

HEALTH AND WELLBEING OF CHILDREN IN THE FIRST FIVE YEARS

2025-2027 Needs Assessment

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Overview

Experiences during the early years of a child's life can have lasting impacts on physical and mental well-being. What happens during this time of early development can influence a child's future social, emotional and intellectual development (1). A key health service aim of early childhood years is to eliminate or mitigate the risk factors of adverse health effects and identify children at risk.

This chapter reviews some of the risk factors that can compromise childhood development. It is acknowledged that these indicators are not comprehensive. Further, the indicators reported here, such as maternal smoking, birthweight and maternal access to early antenatal care narrow the focus on proximal causes of adverse child health-related outcomes. These indicators are useful because these are easily measured and have direct effects on outcomes. Insofar as these indicators arise from broader socio-economic determinants of health, it follows that improving the social determinants of health can bring positive changes to mothers' and children's standards of living and wellbeing.

Key issues

- In some parts of the CESP HN region there are high levels of socio-economic disadvantage
- Child immunisation rates are less than the national target
- Some SA3s with the highest developmental vulnerability in one or more domains
- The proportion of women with their first antenatal visit recorded during the first 14 weeks of gestation is below the NSW average
- Aboriginal babies are less likely to be born within a healthy weight range compared with Non-Aboriginal babies (88% versus 95%)

Key gaps

- Full immunisation rates in children in several regions within CESP HN have fallen below 90%
- Treatment delays for children newly diagnosed with a disability
- Access to affordable paediatric care

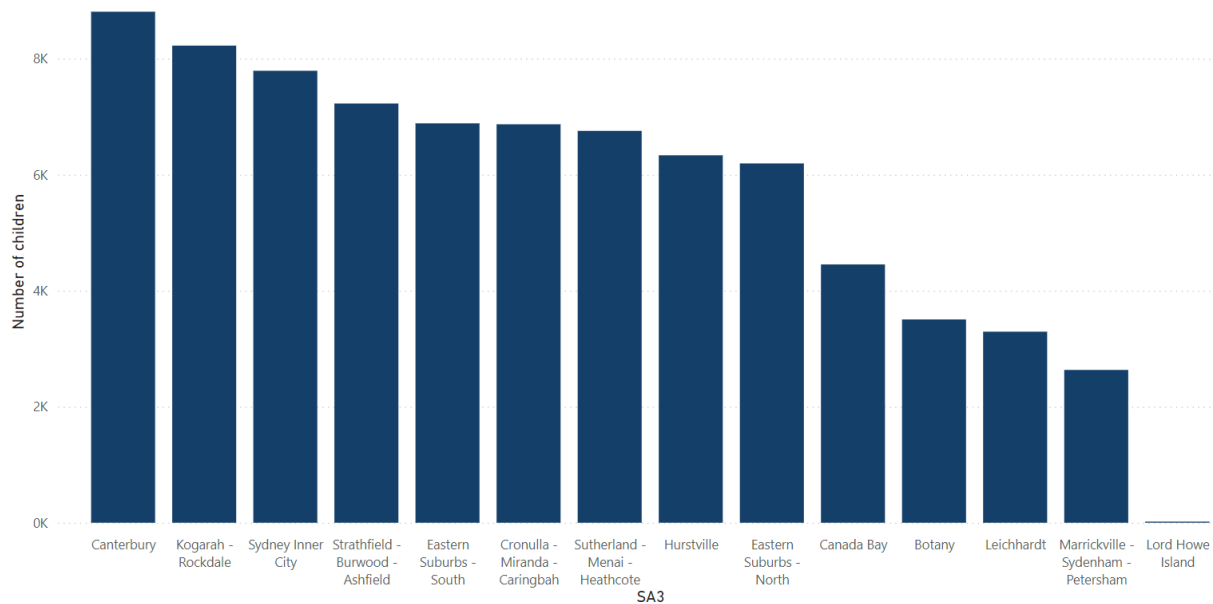
Demographics

Population aged 0-4 years

In 2024, there were 82,982 children aged between 0 to 4 years in the CESP HN region. Numbers are expected to grow at a rate of 0.31% annually reaching 87,493 by 2041. Figure 1 shows the estimated residential CESP HN population of children aged 0-4 by SA3. Canterbury SA3 had the highest number (N=8,808), accounting for 11.4% of children 0-4 years across the CESP HN region, followed by Kogarah-Rockdale SA3 (N=8,224) accounting for 9.7% and Sydney Inner City (N=7,790), accounting for 9.5% of the CESP HN population (2).

