

# Population health

2022-2024 Needs Assessment  
**2023 Annual Review**

In this document we have used the terms Aboriginal, Aboriginal person and Aboriginal people/s when referring to Aboriginal and Torres Strait Islander peoples. We chose Aboriginal because it is inclusive of different language groups and areas within the CESP HN region where this Needs Assessment will be used. There will be some instances where the terminology will be different to our preferred terms, as we use the terminology of the data set being used.

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## Health status

### Life expectancy

During 2017-19, life expectancy at birth for those living in the CESP HN region (84.7 years) was higher than both the NSW (82.8 years) and national average (82.9 years). Females in the CESP HN region had a higher life expectancy than males (86.8 years compared to 82.8 years).(1)

**Table 1: Life expectancy by gender, 2017-19**

Region	Female	Male	Total
CESPHN	86.8	82.8	84.7
NSW	85.0	80.7	82.8
National	85.0	80.9	82.9

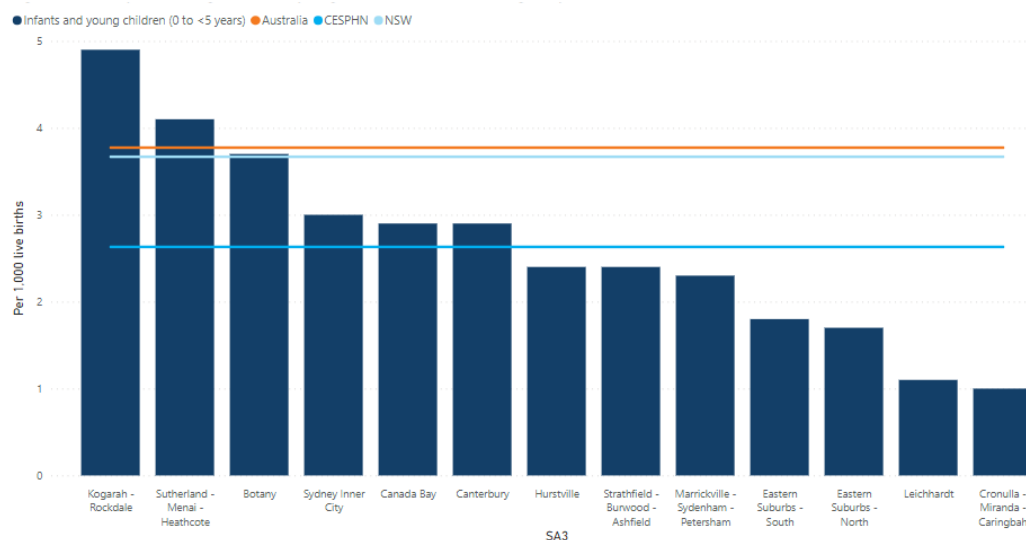
Source: AIHW 2019

### Infant and young child mortality

The 2014-16 mortality rate for infants and young children aged less than 5 years was lower in the CESP HN region (2.7 deaths per 1,000 live births) compared to the national rate (3.9 deaths per 1,000 live births).(2)

Kogarah-Rockdale (4.9 per 1,000 live births) and Sutherland-Menai-Heathcote (4.1 per 1,000 live births) had the highest mortality rates of infant and young children in the region.(2)

**Figure 1: Mortality rate among infants and young children in the CESP HN region by SA3, 2014-16**



Source: AIHW 2018

Note: Lord Howe Island is not included as there is no published data available.

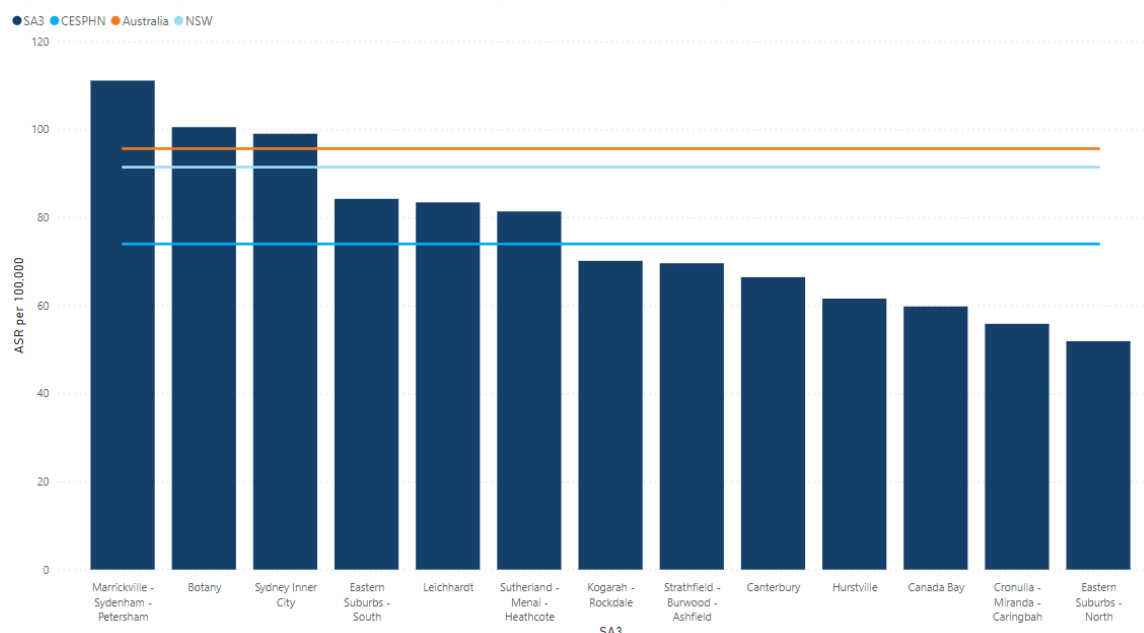
## Potentially avoidable deaths

Potentially avoidable deaths are deaths below the age of 75 years from conditions that are potentially preventable through primary or hospital care.

In 2021, the age-standardised rate (ASR) of potentially avoidable deaths in the CESP HN region (73.9 per 100,000 people) was lower than both the NSW (95.6 per 100,000) and national rates (91.4 per 100,000 people). The rate for males (96.7 per 100,000 people) was much higher than the rate for females (52.1 per 100,000 people) in the CESP HN region.(3)

In 2021, Marrickville – Sydenham – Petersham SA3 (111.1 per 100,000 people) had the highest rate of potentially avoidable deaths. Eastern Suburbs – North SA3 (51.9 per 100,000 people) had the lowest rate of potentially avoidable deaths in the CESP HN region.

**Figure 2: Potentially avoidable deaths in the CESP HN region (ASR per 100,000) by SA3, 2021**



Source: AIHW, 2023

Note: Lord Howe Island is not included as there is no published data available.

## Premature mortality

Premature mortality refers to deaths that occur among people aged under 75 years. In 2016-20, premature mortality rates in the CESP HN region (188.5 per 100,000 people) were lower than both NSW (235.1 per 100,000 people) and national rates (236.1 per 100,000 people).(4)

The male rate (236.3 per 100,000 people) was much higher than the female rate (140.7 per 100,000 people) in the CESP HN region. Botany SA3 (226.4 per 100,000 people) had the highest rate of all SA3s for both genders.(4)

The three highest causes of premature mortality were from cancer (82.6 per 100,000), circulatory system diseases (32.4 per 100,000) and external causes (20.3 per 100,000).(4) Canterbury SA3 has higher premature

mortality rates for circulatory disease (45.6 per 100,000), ischaemic heart disease (21.8 per 100,000) and cerebrovascular disease (7.0 per 100,000) than state and national rates.

