a healthy population.

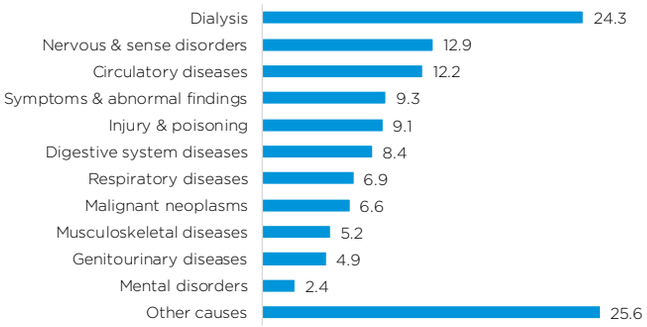
Within the SNPHN region, Manly and Warringah had the highest ED attendance rates per 100 residents aged 75 years and over, while Ku-ring-gai LGA residents aged 75 and over have the lowest ED presentation rate. The equivalent of a third (34 attendances per 100 people) of the Manly population aged 75+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

The average ED presentation rate per 1,000 for residents within the SNPHN 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 2014-15, there were 138 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



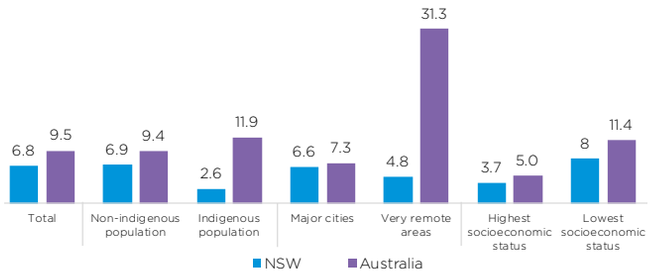
Source: EY analysis of NSW Combined Admitted Patient Epidemiology Data and ABS population estimates. Centre for Epidemiology and Evidence, NSW Ministry of Health

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 PRIMARY HEALTH NETWORK

Across NSW, for the population aged 75 and over, there are 138 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.

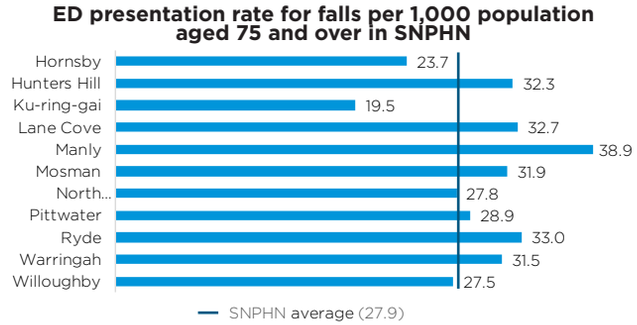
Across Australia, those aged 75 and over account for 22% of hospital separations, but these represent 31% of patient bed days. The longer length of stay is linked to the increased complexity of treating older patients.

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 SNPHN 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.

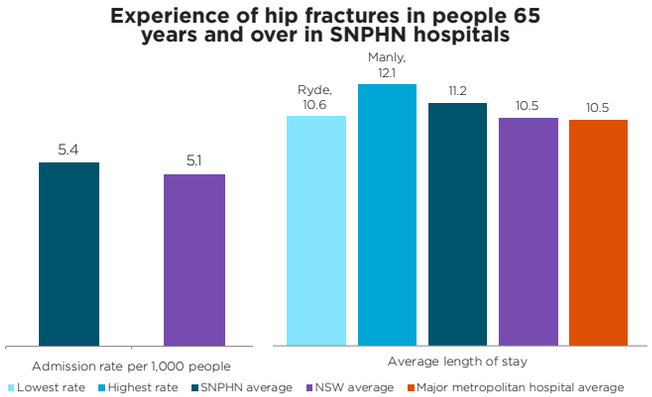
Across Australia, those aged 75 and over account for 22% of hospital separations and 31% of patient days.

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

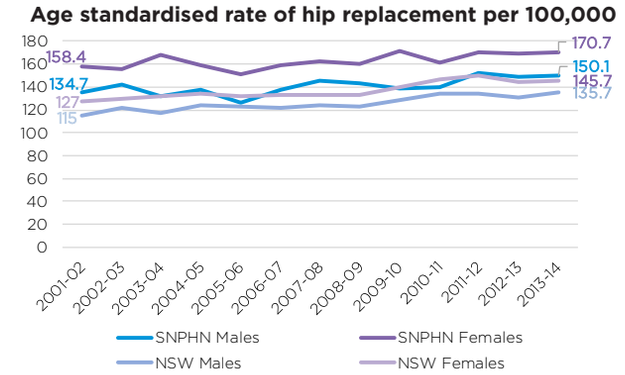
12 in every 100 presentations to ED for patients from the SNPHN region aged 75 years and over is due to a fall



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 SNPHN 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.