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Figure 1: Estimated resident population (ERP) of children aged 0-4 years by SA3, CESP HN region, 2023



Source: ABS ERP, 2024

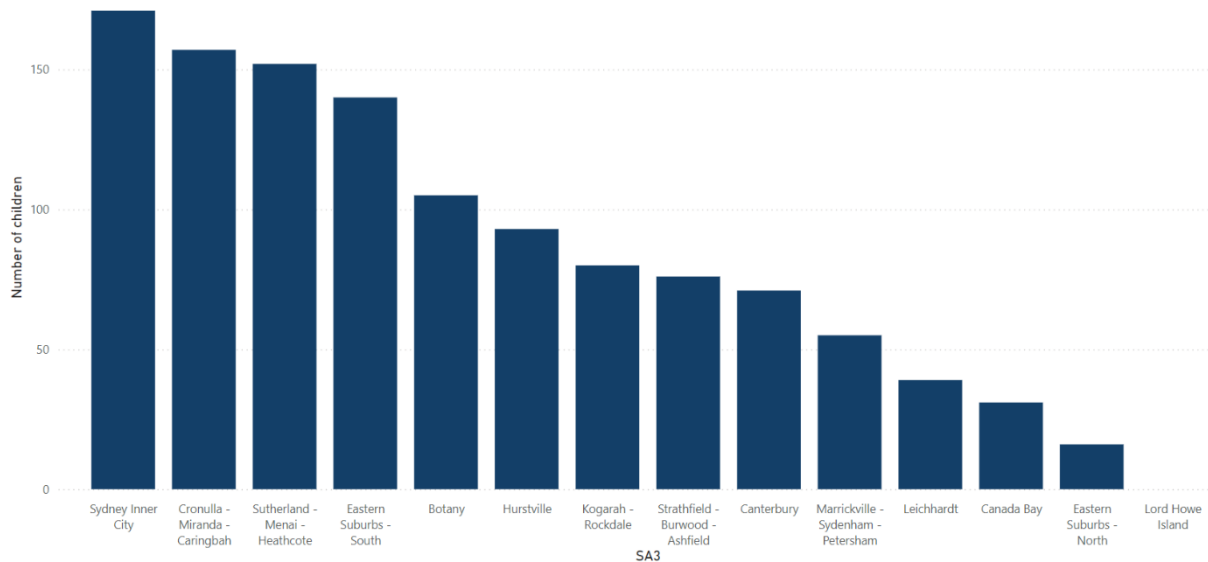
Demographic characteristics on Aboriginality, children born overseas or born to overseas born parents, and main language spoken at home have been identified from the most recent National census data from 2021. Therefore, these data remained unchanged from the previous Needs Assessment Report. However, Census data provide the most representative estimates currently available.

Population aged 0-4 years who identify as Aboriginal

In 2021, there were 1,186 children aged 0-4 years who identify as Aboriginal in the CESP HN region. Sydney Inner City was the SA3 with the highest number of children identifying as Aboriginal (N=171), accounting for 14.4% of Aboriginal children in the CESP HN region followed by Cronulla-Miranda-Caringbah SA3 (N=157) and Sutherland-Menai-Heathcote SA3 (N=152) (3).