**Table 2: Premature mortality per 100,000 people by cause and by SA3, 2016-20**

SA3	Cancer	Cerebrovascular disease	Circulatory disease	COPD	Diabetes	External causes	Ischaemic heart disease	Respiratory system disease	Road traffic	Suicide
Botany	96.8	7.0	39.7	13.0	7.0	23.7	19.5	18.9	3.1	8.5
Canada Bay	70.5	5.4	25.9	3.5	3.2	17.6	9.4	6.3	2.3	7.4
Canterbury	83.1	9.3	45.6	6.0	5.6	18.9	21.8	12.6	2.1	5.5
Cronulla - Miranda - Caringbah	79.6	6.1	27.7	3.3	3.9	21.2	13.1	8.1	..	9.0
Eastern Suburbs - North	69.8	5.3	21.6	2.7	1.7	18.8	10.3	6.4	2.1	8.4
Eastern Suburbs - South	86.2	8.6	36.1	6.3	3.2	22.5	16.5	11.0	1.2	8.8
Hurstville	82.0	6.6	29.2	4.9	5.6	16.0	12.5	11.2	1.8	7.1
Kogarah - Rockdale	86.9	7.8	33.6	5.5	7.3	17.8	14.1	9.7	1.8	6.6
Leichhardt	86.1	6.3	29.7	6.2	5.6	19.3	12.1	12.1	1.8	8.7
Marrickville - Sydenham - Petersham	85.7	8.8	40.2	6.1	9.7	22.9	14.5	13.7	1.7	9.8
Strathfield - Burwood - Ashfield	81.3	7.9	33.3	6.4	2.7	20.1	15.4	13.5	1.2	7.2
Sutherland - Menai - Heathcote	85.7	5.6	28.4	5.8	5.8	20.1	13.5	11.6	2.9	8.6
Sydney Inner City	87.9	7.2	35.8	11.0	3.9	30.1	16.3	16.2	0.9	11.6
<b>CESPHN</b>	<b>82.6</b>	<b>7.1</b>	<b>32.4</b>	<b>6.0</b>	<b>4.6</b>	<b>21.3</b>	<b>14.5</b>	<b>11.3</b>	<b>1.6</b>	<b>8.4</b>
<b>NSW</b>	<b>97.7</b>	<b>8.1</b>	<b>41.7</b>	<b>10.2</b>	<b>7.0</b>	<b>27.2</b>	<b>19.6</b>	<b>16.7</b>	<b>3.8</b>	<b>11.1</b>
<b>Australia</b>	<b>97.1</b>	<b>7.8</b>	<b>42.3</b>	<b>9.7</b>	<b>6.8</b>	<b>30.3</b>	<b>21.4</b>	<b>15.9</b>	<b>4.3</b>	<b>12.6</b>

Source: PHIDU 2022

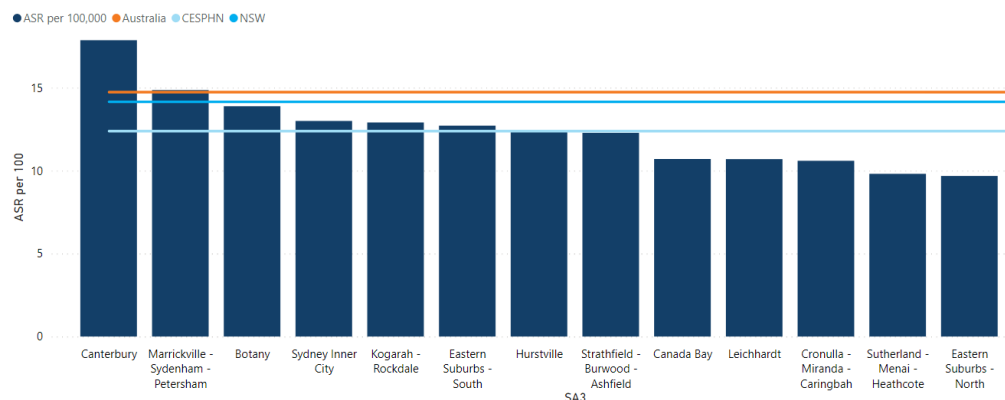
Note: Lord Howe Island is not included as there is no published data available.

## Self-assessed health status

In 2017-18, a lower percentage of people living in the CESPHN region (12.4%) reported fair or poor health compared to the NSW (14.1%) and national average (14.7%).(5)

While the CESPHN region is doing well in measures of health status, this is not uniform across all populations. PHIDU modelled estimates of self-reported health status from 2017-18 show Canterbury (17.9 per 100 people) had the highest rate of fair or poor self-assessed health in the region.(5)

**Figure 3: Number of people aged 15 years and over with fair or poor self-assessed health in the CESP HN region (ASR per 100) by SA3, 2017-18**



Source: PHIDU 2021

Note: Lord Howe Island is not included as there is no published data available.

## Psychological distress

In 2021, 15.8% of persons aged 18 years and over in the CESP HN region reported experiencing high or very high psychological distress compared to 16.9% in NSW.(6) <sup>1</sup>

## Chronic disease

### Cancer incidence

In 2020, there was a total of 8,161 new cases for all cancers in the CESP HN region. Incidence was higher in males (531.5 ASR per 100,000 males) than females (396.3 ASR per 100,000 females). In terms of number of cases, the 70–79-year age group had the highest number (2,101). However, the 80+ year age group had the highest rate (2,532.6 ASR per 100,000 persons).(7)

**Table 3: Incidence of Cancer in the CESP HN region by age group, 2020**

Age group	Number of cases	ASR per 100,000
0-49	1,216	104.6
50-59	1,295	649.2
60-69	1,878	1272.5
70-79	2,101	2,075.5
80+	1,671	2,532.6

Source: Cancer Institute NSW 2023

Prostate cancer was the most common type of cancer in the CESP HN region (15.1% of all cases), whereas lung cancer contributed to the highest proportion of deaths (18.2% of cancer deaths) from 2016 to 2020.(7)

<sup>1</sup> Please refer to the Mental Health and Suicide Prevention Report for further analysis.

**Table 4: Most common cancer types in the CESP HN region, 2016-20**

% of cases		% of deaths	
Prostate	15.1	Lung	18.2
Breast	13.3	Pancreatic	7.2
Melanoma of skin	9.6	Breast	6.9
Lung	8.2	Colon	6.9
Colon	7.1	Prostate	6.2

Source: Cancer Institute NSW 2023

Despite liver cancer having a lower incidence compared to other cancers, it is one of the fastest growing types of cancer in Australia – having seen a 378% increase between 1982 and 2019.<sup>(8)</sup> Liver cancer is linked to lifestyle risk factors such as excessive intake of alcohol, obesity, diabetes, and non-alcoholic fatty liver disease. It can also be caused by hepatitis B and hepatitis C.<sup>2</sup>

Overall, males in the CESP HN region have seen a faster increase in new liver cancer cases and in 2020 had a higher incidence rate (13.9 ASR per 100,000 males) compared to females (6.2 ASR per 100,000 females). Similarly, to all cancer data, number of cases was highest in persons aged 60-69 years and those aged 80+.<sup>(7)</sup>

Eight out of 13 LGAs in the CESP HN region have a higher liver cancer incidence rate compared to the NSW rate, with Burwood and Sydney LGAs having the highest rates (14.1 ASR per 100,000 people and 12.5 ASR per 100,000 people respectively).<sup>(7)</sup>

**Table 5: Incidence of liver cancer in the CESP HN region by LGA, 2016-20**

LGA	ASR per 100,000
Botany Bay	10.3
Burwood	14.1
Canada Bay	10.0
Canterbury-Bankstown	10.5
Georges River	7.6
Inner West	9.6
Randwick	10.9
Rockdale	7.5
Strathfield	8.8
Sutherland Shire	6.2
Sydney	12.5
Waverley	5.7
Woollahra	6.4
<b>NSW</b>	<b>8.9</b>

Source: Cancer Institute NSW 2023

Note: Lord Howe Island is not included as there is no published data available.

<sup>2</sup> Please refer to the sexual health section of this report for more information on viral hepatitis.

## *Cancer management*

Cancer care in the CESP HN region is provided by Sydney Local Health District (SLHD), South Eastern Sydney Local Health District (SESLHD) and St Vincent's Hospital Network (SVHN). In 2021, approximately 1,437 patients from these service providers completed an outpatient cancer clinic survey which identified that more than half of surveyed patients did not have a current or ongoing cancer management plan.<sup>(9)</sup> In 2019, CESP HN conducted a review that resulted in GPs identifying a lack of confidence in cancer management of patients due to access barriers to specialist communication. This is an important gap to address as research supports the need of general practices to be more involved at all stages of cancer care.<sup>(10)</sup> In response, CESP HN implemented 'GP CanShare' - a new cancer service that aims to:

- strengthen integration between cancer and palliative care specialists and general practices, and
- enhance the capability of general practice to effectively manage and care for their cancer patients.