NSW Health Stats' analysis of falls-related injury hospitalisations is presented for the PHN and NSW.

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 PRIMARY HEALTH NETWORK

At least 1,757 (12.2%) presentations to ED made by residents within the SNPHN region aged 75 and over were fall related. The highest rates were seen for residents of Manly, Ryde and Lane Cove.

Falls-related injury hospitalisations in people aged 65 years and over has increased over the past 5 years from 2,878 per 100,000 (95% CI: 2,788-2,970) in 2009-10 to 3,664 (95% CI: 3,568-3,763) in 2014-15. This is higher than the NSW rate of 3,044 per 100,000 (95% CI: 3,013-3,075) emphasising the morbidity associated with falls.

The admission rate for hip fractures is marginally higher in the SNPHN region than the NSW average. The average length of stay in hospital for a hip fracture is also higher in the SNPHN 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.

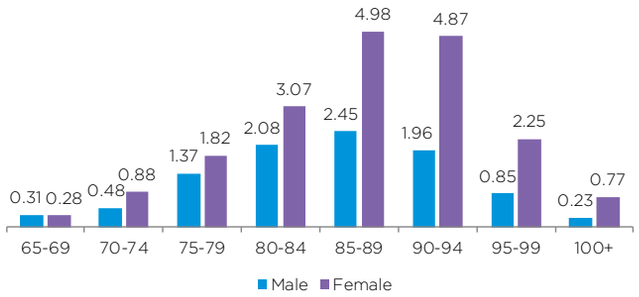
Compared to NSW, the rate of hip replacements for residents within the SNPHN region is higher for both males and females, and has been consistently so over the 2001-02 to 2013-14 period.

Patients in the SNPHN 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

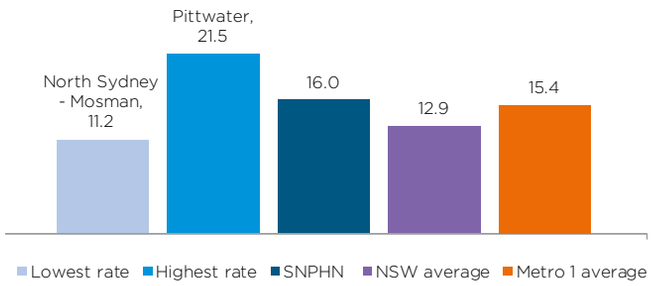
An estimated 5.3% of residents within the SNPHN region aged 75 and over have dementia

People diagnosed with dementia per 1,000 people aged 65 years and over



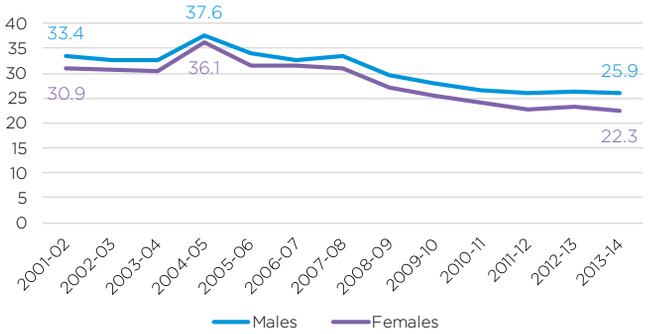
Source: EY analysis of PenCAT data from 24 practices in SNPHN, February 2016

Number of anticholinesterase prescriptions dispensed per 100 people aged 65 years and over



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

Age standardised rate of dementia related hospitalisations in the population aged 65 years and over in NSW



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.

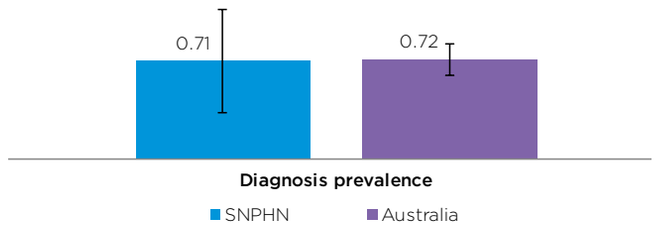
Anticholinesterase medications, the main medication available to slow the progression of dementia, were recently analysed in the Atlas of Healthcare Variation for ages 65 and over.

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 PRIMARY HEALTH NETWORK

Based on PenCAT data an estimated 5.3% of residents within the SNPHN 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.

Estimated diagnosis prevalence of people with dementia



Source: BEACH data, April 2011- March 2015.