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Figure 2: Number of children aged 0-4 years who identify as Aboriginal by SA3, CESPHN region, 2021



Source: ABS, 2022

Population born overseas or have parents who were born overseas

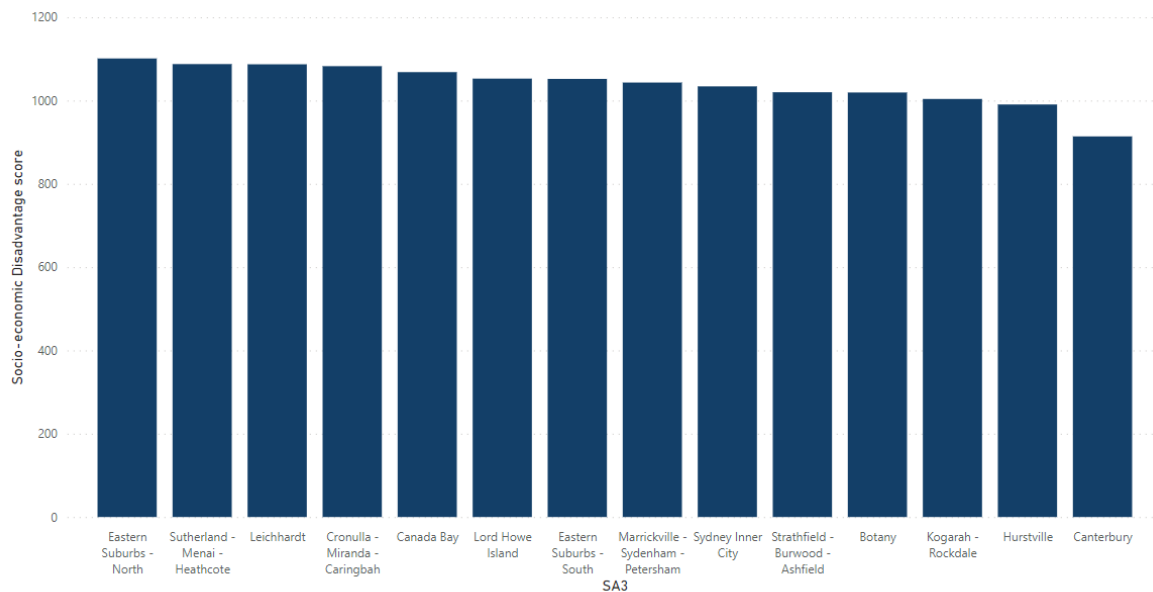
In 2021, 6,096 children residing in the CESPHN region between the ages of 0 to 4 were born overseas. Canterbury, Sydney Inner City and Kogarah-Rockdale SA3s had the highest numbers of overseas born children <5 years (3).

Socio-economic disadvantage

According to the 2021 Census data, twelve out of fourteen SA3s in the CESPHN region ranked above 1,000 on the SEIFA Index of Relative Socioeconomic Disadvantage rankings, meaning the areas have a lower proportion of relatively disadvantaged people than the Australian average. Two SA3s ranked below 1,000: Hurstville SA3 (990.6) and Canterbury SA3 (913.9) - highlighting pockets of relative disadvantage in the CESPHN region (4).