GP CanShare has established integrated Cancer Nurse Coordinators (CNC) and a Palliative Care Social Worker across six major treatment centres in Sydney.

## *Diabetes*

In 2019, the prevalence of diabetes in the CESP HN region (9.1%) was less than NSW (11.1%). However, females in the region had a higher prevalence (9.7%) compared to the male rate (9.1%).<sup>(11)</sup> There were 71,910 registered for the National Diabetes Services Scheme (NDSS) (4.0% of the CESP HN population) in 2023. The majority of registrants have Type 2 diabetes (84.5%), followed by Type 1 (11.2%), gestational (3.2%), and other (1.1%).<sup>(12)</sup>

In 2020, the incidence of insulin-treated Type 1 diabetes in the CESP HN region was lower (6.1 per 100,000 population) than the NSW rate (10.8 per 100,000 population). Similarly, the incidence for insulin-treated Type 2 diabetes was lower in the CESP HN region (1,683.2 per 100,000 population) than the NSW rate (4,159 per 100,000).<sup>(13)</sup>

The annual diabetes cycle of care is for patients with established diabetes and includes diabetes management and general health checks. In 2021-22, 3,169 patients in the CESP HN region received an annual diabetes cycle of care (0.20 per 100 people compared to 0.45 per 100 people nationally). Hurstville SA3 had the highest rate of people receiving this MBS item (0.34 per 100 people).<sup>(14)</sup>

## *Chronic kidney disease*

In 2011-12, the modelled prevalence of chronic kidney disease (CKD) in the CESP HN region was 5.5% for persons aged 18-54 years. This was below both the NSW (5.6%) and national rate (6.1%).<sup>(15)</sup> However, it is important to note that Aboriginal and Torres Strait Islander people (here in referred to as Aboriginal people) are twice as likely to have CKD.<sup>(16)</sup> This can be evidenced in the rate of chronic kidney disease hospitalisations during 2020-21, where the rate for Aboriginal people (2,956.2 per 100,000 people) was more than double the non-Aboriginal rate (1,021.8 per 100,000 people).

## *Other chronic diseases*

2017-18 modelled prevalence estimates of other chronic conditions showed that rates for the CESP HN region were below both state and national rates for all conditions, except for osteoporosis.<sup>(5)</sup>

Table 6: Rate of people aged 18 years and over with selected chronic diseases, ASR per 100, by SA3, 2017-18

SA3	Arthritis	Asthma	COPD	Circulatory disease	Osteoporosis
Botany	12.8	7.5	2.1	5.1	3.5
Canada Bay	12.4	7.2	1.6	4.5	4.8
Canterbury	14.5	7.8	2.0	5.0	5.4
Cronulla - Miranda - Caringbah	14.2	11.3	2.0	4.4	4.0
Eastern Suburbs - North	12.2	8.0	1.8	3.6	4.1
Eastern Suburbs - South	12.2	9.8	2.2	4.3	4.3
Hurstville	12.1	7.0	1.8	4.4	5.7
Kogarah - Rockdale	12.1	6.6	1.9	4.7	4.7
Leichhardt	11.3	8.6	2.3	4.4	4.4
Marrickville - Sydenham - Petersham	11.4	9.6	2.2	4.5	4.5
Strathfield - Burwood - Ashfield	11.7	7.3	2.0	4.5	5.1
Sutherland - Menai - Heathcote	14.4	10.8	2.1	4.8	4.0
Sydney Inner City	10.8	7.2	2.4	4.0	4.2
<b>CESPHN</b>	<b>12.5</b>	<b>8.2</b>	<b>2.0</b>	<b>4.4</b>	<b>4.6</b>
<b>NSW</b>	<b>15.5</b>	<b>10.6</b>	<b>2.2</b>	<b>4.9</b>	<b>4.2</b>
<b>Australia</b>	<b>15.0</b>	<b>11.2</b>	<b>2.5</b>	<b>4.8</b>	<b>3.8</b>

Source: PHIDU 2021

Note: Lord Howe Island is not included as there is no published data available.

## Potentially preventable hospitalisations

Potentially preventable hospitalisations (PPHs) are hospital admissions that could have potentially been prevented by timely and adequate health care in the community.

In 2020-21, there were 14,179 PPHs for chronic conditions across the CESPHN region, equivalent to 800 per 100,000 people; this was lower than the national rate of 1,058 per 100,000 people. The most common PPH was for congestive cardiac failure (167 per 100,000 people), with an average length of stay across the CESPHN region, of 6.8 days.(17)

**Table 7: PPHs for chronic conditions in the CESP HN region by condition, 2020-21**

PPH condition	PPH per 100,000 (ASR)	No. of PPH	Average length of stay (days)
Angina	105	1,844	1.7
Asthma	76	1,015	2.1
Bronchiectasis	23	401	6.3
COPD	108	1,976	5.5
Congestive cardiac failure	167	3,338	6.8
Diabetes complications	110	1,910	6.8
Hypertension	51	925	2.3
Iron deficiency anaemia	149	2,567	1.7
Nutritional deficiencies	2	38	17.4
Rheumatic heart disease	9	165	8.2
<b>Total chronic</b>	<b>800</b>	<b>14,179</b>	<b>4.4</b>

Source: AIHW 2023

## Lifestyle risk factors

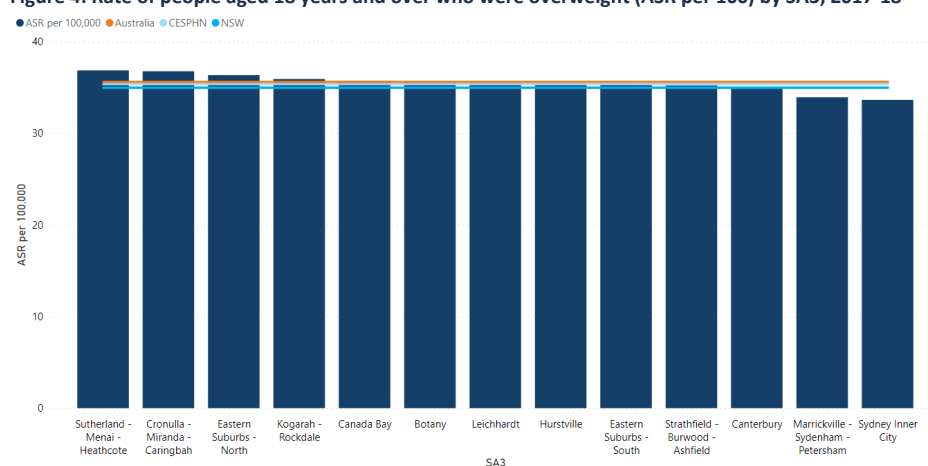
### Overweight and obesity

#### Adults

2017-18 PHIDU modelled estimates demonstrate that the male population was more likely to be overweight (41.4%) compared to the female population (29.4%), while obesity rates were similar in both genders.(5)

Four SA3s had rates above the state (35.0%) and national (35.6%) rates – Sutherland-Menai-Heathcote (36.8%), Cronulla-Miranda-Caringbah (36.8%), Eastern Suburbs-North (36.3%) and Kogarah-Rockdale (35.9%).(5)

**Figure 4: Rate of people aged 18 years and over who were overweight (ASR per 100) by SA3, 2017-18**



Source: PHIDU 2021

Note: Lord Howe Island is not included as there is no published data available.