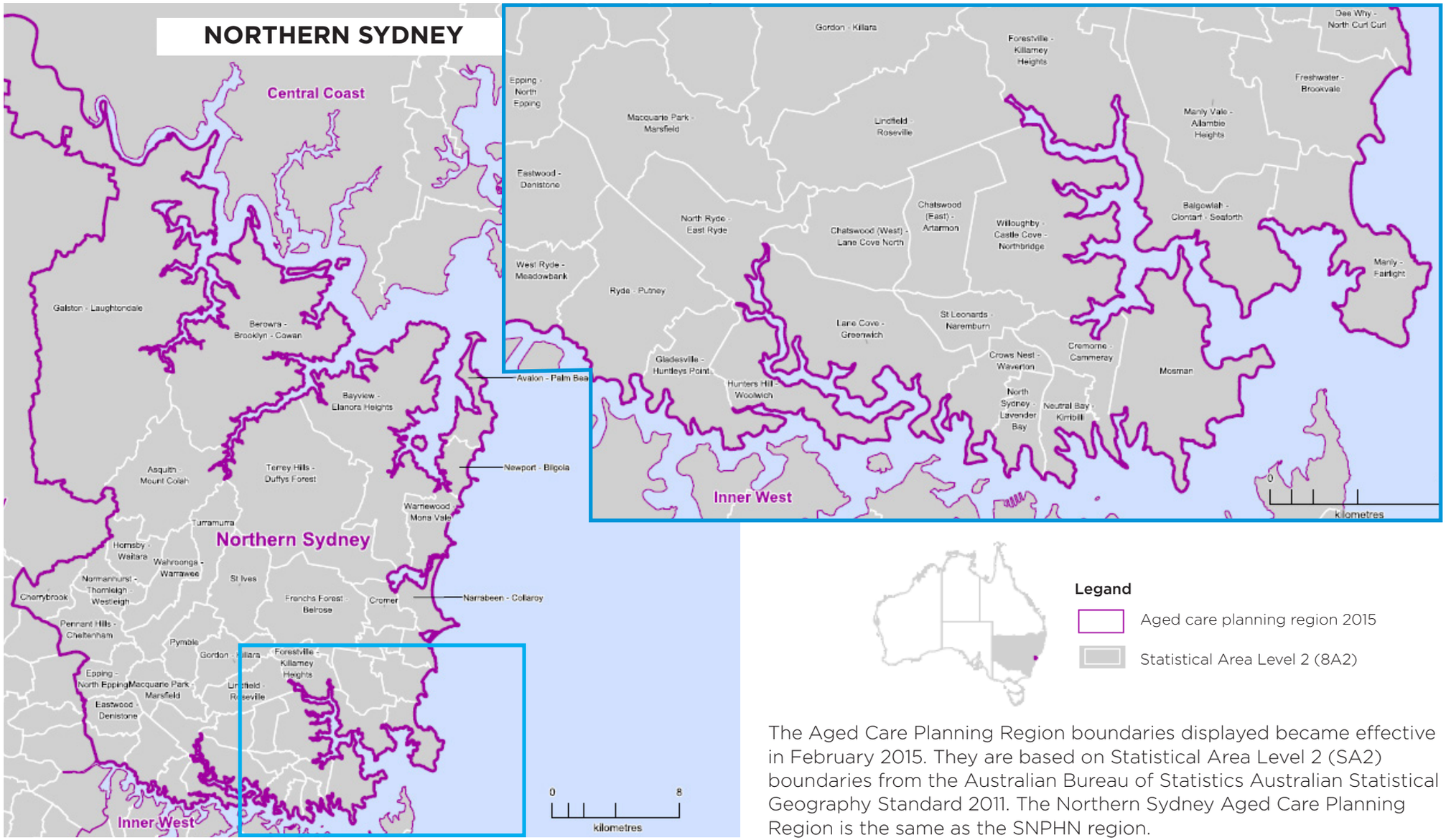
The diagnosis prevalence of dementia in the SNPHN region is similar to that across Australia. The rates of anticholinesterase prescribing in the SNPHN region are similar to the Metro 1 average and above the NSW average. Socioeconomic status may be a determinant of this variation in prescribing practice.