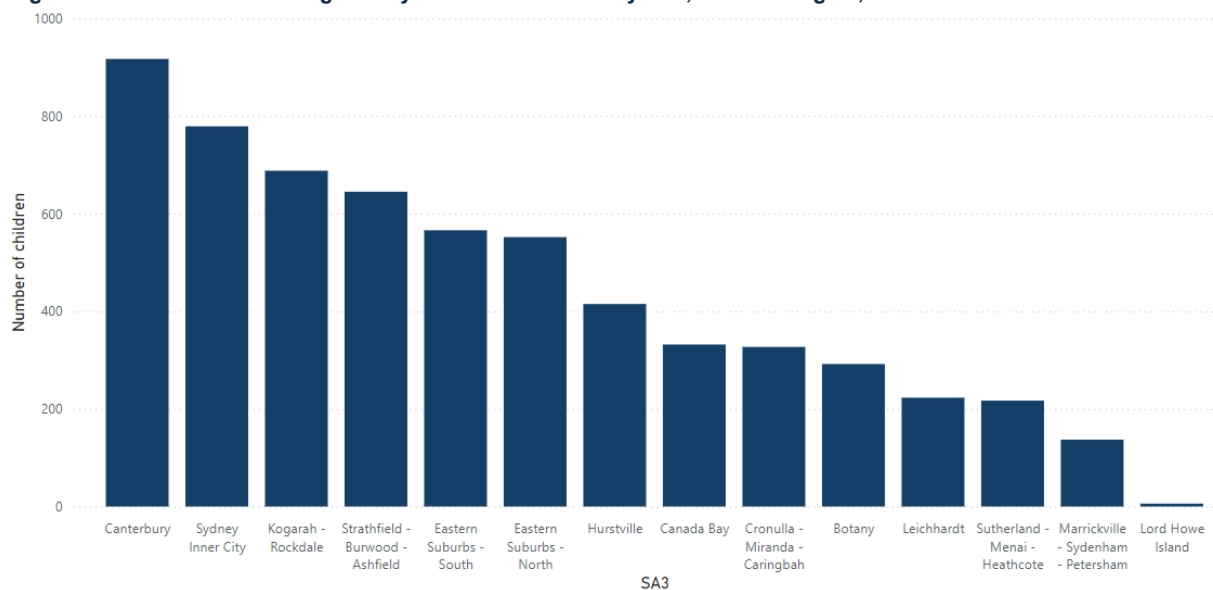
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Figure 3: Socio-economic disadvantage score by SA3, CESPHN region, 2021



Source: ABS, 2022

Figure 4: Number of children aged 0-4 years born overseas by SA3, CESPHN region, 2021



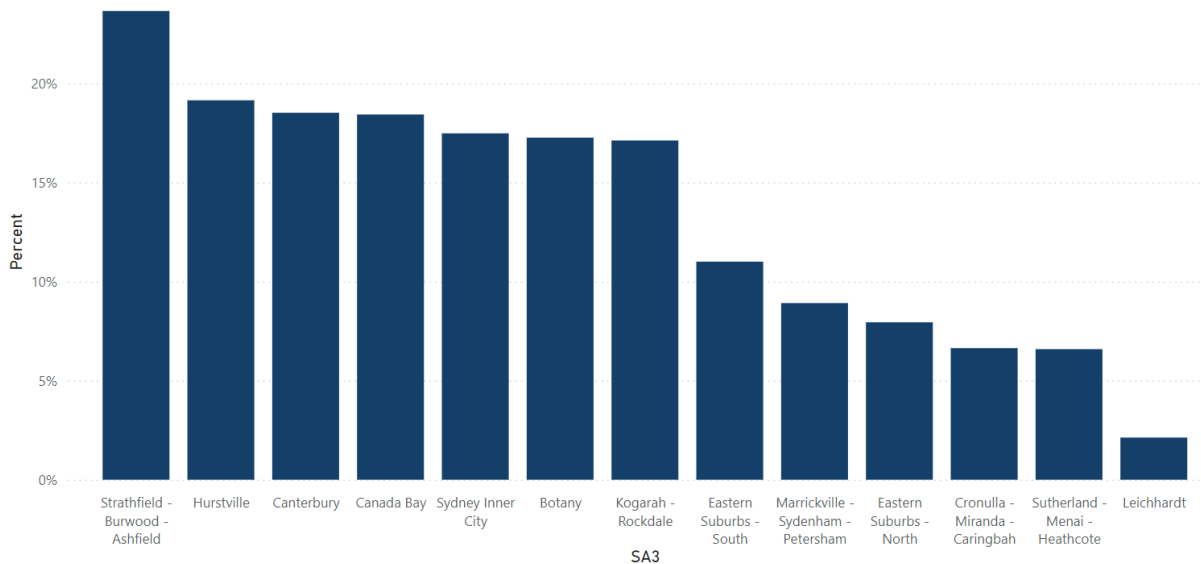
Source: ABS, 2022.