Obesity rates in CESP HN SA3s were all below the state (30.9%) and national (31.3%) rates. Sutherland-Menai-Heathcote had the highest rate (29.0%).(5)

## Children

Between 2017-18, the estimated rate of children (2-17 years) in the CESP HN region considered overweight was 16.9%, which was similar to the state (17.0%) and national rate (16.7%). Overweight rates were similar across SA3s. However, rates for obese children in CESP HN (4.9%) was much lower than state (7.4%) and national rates (8.2%). Eastern Suburbs – South (6.9%) had the highest rate of obese children.(5)

## Healthy behaviours

### Adults

Overall, the CESP HN population practices healthier behaviours compared to the rest of the state and country. SA3s with the highest and lowest percentages (respectively) for the following behaviours were:

- Adequate fruit intake – Eastern Suburbs – North (59.1%) and Marrickville – Sydenham – Petersham (48.8%).
- Current smokers – Canterbury (15.3%) and Leichhardt (8.7%).
- Low, very low or no exercise in past week – Canterbury (74.3%) and Eastern Suburbs – North (49.7%).
- More than two standard alcoholic drinks per day – Eastern Suburbs – North (20.3%) and Canterbury (7.8%).(5)

Table 8: Health behaviour rates of people aged 18 years and over by SA3 (ASR per 100), 2017-18

SA3	Adequate fruit intake	Current smokers	Low, very low or no exercise	More than two alcoholic drinks per day
Botany	52.0	14.5	68.9	11.4
Canada Bay	54.6	10.0	60.6	14.2
Canterbury	56.8	15.3	74.3	7.8
Cronulla - Miranda - Caringbah	54.8	11.7	59.0	19.5
Eastern Suburbs - North	59.1	9.0	49.7	20.3
Eastern Suburbs - South	55.8	12.1	60.7	14.9
Hurstville	52.5	12.4	65.6	12.1
Kogarah - Rockdale	54.0	13.7	68.4	10.3
Leichhardt	50.5	8.7	55.6	18.5
Marrickville - Sydenham - Petersham	48.8	14.2	61.3	14.7
Strathfield - Burwood - Ashfield	53.7	13.1	65.0	10.2
Sutherland - Menai - Heathcote	53.2	9.3	61.5	19.0
Sydney Inner City	50.3	13.5	58.1	15.3
<b>CESP HN</b>	<b>53.7</b>	<b>12.3</b>	<b>62.0</b>	<b>14.3</b>
<b>NSW</b>	<b>52.5</b>	<b>14.4</b>	<b>65.3</b>	<b>15.5</b>
<b>Australia</b>	<b>51.3</b>	<b>15.1</b>	<b>66.1</b>	<b>16.1</b>

Source: PHIDU 2021

Note: Lord Howe Island is not included as there is no published data available.

## Children

Only 23% of primary school children and 23% of secondary school adolescents met recommended daily physical activity in NSW. Girls were generally less active than boys. Cultural background appeared to be a factor affecting physical activity level. Primary school children from Middle Eastern or Asian cultural backgrounds and secondary school adolescents from Asian cultural backgrounds were the least active groups.(18)

## Preventive health

### Immunisation

#### Childhood coverage

As at June 2023, fully immunised rates in the CESP HN region were on par with the state and national rates for 1-year-olds and 2-year-olds, while 5-year-olds were below both rates.(19)

The Aboriginal and Torres Strait Islander fully immunised rate for the 5-year age group was above the national 95% target.(19)

Table 9: Fully immunised rates, by region and age group, as at June 2023

Children	1-year-olds			2-year-olds			5-year-olds		
	CESP HN	NSW	National	CESP HN	NSW	National	CESP HN	NSW	National
All	94.2	94.6	94.4	91.6	91.6	91.3	92.5	94.2	94.1
Aboriginal	93.4	92.7	91.0	88.5	91.2	88.6	96.8	96.4	95.9

Source: Department of Health 2023

As at June 2023, the SA3s with the lowest fully immunised rates were:

- Canterbury for the 1-year-old age group
- Eastern Suburbs – North for the 2-year-old age group, and
- Sydney Inner City and Eastern Suburbs – North for the 5-year-old age group.(19)

There are a multitude of reasons for lower immunisation rates in these SA3s, including: lack of follow-up with a GP motivated by reduction in welfare payment, transient populations, and transmission errors from practice software to the Australian Immunisation Register (AIR).

**Table 10: Fully immunised children rates in the CESP HN region by age group and SA3, as at June 2023**

SA3	1-year-olds	2-year-olds	5-year-olds
Botany	94.7	93.2	93.3
Canada Bay	95.7	92.8	92.0
Canterbury	91.7	89.4	93.8
Cronulla - Miranda - Caringbah	93.7	92.7	94.1
Eastern Suburbs - North	92.6	88.5	88.7
Eastern Suburbs - South	94.1	90.4	91.2
Hurstville	93.4	91.7	92.4
Kogarah - Rockdale	93.1	89.5	92.4
Leichhardt	96.3	93.9	94.9
Marrickville - Sydenham - Petersham	97.6	95.0	92.4
Strathfield - Burwood - Ashfield	95.3	91.0	92.9
Sutherland - Menai - Heathcote	95.8	94.6	95.8
Sydney Inner City	94.3	92.8	88.8

Source: Department of Health 2023

Note: Lord Howe Island is not included as there is no published data available.

## Adolescent coverage

NSW Health works in partnership with schools to deliver the NSW School Vaccination Program to offer vaccines recommended for adolescents under the National Immunisation Program (NIP).

Human papillomavirus (HPV) vaccination is recommended for people aged 12 to 13 years to prevent HPV, a common virus spread through sexual contact that can result in genital warts and various cancers. In 2021, the HPV immunised rates (first dose) for females and males in the CESP HN region were higher than the NSW rates.(6)

**Table 11: Percentage of first dose adolescent vaccination coverage rates by school year, 2021**

LHD	HPV Female (Year 7) (%)	HPV Male (Year 7) (%)
SLHD	87	83
SESLHD	85	86
<b>NSW</b>	<b>83</b>	<b>80</b>

Source: HealthStats NSW 2023

Quadrivalent Meningococcal ACWY (4vMenCV) vaccine protects against four serogroups of Meningococcal: A, C, W and Y. In 2017, the NSW government funded the addition of 4vMenCV to the School Vaccination program for students in years 11 and 12. In 2019, this vaccination was added to the NIP, now given to students in year 10. In 2021, 66% of eligible year 10 students in NSW had received their first does of the 4vMenCV vaccine.(6)

## Potentially preventable hospitalisations

Total vaccine preventable PPHs in the CESP HN region have increased from 248 per 100,000 people in 2016-17 to 564 per 100,000 people in 2020-21. Since 2016-17, the total vaccine preventable PPH rates in the CESP HN region have been consistently above the national rates.(17)

Pneumonia and influenza contributed to 9.9% of the total vaccine preventable PPHs in 2020-21.(17)

**Table 12: Age-standardised rate of vaccine-preventable PPHs per 100,000 people, 2016-17 to 2020-21**

Category	Region	2016-17	2017-18	2018-19	2019-20	2020-21
Pneumonia and influenza	CESPHN	115	210	117	138	56
	National	107	204	144	145	45
Other vaccine preventable conditions	CESPHN	135	144	139	120	508
	National	103	107	99	92	255
Total vaccine preventable	CESPHN	248	352	254	257	564
	National	210	310	242	235	300

Source: AIHW 2023

In 2017-18, Marrickville-Sydenham-Petersham SA3 had the highest rate of pneumonia and influenza PPHs (303 per 100,000 people), followed by Canterbury SA3 (249 per 100,000 people).(20) Hurstville SA3 had the highest rate of other vaccine preventable PPHs (265 per 100,000 people), followed by Kogarah-Rockdale SA3 (204 per 100,000 people).(20)

**Table 13: Age-standardised rate (ASR) of vaccine-preventable PPHs per 100,000 people, by SA3, 2017-18**

Region	Pneumonia and influenza		Other vaccine-preventable conditions	
	ASR	No. of PPH	ASR	No. of PPH
Botany	235	121	167	83
Canada Bay	208	229	83	82
Canterbury	249	387	179	261
Cronulla - Miranda - Caringbah	171	287	99	131
Eastern Suburbs - North	198	334	82	123
Eastern Suburbs - South	197	326	125	191
Hurstville	177	305	265	386
Kogarah - Rockdale	230	411	204	330
Leichhardt	217	126	40	26
Marrickville - Sydenham - Petersham	303	171	131	75
Strathfield - Burwood - Ashfield	212	385	152	253
Sutherland - Menai - Heathcote	181	234	66	77
Sydney Inner City	245	401	187	359
<b>CESPHN</b>	212	3,706	145	2,372
<b>National</b>	207	57,198	108	28,329

Source: AIHW 2019

Note: Lord Howe Island is not included as there is no published data available.