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 SNPHN Aged Care Planning Region



Legand

Aged care planning region 2015

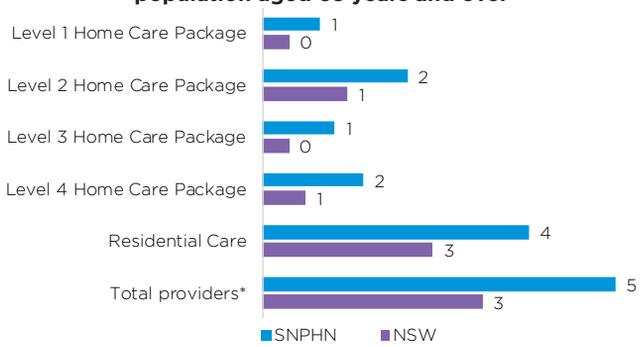
Statistical Area Level 2 (8A2)

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 SNPHN 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

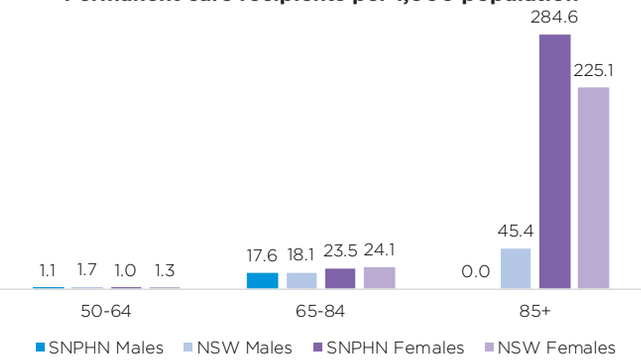
Residents in the SNPHN region appear to have greater access to residential care and home care services when compared with the NSW average

Approved providers of aged care services per 10,000 population aged 65 years and over



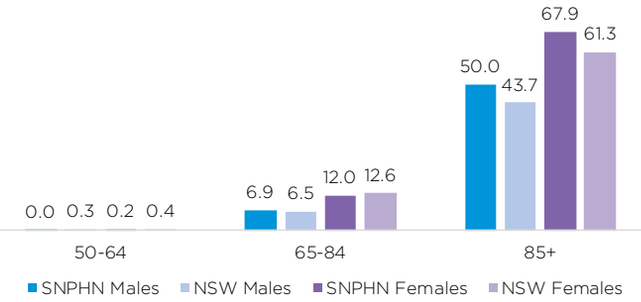
Source: EY analysis of Aged Care Programme data, 30 June 2015.
* Total providers also includes providers of Innovative Pool, Multi-Purpose Service, National Aboriginal and Torres Strait Islander Aged Care, and Transition Care services noting, some provides will provide multiple types of services.

Permanent care recipients per 1,000 population



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

Home Care Package recipients per 1,000 population



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. Further analysis is required to determine the validity of Aged Care Programmes Data.

SYDNEY NORTH PRIMARY HEALTH NETWORK

There are 11,563 operational aged care places in the SNPHN region as at 30 June 2015.

This includes 108 Transitional Care places. There are no dedicated Aboriginal and Torres Strait Islander Aged Care facilities, representing a potential area for further investigation.

The bulk of government subsidised aged care services provided in the SNPHN region are residential care services and home care packages. Whilst the region has the highest number of aged care places in NSW, there is a lower rate of level 3 and 4 Home care packages for persons 65 years and over within SNPHN (41 per 10,000) compared to NSW (43 per 10,000). This has implications for dementia management in the region as these care packages provide optimal care by enabling dementia patients to stay within their home. The rate of permanent care provision is also slightly lower in the SNPHN 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.

20.1% of aged care recipients were from CALD backgrounds however there are cohorts refraining from accessing services leading to 'hidden carers' (Department of Social Services, 2015).

The bulk of aged care services provided are provided to women.

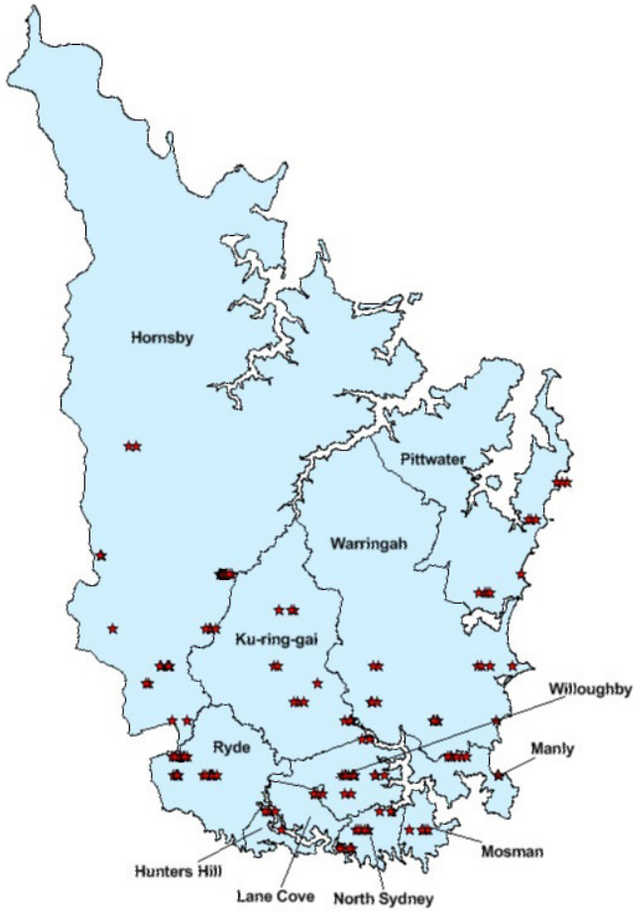
See related content: 1. Demography, 10.1 Patient demographics, 10.2 Multi-morbidity, 10.7 Dementia

CHAPTER 11

Service Mapping

After hours service mapping

ACCREDITED GENERAL PRACTICES PROVIDING AFTER HOURS



SERVICE MAPPING

Why is this important?