Over thirty percent (31.6%) of children across the CESPHN region speak a language other than English at home with more than half of children (58.6%) in the Canterbury SA3 speaking a language other than English at home (58.6%). Almost half of children younger than 5 years residing in Kogarah - Rockdale SA3 (49.7%) and Hurstville SA3 (47.6%) speak a language other than English at home respectively (3).

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In 2021, 4.2% of children aged 0-4 years in the CESP HN region did not speak English well or at all. This proportion is highest in Botany SA3 (7.4%), followed by Strathfield-Burwood-Ashfield SA3 (7.4%) and Canterbury (6.9%) (3).

Figure 5: Proportion of children aged 0-4 years born in non-English speaking countries with reported low English proficiency by SA3, CESP HN region, 2021



Source: ABS, 2022

Health status

Population aged 0-4 years who need core activity assistance

Data from the 2021 census showed that 711 children aged 0-4 years required core activity assistance in the CESP HN region, representing 2.2% of children in the region. Canterbury SA3 had the highest number of children aged 0-4 years requiring core activity assistance (N=103), followed by Sutherland - Menai - Heathcote SA3 (N=86) and Kogarah - Rockdale SA3 (N=77) (3).

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Table 1: Number of children aged 0-4 years who need core activity assistance by SA3, CESPHN region, 2021

| SA3 | Number of children who need core activity assistance |
|-------------------------------------|------------------------------------------------------|
| Botany | 29 |
| Canada Bay | 41 |
| Canterbury | 103 |
| Cronulla - Miranda – Caringbah | 48 |
| Eastern Suburbs – North | 50 |
| Eastern Suburbs – South | 52 |
| Hurstville | 70 |
| Kogarah – Rockdale | 77 |
| Leichhardt | 20 |
| Marrickville - Sydenham – Petersham | 20 |
| Strathfield - Burwood – Ashfield | 62 |
| Sutherland - Menai – Heathcote | 86 |
| Sydney Inner City | 53 |
| CESPHN | 711 |

Source: ABS, 2022

Immunisation

As at June 2024, annual full immunisation rates in the CESPHN region were below the target of >95% for 1-, 2- and 5 year olds (5). Rates were lower in Aboriginal children compared with rates for all children aged 1 and 2 years old and were slightly higher in Aboriginal children at 5 years of age (5).

When compared with 2019 rates (pre-Covid), full immunisation rates for all children are similar in the twelve months to June 2024, indicating a return to pre-pandemic levels. However, for Aboriginal children, current rates are below pre-pandemic levels and are markedly below pre-pandemic levels for 1-year olds (90.27% versus 95.05%) and 5- year olds (93.15% and 97.65%). Full immunisation rates in Aboriginal children in CESPHN are lower than the NSW average for Aboriginal children (5).

Table 2: Percentage of children fully immunised (uptake of National Immunisation Program funded vaccines), by region and age, January to December 2019 (pre-Covid) and July 2023 to June, 2024

| | 1 year olds | | 2 year olds | | 5 years olds | |
|------------|-------------|------------------|-------------|------------------|--------------|------------------|
| | CESPHN | NSW ^a | CESPHN | NSW ^a | CESPHN | NSW ^a |
| 2019 | | | | | | |
| All | 93.79% | 94.17% | 90.42% | 91.33% | 92.43% | 94.66% |
| Aboriginal | 95.05% | 94.44% | 90.44% | 91.96% | 97.65% | 97.86% |
| 2024 | | | | | | |
| All | 93.69% | 92.98% | 91.03% | 91.15% | 92.96% | 94.04% |
| Aboriginal | 90.27% | 92.18% | 90.29% | 90.38% | 93.15% | 96.11% |

Source: Australian Government: Department of Health and Aged Care

Marrickville-Sydenham-Petersham and Sutherland-Menai-Heathcote were the only SA3 regions within CESPHN to achieve the national target for full immunisation (>95%) across all three standard age assessment milestones. More than 95% of 1-year olds within Leichhardt and Sydney Inner City SA3s

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were fully vaccinated. Of concern, in four SA3 regions, fewer than 90% of children were vaccinated at 2 years of age- Botany, Canterbury, Eastern Suburbs North and Kogarah-Rockdale (5).