## Screening

In 2020-21, the CESPHN region was below NSW and national rates for bowel cancer screening. The same was seen for breast cancer screening in 2019-2020. Between 2018-2021, cervical screening participation in the CESPHN region was below both the NSW and national rates.(21)

Canterbury SA3 had the lowest bowel cancer screening rate (32.8%), Sydney Inner City SA3 the lowest breast screening rate (40.0%) and Canterbury and Kogarah – Rockdale SA3s the lowest cervical screening rate (both at 57.2%).(21)

**Table 14: Percentage of bowel screening participation by SA3, 2020-21**

SA3	Bowel (%)
Botany	34.9
Canada Bay	40.1
Canterbury	32.8
Cronulla – Miranda – Caringbah	42.8
Eastern Suburbs – North	33.7
Eastern Suburbs – South	36.9
Hurstville	38.6
Kogarah – Rockdale	35.4
Leichhardt	41.8
Marrickville – Sydenham – Petersham	37.5
Strathfield – Burwood – Ashfield	36.9
Sutherland – Menai – Heathcote	44.3
Sydney Inner City	33.6
<b>CESPHN</b>	<b>37.2</b>
<b>NSW</b>	<b>39.5</b>
<b>National</b>	<b>40.9</b>

Source: AIHW 2023

Note: Lord Howe Island is not included as there is no published data available.

**Table 15: Percentage of breast screening participation by and SA3, 2019-20**

SA3	Breast (%)
Botany	n.p
Canada Bay	45.6
Canterbury	41.4
Cronulla – Miranda – Caringbah	50.0
Eastern Suburbs – North	40.7
Eastern Suburbs – South	50.4
Hurstville	45.8
Kogarah – Rockdale	45.3
Leichhardt	51.0
Marrickville – Sydenham – Petersham	46.1
Strathfield – Burwood – Ashfield	42.5
Sutherland – Menai – Heathcote	52.2
Sydney Inner City	40.0
<b>CESPHN</b>	<b>45.5</b>
<b>NSW</b>	<b>46.8</b>
<b>National</b>	<b>49.6</b>

Source: AIHW 2023

Note: There is no published data available for Botany SA3. Similarly, Lord Howe Island is not included as there is no published data available.

Table 16: Percentage of cervical screening participation by SA3, 2018-21

SA3	Cervical (%)
Botany	59.7
Canada Bay	66.5
Canterbury	57.2
Cronulla – Miranda – Caringbah	66.1
Eastern Suburbs – North	77.3
Eastern Suburbs – South	70.0
Hurstville	60.6
Kogarah – Rockdale	57.2
Leichhardt	77.2
Marrickville – Sydenham – Petersham	66.9
Strathfield – Burwood – Ashfield	61.3
Sutherland – Menai – Heathcote	67.0
Sydney Inner City	62.0
<b>CESPHN</b>	<b>64.5</b>
<b>NSW</b>	<b>67.2</b>
<b>National</b>	<b>68.3</b>

Source: AIHW 2023

Note: Lord Howe Island is not included as there is no published data available.

There is variation in breast screening rates among Aboriginal people and culturally and linguistically diverse (CALD) women compared to all women rates in the CESPHN region. In 2021-22, CALD women had the lowest rate, followed by Aboriginal women and then all women.(22)

Table 17: Percentage of breast screening participation by population group, CESPHN region, 2021-22

Population group	Breast (%)
Aboriginal	24.6
Culturally and linguistically diverse	18.5
All women	25.1

Source: Cancer Institute NSW 2023

Although there is no local level data, studies show that Aboriginal women are more likely to have significantly higher incidence and mortality rates of cervical cancer due to disparities in screening participation and later stage presentation.(23)

## Maternal and child health

### Conception and pregnancy

#### Antenatal care

Routine antenatal care, particularly in the first trimester (before 14 weeks), is known to have better child and maternal health outcomes as it provides opportunities for mothers to receive effective health interventions and address necessary lifestyle modifications (e.g. smoking during pregnancy).(24)

In 2020, the percentage of mothers who had an antenatal visit before 14 weeks was lower in the CESP HN region for both all mothers (66.1%) and Aboriginal mothers (59.3%) compared to the respective NSW rates (80.0% and 76.3% respectively). Data is from both NSW public and private hospitals.(25)

**Table 18: Percentage of mothers with first antenatal visits before 14 weeks by LHD, 2020**

Region	All mothers (%)	Aboriginal mothers (%)
Sydney LHD	56.2	49.3
South Eastern Sydney LHD	73.4	66.7
<b>CESPHN</b>	<b>66.1</b>	<b>59.3</b>
<b>NSW</b>	<b>80.0</b>	<b>76.3</b>

Source: HealthStats NSW 2022

It is important to note that although there is no regional data available for antenatal visits before 14 weeks for mothers born in non-English speaking countries, both Sydney (SLHD) and South Eastern Sydney LHD (SESLHD) have a large percentage (36.5% in SLHD and 23.8% in SESLHD) of mothers from Asia, Middle East and Africa. A mother's cultural background and experiences (e.g., migration status) can contribute to perinatal outcomes.(26)

The Australian Pregnancy Care Guidelines recommend 10 antenatal care visits for first-time mothers with uncomplicated pregnancies and seven for subsequent uncomplicated pregnancies. In 2020, CESP HN had a higher percentage (97.2%) of mothers attending five or more antenatal care visits compared to the national rate (94.2%).

Despite this, there are several SA3s that were below the CESP HN rate (97.2%), including: Canterbury, Cronulla – Miranda – Caringbah, Hurstville, Kogarah – Rockdale, Sutherland – Menai – Heathcote.(24) Several of these SA3s are known to have diverse population groups. Identifying as an Aboriginal person, having a multicultural background, migrant status (e.g., asylum seekers, refugees), and difficulty with reading and speaking the English language can lower access rates to antenatal visits.(26)

**Table 19: Percentage of all mothers who attended 5 or more antenatal care visits by SA3, 2020**

Region	%
Botany	97.8
Canada Bay	97.2
Canterbury	96.4
Cronulla – Miranda – Caringbah	96.7
Eastern Suburbs – North	97.6
Eastern Suburbs – South	97.5
Hurstville	96.3
Kogarah – Rockdale	97.0
Leichhardt	97.6
Marrickville – Sydenham – Petersham	97.2
Strathfield – Burwood – Ashfield	98.1
Sutherland – Menai – Heathcote	96.9
Sydney Inner City	97.7
<b>CESPHN</b>	<b>97.2</b>
<b>National</b>	<b>94.2</b>

Source: AIHW 2020

Note: Lord Howe Island is not included as there is no published data available.

CESPHN's Antenatal Shared Care (ANSC) Program partners with local hospitals to co-ordinate three ANSC programs – RPA Women and Babies/Canterbury (RPA/Canterbury), The Royal Hospital for Women (RHW) and St George/Sutherland (STGS). These programs aim to improve maternal and child wellbeing by supporting clinicians in the provision of integrated antenatal and postnatal care, particularly in areas and demographics of need. As at July 2023, there were 1,319 GPs registered and actively participating in a program. GPs can be registered in a single local hospital or with multiple local hospitals.

**Table 20: GP registrations in the CESPHN region by ANSC program, as at July 2023**

ANSC program	No. GPs registered	No. of births with ANSC as model of care (2022)	Proportion of total hospital births with ANSC as model of care (2022) (%)
Royal Hospital for Women	443	1,852	54.2
RPA Women and Babies and Canterbury Hospital	541	299	6
St George and Sutherland Hospital	335	88	4

Source: CESPHN database 2023

## Smoking during pregnancy

Smoking during pregnancy is associated with poorer perinatal health outcomes, including low birthweight, pre-term birth and perinatal death.(27) The CESPHN rate is below the NSW rate for all mothers and Aboriginal mothers. However, disparity between these two groups are significant, with Aboriginal mothers having a much higher rate of smoking during pregnancy.(6, 25)

**Table 21: Percentage of mothers smoking during pregnancy, all mothers and Aboriginal mothers, 2021**

Region	All mothers (%)	Aboriginal (%)
CESPHN	2.8	41.3
NSW	7.9	39.5

Source: HealthStats NSW 2023

## *Diabetes in pregnancy*

Diabetes in pregnancy increases the risk of adverse outcomes for the mother and baby. It is important to identify and assess a woman's risk of diabetes in pregnancy early.(26)