Service mapping involves identifying and documenting the range of services available within the SNPHN 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 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 SNPHN region has a total of 200 accredited general practices providing after hours services, with 173 of these practices providing after hours through a Medical Deputising Service and the remaining 27 practices providing after hours care from within their practice.

Hornsby and Ryde LGAs have the highest number of accredited after hours services, 44 and 30 respectively. The majority of LGAs provide their after-hours services through a Medical Deputising Service. Hornsby LGA has the highest number (8) of practices providing 24 hour care from within their practices.

Lane Cove, Mosman, Hunters Hill and Manly LGAs have the lowest number of general practices, therefore residents in these areas not only have limited access to general practices but also after hours services.

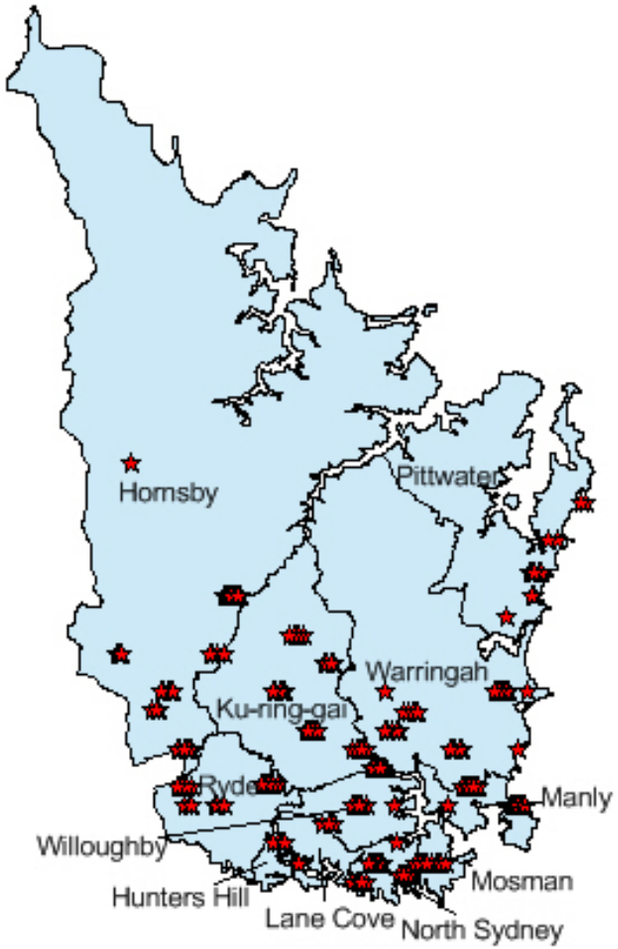
General practices with extended opening hours followed a similar pattern, with the highest numbers seen in Hornsby (13) and Ryde (10) and the lowest numbers in Hunters Hill (1) and Lane Cove (1).

For 2014/15, the SNPHN region had the highest rate of general practice after hours/ emergency providers per 100,000 in NSW (see Chapter 9). Despite this, the SNPHN 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.

Mental health/drug and alcohol service mapping

MENTAL HEALTH SERVICES



MENTAL HEALTH

Service mapping indicates a total of 374 mental health services within the SNPHN 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.

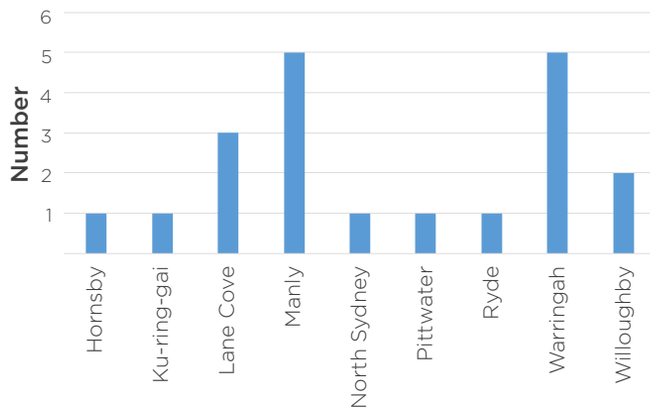
Initial service mapping indicates a large number of mental health services available within the region. SNPHN is currently undertaking the Integrated Mental Health Atlas to inform service planning of mental health services in the SNPHN region.