In the Eastern Suburbs North SA3, only 89.53% of 5-year olds were fully vaccinated. The variability in demographic characteristics across the CESPHEPHN region suggests that the barriers may differ for different SA3 regions and public health interventions will likely need to be tailored to redress area-specific barriers (5).

Table 3: Percentage of fully vaccinated children by CESPHEPHN SA3

| SA3 | % Fully Vaccinated | | |
|-------------------------------------|--------------------|-------------|-------------|
| | 1 year-olds | 2 year-olds | 5-year olds |
| Botany | 93.61 | 89.71 | 93.05 |
| Canada Bay | 94.03 | 92.66 | 92.94 |
| Canterbury | 90.68 | 87.75 | 93.11 |
| Cronulla - Miranda – Caringbah | 94.32 | 90.55 | 94.99 |
| Eastern Suburbs – North | 92.41 | 89.18 | 89.53 |
| Eastern Suburbs – South | 91.87 | 90.01 | 90.96 |
| Hurstville | 93.25 | 90.69 | 92.67 |
| Kogarah – Rockdale | 92.72 | 89.34 | 92.94 |
| Leichhardt | 95.99 | 93.97 | 93.81 |
| Marrickville - Sydenham – Petersham | 97.16 | 95.45 | 96.58 |
| Strathfield - Burwood – Ashfield | 94.74 | 91.97 | 93.70 |
| Sutherland - Menai – Heathcote | 95.32 | 95.36 | 96.97 |
| Sydney Inner City | 95.01 | 91.09 | 89.34 |

Source: Department of Health and Aged Care, 2024

Research from surveys of Australian parents demonstrate that vaccine hesitancy has increased since the COVID-19 pandemic (6) (7). The National Vaccination Insights Project identifies barriers to childhood vaccination as reported by parents. Parents of children who do not receive vaccinations are more likely to cite concerns about safety and doubts about the scientific efficacy of vaccination than parents of fully or partially vaccinated children.

Parents of partially vaccinated children are more likely to cite practical difficulties in arranging vaccination appointments and financial barriers (8). Local data from within the CESPHEPHN SA3 regions may assist in identifying reasons for less vaccination uptake and better target strategies to the needs of the community.

Childhood development

The Australian Early Development Census (AEDC) is completed once every three years by teachers in children’s first year of school. Five domains are assessed: 1) physical health and wellbeing, 2) social competency, 3) emotional maturity, 4) communication skills and general knowledge, and 5) language and cognitive skills.

The most recent AEDC was conducted from May to July inclusive, 2024 with results due to be reported in 2025. This section reports results from the 2021 AEDC and therefore is not changed from the last Needs Assessment. SA3s with the highest developmental vulnerability in one or more domains that were above the NSW rate (21.2%) were Canterbury (24.7%) and Strathfield – Burwood

– Ashfield (22.4%) (9). Additionally, Eastern Suburbs - South (19.7%) had rates higher than the CESPHN rate (17.3%). AEDC data shows that some SA3s have seen an increase in language vulnerability, mainly Canterbury, Kogarah – Rockdale, Strathfield - Burwood - Ashfield and Hurstville (9).

Between 2021-23, CESPHN was a primary partner in the NHMRC partnership funded grant – Strengthening Care for Children (SC4C) project. The project trialled a new general practitioner (GP) – paediatrician integration model of care designed to:

- reduce the need for paediatric referrals to hospital services
- support and improve GP confidence to manage a broad range of child health concerns, and
- strengthen primary relationships and trust with family and/or care givers to deliver high quality of paediatric care close to home.