From 2015 to 2020, the prevalence of mothers with diabetes (pre-existing and gestational) in the CESPHN region has seen a steep rise. A number of factors are likely to have affected this trend including the introduction of new diagnostic guidelines and increasing risk factors in the population.(6)

**Table 22: Prevalence of diabetes in pregnancy (pre-existing and gestational), 2015 and 2020**

Region	2015	2020
CESPHN	9.0	14.0
NSW	9.8	14.7

Source: HealthStats NSW 2022

In 2020, the rate of maternal diabetes for Aboriginal mothers (14.4%) was slightly lower than all mothers rate (14.7%) in NSW. However, it is important to note that this may be due to under-detection and/or under-reporting.(6)

Canterbury and St George Hospital have both reported high rates of gestational diabetes and late presentation of pregnant women residing in surrounding areas to health professionals. Both hospitals service areas with high percentages of socioeconomically disadvantaged, as well as persons from multicultural communities, which is a risk factor for gestational diabetes.(28)

## *Overweight and obesity in pregnancy*

Obesity is an increasingly important challenge in pregnancy. Its impact begins prior to conception (e.g. reducing fertility) and increases risks for negative health outcomes throughout a woman's pregnancy.(29) In 2020, 31.2% of mothers in SLHD were overweight or obese and 28.6% in SESLHD. This was lower than the NSW rate of 41.1%.(6, 25)

## **Birth and development**

### *Low birth weight*

Low birth weight is an important predictor of newborn wellbeing and survival and can also be an indicator of poor health in pregnancy. In 2020, the percentage of low birth weights for the CESPHN region was slightly below the NSW rate for all children and for Aboriginal children.(6)

**Table 23: Percentage of low-birth weight babies, 2020**

Region	All children (%)	Aboriginal children (%)
CESPHN	5.7	9.3
NSW	6.1	10.2

Source: HealthStats NSW 2022

## Breastfeeding

Breastfeeding promotes healthy growth and development and protects children against infectious diseases or poor health conditions later in life.(1) Rate of breastfeeding at discharge after birth in SLHD is lower than the NSW rate, whereas SESLHD is higher. However, it is well documented that exclusive breastfeeding rates decline significantly with time.(30)

**Table 24: Percentage of women fully breastfeeding at discharge, 2021**

LHD	%
Sydney	65.2
South Eastern Sydney	73.3
NSW	67.6

Source: NSW Mothers and Babies 2021

# Sexual health

## Sexually transmissible infections (STIs)

From September 2022 – September 2023, the CESPHN region continued to have the highest rates of chlamydia, gonorrhoea, and infectious syphilis notifications in NSW. During this period, the region made up 36.2% of chlamydia, 49.6% of gonorrhoea and 49.4% of infectious syphilis NSW notifications.(31)

**Table 25: Number of chlamydia, gonorrhoea, and syphilis notifications in the CESPHN region by LHD, September 2022 – September 2023**

LHD	Chlamydia	Gonorrhoea	Syphilis
Sydney	4,951	2,493	606
South Eastern Sydney	6,892	3,493	882
NSW	32,720	12,071	3,014

Source: NSW Health 2023

*Note: from this point forward the chlamydia, gonorrhoea and syphilis data has not been updated as the 2022 NSW Sexually Transmissible Infections Data Report is yet to be published and publicly available.*

- Overall, chlamydia infections decreased from 2020 to 2021 in SESLHD by 8.8% (from a rate of 579 per 100,000 to 528.3 per 100,000) and by 10.3% in SLHD (from a rate of 579.5 per 100,000 to 519.8 per 100,000).(32)

## Age groups

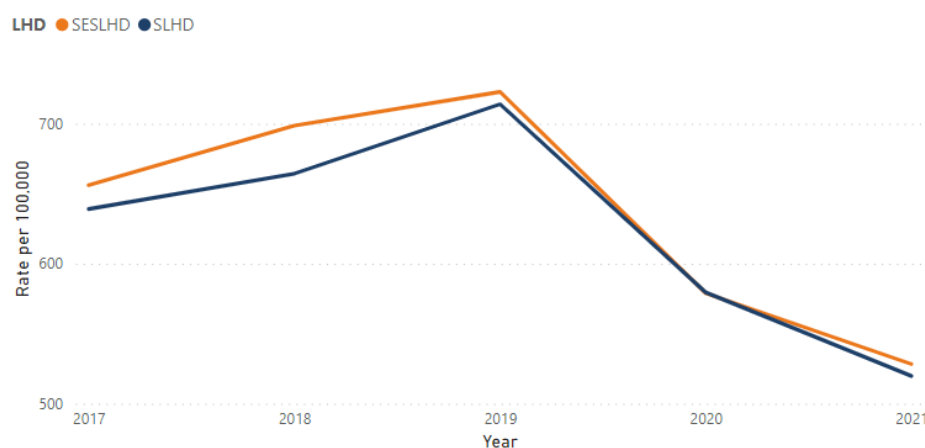
- Across NSW, decreases in chlamydia notification rates for 2021 occurred in almost all age groups.(32) The largest declines between 2020 and 2021 were recorded in people aged between 20-29 years (9%

and 7% decrease in the 25-29 year and 20-24 year age groups, respectively). These age groups also had the highest chlamydia notification rates in NSW.(32)

## Gender

- Chlamydia infections decreased from 2020 to 2021 in males (2.5% in SLHD and 0.7% in SESLHD) and females (24.6% in SLHD and 22.1% in SESLHD).(32)

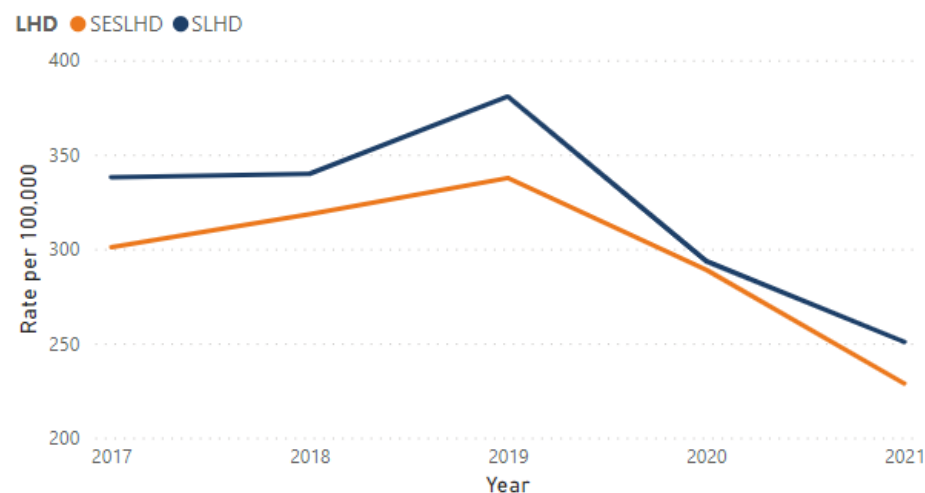
**Figure 5: Chlamydia notification rates per 100,000 people by LHD, 2017-21**



Source: NSW Health 2021

- Gonorrhoea infections decreased from 2020 to 2021 in SESLHD by 20.9% (from a rate of 289 per 100,000 to 228.7 per 100,000) and by 14.6% in SLHD (from a rate of 293.6 per 100,000 to 250.7 per 100,000).
- Gonorrhoea infections decreased from 2020 to 2021 in males (13.6% in SLHD and 20% in SESLHD) and females (21.5% in SLHD and 25% in SESLHD).(32)

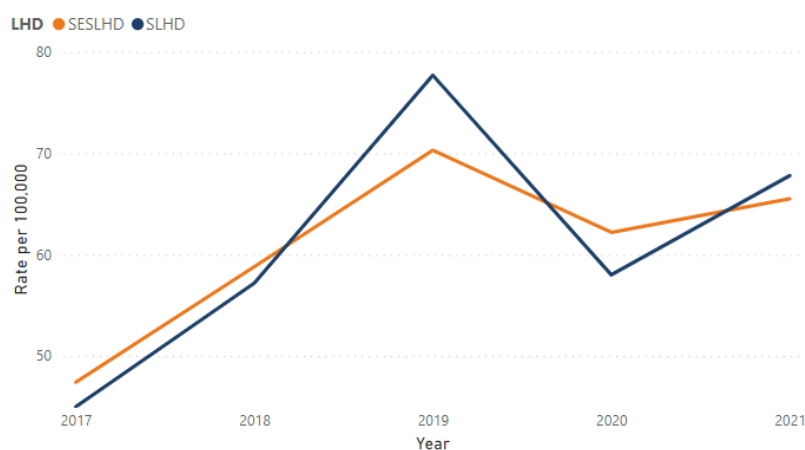
**Figure 6: Gonorrhoea notification rate per 100,000 people by LHD, 2017-21**