DRUG AND ALCOHOL

Service mapping indicates a total of 21 drug and alcohol services within the SNPHN 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.

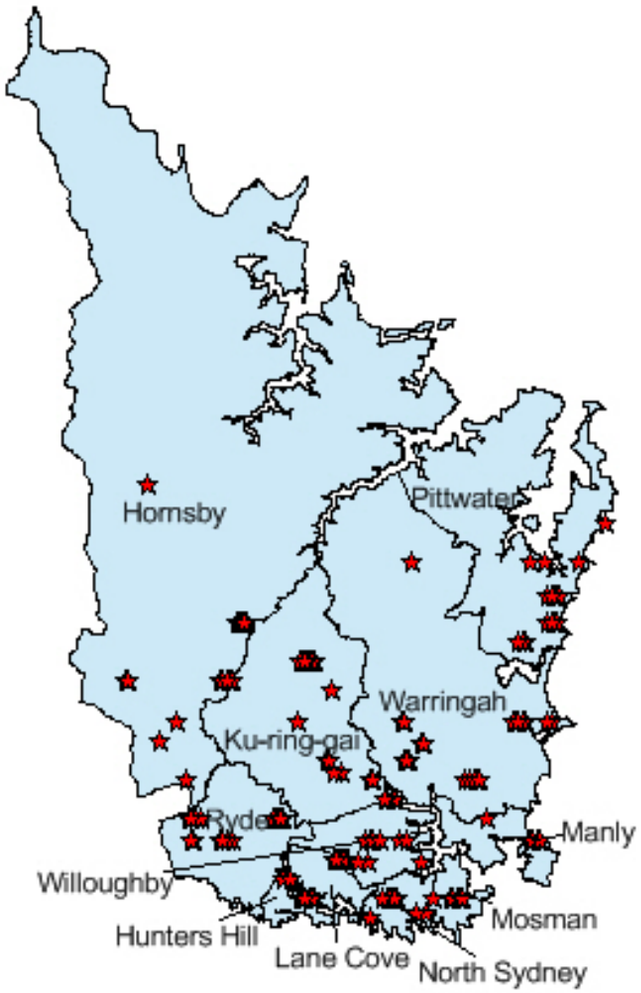
Drug and alcohol treatment services by LGA



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.

Aged care service mapping

AGED CARE SERVICES



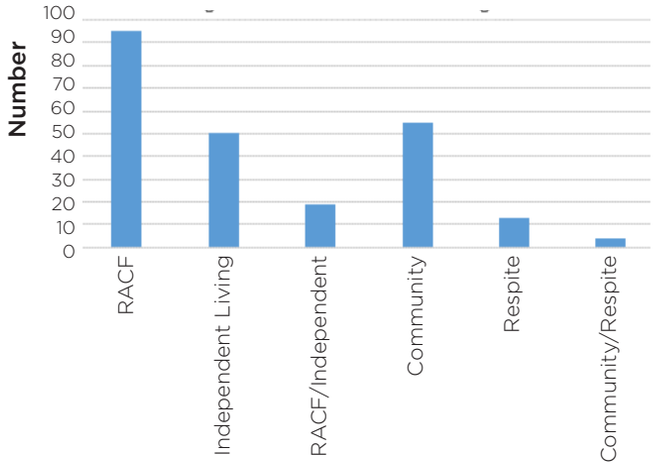
AGED CARE SERVICES

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 SNPHN 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.

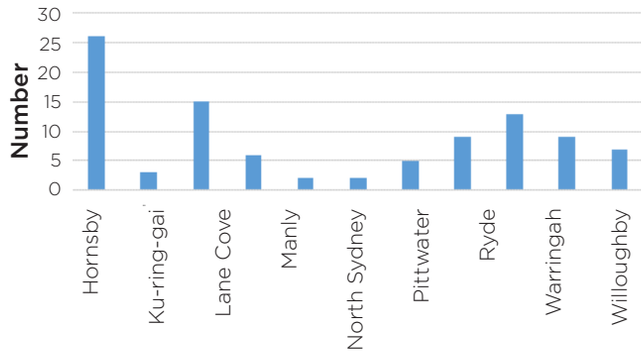
Aged care services within SNHN region



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).

Residential aged care facilities by LGA



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

Analysis within Chapter 10 indicates residents within the SNPHN region appear to have greater access to residential care and home care services when compared to the NSW average. Further investigation is required to determine if these services match the needs of the entire population.