The project also sought to develop relationships between GPs and paediatricians, with ongoing support and education opportunities provided to GPs from the SC4C project team over a 12-month period. This included:

- GP-led co-consultation with SC4C paediatricians (weekly for six months, fortnightly for the following six months)
- SC4C paediatricians led monthly case discussions, and
- SC4C paediatrician weekday phone and email support.

Key indicators against which needs were identified include participation in antenatal care, health behaviours during pregnancy (namely smoking and alcohol intake), incidence of preventable pregnancy complications (gestational diabetes), and birth outcomes (birth weight) and breastfeeding.

Issues raised during the external consultations conducted by CESPHN with clinical and community leaders included:

- Treatment delays for children newly diagnosed with a disability
- Growing concerns about identifying and managing children with speech delays due to missed preventive health care assessments
- The impact of maternal mental health on child development.

Maternal health

Conception and pregnancy

Antenatal care

There is strong evidence to support the efficacy of routine antenatal care on childhood outcomes (1) particularly the first trimester. Antenatal care offers opportunities for education around life-style modifications, such as smoking, the early detection of pregnancy complications and vaccination during pregnancy.

Recent data from the Australian Institute of Health and Welfare reports on antenatal care up to 2022 by PHN and SA3 levels (10). The proportion of women with their first antenatal visit recorded during the first 14 weeks of gestation is below the NSW average with 66.3% of women in CESPHN meeting this National Core Maternity Indicator compared with 80.3% in NSW. This proportion was higher in 2019, (74.9%), dropping to two-thirds in 2020, and has remained steady since. In contrast, the overall NSW estimate did not show variation between 2019 to 2022.

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Table 4: Proportion of women receiving antenatal care during the first 14 weeks of pregnancy, 2019-2022

| Year | CESPHN | NSW |
|------|--------|-------|
| 2022 | 66.3% | 80.3% |
| 2021 | 67.2% | 80.9% |
| 2020 | 66.5% | 80.7% |
| 2019 | 74.9% | 80.2% |

Source: HealthStats NSW, 2024

Differences in this core indicator are evident across the CESP HN region. High proportions of women receive their first antenatal care visit during the first trimester of pregnancy in Sutherland-Menai-Heathcote (84.9%), Cronulla-Caringbah-Miranda (84.1%), and Eastern Suburbs North (80.0%) SA3 regions. Low proportions are seen in Canterbury (44.6%), Marrickville-Sydenham-Petersham (48.1%) and Strathfield-Burwood-Ashfield SA3 regions (49.0%) (10).

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Table 5: Proportion of women receiving antenatal care during the first 14 weeks of pregnancy, 2019-2022 by SA3

| SA3 | % receiving care |
|-------------------------------------|------------------|
| Botany | 76.1 |
| Canada Bay | 59.5 |
| Canterbury | 44.6 |
| Cronulla - Miranda – Caringbah | 84.1 |
| Eastern Suburbs – North | 80.0 |
| Eastern Suburbs – South | 77.2 |
| Hurstville | 68.1 |
| Kogarah – Rockdale | 67.9 |
| Leichhardt | 60.2 |
| Marrickville - Sydenham – Petersham | 48.1 |
| Strathfield - Burwood – Ashfield | 49.0 |
| Sutherland - Menai – Heathcote | 84.9 |
| Sydney Inner City | 62.1 |

Source: HealthStats NSW, 2024

Data from NSW Health reports antenatal care by Aboriginality of mothers. However, figures for the Sydney Local Health District are unavailable. Using data for South Eastern Sydney Local Health District, antenatal care by Aboriginal status can be reported, however. In 2022, there were minimal differences between Aboriginal and Non-Aboriginal mothers and delivery of antenatal care. A slightly higher percentage of Aboriginal mothers attended their first antenatal visit before 14 weeks gestation (79.9%) compared with non-Aboriginal mothers (78.5%), while 94% of Aboriginal mothers had done so by before 20 weeks compared with 95.4% of other mothers (11).