Source: NSW Health 2021

- Overall, infectious syphilis rates have increased in both SESLHD and SLHD between 2020-21 (5.3% and 16.9% respectively).(32) In males across NSW, the highest infectious syphilis rates are in SLHD and SESLHD. Since 2017, rates in male residents of these two LHDs have increased 50% and 38% respectively.(32)
- Although the relative number of infectious syphilis numbers are low among females, there has been a continued increase in the number of notifications in women of reproductive age (15-45 years) in NSW. (32)
- In the last five years, there have been nine cases of congenital syphilis among NSW residents. Two cases (22%) occurred in 2021. Among the nine cases since 2017, eight occurred in metropolitan Sydney (80%). Two congenital syphilis cases were in the Aboriginal population in NSW from 2017-2021.(32)

**Figure 7: Infectious syphilis notification rate per 100,000 people by LHD, 2017-21**



Source: NSW Health 2021

## HIV

In 2022, the number of newly diagnosed human immunodeficiency virus (HIV) cases (n=167) in NSW decreased by 33% compared to the average for the last five years. Additionally, 30% of cases showed that infection occurred in the 12-months preceding diagnosis – a 40% reduction in the last five years.(33) However, rates for newly diagnosed HIV notification in SESLHD and SLHD remained the highest in NSW, making up 40.8% of all notifications in the state.(34)

Of the 167 NSW cases, 72% occurred among men who have sex with men (MSM). In this group 46% were Australian born and 54% overseas born. (33) Overseas born, particularly MSM from a multicultural background, remain a priority population despite there being a 46% decrease in late diagnosis, compared to the 10% decline for Australian born MSM from 2017 to 2021. Declines in HIV notifications in inner Sydney, where approximately ≥20% gay-identified men live, were larger compared to those living in outer suburban areas.(34)

The number of HIV tests in publicly funded sexual health clinics increased by 18% compared to the same period in 2021. While, HIV testing has increased overall, it should be noted that testing rates remain lower than pre-pandemic levels in 2019.(34)

The life expectancy of people living with HIV (PLHIV) has increased substantially in Australia since 1986, predominantly due to the availability of combination antiretroviral therapy.(35) Despite increased longevity, older PLHIV also experience an increased burden of non-communicable age-associated comorbidities.(35) This has created a need for a shift in focus for how the health sector addresses the health and health service needs of this ageing population.(36)

## Hepatitis B

The prevalence of hepatitis B in the CESPHE region is fourth highest (1.20%) in Australia. Nine SA3s had a chronic hepatitis B (CHB) prevalence rate above the national average (0.78%) with the highest rate being in Hurstville (1.9%).(37)

The highest absolute numbers of people living with CHB are in Sydney Inner City (n=2,860), Strathfield Burwood-Ashfield (n=2,769) and Hurstville (n=2,609).

The average proportion of people living with CHB receiving recommended monitoring and care in CESPHE is 15.6%, which is lower than other Sydney metro PHNs. Cohorts more likely to have hepatitis B are people from multicultural backgrounds, particularly those born in countries with moderate to high rates.

**Table 26: Prevalence of CHB and percentage receiving care and treatment by SA3, CESPHE region, 2021**

SA3	CHB prevalence (%)	CHB treatment (%)	CHB care (%)
Botany	1.4	8.4	17.0
Canada Bay	1.3	14.8	31.4
Canterbury	1.7	18.1	38.1
Cronulla – Miranda – Caringbah	0.6	11.0	23.4
Eastern Suburbs – North	0.6	10.7	19.9
Eastern Suburbs – South	0.9	11.7	20.9
Hurstville	1.9	23.4	43.3
Kogarah – Rockdale	1.5	18.9	34.4
Leichhardt	0.6	10.0	19.8
Marrickville – Sydenham – Petersham	1.0	19.4	35.0
Strathfield – Burwood – Ashfield	1.7	16.3	33.2
Sutherland – Menai – Heathcote	0.6	11.0	21.5
Sydney Inner City	1.2	11.0	24.1

Source: National Viral Hepatitis Mapping Project 2023

Note: Lord Howe Island is not included as there is no published data available.

## Hepatitis C

CESPHE's prevalence (0.91%) of chronic hepatitis C (CHC) is above the national average (0.78%). However, the proportion of people receiving CHC treatment (39.6%) is on par with the national average (39.5%).(38) Treatment of hepatitis C is crucial for the prevention of liver cancer.

The burden of CHC is highest in Sydney Inner City (2.4%), Marrickville-Sydenham-Petersham (1.3%), Leichhardt (1.2%) and Eastern Suburbs-South (1.1%). The highest absolute numbers of people living with CHC are in Sydney Inner City (n=5,253), Eastern Suburbs-South (n=1,663) and Strathfield-Burwood-Ashfield (n=1,056). Of all SA3s in the CESPHE region, Sydney Inner City has the lowest treatment rate at 33.4%.

Table 27: Prevalence of CHC and percentage receiving treatment by SA3, CESP HN region, 2020

SA3	CHC prevalence (%)	CHC treatment (%)
Botany	0.6	64.0
Canada Bay	0.4	45.5
Canterbury	0.8	42.0
Cronulla – Miranda – Caringbah	0.4	58.4
Eastern Suburbs – North	0.6	43.1
Eastern Suburbs – South	1.1	36.0
Hurstville	0.5	42.6
Kogarah – Rockdale	0.6	41.4
Leichardt	1.2	42.0
Marrickville – Sydenham – Petersham	1.3	45.1
Strathfield – Burwood – Ashfield	0.7	39.5
Sutherland – Menai – Heathcote	0.3	58.6
Sydney Inner City	2.4	33.4

Source: National Viral Hepatitis Mapping Project 2021

Note: Lord Howe Island is not included as there is no published data available.

While people with a history of injecting drug use continue to be a priority population, migrants from countries and regions with a high prevalence of CHC (Egypt, Pakistan, the Mediterranean and Eastern Europe, Africa, and Southern Asia) represent a priority population with low uptake of CHC treatment.

## Management and treatment

### *Antimicrobial resistance*

Antimicrobial resistance is an emerging and urgent issue to address for STIs. For gonorrhoea, there is only one available effective antibiotic for which resistance is rising and there are no other suitable antibiotics.(39) Multi-drug resistant gonorrhoea is increasing in some countries, particularly Southeast Asian countries. Given that the CESP HN region is a hub for workers, travellers and overseas students, the communicable nature of STIs warrants activities that target non-CESP HN residents.(40)

### *S100 prescribing for HIV*

As at 29 June 2023, the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) advised that there are 119 current HIV S100 prescriber GPs within the CESP HN region. Of all the HIV S100 prescribers in NSW, 56% are reported to be practicing in the CESP HN region.

A survey conducted in 2018, reported that of 181 GPs in the CESP HN region, 58% said they would manage a newly diagnosed patient with HIV if they were supported appropriately – highlighting a significant opportunity for increasing GP HIV management capacity. Twenty-four per cent were willing but see this as “too complicated”. This indicates a continuing need for ongoing education to improve GP confidence in the management of HIV, thereby ensuring HIV patients feel comfortable and supported by their GPs.