Stakeholder Consultations

Stakeholder consultation was undertaken to provide qualitative insights into the health and service needs of the region which cannot be ascertained with quantitative data alone. Information from consultations synthesised with quantitative data to identify population groups that are most at risk of poor health outcomes to inform the subsequent planning and commissioning of services in the region.

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

- SNPHN Board
- SNPHN Clinical Council
- SNPHN Community Council

Co-design workshops

Extensive consultation was undertaken through SNPHN Commissioning Co-design sessions during October 2016, providing qualitative input to the Needs Assessment, specifically relating to mental health, alcohol and other drugs and Aboriginal health. Workshops included representation from the SNPHN Board, Clinical and Community Councils and the Mental Health and AOD Advisory Committee (MHAODAC). There has also been strong engagement from GPs, allied health providers, NSLHD, local service providers, consumers and carers and community members.

Key themes and issues from stakeholder consultations

MENTAL HEALTH

- The SNPHN region has a high prevalence of eating disorders with the majority of care being provided in the private sector. 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.
- 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.
- Access to mental health services, including psychological services, that require referral from a GP can be challenging for some population groups. The provision for initial referrals to be made by a wider array of service providers would promote better access to subsidised mental healthcare.

Key themes and issues from stakeholder consultations

MENTAL HEALTH

Aboriginal people

- Impacts of the Stolen Generations, poor access to preventative health care and higher rates of social disadvantage impact rates of psychological distress amongst the Aboriginal and Torres Strait Islander community.

CALD population

- Mental health needs for CALD groups in the SNPHN region are complex and diverse. CALD groups present for a range of mental health and health needs e.g. trauma, migration, career change, physical health, social isolation and separated families.
- Understanding of complexities related to cultural background is not always addressed by service providers. Barriers relating to utilisation of psychological services for CALD populations include stigma, both between generations and within cultures.
- Potential financial barriers exist for CALD groups whose visa status doesn't allow them to access Medicare (eligibility), including international students wanting to access psychologists.

Perinatal depression

- There is stigma attached to perinatal depression for women in the SNPHN region, with women being underdiagnosed and falling through gaps in service provision.
- Engaging mothers with perinatal depression at the antenatal stage (if required) is important as clients will present postnatal at higher acuity. However, financial barriers exist, as not all antenatal care is subsidised, with patients unable to determine what services are available privately and publicly.

LGBTI people

- Limited access to LGBTI appropriate mental health care services.

Homelessness or at risk of homelessness

- People who are experiencing primary or secondary homelessness face additional barriers to accessing physical and mental health care services.

Elderly

- People living in a residential aged care facility and those aged 65+ years with comorbidities face challenges in accessing mental health services. Barriers are intensified for those who lack support from families.

Children and young people

- Limited availability of services for children aged under 12 years in comparison to those aged over 12 years. Consultation highlighted less recognition of early indicators in those aged under 12 years, with limited availability of mental health services for children with mild to moderate mental health issues.
- Navigation of a complex health system acts as a barrier to families, children and young people accessing services, highlighting that services are predominantly utilised by proactive and health literate families.
- Service gaps exist for young people whose mental health issues are too severe or complex for headspace, but are not so acute as to require service by LHD Child and Youth Mental Health Services (CYMHS).
- Lack of group programs available in the region for families highlights the limited availability of family intervention treatments, including integrated child and parent interventions.
- Need for provision of outreach or in-place, rather than centre-based support to young people. Young people may not engage in a clinical environment thus requiring a safe and neutral environment. Services need to be flexible in where sessions are delivered.
- Lower rates of bulk billing medical services and practitioners charging higher gap fees creates a financial barrier to access, impacting socio-economically disadvantaged families and children in the region.

Key themes and issues from stakeholder consultations

MENTAL HEALTH

Intellectual disability

- Limited options are available for clients with intellectual disability, combined with a lack of awareness amongst primary health care providers of suitable services.

People with severe mental illness and complex needs

- Limited number of sessions offered through Access to Allied Psychological services (ATAPS) may not meet needs of people with severe mental illness. People with severe mental illness are more likely to be unemployed or earning a low income so access to private psychological services is often unaffordable.
- Limited availability of group therapies for family, peers, psychoeducation, psychotherapy, parole clients and AOD clients. Consultation also highlighted the need for flexibility in where services are delivered, providing services that can outreach to people in the community with mental illness.
- Consultation identified the risk of mental health patient's inability to access mental health services during the transition to NDIS, due to the complexities of navigating the new system.
- Limited early intervention treatments for patients with severe mental illness and limited alternatives to hospital.