Table 6: 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 |
| CESPHN | 66.1 | 59.3 |
| NSW | 80.0 | 76.3 |

Source: HealthStats NSW 2020

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 7: GP registrations in the CESPHN region by ANSC program, as at December 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 | 445 | 1,620 | 51.4 |
| RPA Women and Babies and Canterbury Hospital | 577 | 225 | 4.6 |
| St George and Sutherland Hospital | 318 | 187 | 2.8 |

Source: CESPHN database, 2024

Smoking during pregnancy

A high proportion of women not identified as Aboriginal report not smoking at all during pregnancy (96.7%), compared with Aboriginal women (58.4%), which is slightly higher than all women residing in NSW PHN areas (93.0%). However, non-smoking rates are similar for Aboriginal women from the CESPHN region compared with other Aboriginal women across the state (58.4% versus 59.6%, respectively) (11).

Maternal medical conditions

The prevalence of common maternal medical conditions is lower than that seen in other NSW PHN regions yet provides an indicator of women requiring specialist ante-natal care and closer monitoring during pregnancy. Gestational diabetes is the most prevalent condition (14.9%) in CESPHN mothers

(11). Diabetes in pregnancy increases the risk of adverse outcomes for the mother and baby including large birth weight, stillbirth and pre-term birth. For mothers, gestational diabetes is a risk factor for cardiovascular risk in later life and does not always resolve after delivery. Diabetes in pregnancy increases the risk of adverse outcomes for the mother and baby including large birth weight, stillbirth and pre-term birth. For mothers, gestational diabetes is a risk factor for cardiovascular risk in later life and does not always resolve after delivery.

The introduction of new diagnostic guidelines for gestational diabetes in 2015 increased ascertainment and hence a large jump in prevalence was seen in CESPHN in a short period of time: from 7.1% in 2015 to 12.9% in 2016. Rates peaked in 2019 (14.1%), then fell during the COVID-19 pandemic, before returning to 2019 levels in 2022 (11).

Therefore, current rates may reflect the true underlying prevalence of gestational diabetes detected with optimised antenatal care rather than a true increase. However, with almost one in eight pregnancies affected the burden of care on antenatal specialist services is substantial.

Rates by Aboriginal status of mothers according to PHN are not available from NSW Health. In 2022, the NSW prevalence of gestational diabetes for all Aboriginal mothers was 14.0%, compared with 16.0% for all mothers (11). However, lower rates of testing in Aboriginal women may account for this difference and under-reporting of Aboriginal status may also obscure differences, although these explanations are speculative in the absence of informative data.

Overweight and obesity in pregnancy

Obesity is associated with an increased risk of pregnancy complications and adverse pregnancy outcomes. According to the most recent data from NSW Health, 34.2% of women residing in the SLHD catchment were obese or overweight during the first trimester of gestation, compared with 31.4% of women living in the South Eastern Sydney Local Health District boundaries (11).

Birth and development

Healthy birth weight

Birth weight is a predictor of future health. A healthy baby is born between 2,500 and 4,999 grams. The National Agreement on Closing the Gap has set a target that by 2031 91% of Aboriginal and Torres Strait Islander babies are born within the healthy weight range.

In 2022, 95.1% of non-Aboriginal babies within CESHN were born within a healthy weight range, a proportion that has been stable over time. However, only 88.2% of Aboriginal babies within the CESPHN region were born at a healthy weight. This below target proportion is lower than that recorded for Aboriginal babies in 2019 (92.3%) (11).

CESPHN's current work

CESPHN is actively engaged in improving the health and wellbeing of children and have commissioned a range of services that include:

- Antenatal Shared Care
- Early intervention speech pathology
- Schools based care coordination program
- CESPHN's work in immunisation assists general practices to identify children requiring vaccination.

Opportunities

- Promote the importance of the early years of life and antenatal care
- Increase childhood immunisation rates
- GPs encouraged to do a family welfare session on mother, partner and baby to check on perinatal mental health
- Train GPs to identify perinatal mental health concerns
- Increase resources for school-aged children who have missed the early-childhood surveillance.

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