### *International students*

Stakeholders and providers have observed an increase in sexual health and reproductive health issues among international students, particularly STI and HIV notifications and unplanned pregnancies. There is anecdotal

evidence of a rise in STI and HIV notifications in MSM from south-east Asian and Asian backgrounds. Young female international students are identified as a vulnerable demographic due to a lack of reporting of sexual assault and lack of knowledge on contraception.(41)

Access to sexual and reproductive health services may be limited by lack of knowledge of the Australian health care system, Medicare ineligibility and their private health care cover, and limited understanding and knowledge of sexual health. These may also be exacerbated by a lack of social support, language barriers and cultural stigma.(41)

## References

1. Australian Institute of Health and Welfare. Australia's health performance framework 2019 [Available from: <https://www.aihw.gov.au/reports-data/australias-health-performance/australias-health-performance-framework>].
2. Australian Institute of Health and Welfare. Child and maternal health in 2014–2016: Australian Institute of Health and Welfare; 2018 [September 26]. Available from: <https://www.aihw.gov.au/reports/mothers-babies/child-maternal-health-2014-2016>.
3. Australian Institute of Health and Welfare. Mortality over regions over time (MORT) books 2023 [Available from: <https://www.aihw.gov.au/reports/life-expectancy-deaths/mort-books/contents/mort-books>].
4. Unit. PHID. Social Health Atlases of Australia 2022 [Available from: <https://phidu.torrens.edu.au/social-health-atlases/data>].
5. Public Health Information Development Unit. Social Health Atlases of Australia 2021 [cited 2021 2 August]. Available from: <https://phidu.torrens.edu.au/social-health-atlases/data>.
6. Centre for Epidemiology and Evidence. HealthStats NSW Sydney: NSW Ministry of Health; 2023 [Available from: <https://www.healthstats.nsw.gov.au/#/topics#D>].
7. Cancer Institute NSW. Cancer incidence and mortality: Cancer Institute NSW; 2022 [Available from: <https://www.cancer.nsw.gov.au/research-and-data/cancer-data-and-statistics/data-available-now/cancer-statistics-nsw/cancer-incidence-and-mortality>].
8. Australian Institute of Health and Welfare. Cancer in Australia 2019 Canberra: Australian Institute of Health and Welfare; 2019 [Available from: <https://www.aihw.gov.au/reports/can/126/cancer-in-australia-2019-in-brief/contents/summary>].
9. Bureau of Health Information. Outpatient Cancer Clinics Survey 2021 Sydney, NSW: BHI; 2022 [Available from: [https://www.bhi.nsw.gov.au/nsw\\_patient\\_survey\\_program/outpatient\\_cancer\\_clinics\\_survey](https://www.bhi.nsw.gov.au/nsw_patient_survey_program/outpatient_cancer_clinics_survey)].
10. Weller DP HM. Cancer care: what role for the general practitioner? : Medical Journal of Australia; 2008.
11. Centre for Epidemiology and Evidence. HealthStats NSW 2021 [Available from: <http://www.healthstats.nsw.gov.au/IndicatorGroup/TopicIndicatorGroups>].
12. National Diabetes Services Scheme, Australia. D. Australian Diabetes Map 2023 [Available from: <https://map.ndss.com.au/#/>].
13. Australian Institute of Health and Welfare. Incidence of insulin-treated diabetes in Australia 2020. 2022.
14. Australian Institute of Health and Welfare. Medicare-subsidised GP, allied health and specialist health care across local areas: 2021–22. Canberra: AIHW; 2023.
15. Australian Institute of Health and Wellness. Geographical variation in disease: diabetes, cardiovascular and chronic kidney disease 2021 [Available from: <https://www.aihw.gov.au/reports/chronic-disease/geographical-variation-in-disease/data>].
16. Australian Institute of Health and Welfare. Chronic kidney disease: Australian Institute of Health and Welfare; 2017 [Available from: <https://www.aihw.gov.au/reports/chronic-kidney-disease/chronic-kidney-disease-compendium/data>].
17. Australian Institute of Health and Welfare. Potentially preventable hospitalisations in Australia by small geographic areas, 2020–21. AIHW; 2023.
18. NSW Ministry of Health. NSW School Physical Activity and Nutrition Survey (SPANS): NSW Health; 2015 [Available from: <https://www.health.nsw.gov.au/heal/Publications/spans-2015-full-report.PDF>].
19. Department of Health and Aged Care. Childhood immunisation coverage (PHN and SA3) 2023 [Available from: <https://www.health.gov.au/resources/collections/childhood-immunisation-coverage-data-phn-and-sa3>].
20. Australian institute of Health and Welfare. Potentially preventable hospitalisations in Australia by age groups and small geographic areas, 2017–18 Canberra 2019 [Available from: <https://www.aihw.gov.au/reports/primary-health-care/potentially-preventable-hospitalisations/contents/overview>].
21. Australian Institute of Health and Welfare. Cancer screening programs: quarterly data. AIHW; 2023.

22. Cancer Institute NSW. BreastScreen NSW: Cancer Institute NSW; 2022 [Available from: <https://www.cancer.nsw.gov.au/research-and-data/cancer-data-and-statistics/data-available-now/cancer-statistics-nsw/breastscreen-nsw>].
23. Rosalind Moxham PM, Liz Duniec, Teresa Fisher, Erin Furestad, Pene Manolas, et al. Knowledge, attitudes, beliefs, intentions and behaviours of Australian Indigenous women from NSW in response to the National Cervical Screening Program changes: a qualitative study The Lancet 2021 [Evidence]. CfEa. New South Wales Mothers and Babies 2020. Sydney: NSW Ministry of Health; 2021.
24. Evidence. CfEa. HealthStats NSW 2022 [Available from: <http://www.healthstats.nsw.gov.au/IndicatorGroup/TopicIndicatorGroups>].
25. Department of Health. Clinical Practice Guidelines Pregnancy Care 2020 [Available from: <https://www.health.gov.au/resources/pregnancy-care-guidelines>].
26. Australian Institute of Health and Welfare. Australia's mothers and babies 2019 [Available from: <https://www.aihw.gov.au/reports/mothers-babies/australias-mothers-babies/contents/summary>].
27. Australian Institute of Health and Welfare. Incidence of gestational diabetes in Australia 2019 [Available from: <https://www.aihw.gov.au/reports/diabetes/incidence-of-gestational-diabetes-in-australia/contents/risk-factors>].
28. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists. Management of Obesity in Pregnancy 2017 [Available from: [https://rancog.edu.au/RANZCOG\\_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Management-of-obesity-\(C-Obs-49\)-Review-March-2017.pdf?ext=.pdf](https://rancog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Management-of-obesity-(C-Obs-49)-Review-March-2017.pdf?ext=.pdf)].
29. Evidence. CfEa. Mothers and Babies 2021. Sydney: NSW Ministry of Health; 2023.
30. NSW Health. Infectious diseases data 2021 [Available from: <https://www.health.nsw.gov.au/infectious/pages/data.aspx>].
31. NSW Health. Sexually transmissible infections in NSW: January to December 2021 data update. Sydney; 2021.
32. NSW Health. NSW HIV Strategy 2021-2025: Quarter 4 and Annual Data Report 2021. Sydney 2021.
33. Centre for Population Health. NSW HIV Strategy 2021-2025. Quarter 4 and Annual Data Report 2022. NSW Health; 2023.
34. Woods R. HIV and Ageing in Australia – The New Frontier. Australia: National Association of People with HIV Australia; 2019.
35. NSW. PL. HIV and Ageing: Positive Life NSW; 2022 [Available from: <https://www.positivelife.org.au/policy-research/hiv-ageing/>].
36. MacLachlan J, Romero N, Purcell I, Cowie B. Viral Hepatitis Mapping Project: Hepatitis B. National Report 2021. Darlinghurst, NSW: Australasian Society for HIV, Viral Hepatitis, and Sexual Health Medicine (ASHM); 2023.
37. Australasian Society for HIV, and sexual health medicine. Viral hepatitis mapping project national report 2018-19 2020 [Available from: <https://www.ashm.org.au/resources/hcv-resources-list/viral-hepatitis-mapping-project-national-report-2018-2019/>].
38. Wi T, Lahra MM, Ndowa F, Bala M, Dillon J-AR, Ramon-Pardo P, et al. Antimicrobial resistance in *Neisseria gonorrhoeae*: Global surveillance and a call for international collaboration. PLoS Med; 2017.
39. Broady T, Power C, Mao L, Bavinton B, Chan C, Bambridge C, et al. Gay Community Periodic Survey: Sydney 2019. Sydney: Centre for Social Research in Health, UNSW Sydney; 2019.
40. Ryan R, Dowler B, Bruce S, Gamage S, Morris A. The Wellbeing of International Students in the City of Sydney. Sydney, NSW: University of Technology Sydney: Institute for Public Policy and Governance; 2016.