ALCOHOL AND OTHER DRUGS

- Alcohol, methamphetamine (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.
- Cultural acceptance of alcohol can create challenges in identifying a need to seeking help, highlighting people are able be high functioning and often not seeking help until entering the criminal justice system or other crises.
- Lack of bulk billing GPs provides financial barriers to accessing AOD services. Majority of AOD services are supplied through private healthcare. People in this cohort who are not clients of public AOD services have difficulty accessing affordable and appropriate support.
- Limited recognition of appropriate screening and referral pathways amongst primary health care providers. Confusion exists among clients around identifying AOD services available and access pathways. Navigation of the complex health care system is a challenge for clients and service providers.
- Early intervention programs for AOD is limited with service gaps around female clients presenting at emergency departments.
- A need exists for low cost or free day/out-patient programs in the region.
- Demand for residential rehabilitation beds placement outstrips supply and people seeking residential rehabilitation either face long wait times or travel out of area to access support. This acts as a barrier to people obtaining support for AOD misuse disorders.
- Most non-residential AOD services in the region only provide service during business hours. This makes access to specialist support difficult for people who attend work or education and for the families of people receiving AOD treatment.
- People seeking to access residential rehabilitation are often required to go through detox first. This creates delays in accessing treatment and can serve to diminish peoples' willingness to pursue rehabilitation.
- Lack of services skilled in addressing co-occurring AOD and mental health issues with many services addressing one issue to the exclusion of the other.
- Need for AOD education for children and young people across the region, as education in schools in its current form is inconsistent.

Key themes and issues from stakeholder consultations

URGENT CARE

- Youth access to ED is skyrocketing. Young people do not know how to access a GP, especially out of hours, and few GPs are youth-focussed or youth-friendly. There is a need to improve the coordination of youth services.
- The homeless population includes permanent residents within the SNPHN 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

- The SNPHN region has a high proportion of health services relative to its population. There is potential for over-treatment in the SNPHN 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'?
- 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.

Key themes and issues from stakeholder consultations

Aboriginal people

- Aboriginal health is a priority and there is a need better understand our Aboriginal community, and what their health needs are. The level of preventative health interventions (e.g. breast screening) in the Aboriginal and Torres Strait Islander population is low.
- Lack of access to cultural competence training and availability of culturally-aware information for staff highlights the need to develop a more culturally aware and appropriate primary care work force to promote access to general health, mental health and AOD services.
- Need for a holistic approach in primary care services (including mental health and AOD services) focusing on the social, emotional and cultural well-being of the whole community rather than solely on illness.
- Lack of flexibility in provision of health services to the Aboriginal population in SNPHN region. Lack of services open to a client's family and a need to provide outreach services within the Aboriginal community. Consultations also highlighted need within mental health and AOD services.

CALD

- The need for better access to interpreters for CALD clients in the SNPHN region. Consultation highlighted health service providers with relevant ethnic background and language-speaking are limited, with a need for sustainable key bilingual GPs and psychologists in the region.
- Stakeholder consultation highlighted potential financial barriers for CALD groups accessing primary health services due to visa status.
- Need for ongoing and culturally appropriate health promotion for sexual health, nutrition and oral health, highlighting a need to focus on women and older CALD groups.

Homelessness

- The services provided to and required by homeless people is an area for further investigation.
- Need to increase the availability of early intervention services, including counselling and case management, to stop people 'at risk' becoming homeless
- Need for a continuum of care from crisis to affordable housing, keeping people independent and involved in the community when housed, with coordination between housing, police, youth justice, health and councils. Need for flexibility in how and where services are provided to a build relationship with the client for longevity to prevent homelessness.

Data Definitions

- **Age standardisation -** Age-standardised rates enable the comparison of rates between populations with different age structures by removing the influence of age. This adjustment is important because the rates of many health conditions and health service use vary with age.
- **Bettering the Evaluation and Care of Health (BEACH) -** Database of clinical activities in general practice for SNPHN, sample of 205 general practitioners (20,500 encounters), 2011-15.
- **Comparator areas (Metro 1) -** PHNs that are most comparable to the SNPHN region, based on factors such as remoteness, socioeconomic status and distance to hospitals. These include: Central and Eastern Sydney, North Western Melbourne, Eastern Melbourne, South Eastern Melbourne, and ACT.
- **Confidence Interval (CI) -** At the 95% level, there is 95% chance that the true underlying population statistic will fall within the calculated confidence interval.
- **Decile -** Ten equal parts of a distribution. For example, if 100 patients were ranked according to the number of times they visit a doctor, the top decile will refer to the 10 patients with the most visits, and the bottom decile to the 10 patients with the fewest visits.
- **Index of Relative Socio-Economic Disadvantage (IRSD) -** IRSD is one of four indexes contained within the Socio-Economic Indexes for Areas (SEIFA). SEIFA ranks areas according to relative socio-economic advantage and disadvantage, based on information from the 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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